

# SERVICE MANUAL

ECHO CAMERA

SSD-1700

1 / 2

English Edition

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Contents of SSD-1700 SERVICE MANUAL 1/2

		PAGE
Section 1	How to use this service manual      page 1-1~1-4	(4 pages)
1-1	Service Manual      .....	1- 1
1-2	Contents of this Service Manual      .....	1- 1
1-3	Construction of This Service Manual      .....	1- 1
1-4	Contents of Each Section      .....	1- 2
Section 2	PRECAUTIONS (read without fail)      page 2-1~2-4	(4 pages)
2-1	Precautions Against Electrical Hazards to Serviceman      .....	2- 1
2-2	Precautions Against Mechanical Hazards to Serviceman      .....	2- 1
2-3	Precautions Against Germ Hazards to Serviceman      .....	2- 1
2-4	Precautions for Keeping Electrical Safety      .....	2- 2
2-5	Precautions for Keeping Mechanical Safety      .....	2- 2
2-6	Precautions for Keeping Chemicals Safety      .....	2- 2
2-7	Preparation to be Made at Service Center      .....	2- 2
2-8	Care to be Taken in the Field      .....	2- 3
2-9	Precaution for Monitor Repairing      .....	2- 3
2-10	Handling of S.M.D. PCBs      .....	2- 4
Section 3	BEFORE REPAIRING      page 3-1~3-18	(18 pages)
3-1	Repair work on the description of Service Manual      .....	3- 1
3-2	Modification work on the description of Service Manual      .....	3- 7
3-3	(deleted)      .....	3- 13
3-4	Massages      .....	3- 14
3-5	Procedure for Removing and Installing the PCBs      .....	3- 17
Section 4	DISASSEMBLING PROCEDURE      page 4-1~4-120	(184 pages)
SSD-1700	Disassembling Instruction      .....	4- 1
SSD-1700	Installation Procedure      .....	4- 33
MP-FX1700-2	Installation Procedure      .....	4- 37
MP-FX1700-2B	Installation Procedure      .....	4- 42-1
EU-3037	Installation Procedure      .....	4- 43

SSD-1700 SERVICE MANUAL

EU-3037B Installation Procedure	.....	4- 48-1
PEU-1700 Installation Procedure	.....	4- 49
PEU-1700B Installation Procedure	.....	4- 60-1
EU-3038 Installation Procedure	.....	4- 61
EU-3038B Installation Procedure	.....	4- 66-1
DMS-1700 Installation Procedure	.....	4- 67
PM-1700-7 Installation Procedure	.....	4- 77
MP-FX1700-4 Installation Procedure	.....	4- 81
EU-9068 Installation Procedure	.....	4- 85
CAS-1700 Installation Procedure	.....	4- 95
EU-9074 Installation Procedure	.....	4- 103
MP-FX-1700-8 Installation Procedure	.....	4- 115
MP-HA-1700-1 Installation Procedure	.....	4- 119

Section 5 SYSTEM BLOCK DIAGRAM page 5-1~5-16 (16 pages)

5-1 System configuration	.....	5- 1
5-2 System Block Diagram	.....	5- 2

Section 6 PCB BLOCK DIAGRAM page 6-1~6-78 (102 pages)

6-1 PROBE CHANGER	.....	6- 2
6-2 RELAY BOARD	.....	6- 6
6-3 SELECTOR	.....	6- 10
6-4 TX	.....	6- 14
6-5 TX TRIGGER	.....	6- 18
6-6 PRE AMP	.....	6- 20
6-7 SECTOR DELAY	.....	6- 24
6-8 RX FOCUS 1/2	.....	6- 28
6-9 MAIN AMP	.....	6- 32
6-10 TIMING & ADDRESS	.....	6- 36
6-11 DOP ASP	.....	6- 38
6-12 CFP(COLOR FLOW PROCESSOR)	.....	6- 40
6-13 DOP DSP	.....	6- 42
6-14 CPU	.....	6- 44
6-15 B/W DIU	.....	6- 48
6-16 CINE MANAGER & CINE MEMORY	.....	6- 52
6-17 COLOR DIU	.....	6- 58

6-18 VIDEO I/F	.....	.....	.....	6- 62
6-19 AV I.T.F	.....	.....	.....	6- 66
6-20 PHYSIO. MEMORY	.....	.....	.....	6- 68
6-21 PHYSIO. AMP	.....	.....	.....	6- 70
6-22 VOL	.....	.....	.....	6- 72
6-23 MOTOR CONTROL & DRIVE	.....	.....	.....	6- 74
6-24ABC/VOL/SERVO	.....	.....	.....	6- 76
6-25 CWD	.....	.....	.....	6- 78

Section 7 SCHEMATICS

page 7-1~7-135

(152 pages)

CABLE CONNECTION	.....	.....	USI-140	7- 1
CABLE 101 CABLE 103 CABLE 204	.....	.....	.....	7- 4
CABLE 205 CABLE 301 CABLE 302	.....	.....	.....	7- 7
CABLE 303 CABLE 401	.....	.....	.....	7- 10
CBL-201 CBL-402	.....	.....	.....	7- 12
AUDIO I/O	.....	.....	EP3916	7- 13
VIDEO I/O	.....	.....	EP3917	7- 14
RGB OUT	.....	.....	EP3918	7- 15
OPERATION PANEL	.....	.....	L-KEY-56	7- 16
MOTHER BOARD	.....	.....	EP3965	7- 29
DIU MOTHER BOARD	.....	.....	EP3952	7- 38
PHYSIO. UNIT	.....	.....	EU-5034	7- 45
PHYSIO. PANEL 1	.....	.....	EP3725	7- 46
PHYSIO. PANEL 2	.....	.....	EP-3726	7- 47
CBL-601 CBL-602	.....	.....	.....	7- 48
STABILIZED POWER SUPPLY	.....	.....	EU-6023	7- 49
CABLE 203 CABLE 206 CABLE 207	.....	.....	.....	7- 50
POWER SUP HV	.....	.....	EP3947	7- 53
POWER SUP LV	.....	.....	EP3948	7- 57
POWER SUPPLY UNIT	.....	.....	PSU-S1700-1/-2/-3	7- 60
CABLE 403 CABLE 404 CABLE 405	.....	.....	.....	7- 65
TV MONITOR	.....	.....	IPC-1231(V)	7- 68
GEU MOTHER	.....	.....	EP4195	7- 79
DIU MOTHER	.....	.....	EP4196	7- 88
POWER SUPPLY UNIT	.....	.....	PSU-S1700B-1/-2/-3	7- 95
STABILIZED POWER SUPPLY	.....	.....	EU-6023	7- 97

SSD-1700 SERVICE MANUAL

POWER SUP LV	.....	.....	EP4203	7- 98
CABLE403	CABLE404	CABLE104	CABLE105	7- 101
CABLE405	CABLE901	CABLE902		7- 105
CABLE107	CABLE106	.....	.....	7- 107
POWER CABLE FOR MOD		.....	.....	7- 108
PHYSIO UNIT		.....	.....	7- 109
CABLE750	CABLE751	CABLE752	.....	7- 110
CABLE750	CABLE751	CABLE752	.....	7- 110
CABLE CONNECTION (Ver.6.0 and higher)		.....	USI-140B	7- 113
CABLE 304	CABLE 305	CABLE 104	.....	7- 116
CABLE 404	CABLE 405		.....	7- 119
GEU Mother		.....	EP4287	7- 121
CABLE 106	CABLE 108	.....	.....	7- 129
PHYSIO UNIT		.....	EU-5039B	7- 131
CABLE 750	CABLE 751	CABLE 752	.....	7- 132
L-KEY-71		.....	.....	7- 135

Section 8 TROUBLE SHOOTING

page 8-1~8-118

(124 pages)

8-1 Introduction	.....	.....	.....	8- 1
8-2 Precautions	.....	.....	.....	8- 1
8-3 Tools and Measuring Instruments Required			.....	8- 4
8-4 Information	.....	.....	.....	8- 5
8-5 Check List Map	.....	.....	.....	8- 41
8-6 Waveform for Troubleshooting		.....	.....	8- 97

Contents of SSD-1700 SERVICE MANUAL 2/2

- Section 9 ADJUSTMENT PROCEDURE
- Section 10 PERFORMANCE CHECK
- Section 11 MAINTENANCE INFORMATION
- Section 12 HISTORY
- Section 13 PARTS LIST
- Section 14 OUTLINE OF SYSTEM
- Section 15 PRINCIPLE OF OPERATION (SYSTEM)
- Section 16 PRINCIPLE HARDWARE OPERATION

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## **SECTION 1**

How to use this service manual

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1-1 Service Manual

- 1) This service manual has been prepared for persons in charge of repair at the field.
- 2) This service manual is compiled according to the following basic principle. "For service, pick out a faulty PCB and replace it with a new PCB."
- 3) Make the best use of this service manual, making also reference to available technical support information such as "Technical Bulletin".

1-2 Contents of this Service Manual

- 1) The equipment is repaired by PCB replacement. Therefore this service manual does not include the circuit diagrams of the PCB unit. For the function of each PCBs whose circuit diagram is not included, refer to "Section 6 PCB BLOCK DIAGRAM". However, "Cable Connection Diagram", Circuit Diagram of PCB equipped with the panel switches which are easily exchangeable at the field" and "Circuit Diagram composed of general circuit such as TV monitor and Power Supply unit" are described in "SECTION 7 SCHEMATICS".
- 2) For changes and modifications of as well as additions to specifications, if any, prompt information will be given to you by means of "Manual change information" which is to be inserted into the manual.

●IMPORTANT● Always observe the manner specified for replacement, addition, or deletion of "Manual Change" to prevent missing of necessary information and keeping of erroneous information.

1-3 Construction of This Service Manual

The structure of Service Manual is as follows:

1) Service instructions.....	SECTION	1~12
2) Parts list.....	SECTION	13
3) Principle of operation.....	SECTION	14~16

1-4 Contents of Each Section

SECTION 1 How to use this service manual

Describes the purpose of the Service Manual.

SECTION 2 PRECAUTIONS

Describes general precautions and preparations for maintenance service. Be sure to follow working procedures if mentioned.

SECTION 3 BEFORE REPAIRING

Gives information peculiar to the equipment and care to be taken before starting repair work.

SECTION 4 DISASSEMBLING PROCEDURE

Disassembling Procedure Illustrates the disassembly and assembly of main components. Be sure to follow working procedures if specified.

SECTION 5 SYSTEM BLOCK DIAGRAM

Gives the convenience of grasping flow of major signals and mutual communication between units in the whole system.

SECTION 6 PCB BLOCK DIAGRAM

Gives outline of individual PCBs, and block diagrams showing test points (TP).

SECTION 7 SCHEMATICS

Gives the cable connection diagram including all cables used, the circuit diagram of PCB equipped with switches, and the circuit diagram of TV monitor and Power Supply unit.

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**SECTION 8 TROUBLESHOOTING**

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Describes precautions on actual repair work and shows the necessary tools and measuring instruments. Also, includes many hints on primary diagnosis and measures to be taken in the field.

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**SECTION 9 ADJUSTMENT PROCEDURE**

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Gives guides of adjustments of PCBs and units which some PCBs need when they are replaced.

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**SECTION 10 PERFORMANCE CHECK**

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Describes the procedure of checking for proper operation after repair and provides the forms of check sheet.

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**SECTION 11 MAINTENANCE INFORMATION**

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Provides technical information about maintenance service.  
Manual change information, the revision list of this manual, is filed in this section.

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**SECTION 12 HISTORY**

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Describes in tabular form the history of modifications.

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**SECTION 13 PARTS LIST**

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Lists the mechanical parts and electrical part which replacement possibility are considered .

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**SECTION 14 OUTLINE OF SYSTEM**

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Describes the structure of the equipment seen in broad perspective.

SECTION 15 PRINCIPLE OF SYSTEM OPERATION

Describes the principle of system operation.

SECTION 16 PRINCIPLE OF HARDWARE OPERATION

Describes the microscopical views of structure and operation of the equipment.

**SECTION 2**

**PRECAUTIONS**

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### 2-1 Precautions Against Electrical Hazards to Serviceman

When disassembling the equipment after checking it for a trouble symptom, give care to the following:

- 1) Be sure to unplug the equipment before disassembly.
- 2) Be sure to turn off the main switch on the equipment when removing electrical parts such as PCBs, probe, and cable.

#### 3) Safety alert symbols

The indication  used on this equipment and in this service manual have the following meaning.

- Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
- A caution message is inserted here.

### 2-2 Precautions Against Mechanical Hazards to Serviceman

When disassembling the equipment, give care to the following to protect serviceman from hazards :

- 1) Keep the working environment neat.
- 2) Wear working gloves to protect your hands from getting injured by burrs on the unit and casing.
- 3) Use only proper tools suited to work being made.
- 4) Be sure to observe the specified disassembly procedure shown in SECTION 4.
- 5) Take sufficient care not to damage component with undue load.

### 2-3 Precautions Against Germ Hazards to Serviceman

- 1) When it is necessary to touch the equipment, options and/or other peripheral devices at a customer who uses intracorporeal (transesophageal, transurethral, transvaginal, transrectal) probes that need sterilization, take special care to protect your hands against germs, irrespective of the usage of the equipment: whether it is used in the operation room or not.
- 2) Service tools are subject to germ pollution in hospitals and, therefore, need periodical sterilization.
- 3) Be careful not to directly touch anything assumable to have germ pollution. If necessary, ask the customer for effective protection against germs.

2-4 Precautions for Keeping Electrical Safety

- 1) Be sure to ground the equipment securely.
- 2) Perfectness in grounding, screw tightening, and cover installation is essential. Negligence of it could cause a possibility of leakage current from outer fitting which may lead to serious damage to a patient being diagnosed.

2-5 Precautions for Keeping Mechanical Safety

Take care to the following to prevent the equipment from being damaged or broken during disassembly and reassembly work.

- 1) Be sure to observe the specified disassembly procedure.
- 2) Take care not to damage component parts by undue load.
- 3) When reassembling the equipment, carefully check every part for loosening, distortion and creak.
- 4) Use only the specified screws and nuts. Using any other screws and/or nuts would affect not only mechanical performance, but also electrical performance of the equipment.

2-6 Precautions for Keeping Chemicals Safety

Whenever grease, oil or other chemicals is used for maintenance service, options and/or peripheral devices, be sure to clean the equipment and/or devices after service work.

2-7 Preparation to be Made at Service Center

- 1) When called by a customer on the telephone, note the followings:
  - Name of equipment
  - Serial number of equipment
  - Name of hospital
  - Telephone number
  - Name of person in charge
  - Detail of trouble symptom as far as possible
  - State of connection to optional devices
- 2) Go over the "Technical Bulletin" to see whether the complained trouble can be mended by means of regular repairing method.


2-8 Care to be Taken in the Field

- 1) Check for trouble symptoms.
- 2) Check for connection to optional devices and other peripheral devices.
- 3) Record the contents of the battery backup memory.
- 4) After working, restore the equipment according to the above mentioned contents of memory if necessary.
- 5) After completion of work, put back the peripheral devices to the original condition.

2-9 Precaution for Monitor repairing

- 1) Subjecting the unit to strong shocks may result in damage to the CRT or malfunction, therefore care must be taken when transporting or installing the unit.

● **DANGER** ● High voltages are present inside the display chassis. Only experienced technicians should touch internal parts.



● **DANGER** ● The electric charge has remained in CRT after the power switch is turned off. Because the high voltage is usually used for CRT. So make the electric charge escape with a grounding stick which is connected to the ground of the chassis and through the resistance for high voltage (Approx.  $1M\Omega$ ) before removing the anode cap.

Some electric charge remains in CRT after escaping with a grounding stick. Do not touch the metallic part of anode cap with bare hands, when detaching the anode cap directly.

- 2) CRT with the deflecting yoke is already adjusted to the best condition. Do not touch the deflecting yoke and the magnet of the neck part.
- 3) Be sure to detach the metallic goods such as a wrist watch from your body before doing the repair work.

To prevent the secondary damage and the electrical shock, the matters above should be taken into careful consideration.

## 2-10 Handling of S.M.D. PCBs

It is an Aloka's policy that neither repair nor modification of PCBs used for S.M.D. is made in the field as a rule because of the following reasons:

[REMARKS] PCB does not need repairing or modifying in the field as a rule.

When handling a PCB, do not touch the IC unless it is necessary.

IC soiled with worker's hands may cause corrosion. Additionally, foreign particles such as fine solder dust could be the cause of short-circuited IC lead wires whose pitch is smaller than that of the traditional ones.

●CAUTION● When handling a PCB, avoid touching the IC and connector pins on the devices to prevent ESD (Electro Static Discharge) damage.

A service person should preferably wear an ESD wrist strap

Do not give excessively large shocks to the PCB.

When replacing the ROM (Read Only Memory) on the PCB, attempting to force the ROM into its socket would cause the PCB to be subjected to an undue force, and the following faults may :

- 1) Damage to PCB intermediate-layer patterns,
- 2) Peeling of chip devices (resistor, capacitor, diode, etc.)
- 3) Damage to a junction between electrode and internal element of chip devices,
- 4) Peeling of patterns (especially those for mounting the parts) together with chip devices since those patterns are rather fragile compared with PCBs used before now, and
- 5) Damage to parts on the reverse side in the case of PCBs of both-side mounting type.

Also, a PCB mounted improperly or a warped PCB mounted as it is may cause the chip devices to come off and the fine patterns to be cut.

Additionally, reuse of chip devices (including resistors, capacitors, diodes, etc.) is strictly inhibited because of the following reason: Since the chip devices are lacking in lead wires, such as those found in the traditional component parts, heat given to the PCB will be directly conducted to the inside of chip devices. As a result, a thermal stress will occur due to a difference in thermal expansion coefficient between each chip device and PCB, giving rise of the possibility of cracks inside of or on the surface of chip devices or the possibility of thermal breaking (internal burning).

Very thin wiring patterns require extreme care in handling of the PCB

Be sure to observe the precautions mentioned above also to prevent the secondary accidents.

**SECTION 3**

**Before Repairing**

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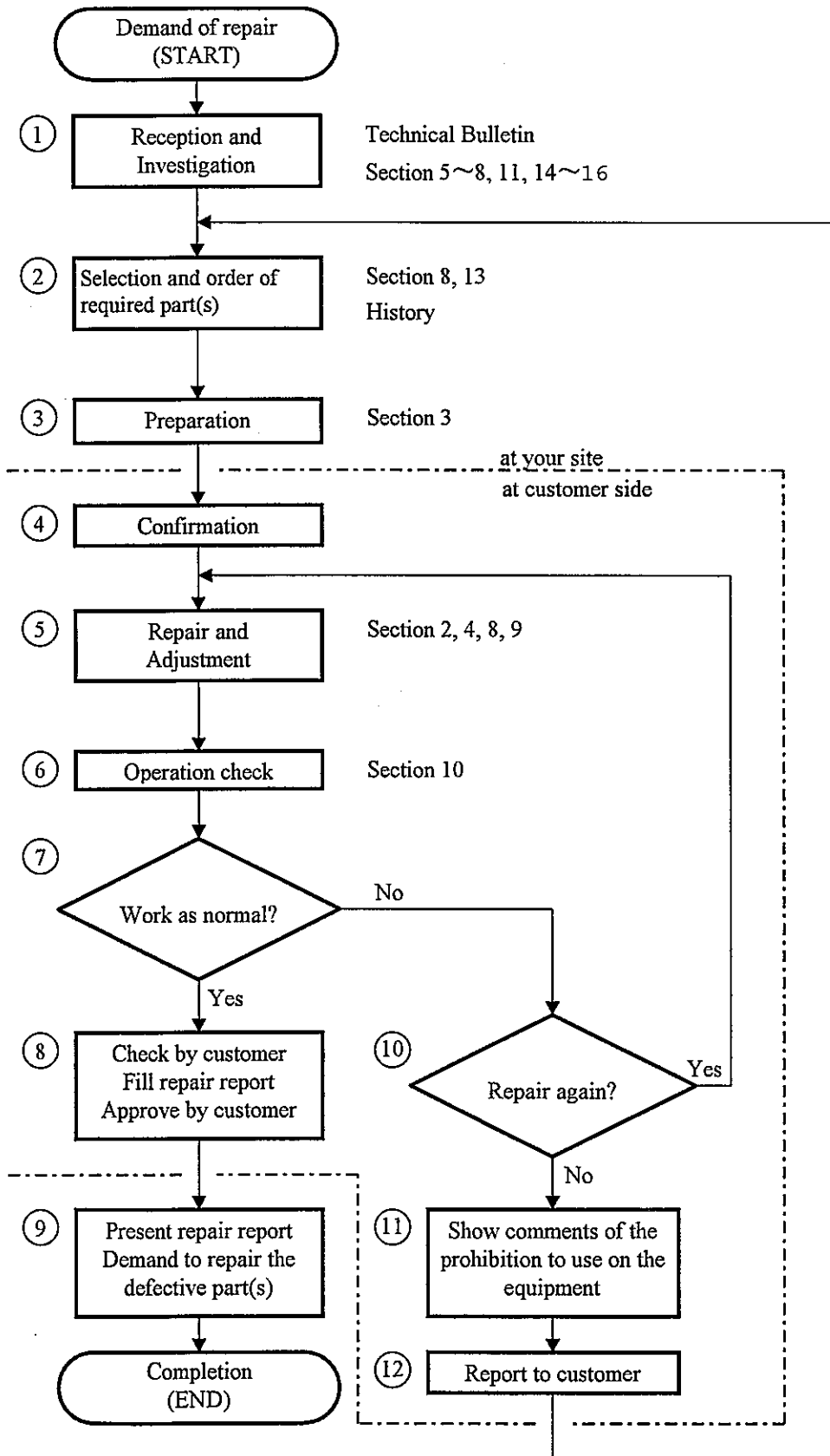
### 3-1 Repair work on the description of Service Manual

The typical processes for the repair work are shown as the Flow Chart on the next page. Do the repair work according to this procedure. In the case of modification of the Technical Bulletin or Upgrade Kit, see the next item 3-2.

Each procedures of flow chart are numbered to refer its detail shown from page 3-3. Furthermore, the Flow Chart and its explanation show the time when each section of service manual are required on repair work. This is a guide for the usage of service manual.

The service manual is very important for the repair work, especially readjustment and performance check after completion of repair work. This is to keep the safety and quality of equipment. If you make them, you have to describe that the treatment has been done according to the applied section of service manual, on the repair report or the like.

The circled numbers shown in the Flow Chart on next page, are corresponded to the procedure number shown from page 3-3.





Procedure 1 Reception of repair and investigation

Accept the repair request from the customer or distributor. At this time, the following points have to be confirmed and checked,

- Model name/number, and serial number
- Name of customer, address, phone number, and name of person in charge
- Configuration of the connection of peripheral devices  
Software version or the like shown on the start up display(if possible)
- Detail of phenomenon appeared on the function of equipment

Make an examination what circuit may be defective as the function of equipment based on the above information. If you need to know about the basic operation and special information for the maintenance, refer to the following sections, or ask to the *Technical Support*,

- ◆ Section 5 SYSTEM BLOCK DIAGRAM
- ◆ Section 6 PCB BLOCK DIAGRAM
- ◆ Section 7 SCHEMATICS
- ◆ Section 8 TROUBLESHOOTING
- ◆ Section 11 MAINTENANCE INFORMATION
- ◆ Section 14 SYSTEM OUTLINE
- ◆ Section 15 PRINCIPLE OF SYSTEM OPERATION
- ◆ Section 16 PRINCIPLE OF HARDWARE OPERATION

The reported phenomenon may be the original problem on the equipment. Because, refer to the *Technical Bulletin* separately issued to check it whether defectiveness or not. If it has been reported as the original problem, make a work according to the *Technical Bulletin*.

Procedure 2 Selection of required parts and order

If you find the doubtful circuit, order the necessary parts. Then check the delivery date and decide the date to visit on the consultation with the customer.

For the selection and order of parts, refer to the following sections,

- ◆ Section 8 TROUBLESHOOTING
- ◆ Section 13 PARTS LIST

For the electrical parts such as PCB, check the history information on the *HISTORY* of this equipment separately issued.

Procedure 3 Preparation of visiting the customer

Check the required tools, measuring devices and parts to be replaced before the visiting the customer. Then check the special information for the equipment reference with the following section,

- ◆ Section 3 BEFORE REPAIR

Procedure 4 Confirmation of phenomenon

Confirm the appeared phenomenon and condition to happen it with the customer. If you don't know about the operation of equipment, refer to the *Operation Manual* attached to the equipment.

Procedure 5 Repair and readjustment

Repair the defective circuit with the brought parts. For the repair work, read the following section carefully,

- ◆ Section 2 PRECAUTIONS

And, examine the trouble reason depending on the situation with following section,

- ◆ Section 8 TROUBLESHOOTING

The electrical or mechanical readjustment may be requested depending on the replaced parts. Because, refer to the following section after completion of repair,

- ◆ Section 9 ADJUSTMENT

Procedure 6 Operation check

Check the system behavior to keep its condition as same as before in trouble, reference with the following section. Be sure to do according to the description because check items are depending on the portion to be treated.

- ◆ Section 10 PERFORMANCE CHECK

Procedure 7 Judgment of the operation quality

If the result of "Procedure 6" is passed to the all standards, do the next "Procedure 8". On the other side, if not, make a judgment of "Procedure 10".

Procedure 8 Confirm by customer, make repair report and approve

Reconfirm the solution of trouble phenomenon with the customer. Then make a repair report and obtain approval of customer.

The repair report shows not only the treatment but also the method of readjustment and operation check. If they have been done according to the service manual, the followings have to be shown,

*"Readjusted according to the Section 9 of service manual."*

*"Checked according to the Section 10 of service manual, and passed."*

Procedure 9 Presentation of report and order to repair parts

Fill the repair report with necessary item, and present it according to the certain procedure. If the defective parts that trouble cause included is available to use again by repair, make an order to do. If you cannot judge whether the part can be used again or not, ask to the *Technical Support*.

Procedure 10 Judgment of possibility to repair again

As the result of judgment on "Procedure 7", if the trouble is not solved, judge the possibility to make the repair work again.

If available, return to "Procedure 5" and continue to work.

If unavailable, go to "Procedure 11".

Procedure 11 Indication of the prohibition to use

As the result of judgment on "Procedure 10", if you judge that it is impossible to continue the repair work at this time, indicate that the equipment is still out of order, and also show the prohibition to use, on the equipment.

Procedure 12 Report to the customer

Report the reason why the trouble cannot be solved to the customer. Then consult about the plan of next repair work.  
And do the same way from "Procedure 2".

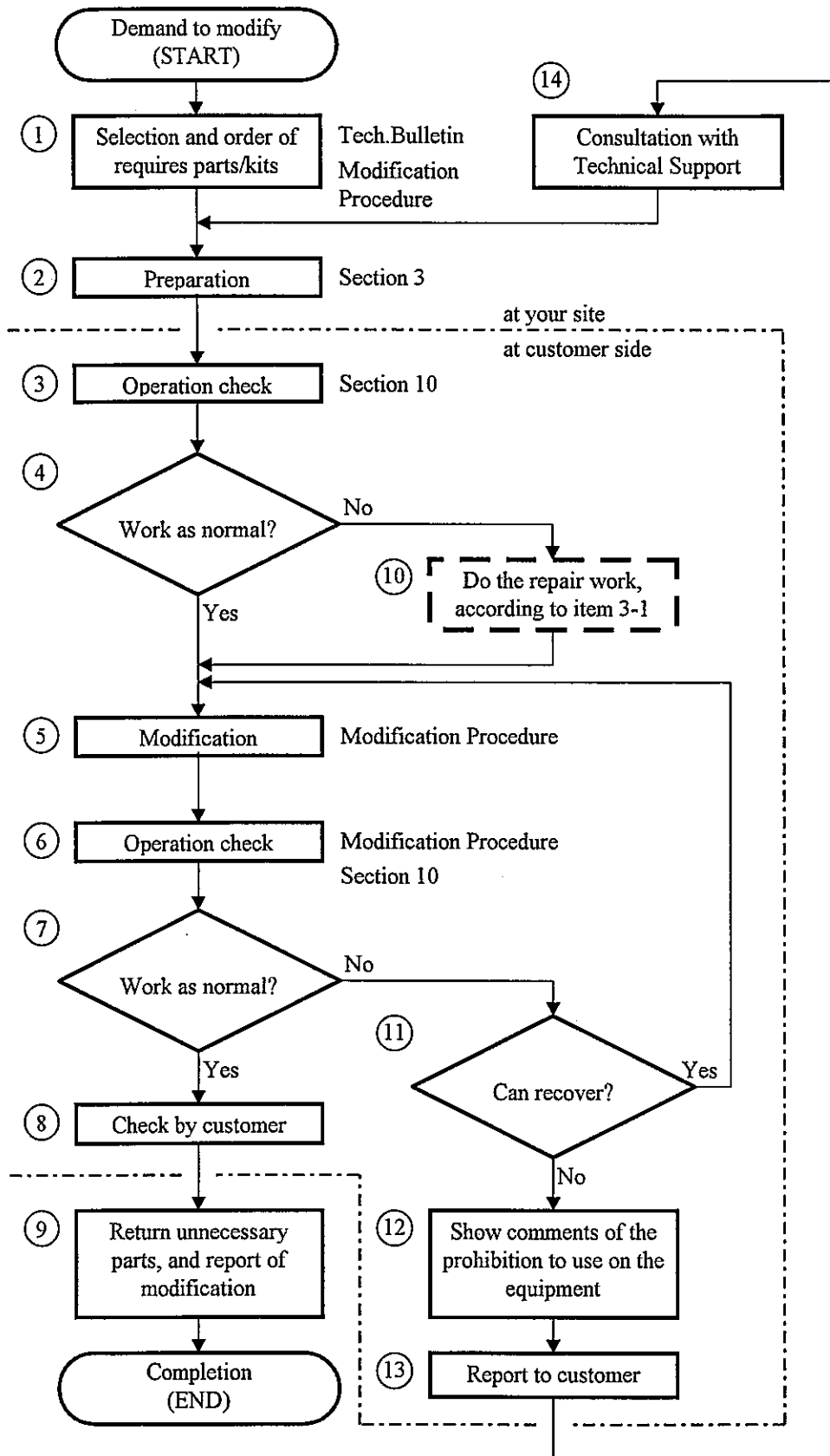
3-2 Modification work on the description of Service Manual

The typical processes for the modification work are shown as the Flow Chart on the next page. Do the modification work according to this procedure. In the case of repair work, see the previous item 3-1.

Each procedures of flow chart are numbered to refer its detail shown from page 3-9. Furthermore, the Flow Chart and its explanation show the time when each section of service manual are required on modification work. This is a guide for the usage of service manual.

The service manual is very important for the modification work, especially readjustment and performance check after completion of modification work. This is to keep the safety and quality of equipment.

The circled numbers shown in the Flow Chart on next page, are corresponded to the procedure number shown from page 3-9.



Procedure 1 Selection of required parts / kits and order

Accept the modification request from the customer, distributor or person in charge of sales. At this time, the following points have to be confirmed and checked to decide the parts and kits,

- Document name that announced the modification or kit requested
- Model name/number, and serial number
- Name of customer, address, phone number, and name of person in charge

Configuration of the connection of peripheral devices

Software version or the like shown on the boot up display

Make an examination what parts or kits are required based on the above information. For the selection, refer to the following document separately issued, or ask to the *Technical Support*,

◆ *Technical Bulletin*

To confirm the detail of modification, see the *Modification Procedure* attached with applied *Technical Bulletin*.

Depending on the modification, hardware, or software, the other modification may be required. Check it with the *Technical Bulletin*.

Then, confirm the delivery date of required parts or kits, and decide the date to visit on the consultation with the customer.

Procedure 2 Preparation of visiting the customer

Check the required tools, measuring devices and parts or kits to be used before the visiting the customer. Then check the special information for the equipment reference with the following section and document,

- ◆ Section 3 BEFORE REPAIR
- ◆ Technical Bulletin and/or Modification Procedure

Procedure 3 Operation check before modification

On the basis of work, the modification to the defective equipment is prohibited. Because, before modification work, check the behavior of equipment whether normal or not according to following section and document,

- ◆ Section 10 PERFORMANCE CHECK
- ◆ *Operation Manual*

Procedure 4 Judgment of the operation quality

If the result of "Procedure 3" is passed to the all standards, do the next "Procedure 5". On the other side, if not, go to "Procedure 10".

Procedure 5 Modification work

Do the modification work according to the following document,

- ◆ Modification Procedure attached with kit or Technical Bulletin

Procedure 6 Operation check after modification

Check the system behavior to keep its condition as same as before the modification, reference with the following section. Be sure to do according to the description because check items are depending on the portion to be treated.

- ◆ Section 10 PERFORMANCE CHECK
- ◆ *Modification Procedure*

Procedure 7 Judgment of the operation quality

If the result of "Procedure 6" is passed to the all standards, do the next "Procedure 8". On the other side, if not, make a judgment of "Procedure 11".

Procedure 8 Confirmation by customer

Reconfirm any functions of equipment with the customer. Then, if need, introduce and explain about the new functions and specification added by this modification. Furthermore, if need, make a report to be approved by the customer. The report shows not only the treatment but also the method of operation check. If it has been done according to the service manual, the following has to be shown,

"Checked according to the Section 10 of service manual, and passed."



Procedure 9 Return of unnecessary parts and report of completion

According to the *Technical Bulletin*, return the unnecessary replaced or unused parts as soon as possible if suggested.

And, if the report of modification is suggested on the same document, report it with the information required.

Procedure 10 Work for the abnormal behavior of equipment

On the result of judgment in "Procedure 4", if the equipment does not work normal, solve the problem according to item 3-1 "Repair work on the description of service manual" shown in this section.

When the problem is solved, return to "Procedure 5" of this item and continue to do the modification work.

Procedure 11 Judgment of possibility to recover

As the result of judgment on "Procedure 7", if the problem has been made by this modification, judge the possibility to recover it.

If available, return to "Procedure 5" and continue to work.

If unavailable, go to "Procedure 12".

Procedure 12 Indication of the prohibition to use

As the result of judgment on "Procedure 11", if you judge that it is impossible to recover at this time, indicate that the equipment is the out of order, and also show the prohibition to use, on the equipment.

Procedure 13 Report to the customer

Report to the customer that the modification has not been completed because of the problem on the modification work. Then make a schedule to fix and complete it.

#### Procedure 14 Asking to the Technical Support

Report to the *Technical Support* about the happening of problem on the modification work, make an examination to solve and order the additional parts. Before the asking, check the following points,

- Name of kit, or the issue number of *Technical Bulletin* showing the modification
- Model name/number, and serial number
- Configuration of the connection of peripheral devices
- Software version or the like shown on the start up display
- Indication of equipment such as Modification or History Label
- Detail of phenomenon appeared on the function of equipment

3-3 This page has been moved to "SECTION 2 PRECAUTIONS", page 2-4.

### 3-4 Messages

In this equipment, messages are displayed warning that the equipment is malfunctioning or advising the correct operation method.

There are two types of message, differing according to their content.

(1) **WARNING**

Warnings are displayed in the center of the screen.

Warning messages are displayed when clearing storage memory, etc., or when information needed for maintaining the equipment, etc. is erased.

(2) **General Messages**

These messages are related to panel, menu or similar operations, and are displayed in the message area on the bottom of the screen.

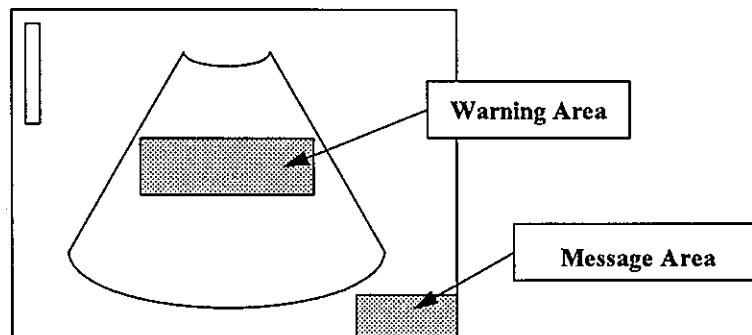


Fig. Message Areas

(1) WARNING

No.	Message	Cause	Treatment
1	Memory Full Press store key again to clear old image. <MARK REF.> Quit	Storage was attempted even though the store memory was already full.	Delete unnecessary images from the store memory.
2	Store memory clear Data in the memory will be deleted. Press<SET> to proceed. <MARK REF.>Quit	The NEW PATIENT switch was pressed and CLEAR was selected in the CINE-M Menu.	When it is all right to clear image data, press the SET switch. When desiring to save the data, press the MARK REF. switch.
3	Store memory clear Press <REVIEW> to display the image to be cleared from the store memory. Then press <DEL FR> key.	Clearing of an image which was not being displayed was attempted and DEL FR was selected in the CINE-M Menu.	Press the REVIEW switch and display the image you wish to clear.

(2) General Messages

No.	Message	Cause	Treatment
1	No Probe	The probe is not connected, or is not connected correctly. Or, the probe's code cannot be read.	Connect the probe securely. Also, check to make sure none of the connector pins is bent.
2	Inv. Probe	An invalid probe was connected.	Connect a valid probe.
3	FRZ Req.	The PRINT, STORE or REVIEW switch was pressed without the image being frozen, and a HIST measurement was performed.	Press after freezing the image.
4	Inv. Mode	<ul style="list-style-type: none"> <li>• The ID, COMMENT or NEW PATIENT switch was pressed during measurement or during keyboard input.</li> <li>• Another calipers was selected, then the previous calipers was returned to during AREA-T measurement.</li> <li>• RATIO, %STENO measurement was selected without performing two or more measurements.</li> <li>• The SET switch was pressed during measurement.</li> </ul>	<ul style="list-style-type: none"> <li>• Displayed for 5 seconds after operation is stopped.</li> <li>• Displayed for 5 seconds after operation is stopped.</li> <li>• If RATIO or %STENO measurements are to be performed, first perform other measurements.</li> <li>• Displayed for 5 seconds after operation is stopped.</li> </ul>
5	Over Range	Measurement was attempted when there was no space in the measurement display area.	Clear unnecessary measurement results.

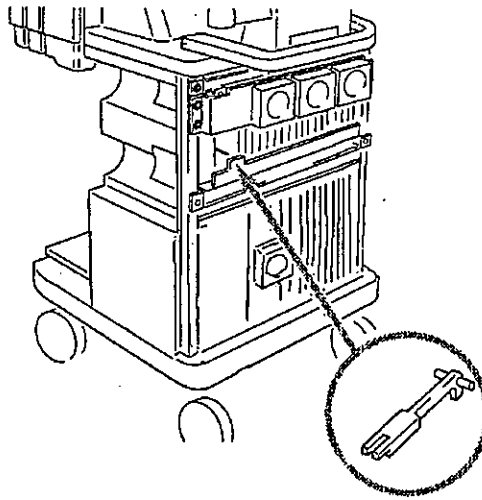
MN2-0213  
SECTION 3 BEFORE REPAIRING

No.	Message	Cause	Treatment
6	Inv. Data	Invalid data were input during measurement. Example) The wrong date (13th month, 60th day, etc.) was input in obstetric measurements.	Input valid data.
7	No Option	A function was selected even though that option was not installed.	Displayed for 5 seconds after operation is stopped.
8	No ECG	The R wave of an ECG could not be detected for 5 seconds or longer.	After making sure the connector and electrodes are securely connected, provide an ECG in which the R wave can be detected.
9	DOT:1cm	The dot interval on a puncture guideline is 1 cm.	Displayed until the PUNC switch is pressed.
10	DOT:0.5cm	The dot interval on a puncture guideline is 0.5 cm.	Displayed until the PUNC switch is pressed.
11	No Image	The REVIEW switch was pressed even though there was no image in store memory, and CLEAR was selected in the CINE-M Menu.	Perform this operation after transferring image data to store memory.
12	Complete	Image data were transferred to store memory.	Displayed when the task has been completed normally.
13	STORE[#/8]	Display of the Complete message has ended.	Displays the number of images stored.

### 3-5 Procedure for Removing and Installing the PCBs

The card puller for removing and installing the PC board is not mounted on the PC board used in the SSD-1700.

When removing or installing the PC board, use the two PC board push-in/pull-out tools included with the equipment. (See the following illustration for the position of the tools.)



Refer to 「SECTION 4 DISASSEMBLING PROCEDURE」, concerning the PC board removal and installation procedure.

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SECTION 3 BEFORE REPAIRING

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**SECTION 4**

**DISASSEMBLING PROCEDURE**

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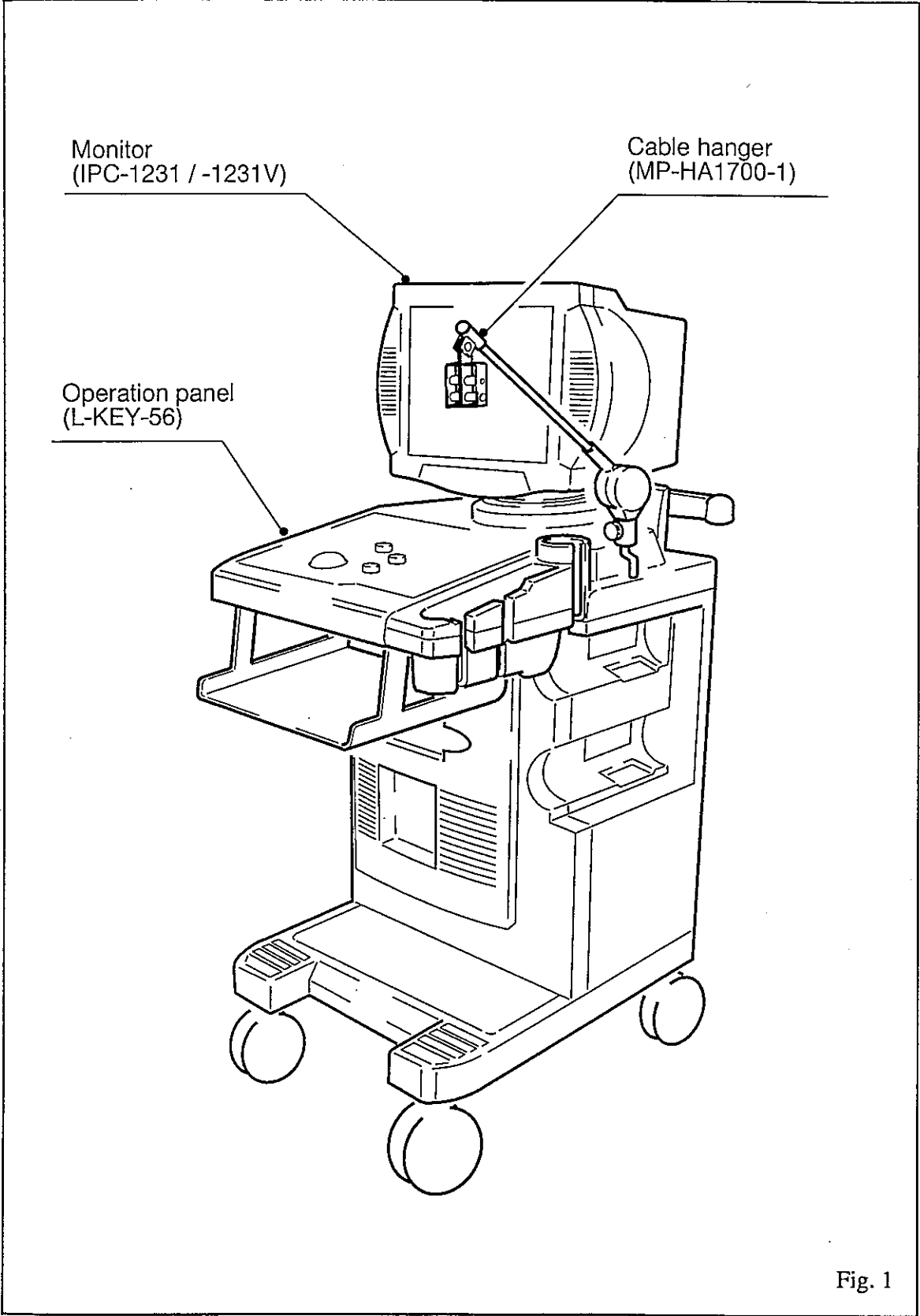
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SSD-1700 Disassembling Instruction

1. Parts Identification
2. Individual Units Layout
3. Dismounting Flow Chart
4. Detaching the Covers
5. Detaching the Panel Escutcheon and Operation Panel Assembly (L-KEY-56)
6. Detaching the Panel Interface and Panel PC Boards, and Track Ball
7. Drawing Out the PC Board and Probe Selector PC Board
8. Dismounting the Power Supply Unit (PSU-S1700-1 / -2 / -3)
9. Dismounting the Monitor (IPC-1231 / -1231V)
10. Detaching the Physio Unit Panel, Physio Unit Amplifier, Physio Unit Plug Block (EU-5034), and each PC Board
11. Dismounting the Stabilized Power Supply Unit (EU-6023) and Drawing Out the PC Board
12. Removing the Connector Panel
13. Dismounting the Data Management Subsystem Unit (DMS-1700)
14. Procedure for Pulling out and Pushing in PC Board

1 Parts Identification



2

Individual Units Layout

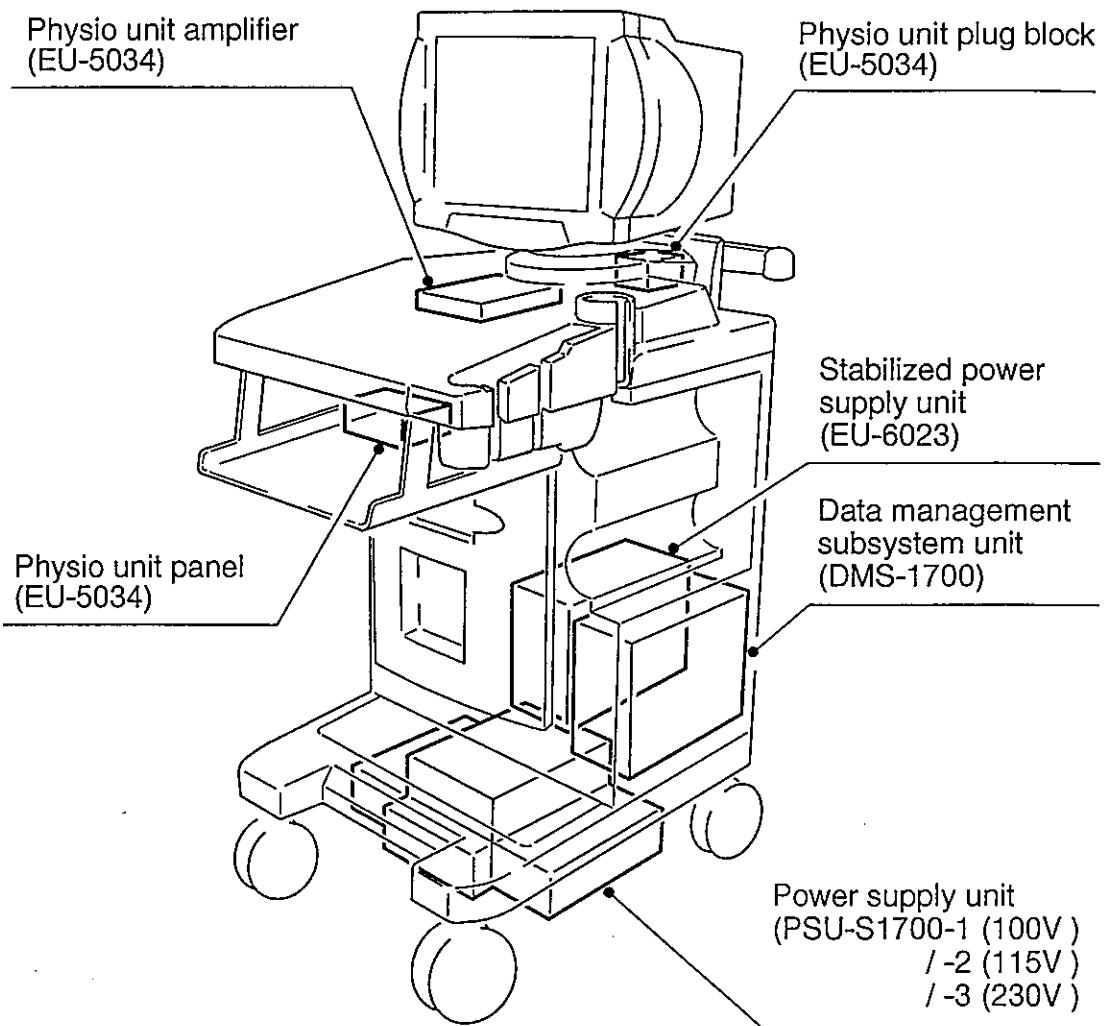
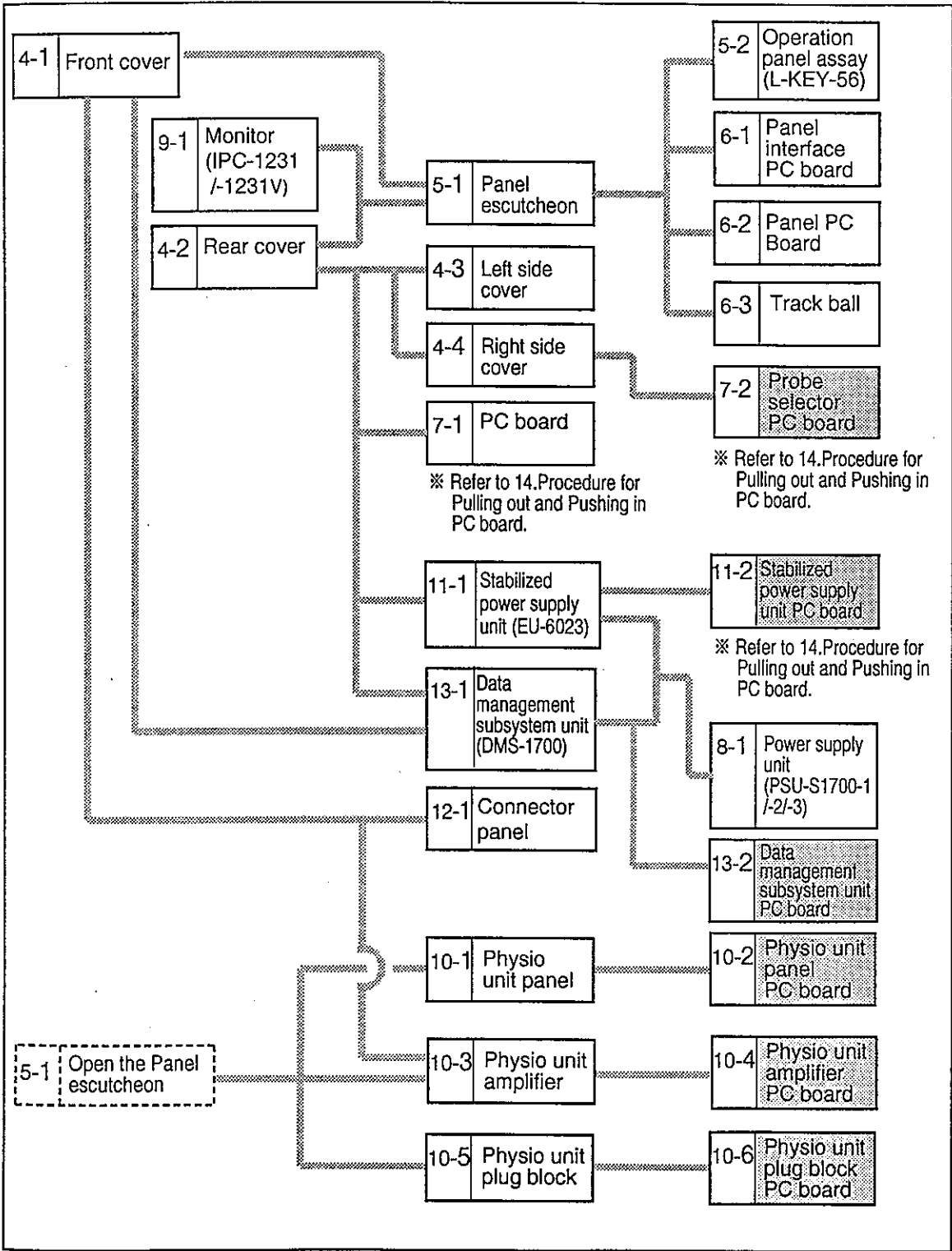


Fig. 2

3 Dismounting Flow Chart

The disassembly procedure are made based on the Dismounting Flow Chart conduct operation in accordance with the flow.

Number in this paper is corresponding to No. in the flow chart.



4	Detaching the Covers
---	----------------------

- 4-1. Front cover . . . . ※ Operations (1) thru (3) are not required for equipment without recorder.
- (1) Unfasten 4 screws, with which recorder is secured. (A in fig. 3)
  - (2) Unplug all cables plugged on connector panel, and disconnect recorder power cable from power supply unit. (B in fig. 4)
  - (3) Remove recorder from mounting rack. (C in fig. 4)

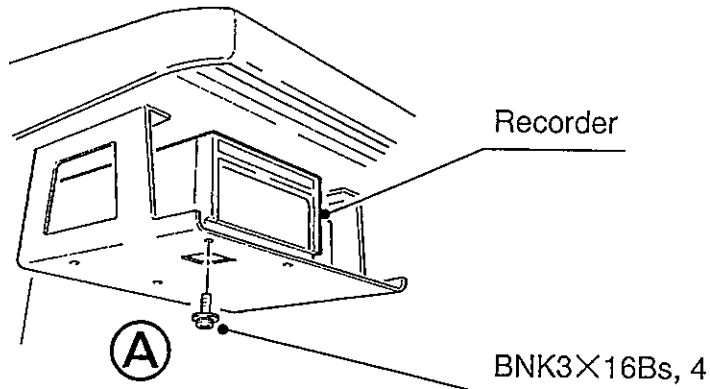


Fig. 3

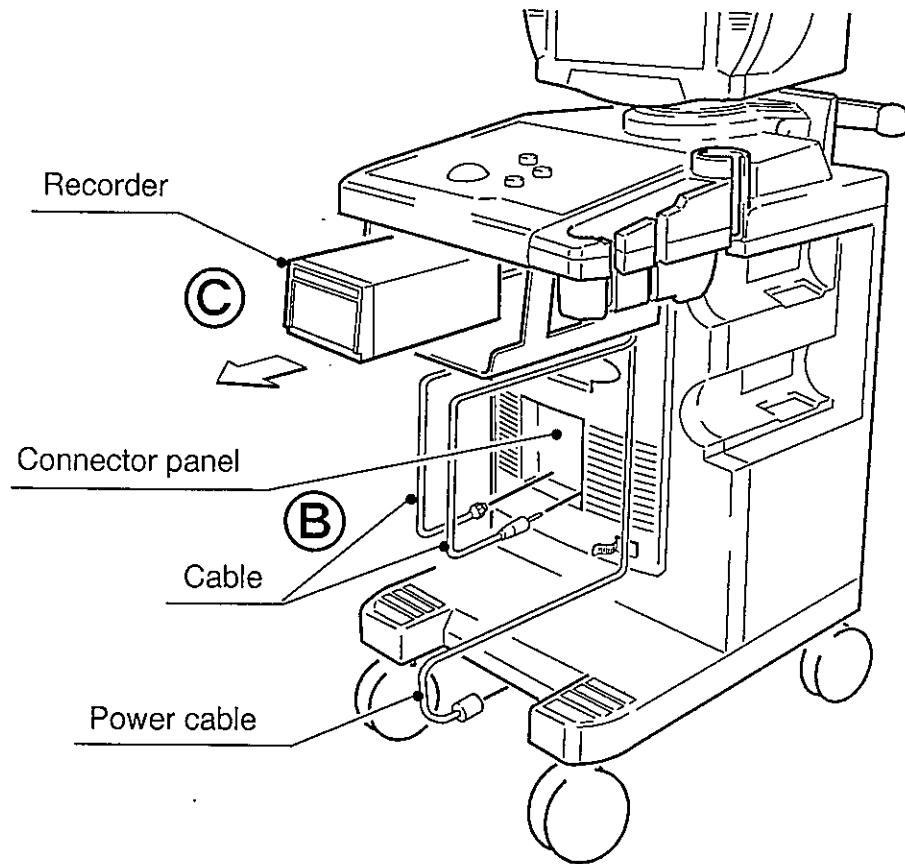
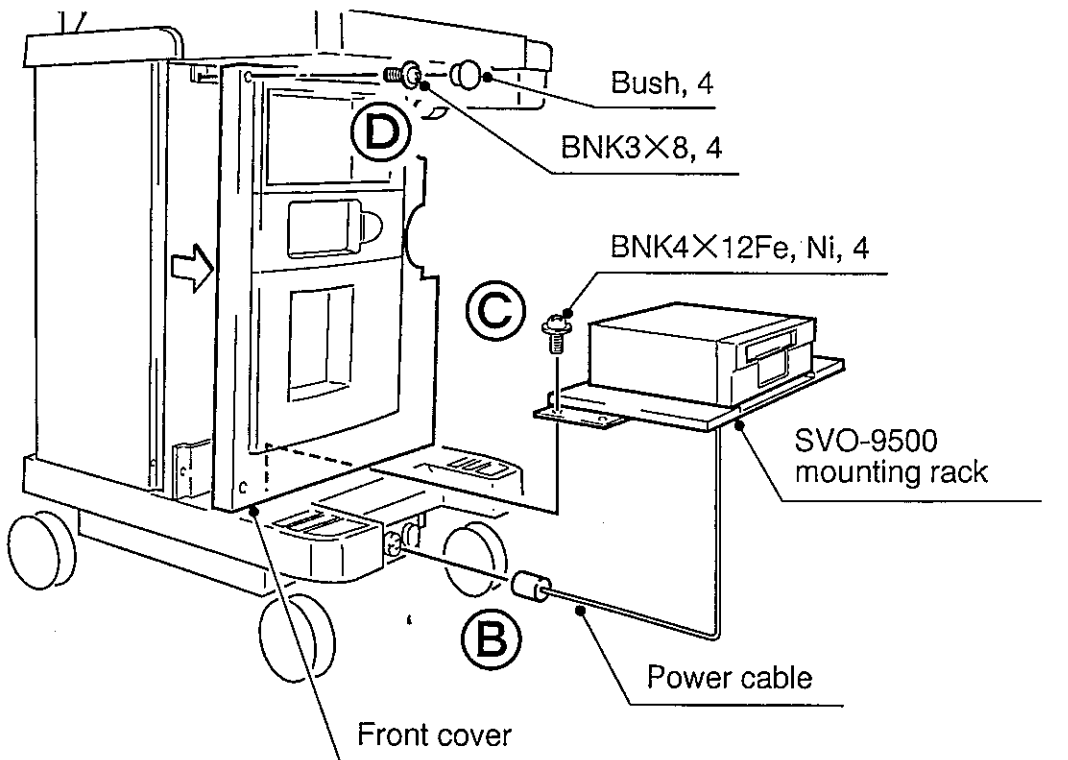
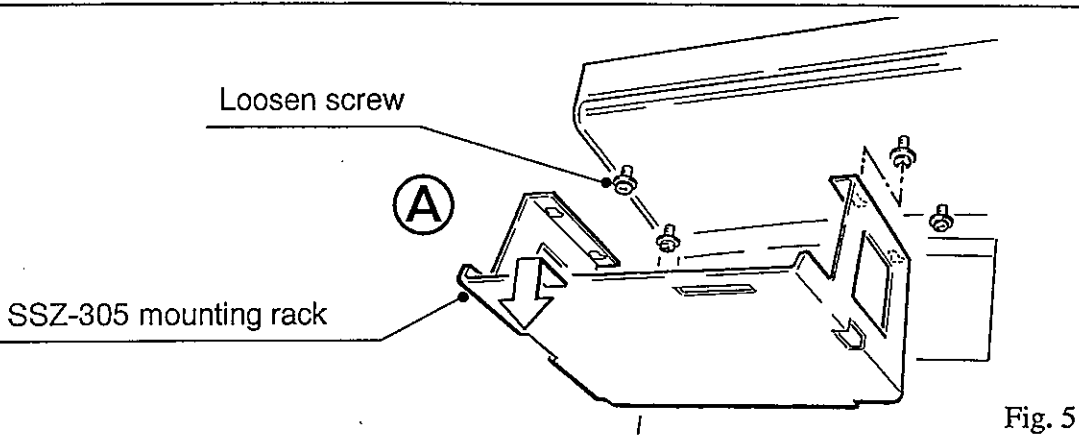


Fig. 4

- ※ Operations (5) thru (6) are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).
- (4) Loosen 4 screws and remove SSZ-305 mounting rack. (A in fig. 5)
  - (5) Disconnect SVO-9500 power cable from power supply unit. (B in fig. 6)
  - (6) Unfasten 4 screws and remove SVO-9500 mounting rack. (C in fig. 6)
  - (7) Remove 4 bushes and unfasten 4 screws. Then, remove front cover. (D in fig. 6)





- 4-2. Rear cover . . . . ※ Operations (2) thru (6) are not required for equipment without color printer rack (MP-FX1700-2).
- (1) Remove cable hanger. ( A in fig.)
  - (2) Unplug all connectors out of recorder. ( B in fig.)
  - (3) Remove both signal and power cables from 6 clamps illustrated. ( C in fig.)

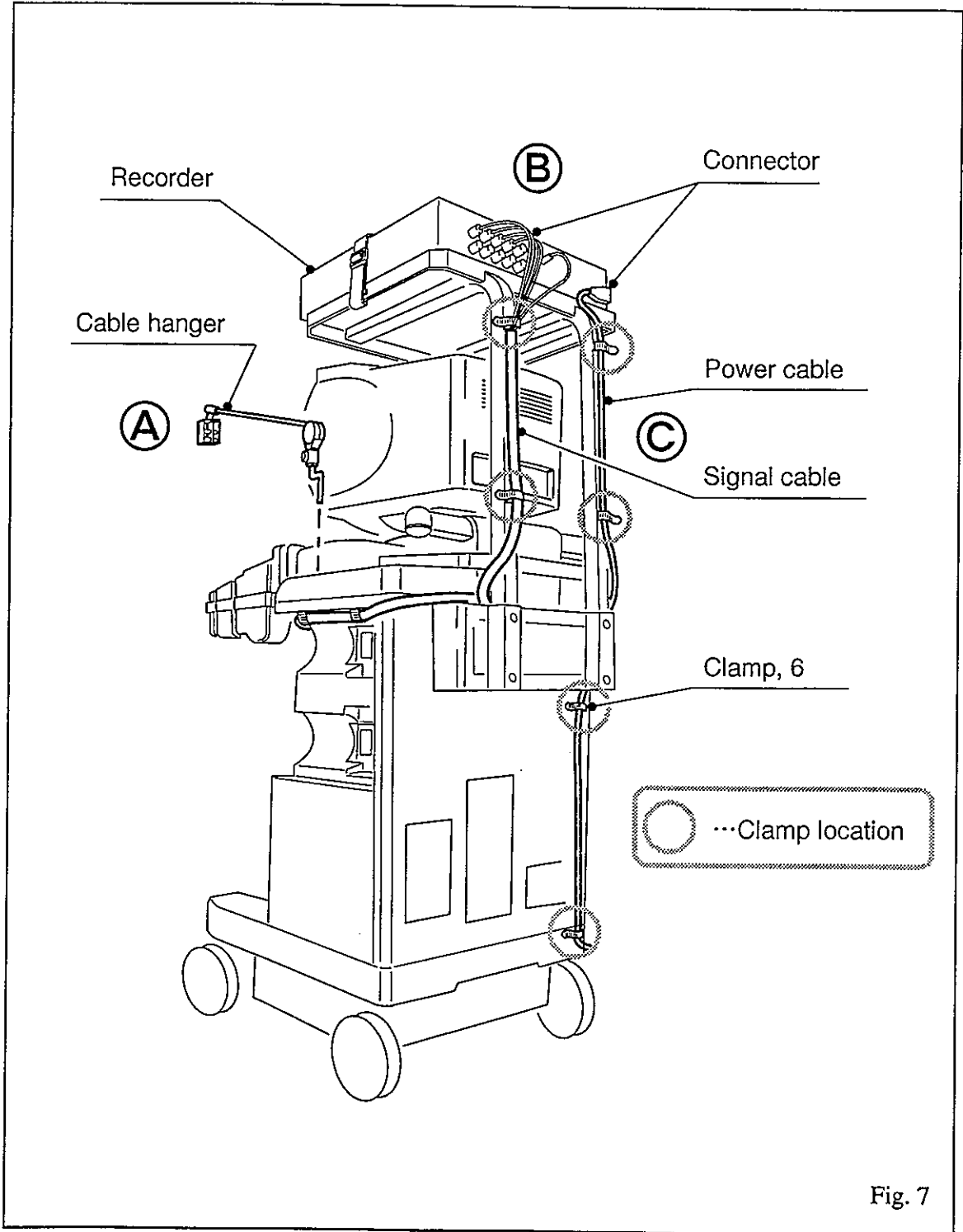
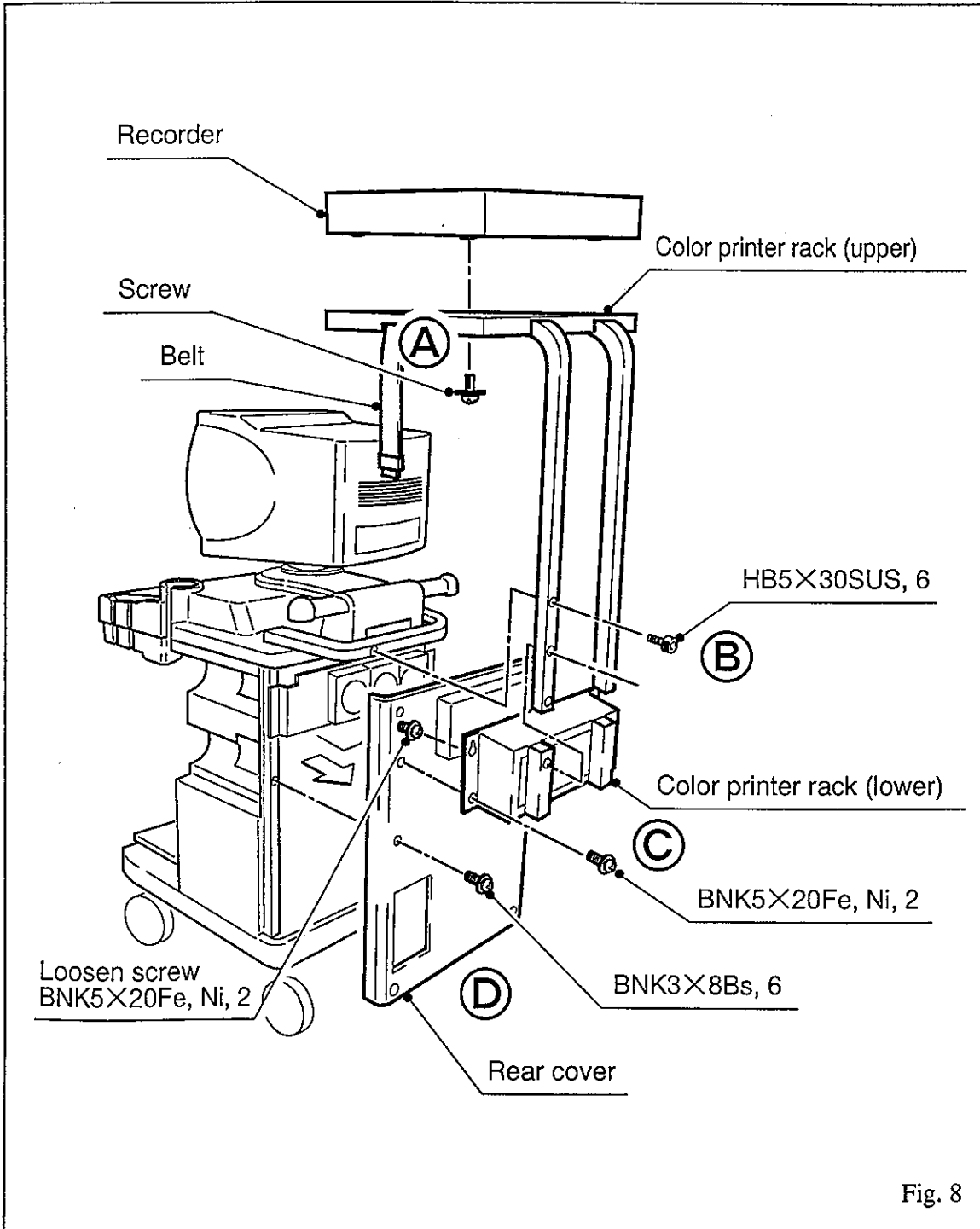
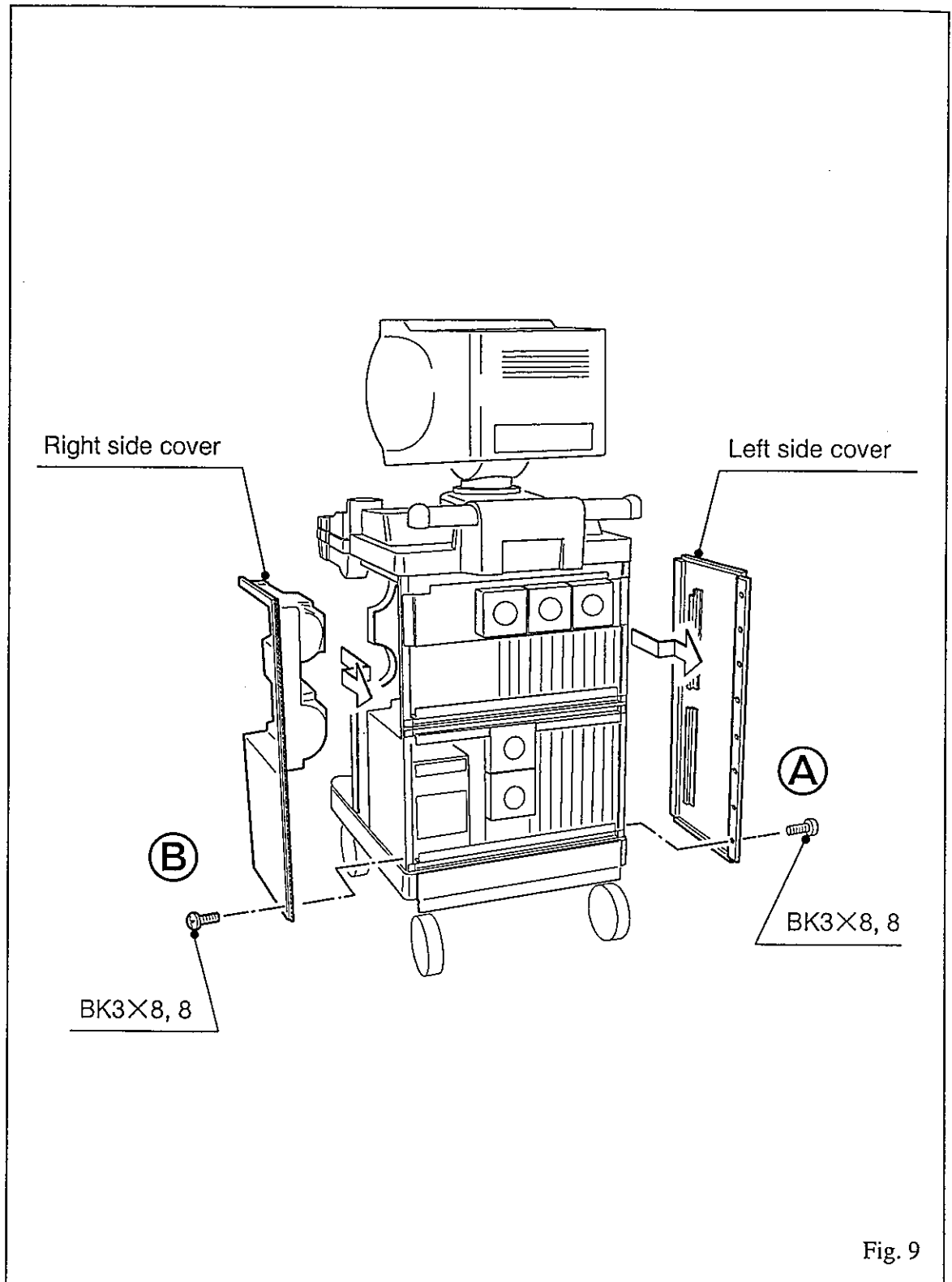


Fig. 7

- (4) Remove screws or belt, and put down recorder from mounting rack. (A in fig.)
- (5) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (B in fig.)
- (6) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (C in fig.)
- (7) Unfasten 6 screws and remove rear cover. (D in fig.)

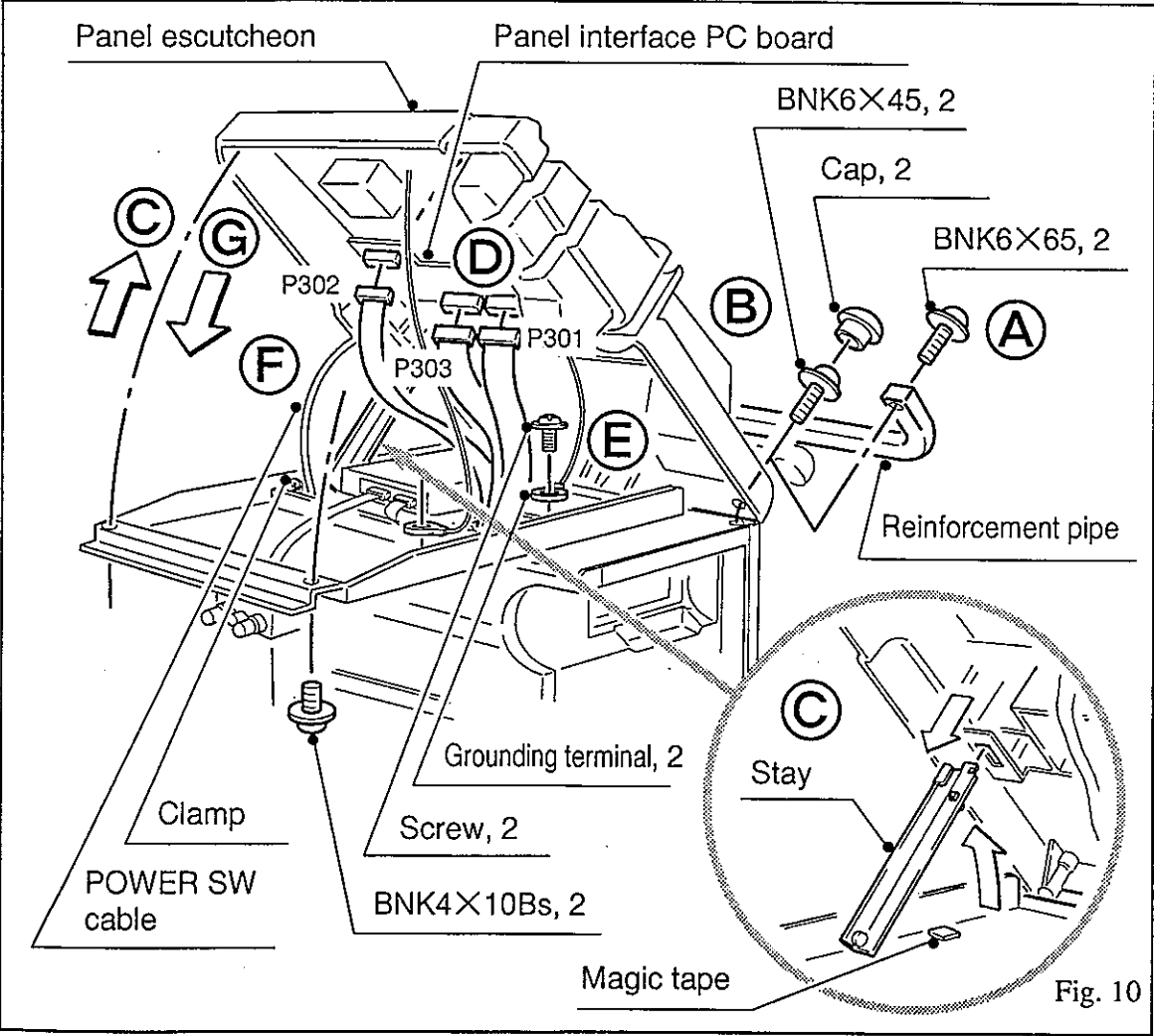


- 4-3. Left side cover . . . Remove 8 screws and slide the cover rearwards, and remove.  
(A in fig.)
- 4-4. Right side cover . . . Remove 8 screws and slide the cover rearwards, and remove.  
(B in fig.)



**5** Detaching the Panel Escutcheon and Operation Panel Assembly (L-KEY-56)

- 5-1. Panel escutcheon . . . ※ To install panel escutcheon, 2 workers must not fail to cooperate.
- ※ Operations (1) below is not required for equipment without color printer rack (MP-FX1700-2).
- (1) Unfasten 2 screws and remove reinforcement pipe. ( Ⓐ in fig.)
  - (2) Remove 2 caps in the rear of panel escutcheon. And unfasten 2 screws. ( Ⓑ in fig.)
  - (3) Unfasten 2 front screws and open panel escutcheon. Then, remove stay from magic tape and secure stay upright. ( Ⓒ in fig.)
  - (4) Unplug all connectors plugged in interface PC board. ( Ⓓ in fig.)
    - Connectors to unplug: [ P301 thru P303 ]
  - (5) Remove 2 grounding terminals, with one each screw unfastened. ( Ⓔ in fig.)
  - (6) Remove POWER switch cable from clamp. ( Ⓕ in fig.)



- (7) Unfasten 2 screws and remove PC board securing hardware. Then, disconnect POWER switch cable from power supply unit. (A in fig. 11)
  - Connector to unplug: 【 P431 】
- (8) Remove POWER switch cable from 2 clamps. (B in fig. 12)
- (9) Unfasten 1 screw and remove monitor cable grounding terminal from reference grounding plate. (C in fig. 12)
- (10) Unplug 3 monitor cable connectors on connector panel and from power cables. (D in fig. 12)
  - Connectors to unplug: 【 P432, P606 and P609 】
- (11) Pull up all cables coming from panel escutcheon and put them onto upper frame. (E in fig. 12)
- (12) Remove stay and close panel escutcheon. ( See G in fig. 10)

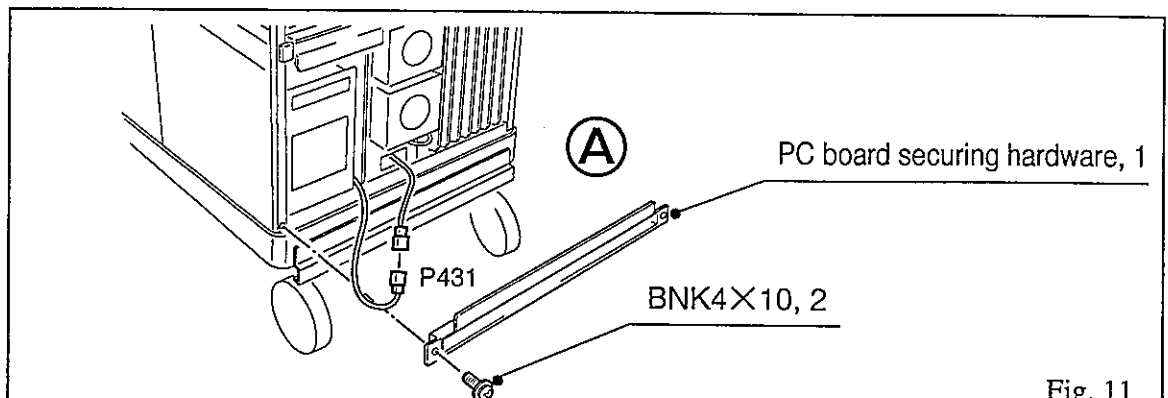


Fig. 11

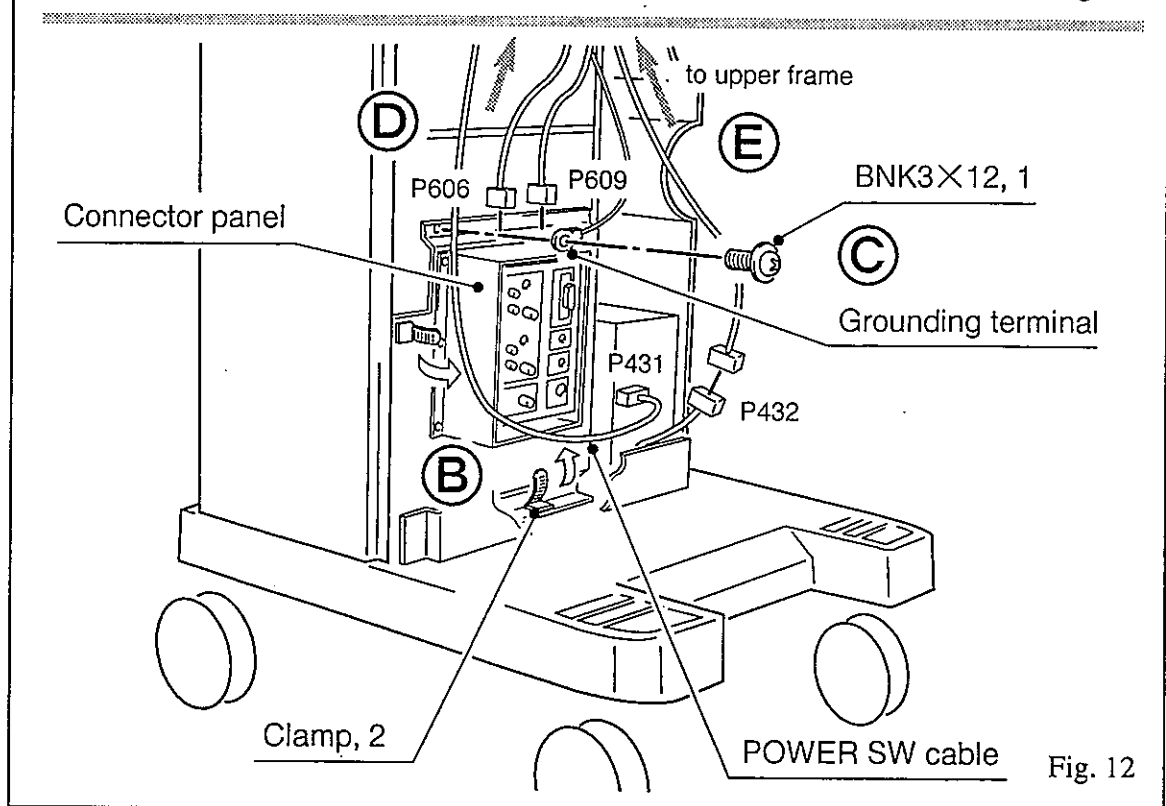


Fig. 12

(13) To remove fan, unplug 1 connector and loosen 4 screws.  
(A in fig. 13)

• Connector to unplug: [ P703 ]

(14) Unfasten 2 screws and remove PC board securing hardware. (B in fig. 13)

(15) Unfasten 4 screws and remove 4 washers, both on hinge in the rear of panel escutcheon. (C in fig. 14)

(16) Slide panel escutcheon rearward while keeping it slightly raised in front. And remove. (D in fig. 14)

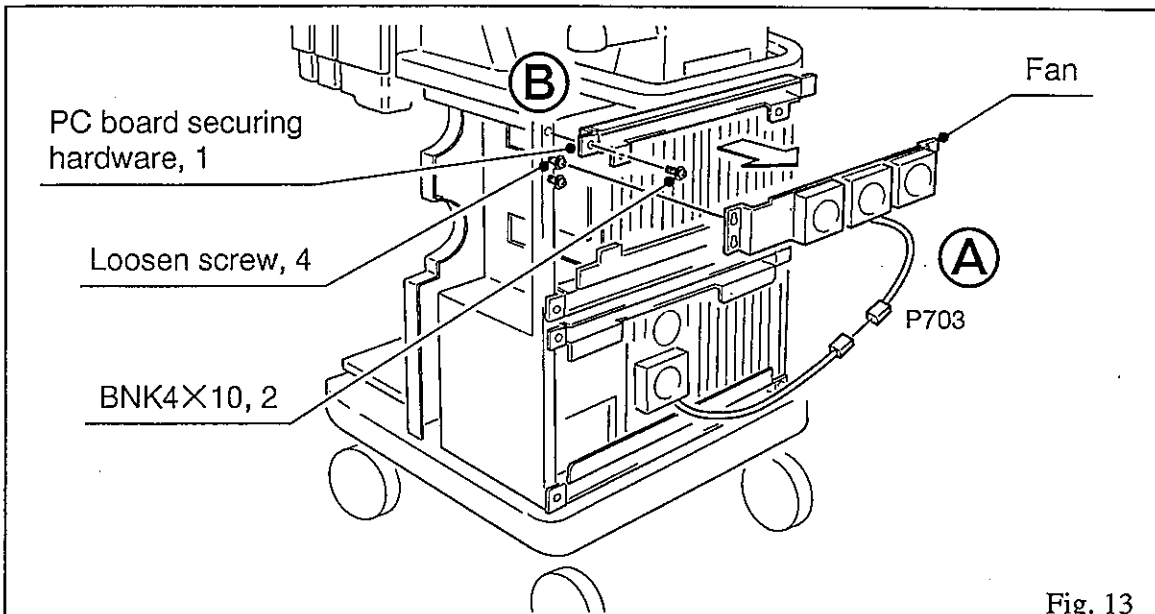


Fig. 13

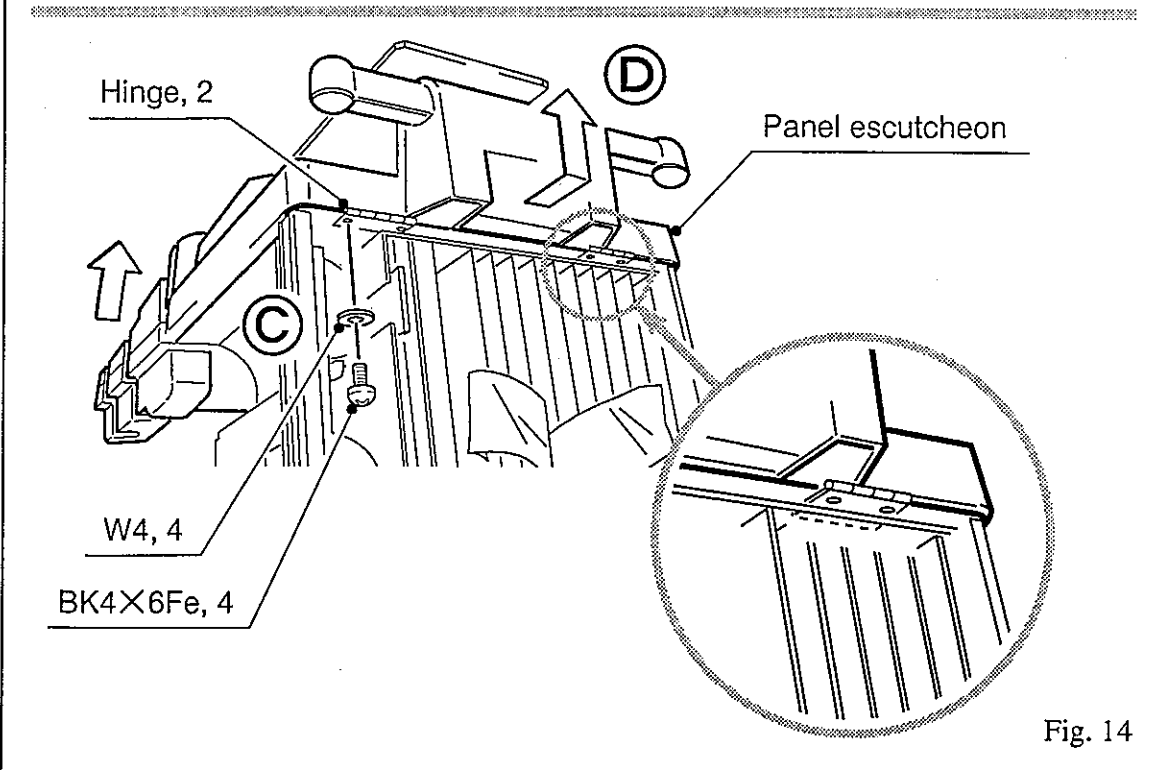


Fig. 14

- 5-2. Operation panel . . . Remove each 10 nuts, spring washers, and washers, and assembly detach the operation panel assembly. (Fig. 15)

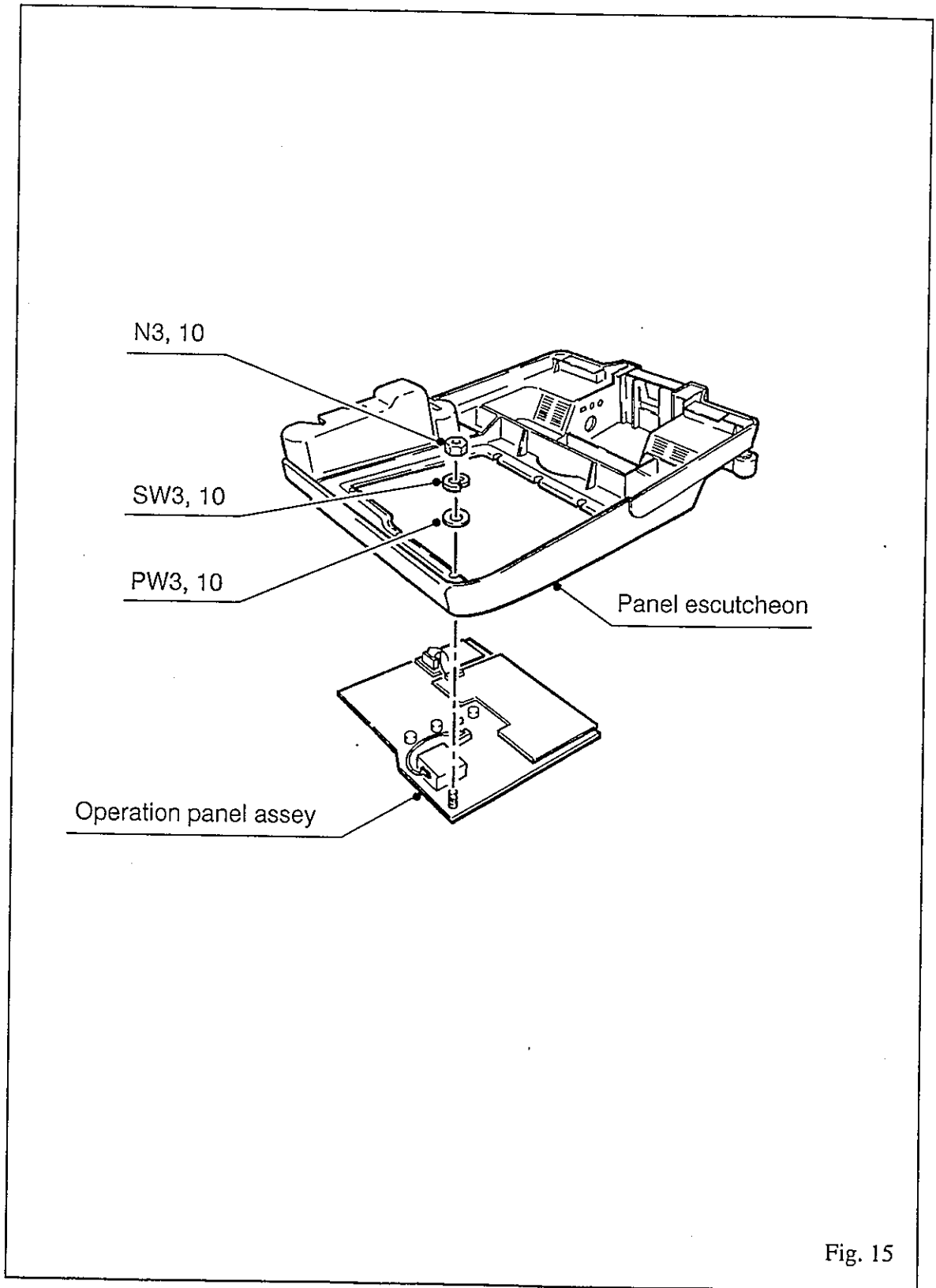


Fig. 15

**6 Detaching the Panel Interface, Panel PC Boards, and Track Ball**

- 6-1. Panel Interface . . . . . Unplug connectors on STC PC board and Unfasten 8 screws. PC board And remove Panel interface PC board. (A in fig.)
- 6-2. Panel PC board . . . . .
- STC PC Board
    - (1) Remove 8 STC knobs. (B in fig.)
    - (2) Remove 1 connector, and each 4 nuts, and spring washers, and then detach the STC PC board. (C in fig.)
    - (3) Remove 4 spacers. (D in fig.)
  - Switch PC Board
    - (1) Loosen 2 screws each to remove 4 knobs.(E in fig.)
    - (2) To remove switch PC board, unplug track ball connector, unfasten 14 screws and remove 8 spring washers and 8 posts. (F in fig.)
- 6-3. Track ball . . . . . Unplug 1 connector and unfasten 3 screws to remove track ball. (G in fig.)

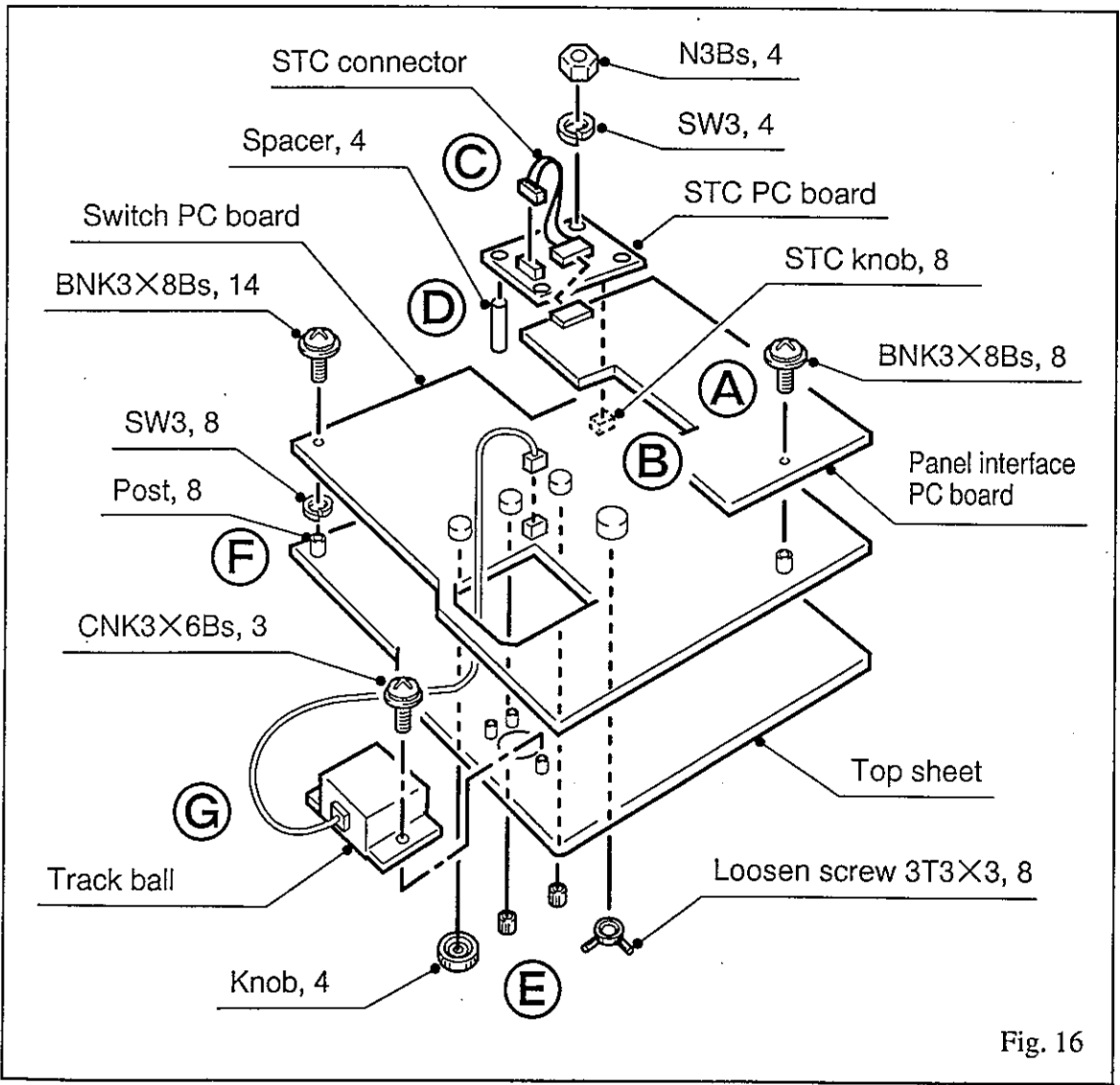


Fig. 16



7

Drawing Out the PC Board and Probe Selector PC Board

7-1. PC board . . . . .

○ Removing PC Board in Upper Stage:

- (1) To remove fan, unplug 1 connector and loosen 4 screws.  
(A in fig.) ● Connector to unplug: 【 P703 】
- (2) Unfasten 2 screws each and remove PC board securing hardware ① and ②. Then, remove 2 PC board push-in / pull-out tool from clamp on the back position illustrated below.  
(B in fig.)
- (3) Use PC board pull-out / push-in tool to pull out PC board.  
(C in fig.)  
( Refer to 14. Procedure for Pulling out and Pushing in PC Board.)

○ Removing PC Board in Lower Stage:

- (1) Unfasten 2 screws each and remove PC board securing hardware ③ and ④. Then, remove 2 PC board push-in / pull-out tool from clamp on the back position illustrated below.  
(D in fig.)
- (2) Use PC board pull-out / push-in tool to pull out PC board.  
(E in fig.)  
( Refer to 14. Procedure for Pulling out and Pushing in PC Board.)

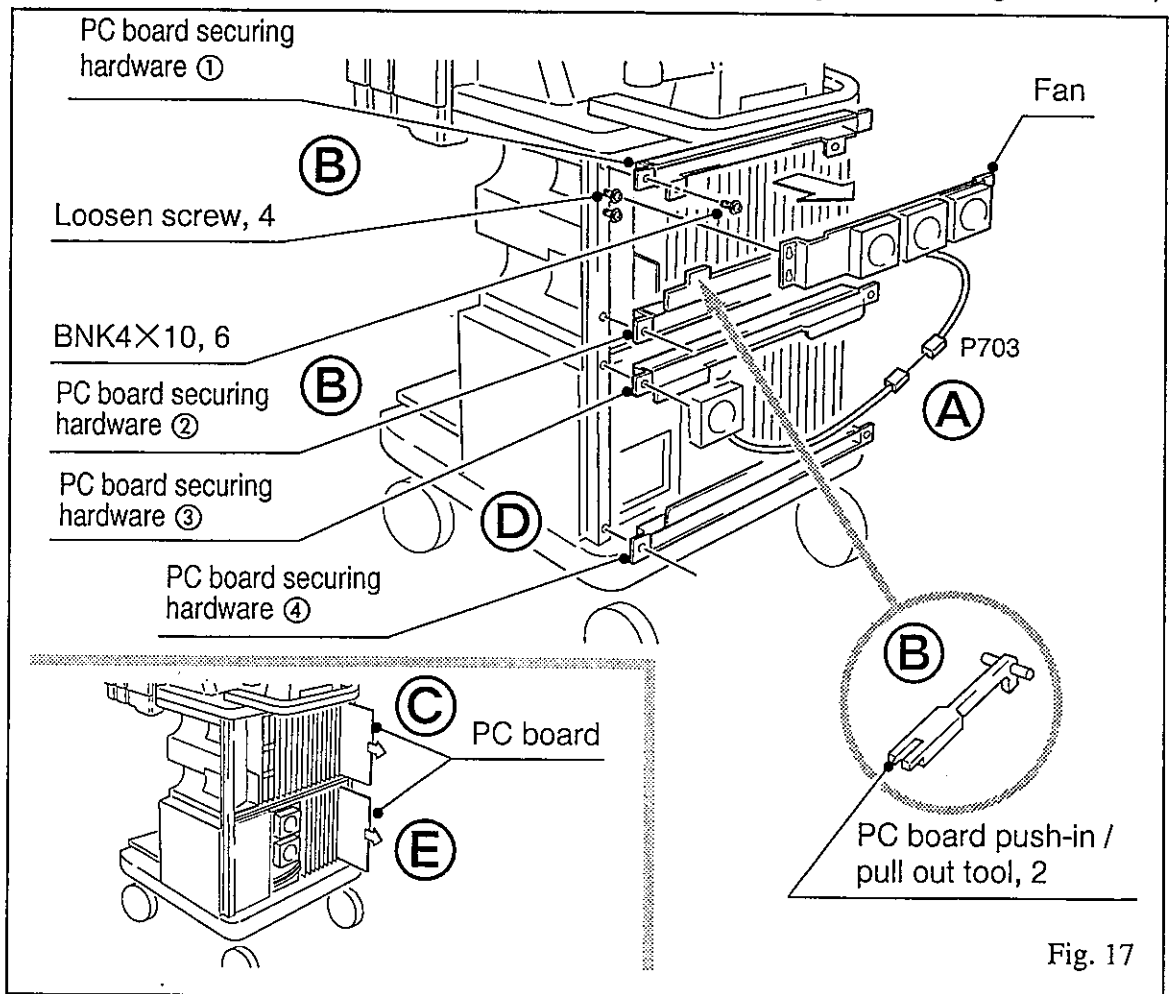


Fig. 17

- 7-2. Probe selector . . . (1) To remove fan, unplug 1 connector and loosen 4 screws.  
PC board (A in fig.)  
● Connector to unplug: [ P703 ]
- (2) Unfasten 2 screws and remove 2 PC board securing hardware. Then, remove 2 PC board push-in / pull-out tool from clamp on the back position illustrated below.  
(B in fig.)

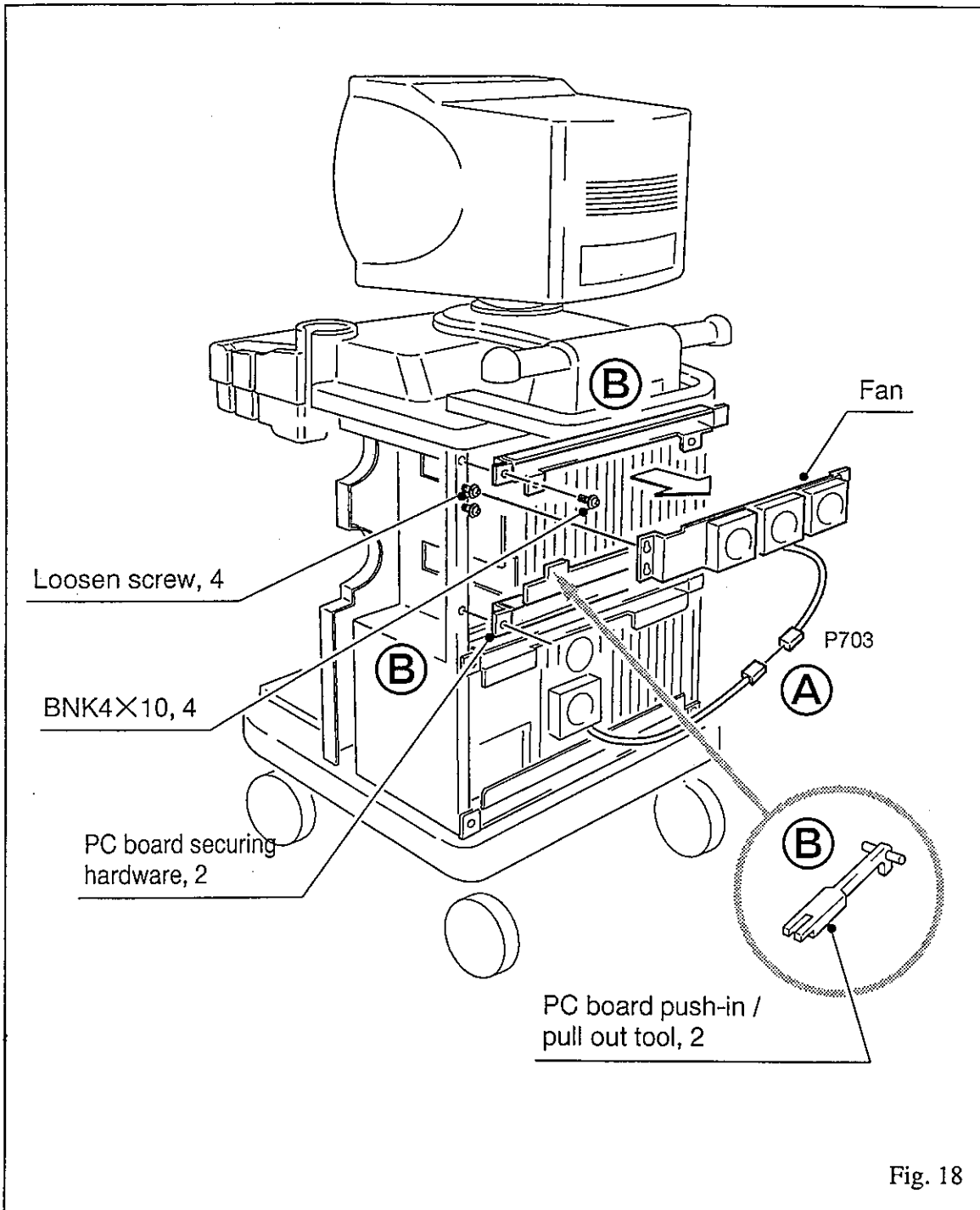
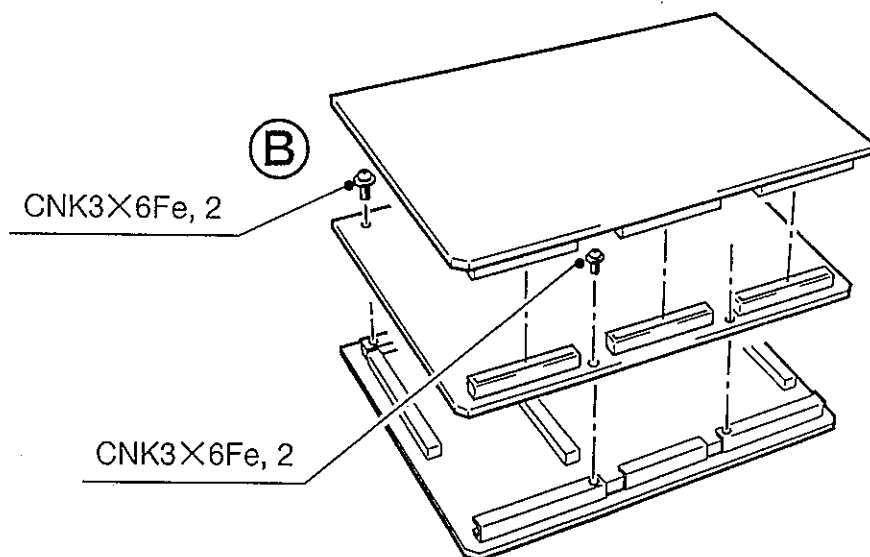
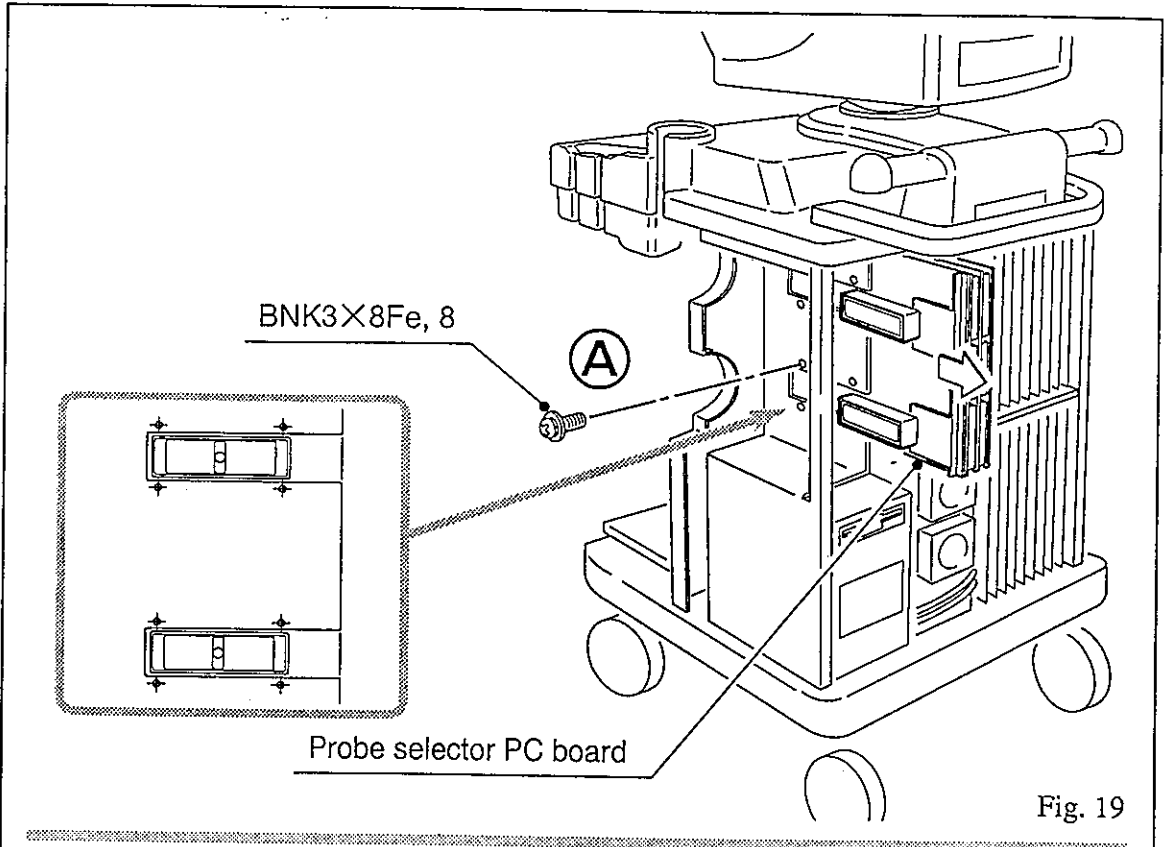


Fig. 18

- (3) Unfasten 8 screws and use PC board pull-out / push-in tool to pull out probe selector PC board. (A in fig. 19)  
( Refer to 14. Procedure for Pulling out and Pushing in PC Board.)
- (4) Pull and separate 1 probe selector PC board, as it is. Then, unfasten 4 screws and remove the other probe selector PC board. (B in fig. 20)



8

Dismounting the Power Supply Unit (PSU-S1700-1 / -2 / -3)

- 8-1. Power supply unit . . .
- (1) Unplug 2 connectors plugged in connector panel.  
(Ⓐ in fig.)
    - Connectors to unplug: 【 P606 P609 】
  - (2) Remove cable from 2 clamps. (Ⓑ in fig.)
  - (3) Disconnect power cable connected to motherboard.  
(Ⓒ in fig.)
    - Connector to unplug: 【 P141 】
  - (4) Unfasten 15 screws and remove reference grounding plate.  
(Ⓓ in fig.)

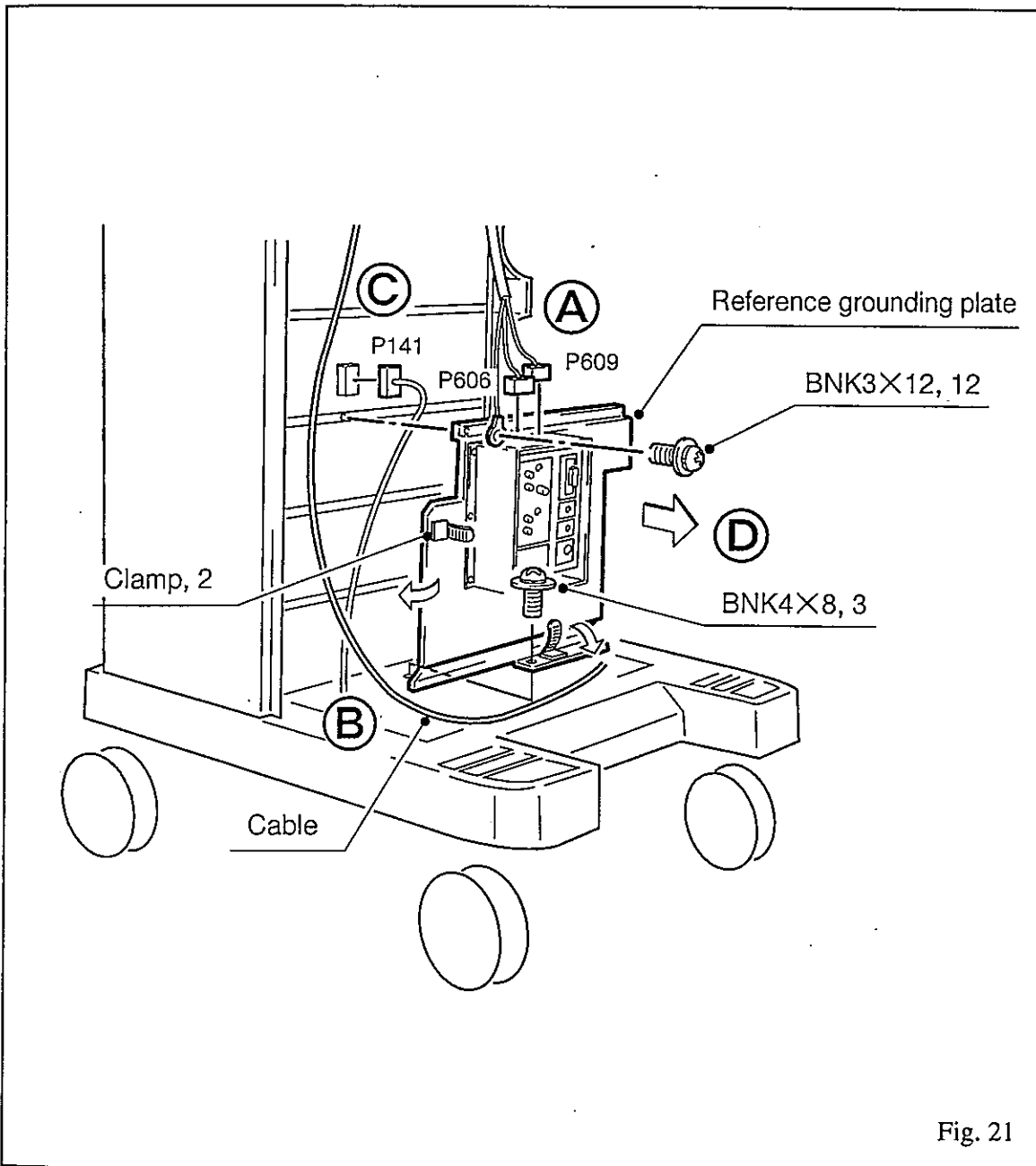


Fig. 21

- (5) Unfasten 2 screws each and remove PC board securing hardware. Then, unplug POWER switch cable on the back of equipment. ( A in fig. 22)
  - Connector to unplug: [ P431 ]
- (6) Unfasten 4 screws and remove slip-proof mat by pushing it up in the lower part. ( B in fig. 23)
- ※ Equipment provided with SVO-9500 Mounting Rack has been already unscrewed.
- (7) Unplug all power cables plugged in motherboard. ( C in fig. 23)
  - Connectors to unplug: [ P237, P241 and P432 ]
- (8) Pull out Cables P244 thru P248 and P431 in front. ( D in fig. 23)

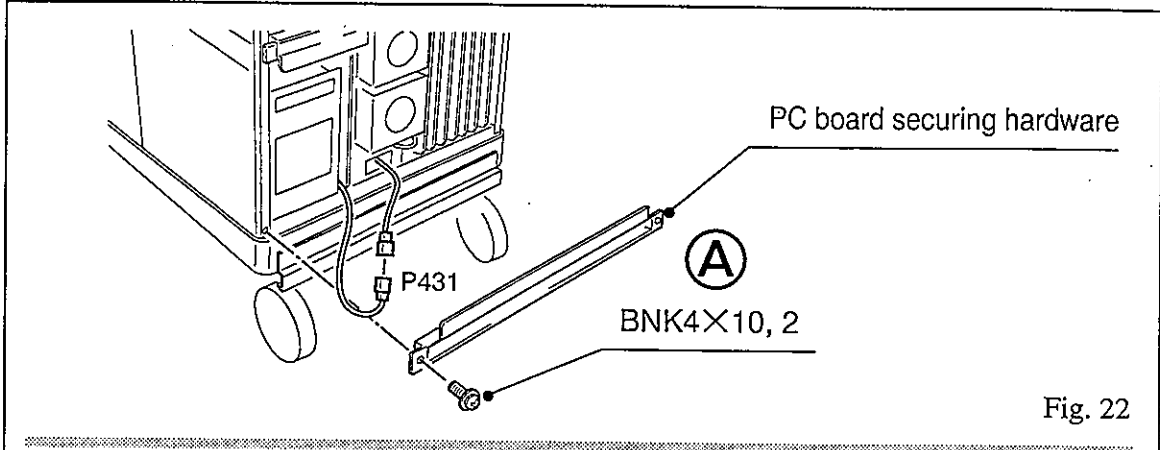


Fig. 22

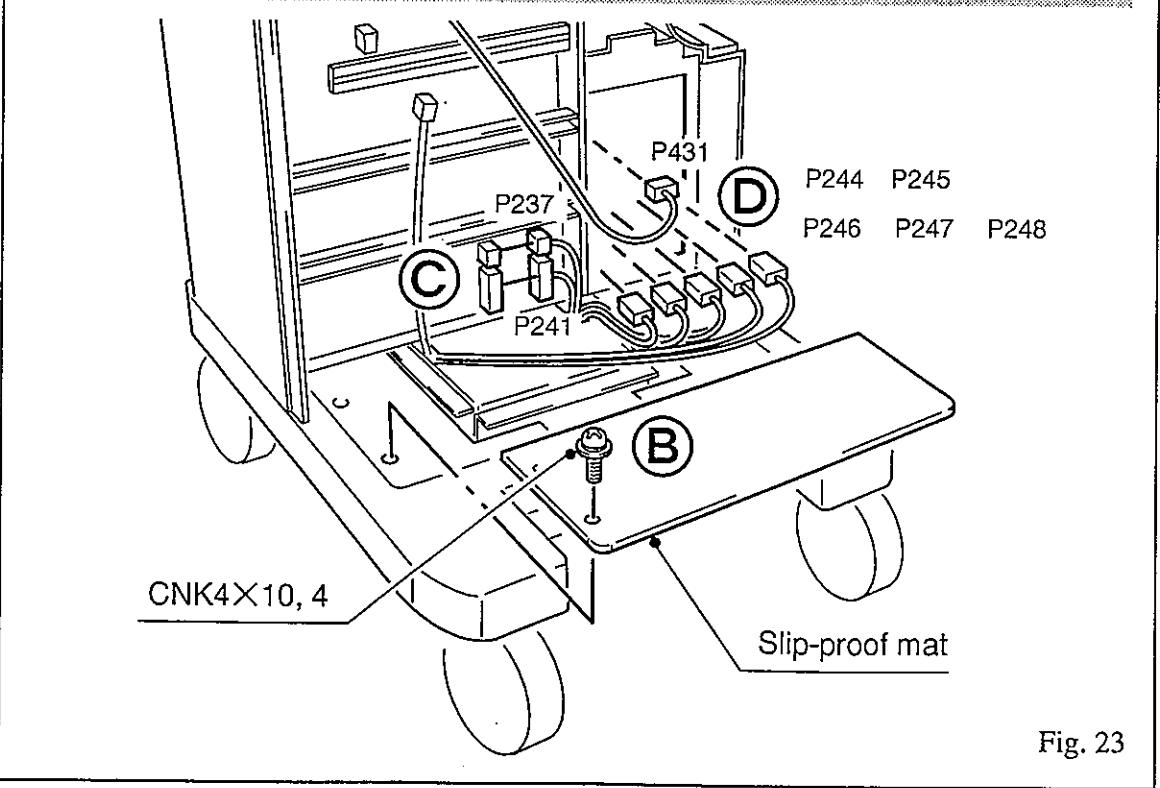
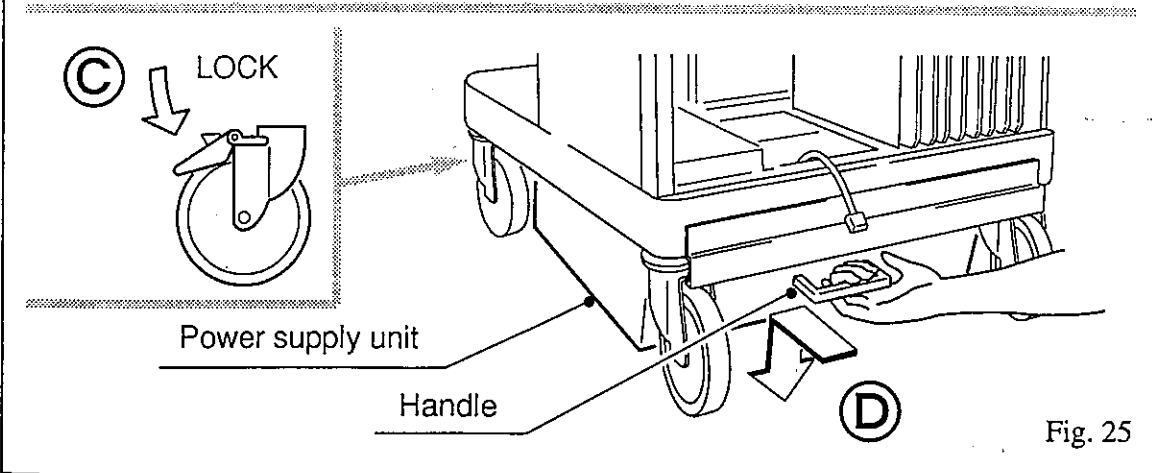
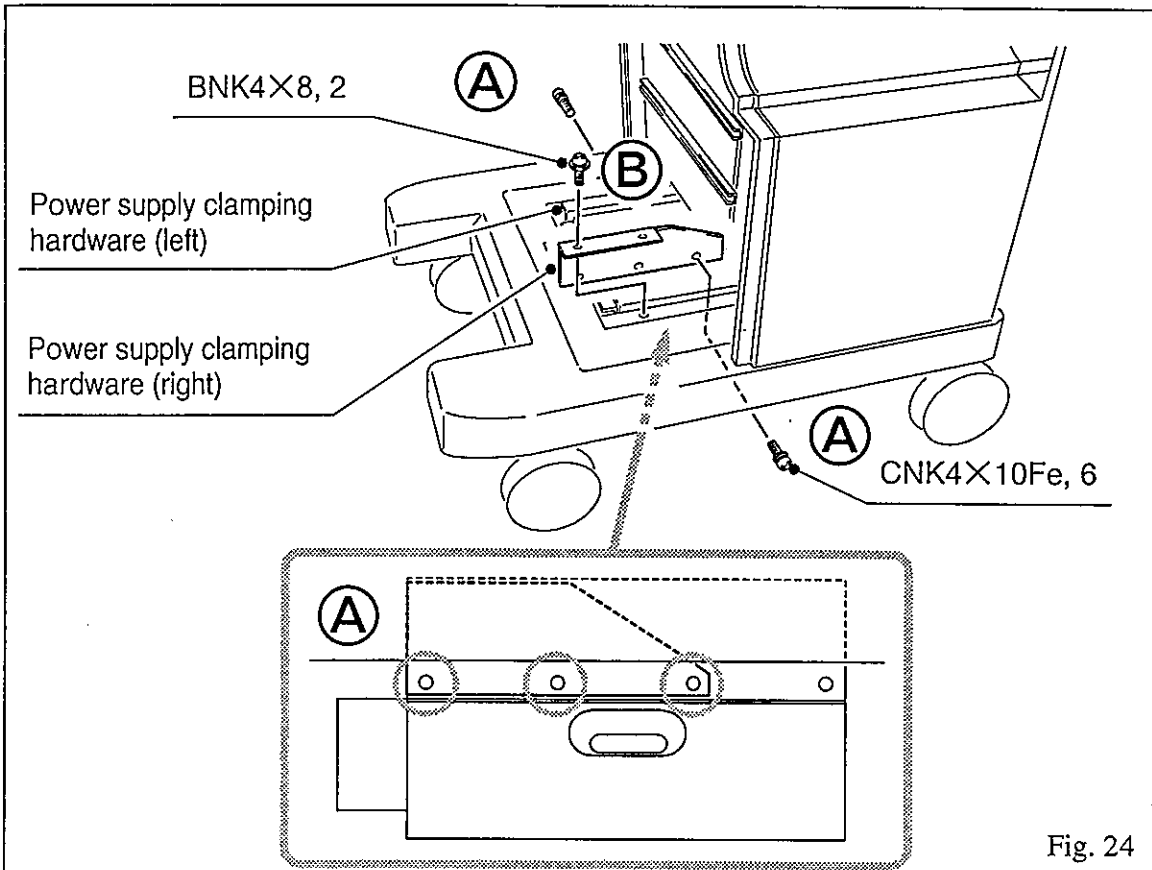


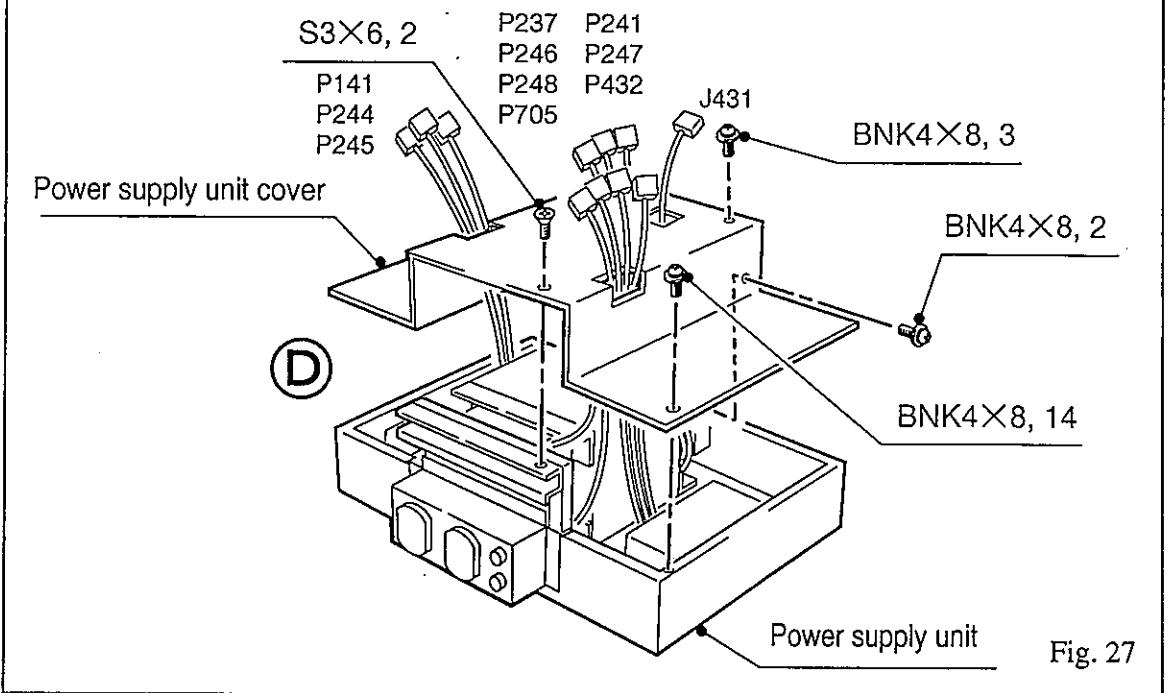
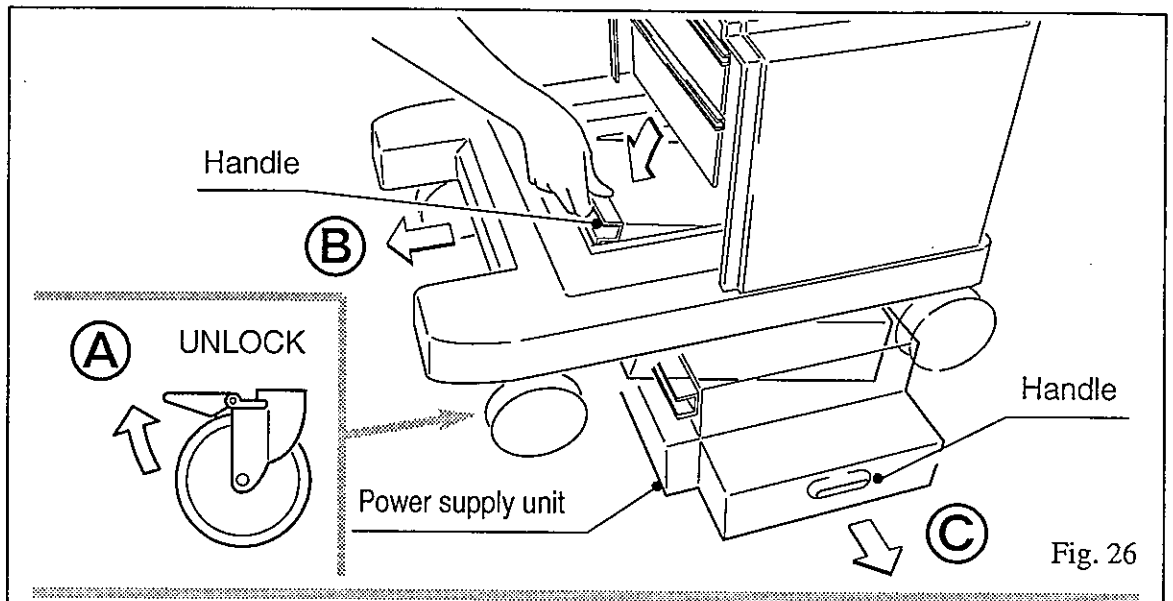
Fig. 23

- (9) Unfasten 3 screws on the side of power supply clamping hardware (right and left). (A in fig. 24)
- (10) Unfasten 2 screws and remove power supply clamping hardware (right). (B in fig. 24)
- (11) Lock casters. (C in fig. 25)
- (12) Push power supply unit forward while slightly raising grip in the rear. And unload power supply unit from chassis. (D in fig. 25)

NOTE : Power supply unit is very heavy. Be careful enough while unloading power supply unit.

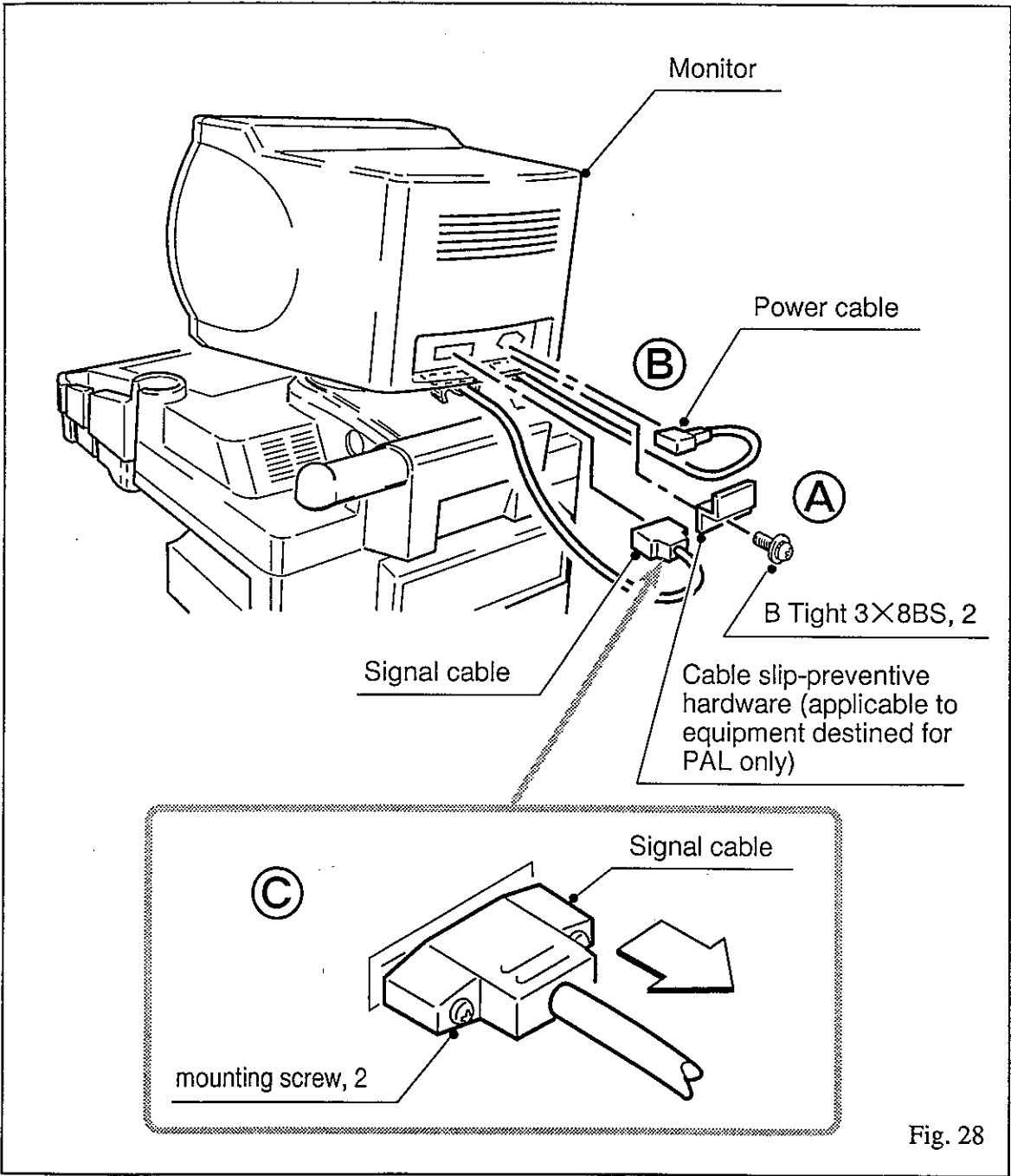


- (13) Unlock casters. (A in fig. 26)
  - (14) Unload power supply unit from chassis by pulling equipment while slightly raising grip in front. (B in fig. 26)
- NOTE : Power supply unit is very heavy. Be careful enough while unloading power supply unit.
- (15) Hold grip on the right side and pull power supply unit out of equipment on the right side. (C in fig. 26)
  - ※ Be careful enough to protect cable against possible damage.
  - (16) Unfasten 21 screws, and detach power supply unit cover. (D in fig. 27)



9 Dismounting the Monitor (IPC-1231 / -1231V)

- 9-1. Monitor . . . . . ※ Operation (1) below is not required for equipment other than that destined for PAL.
- (1) Unfasten 2 screws and remove cable slip-preventive hardware. (A in fig.)
  - (2) Remove power cable. (B in fig.)
  - (3) Loosen 2 mounting screws and remove signal cable. (C in fig.)





- (4) Rotate tilting base so that its right front screw will be positioned as illustrated below. Then, push up monitor in front and unfasten 1 screw. (Symmetrically, unfasten 1 screw, likewise, on the left side of body.) (A in fig. 29)
  - (5) Rotate tilting base so that its right rear screw will be positioned as illustrated below. Then, unfasten 1 screw. (Symmetrically, unfasten 1 screw, likewise, on the left side of body.) (B in fig. 30)
  - (6) Remove monitor from tilting base (C in fig. 30)
- NOTE : Be careful not to damage blind cover when placing monitor.

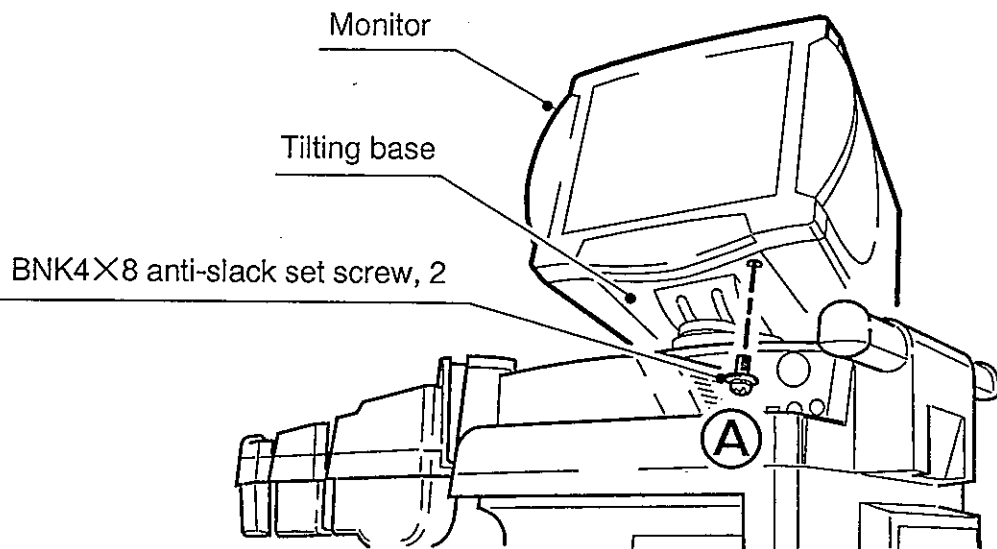


Fig. 29

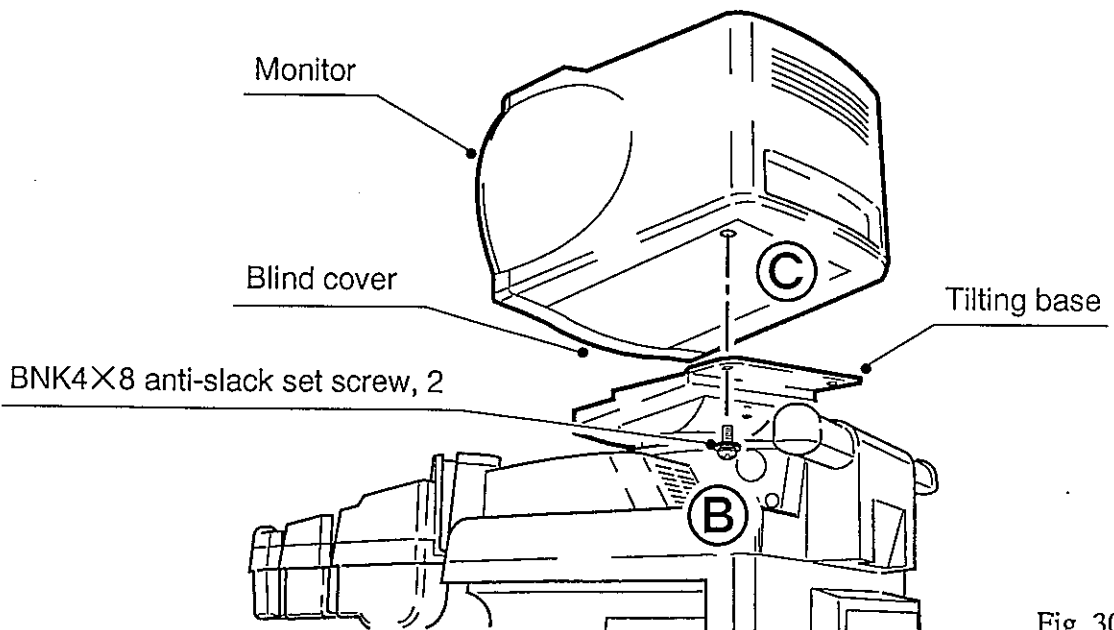
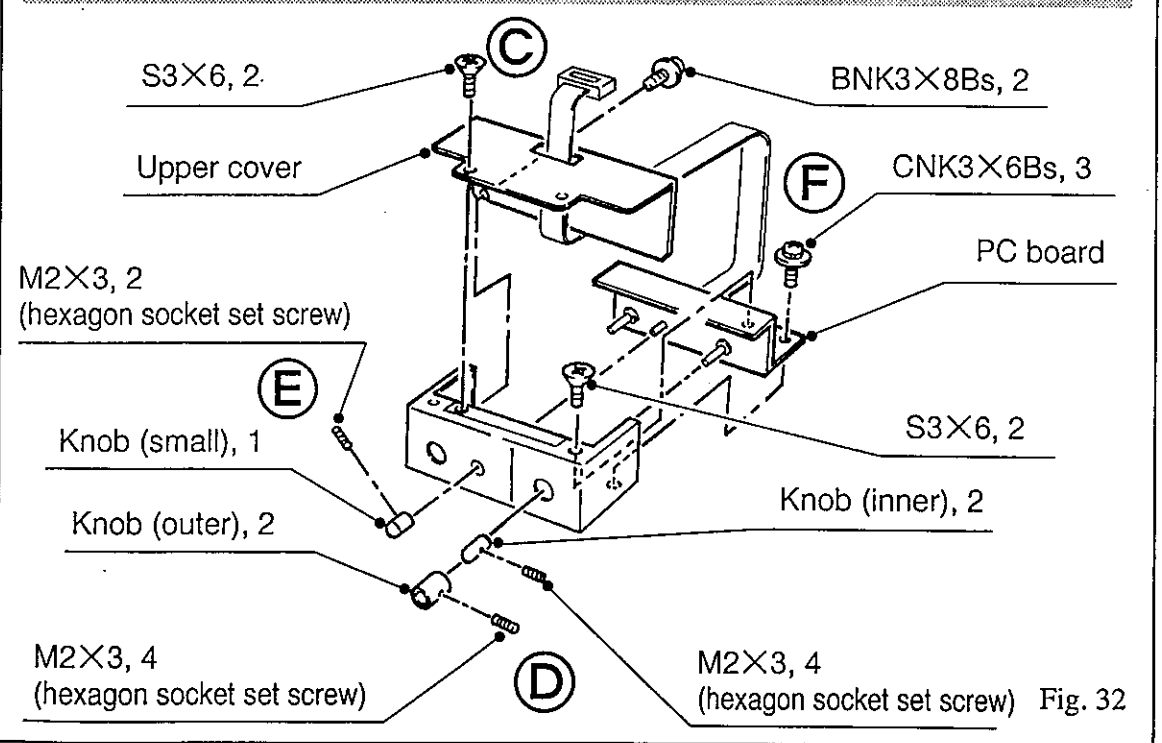
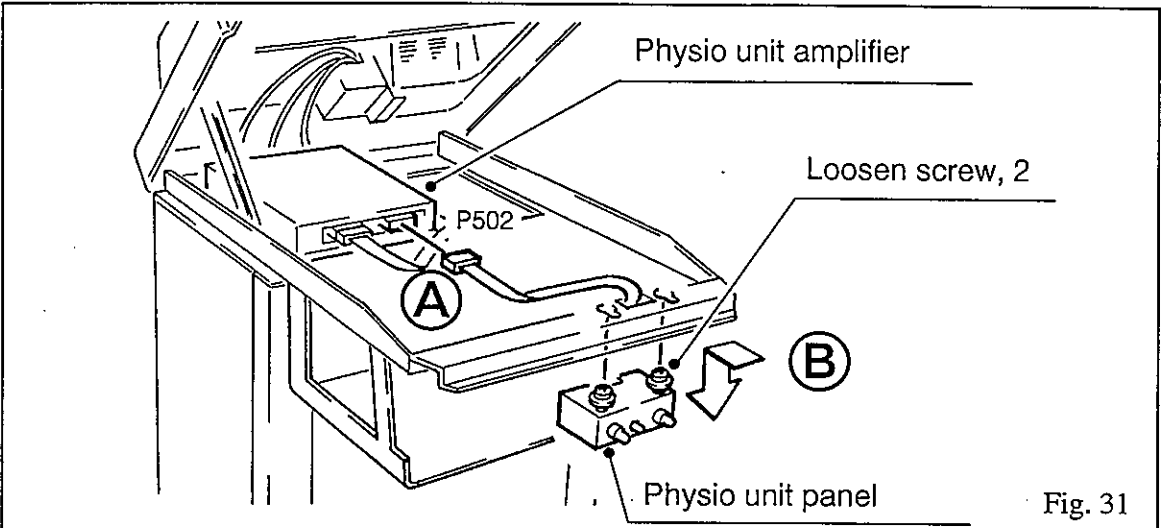


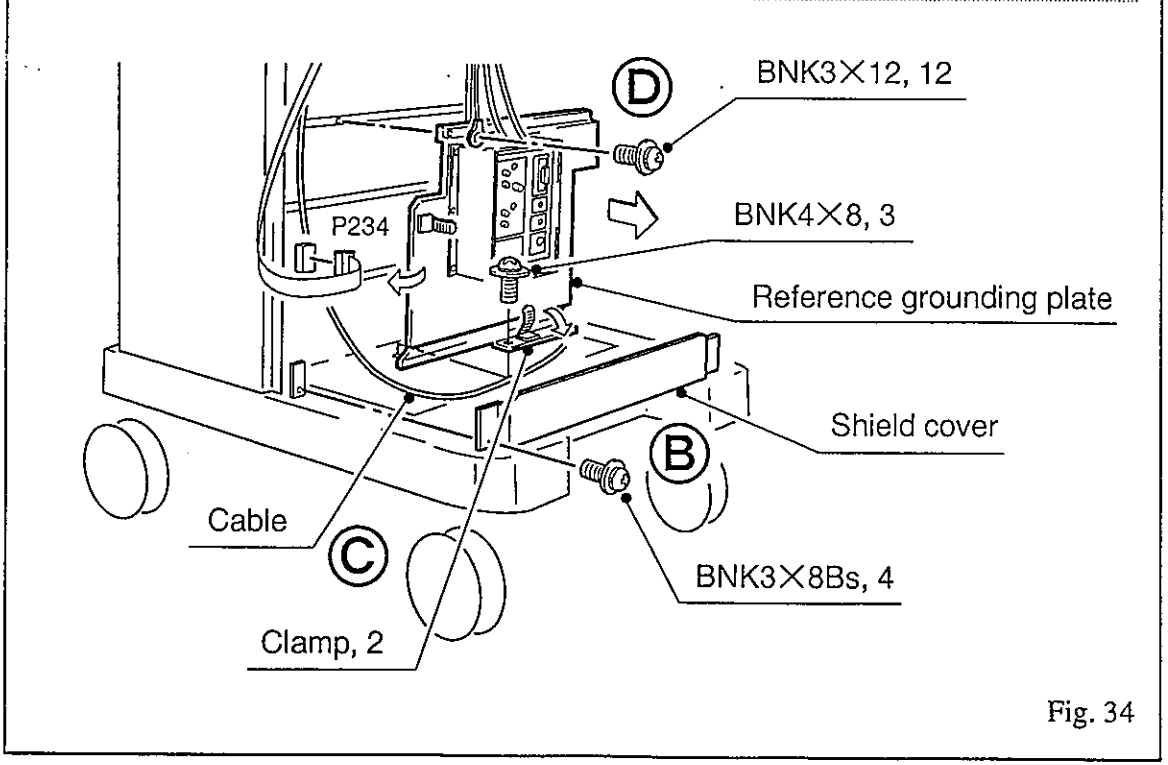
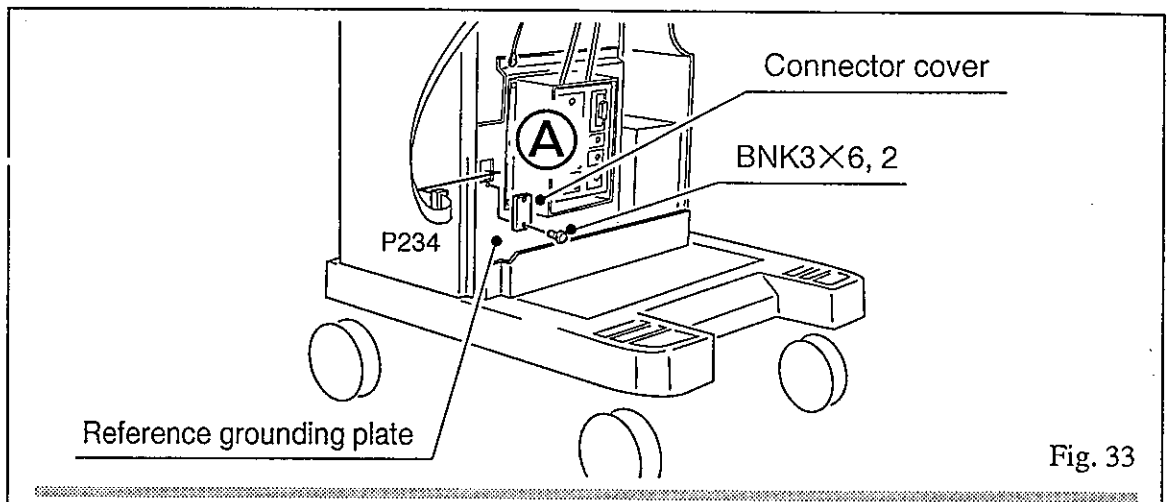
Fig. 30

**10** Detaching the Physio Unit Panel, Physio Unit Amplifier, Physio Unit Plug Block (EU-5034), and each PC Board

- 10-1. Physio unit panel . . . . . (1) Remove 1 connector from the physio unit amplifier.  
panel (A in fig. 31)  
● Connector to unplug: [ P502 ]  
(2) Loosen 2 screws, and remove the physio unit panel as indicated by the arrow. (B in fig. 31)
- 10-2. Physio unit panel PC board . . . . . (1) Unfasten 4 screws, and detach the upper cover. (C in fig. 32)  
(2) Loosen 2 screws, and remove knobs (inner and outer). (D in fig. 32)  
(3) Loosen 2 screws, and remove the knob (small). (E in fig. 32)  
(4) Unfasten 4 screws, and detach the PC board. (F in fig. 32)

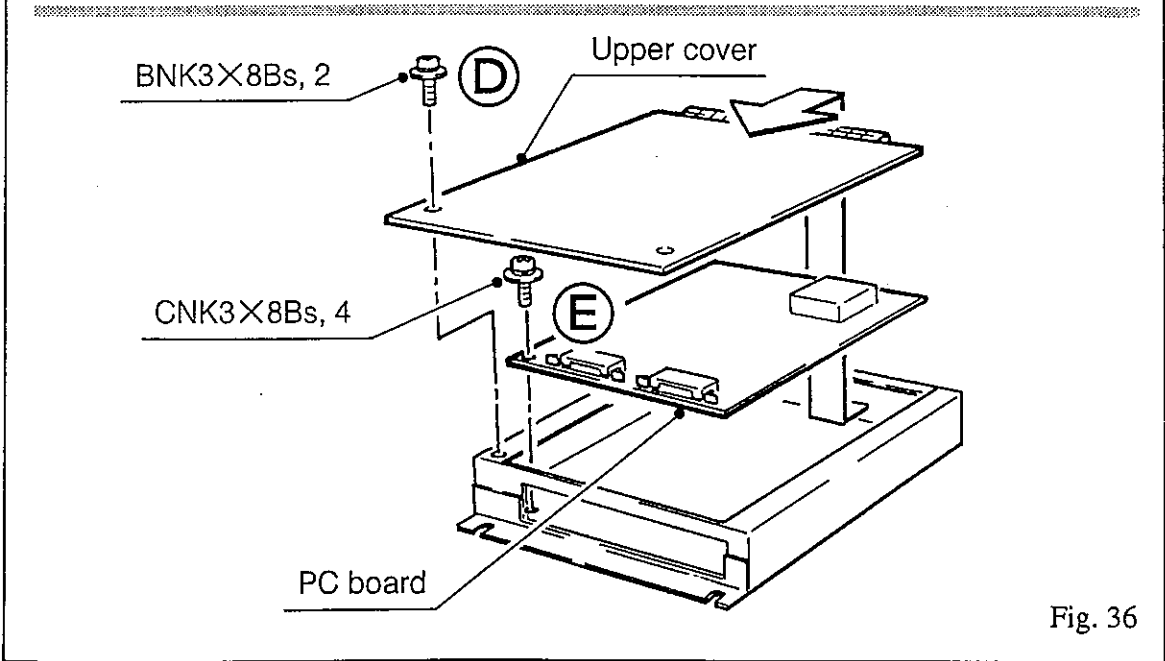
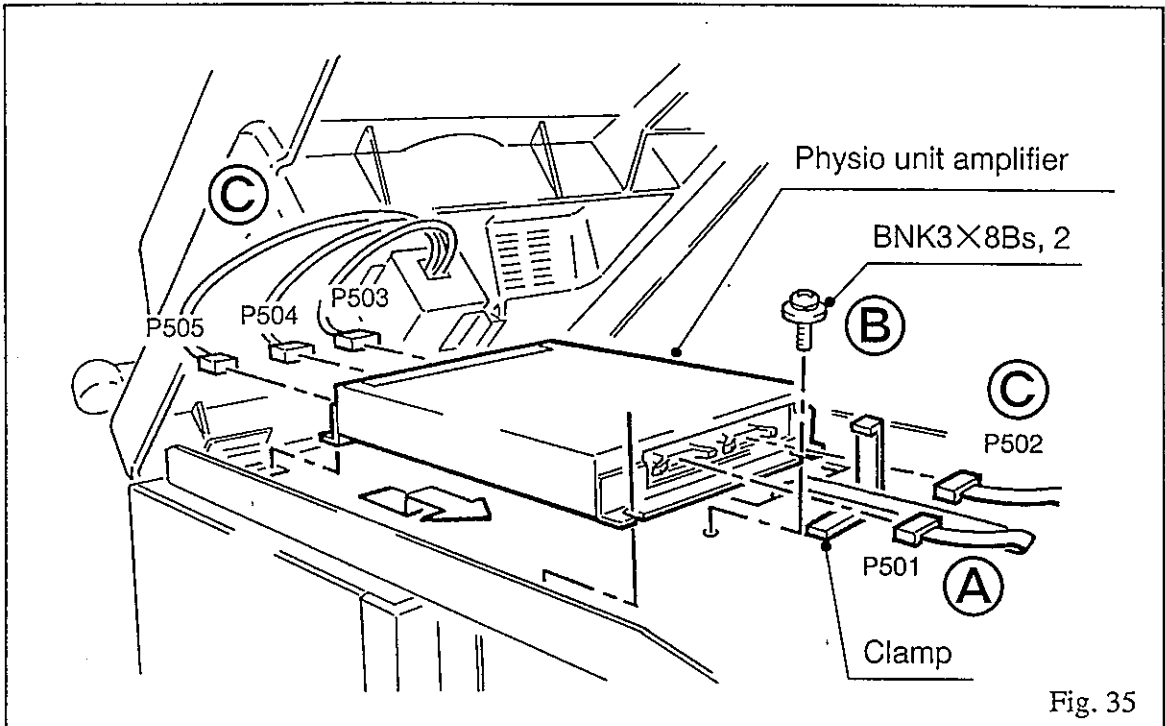


- 10-3. Physio unit amplifier . . . .
- ※ Operation (1) is not required for equipment bodies serially numbered up to 9690040.
  - ※ Operations (2) thru (4) are not required for equipment bodies serially numbered 9690041 and up.
- (1) Unfasten 2 screws and remove connector cover from reference grounding plate, and unplug 1 connector plugged in motherboard. (Ⓐ in fig. 33)
    - Connector to unplug: 【 P234 】
  - (2) Unfasten 4 screws and remove shield cover. (Ⓑ in fig. 34)
  - (3) Remove the cable from 2 clamps. (Ⓒ in fig. 34)
  - (4) Unfasten 15 screws and remove reference grounding plate, and unplug 1 connector plugged in motherboard. (Ⓓ in fig. 34)
    - Connector to unplug: 【 P234 】



- (5) Unplug 1 connector plugged in physio unit amplifier.  
Then, unclamp and remove cable. (A in fig. 35)  
• Connector to unplug: [ P501 ]
- (6) Unfasten 2 screws, and dismount the physio unit amplifier  
as shown in the figure. (B in fig. 35)
- (7) Remove all connectors connected to the physio unit amplifier.  
(C in fig. 35)  
• Connectors to unplug: [ P502 thru P505 ]

- 10-4. Physio unit . . . . . (1) Unfasten 2 screws, and detach the upper cover. (D in fig. 36)  
amplifier PC board (2) Unfasten 4 screws, and detach the PC board. (E in fig. 36)



- 10-5. Physio unit . . . . (1) Remove 3 connectors from the physio unit amplifier.  
 plug block (A in fig. 37)  
 • Connectors to unplug: [ P503 thru P505 ]  
 ( Refer to 10-3. Physio unit amplifier.)  
 (2) Loosen each 2 screws and bolts, and dismount the physio  
 unit plug block as shown in the figure. (B in fig. 37)
- 10-6. Physio unit . . . . Unfasten 4 screws, and detach the PC board. (C in fig. 38)  
 plug block PC board

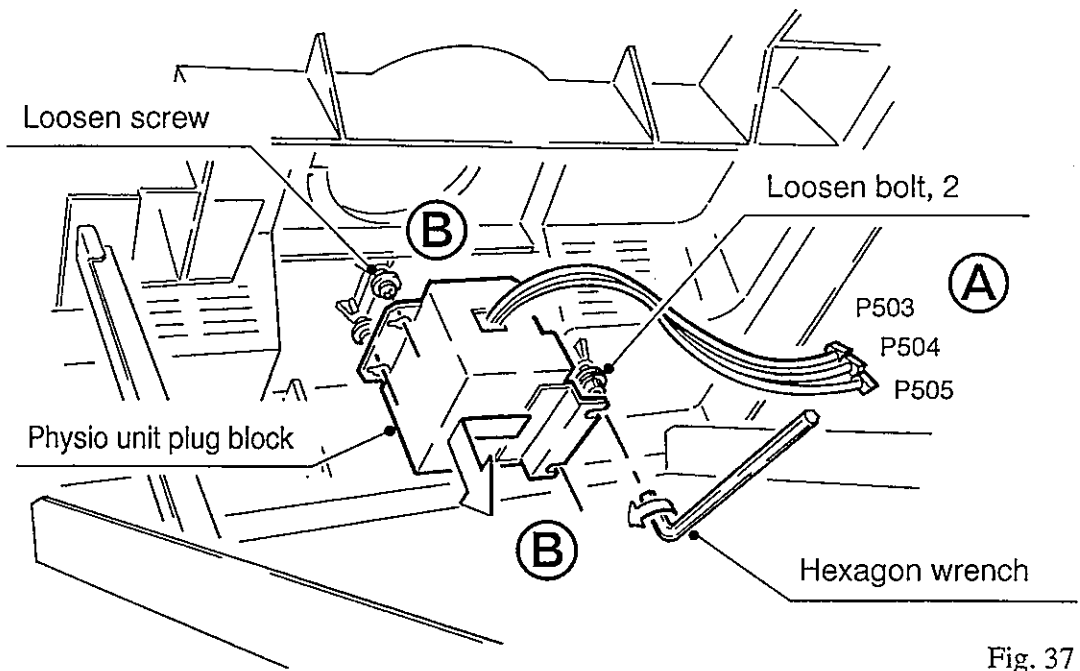


Fig. 37

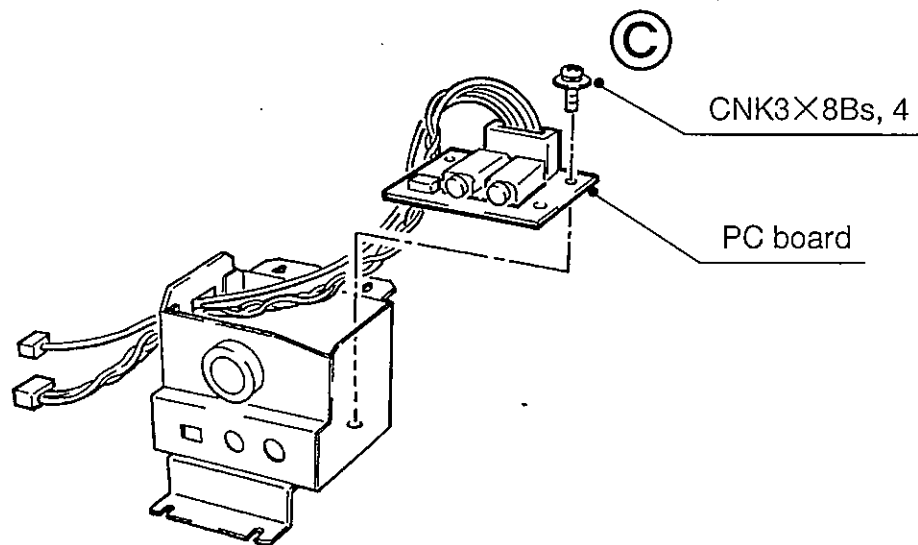
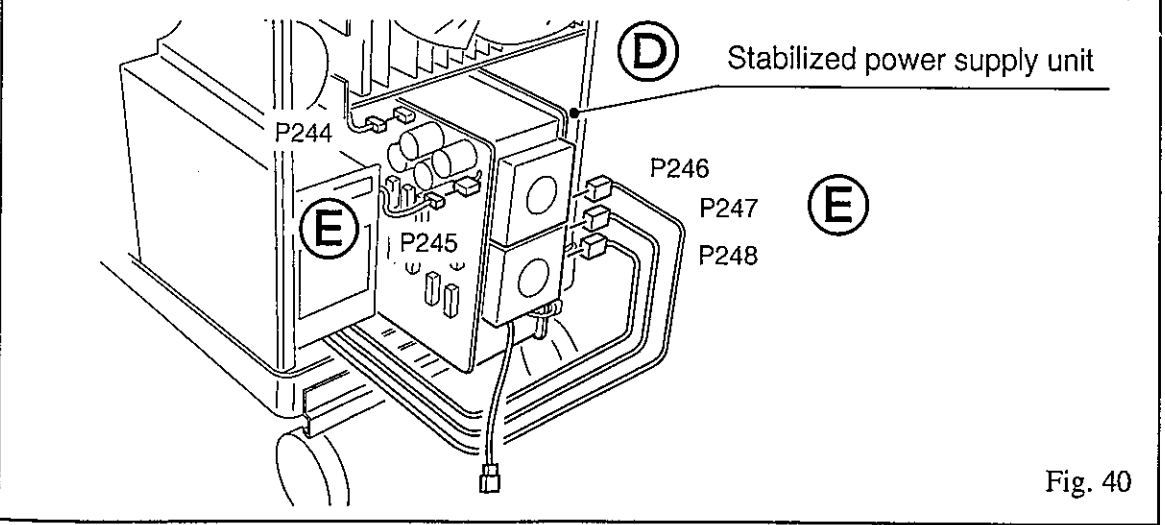
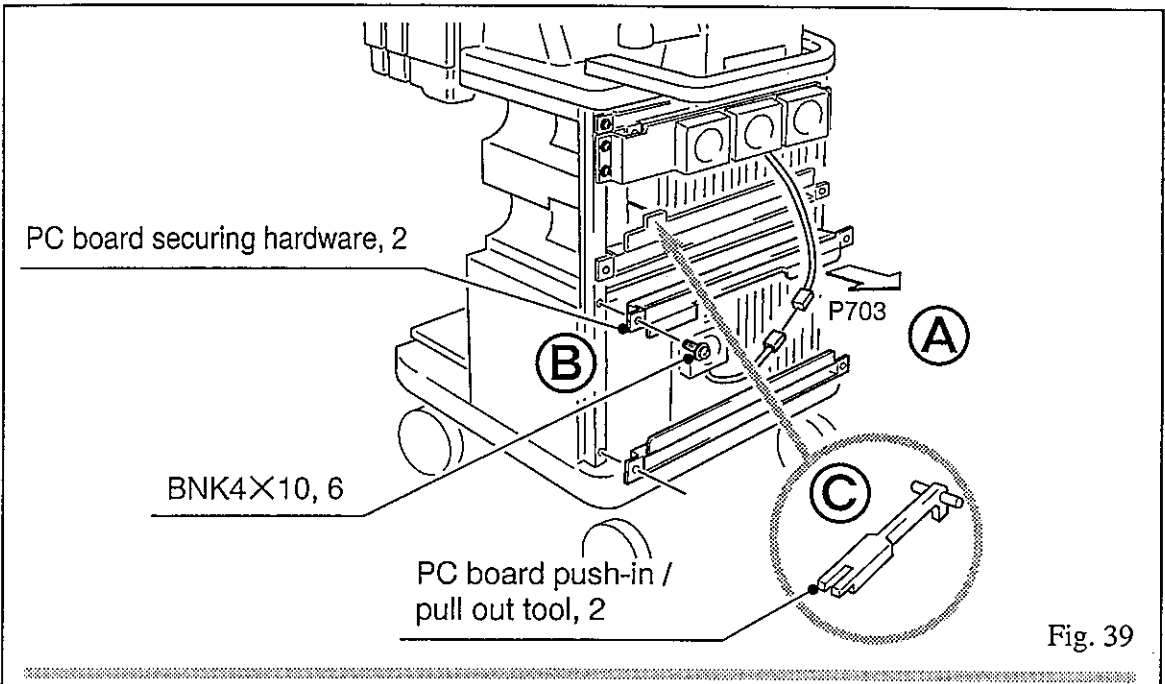


Fig. 38

**11** Dismounting the Stabilized Power Supply Unit (EU-6023) and Drawing Out the PC Board

- 11-1. Stabilized power supply unit
- (1) Unplug fan cable connector. (A in fig. 39)
    - Connector to unplug: [ P703 ]
  - (2) Unfasten 2 screws and remove PC board securing hardware (B in fig. 39)
  - (3) Remove 2 PC board push-in / pull-out tool from clamp on the back position illustrated below. (C in fig. 39)
  - (4) Use PC board pull-out / push-in tool to pull out stabilized power supply unit. (D in fig. 40) (Refer to 14. Procedure for Pulling out and Pushing in PC Board.)
  - (5) Unplug 5 connectors, and remove stabilized power supply unit. (E in fig. 40)
    - Connectors to unplug: [ P244 thru P248 ]



- 11-2. Stabilized power supply unit PC board
- (1) Unfasten 2 screws and unplug 1 connector. (Ⓐ in fig.)
    - Connector to unplug: [ P249 ]
  - (2) Unfasten 8 screws and unplug 2 relay cables. Then, remove PC board. (Ⓑ in fig.)
    - Connectors to unplug: [ P224 thru P227 ]

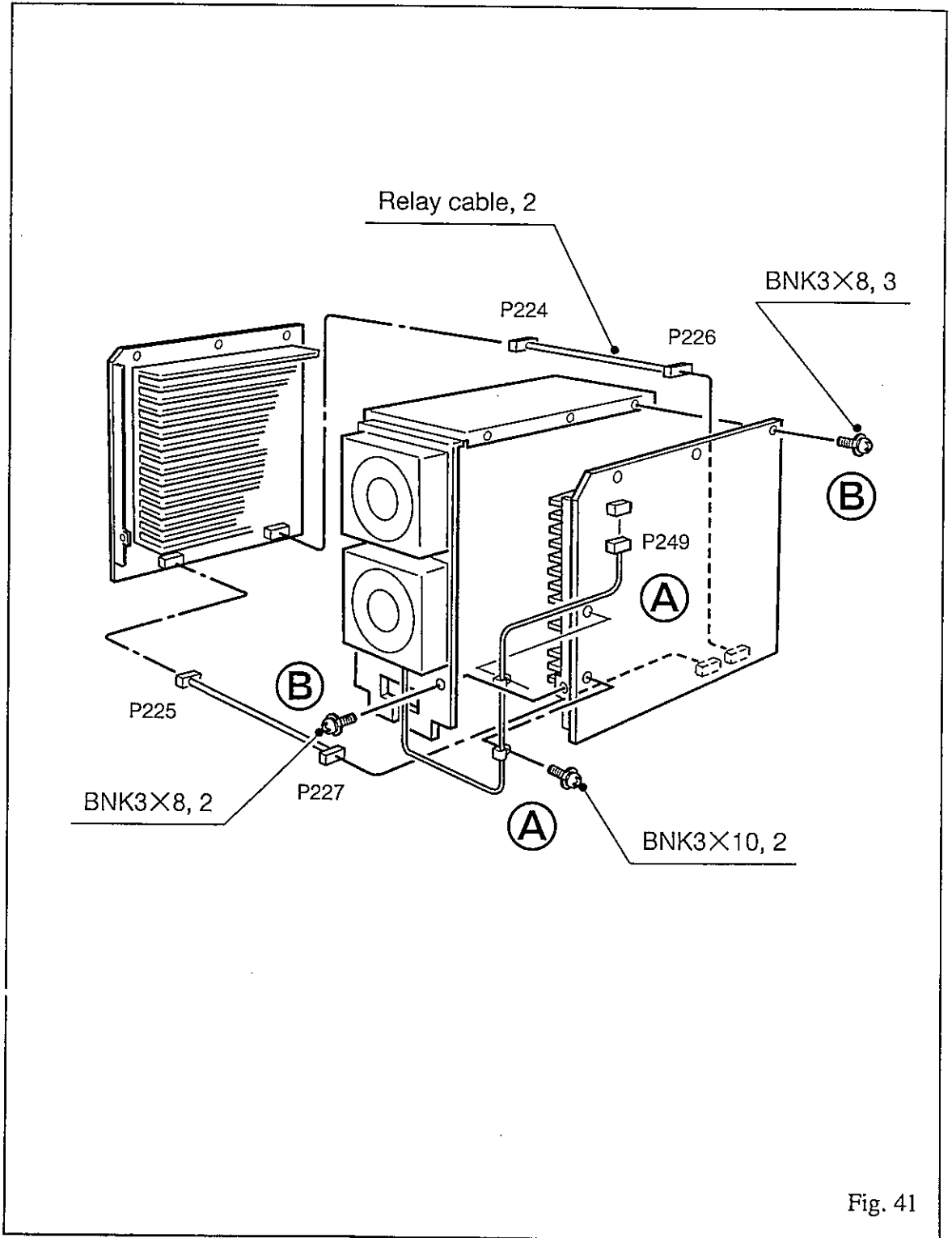


Fig. 41

12 Removing the Connector Panel

- 12-1. Connector . . . . . panel
- (1) Unplug all connectors plugged on plug receptacle plate. (A in fig.)
    - Connectors to unplug: [ P606 P609 ]
  - (2) Unfasten 6 screws and remove connector panel by pulling it straight toward you. (B in fig.)
    - ※ Connector panel, which has been connected to motherboard with plug receptacles on the back, should not fail to be pulled straight.

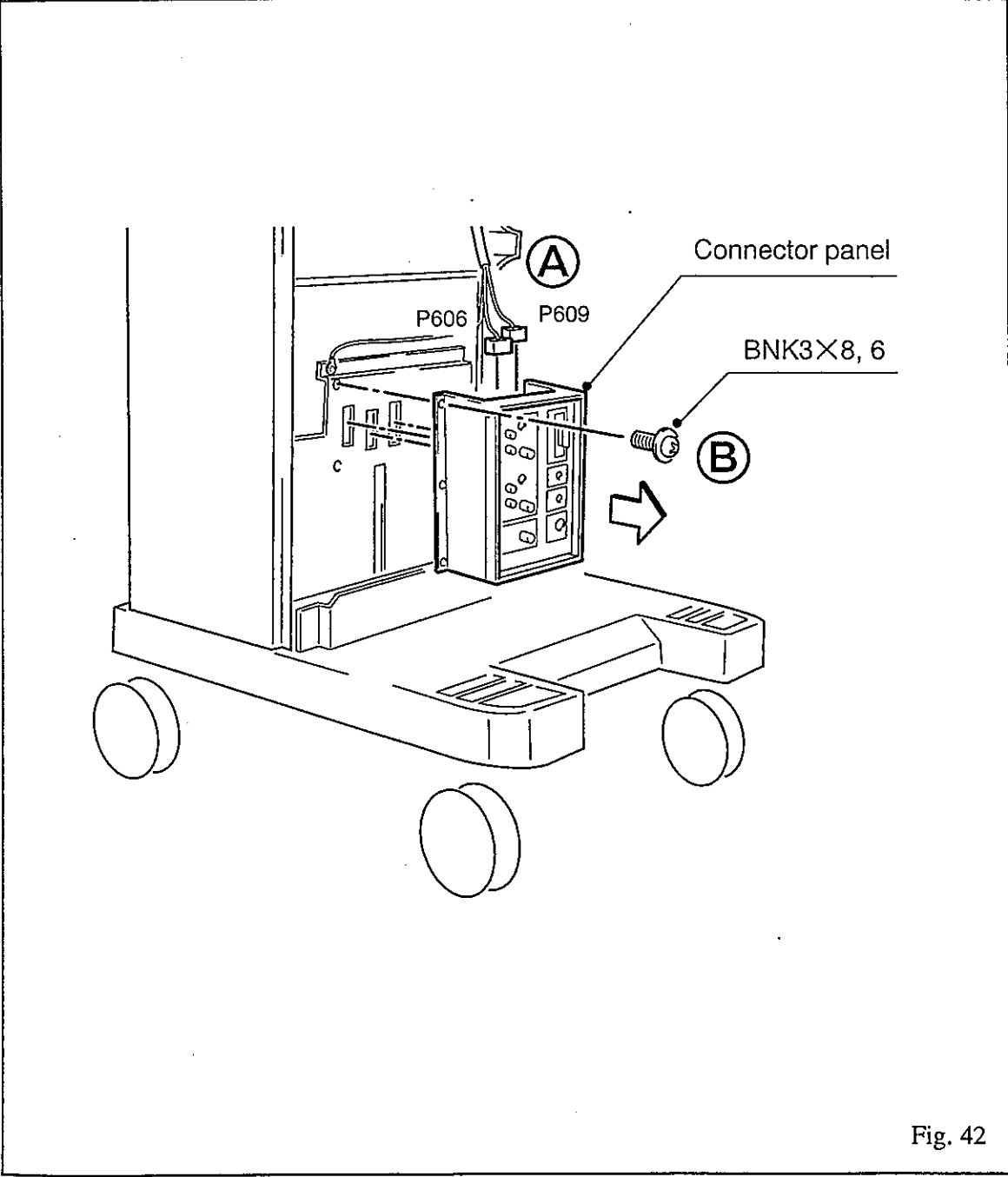
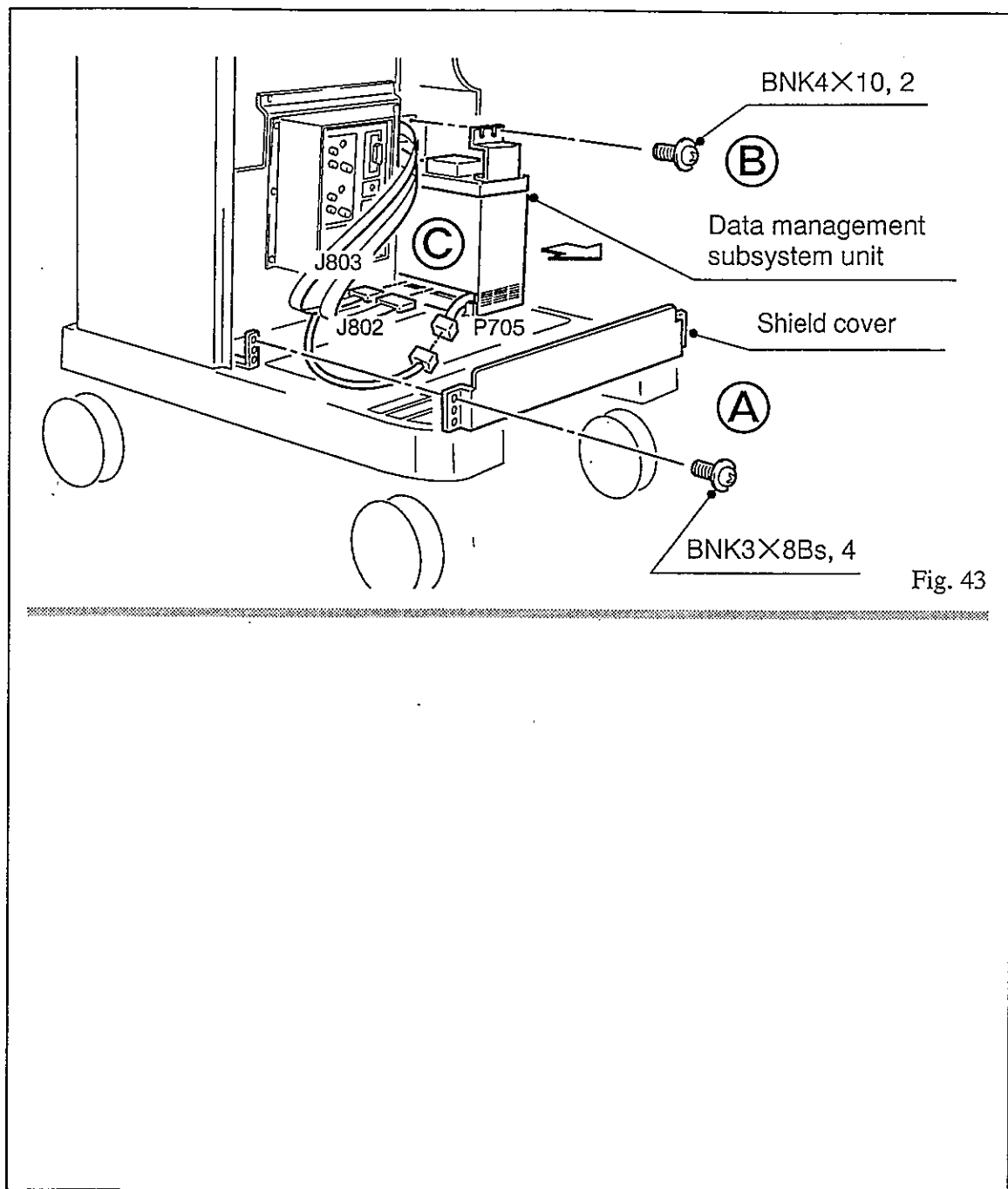


Fig. 42



13 Dismounting the Data Management Subsystem Unit (DMS-1700)

- 13-1. Data management subsystem unit
- (1) Unfasten 4 screws and remove shield cover. (A in fig. 43)
  - (2) Unfasten 2 screws and slightly pull out data management system unit. (B in fig. 43)
  - (3) Unplug both power and signal cables. Then, remove data management system unit. (C in fig. 43)



14 Procedure for Pulling out and Pushing in PC Board

- 14-1. Removing PC Board . . . . Fit protrusions on 2 PC board pull-out / push-in tools in holes. Then, put tools' claws on square holes in PC board slot. And pull out PC board as illustrated. (Fig. 45)
- 14-2. Mounting PC Board . . . . Let claws on 2 PC board pull-out / push-in tools be caught in square holes prior to PC board slot. Then, push in PC board securely as illustrated. (Fig. 46)

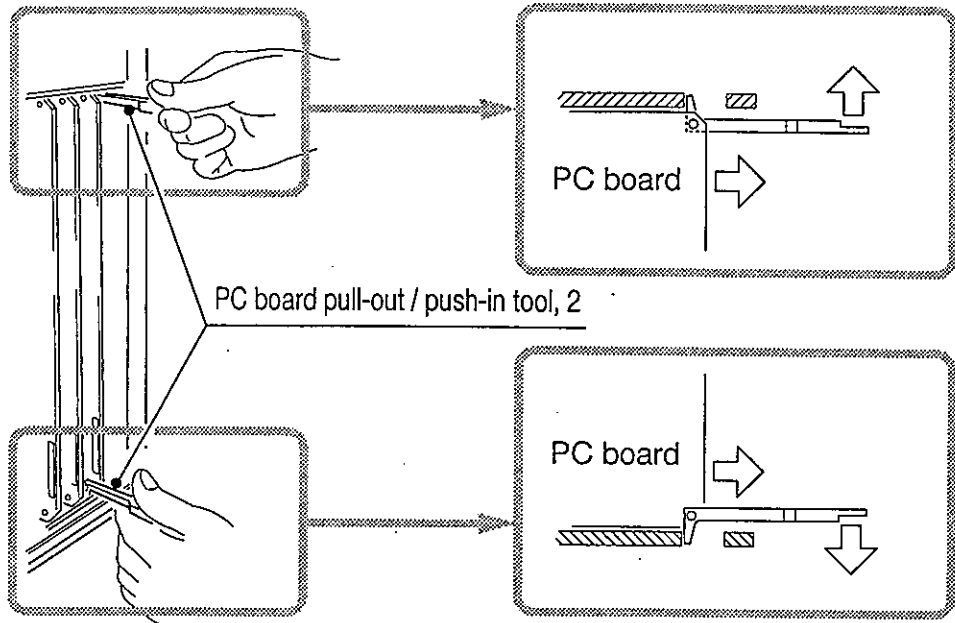


Fig. 45

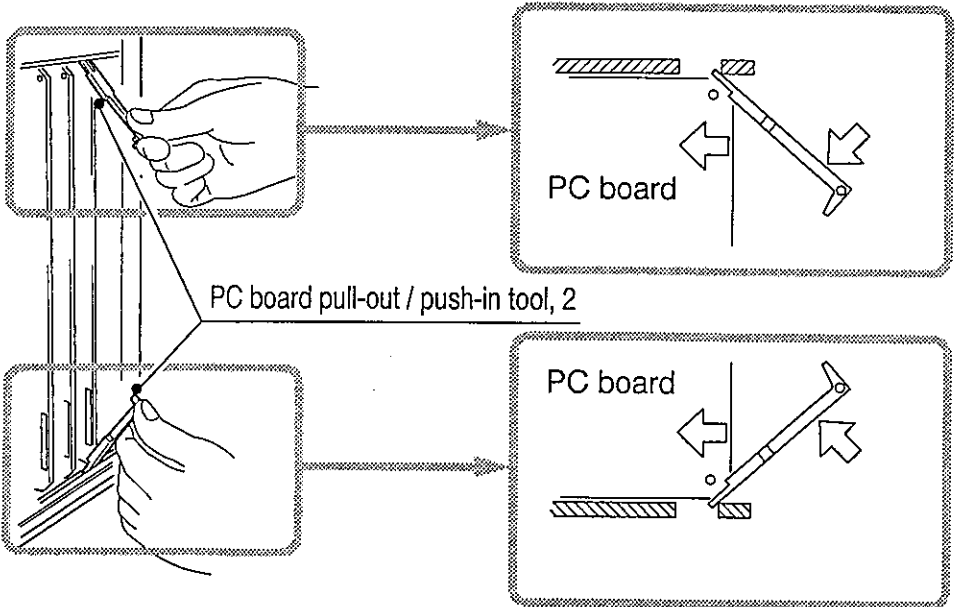


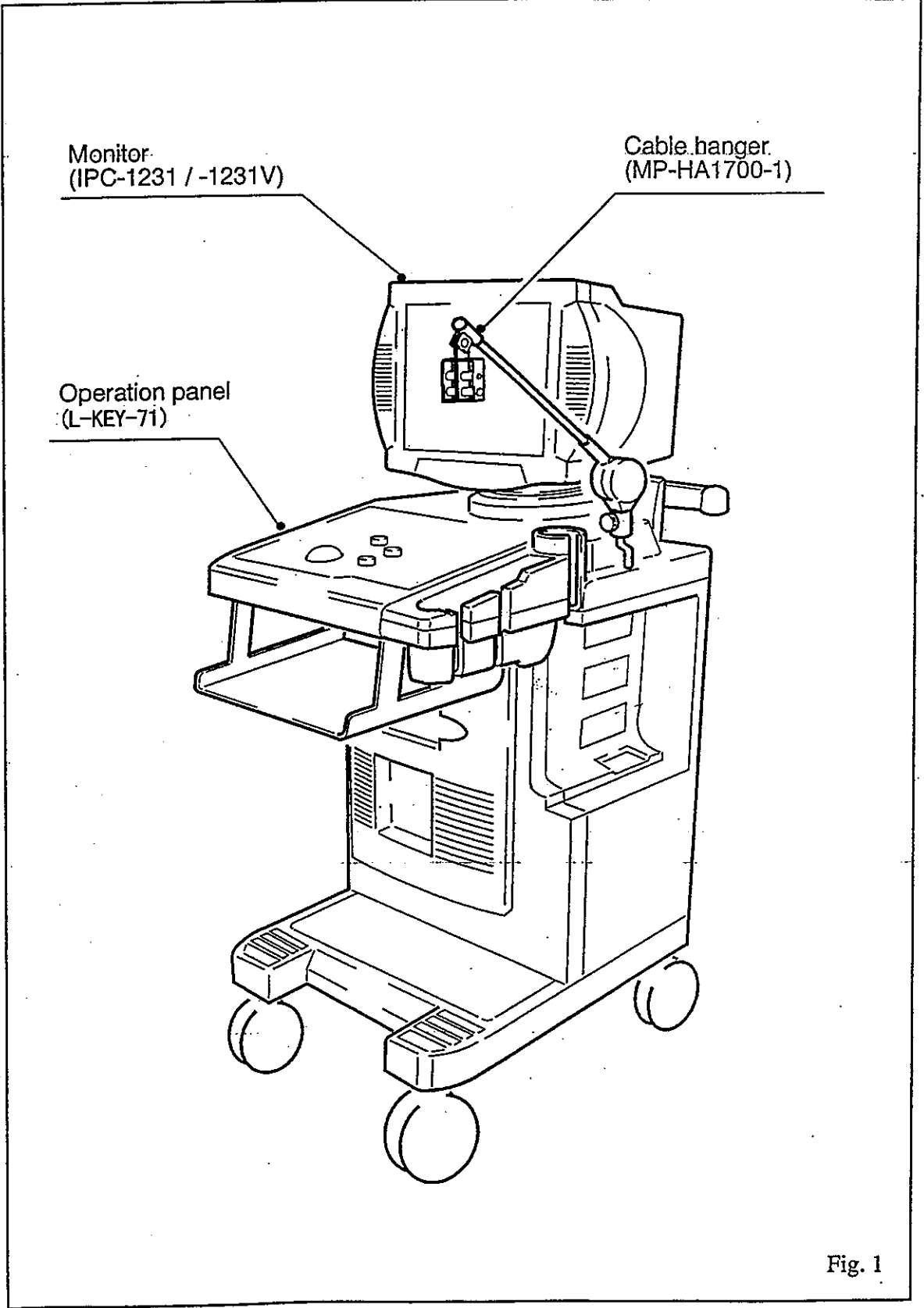
Fig. 46

SSD-1700 Disassembling Instruction

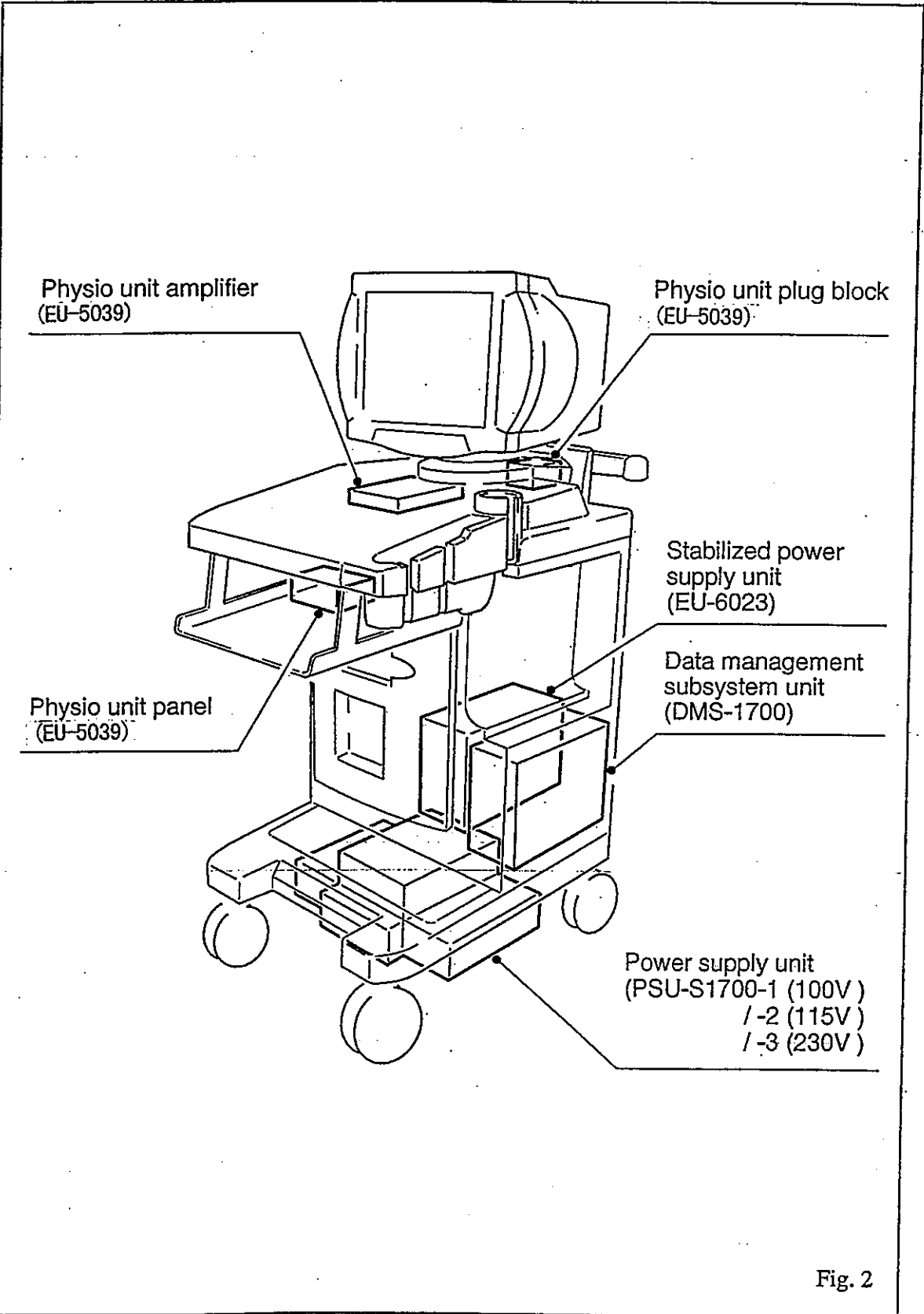
*(For Ver 6.0 and later)*

1. Parts Identification
2. Individual Units Layout
3. Dismounting Flow Chart
4. Detaching the Covers
5. Detaching the Panel Escutcheon and Operation Panel Assembly (L-KEY-71)
6. Detaching the Panel Interface and Panel PC Boards, and Track Ball
7. Drawing Out the PC Board and Probe Selector PC Board
8. Dismounting the Power Supply Unit (PSU-S1700-1 / -2 / -3)
9. Dismounting the Monitor (IPC-1231 / -1231V)
10. Detaching the Physio Unit Panel, Physio Unit Amplifier, Physio Unit Plug Block (EU-5039), and each PC Board
11. Dismounting the Stabilized Power Supply Unit (EU-6023) and Drawing Out the PC Board
12. Removing the Connector Panel
13. Dismounting the Data Management Subsystem Unit (DMS-1700) and Drawing Out the PC Board
14. Procedure for Pulling out and Pushing in PC Board

1 Parts Identification



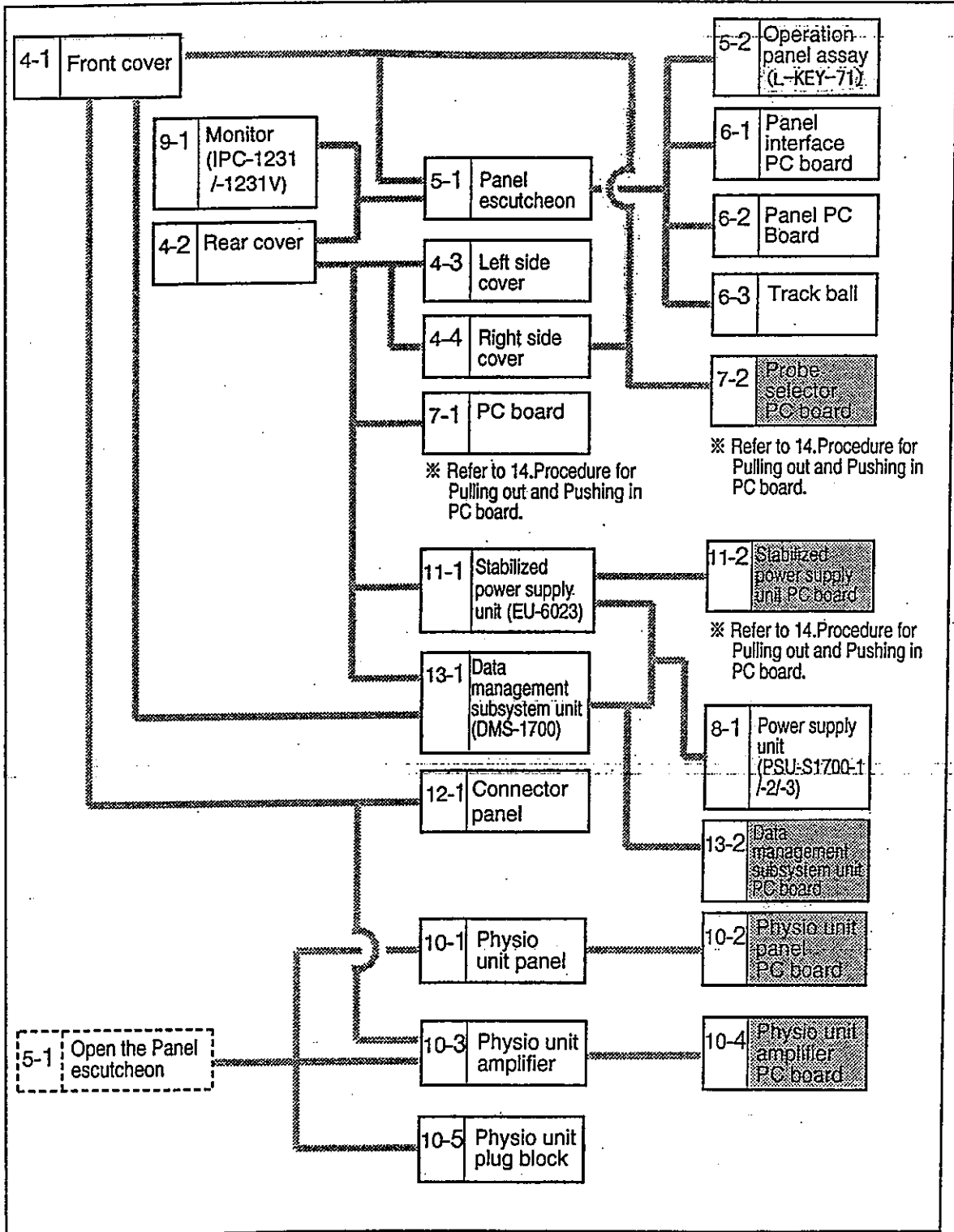
2 Individual Units Layout



3 Dismounting Flow Chart

The disassembly procedure are made based on the Dismounting Flow Chart conduct operation in accordance with the flow.

Number in this paper is corresponding to No. in the flow chart.



**4 Detaching the Covers**

4-1. Front cover . . . . ※ Operations (1) thru (3) are not required for equipment without recorder.

- (1) Unfasten 4 screws, with which recorder is secured.  
(Ⓐ in fig. 3)
- (2) Unplug all cables plugged on connector panel, and disconnect recorder power cable from power supply unit.  
(Ⓑ in fig. 4)
- (3) Remove recorder from mounting rack. (Ⓒ in fig. 4)

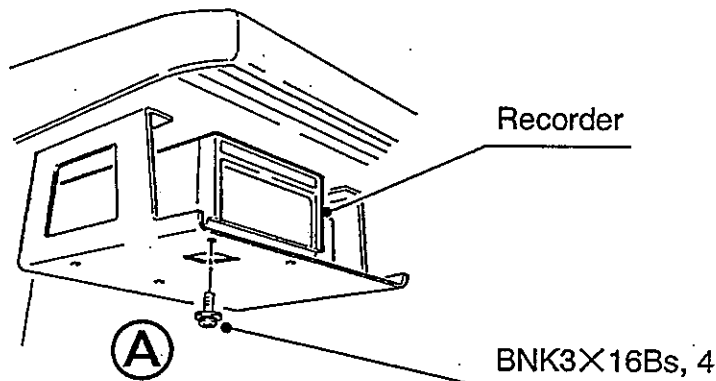


Fig. 3

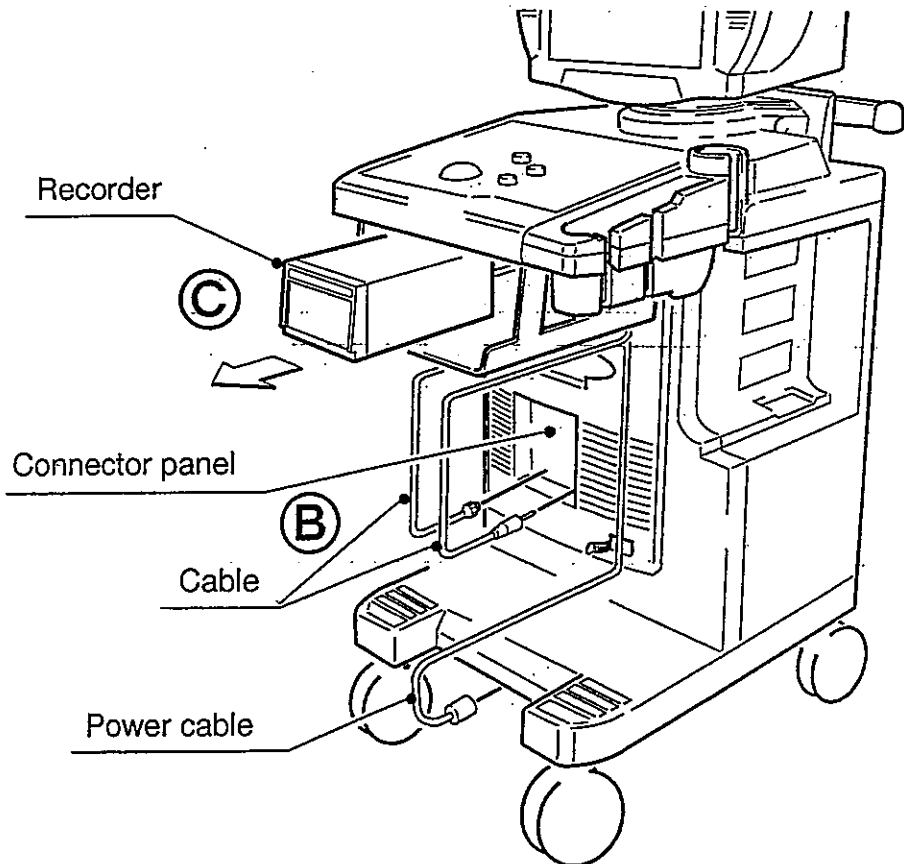
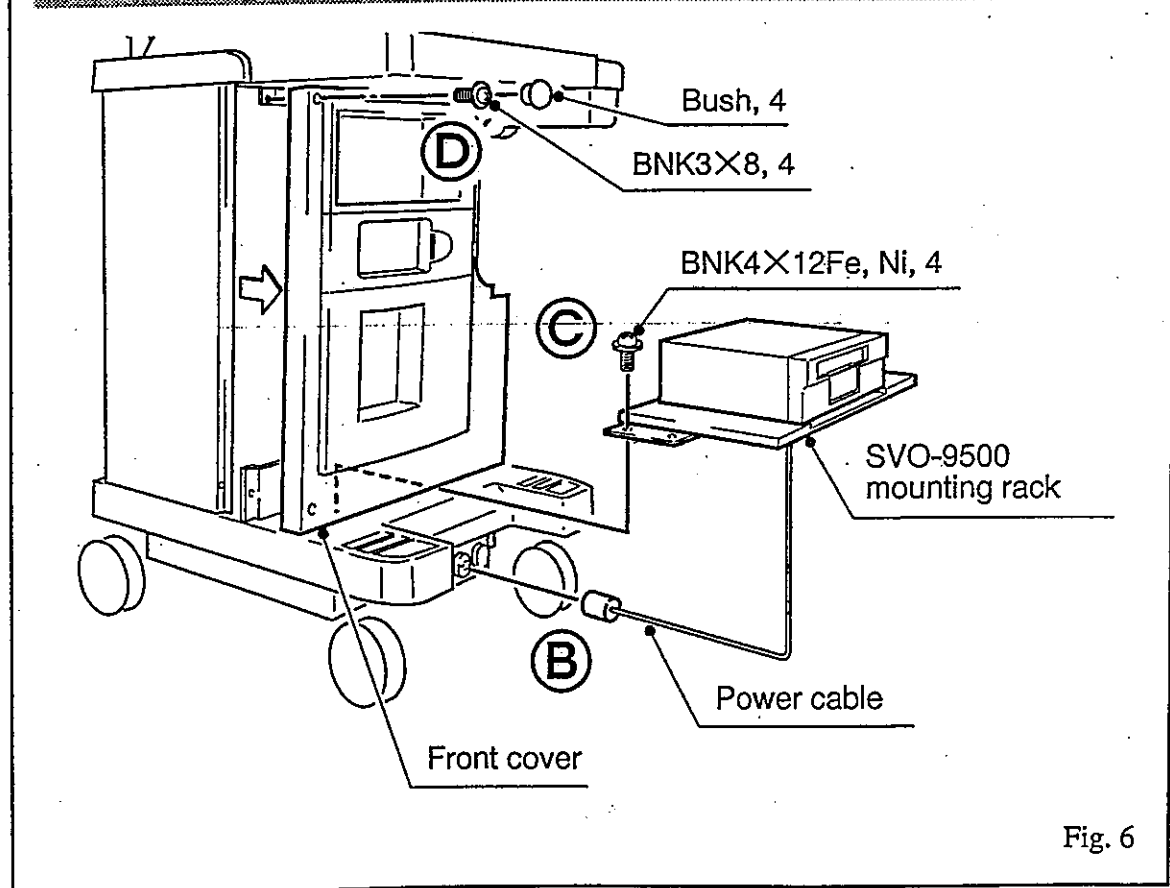
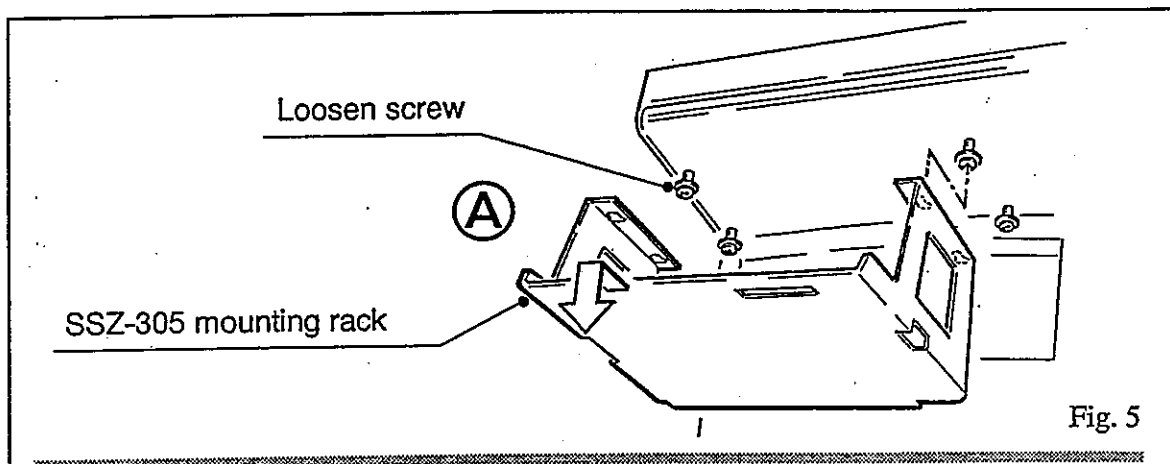


Fig. 4

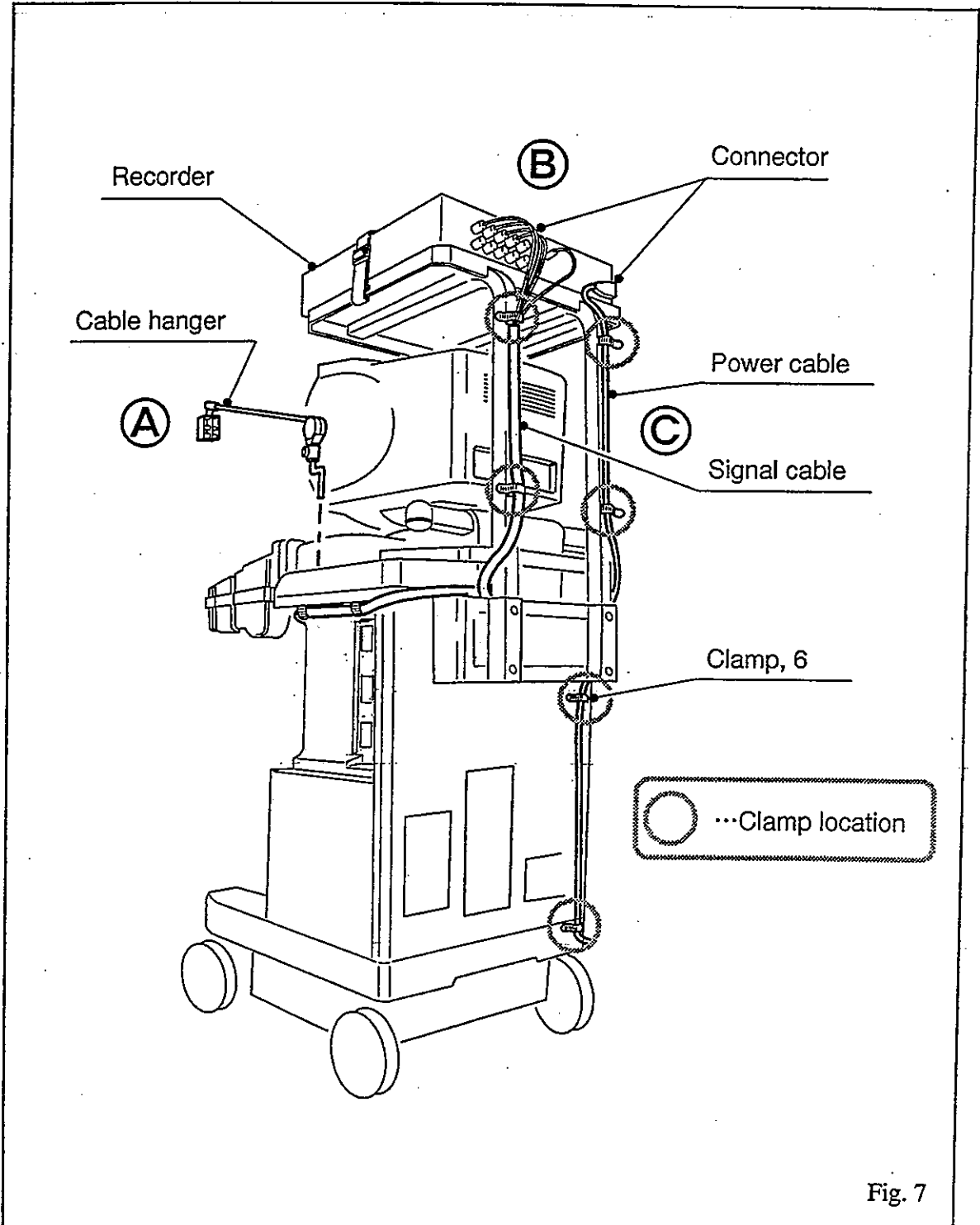
- ※ Operations (5) thru (6) are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).
- (4) Loosen 4 screws and remove SSZ-305 mounting rack. (A in fig. 5)
  - (5) Disconnect SVO-9500 power cable from power supply unit. (B in fig. 6)
  - (6) Unfasten 4 screws and remove SVO-9500 mounting rack. (C in fig. 6)
  - (7) Remove 4 bushes and unfasten 4 screws. Then, remove front cover. (D in fig. 6)



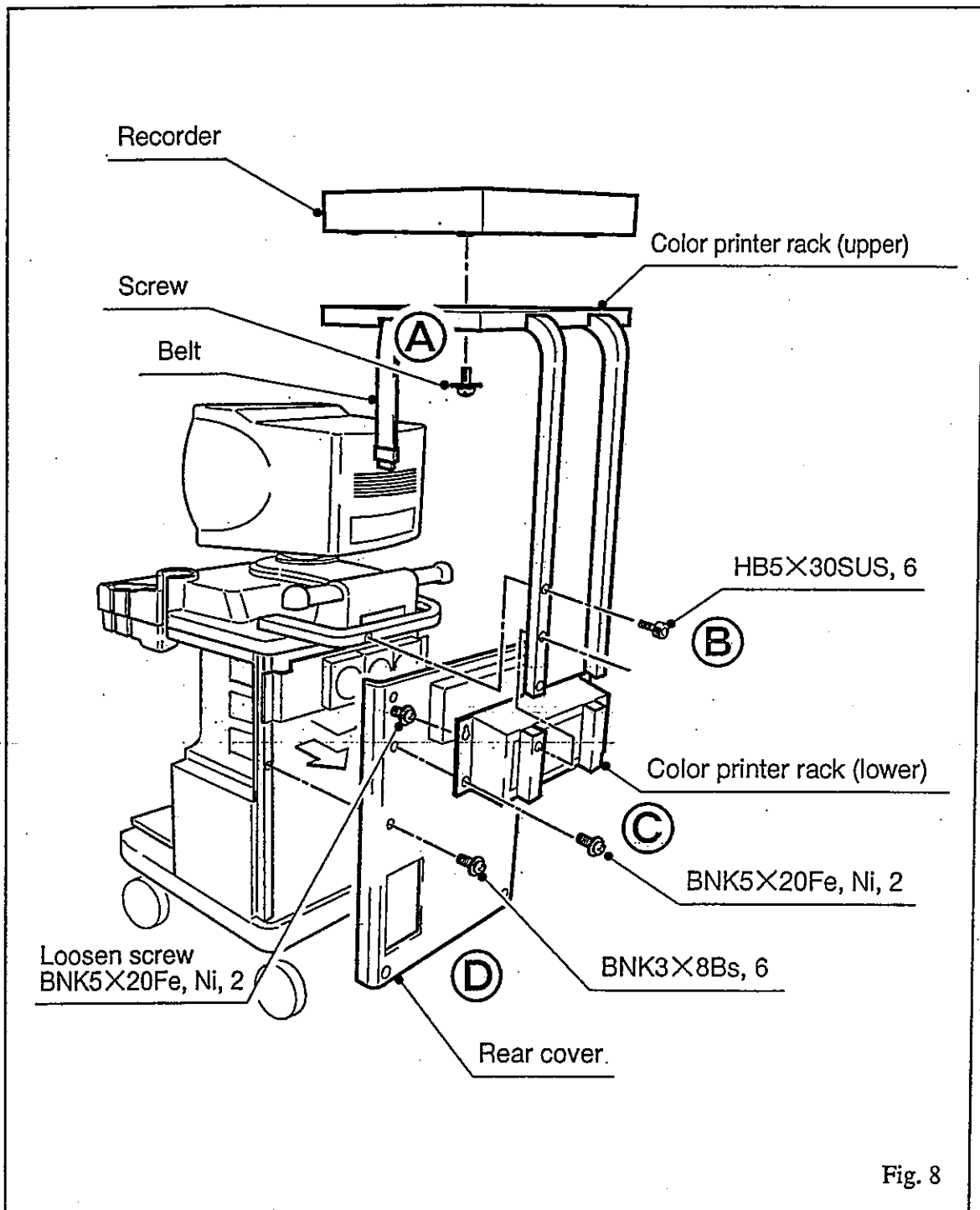


4-2. Rear cover . . . . \* Operations (2) thru (6) are not required for equipment without color printer rack (MP-FX1700-2/2B).

- (1) Remove cable hanger. (A in fig.)
- (2) Unplug all connectors out of recorder. (B in fig.)
- (3) Remove both signal and power cables from 6 clamps illustrated. (C in fig.)



- (4) Remove screws or belt, and put down recorder from mounting rack. (A in fig.)
- (5) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (B in fig.)
- (6) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (C in fig.)
- (7) Unfasten 6 screws and remove rear cover. (D in fig.)



- 4-3. Left side cover . . . Remove 8 screws and slide the cover rearwards, and remove. (A in fig.)
- 4-4. Right side cover . . . Remove 8 screws and slide the cover rearwards, and remove. (B in fig.)

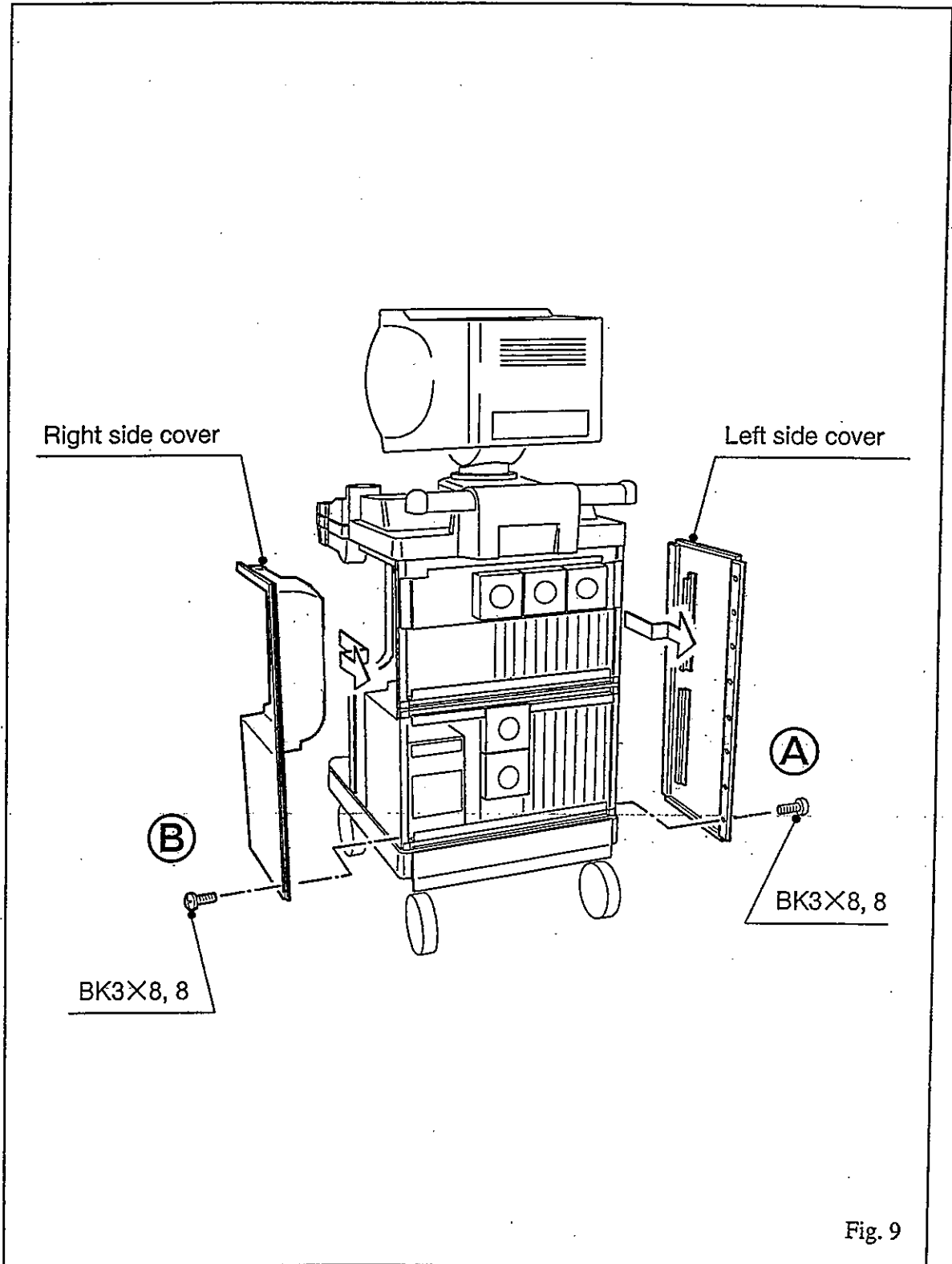
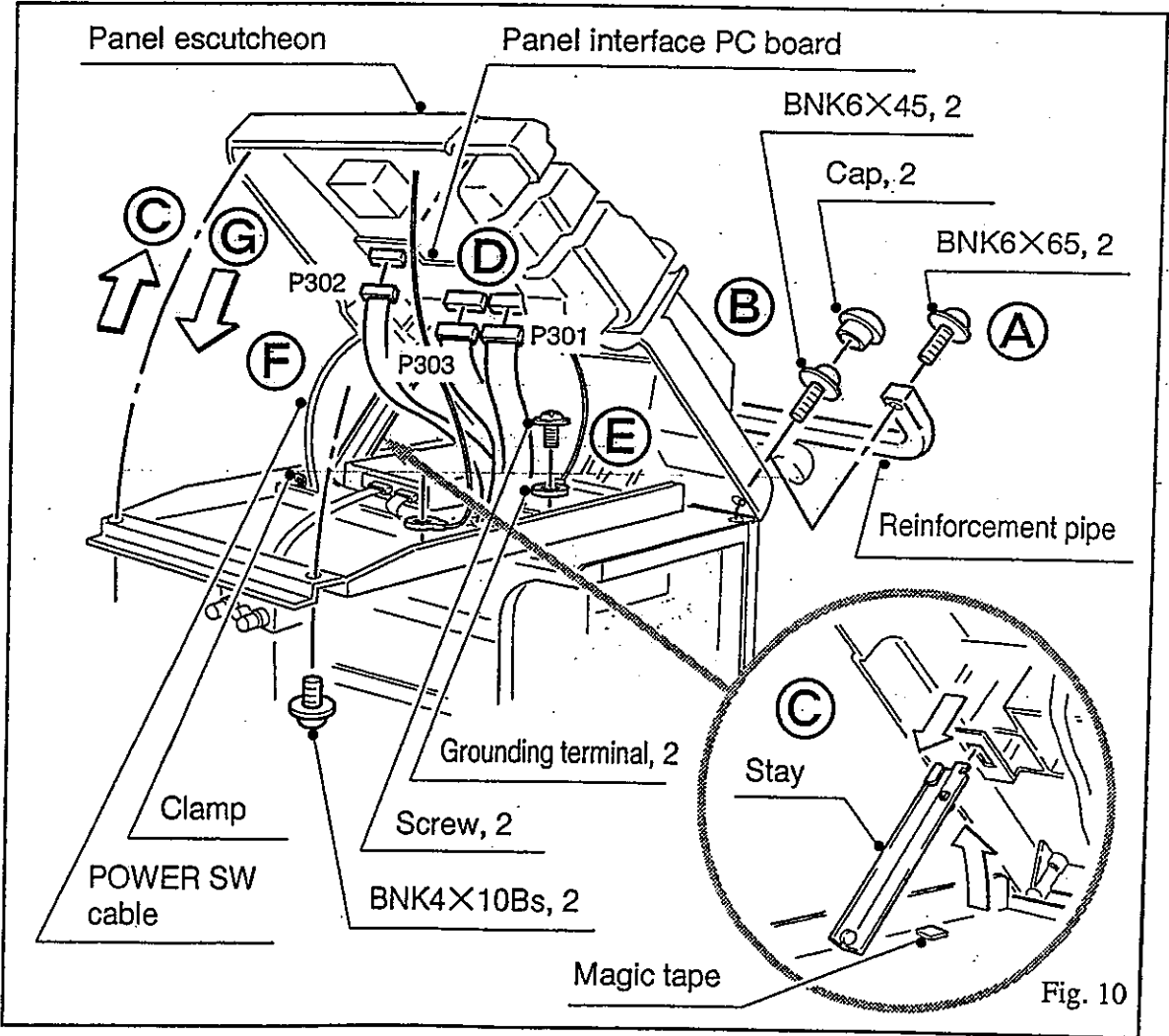


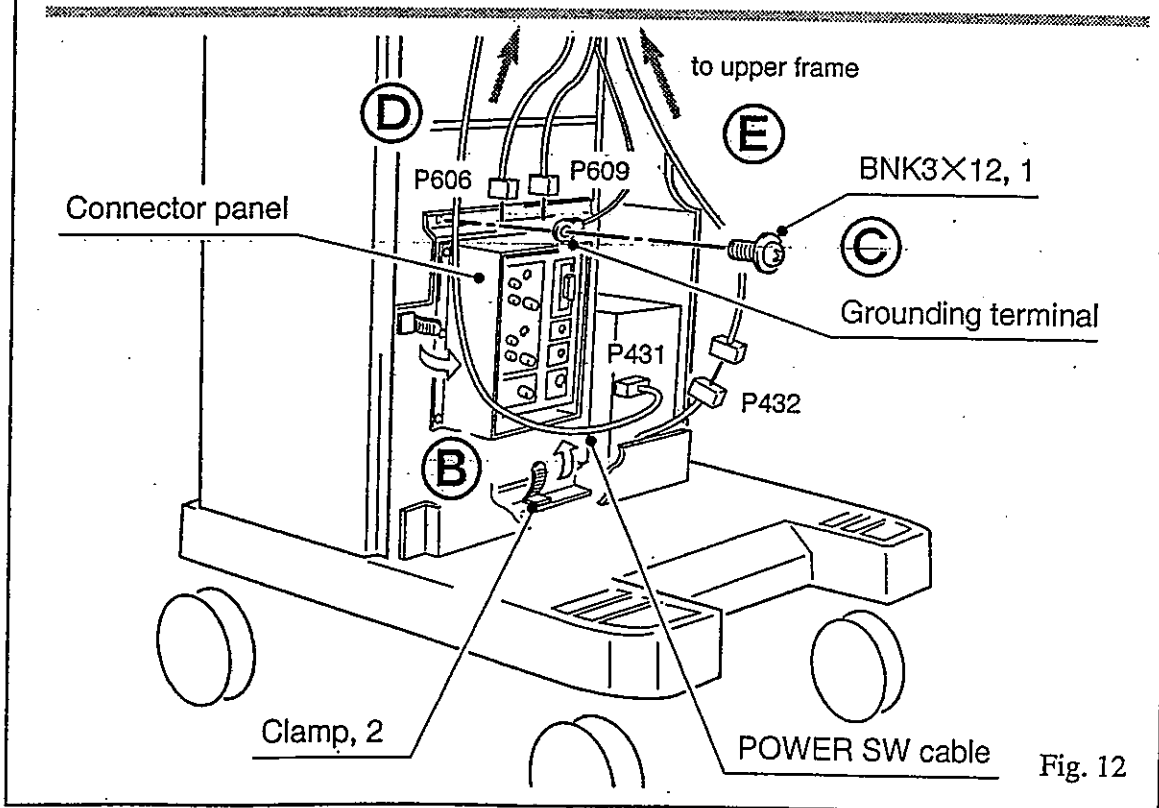
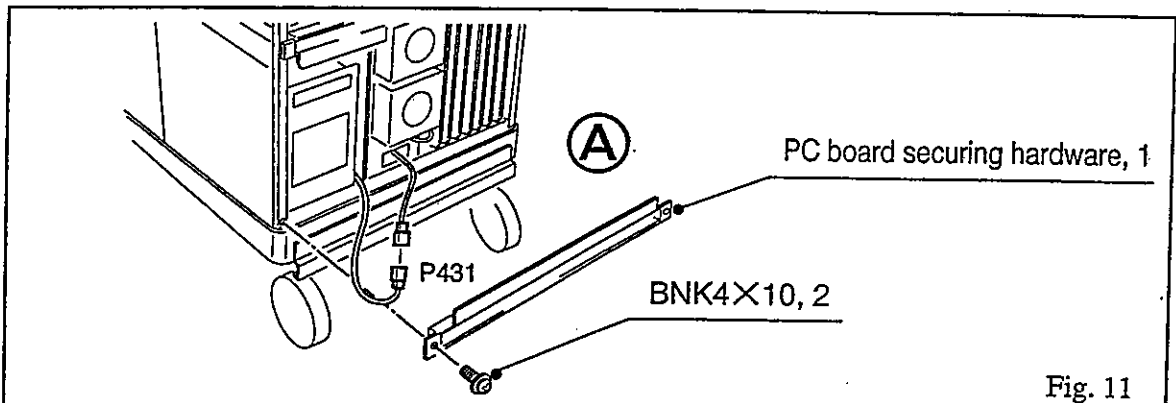
Fig. 9

**5 Detaching the Panel Escutcheon and Operation Panel Assembly (L-KEY-71)**

- 5-1. Panel escutcheon . . . ※ To install panel escutcheon, 2 workers must not fail to cooperate.
- ※ Operations (1) below is not required for equipment without color printer rack (MP-FX1700-2/2B).
- (1) Unfasten 2 screws and remove reinforcement pipe. (A in fig.)
  - (2) Remove 2 caps in the rear of panel escutcheon. And unfasten 2 screws. (B in fig.)
  - (3) Unfasten 2 front screws and open panel escutcheon. Then, remove stay from magic tape and secure stay upright. (C in fig.)
  - (4) Unplug all connectors plugged in interface PC board. (D in fig.)
    - Connectors to unplug: [ P301 thru P303 ]
  - (5) Remove 2 grounding terminals, with one each screw unfastened. (E in fig.)
  - (6) Remove POWER switch cable from clamp. (F in fig.)



- (7) Unfasten 2 screws and remove PC board securing hardware. Then, disconnect POWER switch cable from power supply unit. (A in fig. 11)
  - Connector to unplug: [ P431 ]
- (8) Remove POWER switch cable from 2 clamps. (B in fig. 12)
- (9) Unfasten 1 screw and remove monitor cable grounding terminal from reference grounding plate. (C in fig. 12)
- (10) Unplug 3 monitor cable connectors on connector panel and from power cables. (D in fig. 12)
  - Connectors to unplug: [ P432, P606 and P609 ]
- (11) Pull up all cables coming from panel escutcheon and put them onto upper frame. (E in fig. 12)
- (12) Remove stay and close panel escutcheon. (See C in fig. 10)



- (13) To remove fan, unplug 1 connector and loosen 4 screws.  
(A in fig. 13)
  - Connector to unplug: [ P703 ]
- (14) Unfasten 2 screws and remove PC board securing hardware. (B in fig. 13)
- (15) Unfasten 4 screws and remove 4 washers, both on hinge in the rear of panel escutcheon. (C in fig. 14)
- (16) Slide panel escutcheon rearward while keeping it slightly raised in front. And remove. (D in fig. 14)

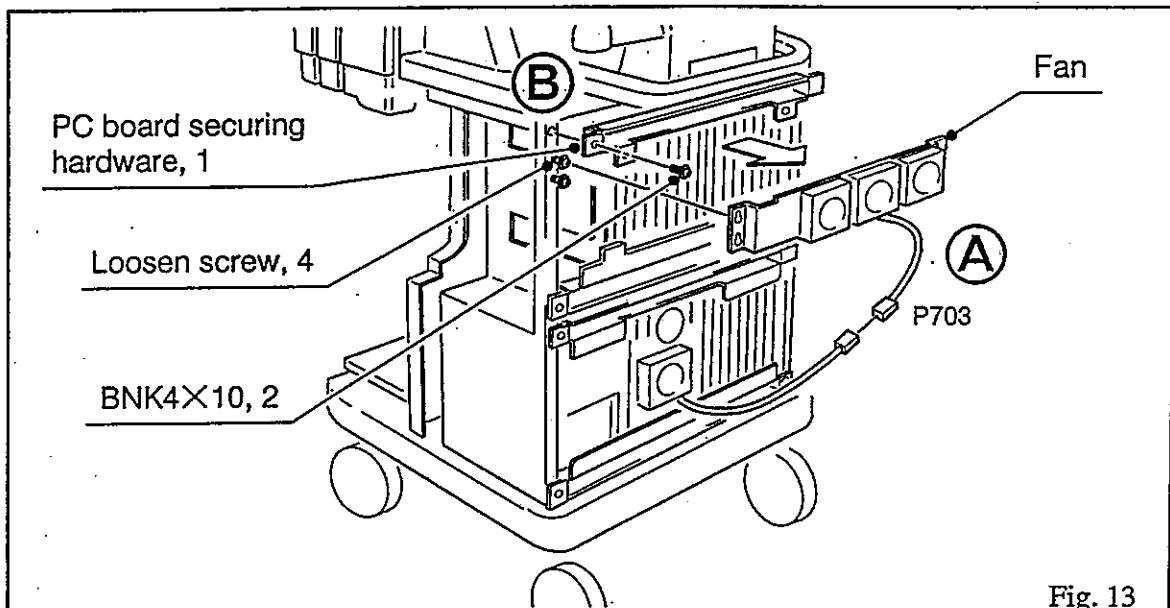


Fig. 13

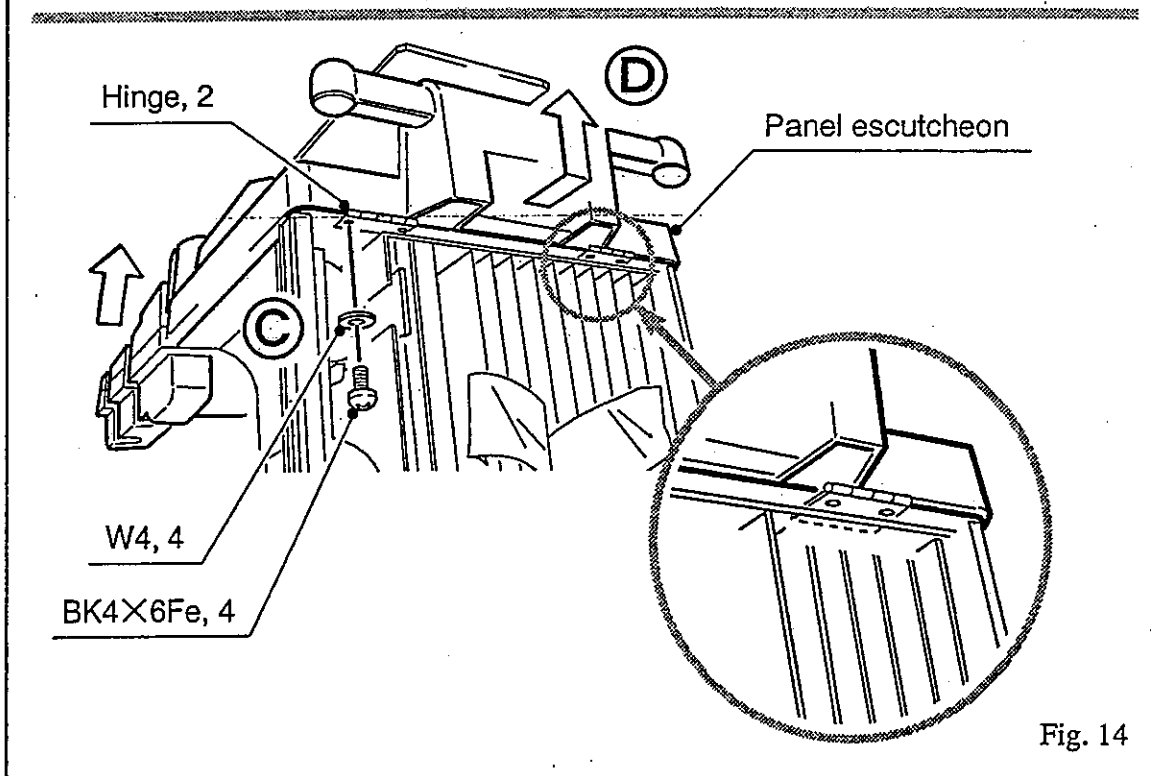


Fig. 14

5-2. Operation panel . . . Remove each 10 nuts, spring washers, and washers, and assembly . . . detach the operation panel assembly. (Fig. 15)

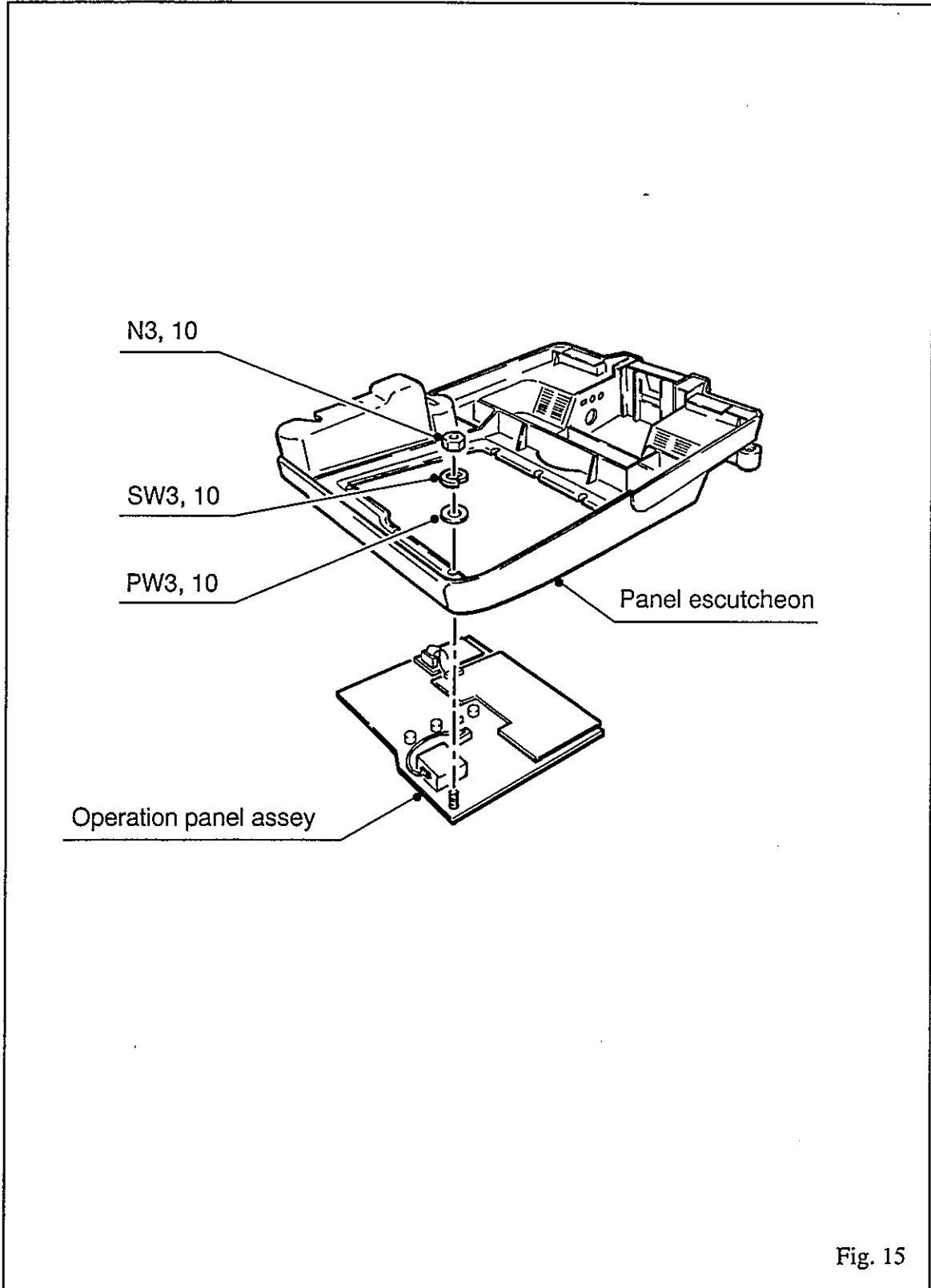


Fig. 15

**6 Detaching the Panel Interface, Panel PC Boards, and Track Ball**

- 6-1. Panel Interface . . . . . Unplug connectors on STC PC board and Unfasten 8 screws. And remove Panel interface PC board. (A in fig.)
- 6-2. Panel PC board . . . . .
- STC PC Board
    - (1) Remove 8 STC knobs. (B in fig.)
    - (2) Remove 1 connector, and each 4 nuts, and spring washers, and then detach the STC PC board. (C in fig.)
    - (3) Remove 4 spacers. (D in fig.)
  - Switch PC Board
    - (1) Loosen 2 screws each to remove 4 knobs.(E in fig.)
    - (2) To remove switch PC board, unplug track ball connector, unfasten 14 screws and remove 8 spring washers and 8 posts. (F in fig.)
- 6-3. Track ball . . . . . Unplug 1 connector and unfasten 3 screws to remove track ball. (G in fig.)

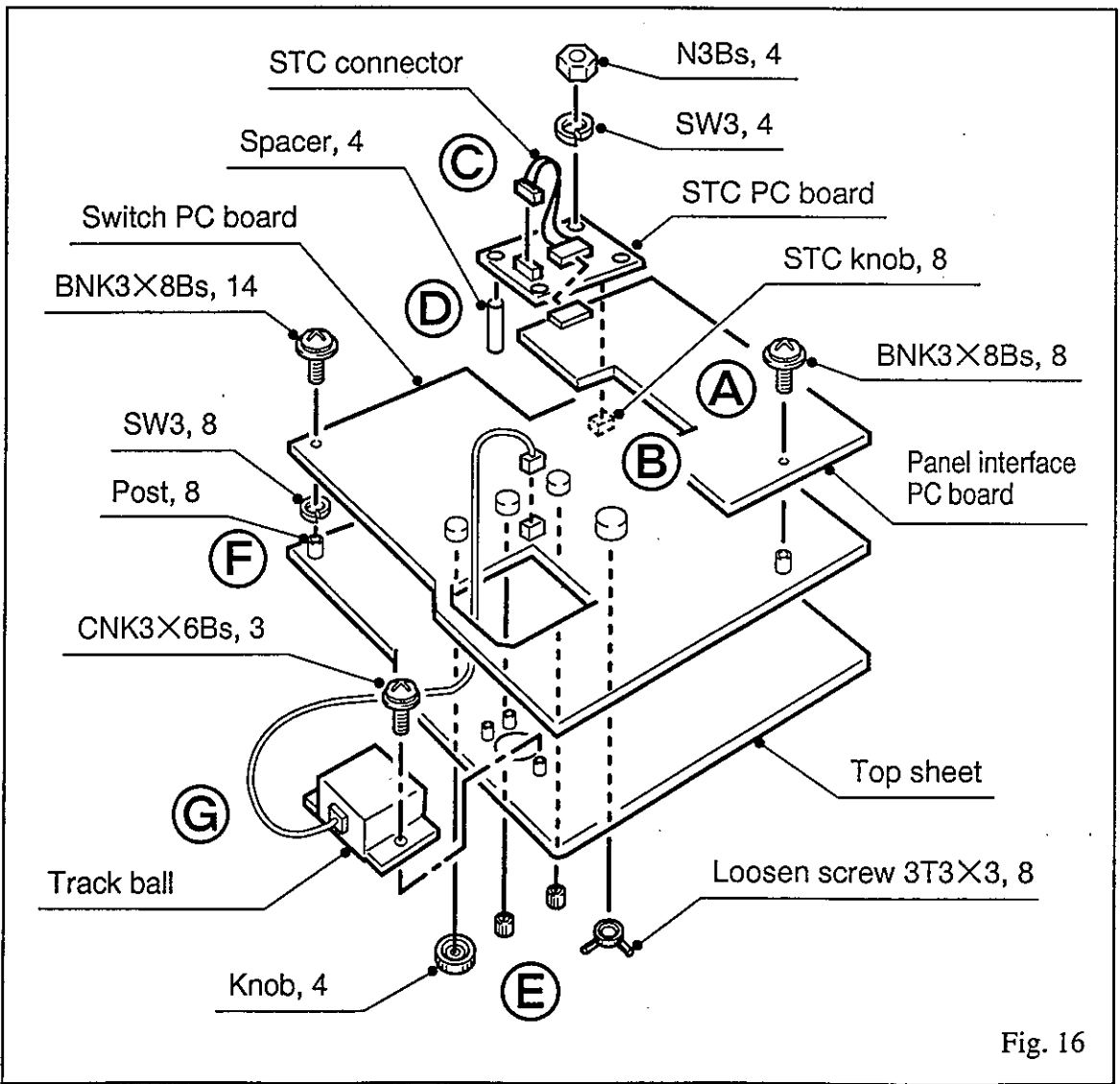
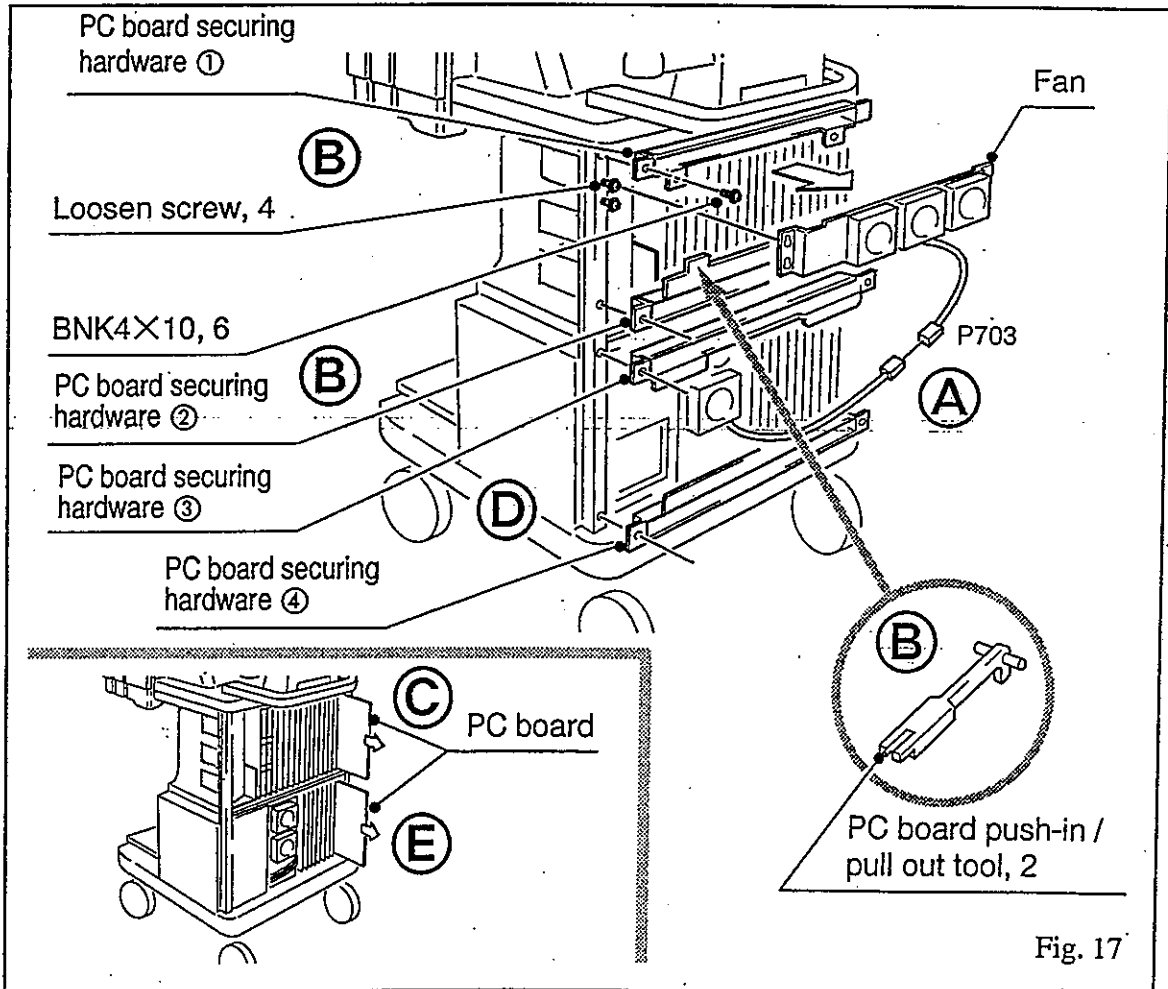


Fig. 16

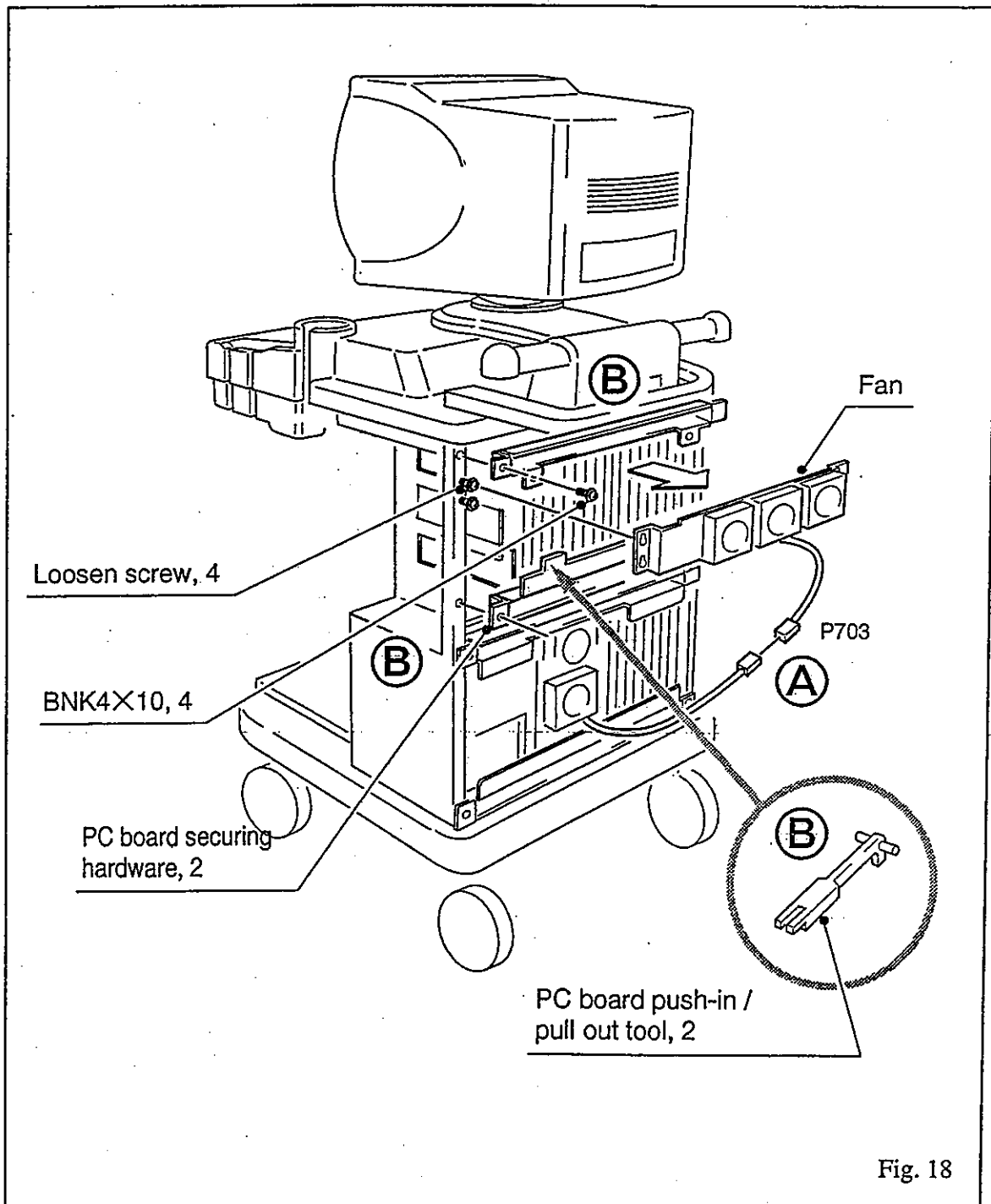


7 Drawing Out the PC Board and Probe Selector PC Board

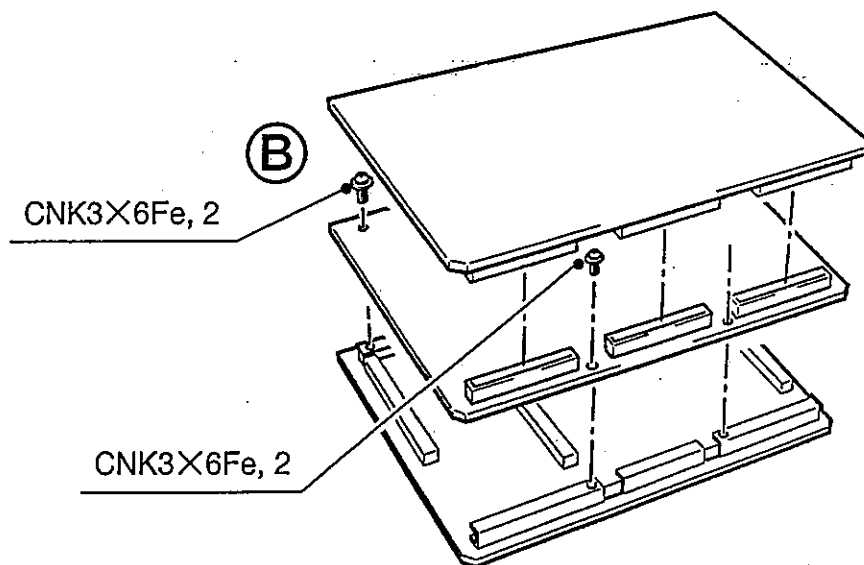
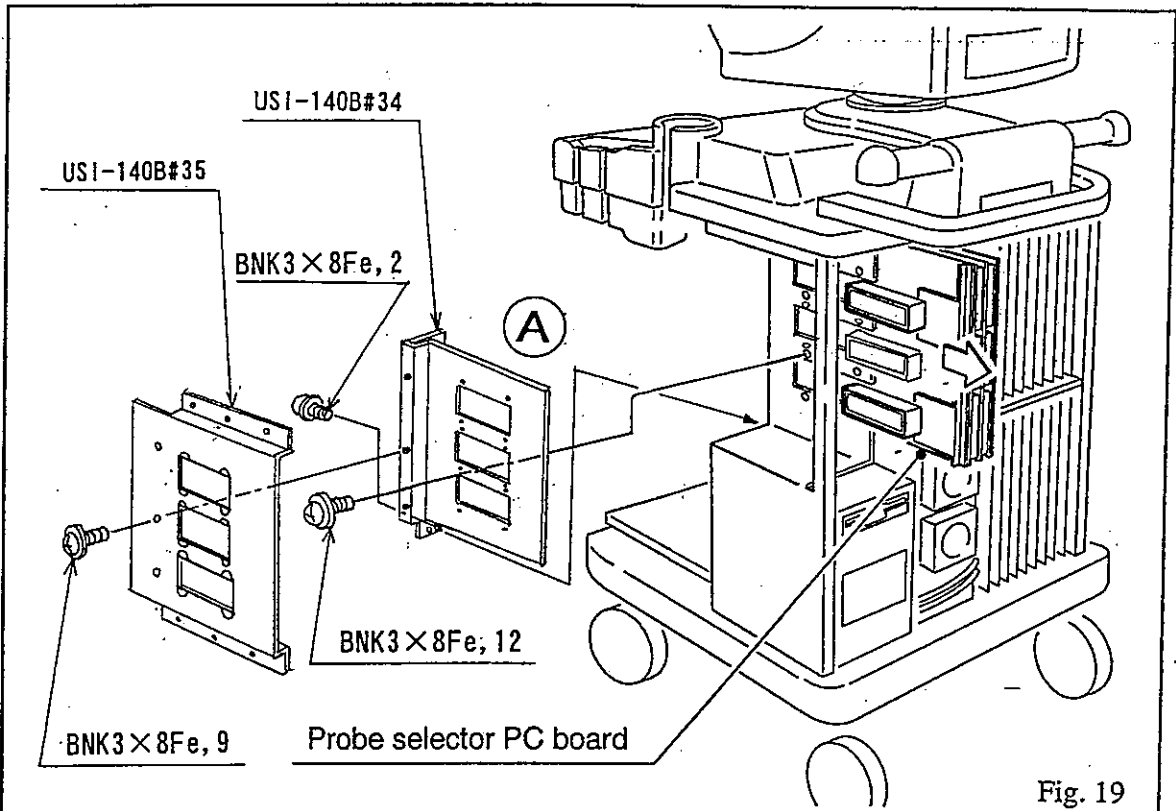
- 7-1. PC board . . . . .
- Removing PC Board in Upper Stage:
    - (1) To remove fan, unplug 1 connector and loosen 4 screws. (A in fig.) ● Connector to unplug: [ P703 ]
    - (2) Unfasten 2 screws each and remove PC board securing hardware ① and ②. Then, remove 2 PC board push-in / pull-out tool from clamp on the back position illustrated below. (B in fig.)
    - (3) Use PC board pull-out / push-in tool to pull out PC board. (C in fig.)  
(Refer to 14. Procedure for Pulling out and Pushing in PC Board.)
  - Removing PC Board in Lower Stage:
    - (1) Unfasten 2 screws each and remove PC board securing hardware ③ and ④. Then, remove 2 PC board push-in / pull-out tool from clamp on the back position illustrated below. (D in fig.)
    - (2) Use PC board pull-out / push-in tool to pull out PC board. (E in fig.)  
(Refer to 14. Procedure for Pulling out and Pushing in PC Board.)



- 7-2. Probe selector . . . (1) To remove fan, unplug 1 connector and loosen 4 screws.  
PC board (A in fig.)  
• Connector to unplug: [ P703 ]
- (2) Unfasten 2 screws and remove 2 PC board securing hardwares. Then, remove 2 PC board push-in / pull -out tool from clamp on the back position illustrated below. (B in fig.)



- (3) Unfasten 23 screws and use PC board pull-out / push-in tool to pull out probe selector PC board. (A in fig. 19)  
(Refer to 14. Procedure for Pulling out and Pushing in PC Board.)
- (4) Pull and separate 1 probe selector PC board, as it is. Then, unfasten 4 screws and remove the other probe selector PC board. (A in fig. 20)



8

Dismounting the Power Supply Unit (PSU-S1700-1 / -2 / -3)

- 8-1. Power supply unit . . .
- (1) Unplug 2 connectors plugged in connector panel.  
(A in fig.)
    - Connectors to unplug: [ P606 P609 ]
  - (2) Remove cable from 2 clamps. (B in fig.)
  - (3) Disconnect power cable connected to motherboard.  
(C in fig.)
    - Connector to unplug: [ P141 ]
  - (4) Unfasten 15 screws and remove reference grounding plate.  
(D in fig.)

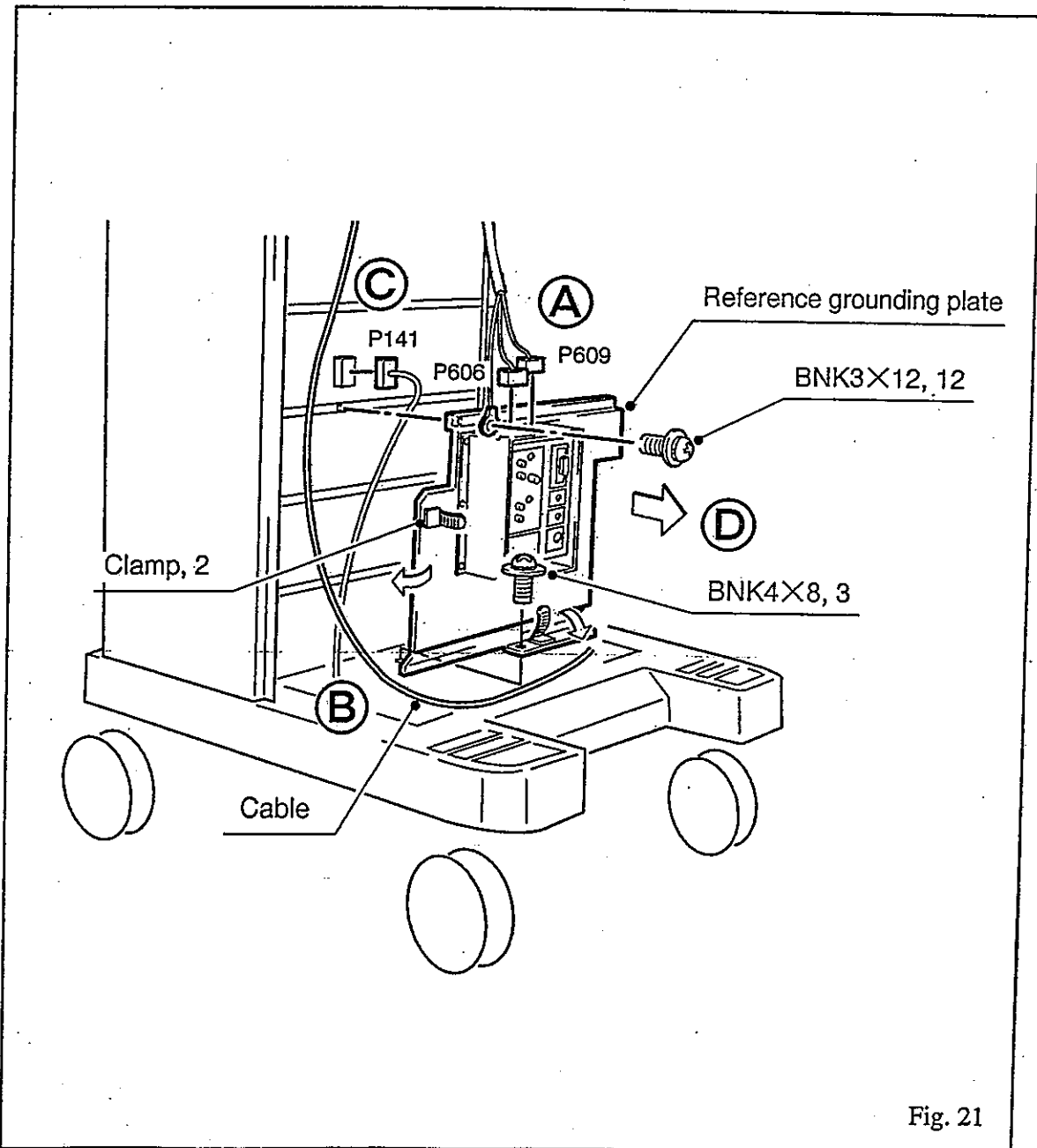


Fig. 21

- (5) Unfasten 2 screws each and remove PC board securing hardware. Then, unplug POWER switch cable on the back of equipment. (A in fig. 22)
  - Connector to unplug: 【 P431 】
- (6) Unfasten 4 screws and remove slip-proof mat by pushing it up in the lower part. (B in fig. 23)
- ※ Equipment provided with SVO-9500 Mounting Rack has been already unscrewed.
- (7) Unplug all power cables plugged in motherboard.  
(C in fig. 23)
  - Connectors to unplug: 【 P237, P241 and P432 】
- (8) Pull out Cables P244 thru P248 and P431 in front.  
(D in fig. 23)

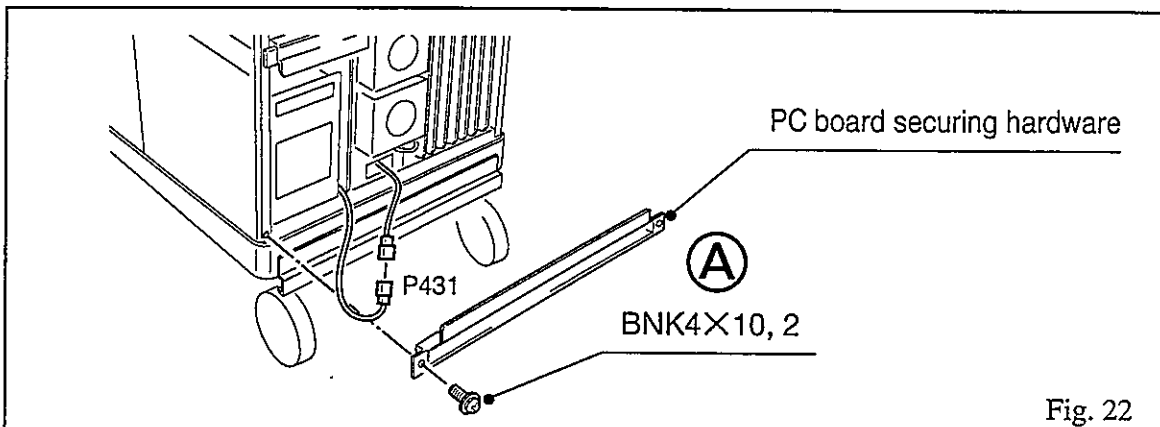


Fig. 22

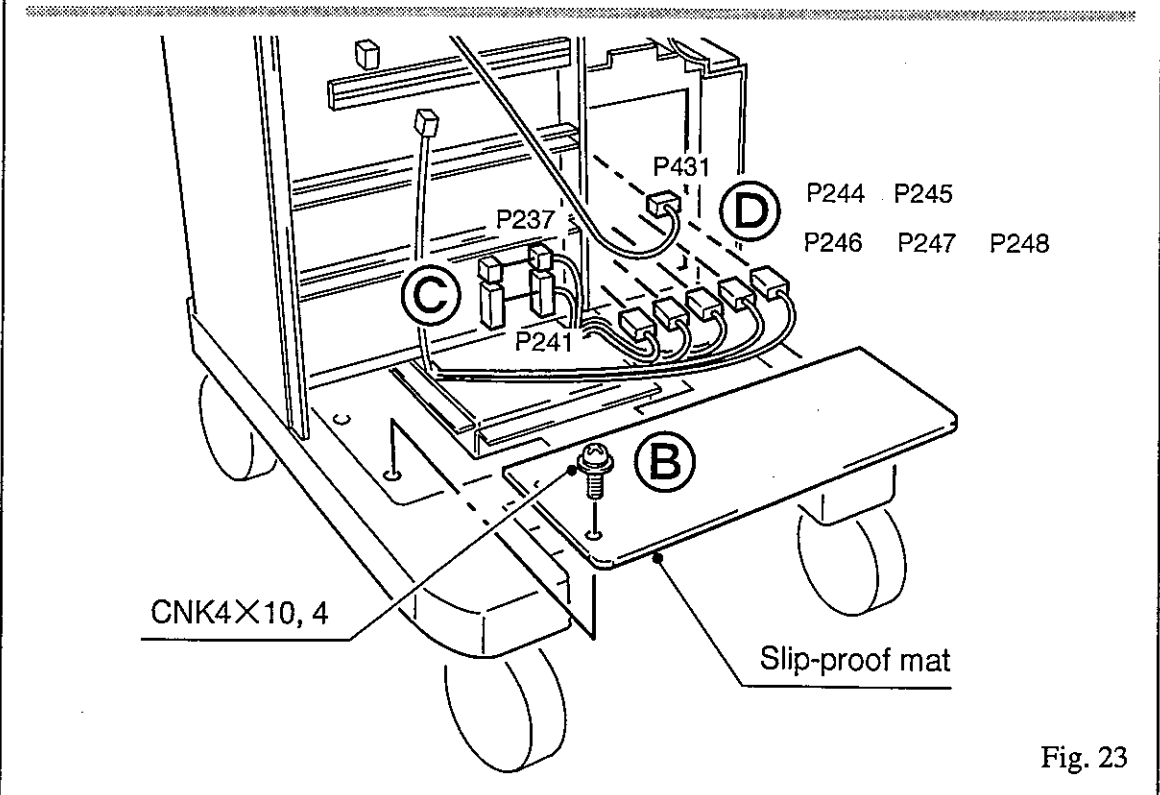


Fig. 23

- (9) Unfasten 3 screws on the side of power supply clamping hardware (right and left). (A in fig. 24)
- (10) Unfasten 2 screws and remove power supply clamping hardware (right). (B in fig. 24)
- (11) Lock casters. (C in fig. 25)
- (12) Push power supply unit forward while slightly raising grip in the rear. And unload power supply unit from chassis. (D in fig. 25)

NOTE : Power supply unit is very heavy. Be careful enough while unloading power supply unit.

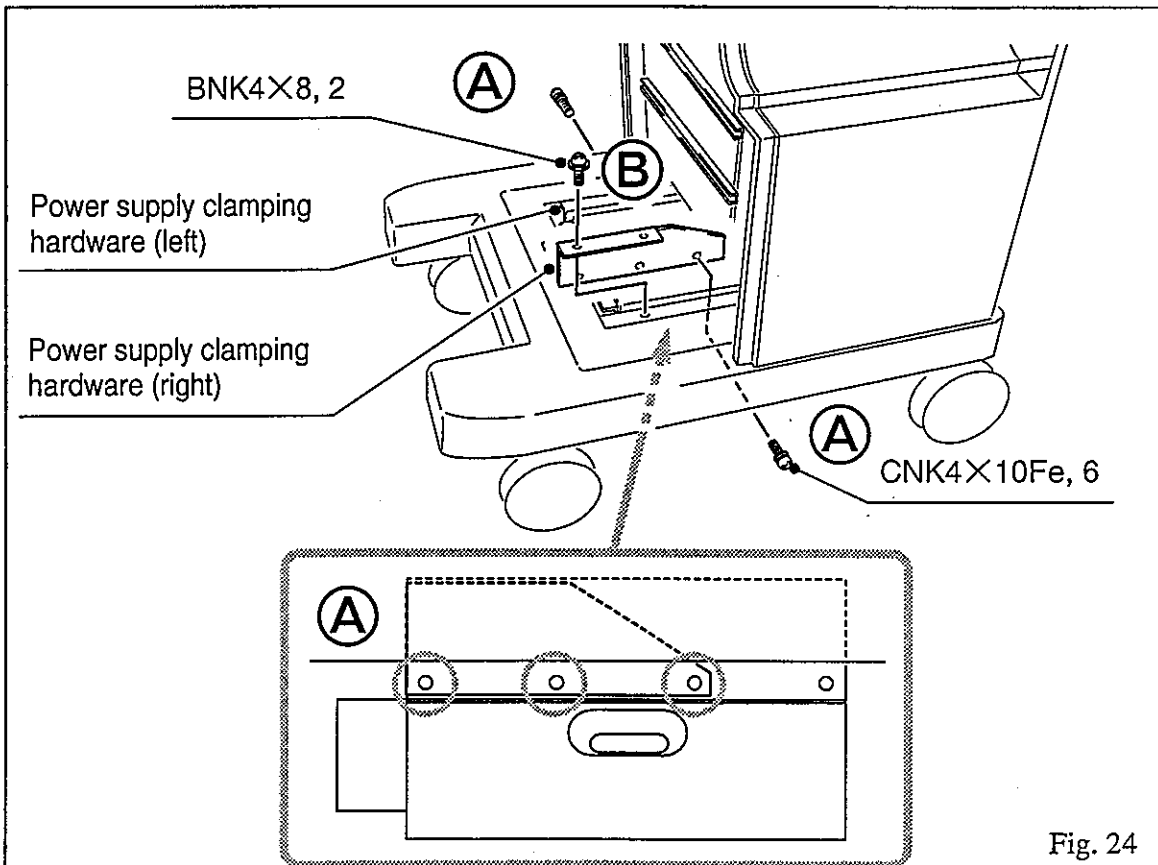


Fig. 24

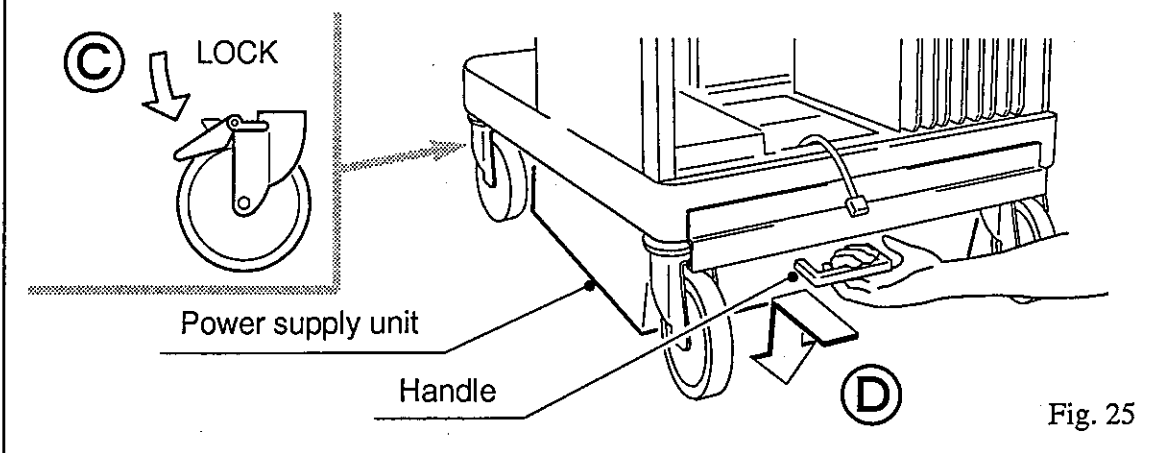
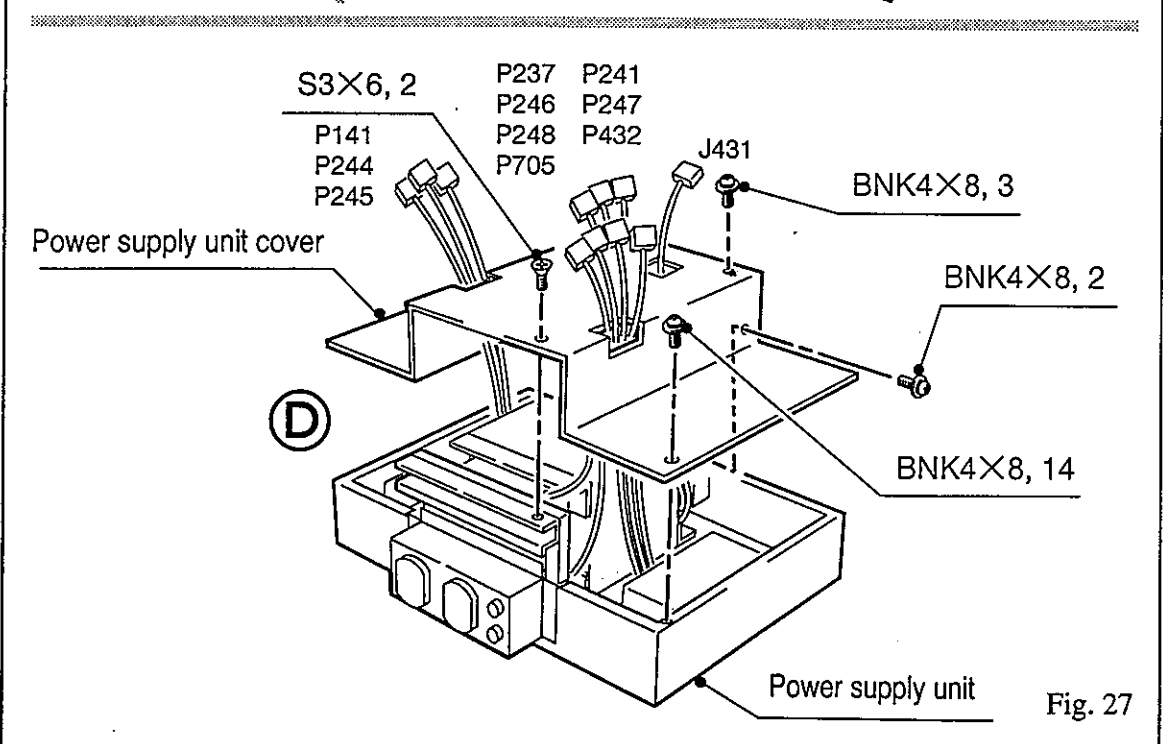
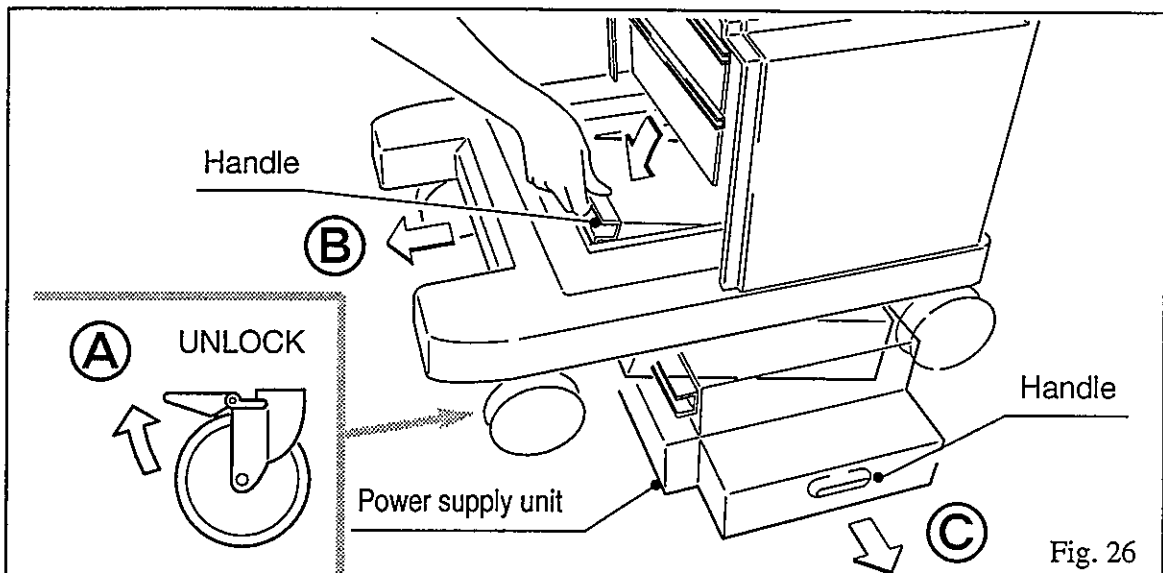


Fig. 25

- (13) Unlock casters. (Ⓐ in fig. 26)
  - (14) Unload power supply unit from chassis by pulling equipment while slightly raising grip in front. (Ⓑ in fig. 26)
- NOTE : Power supply unit is very heavy. Be careful enough while unloading power supply unit.
- (15) Hold grip on the right side and pull power supply unit out of equipment on the right side. (Ⓒ in fig. 26)
  - ※ Be careful enough to protect cable against possible damage.
  - (16) Unfasten 21 screws, and detach power supply unit cover. (Ⓓ in fig. 27)



9 Dismounting the Monitor (IPC-1231 / -1231V)

- 9-1. Monitor . . . . . ※ Operation (1) below is not required for equipment other than that destined for PAL.
- (1) Unfasten 2 screws and remove cable slip-preventive hardware. (A in fig.)
  - (2) Remove power cable. (B in fig.)
  - (3) Loosen 2 mounting screws and remove signal cable. (C in fig.)

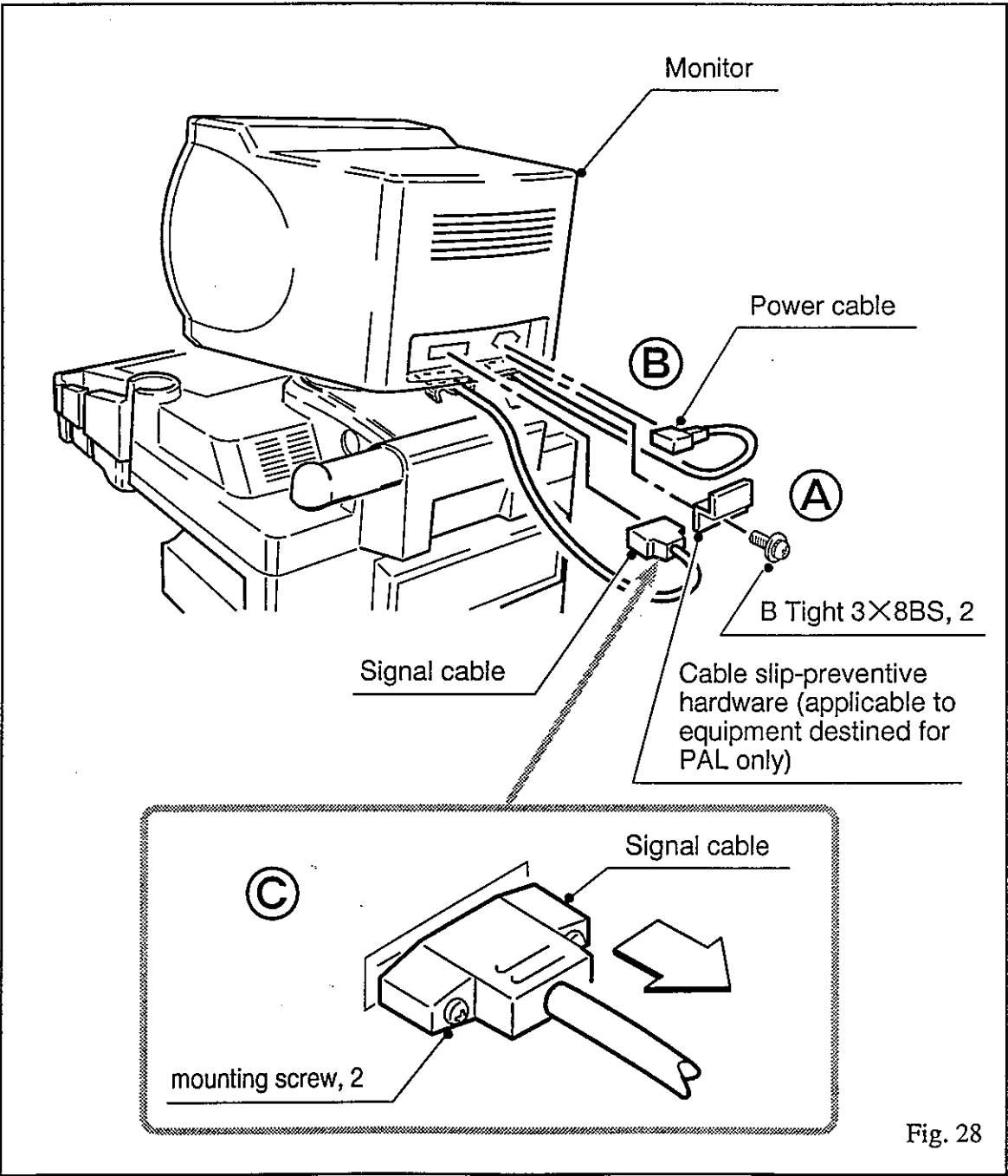


Fig. 28



- (4) Rotate tilting base so that its right front screw will be positioned as illustrated below. Then, push up monitor in front and unfasten 1 screw. (Symmetrically, unfasten 1 screw, likewise, on the left side of body.) (A in fig. 29)
  - (5) Rotate tilting base so that its right rear screw will be positioned as illustrated below. Then, unfasten 1 screw. (Symmetrically, unfasten 1 screw, likewise, on the left side of body.) (B in fig. 30)
  - (6) Remove monitor from tilting base (C in fig. 30)
- NOTE : Be careful not to damage blind cover when placing monitor.

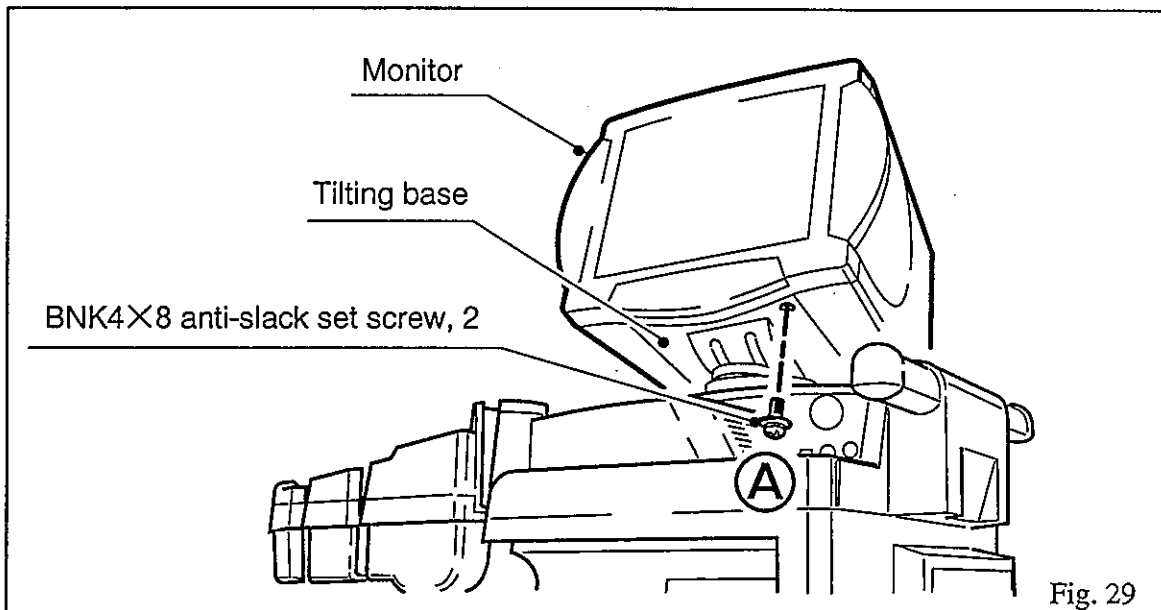


Fig. 29

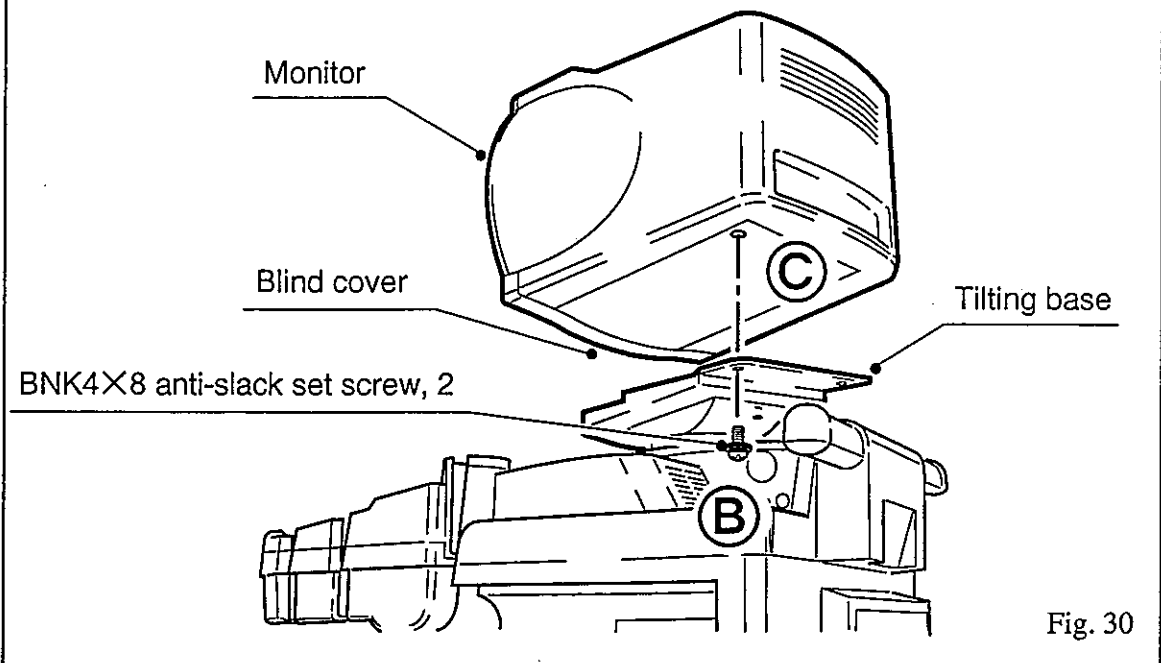
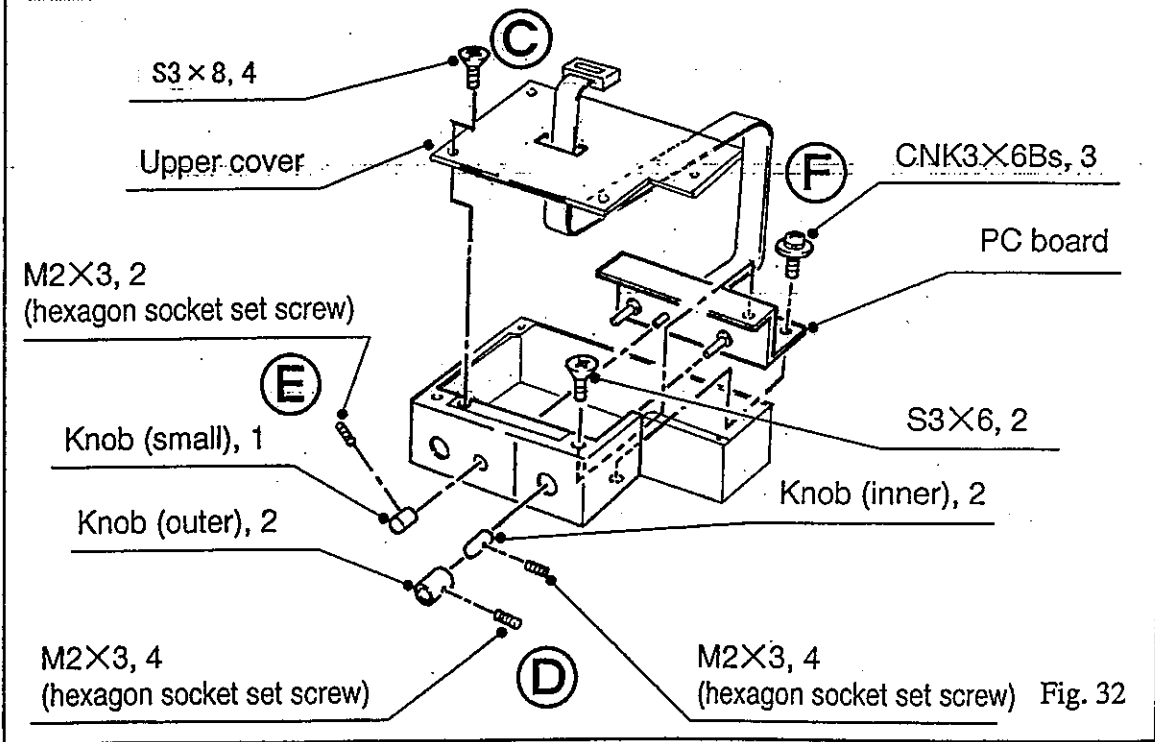
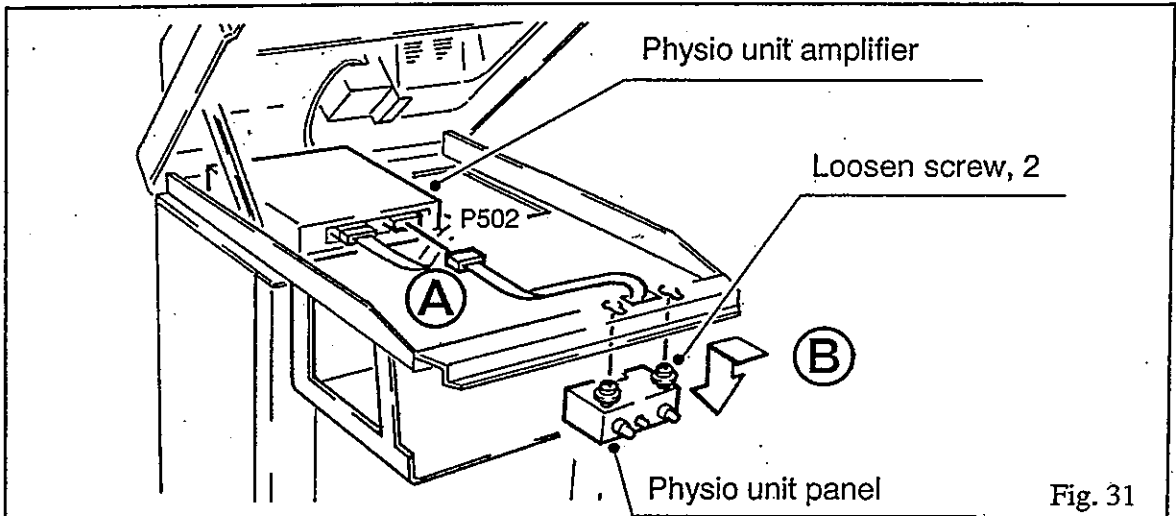


Fig. 30

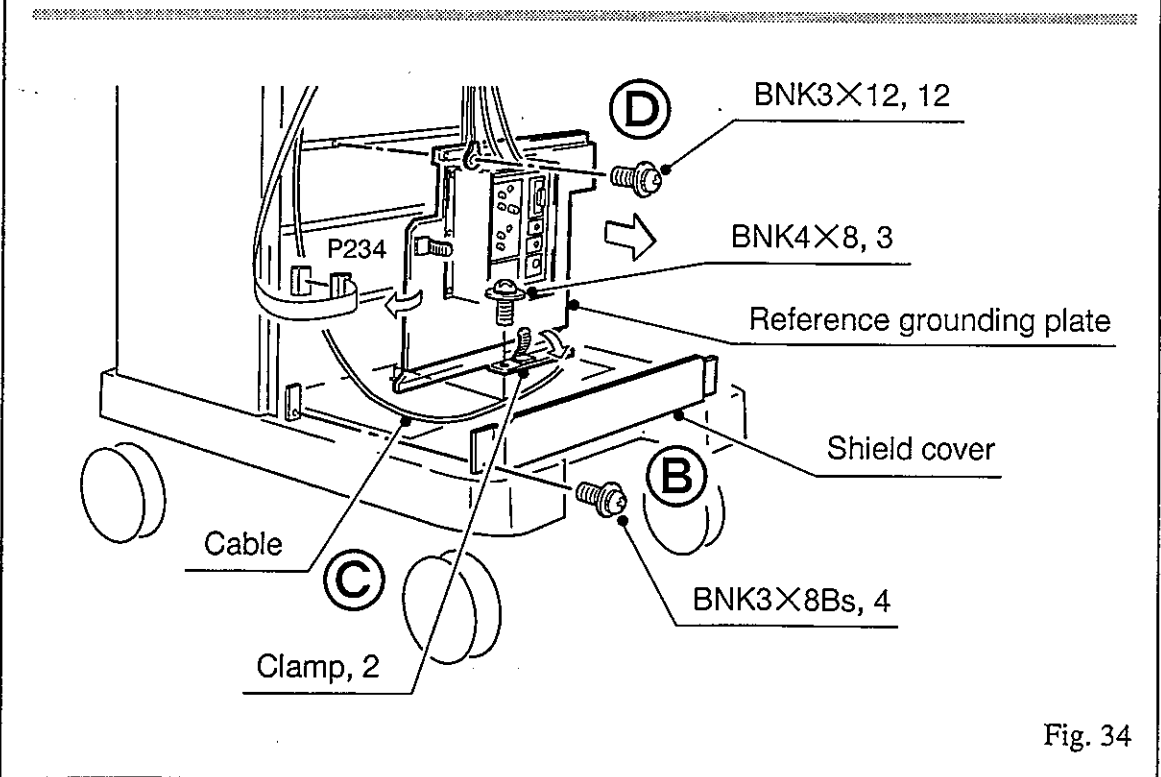
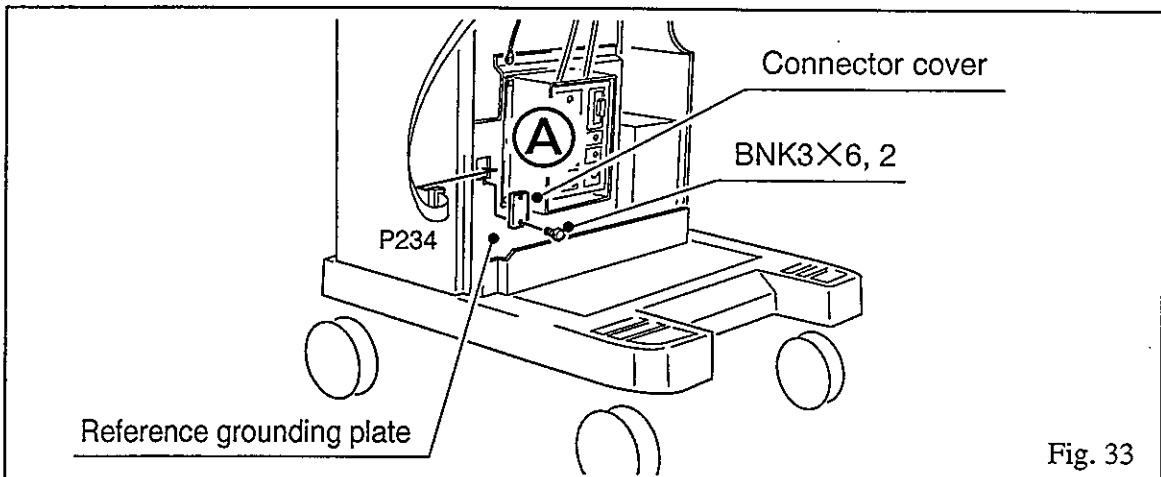
**10** Detaching the Physio Unit Panel, Physio Unit Amplifier, Physio Unit Plug Block (EU-5039), and each PC Board

- 10-1. Physio unit panel . . . . . (1) Remove 1 connector from the physio unit amplifier.  
panel (A in fig. 31)  
● Connector to unplug: [ P502 ]  
(2) Loosen 2 screws, and remove the physio unit panel as indicated by the arrow. (B in fig. 31)
- 10-2. Physio-unit panel PC board . . . . . (1) Unfasten 4 screws, and detach the upper cover. (C in fig. 32)  
(2) Loosen 2 screws, and remove knobs (inner and outer). (D in fig. 32)  
(3) Loosen 2 screws, and remove the knob (small). (E in fig. 32)  
(4) Unfasten 4 screws, and detach the PC board. (F in fig. 32)



10-3. Physio unit amplifier

- ※ Operation (1) is not required for equipment bodies serially numbered up to 9690040.
- ※ Operations (2) thru (4) are not required for equipment bodies serially numbered 9690041 and up.
- (1) Unfasten 2 screws and remove connector cover from reference grounding plate, and unplug 1 connector plugged in motherboard. (A in fig. 33)
  - Connector to unplug: 【 P234 】
- (2) Unfasten 4 screws and remove shield cover. (B in fig. 34)
- (3) Remove the cable from 2 clamps. (C in fig. 34)
- (4) Unfasten 15 screws and remove reference grounding plate, and unplug 1 connector plugged in motherboard. (D in fig. 34)
  - Connector to unplug: 【 P234 】



- (5) Unplug 1 connector plugged in physio unit amplifier.  
Then, unclamp and remove cable. (A in fig. 35)  
• Connector to unplug: [ P501 ]
- (6) Unfasten 2 screws, and dismount the physio unit amplifier as shown in the figure. (B in fig. 35)
- (7) Remove all connectors connected to the physio unit amplifier. (C in fig. 35)  
• Connectors to unplug: [ P750 thru P752. ]

10-4. Physio unit . . . .  
amplifier PC board

- (1) Unfasten 2 screws, and detach the upper cover. (D in fig. 36)
- (2) Unfasten 4 screws, and detach the PC board. (E in fig. 36)

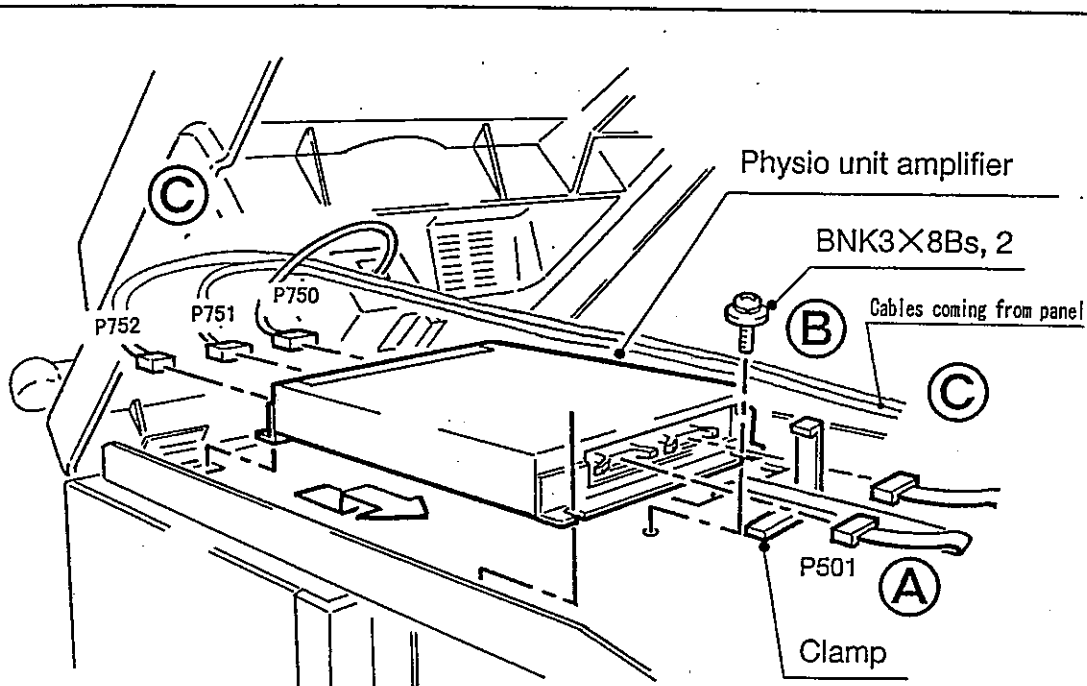


Fig. 35

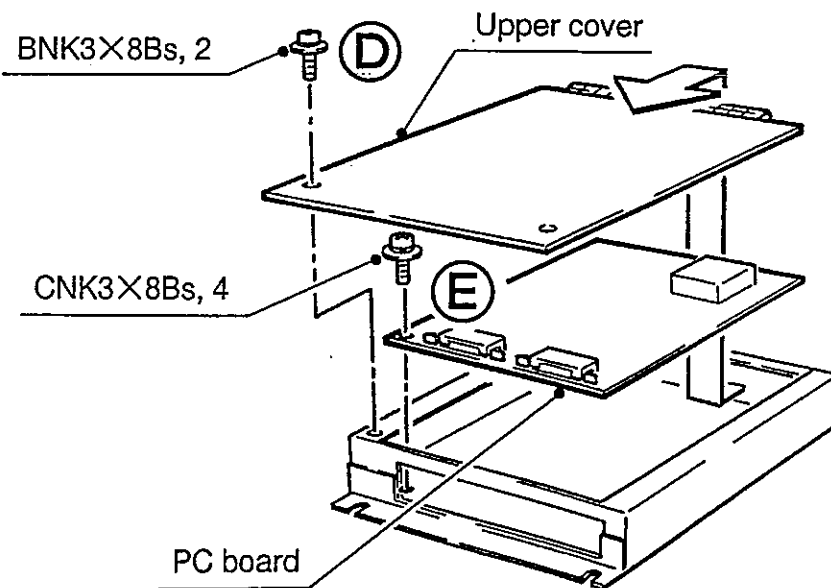
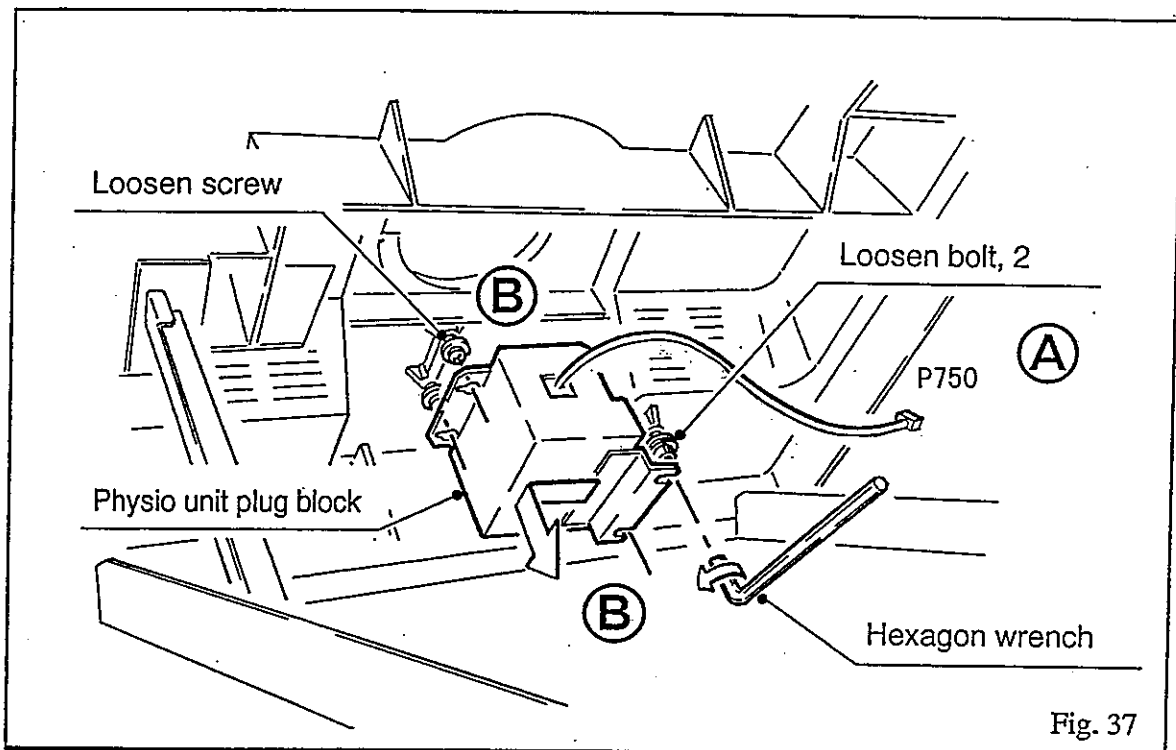


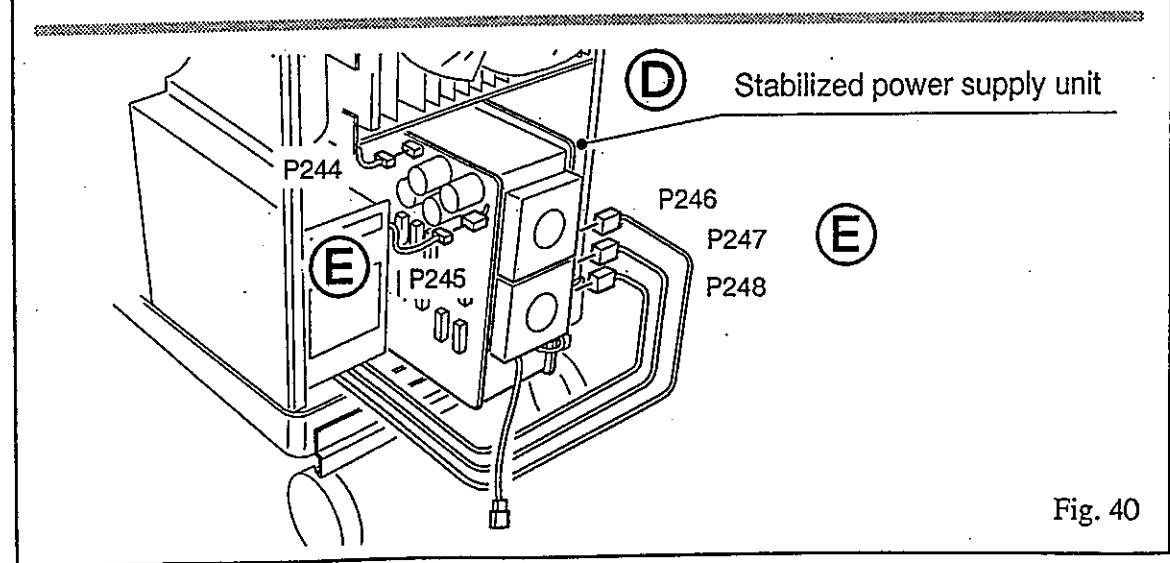
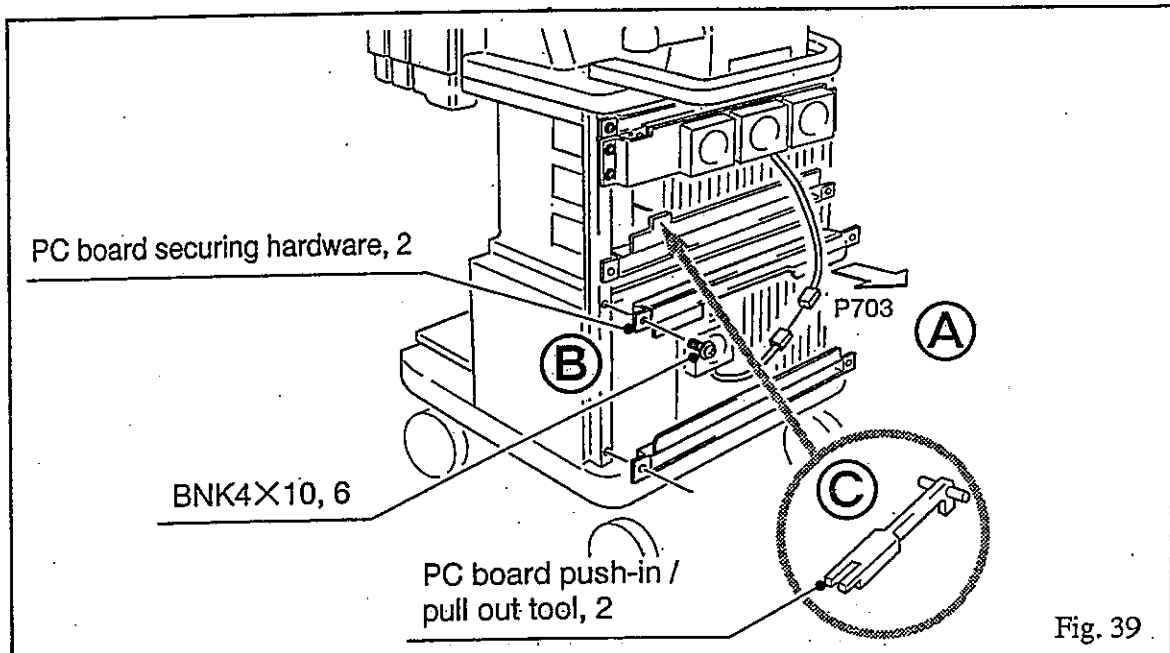
Fig. 36

- 10-5. Physio unit . . . . (1) Remove 1 connectors from the physio unit amplifier.  
plug block (A in fig. 37)  
● Connectors to unplug: [ P750 ]  
(Refer to 10-3. Physio unit amplifier.)
- (2) Loosen each 2 screws and bolts, and dismount the physio unit plug block as shown in the figure. (B in fig. 37)



**11** Dismounting the Stabilized Power Supply Unit (EU-6023) and Drawing Out the PC Board

- 11-1. Stabilized power supply unit
- (1) Unplug fan cable connector. (A in fig. 39)
    - Connector to unplug: [ P703 ]
  - (2) Unfasten 2 screws and remove PC board securing (B in fig. 39)
  - (3) Remove 2 PC board push-in / pull-out tool from clamp on the back position illustrated below. (C in fig. 39)
  - (4) Use PC board pull-out / push-in tool to pull out stabilized power supply unit. (D in fig. 40)  
(Refer to 14. Procedure for Pulling out and Pushing in PC Board.)
  - (5) Unplug 5 connectors, and remove stabilized power supply unit. (E in fig. 40)
    - Connectors to unplug: [ P244 thru P248 ]



- 11-2. Stabilized power supply unit PC board
- (1) Unfasten 2 screws and unplug 1 connector. (Ⓐ in fig.)
    - Connector to unplug: [ P249 ]
  - (2) Unfasten 8 screws and unplug 2 relay cables. Then, remove PC board. (Ⓑ in fig.)
    - Connectors to unplug: [ P224 thru P227 ]

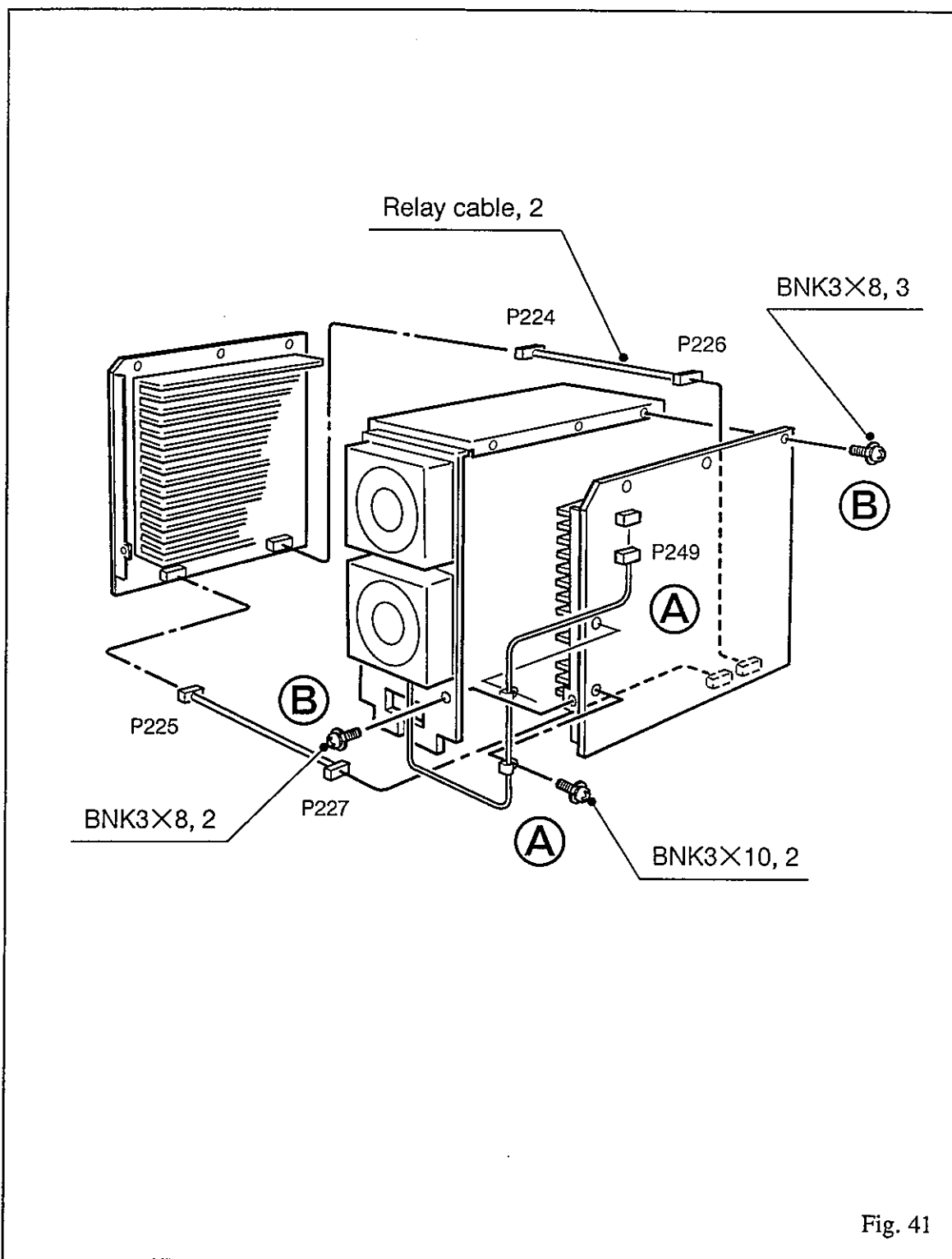


Fig. 41

12 Removing the Connector Panel

- 12-1. Connector panel . . . . . (1) Unplug all connectors plugged on plug receptacle plate. (A in fig.)  
● Connectors to unplug: [ P606 P609 ]  
(2) Unfasten 6 screws and remove connector panel by pulling it straight toward you. (B in fig.)  
※ Connector panel, which has been connected to motherboard with plug receptacles on the back, should not fail to be pulled straight.

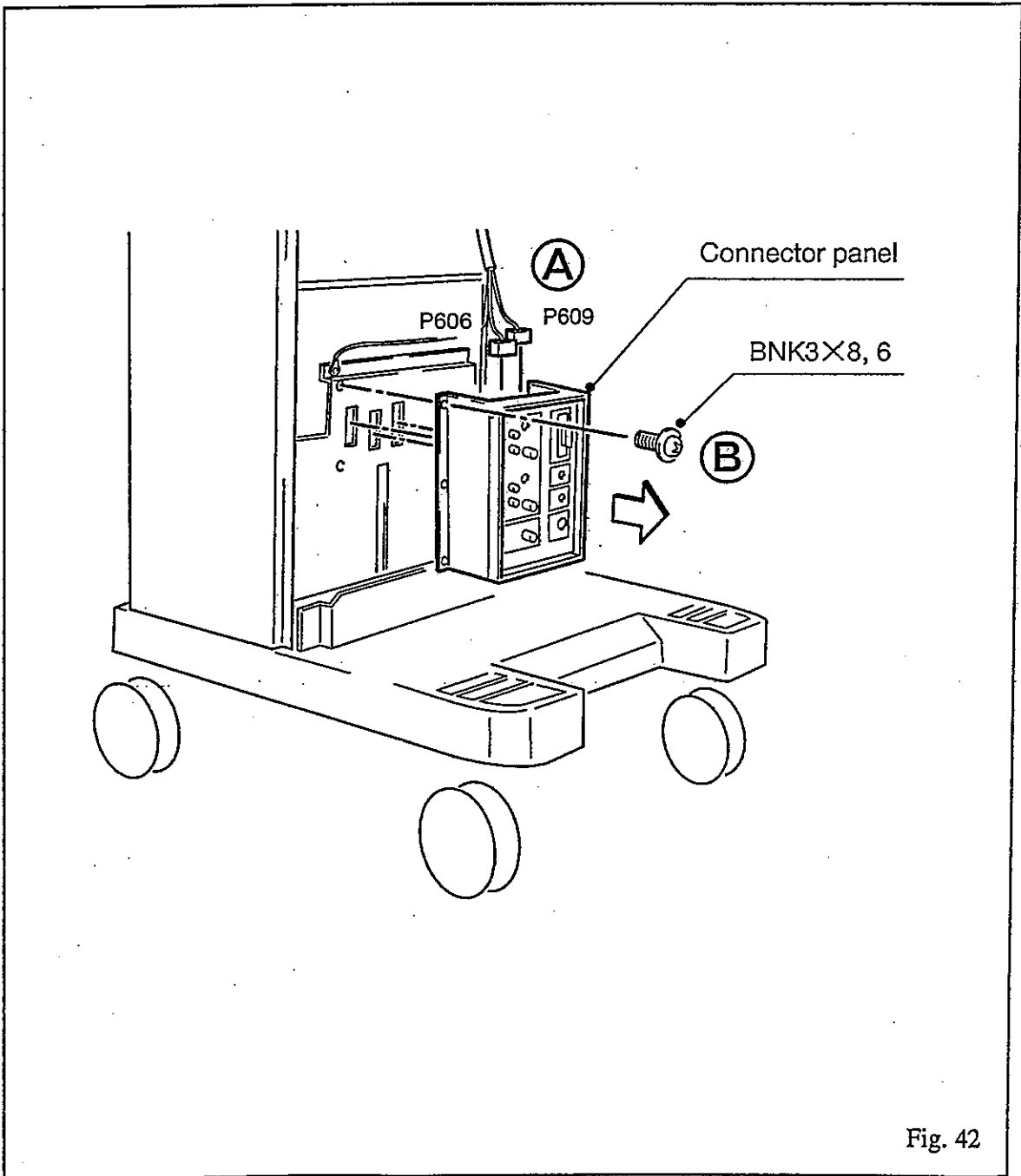


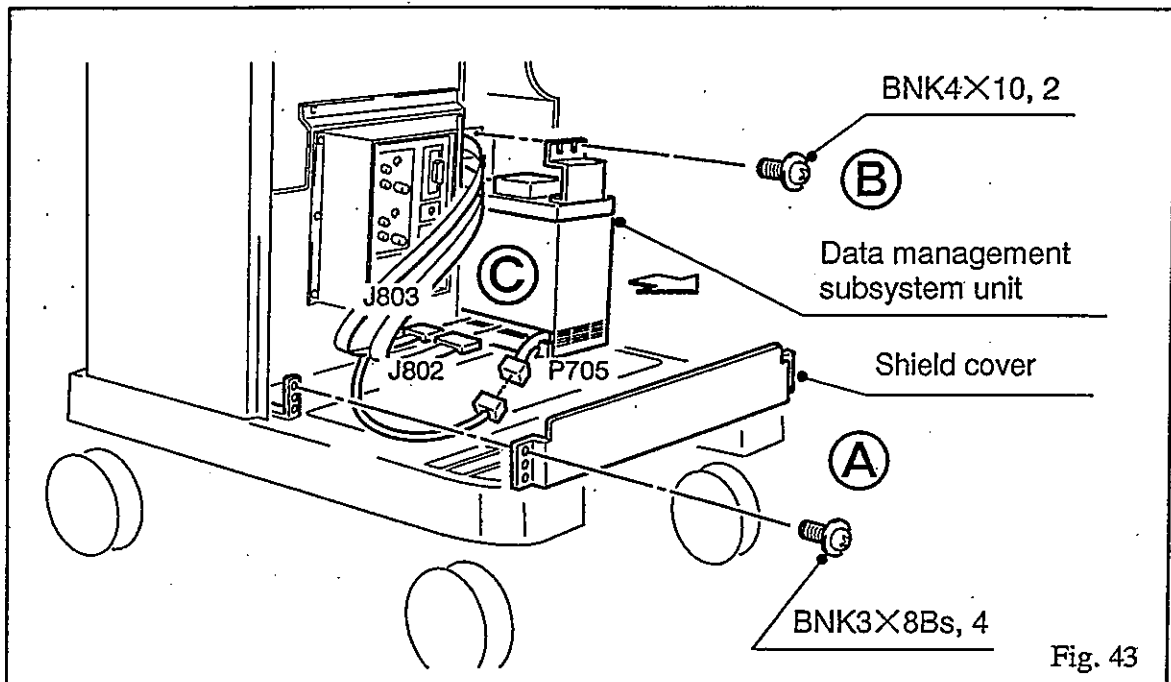
Fig. 42



13

Dismounting the Data Management Subsystem Unit (DMS-1700) and Drawing Out the PC Board

- 13-1. Data management subsystem unit
- (1) Unfasten 4 screws and remove shield cover. (A in fig. 43)
  - (2) Unfasten 2 screws and slightly pull out data management system unit. (B in fig. 43)
  - (3) Unplug both power and signal cables. Then, remove data management system unit. (C in fig. 43)



14 Procedure for Pulling out and Pushing in PC Board

- 14-1. Removing PC Board . . . . Fit protrusions on 2 PC board pull-out / push-in tools in holes. Then, put tools' claws on square holes in PC board slot. And pull out PC board as illustrated. (Fig. 45)
- 14-2. Mounting PC Board . . . . Let claws on 2 PC board pull-out / push-in tools be caught in square holes prior to PC board slot. Then, push in PC board securely as illustrated. (Fig. 46)

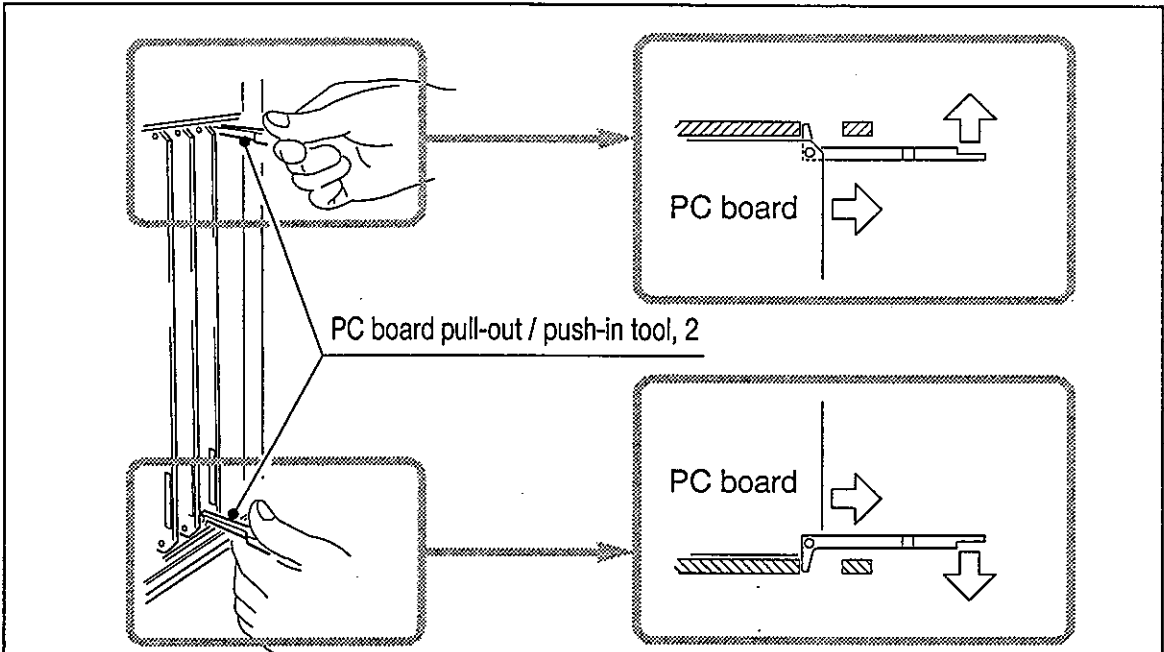


Fig. 45

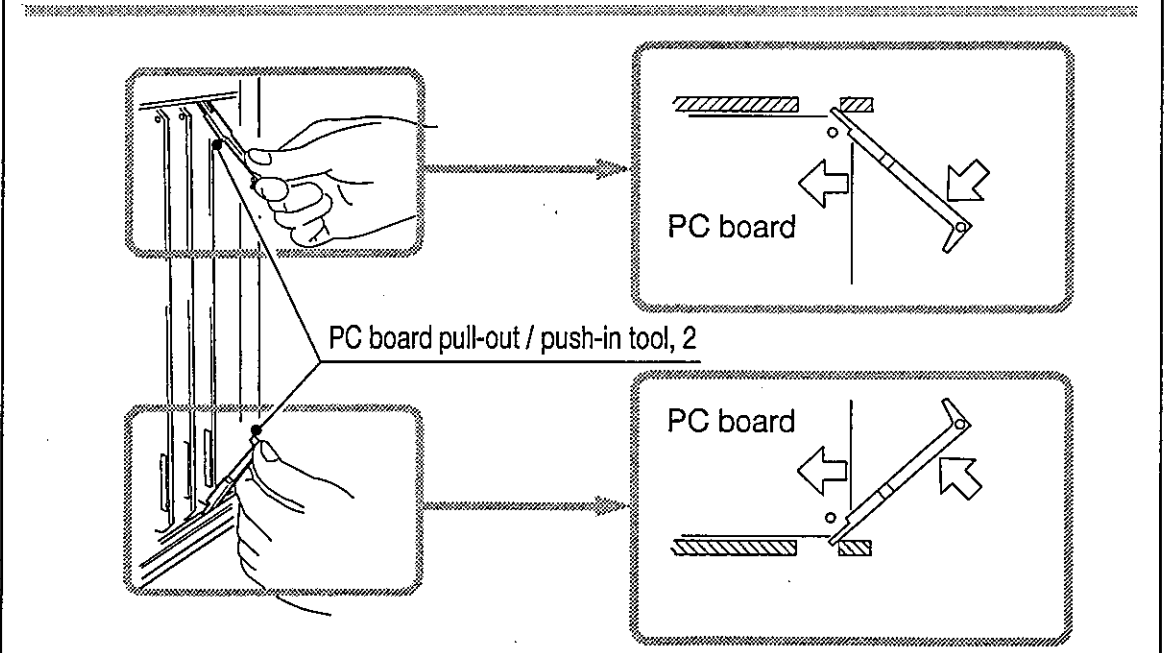


Fig. 46

# Aloka SSD-1700 据付要領書 SSD-1700 INSTALLATION PROCEDURES

この据付要領書は、SSD-1700の消品等の取付の際、取付の資料としてご利用ください。  
なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って  
作業を進めてください。

必要な工具: プラスドライバー、スタビライザー (あらかじめ用意すること)

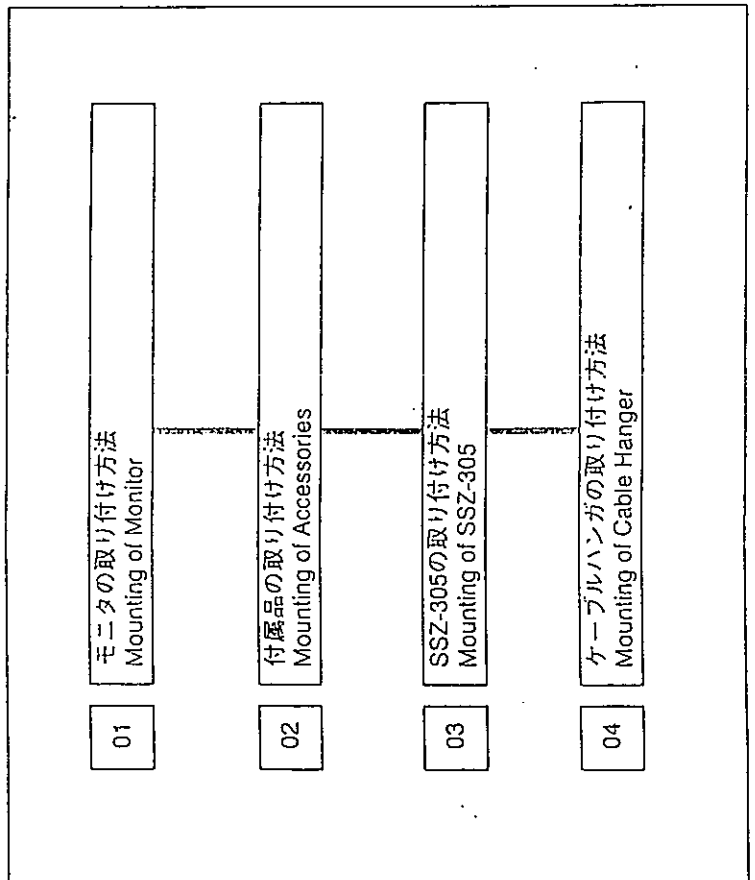
These installation procedures are provided for reference in installation of SSD-1700.  
This book is made up based on the installation flow chart, then follow the procedures described in this  
book in installation work.

Tool required: Phillips screw driver, Stabilizing screwdriver (Provide it beforehand.)

## 00 据付フローチャート Installation Flow Chart

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートのINDEX No.が、各ページの見出しNo.と一致しています。

This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.



## 01 モニタの取り付け方法 Mounting of Monitor

- (1) チルト台の右後方のねじ穴が同様の位置に来るように回転させ、  
モニタをねじ2本で固定する。(対面も同様に本体左側より取り付ける。)(図1 ㊸)
- (2) チルト台右前方のねじ穴が同様の位置に来るように回転させ、モニタ前方を押し上げ、  
ねじ2本で固定する。(対面も同様に本体左側より取り付ける。)(図2 ㊹)

(1) Turn tilting table so that screw hole in the right rear will be positioned as illustrated.  
Then, use 2 screws to secure monitor. (On the opposite side, carry out mounting likewise at the  
left side of body.) (㊸ in Fig. 1)

(2) Turn tilting table so that screw hole in the right front will be positioned as illustrated.  
Then, push up monitor forward and secure it with 2 screws. (On the opposite side, carry out  
mounting likewise at the left side of body.) (㊹ in Fig. 2)

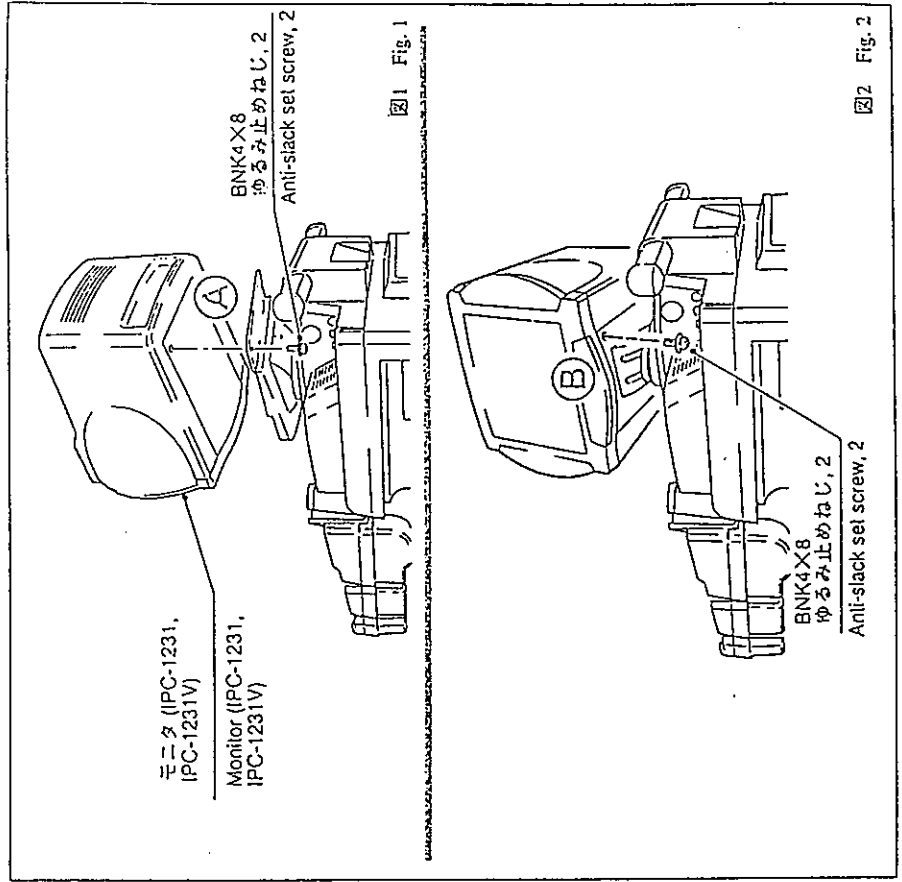


図2 Fig. 2

02 付属品の取り付け方法  
Mounting to Accessories

- (1) プロブコネクタを接続し、プローブをプローブホルダに入れる。(図中㉔)
- (2) ゼリーボトルをゼリーボトルホルダに入れる。(図中㉕)

- (1) Connect the probe connector, and put the probe into the probe holder. (㉔ in Fig.)
- (2) Put the gel bottle into the gel bottle holder. (㉕ in Fig.)

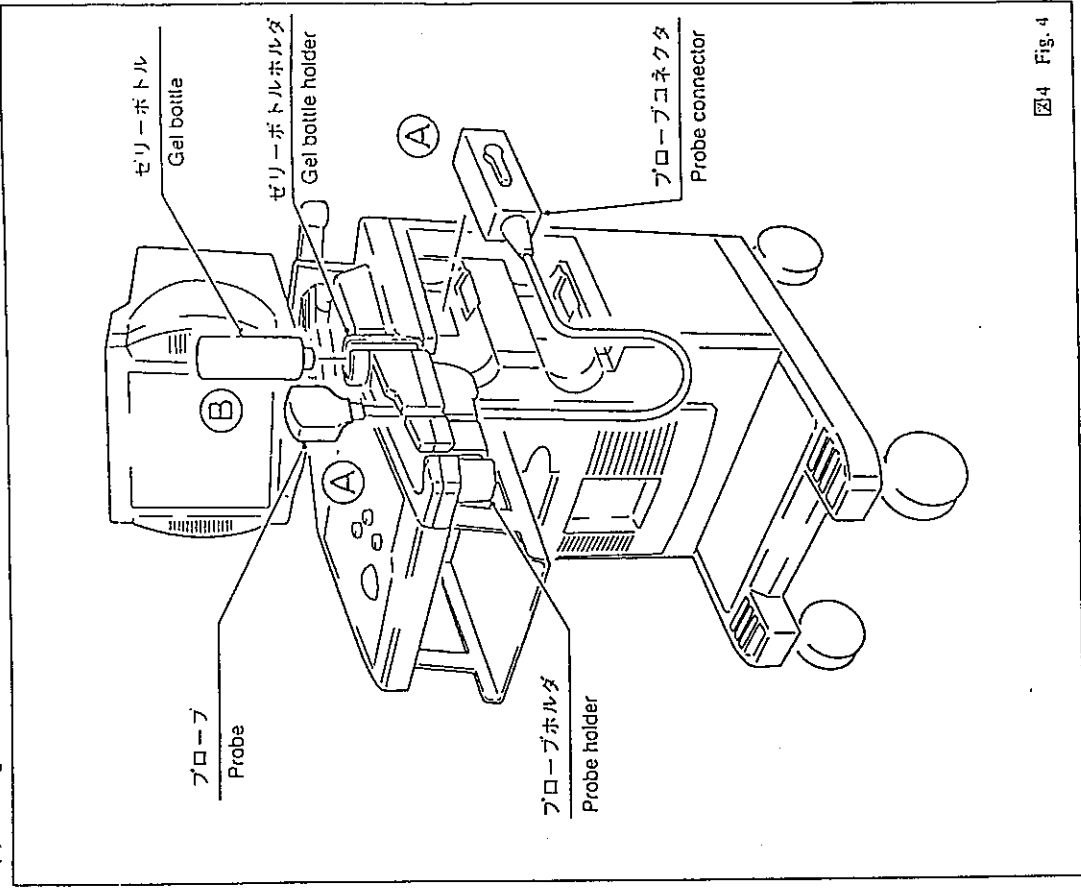


図4 Fig. 4

- 注：(3)と(6)の作業はPAL向け装置にのみ適用。
- (3) ケーブル抜け防止金具をねじ2本をはずして取り外す。(図中㉔)
- (4) 信号ケーブルと電源ケーブルをモニタ背面にそれぞれ接続する。(図中㉕)
- (5) 信号ケーブルと電源ケーブルをモニタ底面のクランプ2個にそれぞれ固定する。(図中㉖)
- (6) ケーブル抜け防止金具を(3)で外したねじ2本で取り付ける。(図中㉗)

NOTE: Operations (3) and (6) below apply to Equipment to be delivered to PAL only.

- (3) Unfasten 2 screws and remove cable-slip preventive hardware. (㉔ in Fig.)
- (4) Plug in both signal and power cables on the back of monitor. (㉕ in Fig.)
- (5) Secure both signal and power cables with 2 clamps on the bottom of monitor. (㉖ in Fig.)
- (6) Mount cable-slip preventive hardware, using 2 screws removed as referred to in (3) above. (㉗ in Fig.)

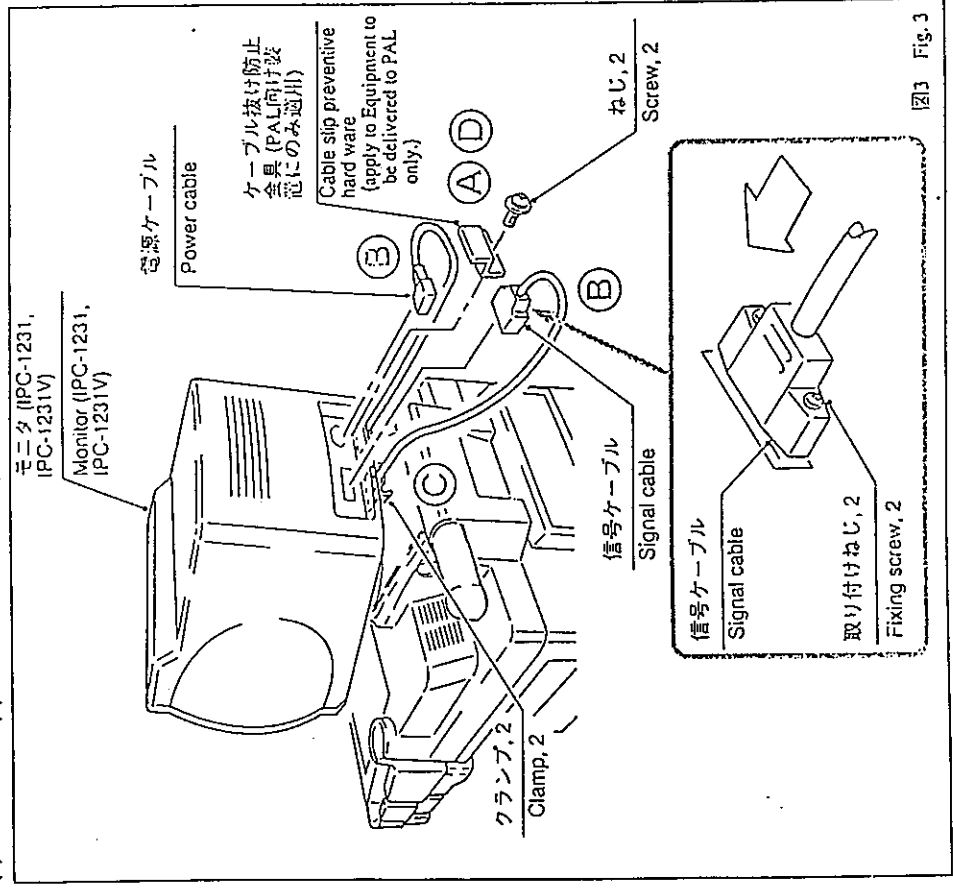
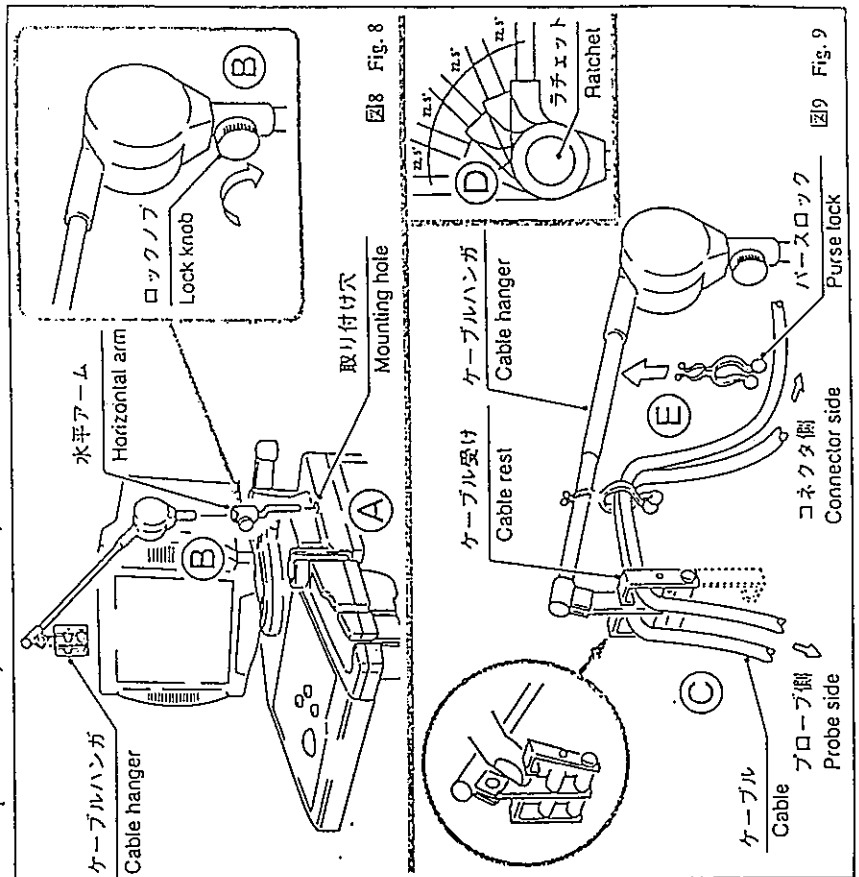


図3 Fig. 3

03 ケーブルハンガの取り付け方法  
Mounting of Cable Hanger

- (1) 水平アームを取り付け穴に差し込む。(図8㉔)
  - (2) ケーブルハンガを水平アームの穴に差し込み、ロックノブを締め付け固定する。(図8㉕)
  - (3) プロブケーブルをハンガの穴のように引き出す。(図9㉖)
  - (4) ケーブルハンガの角度はラチェットを押しながら調節する。(図9㉗)
  - (5) パースロックをケーブルハンガの穴の2か所に取り付けケーブルを固定する。(図9㉘)
- ※パースロックにはケーブルが2本まで装着可能。

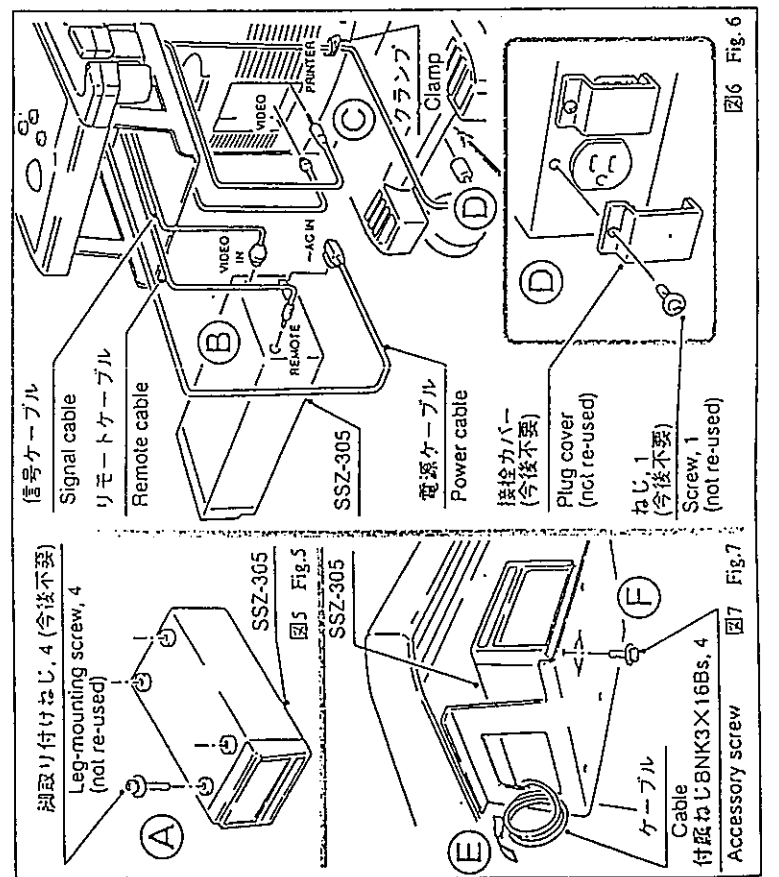
- (1) Insert horizontal arm into mounting hole. (㉔ in Fig. 8)
  - (2) Insert cable hanger into hole on horizontal arm. Then, tighten lock knob to secure them. (㉕ in Fig. 8)
  - (3) Lay out probe cable as illustrated. (㉖ in Fig. 9)
  - (4) Adjust cable hanger to appropriate angle while pressing ratchet. (㉗ in Fig. 9)
  - (5) Install purse locks at 2 locations as illustrated on cable hanger, and secure cable. (㉘ in Fig. 9)
- ※ Up to 2 cables may be loaded on 1 purse lock.



03 SSZ-305の取り付け方法、および、接続方法  
Procedure for Installing and Connecting SSZ-305

- (1) SSZ-305底面の脚取り付けねじ4本を取り外す。(図5㉔)
- (2) 信号ケーブル、リモートケーブル、電源ケーブルを、SSZ-305背面にそれぞれ接続する。(図6㉕)
- (3) 信号ケーブル、リモートケーブルを、フロントカバーの接点板にそれぞれ接続する。(図6㉖)
- (4) 電源ユニットの接点カバーをねじ1本を外して取り外し、電源ケーブルのコネクタを接続する。(図6㉗)
- (5) ケーブルを、搭載台奥のくぼみに丸めて押し込む。(図7㉘)
- (6) SSZ-305を、付録ねじ4本で搭載部に取り付け。(図7㉙)

- (1) Unfasten 4 screws with which legs are attached to SSZ-305 on the bottom. (㉔ in Fig. 5)
- (2) Plug in 3 cables, signal, remote and power, on the back of SSZ-305. (㉕ in Fig. 6)
- (3) Plug in both signal and remote cables on plug receptacle board of front cover. (㉖ in Fig. 6)
- (4) Unfasten 1 screw and remove plug cover from power supply unit. And plug in power cable connector. (㉗ in Fig. 6)
- (5) Roll and push cable into dent at the deepest part of mounting bracket. (㉘ in Fig. 7)
- (6) Use 4 screws to mount SSZ-305 on the downside of mounting rack. (㉙ in Fig. 7)



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**Aloka** MP-FX1700-2 据付要領書  
MP-FX1700-2 INSTALLATION PROCEDURES

この据付要領書は、MP-FX1700-2の消耗品等の際、取付の資料としてご使用ください。  
なお、本冊は据付フローチャートに基づき構成されていますので、その手順に従って  
作業を進めてください。

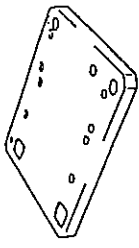
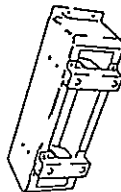


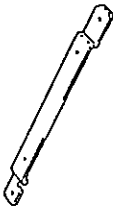
必要な工具: プラスドライバー、スタビライザー (あらかじめ用意すること)

These installation procedures are provided for reference in installation of MP-FX1700-2.  
This book is made up based on the installation flow chart, then follow the procedures (described in this  
book in installation work.

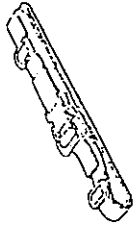
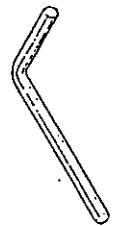
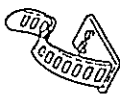
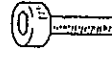


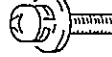

Tool required: Phillips screw driver, stabilizing screwdriver (Provide it beforehand.)

00	付属部品リスト List of Accessory Parts
----	------------------------------------

下記の付属品が揃っているか確認してください。  
Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	搭載台 Mounting rack		1
2	取付金具 Mounting bracket		1
3	補強パイプ Reinforcement pipe		1
4	アーム Arm		2
5	SSZ-705取付金具 Mounting brackets for SSZ-705		2

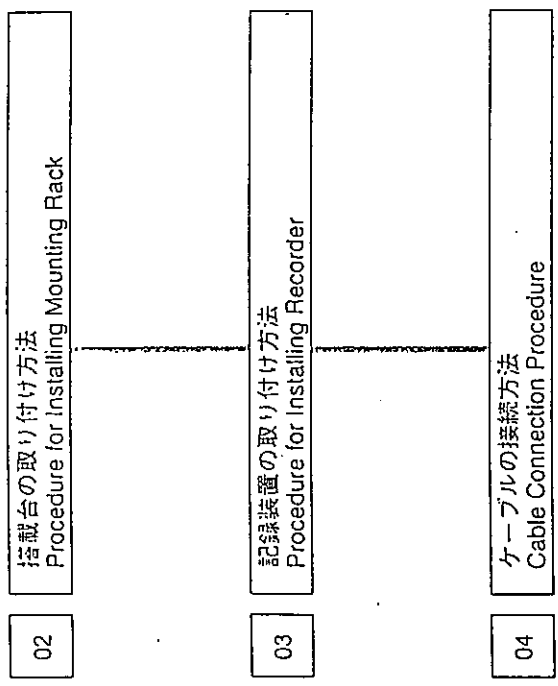
Rev. 1

No.	品名 Parts Name	外観 Appearance	個数 Quantity
6	ベルト Belt		1
7	六角レンチ (対面4) Hexagon wrench (Opposite Side 4)		1
8	クランプ (UL-13) Clamp (UL-13)		11
9	付属ボルト HBS×30 SUS Accessory bolt HBS×30 SUS		6
10	付属ねじ BNK4×10 Fe, Ni Accessory screw BNK4×10 Fe, Ni		8
11	付属ねじ BNK5×20 Fe, Ni Accessory screw BNK5×20 Fe, Ni		4
12	付属ねじ CNK6×65 Accessory screw CNK6×65		2
13	付属ねじ B tight 3×6 Accessory screw B tight 3×6		10

01 据付プロローチャート  
Installation Flow Chart

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートのINDEX No.が、各ページの見出しNo.と一致しています。

This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.

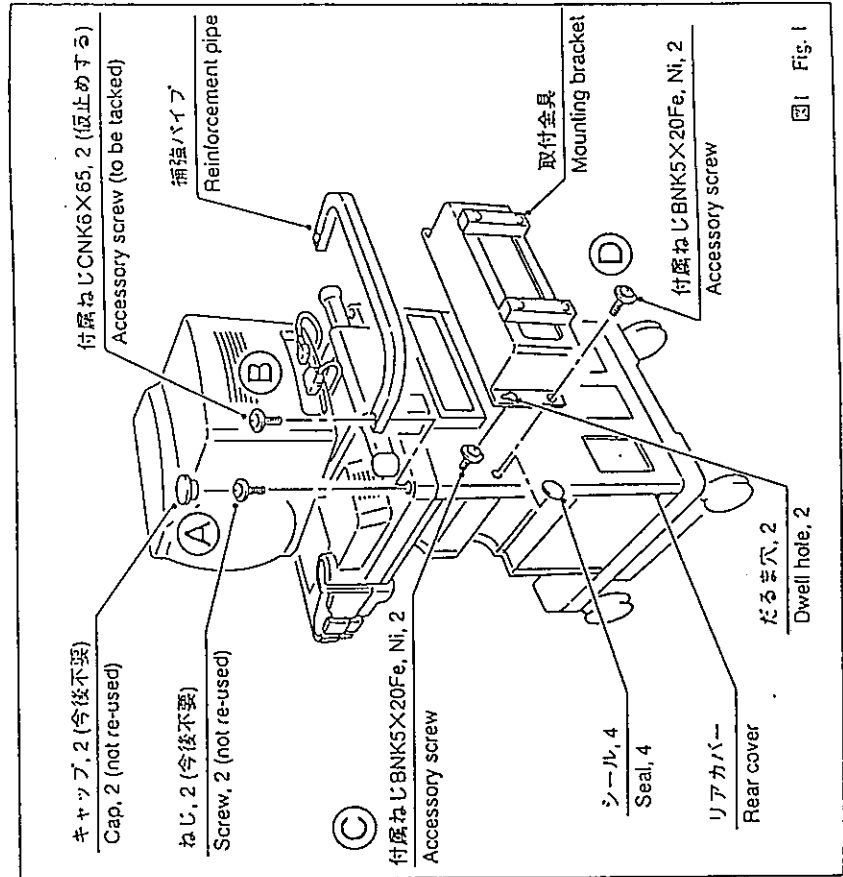


02

据置台の取り付け方法  
Procedure for Installing Mounting Rack

- (1) パネルエスカッション後方のキャップ2個を取り外し、ねじ2本を外す。(図中㊸)
- (2) 補強パイプを、付属ねじ2本でパネルエスカッション後方に仮止めする。(図中㊹)
- (3) 付属ねじ2本を、シール4枚をはがした後リアカバーのねじ穴にすきまをあけてねじこみ、取付金具をだるま穴をねじに合わせて取り付ける。(図中㊺)
- (4) 取付金具の下2か所を付属ねじ2本で取り付け、だるま穴のねじ2本を締め付ける。(図中㊻)

- (1) Remove 2 caps in the rear of panel escutcheon and unfasten 2 screws. (㊸ in Fig.)
- (2) Use 2 accessory screws in tack reinforcement pipe in the rear of panel escutcheon. (㊹ in Fig.)
- (3) After peeling off 4 seals, make gap in rear cover screw hole and screw 2 accessories screws into gap. And install mounting bracket, with dwell holes adjusted to screws. (㊺ in Fig.)
- (4) Install mounting bracket at 2 lower locations with 2 accessory screws. And tighten 2 screws in dwell holes. (㊻ in Fig.)





03 記録装置の取り付け方法  
Procedure for Installing Recorder

本搭載台は次の記録装置が取り付け可能です。

SSZ-705, CP700, SVO-9500MD, AG-7300, AG-7330, AG-7350

本要領書では次の3つの取り付け方法を説明しています。

- SSZ-705のねじ固定の方法
- CP700のねじ固定の方法
- ベルトを用いた固定方法はCP700用のメーカーオプションの取付金具が必要です。

Mounting rack permits following recorders to be installed.

SSZ-705, CP700, SVO-9500MD, AG-7300, AG-7330 and AG-7350

For installation, the following 3 methods are described in the present instruction manual.

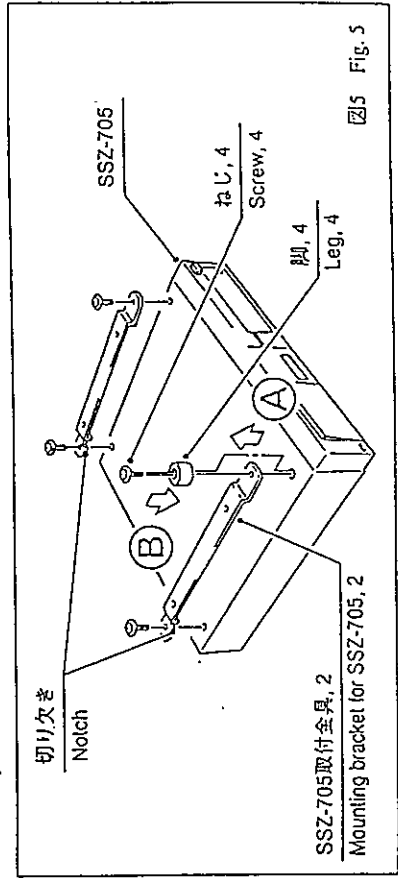
- How to Fix SSZ-705 with Screws
  - How to Fix CP-700 with Screws
- NOTE : Mounting bracket optionally available from manufacturers is required for the CP-700 to be fixed with screws.
- How to fix with Belt (applicable to all recorder models)

● SSZ-705のねじ固定の方法

- (1) SSZ-705底面の脚4個を、ねじ各1本を外して取り外す。(図中Ⓐ)
  - (2) SSZ-705取付金具2個と(1)で外した脚4個を、(1)で外したねじ4本でSSZ-705底面に取り付ける。(図中Ⓑ)
- ※ SSZ-705取付金具の切り欠きの位置に注意すること。

● How to Fix SSZ-705 with Screws

- (1) Unfasten 1 each screw of 4 legs on the bottom of SSZ-705 and remove it. (Ⓐ in Fig.)
  - (2) Use 4 screws unfastened as referred to in (1) above to install 2 mounting brackets for SSZ-705 and 4 legs removed as referred to in (1) above on the bottom of SSZ-705. (Ⓑ in Fig.)
- ※ Pay attention to locations of notches on mounting brackets for SSZ-705.

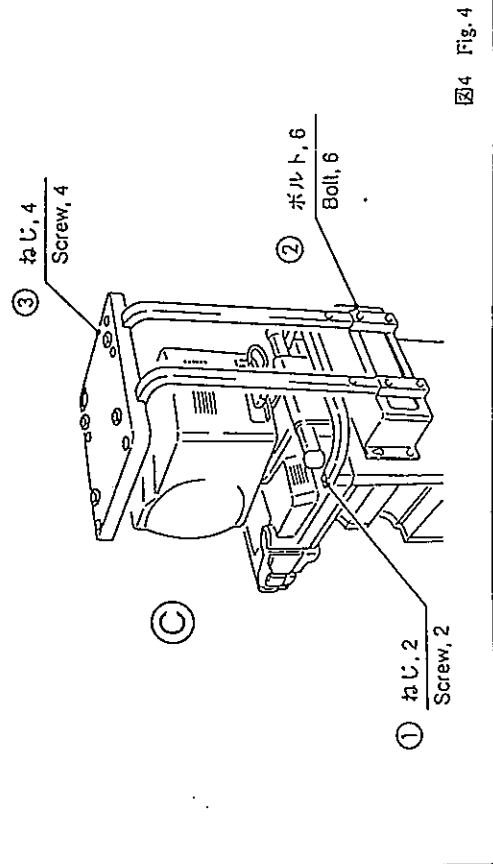
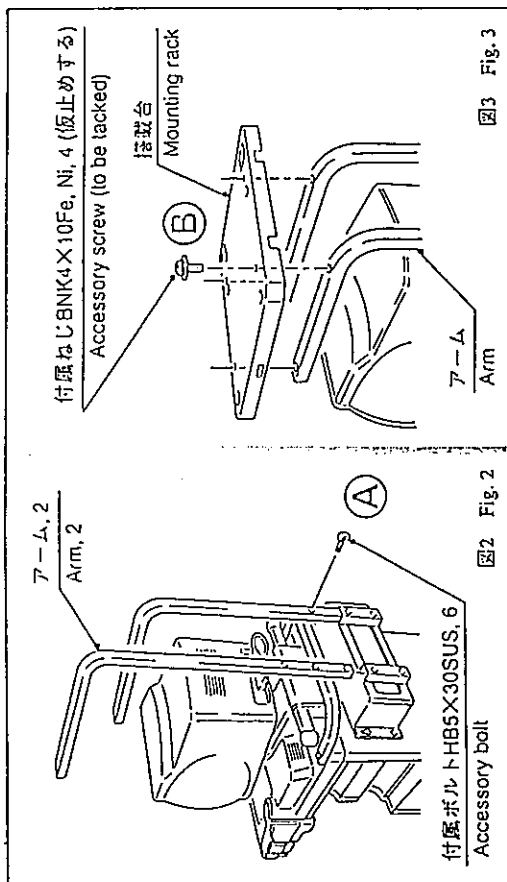


- (5) アーム2本を取付金具の所穴に差し込み、付属ボルト6本で仮止めする。(図2Ⓐ)
- (6) 搭載台を、付属ねじ4本でアームに仮止めする。(図3Ⓐ)
- (7) 仮止めしておいたねじ6本、ボルト6本を図の①～③の順に締め付ける。(図4Ⓒ)

(5) Insert 2 arms into square holes on mounting bracket and tack them with 6 accessory bolts. (Ⓐ in Fig. 2)

(6) Use 4 accessory screws to tack mounting rack onto arm. (Ⓐ in Fig. 3)

(7) Follow Steps ① thru ③ as illustrated to tighten 6 screws and 6 bolts, both tacked beforehand. (Ⓑ in Fig. 4)

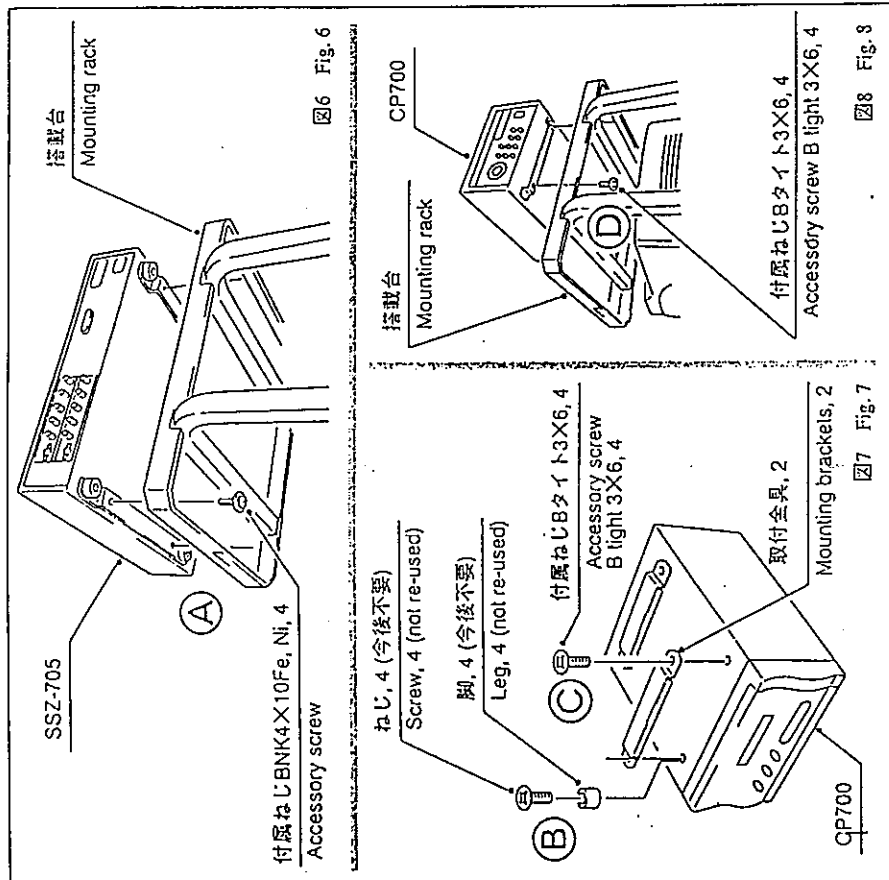


- (3) SSZ-705を、脚を搭載台の穴に合わせて載せ、付属ねじ4本で取り付ける。(図6㉔)
- CP700のねじ固定の方法
  - (1) CP700底面の脚4脚を、ねじ4本を外して取り外す。(図7㉔)
  - (2) CP700に付属している取付金具2個を、付属ねじ各2本でCP700底面に取り付ける。(図7㉔)
  - (3) CP700を、付属ねじ4本で搭載台に取り付ける。(図8㉔)

(3) Place SSZ-705 on mounting rack, with legs adjusted to holes on rack. Then, use 4 accessory screws to install SSZ-705 on mounting rack. (㉔ in Fig. 6)

● How to Fix CP700 with Screws

- (1) Unfasten 1 each screw of 4 legs on the bottom of CP700 and remove it. (㉔ in Fig. 7)
- (2) Each of 2 mounting brackets attached to CP700 should be installed on the bottom of CP700 by use of 2 accessory screws. (㉔ in Fig. 7)
- (3) Use 4 accessory screws to install CP700 on mounting rack. (㉔ in Fig. 8)

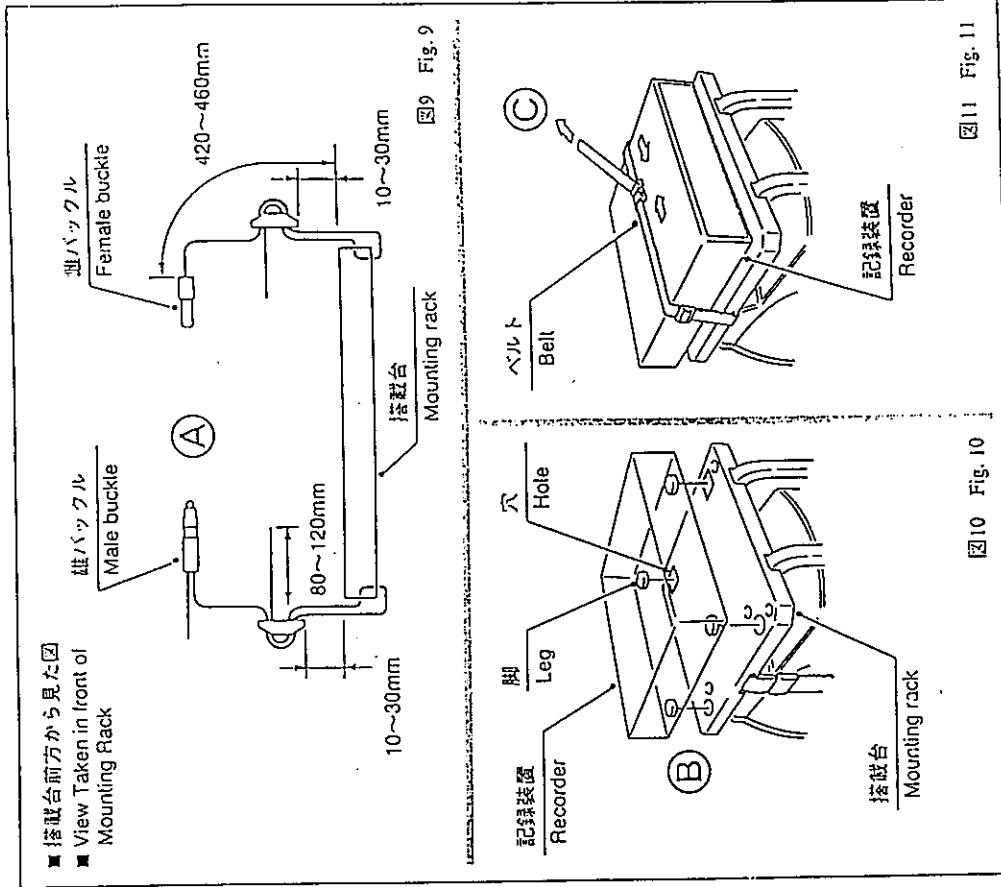


● ベルトを用いた固定方法 (全記録装置対応)

- (1) ベルトを、図を参考にして搭載台に取り付ける。(図9㉔)
- (2) 記録装置を、脚のピッチに合った穴に合わせて搭載台に載せる。(図10㉔)
- (3) 記録装置をベルトで固定する。(図11㉔)

● How to Fix With Belt (applicable to all recorder models)

- (1) Install belt on mounting rack while referring to illustration. (㉔ in Fig. 9)
- (2) Place recorder on mounting rack as adjusted to holes pitched in line with legs. (㉔ in Fig. 10)
- (3) Use belt to fix recorder. (㉔ in Fig. 11)



■ 搭載台前方から見た図

■ View Taken in front of Mounting Rack

04 ケーブルの接続方法  
Cable Connection Procedure

※ 本要領書ではSSZ-705のケーブル接続方法について説明しています。  
 (1) 信号ケーブル、電源ケーブルを、SSZ-705背面にそれぞれ接続する。(図12㉔)  
 (2) 信号ケーブルを、フロントカバーの後検板に接続する。(図13㉕)  
 (3) 電源ユニットの接続カバーをねじ1本を外して取り外し、電源ケーブルのコネクタを接続する。(図13㉖)

※ This procedure describes how to connect cabling with SSZ-705

- (1) Plug signal and power cables, respectively, in SSZ-705 on the back. (㉔ in Fig. 12)
- (2) Plug signal cable in receptacle board on front cover. (㉕ in Fig. 13)
- (3) Unscrew 1 screw and remove receptacle cover from power supply unit. And plug in power cable connector. (㉖ in Fig. 13)

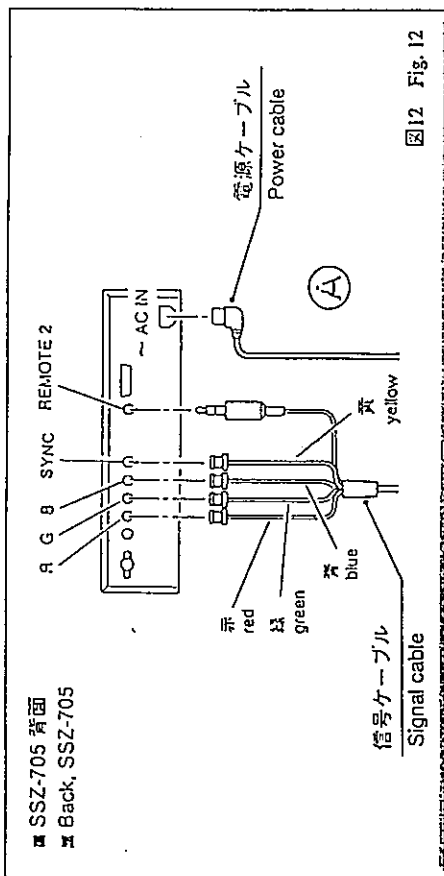


図12 Fig. 12

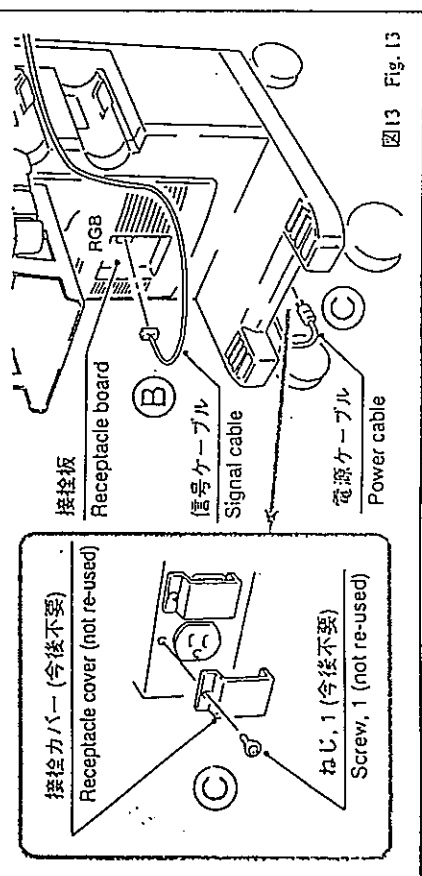


図13 Fig. 13

- (4) クランプ11個を、図の位置に貼り付ける。(図中㉗)
- (5) 電源ケーブルを、図を参考にして電源ユニット側からクランプに固定していく。(図中㉘)  
 ※ ケーブルがたるまないようにクランプすること。
- (6) 信号ケーブルを、図を参考にしてSSZ-705と検板の両側から㉙の位置に向かってクランプに固定していく。(図中㉚)
- (7) ㉙の位置で余ったケーブルを、取付金具と補強パイプの間に押し込む。(図中㉛)

- (4) Attach 11 clamps at locations shown in illustration. (㉗ in Fig.)
- (5) While referring to illustration, secure power cable in clamps sequentially away from power supply unit. (㉘ in Fig.)  
 ※ Clamp cable so that it may not slacken.
- (6) While referring to illustration, secure signal cable in clamps sequentially toward Position ㉙ from the side of both SSZ-705 and plug receptacle board. (㉚ in Fig.)
- (7) Force excess cable to be pushed into gap between mounting brackets and reinforcement pipe at Position ㉙. (㉛ in Fig.)

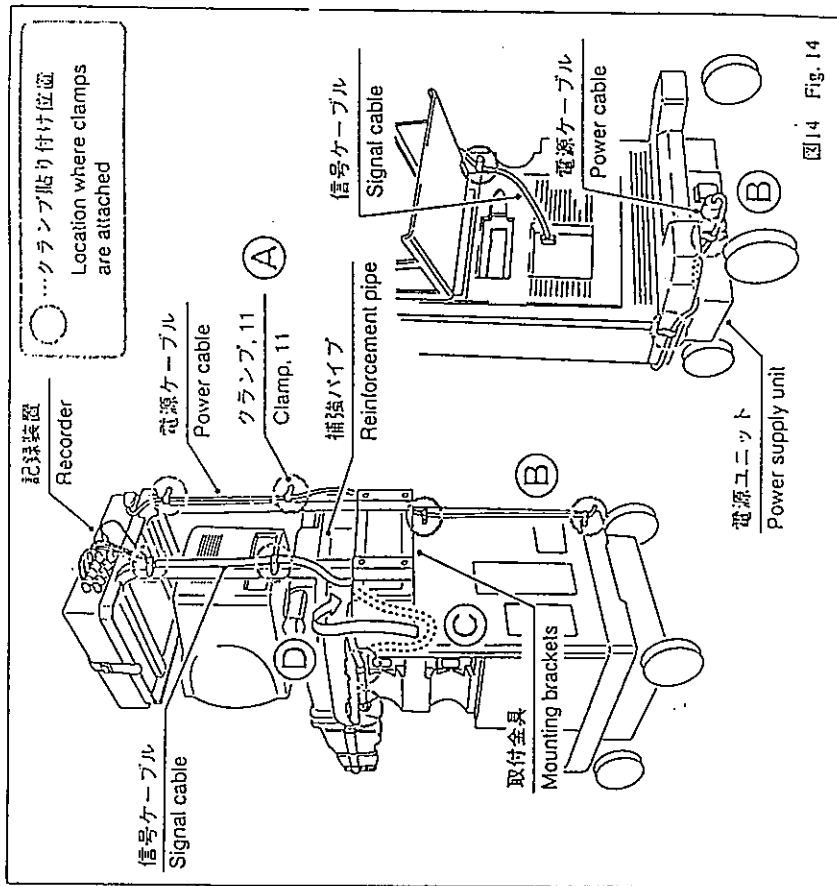


図14 Fig. 14

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**MP-FX1700-2B 据付要領書**  
**MP-FX1700-2B INSTALLATION PROCEDURES**

この据付要領書は、MP-FX1700-2B の部品等の際、据付の資料としてご使用ください。  
 なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って  
 作業を進めてください。

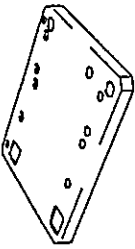
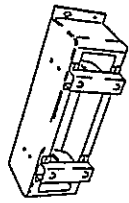


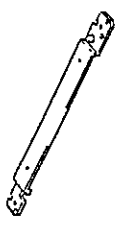
必要な工具: プラスドライバー、スタビドライバー (あらかじめ用意すること)










These installation procedures are provided for reference in installation of MP-FX1700-2B.  
 This book is made up based on the installation flow chart, then follow the procedures described in this  
 book in installation work.

Tool required: Phillips screw driver, stabilizing screwdriver (Provide it beforehand.)

**00 付属部品リスト**  
**List of Accessory Parts**

下記の付属品が揃っているか確認してください。  
 Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	搭載台 Mounting rack		1
2	取付金具 Mounting bracket		1
3	補強パイプ Reinforcement pipe		1
4	アーム Arm		2
5	SSZ-707 取付金具 Mounting brackets for SSZ-707		2

No.	品名 Parts Name	外観 Appearance	個数 Quantity
6	ベルト Belt		1
7	六角レンチ(対辺4) Hexagon wrench(Opposite Side 4)		1
8	クランプ (UL-13) Clamp (UL-13)		11
9	付属ボルト (HB5 x 30SUS) Accessory bolt (HB5 x 30SUS)		6
10	付属ネジ (BNK4 x 10Fe, Ni) Accessory screw (BNK4 x 10Fe, Ni)		8
11	付属ネジ (BNK5 x 20Fe, Ni) Accessory screw (BNK5 x 20Fe, Ni)		4
12	付属ネジ (CNKG6 x 65) Accessory screw (CNKG6 x 65)		2
13	付属ネジ (Bタイト3 x 6) Accessory screw (B tight 3 x 6)		10
14	付属ネジ (ANK3 x 12Fe, Ni) Accessory screw (ANK3 x 12Fe, Ni)		4

SECTION 4 DISASSEMBLING PROCEDURE

02 搭載台の取り付け方法  
Procedure for Installing Mounting Rack

- (1) パネルエスカッション後方のキャップ2個を取り外し、ねじ2本を外す。(図中㊸)
- (2) 補強パイプを、付属ねじ2本でパネルエスカッション後方に取付ける。(図中㊹)
- (3) 付属ねじ2本を、シール4枚をはがした後リアカバーのねじ穴にすまきまをあけてねじこみ、取付金具をだるま穴にねじ合わせて取り付ける。(図中㊺)
- (4) 取付金具の下2か所を付属ねじ2本で取り付け、だるま穴のねじ2本を締め付ける。(図中㊻)

- (1) Remove 2 caps in the rear of panel escutcheon and unfasten 2 screws. (㊸ in Fig.)
- (2) Use 2 accessory screws to tack reinforcement pipe in the rear of panel escutcheon. (㊹ in Fig.)
- (3) After peeling off 4 seals, make gap in rear cover screw hole and screw 2 accessories screws into gap. And install mounting bracket, with dwell holes adjusted to screws. (㊺ in Fig.)
- (4) Install mounting bracket at 2 lower locations with 2 accessory screws. And tighten 2 screws in dwell holes. (㊻ in Fig.)

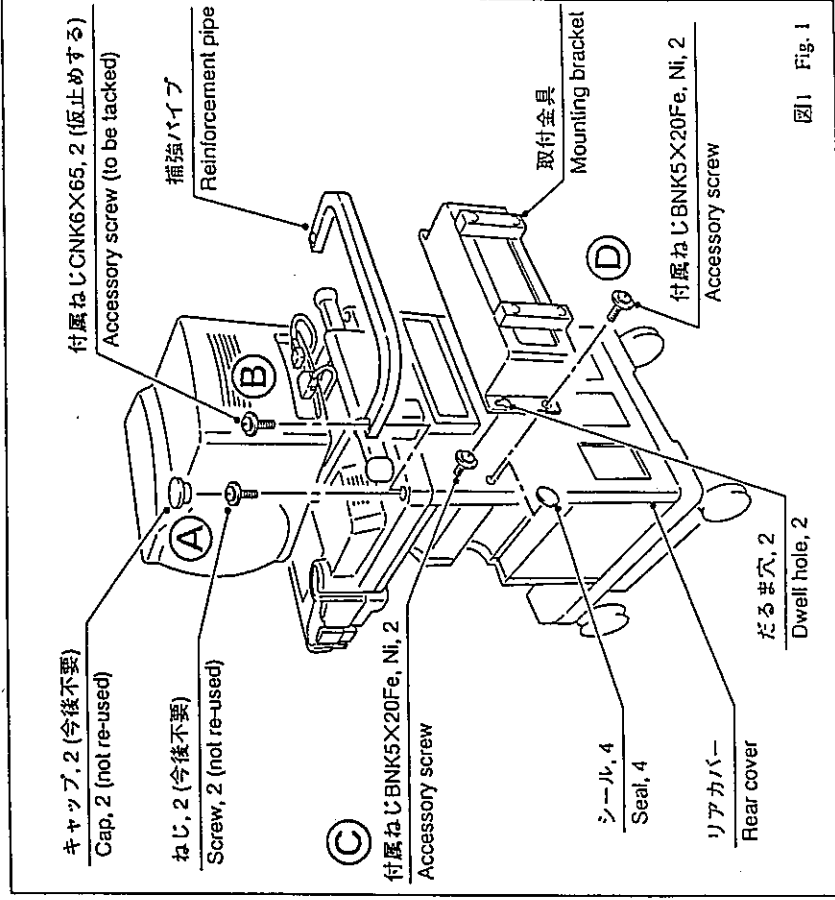
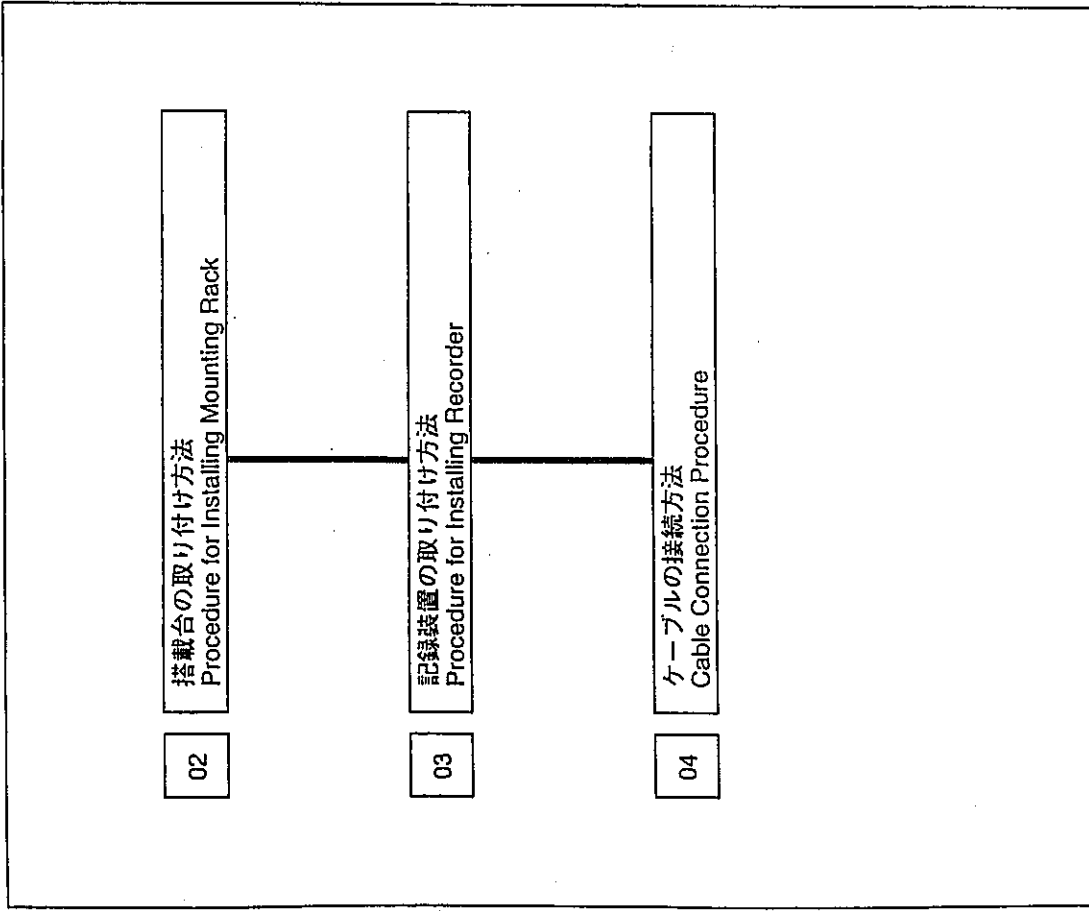


図1 Fig. 1

01 据付フローチャート  
Installation Flow Chart

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートのINDEX No.が、各ページの目出しNo.と一致しています。

This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.



- (5) アーム2本を取付金具の角穴に差し込み、付属ボルト6本で仮止めする。(図2Ⓐ)
- (6) 搭載台を、付属ねじ4本でアームに仮止めする。(図3Ⓑ)
- (7) 仮止めておいたねじ6本、ボルト6本を図の①~③の順に締め付ける。(図4Ⓒ)

(5) Insert 2 arms into square holes on mounting bracket and tack them with 6 accessory bolts. (Ⓐ in Fig. 2)

(6) Use 4 accessory screws to tack mounting rack onto arm. (Ⓑ in Fig. 3)

(7) Follow Steps ① thru ③ as illustrated to tighten 6 screws and 6 bolts, both tacked beforehand. (Ⓒ in Fig. 4)

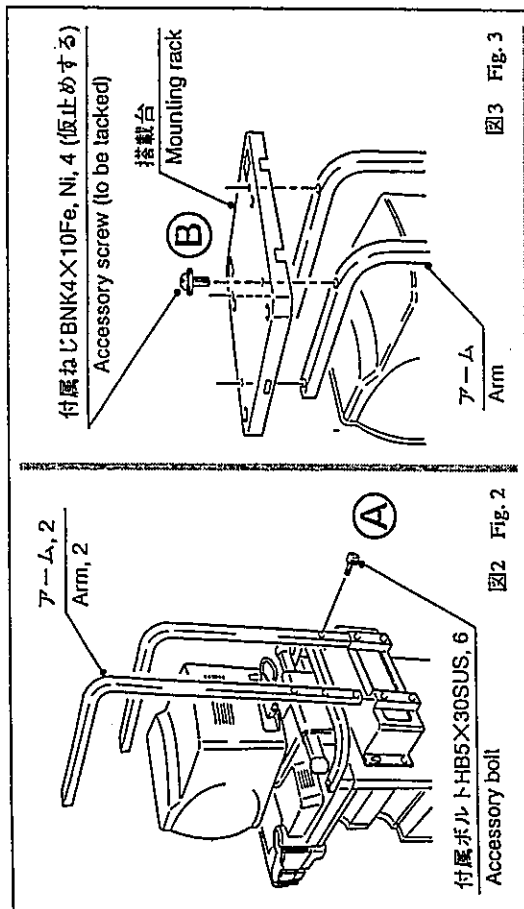


図3 Fig. 3

付属ボルトHB5×30SUS, 6  
Accessory bolt

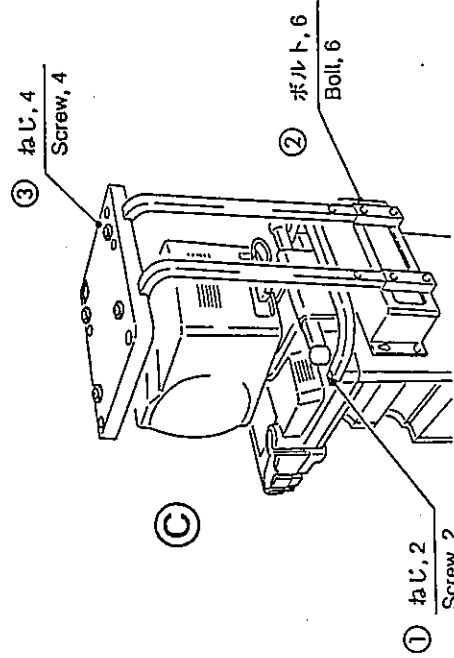


図4 Fig. 4

03

記録装置の取り付け方法  
Procedure for Installing Recorder

本搭載台は次の記録装置を取り付け可能です。

SSZ-707, CP700, SVO-9500MD, AG-7300, AG-7330, AG-7350

本要領書では次の3つの取り付け方法を説明しています。

- SSZ-707のねじ固定の方法
- CP700のねじ固定の方法
- 注意：ねじ固定する場合はCP700用のメーカーオプションの取付金具が必要です。
- ベルトを用いた固定方法 (全記録装置対応)

Mounting rack permits following recorders to be installed.

SSZ-707, SVO-9500MD, AG-7300, AG-7330 and AG-7350

For installation, the following 3 methods are described in the present instruction manual.

- How to Fix SSZ-707 with Screws

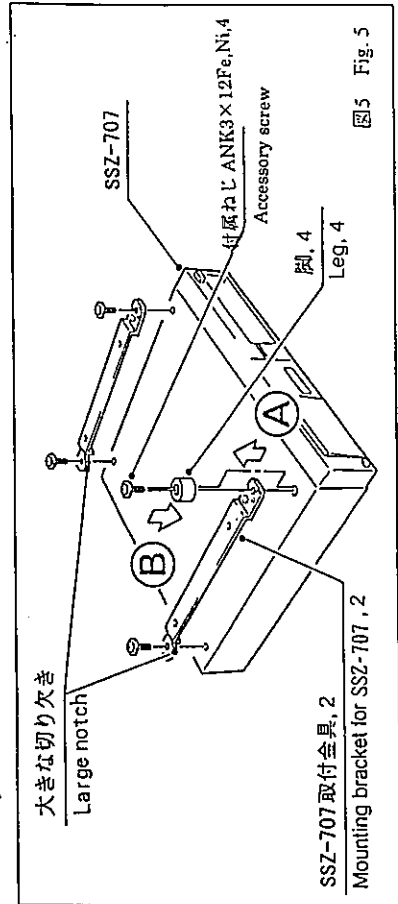
- How to fix with Belt (applicable to all recorder models)

● SSZ-707のねじ固定の方法

- (1) SSZ-707底面の脚4個を、ねじ各1本を外して取り外す。(図中Ⓐ)
- (2) SSZ-707取付金具2個と(1)で外した脚4個を、付属のねじ4本でSSZ-707底面に取り付ける。(図中Ⓑ)
- ※ SSZ-707取付金具の大きな切り欠きの位置に注意すること。

● How to Fix SSZ-707 with Screws

- (1) Unfasten 1 each screw of 4 legs on the bottom of SSZ-707 and remove it. (Ⓐ in Fig.)
- (2) Use 4 accessory screws unfasted as referred to install 2 mounting brackets for SSZ-707 and 4 legs removed as referred to in (1) above on the bottom of SSZ-707. (Ⓑ in Fig.)
- ※ Pay attention to locations of large notches on mounting brackets for SSZ-707.



- (3) SSZ-707 を、脚を搭載台の穴に含ませて載せ、付属ねじ4本で取り付ける。(図6㉔)
- CP700のねじ固定の方法
  - (1) CP700底面の脚4個を、ねじ各1本を外して取り外す。(図7㉔)
  - (2) CP700に付属している取付金具2個を、付属ねじ各2本でCP700底面に取り付ける。(図7㉔)
  - (3) CP700を、付属ねじ4本で搭載台に取り付ける。(図8㉔)

(3) Place SSZ-707 on mounting rack, with legs adjusted to holes on rack. Then, use 4 accessory screws to install SSZ-707 on mounting rack. (㉔ in Fig. 6)

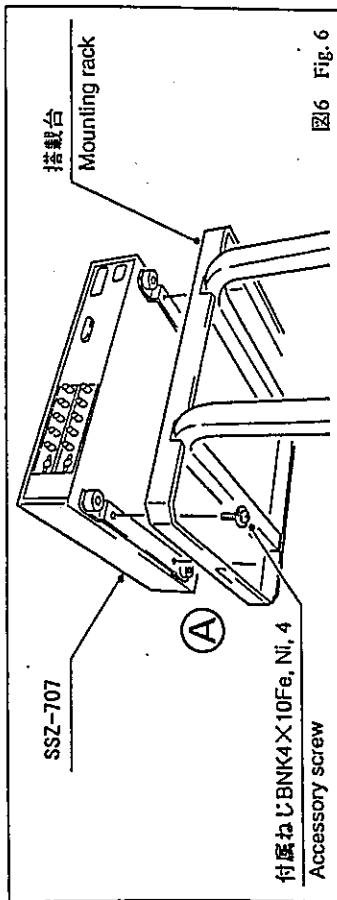


図6 Fig. 6

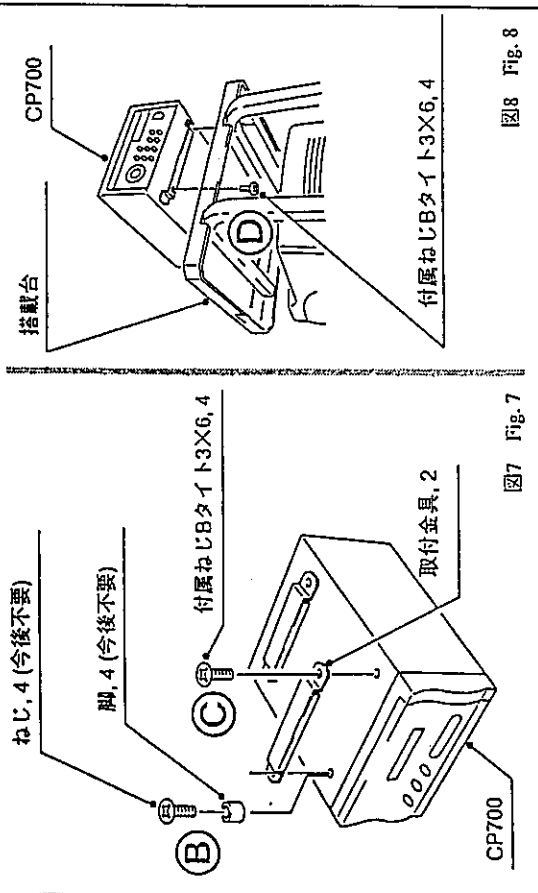


図8 Fig. 8

図7 Fig. 7

- ベルトを用いた固定方法 (全記録装置対応)
- (1) ベルトを、図を参考にして搭載台に取り付ける。(図9㉔)
- (2) 記録装置を、脚のピンチに合った穴に含ませて搭載台に載せる。(図10㉔)
- (3) 記録装置をベルトで固定する。(図11㉔)

● How to Fix With Belt (applicable to all recorder models)

- (1) Install belt on mounting rack while referring to illustration. (㉔ in Fig. 9)
- (2) Place recorder on mounting rack as adjusted to holes pitched in line with legs. (㉔ in Fig. 10)
- (3) Use belt to fix recorder. (㉔ in Fig. 11)

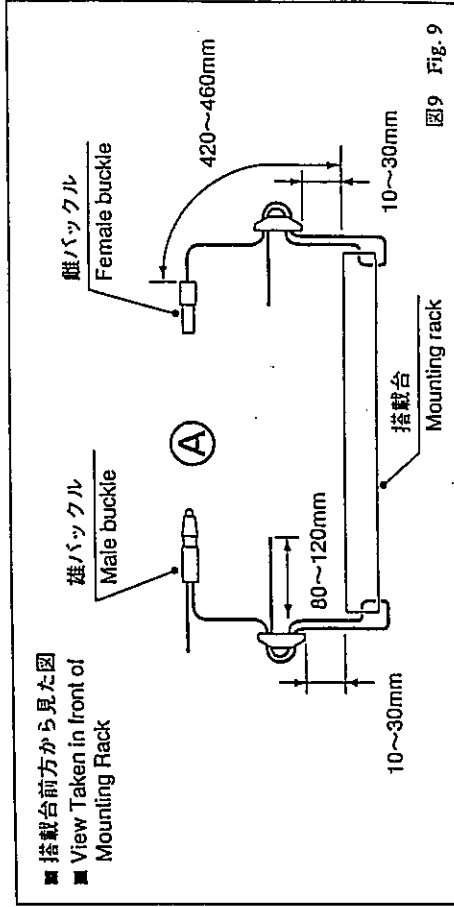


図9 Fig. 9

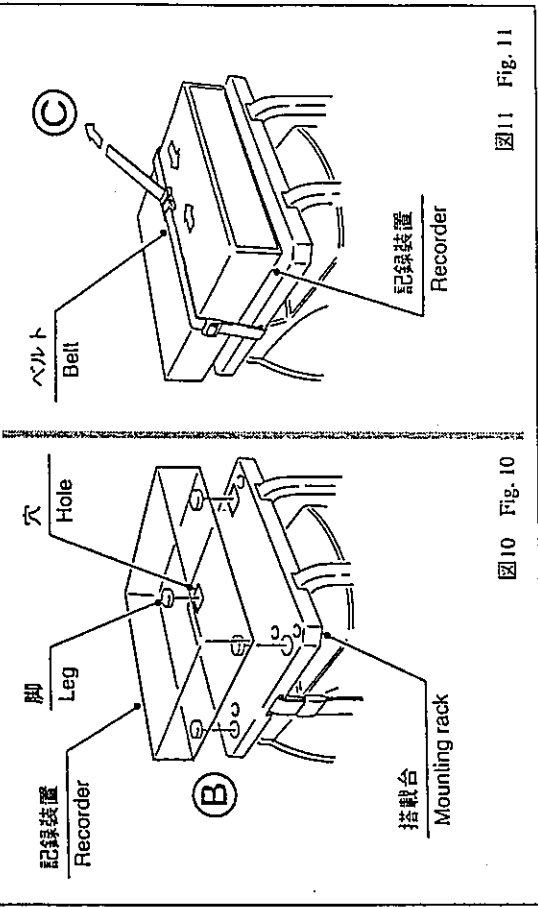


図10 Fig. 10

図11 Fig. 11



04 ケーブルの接続方法  
Cable Connection Procedure

※ 本要領書では SSZ-707 のケーブル接続方法について説明しています。

- (1) 信号ケーブル、電源ケーブルを、SSZ-707 背面にそれぞれ接続する。(図12 ㉔)
- (2) 信号ケーブルを、フロントカバーの接検板に接続する。(図13 ㉕)
- (3) 電源ユニットの接検カバーをねじ1本を外して取り外し、電源ケーブルのコネクタを接続する。(図13 ㉖)

※ This procedure describes how to connect cabling with SSZ-707

- (1) Plug signal and power cables, respectively, in SSZ-707 on the back. (㉔ in Fig. 12)
- (2) Plug signal cable in receptacle board on front cover. (㉕ in Fig. 13)
- (3) Unfasten 1 screw and remove receptacle cover from power supply unit. And plug in power cable connector. (㉖ in Fig. 13)

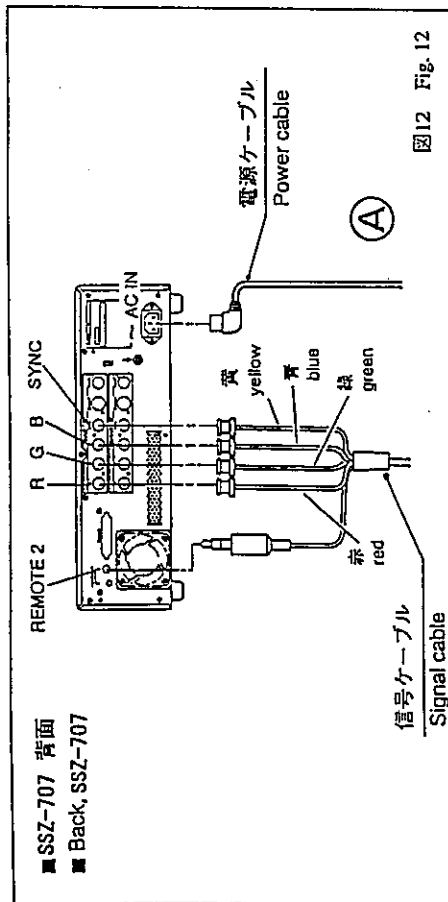


図12 Fig. 12

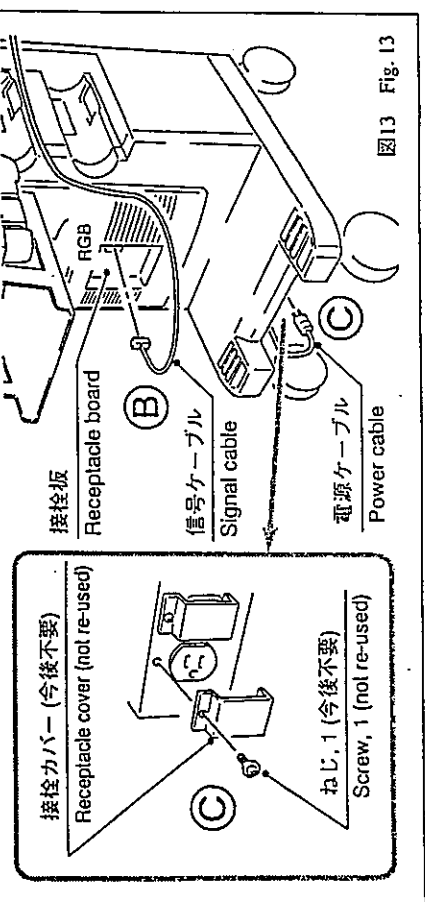


図13 Fig. 13

- (4) クランプ11個を、図の位置に貼り付ける。(図中 ㉔)
- (5) 電源ケーブルを、図を参考にして電源ユニット側からクランプに固定していく。(図中 ㉕)
- ※ ケーブルがたるまないようにクランプすること。
- (6) 信号ケーブルを、図を参考にして SSZ-707 と接検板の両側から ㉕ の位置に向かってクランプに固定していく。(図中 ㉖)
- ※ ケーブルがたるまないようにクランプすること。
- (7) ㉖ の位置で余ったケーブルを、取付金具と補強パイプの間に押し込む。(図中 ㉗)

(4) Attach 11 clamps at locations shown in illustration. (㉔ in Fig.)

(5) While referring to illustration, secure power cable in clamps sequentially away from power supply unit. (㉕ in Fig.)

※ Clamp cable so that it may not slacken.

(6) While referring to illustration, secure signal cable in clamps sequentially toward Position ㉖ from the side of both SSZ-707 and plug receptacle board. (㉖ in Fig.)

(7) Force excess cable to be pushed into gap between mounting brackets and reinforcement pipe at Position ㉗. (㉗ in Fig.)

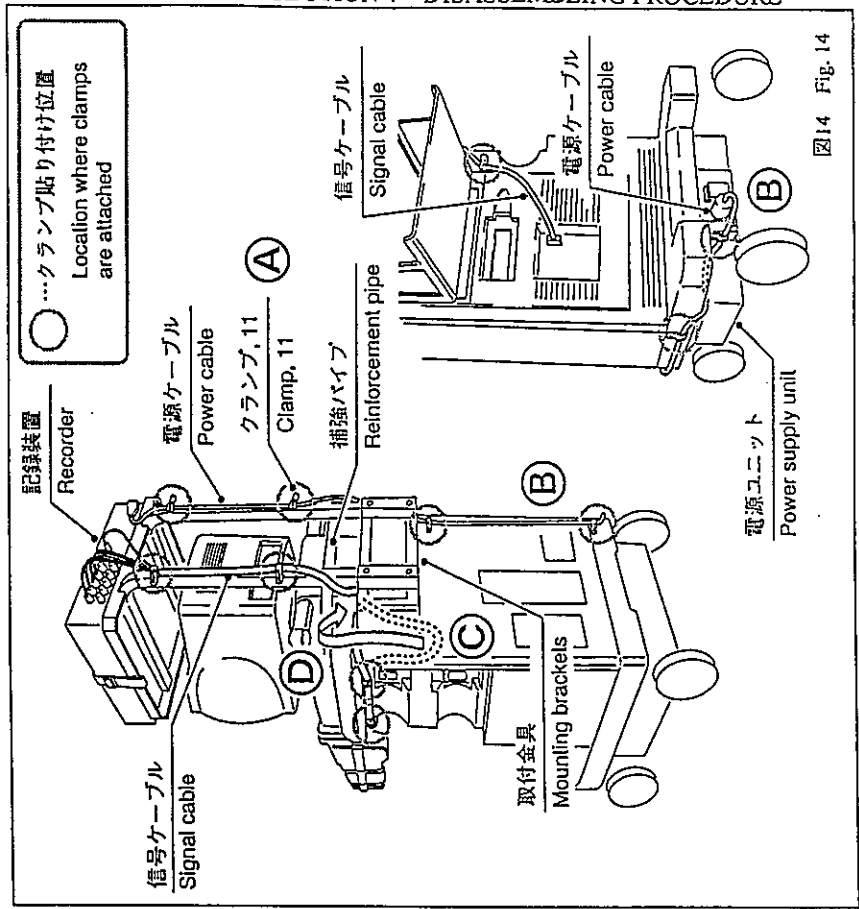


図14 Fig. 14

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**EU-3037 据付要領書**  
**EU-3037 INSTALLATION PROCEDURES**

Fig. 1

この据付要領書は、EU-3037の部品等の図、据付の資料としてご使用ください。  
 なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って  
 作業を進めてください。

必要な工具: プラスドライバー、デジタルマルチメーター (あらかじめ用意すること)


These installation procedures are provided for reference in installation of EU-3037.  
 This book is made up based on the installation flow chart, then follow the procedures described in this  
 book in installation work.

Tool required: Phillips screw driver, Digital multi meter (Provide it beforehand.)

00	付属部品リスト List of Accessory Parts		
----	------------------------------------	--	--

下記の付属品が揃っているか確認してください。

Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	PC板 (EP389700)  PC board (EP389700)		2

01	据付フローチャート Installation Flow Chart
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このフローチャートは、作業手順の表示と目次を兼ねています。  
 フローチャートのINDEX No.が、各ページの見出しNo.と一致しています。  
 This flow chart shows the indication of working procedures and the table of content.  
 Then, No. of the flow chart is coincident with INDEX No. of each page.

02	カバールの取り外し方法 Removing of cover
03	付属PC板の取り付け方法 Installing the Accessory PC Board
04	カバールの取り付け方法 Mounting of Cover

02 カバールの取り外し方法  
Removing of cover

※カラープリンタ搭載台(MP-FX1700-2)の無い装置は(1)~(5)の作業は不要  
 (1) 記録装置からコネクタを全て取り外す。(図1③)  
 (2) 図の6か所のクランプから、信号ケーブル、電源ケーブルを取り外す。(図1④)

※ Operations (1) thru (5) are not required for equipment without color printer rack  
 (MP-FX1700-2).

(1) Unplug all connectors out of recorder. (③ in Fig.)  
 (2) Remove both signal and power cables from 6 clamps illustrated. (④ in Fig.)

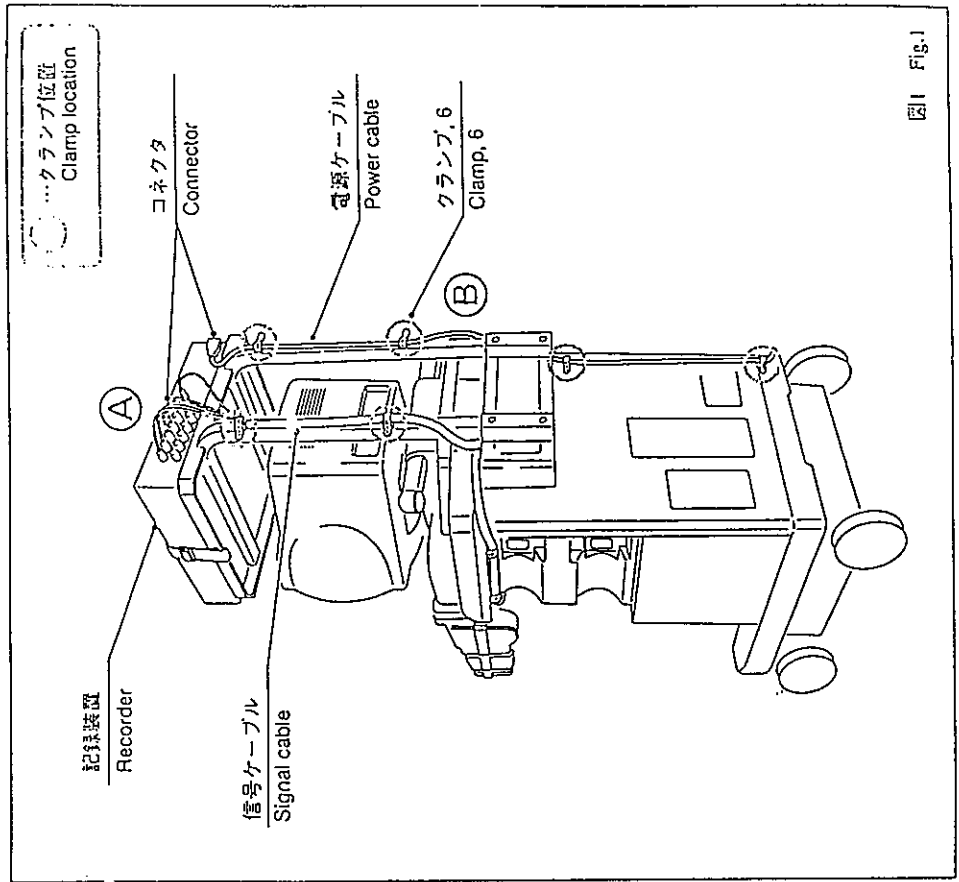


図1 Fig.1

03 付属PC板の取り付け方法  
Installing the Accessory PC Board

- (1) ファンを、だるま穴のねじ4本をゆるめて取り外す。(図中㉔)
- (2) PC板固定金具2本をねじ各2本を外して取り外す。(図中㉕)
- (3) PC板抜き差し工具2個を、PC板固定金具の側の位置裏側のクランプより取り外す。(図中㉖)

- (1) To remove fan, loosen 4 screws. (㉔ in Fig.)
- (2) Unfasten 2 screws and remove 2 pieces of PC board securing hardware. (㉕ in Fig.)
- (3) Remove 2 pieces of PC board push-in / pull-out tool from clamp on the back of PC board securing hardware. (㉖ in Fig.)

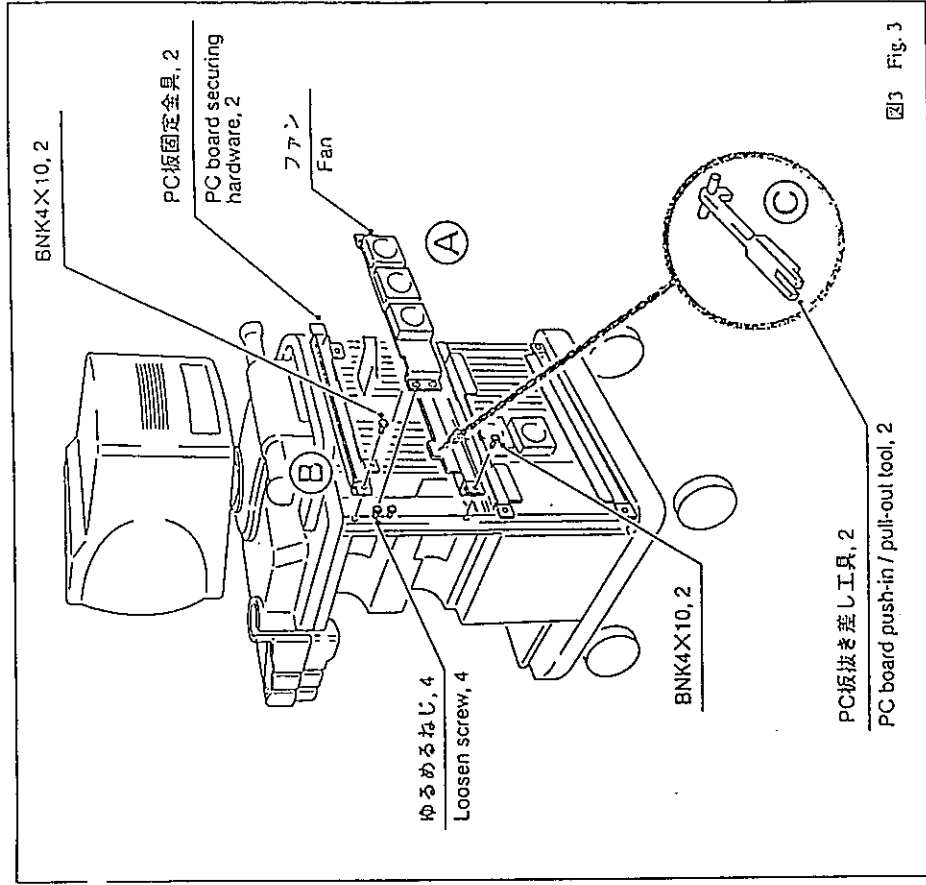


図3 Fig. 3

MS5-0607

-4-

- (3) 記録装置をねじ4本、またはベルトを外して搭載台から降ろす。(図中㉗)
- (4) カラープリンタ搭載台(上部)を六角穴付きボルト6本を外して取り外す。(図中㉘)
- (5) カラープリンタ搭載台(下部)をだるま穴のねじ2本をゆるめ、ねじ2本を外して取り外す。(図中㉙)
- (6) リアカバーをねじ6本を外して取り外す。(図中㉚)

- (3) Remove screw or belt, and put down recorder from mounting rack. (㉗ in Fig.)
- (4) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (㉘ in Fig.)
- (5) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (㉙ in Fig.)
- (6) Unfasten 6 screws and remove rear cover. (㉚ in Fig.)

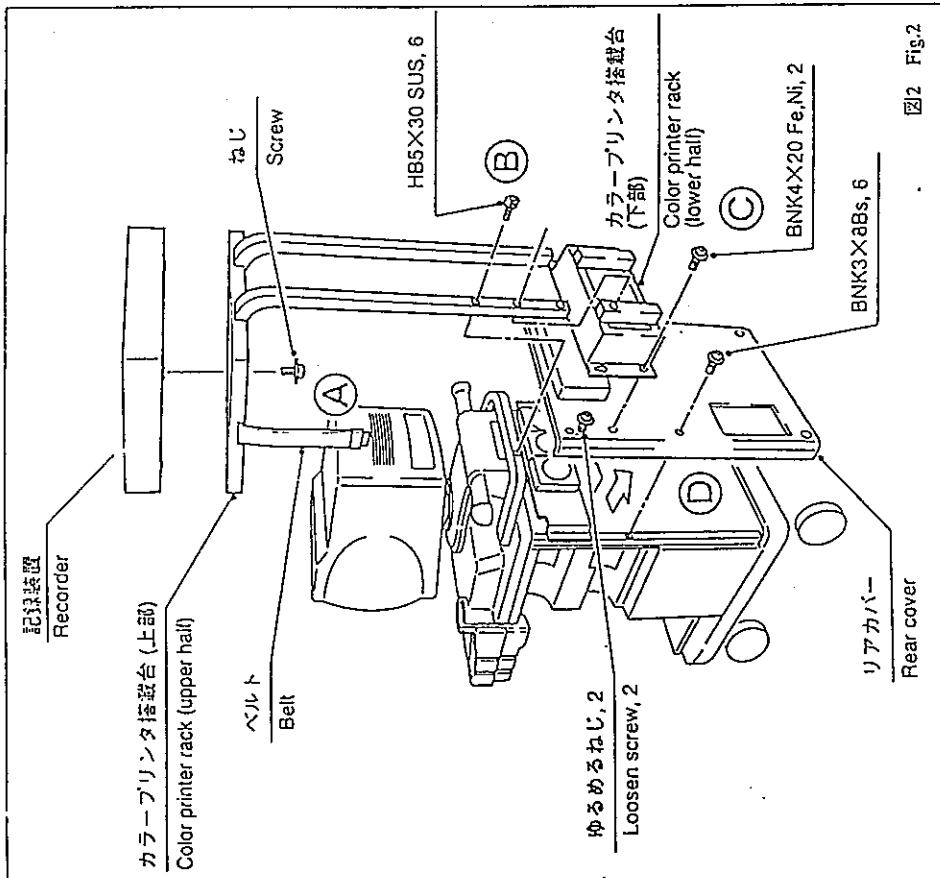


図2 Fig. 2

MS5-0607

-3-

Rev.1

※ SSD-1700本体の製造番号がS/N 6200071～、S/N 96900031～、又は本体のソフトウェアバージョンが2.0以降の装置のみ(6)～(9)の作業を行う。

(6) PC板固定金具2本を、ねじ各2本を外して取り外す。(図中㊸)

※ Operations (6) thru (9) below are applicable only to SSD-1700 whose bodies are serially numbered 6200071 and up, and 96900031 and up, or to equipment whose software is Version 2.0 and up.  
 (6) Unfasten 2 screws and remove 2 PC board securing hardware.(㊸ in Fig.)

(4) 付属PC板(EP389700)2枚を右から8, 9番目のスロットへ差し込む。(図4㊸)  
 (5) PC板抜き差し工具2個のツメをPC板スロット手前の角穴に引っ掛け、図のようにPC板を確実に押し込む。(図5㊸)

(4) Insert two accessory PC boards (EP389700) into 8th and 9th slots as counted from the right.  
 (㊸ in Fig.4)

(5) Put 2 claws of PC board push-in / pull-out tool on square hole in front of PC board slot and securely push in PC board as illustrated. (㊸ in Fig.5)

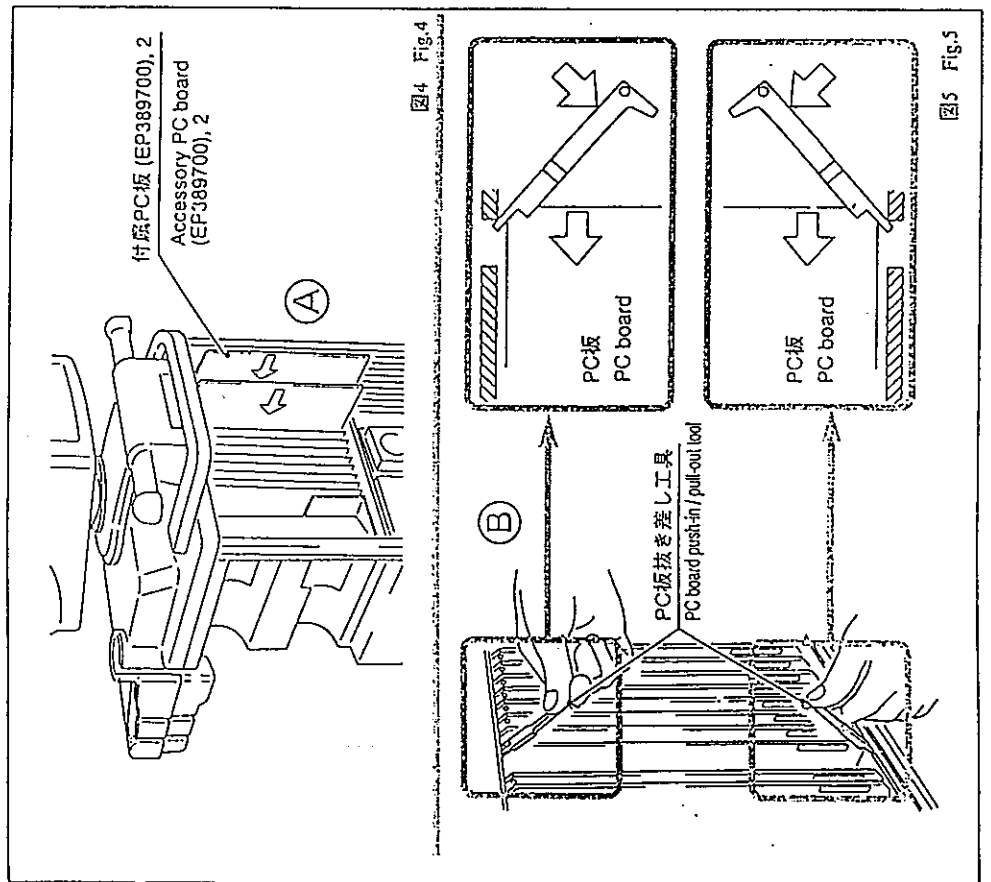


図4 Fig.4

図5 Fig.5

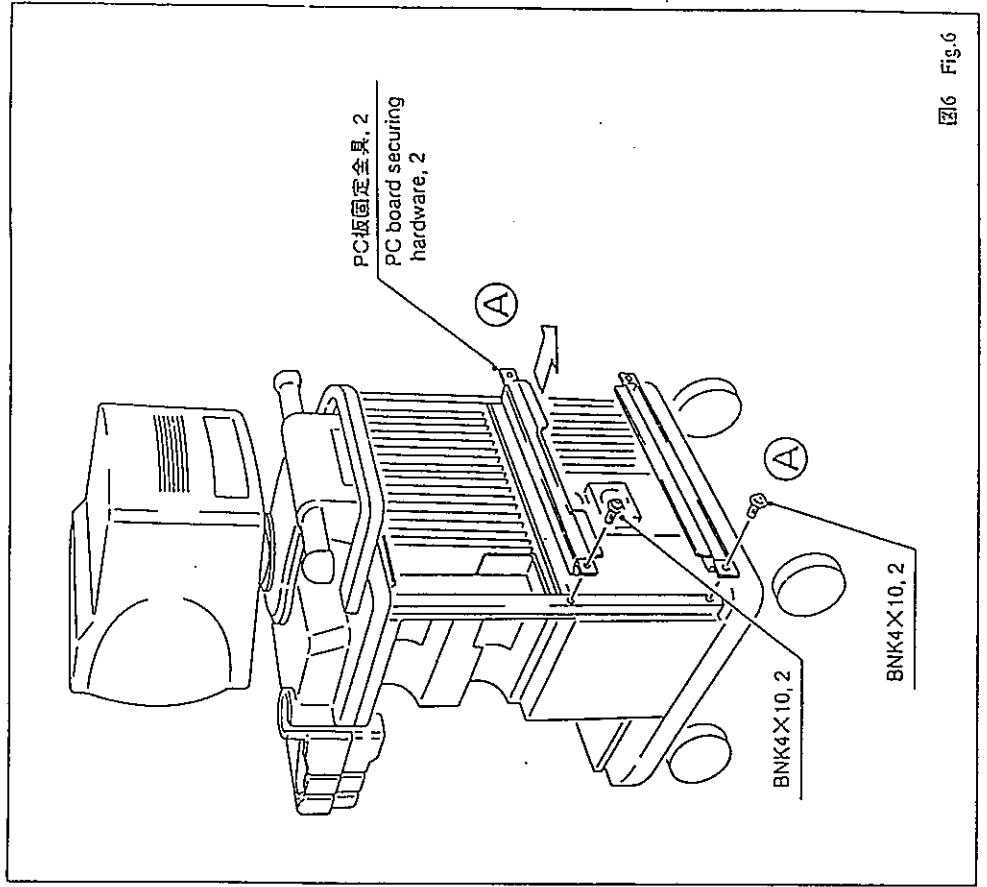


図6 Fig.6

Rev. 1

- (1) 次の感度調整を行なう。
- (2) Make adjustment in accordance with procedure as follow.

準備

EU-3017 電池は、SSD-1700 本体の電源を入れ約30分通電する。(PCBを暖めるため)セクタロープを巻戻し、PREST内のアプリケーションをCARDIOでINITIALIZE ALL DATAしておく。

- 1. -5VB (EP396300)の調整  
デジタルマルチメータを用いてEP396300のTP15の電圧がTP14と同じになるようにRV1を調整する。

2. 感度差 (EP389700) の調整

設定条件

MODE : 8, MAGNIFICATION/RANGE : 19 cm, GAIN : MAX, STC : MAX, B-CONT : 8, FOCUS : 8のみON.

セクタロープの画像が下図のように感度差がある場合、次の要領で調整を行う。(高い感度を低い方に合わせる。)

Preparations

After incorporating EU-3037, power on SSD-1700 body and keep it electrically live for approximately 30 minutes (to warm up PCB).

Select sector probe, and set application in PREST to INITIALIZE ALL DATA on CARDIO.

- 1. Adjusting -5VB. ( EP396300 )

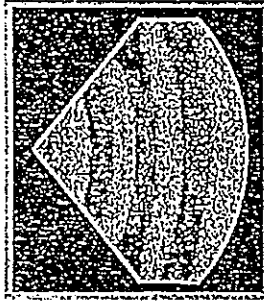
Use digital multi-meter to adjust RV3 so that EP396300 will have the same voltage at TP15 as that at TP14.

- 2. Adjusting Sensitivity Difference ( EP389700 ).

Setting Conditions:

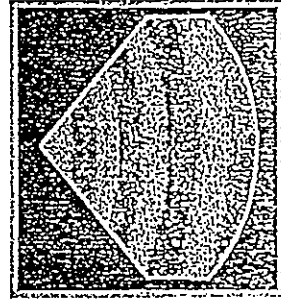
MODE : 8, MAGNIFICATION/RANGE : 19 cm, GAIN : MAX, STC : MAX, B-CONT : 8, FOCUS : 8 ONLY ON

If sector probe has image displayed with difference in sensitivity as illustrated below, make adjustment in accordance with procedure as follow: (High sensitivity should be adjusted to low on.)



左図のように感度差が上から低い、高い、低い順の場合、装置の後ろから見て左側のEP 389700の基板にあるポリウムRV1を調整して感度差が無くなるように合わせる。(RV1は長さ14cm以上の調整ドライバーを使用すればPCBを挿入したまま調整可能です。)

If sensitivity should differ low → high → low in that order from the top as illustrated on the left side, adjust Control RV1 located on PC Board EP389700 to the left side as viewed behind equipment. Set RV1 so as to eliminate difference in sensitivity. (RV1 is adjustable with 14cm or longer screw-driver, while leaving PCB inserted in place.)



左図のように感度差が上から高い、低い、高い順の場合、装置の後ろから見て右側のEP 389700の基板にあるポリウムRV1を調整して感度差が無くなるように合わせる。(RV1は長さ14cm以上の調整ドライバーを使用すればPCBを挿入したまま調整可能です。)

If sensitivity should differ high → low → high in that order from the top as illustrated on the right side as viewed behind equipment. Set RV1 so as to eliminate difference in sensitivity differ. (RV1 is adjustable with 14cm or longer screw-driver, while leaving PCB remaining inserted in place.)

図9 Fig.9

- (7) PC board (EP375300) inserted in third place counted from the right should be pulled out. To do so, fit protrusions of two PC board pullers in hole on PC board, and hook square hole in slot with tool at the claw. Then, pull out PC board as illustrated. (A in Fig.)

- (8) Turn on 7 of SW1 on PC board (EP375300). (B in Fig.)

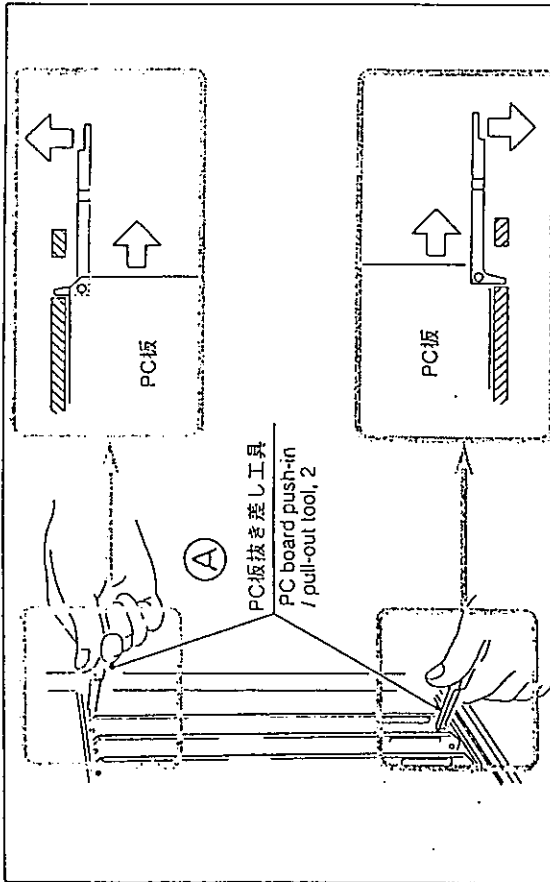


図7 Fig.7



MS5-0607

-7-

MS5-0607

-8-

### 3. ベースレベル (EP389900) の調整

#### 調整条件

B-Mode, MAGNIFICATION / RANGE : 10 cm, B-GAIN : MAX, STC : MAX, CONT : 1  
下記の手順で調整のみ白レベルにした時、ホワイトノイズが一杯になるよう調整を行う。

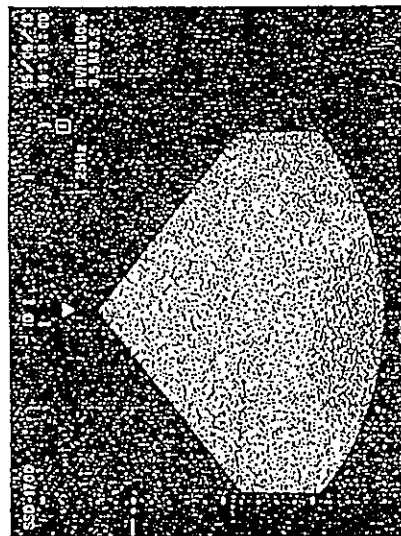
MARK REF SW と T (キーボード) を同時に押す → MENU → 6 → 6 → 3 (TEST  
逆次) → 6 → 3 (B LVL 選択)

### 3. Adjusting Base Level (EP389900)

#### Setting Conditions:

B-Mode, MAGNIFICATION / RANGE : 19 cm, B-GAIN : MAX, STC : MAX, CONT : 1  
Make adjustment so that white noise will be saturated, when four graduations only are set  
to white level as illustrated.

Press MARK, REF switch and T (keyboard) at a time. → MENU → 6 → 6 → 3 (Select  
TEST) → 6 → 3 (Select B LVL.)



### 4. 動作確認

実際に EU-3037 相込み前と同様な画像が表示されていること。

### 4. Making Certain of Operation:

Image similar to that prior to incorporation of EU-3037 must be displayed as it is mounted.

図10 Fig.10

(10) PC板抜き差し工具2個を、PC板固定金具の図の位置裏面にクランプする。(図中Ⓐ)

(11) PC板固定金具4本を、ねじ各8本で取り付ける。(図中Ⓑ)

(12) だるま穴をねじに合わせて、ファンを取り付ける。(図中Ⓒ)

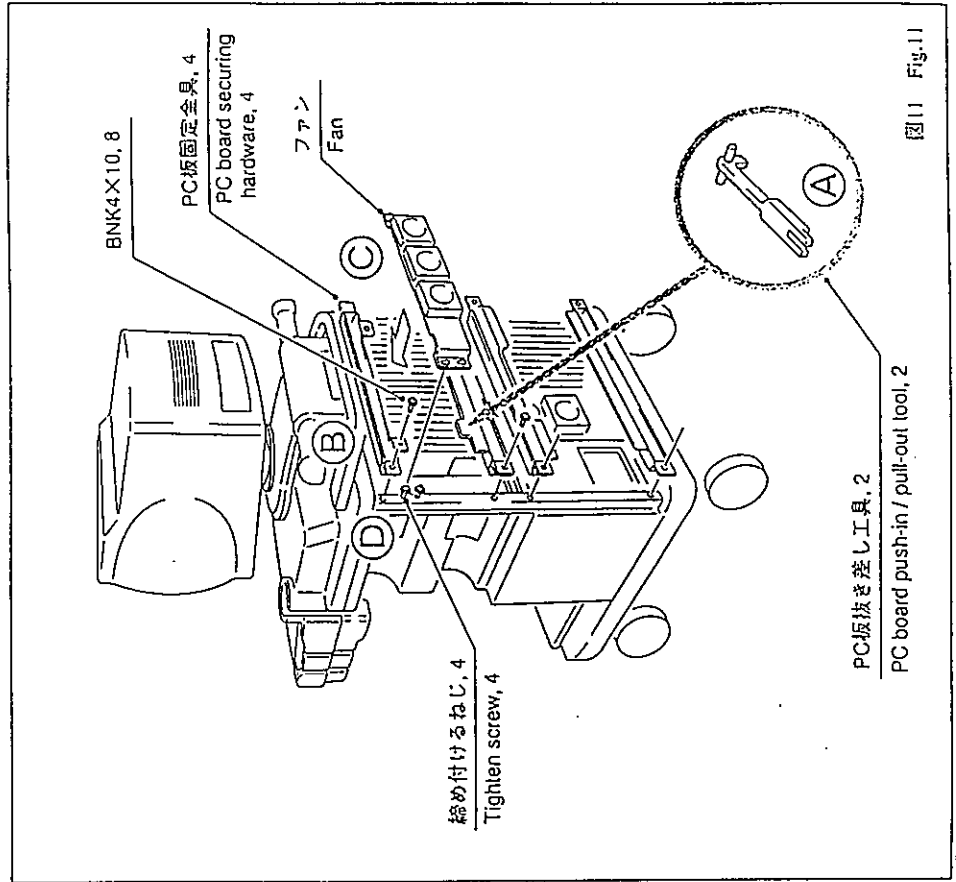
(13) ファンをねじ4本を締め付け固定する。(図中Ⓓ)

(10) Clamp 2 pieces of PC board push-in / pull-out tool on the back of PC board securing hardware at locations illustrated. (Ⓐ in Fig.)

(11) Use 8 screws to install each of 4 PC board securing hardware pieces. (Ⓑ in Fig.)

(12) With dowel holes adjusted to screws, install fan. (Ⓒ in Fig.)

(13) Use 4 tighten screws to mount fan. (Ⓓ in Fig.)



PC板抜き差し工具, 2  
PC board push-in / pull-out tool, 2

図11 Fig.11

04 カバーの取り付け方法  
Mounting of Cover

※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(2)~(3)の作業は不要

- (1) リアカバーを、ねじ6本で取り付ける。(図中㉔)
- (2) 搭載台(下部)を、取り外しと逆の手順で取り付ける。(図中㉕)
- (3) 搭載台(上部)を、取り外しと逆の手順で取り付ける。(図中㉖)
- (4) 記録装置を、取り外しと逆の手順で、ねじまたはベルトで固定する。(図中㉗)

※ Operations (2) thru (3) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Use 6 screws to mount rear cover. (㉔ in Fig.)
- (2) Reverse follow removal steps to install color printer rack (lower half). (㉕ in Fig.)
- (3) Reverse follow removal steps to install color printer rack (upper half). (㉖ in Fig.)
- (4) Reverse follow removal steps to install recorder onto mounting rack with screws or belt. (㉗ in Fig.)

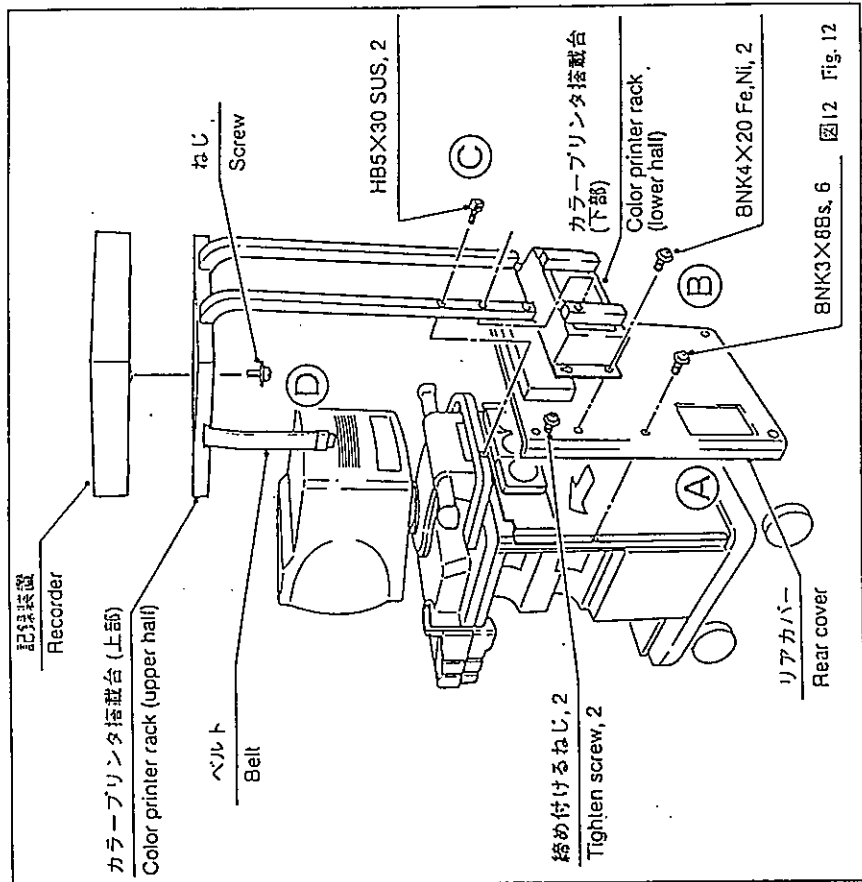


図12 Fig. 12

MSS-0607

-11-

- (5) 信号ケーブルと電源ケーブルのコネクタを、記録装置背面にそれぞれ挿入する。(図中㉘)
- (6) 電源ケーブルを、図の4か所のクランプに固定していく。(図中㉙)
- (7) 信号ケーブルを、図の2か所のクランプに記録装置側から固定していく。(図中㉚)
- (8) ㉘の位置で余ったケーブルを取り付け金具と補強パイプの間に押し込む。(図中㉛)
- (5) Plug both signal and power cable connectors in recorder on the back. (㉘ in Fig.)
- (6) Secure power cable with clamps at 4 illustrated locations. (㉙ in Fig.)
- (7) Secure signal cable with clamps at 2 illustrated locations sequentially on the recorder side, first. (㉚ in Fig.)
- (8) Push excess cable between mounting hardware and reinforcement pipe at Location ㉛. (㉛ in Fig.)

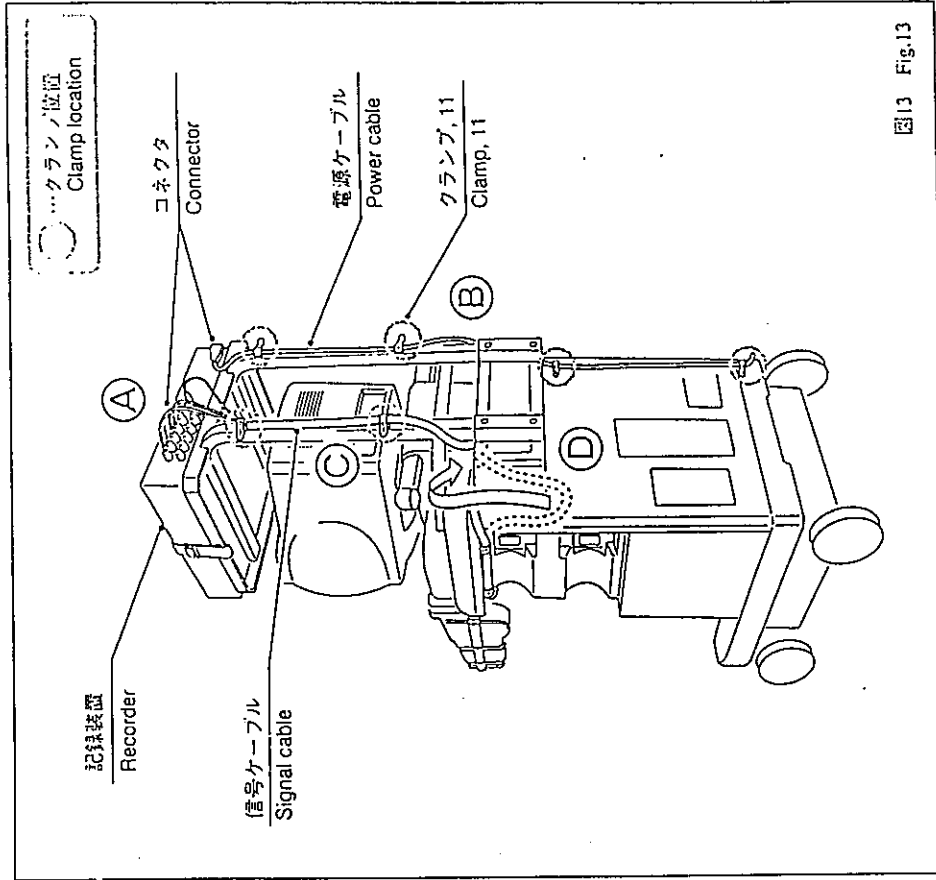


図13 Fig. 13

MSS-0607

-12-



**EU-3037B 据付要領書**  
**EU-3037B INSTALLATION PROCEDURES**

この据付要領書は、EU-3037Bの納品等の際、据付の資料としてご使用ください。  
 なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って  
 作業を進めてください。

必要な工具: プラスドライバー、デジタルマルチメーター (あらかじめ用意すること)

These installation procedures are provided for reference in installation of EU-3037B.




This book is made up based on the installation flow chart, then follow the procedures described in this book in installation work.

Tool required: Phillips screw driver, Digital multi meter (Provide it beforehand)

**00 付属部品リスト**  
**List of Accessory Parts**

下記の付属品が揃っているか確認してください。

Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	P C 板 PC board (EP389701)		1
2	P C 板 PC board (EP389702)		1
3	銘板 Label (P-32-EU-3037-1)		1

**01 据付フローチャート**  
**Installation Flow Chart**

このフローチャートは、作業手順の表示と目次を兼ねています。  
 フローチャートのINDEX No.が、各ページの見出しNo.と一致しています。  
 This flow chart shows the indication of working procedures and the table of content.  
 Then, No. of the flow chart is coincident with INDEX No. of each page.

02	カバーの取り外し方法 Removing of cover
03	付属PC板の取り付け方法 Installing the Accessory PC Board
04	カバーの取り付け方法 Mounting of Cover

**02 カバーの取り外し方法**  
**Removing of cover**

※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(1)~(5)の作業は不要

- (1) 記録装置からコネクタを全て取り外す。(図中㊸)
- (2) 図の6か所のクランプから、信号ケーブル、電源ケーブルを取り外す。(図中㊹)

※ Operations (1) thru (5) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Unplug all connectors out of recorder. (㊸ in Fig.)
- (2) Remove both signal and power cables from 6 clamps illustrated. (㊹ in Fig.)

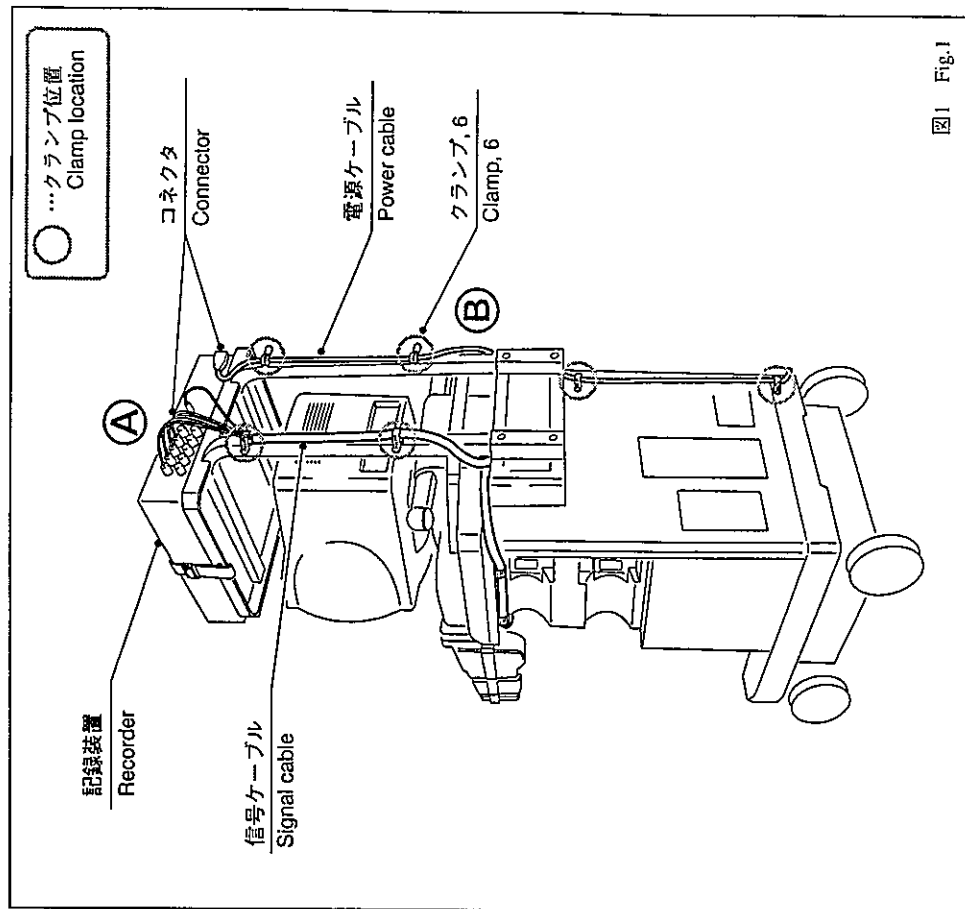


図1 Fig.1

03 付属PC板の取り付け方法  
Installing the Accessory PC Board

- (1) ファンを、だるま穴のねじ4本をゆるめて取り外す。(図中Ⓐ)
- (2) PC板固定金具2本をねじ各2本を外して取り外す。(図中Ⓑ)
- (3) PC板抜き差し工具2個を、PC板固定金具の図の位置裏側のクランプより取り外す。(図中Ⓒ)
- (1) To remove fan, loosen 4 screws. (Ⓐ in Fig.)
- (2) Unfasten 2 screws and remove 2 pieces of PC board securing hardware. (Ⓑ in Fig.)
- (3) Remove 2 pieces of PC board push-in / pull-out tool from clamp on the back of PC board securing hardware. (Ⓒ in Fig.)

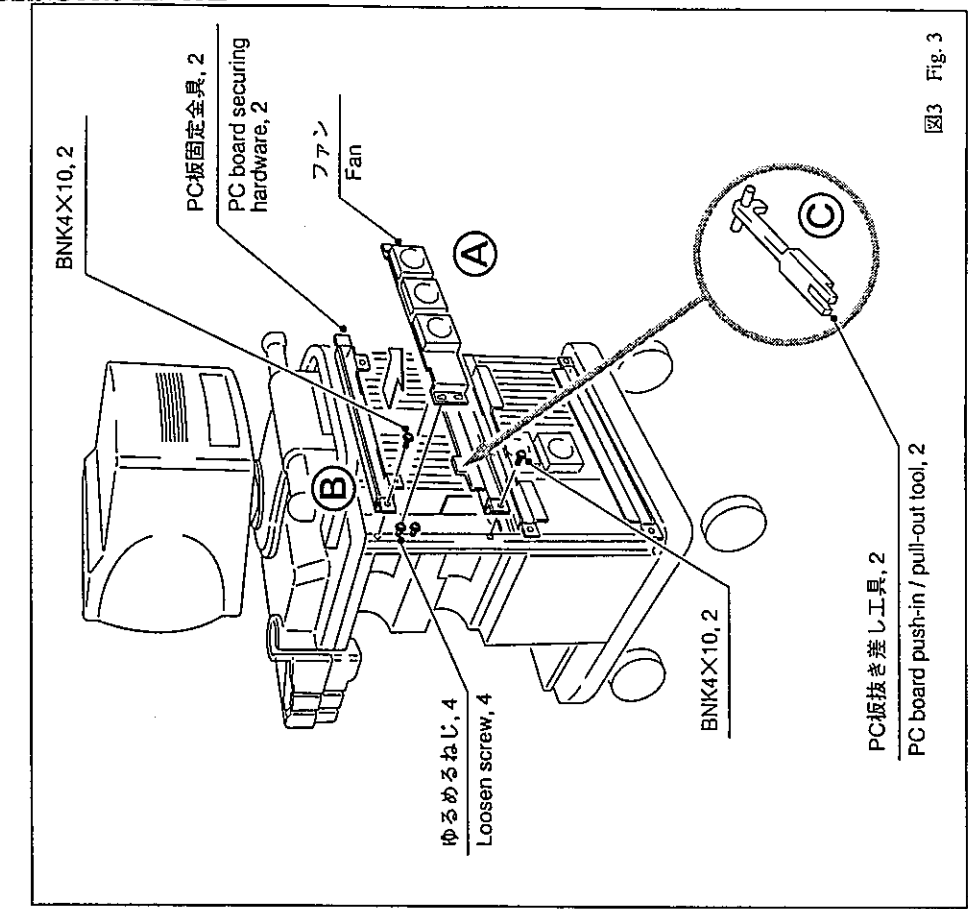


図3 Fig. 3

- (3) 記録装置をねじ4本、またはベルトを外して搭載台から降ろす。(図中Ⓐ)
- (4) カラープリンタ搭載台(上部)を六角穴付きボルト6本を外して取り外す。(図中Ⓑ)
- (5) カラープリンタ搭載台(下部)をだるま穴のねじ2本をゆるめ、ねじ2本を外して取り外す。(図中Ⓒ)
- (6) リアカバーをねじ6本を外して取り外す。(図中Ⓓ)
- (3) Remove screw or belt, and put down recorder from mounting rack. (Ⓐ in Fig.)
- (4) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (Ⓑ in Fig.)
- (5) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (Ⓒ in Fig.)
- (6) Unfasten 6 screws and remove rear cover. (Ⓓ in Fig.)

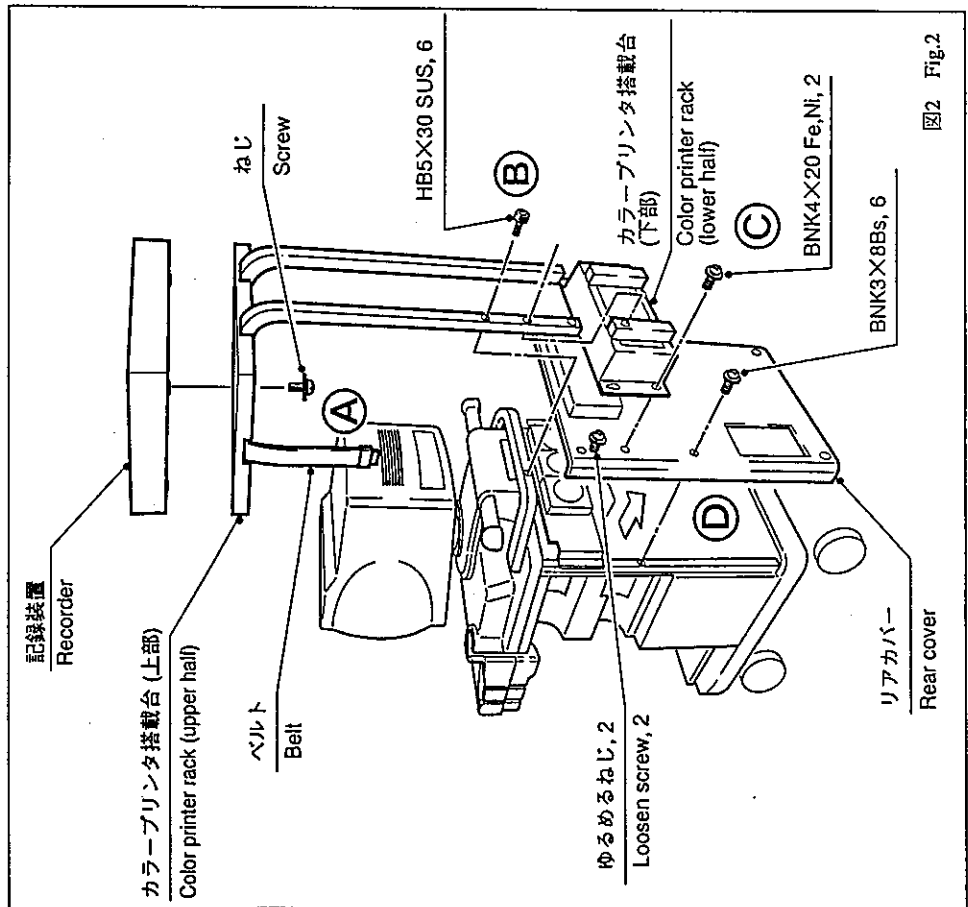


図2 Fig. 2

Rev.1

- ※ SSD-1700 本体の製造番号が S/N 6200071 ~、S/N 9690031 ~、又は本体のソフトウェアバージョンが 2.0以降の装置のみ(6)~(9)の作業を行う。
- (6) PC板固定金具2本を、ねじ各2本を外して取り外す。(図中Ⓐ)
- ※ Operations (6) thru (9) below are applicable only to SSD-1700 whose bodies are serially numbered 6200071 and up, and 9690031 and up, or to equipment whose software is Version 2.0 and up.
- (6) Unfasten 2 screws and remove 2 PC board securing hardware pieces. (Ⓐ in Fig.)

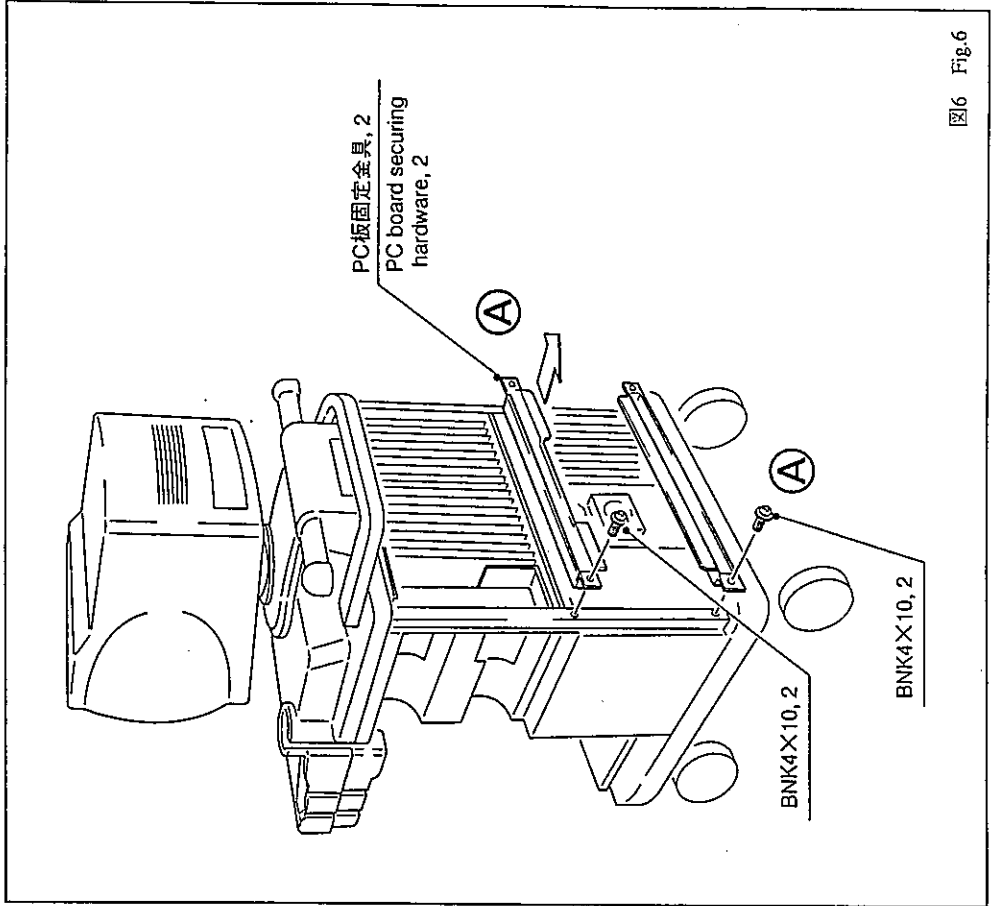


図6 Fig.6

Rev.2

- ※ SSD-1700 本体の製造番号が S/N: ~6200555, S/N: ~9690709 のみ(4)の銘板貼付作業を行う。
- (4) 付属銘板(P-32-EU-3037-1)を図のように右から8,9番目のスロット銘板の上に貼り、付属PC板(EP389701,EP389702)2枚を順番に右から8,9番目のスロットへ差し込む。(図4Ⓐ)
- (5) PC抜き差し工具2個のツメをPC板スロット手前の角穴に引っ掛け、図のようにPC板を確実に押し込む。(図5Ⓐ)
- ※ Operation label attaching of (4) below is applicable only to SSD-1700 whose bodies are S/N: ~6200555, S/N: ~9690709 .
- (4) Attach accessory label(P-32-EU-3037-1) on slotlabel at 8th and 9th slots as counted from the right shown below, and insert two accessory PC boards (EP389701,EP389702) into 8th and 9th slots as counted from the right in that order. (Ⓐ in Fig.4)
- (5) Put 2 claws of PC board push-out on square hole in front of PC board slot and securely push in PC board as illustrated. (Ⓑ in Fig.5)

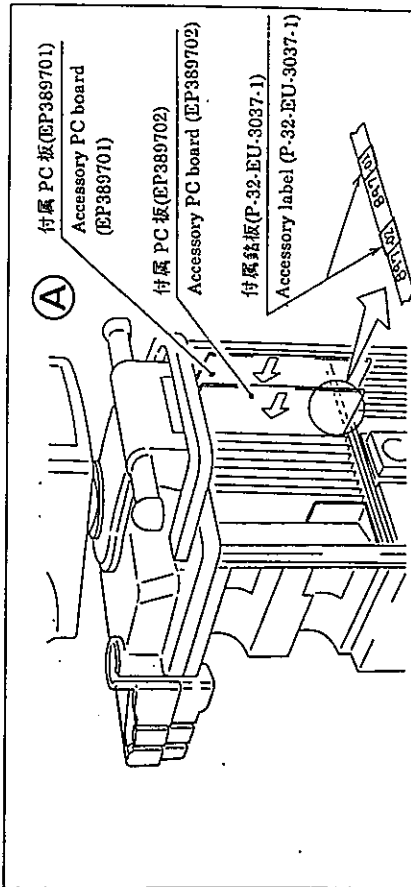


図4 Fig.4

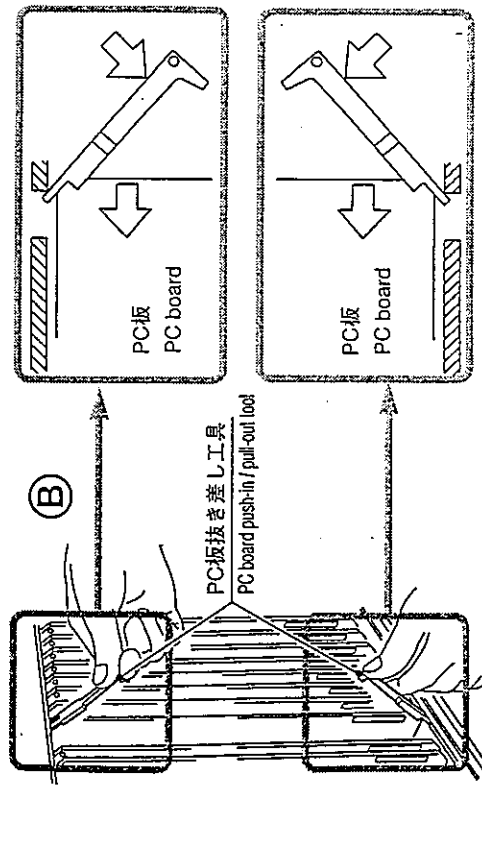


図5 Fig.5

- (7) 右から3番目に入っているPC板 (EP375300) を、PC板抜き差し工具2個の突起をPC板の穴にはめ、スロットの角穴に工具のツメを引っ掛け図のように引き出す。(図中Ⓐ)
- (8) PC板 (EP375300) のSW1の7をONにする。(図中Ⓑ)

- (7) PC board (EP375300) inserted in third place counted from the right should be pulled out. To do so, fit protrusions of two PC board pullers in hole on PC board, and hook square hole in slot with tool at the claw. Then, pull out PC board as illustrated. (Ⓐ in Fig.)
- (8) Turn on 7 of SW1 on PC board (EP375300). (Ⓑ in Fig.)

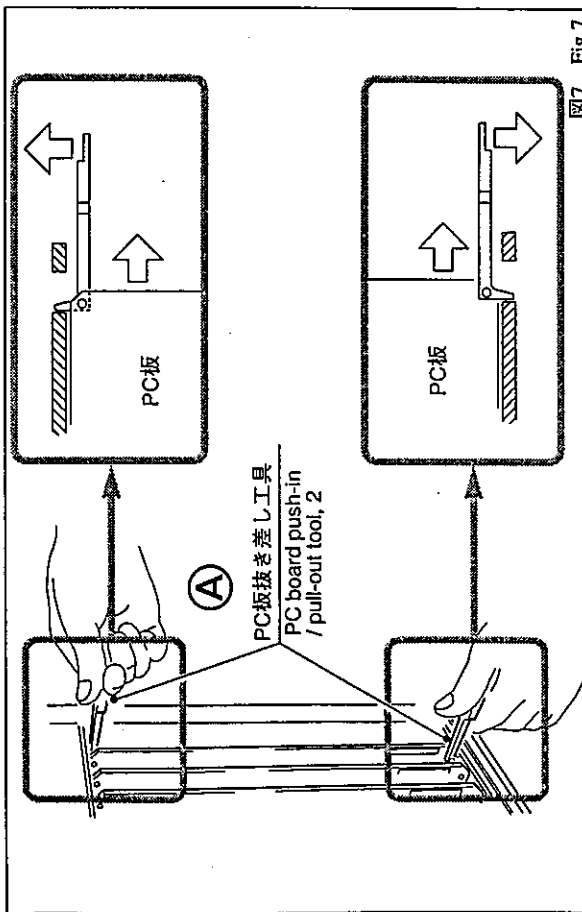


図7 Fig.7

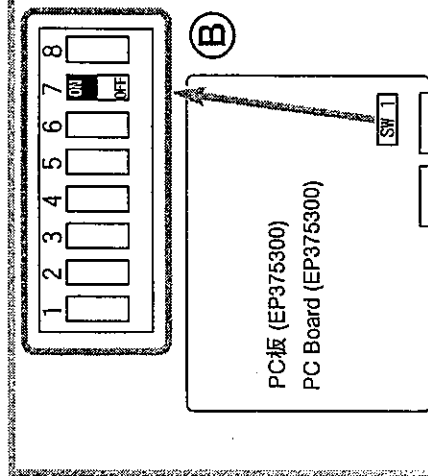


図8 Fig.8

MN2-0213 Rev. 2  
SECTION 4 DISASSEMBLING PROCEDURE

- (9) 次の要領で調整を行なう。
- (9) Make adjustment in accordance with procedure as follow.

準備

EU-3037B組込み後、SSD-1700本体の電源を入れ約30分通電する。(PCBを暖めるため)セクタプローブを選択し、PREST内のアブリケーションをCARDIOでINITIALIZE ALL DATAしておく。

- 1. -5VB (EP3963\*\*) の調整  
デジタルマルチメーターを用いてEP3963\*\*のTP15の電圧がTP14と同じになるようにRV3を調整する。
- 2. 感度差 (EP3897\*\*) の調整  
設定条件

MODE : B, MAGNIFICATION/RANGE : 19 cm, GAIN : MAX, STC : MAX, B-CONT : 8, FOCUS : 8のみON。  
セクタプローブの画像が下図のように感度差がある場合、次の要領で調整を行う。  
(高い感度を低い方に合わせる。)

Preparations

After incorporating EU-3037B, power on SSD-1700 body and keep it electrically live for approximately 30 minutes (to warm up PCB).

Select sector probe, and set application in PREST to INITIALIZE ALL DATA on CARDIO.

- 1. Adjusting -5VB, ( EP3963\*\* )

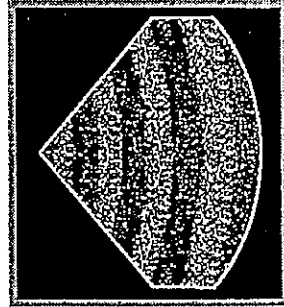
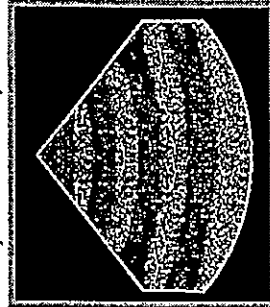
Use digital multi-meter to adjust RV3 so that EP3963\*\* will have the same voltage at TP15 as that at TP14.

- 2. Adjusting Sensitivity Difference ( EP3897\*\* ) .

Setting Conditions:

MODE : B, MAGNIFICATION/RANGE : 19 cm, GAIN : MAX, STC : MAX, B-CONT : 8, FOCUS : 8 ONLY ON

If sector probe has image displayed with difference in sensitivity as illustrated below, make adjustment in accordance with procedure as follow: (High sensitivity should be adjusted to low on.)



左図のように感度差が上から低い、高い、低い順の場合、装置の後ろから見て左側のEP3897\*\*の基板上にあるボリュームRV1を調整して感度差が無くなるように合わせる。(RV1は長さ14cm以上の調整ドライバーを使用すればPCBを挿入したまま調整可能です。)

If sensitivity should differ low → high → low in that order from the top as illustrated on the left side, adjust Control RV1 located on PC Board EP3897\*\* to the left side as viewed behind equipment. Set RV1 so as to eliminate difference in sensitivity. (RV1 is adjustable with 14cm or longer screw-driver, while leaving PCB inserted in place.)

左図のように感度差が上から高い、低い、高い順の場合、装置の後ろから見て右側のEP3897\*\*の基板上にあるボリュームRV1を調整して感度差が無くなるように合わせる。(RV1は長さ14cm以上の調整ドライバーを使用すればPCBを挿入したまま調整可能です。)

If sensitivity should differ high → low → high in that order from the top as illustrated on the left side, adjust Control RV1 located on PC Board EP3897\*\* to the right side as viewed behind equipment. Set RV1 so as to eliminate difference in sensitivity differ. (RV1 is adjustable with 14cm or longer screw-driver, with PCB remaining inserted in place.)

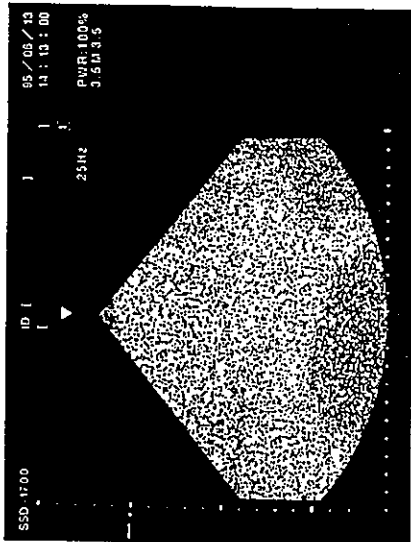
図9 Fig.9

3. ベースレベル (EP389900 または EP419400) の調整  
 ※ SSD-1700 本体の製造番号が S/N:~6200380, S/N:~9690460 の場合は EP389900 となる。  
 SSD-1700 本体の製造番号が S/N:6200381~, S/N:9690461~ の場合は EP419400 となる。  
 設定条件  
 B-Mode, MAGNIFICATION / RANGE : 19 cm, B GAIN : MAX, STC : MAX, CONT : 1  
 下記の手順で4階調のみ白レベルにした時、ホワイトノイズが一杯になるよう調整を行う。  
 MARK REF SW と T (キーボード) を同時に押す → MENU → 6 → 6 → 6 → 3 (TEST  
 選択) → 6 → 3 (B LVL 選択)

3. Adjusting Base Level (EP389900 or EP419400)  
 ※ EP389900 is applicable to SSD-1700 whose bodies are S/N:~6200380, S/N:~9690460.  
 EP419400 is applicable to SSD-1700 whose bodies are S/N:6200381~, S/N:9690461~.  
 Setting Conditions:  
 B-Mode, MAGNIFICATION / RANGE : 19 cm, B-GAIN : MAX, STC : MAX, CONT : 1  
 Make adjustment so that white noise will be saturated, when four graduations only are set  
 to white level as illustrated.

Press MARK REF switch and T (keyboard) at a time. → MENU → 6 → 6 → 6 → 3 (Select  
 TEST) → 6 → 3 (Select B LVL.)

EP389900 または  
 EP419400の基板上にあるポリ  
 ユーム RV 201を調整して B画  
 像が一番白くなるようにする。  
 (RV 201は、PCBを挿入したま  
 ま調整可能です。)  
 Adjust Control RV201 located on  
 EP389900 or EP419400 so that  
 Image B will turn white.  
 (RV201 is adjustable with PCB  
 remaining inserted in place.)

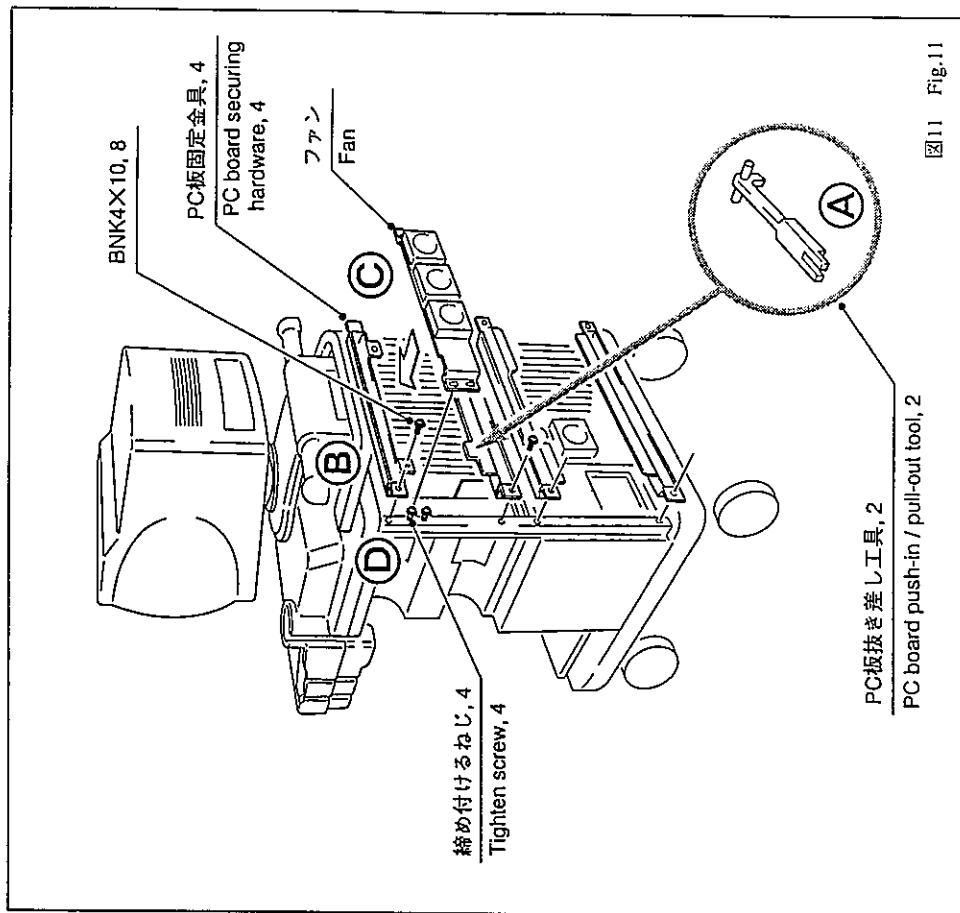


4. 動作確認  
 実機にてEU-3037B 組込み前と同様な画像が表示されていること。

4. Making Certain of Operation:  
 Image similar to that prior to incorporation of EU-3037B must be displayed as it is mounted.

図10 Fig.10

- (10) PC板抜き差し工具2個を、PC板固定金具の図の位置裏側にクランプする。(図中㉔)
- (11) PC板固定金具4本を、ねじ各8本で取り付ける。(図中㉕)
- (12) だるま穴をねじに合わせて、ファンを取り付ける。(図中㉖)
- (13) ファンをねじ4本を締め付け固定する。(図中㉗)
- (10) Clamp 2 pieces of PC board push-in / pull-out tool on the back of PC board securing hardware at locations illustrated. (㉔ in Fig.)
- (11) Use 8 screws to install each of 4 PC board securing hardware pieces. (㉕ in Fig.)
- (12) With dowel holes adjusted to screws, install fan. (㉖ in Fig.)
- (13) Use 4 tighten screws to mount fan. (㉗ in Fig.)



04 カバターの取り付け方法  
Mounting of Cover

※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(2)~(8)の作業は不要

- (1) リアカバーを、ねじ6本で取り付ける。(図中㊸)
- (2) 搭載台(下部)を、取り外しと逆の手順で取り付ける。(図中㊸)
- (3) 搭載台(上部)を、取り外しと逆の手順で取り付ける。(図中㊸)
- (4) 記録装置を、取り外しと逆の手順で、ねじまたはベルトで固定する。(図中㊸)

※ Operations (2) thru (8) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Use 6 screws to mount rear cover. (㊸ in Fig.)
- (2) Reversely follow removal steps to install color printer rack (lower half). (㊸ in Fig.)
- (3) Reversely follow removal steps to install color printer rack (upper half). (㊸ in Fig.)
- (4) Reversely follow removal steps to install recorder onto mounting rack with screws or belt. (㊸ in Fig.)

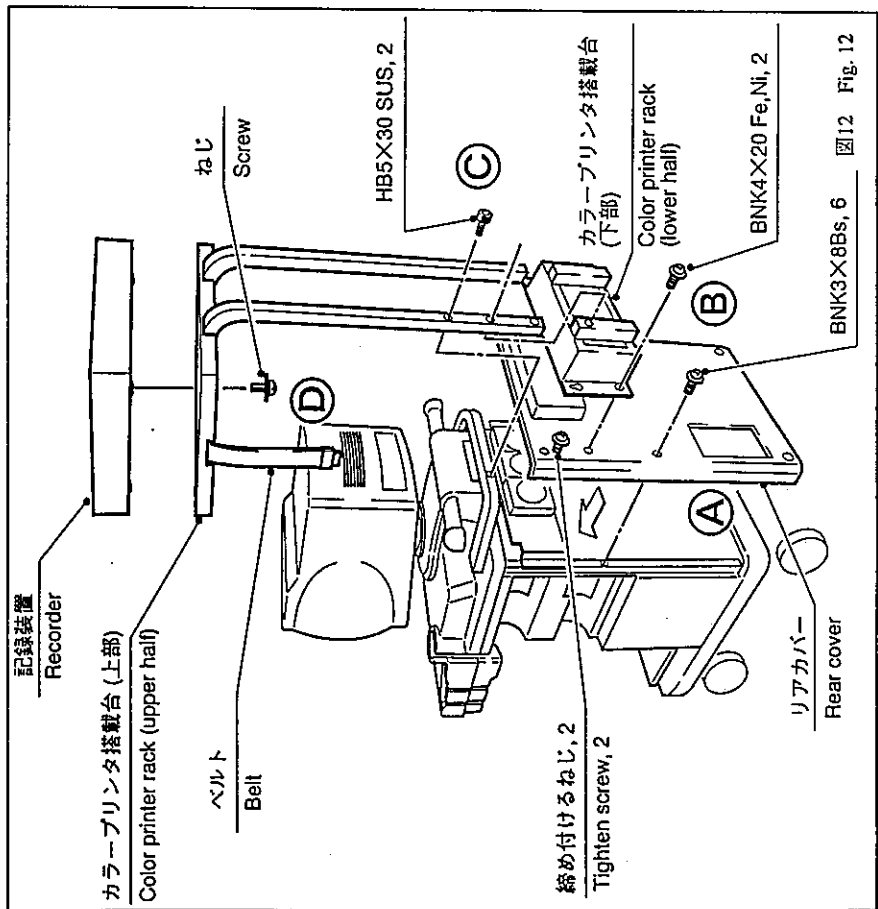


図12 Fig. 12

MN2-0213 Rev. 2  
SECTION 4 DISASSEMBLING PROCEDURE

- (5) 信号ケーブルと電源ケーブルのコネクタを、記録装置背面にそれぞれ接続する。(図中㊸)
  - (6) 電源ケーブルを、図の4か所のクランプに固定していく。(図中㊸)
  - (7) 信号ケーブルを、図の2か所のクランプに記録装置側から固定していく。(図中㊸)
  - (8) ㊸の位置で余ったケーブルを取り付け金具と補強パイプの間に押し込む。(図中㊸)
- (5) Plug both signal and power cable connectors in recorder on the back. (㊸ in Fig.)
  - (6) Secure power cable with clamps at 4 illustrated locations. (㊸ in Fig.)
  - (7) Secure signal cable with clamps at 2 illustrated locations sequentially on the recorder side, first. (㊸ in Fig.)
  - (8) Push excess cable between mounting hardware and reinforcement pipe at Location ㊸. (㊸ in Fig.)

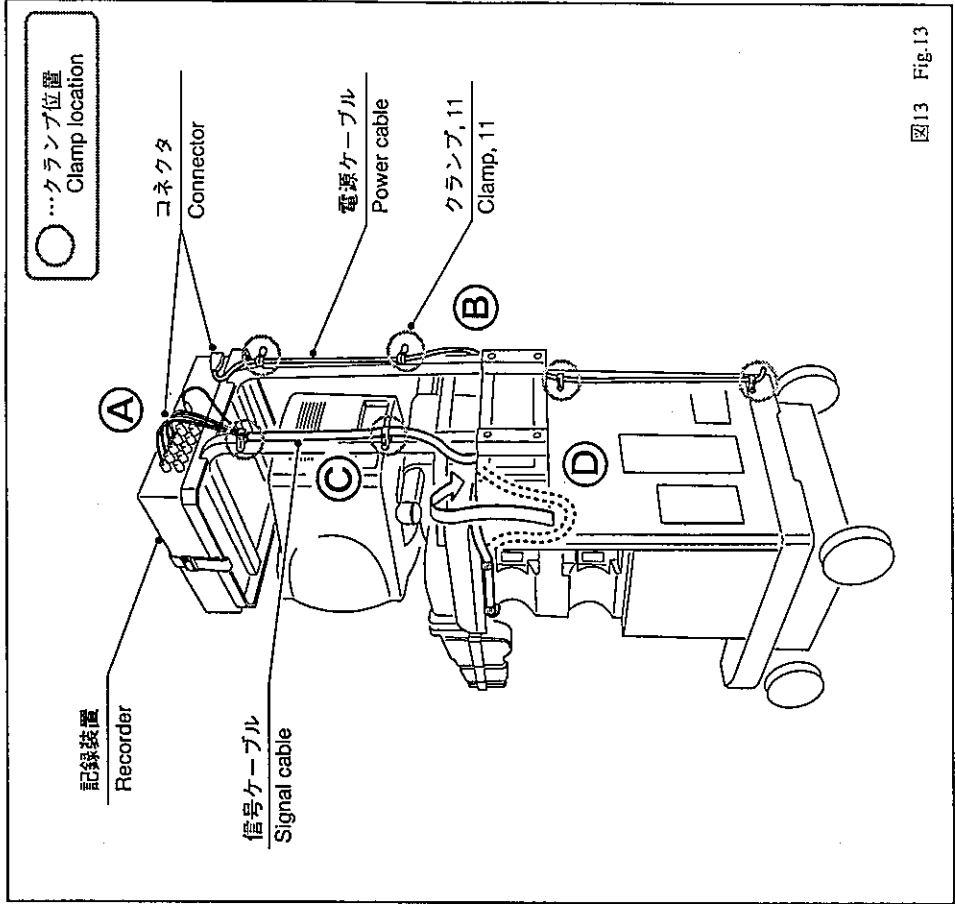


図13 Fig. 13

# Aloka PEU-1700 据付要領書 PEU-1700 INSTALLATION PROCEDURES

この据付要領書は、PEU-1700の部品等の際、感付の資料としてご使用ください。  
なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って  
作業を進めてください。

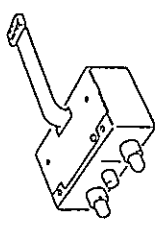
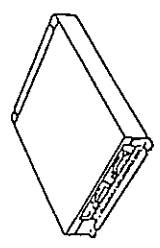
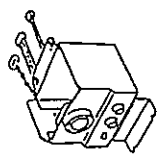

必要な工具：プラスチックドライバー、スタビドライバー（あらかじめ用意すること）



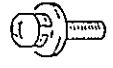
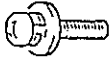



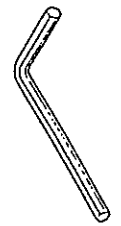
These installation procedures are provided for reference in installation of PEU-1700.  
This book is made up based on the installation flow chart, then follow the procedures described in this  
book in installation work.

Tool required: Phillips screw driver, stabilizing screwdriver (Provide it beforehand.)

## 00 付属部品リスト List of Accessory Parts

下記の付属品が揃っているか確認してください。  
Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外形 Appearance	個数 Quantity
1	生体ユニットパネル部 Physio unit panel		1
2	生体ユニットアンプ部 Physio unit amplifier		1
3	生体ユニット接合部 Physio unit plug block		1
4	Phisio Memory PC板 (EP404900) Phisio Memory PC board (EP404900)		1

No.	品名 Parts Name	外形 Appearance	個数 Quantity
5	付属表示シール (EU-5034#16) Accessory display seal (EU-5034#16)		1
6	ケーブル (CBL-601) Cable (CBL-601)		1
7	付属ねじ (BN 3X8) Accessory screw (BNK3 X8)		4
8	付属ねじ (BNK3 X10) Accessory screw (BNK3 X10)		2
9	付属ワッシャー (PW3) Accessory washer (PW3)		2
10	付属スプリングワッシャー (SW3) Accessory spring washer (SW3)		2
11	付属ボルト (HB3 X8) Accessory bolt (HB3 X8)		2
12	六角レンチ (対辺 2.5) Hexagon wrench (Opposite Side 2.5)		1

02 カバールの取り外し方法  
Removing the Cover

- ※ カラープリンタ搭載台 (MP-FX1700-2) のない装置は、(2)~(6)の作業は不要。  
 (1) ケーブルハンガを取り外す。(図中Ⓐ)  
 (2) 記録装置からコネクタを全て取り外す。(図中Ⓑ)  
 (3) 図の6か所のクランプから、信号ケーブルと電源ケーブルを取り外す。(図中Ⓒ)

※ Operations (2) thru (6) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Remove cable hanger. (Ⓐ in Fig.)  
 (2) Unplug all connectors out of recorder. (Ⓑ in Fig.)  
 (3) Remove both signal and power cables from 6 clumps illustrated. (Ⓒ in Fig.)

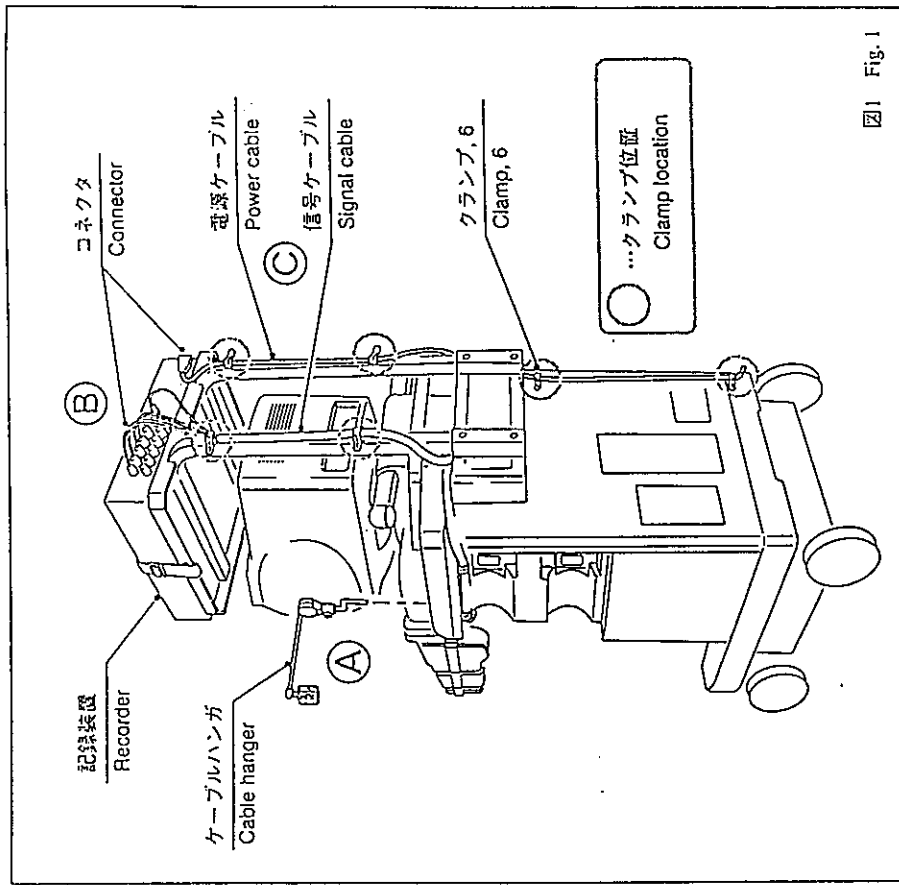
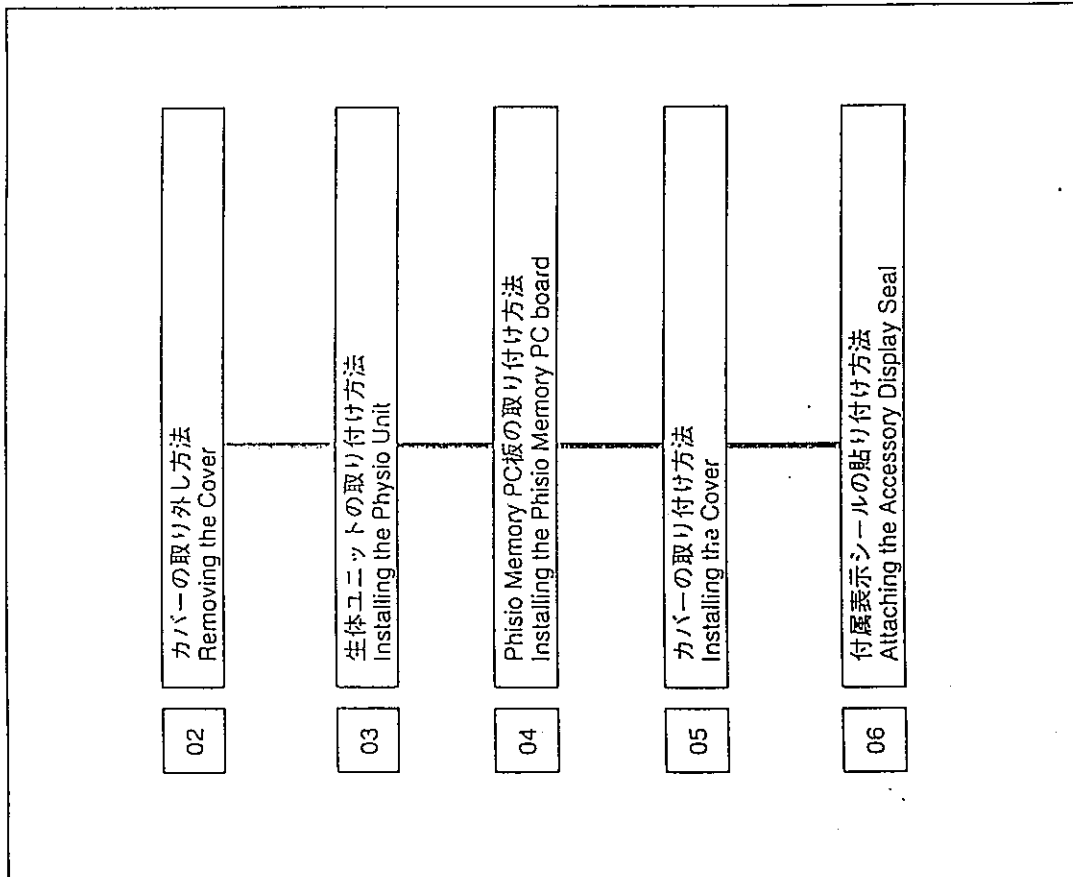


図1 Fig. 1

01 据付フローチャート  
Installation Flow Chart

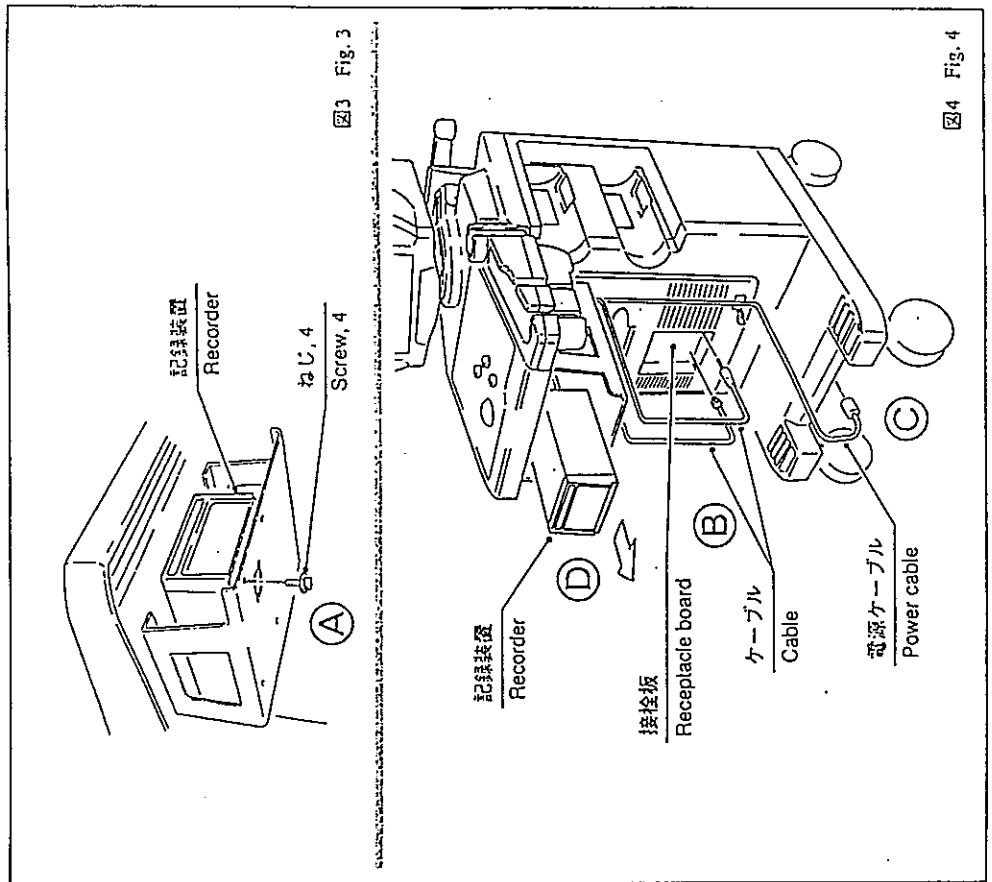
このフローチャートは、作業手順の表示と目次を兼ねています。  
 フローチャートのINDEX No.が、各ページの見出しNo.と一致しています。

This flow chart shows the indication of working procedures and the table of content.  
 Then, No. of the flow chart is coincident with INDEX No. of each page.

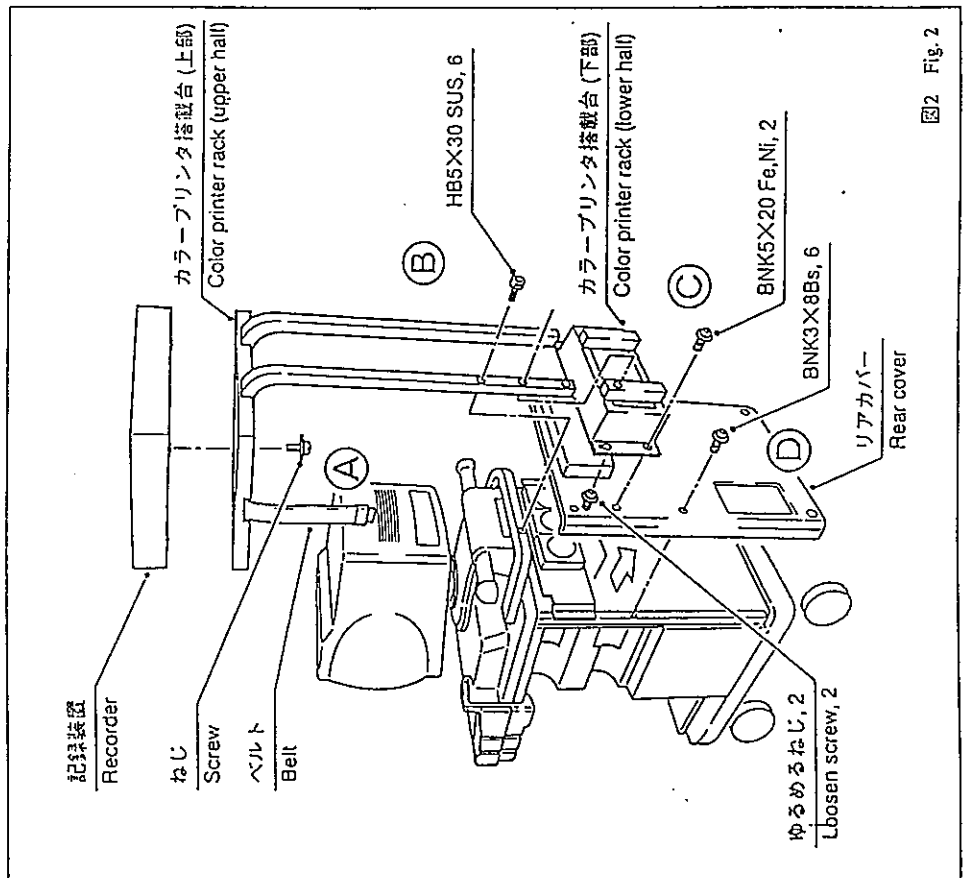




- (8) 記録装置を固定しているねじ4本を取り外す。(図3㉔)
- (9) フロントカバーの接合板に接続されている記録装置のケーブルを、すべて取り外す。(図4㉕)
- (10) 記録装置の電源ケーブルを、電源ユニットの接合板から取り外す。(図4㉖)
- (11) 記録装置を、搭載台から取り外す。(図4㉗)
- (8) Unfasten 4 screws, with which recorder is secured. (㉔ in Fig. 3)
- (9) Remove all recorder cables plugged in receptacle board on front cover. (㉕ in Fig. 4)
- (10) Unplug recorder power cable out of receptacle board on power supply unit. (㉖ in Fig. 4)
- (11) Remove recorder from mounting rack. (㉗ in Fig. 4)



- (4) 記録装置をねじ、またはベルトを外して搭載台からおろす。(図中㉘)
- (5) カラープリンタ搭載台(上部)を、六角穴付きボルト6本を外して取り外す。(図中㉙)
- (6) カラープリンタ搭載台(下部)を、だるま穴のねじ2本をゆるめ、ねじ2本を外して取り外す。(図中㉚)
- (7) リアカバーを、ねじ6本を外して取り外す。(図中㉛)
- (4) Remove screw or belt, and put down recorder from mounting rack. (㉘ in Fig.)
- (5) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (㉙ in Fig.)
- (6) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (㉚ in Fig.)
- (7) Unfasten 6 screws and remove rear cover. (㉛ in Fig.)



03 生体ユニットの取り付け方法  
Installing the Physio Unit

- ※ カラープリンタ搭載台 (MP-FX1700-2) のない装置は、(1)の作業は不要。  
 (1) 補強パイプを、ねじ2本を外して取り外す。(図中㊸)  
 (2) パネルエスカッション後方のキャップ2個を取り外し、ねじ2本を外す。(図中㊹)  
 (3) パネルエスカッションを前方のねじ2本を外して閉き、ステーをクランプから外して立てて固定する。(図中㊺)

- ※ Operation (1) below is not required for equipment without color printer rack (MP-FX1700-2).  
 (1) Unfasten 2 screws and remove reinforcement pipe. (㊸ in Fig.)  
 (2) Remove 2 caps in the rear of panel escutcheon. And unfasten 2 screws. (㊹ in Fig.)  
 (3) Unfasten 2 screws in front and open panel escutcheon. Then, remove stay from clamp, and erect and secure stay. (㊺ in Fig.)

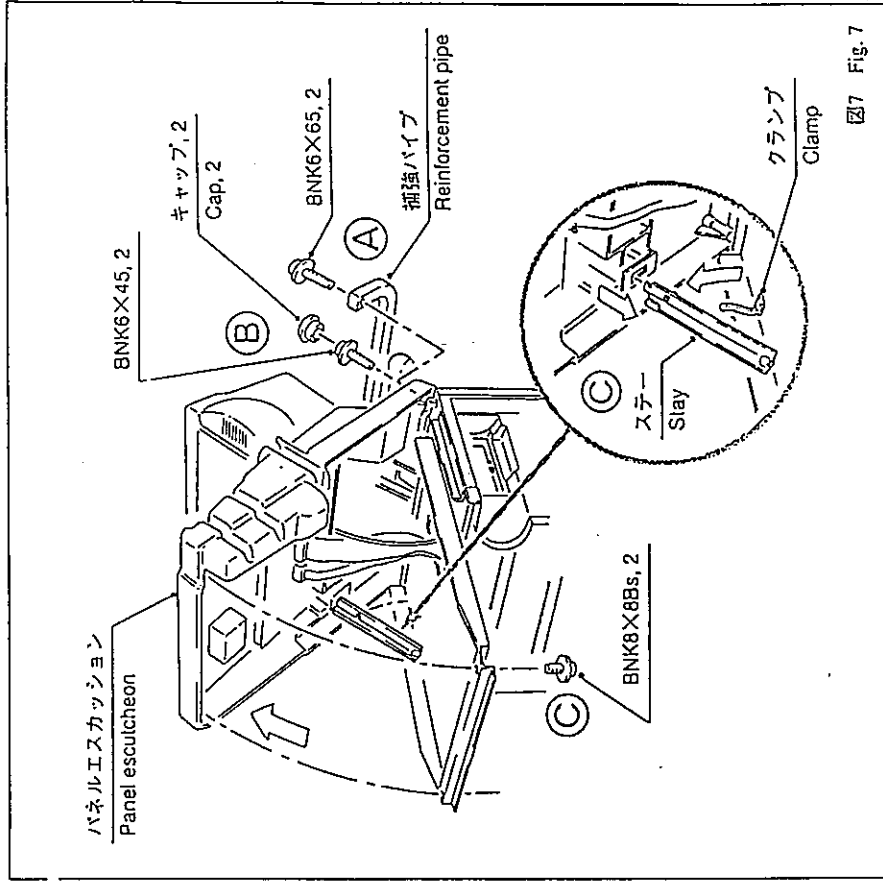


図7 Fig. 7

- (12) SSZ-305搭載台を、ねじ4本をゆるめて取り外す。(図5㊸)  
 (13) フロントカバーを、ねじ4本を外して取り外す。(図6㊹)

- (12) Unfasten 4 screws and remove SSZ-305 mounting rack. (㊸ in Fig. 5)  
 (13) Unfasten 4 screws and remove front cover. (㊹ in Fig. 6)

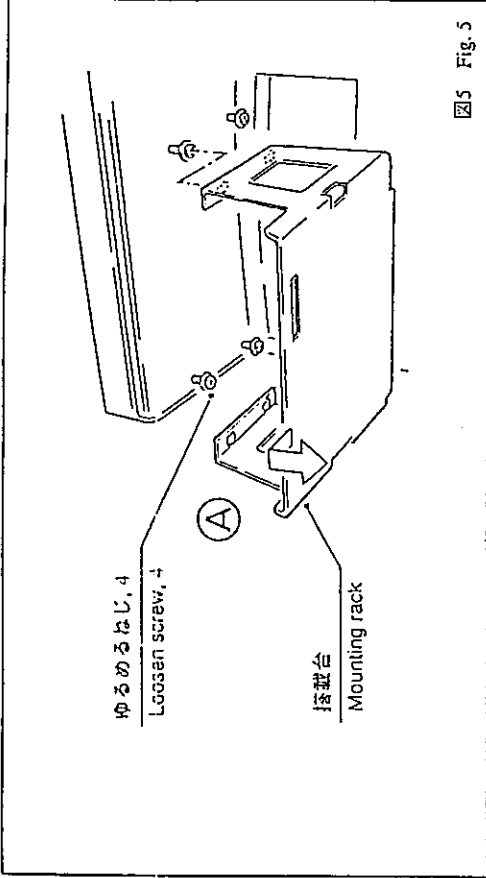


図5 Fig. 5

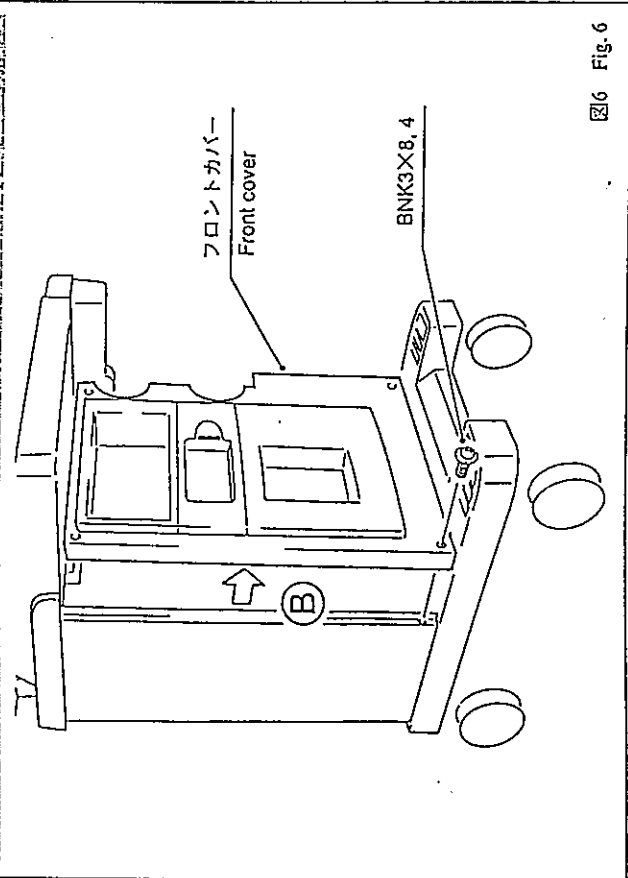


図6 Fig. 6

- (7) 生体ユニットアンプ部に、生体ユニット接続部のケーブルのコネクタ3個 (P503, P504, P505) を接続する。(図中㉔)
- (8) 生体ユニットアンプ部を、つめを上部フレームの穴に差し込み、付爪ねじ2本で固定する。(図中㉕)
- (9) 付属ケーブル1本を、コネクタ (P501) を生体ユニットアンプ部のコネクタ (J501) に接続しケーブルクランプにクランプして上部フレームの穴に通す。(図中㉖)
- (7) On physio unit plug block, plug 3 cable connectors (P503, P504, P505) in physio unit amplifier. (㉔ in Fig.)
- (8) With claw inserted into hole in upper frame, use 2 accessory screws to secure physio unit amplifier. (㉕ in Fig.)
- (9) Pass 1 accessory cable through hole in upper frame and fix by cable clamp, with connector (P501) plugged in connector (J501) in physio unit amplifier. (㉖ in Fig.)

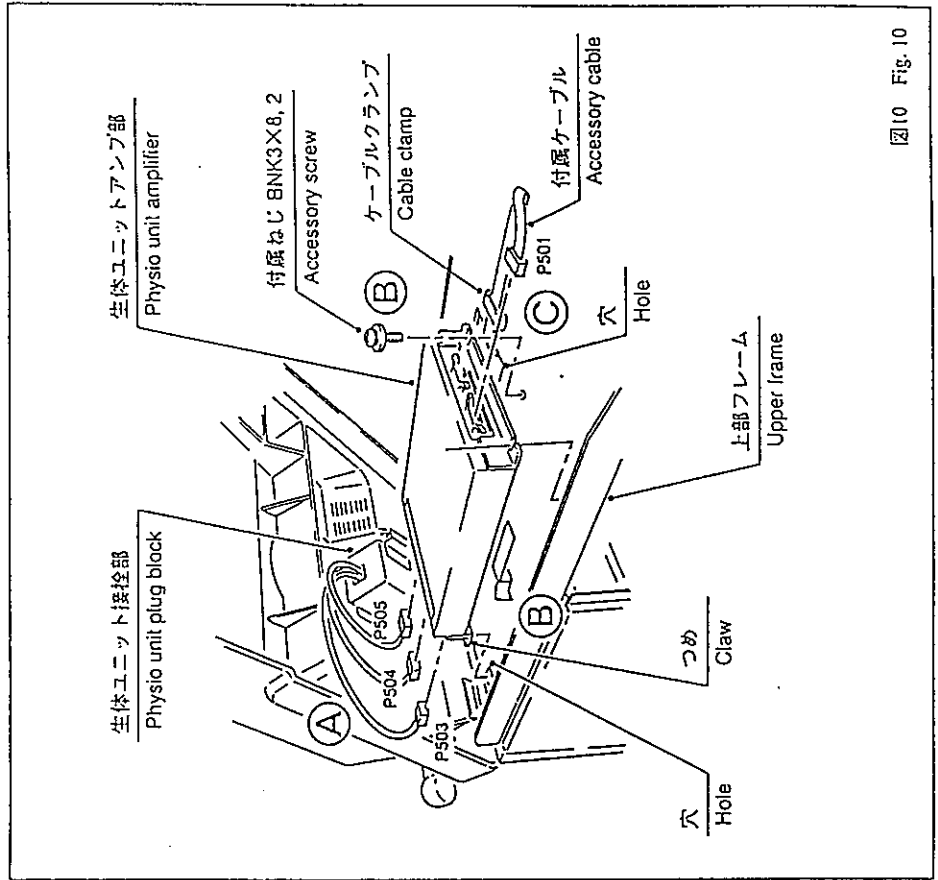


図10 Fig. 10

- (4) パネルエスキャッションのブラインドカバーを、ナットとスプリングワッシャーと押さえ板を外して取り外し、付属ねじ2本をそのままを開けて図の位置にねじ込む。(図8㉔)
- (5) 付属ボルト2本を、それぞれ付属スプリングワッシャーと付爪ワッシャーに通し、そのままを開けて図の位置にねじ込む。(図8㉕)
- (6) 生体ユニット接続部を、だるま穴と切り欠きをねじに合わせて引っ掛け、ねじとボルトを締め付け固定する。(図9㉖)
- (4) Remove blind cover from escutcheon by taking off nut, spring washer and keeper plate. Then, drive 2 accessory screws into clearance made at illustrated positions. (㉔ in Fig. 8)
- (5) Pass accessory spring washer and accessory washer onto 2 accessory bolt and drive it into clearance made at illustrated positions. (㉕ in Fig. 8)
- (6) With dowel hole and notch adjust to screw, hook physio unit plug block. Then, tighten screw and bolt to secure unit. (㉖ in Fig. 9)

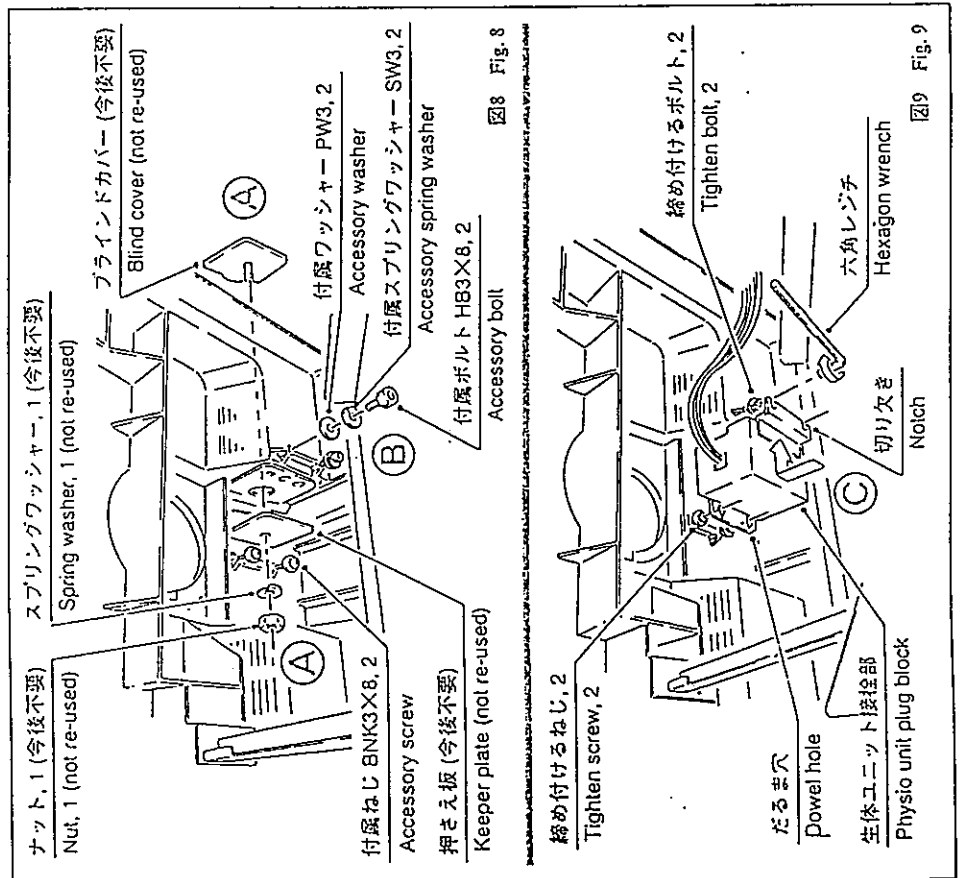


図9 Fig. 9

- (10) フレームのブラインドカバーを、ねじ2本をゆるめて取り外す。(図中㊸)
- (11) 生体ユニットパネル部に、付属ねじ2本をすきまを詰めてねじ込む。(図中㊹)
- (12) 生体ユニットパネル部を、フラットケーブルを上部分アンプの穴に通してから、ねじをだるま穴に含ませて取り付け、ねじを締め付け固定する。(図中㊺)
- (13) 生体ユニットパネル部のフラットケーブルのコネクタ (P502) を、生体ユニットアンプ部のコネクタ (J502) に接続する。(図中㊻)

- (10) Remove blind cover from upper frame by loosening 2 screws. (㊸ in Fig.)
- (11) Drive 2 accessory screws into clearance made on physio unit panel. (㊹ in Fig.)
- (12) Pass flat cable through hole in upper frame, first. Then, install physio unit panel, with screw adjusted to dowel hole. Then, tighten screw and secure physio unit panel. (㊺ in Fig.)
- (13) In physio unit panel, plug flat cable connector (P502) in connector (J502) of physio unit amplifier. (㊻ in Fig.)

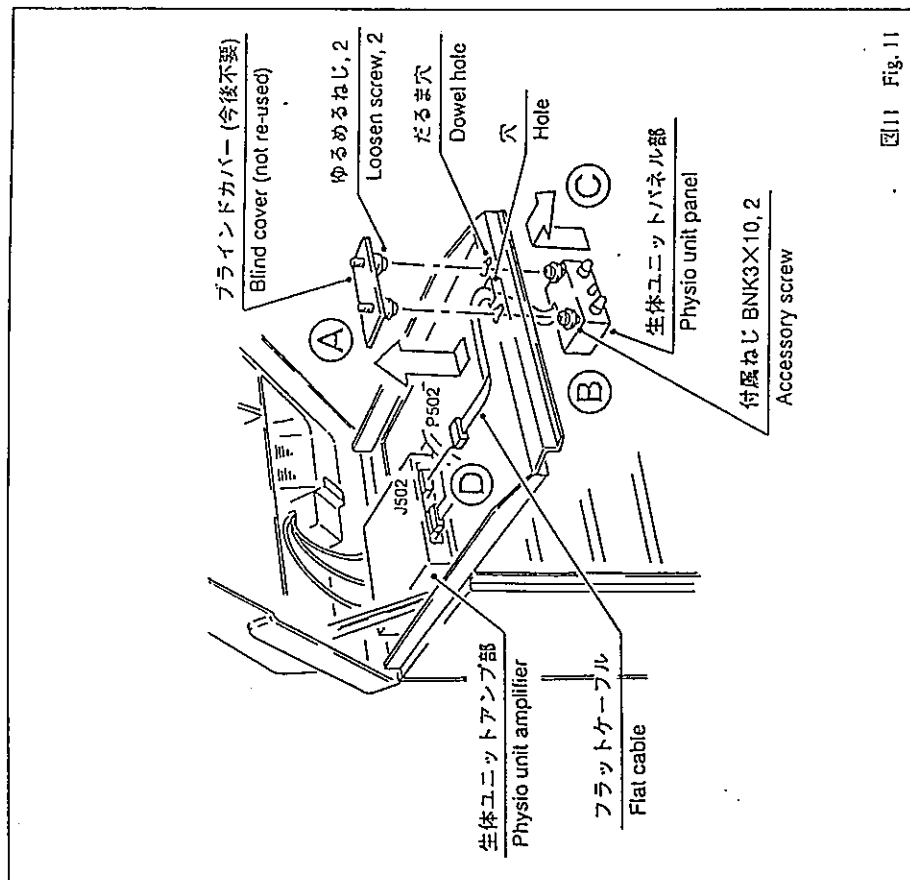


図11 Fig. 11

MS5-0608

-11-

- ※ カラープリンタ搭載台 (MP-FX1700-2) のない装置は、(15)の作業は不要。
- ※ カラープリンタ搭載台 (MP-FX1700-2) のある装置は、(16)の作業は不要。
- (14) パネルエスカッションをステアーを外して閉じ、前方をねじ2本で固定する。(図中㊼)
- ※ ケーブルが生体ユニットアンプ部の上に乗りえないように閉じること。
- (15) 補強パイプをねじ2本で固定する。(図中㊽)
- (16) パネルエスカッション後方にねじ2本を取り付け、キャップ2個をはめ込む。(図中㊾)

- ※ Operation (15) below is not required for equipment without color printer rack (MP-FX1700-2).
- ※ Operation (16) below is not required for equipment with color printer rack (MP-FX1700-2).
- (14) Remove stay and close panel escutcheon. Then, secure them in front with 2 screws. (㊼ in Fig.)
- ※ Panel escutcheon should be closed so that cable will not be placed on physio unit amplifier.
- (15) Use 2 screws to secure reinforcement pipe. (㊽ in Fig.)
- (16) Attach 2 screws in the rear of panel escutcheon. And fit in 2 caps. (㊾ in Fig.)

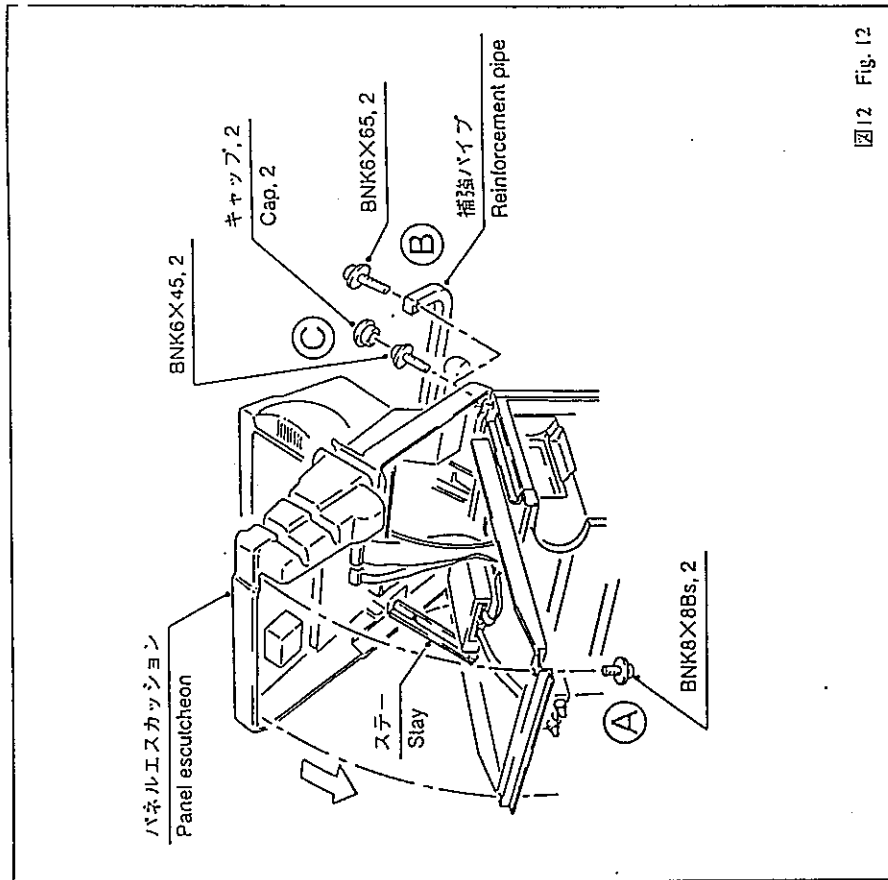


図12 Fig. 12

MS5-0608

-12-

04 Phisio Memory PC板の取り付け方法  
Installing the Phisio Memory PC board

- (1) PC板固定金具3本を、ねじ各2本を外して取り外す。(図13Ⓐ)
- (2) PC板抜き差し工具2個を、PC板固定金具の図の位置裏側にクランプする。(図13Ⓑ)
- (3) 付属PC板 (EP404900) を、一番右のロットに軽く突き当たるまで差し込む。(図14Ⓒ)
- (1) Unfasten 2 screws and remove 3 pieces of PC board securing hardware. (Ⓐ in Fig. 13)
- (2) Remove 2 pieces of PC board push-in / pull-out tool from clamp on the back of PC board securing hardware. (Ⓑ in Fig. 13)
- (3) Continue to insert accessory PC board (EP404900) until it has lightly hit against slot at the rightmost side. (Ⓒ in Fig. 14)

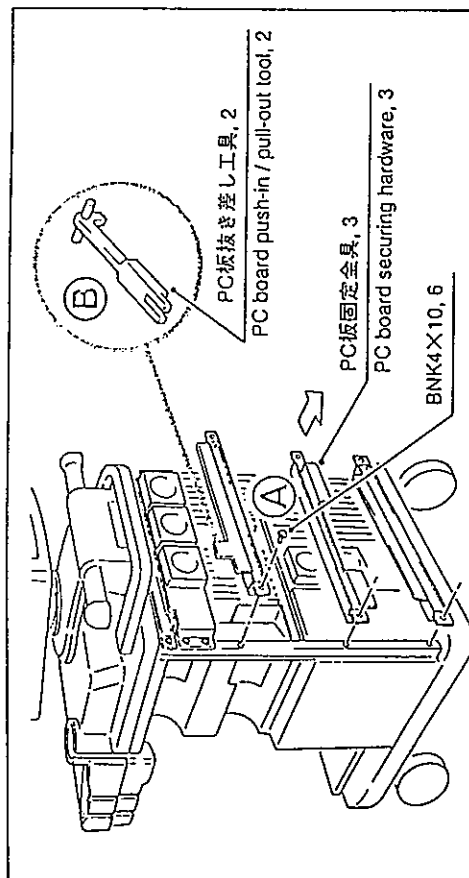


図13 Fig. 13

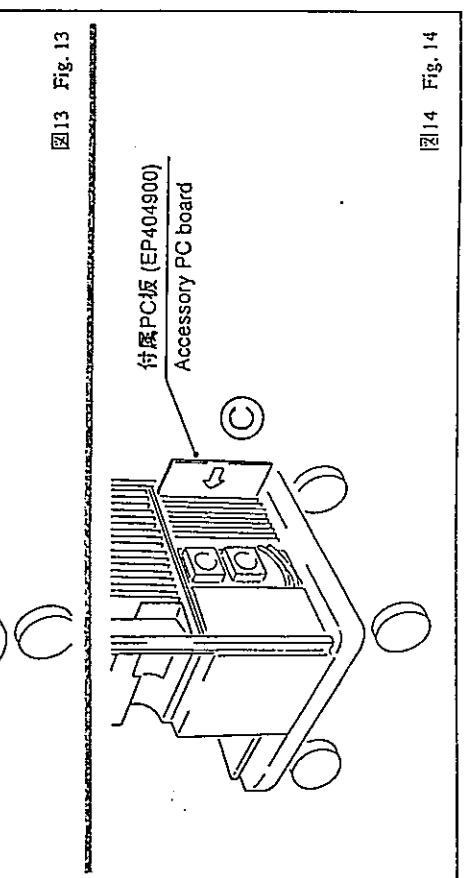


図14 Fig. 14

- (4) PC板抜き差し工具2個のツメを、PC板ロット手前の角穴に引っ掛け、図のようにPC板を確実に押し込む。(図15Ⓐ)
- (5) PC板抜き差し工具2個を、PC板固定金具の図の位置裏側にクランプする。(図16Ⓒ)
- (6) PC板固定金具3本を、ねじ各2本で取り付ける。(図16Ⓒ)
- (4) Put 2 claws of PC board push-in / pull-out tool on square hole in front of PC board slot. And securely push in PC board as illustrated. (Ⓐ in Fig. 15)
- (5) Clamp 2 pieces of PC board push-in / pull-out tool on the back of PC board securing hardware at locations illustrated. (Ⓒ in Fig. 16)
- (6) Use 2 screws to install each of 3 PC board securing hardware pieces. (Ⓒ in Fig. 16)

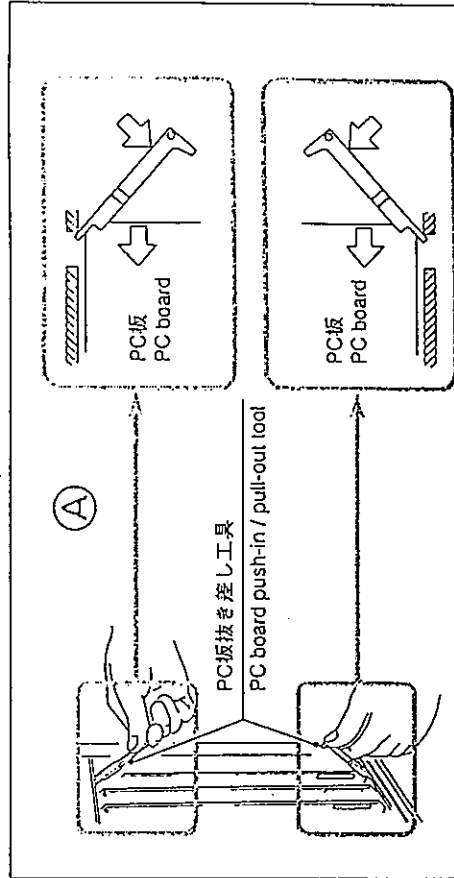


図15 Fig. 15

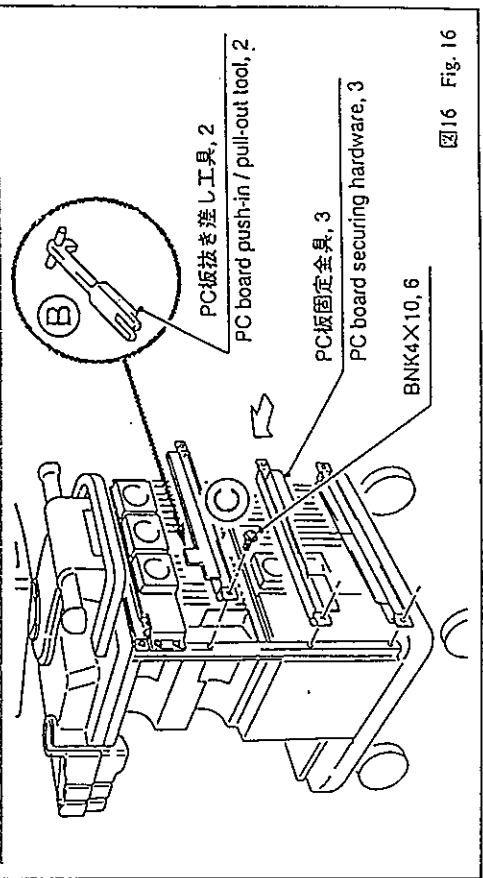


図16 Fig. 16

- ※ 本体のS/N ~9690040 の装置は、(13) の作業は不要。
- ※ 本体のS/N 9690041 ~ の装置は、(11)~(12)の作業は不要。
- (10) 生体ユニットアンテナ部からのフラットケーブルのコネクタ (P234) を、マザーボードのコネクタ (J234) に接続する。(図19㉔)
- (11) 基準アース板を、(10) で接続したフラットケーブルの引き回しに注意して、ねじ5本で取り付ける。(図19㉔)
- (12) 接続パネルを、裏側のコネクタを合わせてマザーボードに取り付け、ねじ6本で基準アース板に固定する。(図20㉔)
- (13) コネクタカバーを、(10) で接続したフラットケーブルの引き回しに注意して、ねじ2本で基準アース板に取り付ける。(図19㉔、図20㉔)

- ※ Operation (13) is not required for equipment bodies serially numbered up to 9690040.
- ※ Operations (11) and (12) are not required for equipment bodies serially numbered 9690041 and up.
- (10) Plug connector (P234) of flat cable, which comes out of physio unit amplifier, in receptacle (J234) on motherboard. (㉔ in Fig. 19)
- (11) Use 15 screws to install reference grounding plate while paying attention to in-position layout of flat cable plugged in as referred to in (10) above. (㉔ in Fig. 19)
- (12) Attach connector panel to motherboard, with connectors on the back matched. Then, use 6 screws to secure connector panel onto reference grounding plate. (㉔ in Fig. 20)
- (13) Use 2 screws to install connector panel on reference grounding plate while paying attention to in-position layout of flat cable plugged in as referred to in (8) above. (㉔ in Fig. 19, ㉔ in Fig. 20)

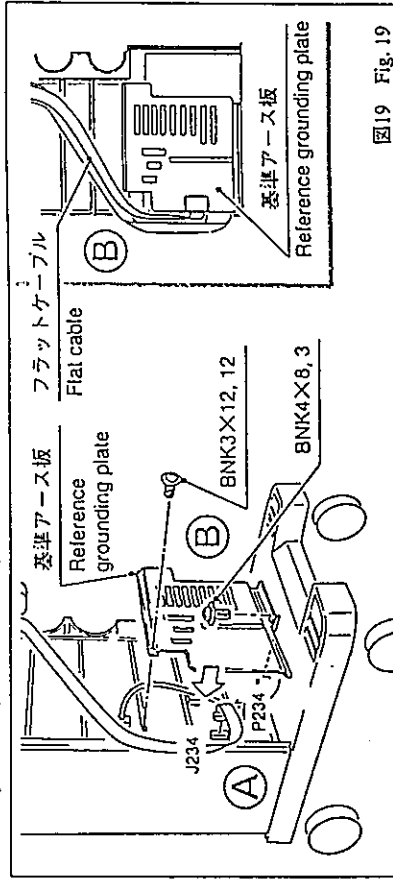


図19 Fig. 19

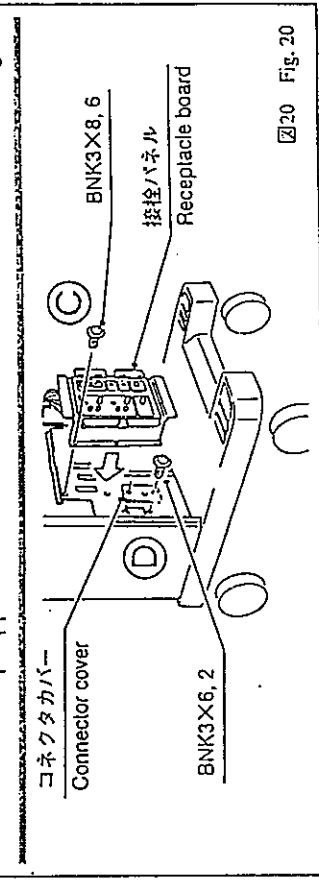


図20 Fig. 20

MSS-0608

-16-

- ※ 本体のS/N ~9690040 の装置は、(7) の作業は不要。
- ※ 本体のS/N 9690041 ~ の装置は、(8)~(9)の作業は不要。
- (7) 基準アース板のコネクタカバーを、ねじ2本を外して取り外す。(図17㉔)
- (8) 接続パネルをねじ6本を外し、まっすぐ手前に向けて取り外す。(図17㉔)
- ※ 接続パネルは裏側のコネクタでマザーボードに接続されているので、必ずまっすぐ引き抜くこと。
- (9) 基準アース板をねじ15本を外して取り外す。(図18㉔)
- ※ Operation (7) is not required for equipment bodies serially numbered up to 9690040.
- ※ Operations (8) and (9) are not required for equipment bodies serially numbered 9690041 and up.
- (7) Unfasten 2 screws and remove connector cover from reference grounding plate. (㉔ in Fig. 17)
- (8) Unfasten 6 screws and remove receptacle board by pulling it straight toward you.
- ※ Receptacle board, which has been connected to motherboard with plug receptacles on the back, should not fail to be pulled straight. (㉔ in Fig. 17)
- (9) Unfasten 15 screws, and remove reference grounding plate. (㉔ in Fig. 18)

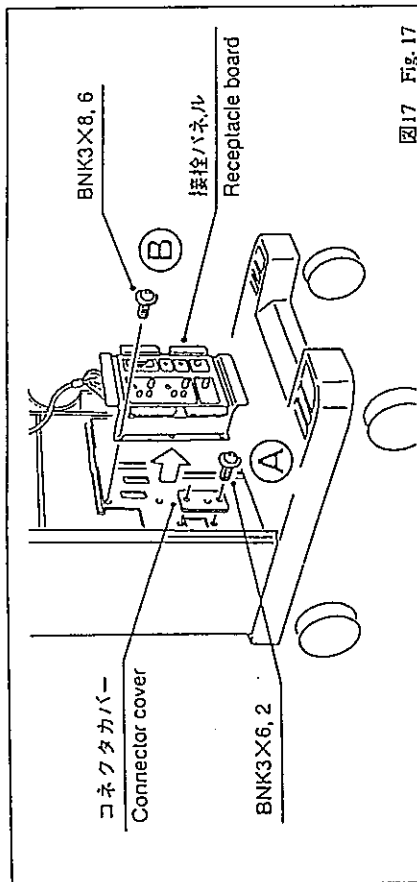


図17 Fig. 17

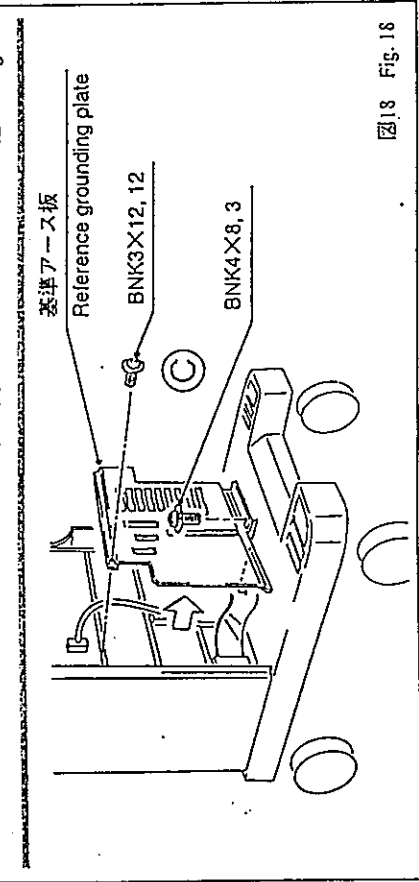


図18 Fig. 18

MSS-0608

-15-

05 カバーの取り付け方法  
Installing the Cover

- (1) フロントカバーを、ねじ4本で取り付ける。(図21 ㉑)
- (2) SSZ-305搭載台を、だるま穴をねじに合わせて取り付け、ねじ4本を締め付け固定する。(図22 ㉒)
- (1) Use 4 screws to install front cover. (㉑ in Fig. 21)
- (2) Install SSZ-305 mounting rack, with its dowel holes fitted to screws. Fasten 4 screws and secure rack. (㉒ in Fig. 22)

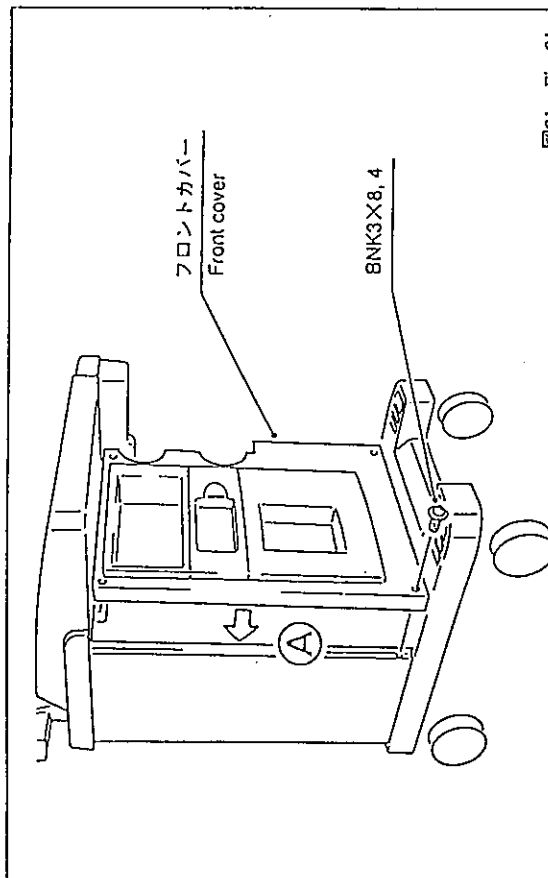


図21 Fig. 21

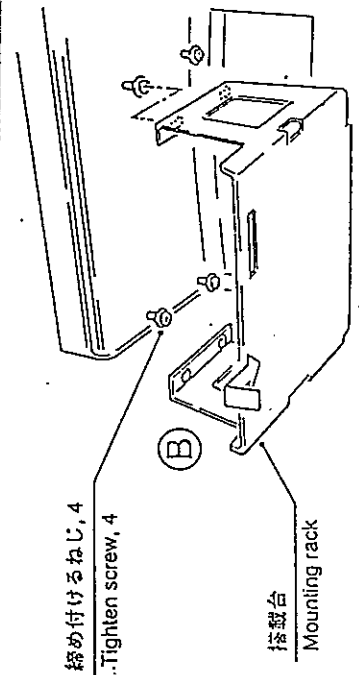


図22 Fig. 22

- (3) 記録装置のケーブルと電源ケーブルを、それぞれフロントカバーの接合板と電源ユニットの接合板に接続する。(図23 ㉓)
- (4) 記録装置をねじ4本で搭載台に取り付ける。(図24 ㉔)
- (3) Plug both recorder and power cables, respectively, in receptacle boards on front cover and in power supply unit. (㉓ in Fig. 23)
- (4) Use 4 screws to mount recorder onto mounting rack. (㉔ in Fig. 24)

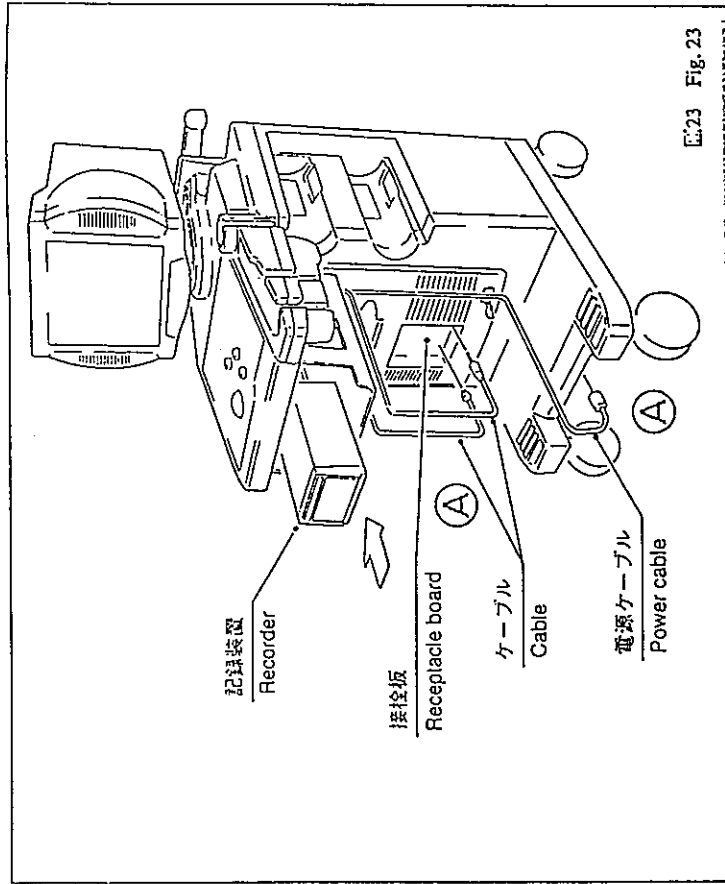


図23 Fig. 23

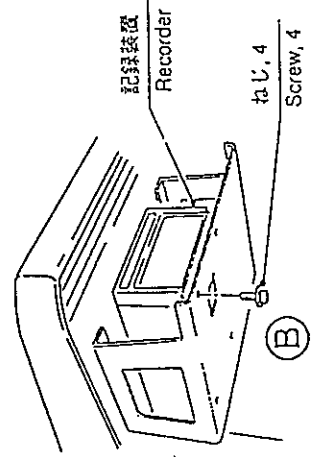


図24 Fig. 24

- (9) 番号ケーブルと電源ケーブルのコネクタを、記録装置背面にそれぞれ接続する。(図中Ⓐ)
- (10) 電源ケーブルを、図の1か所のクランプに固定していく。(図中Ⓑ)
- (11) 番号ケーブルを、図の2か所のクランプに記録装置側から固定していく。(図中Ⓒ)
- (12) Ⓒの位置で余ったケーブルを、取付金具と補強パイプの間に押し込む。(図中Ⓓ)
- (13) ケーブルハンガを取り付ける。(図中Ⓔ)

(9) Plug both signal and power cable connectors in recorder on the back. (Ⓐ in Fig.)

(10) Secure power cable with clamps at 4 illustrated locations. (Ⓑ in Fig.)

(11) Secure signal cable with clamps at 2 illustrated locations sequentially on the recorder side, first. (Ⓒ in Fig.)

(12) Push excess cable between mounting hardware and reinforcement pipe at Location Ⓓ.

(13) Install cable hanger. (Ⓔ in Fig.)

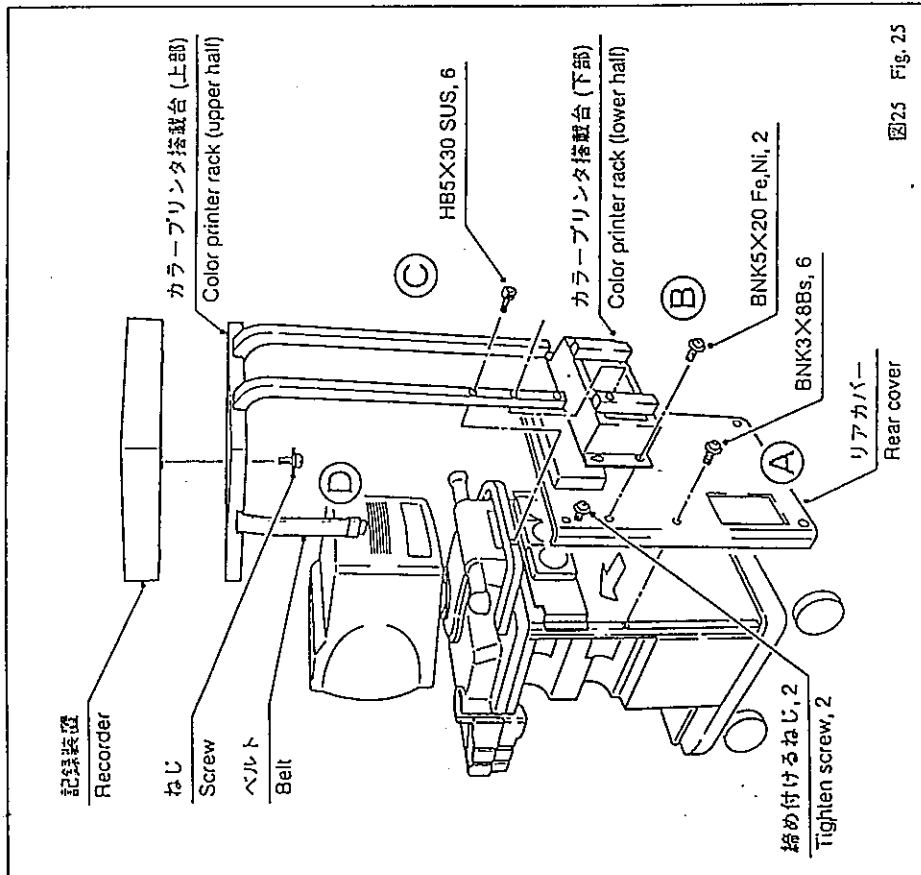


図25 Fig. 25

※ Operations (6) thru (12) are not required for equipment without color printer rack (MP-FX1700-2).

(5) Use 6 screws to mount rear cover. (Ⓐ in Fig.)

(6) Reverse removal steps to install color printer rack (lower half). (Ⓑ in Fig.)

(7) Reverse removal steps to install color printer rack (upper half). (Ⓒ in Fig.)

(9) Reverse removal steps to install recorder onto mounting rack with screws or belt. (Ⓓ in Fig.)

※ カラープリンタ搭載台 (MP-FX1700-2) のない装置は、(6)~(12)の作業は不要。

(5) リアカバーを、ねじ6本で取り付ける。(図中Ⓐ)

(6) カラープリンタ搭載台 (下部) を、取り外しと逆の手順で取り付ける。(図中Ⓑ)

(7) カラープリンタ搭載台 (上部) を、取り外しと逆の手順で取り付ける。(図中Ⓒ)

(8) 記録装置を、取り外しと逆の手順でねじ、またはベルトで搭載台に取り付ける。(図中Ⓓ)

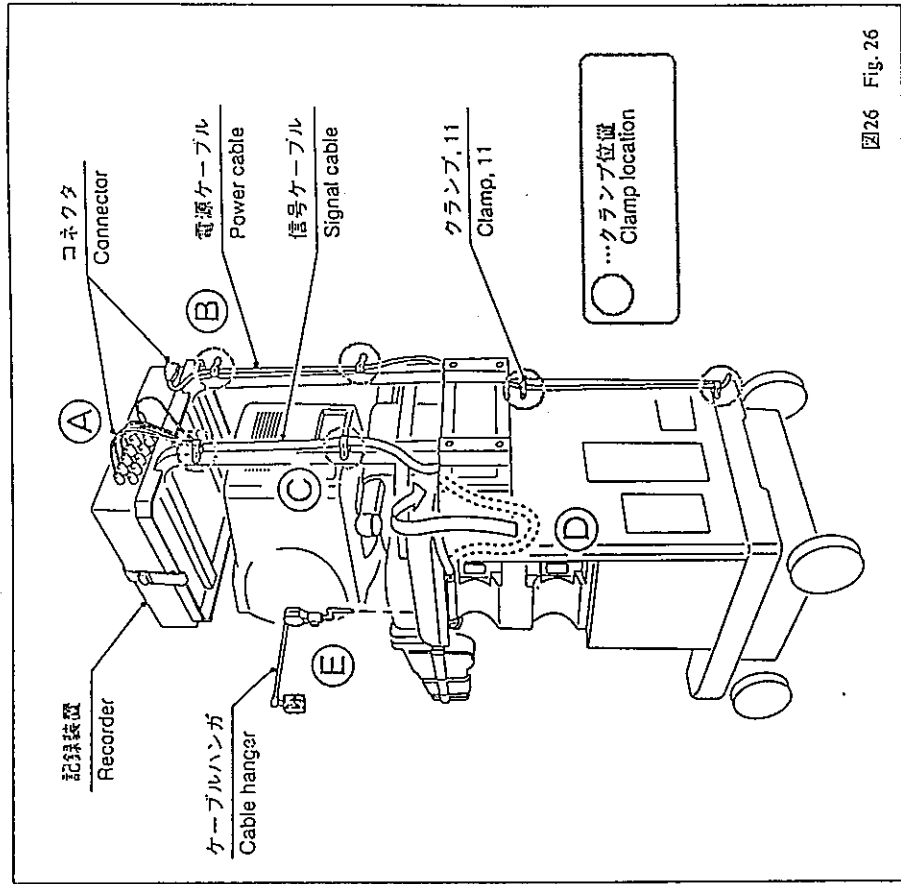
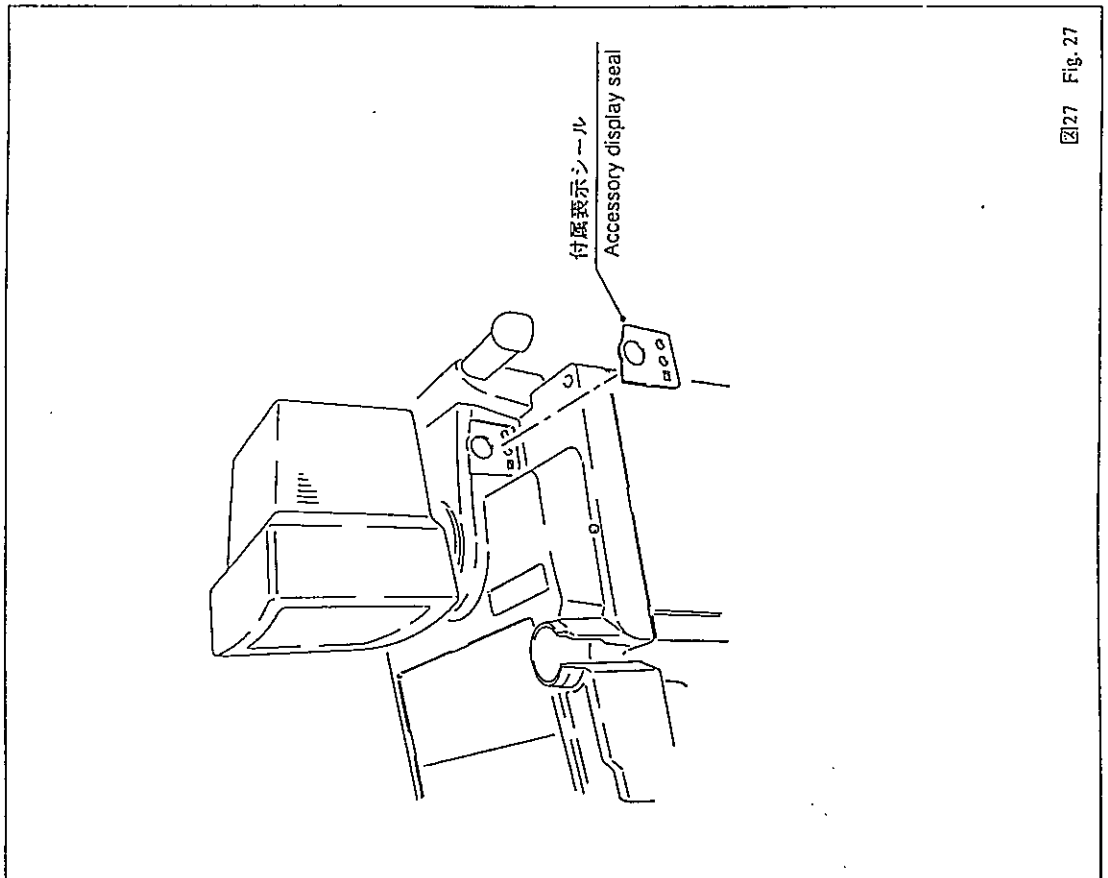


図26 Fig. 26



06 付属表示シールの貼り付け方法  
Attaching the Accessory Display Seal

- (1) 付属表示シールを、パネルエスケッションの図の位置に貼り付ける。(図27)
- (1) Attach accessory display seal to panel escutcheon at illustrated position. (Fig. 27)



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**PEU-1700B 据付要領書**  
**PEU-1700B INSTALLATION PROCEDURES**

この据付要領書は、PEU-1700Bの納品等の際、据付の資料としてご使用ください。  
 なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って  
 作業を進めてください。

必要な工具: プラスドライバー、スタビライザー (あらかじめ用意すること)

These installation procedures are provided for reference in installation of PEU-1700B.  
 This book is made up based on the installation flow chart, then follow the procedures described in this  
 book in installation work.

Tool required: Phillips screw driver, stabilizing screwdriver (Provide it beforehand.)

**00 付属品リスト**  
**List of Accessory Parts**

下記の付属品が揃っているか確認してください。  
 Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	生体ユニットパネル部 Physio unit panel		1
2	生体ユニットアンプ部 Physio unit amplifier		1
3	生体ユニット接栓部 Physio unit plug block		1
4	Physio Memory PC板 (EP404900) Physio Memory PC board (EP404900)		1

No.	品名 Parts Name	外観 Appearance	個数 Quantity
5	接栓パネル (EU-5039#17) Receptacle panel (EU-5039#17)		1
6	ケーブル (CBL-601) Cable (CBL-601)		1
7	付属ねじ (BNK3 X 8) Accessory screw (BNK3 X 8)		4
8	付属ねじ (BNK3 X 10) Accessory screw (BNK3 X 10)		2
9	付属ワッシャー (PW3) Accessory washer (PW3)		2
10	付属スプリングワッシャー (SW3) Accessory spring washer (SW3)		2
11	付属ボルト (HB3 X 8) Accessory bolt (HB3 X 8)		2
12	六角レンチ (対辺 2.5) Hexagon wrench (Opposite Side 2.5)		1
13	クランプ (UL-13) Clamp (UL-13)		1

02 カバールの取り外し方法  
Removing the Cover

※ カラープリンタ搭載台 (MP-FX1700-2) のない装置は、(2)~(6)の作業は不要。  
(1) ケーブルハンガを取り外す。(図中Ⓐ)  
(2) 記録装置からコネクタを全て取り外す。(図中Ⓑ)  
(3) 図の6か所のクランプから、信号ケーブルと電源ケーブルを取り外す。(図中Ⓒ)

※ Operations (2) thru (6) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Remove cable hanger. (Ⓐ in Fig.)
- (2) Unplug all connectors out of recorder. (Ⓑ in Fig.)
- (3) Remove both signal and power cables from 6 clamps illustrated. (Ⓒ in Fig.)

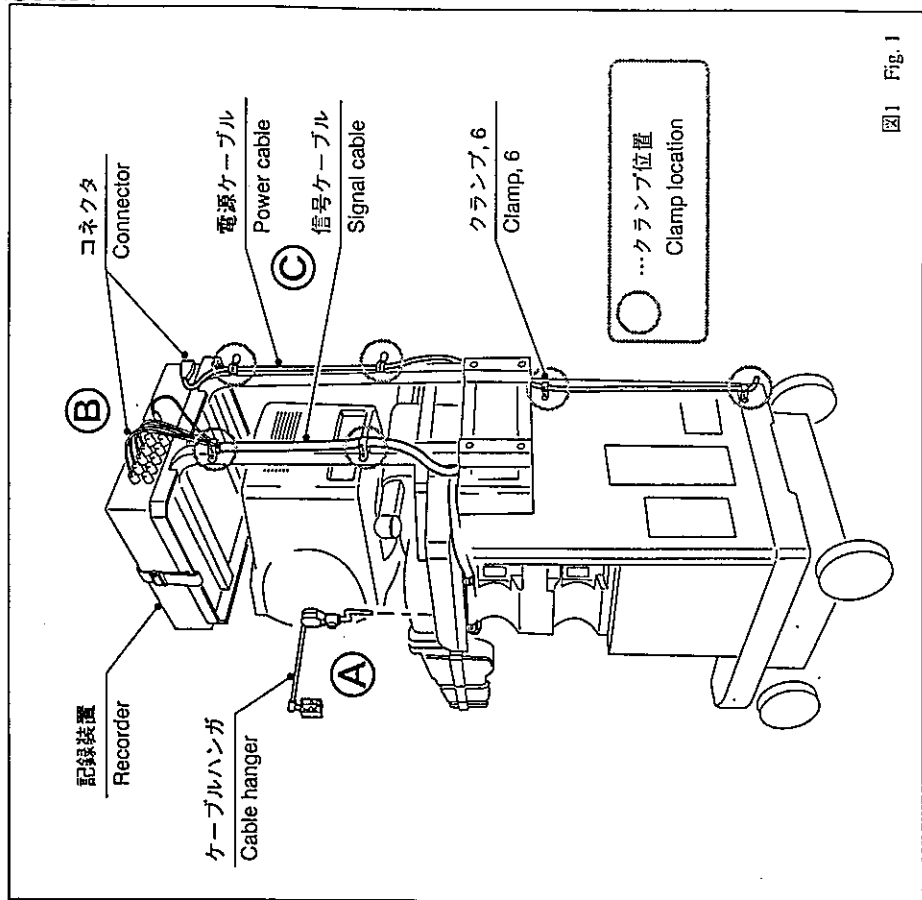
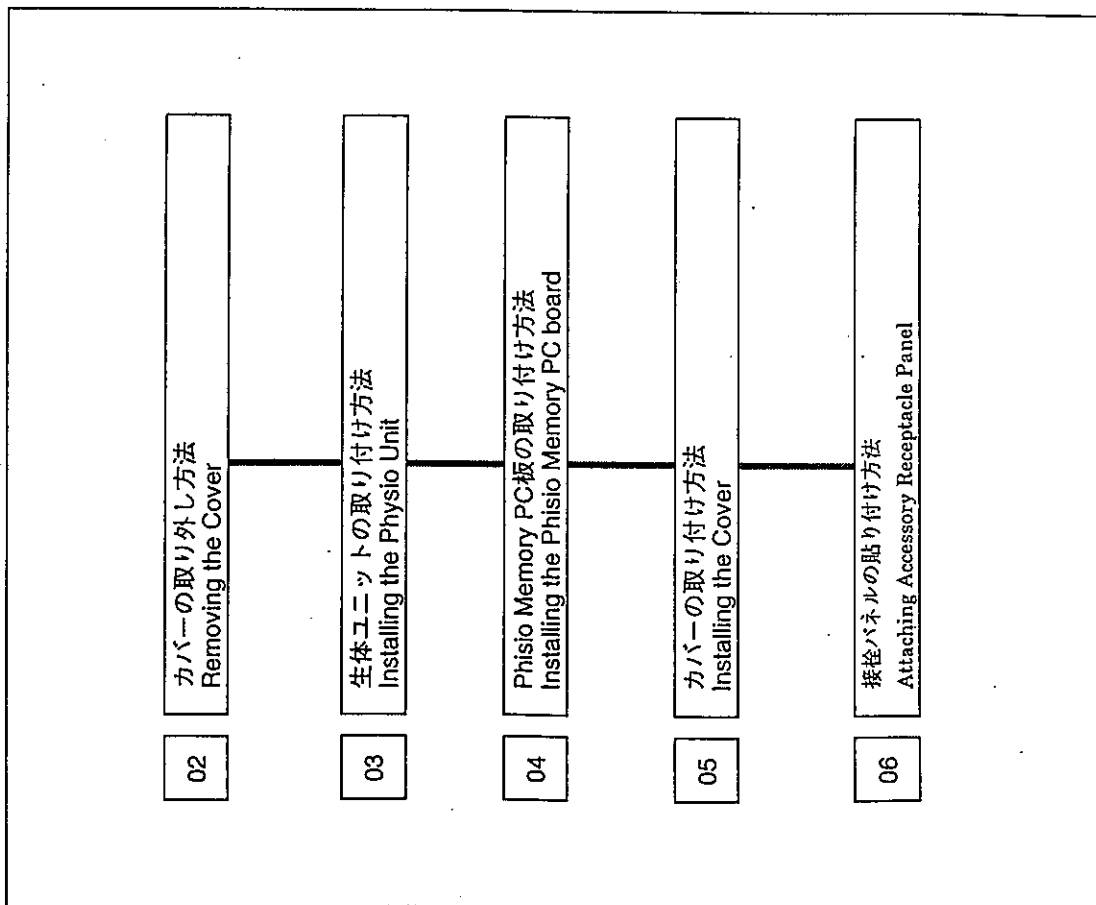


図1 Fig. 1

01 据付フローチャート  
Installation Flow Chart

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートのINDEX No.が、各ページの見出しNo.と一致しています。

This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.



SECTION 4 DISASSEMBLING PROCEDURE

- (8) 記録装置を固定しているねじ4本を取り外す。(図3㉔)
  - (9) フロントカバーの接栓板に接続されている記録装置のケーブルを、すべて取り外す。(図4㉕)
  - (10) 記録装置の電源ケーブルを、電源ユニットの接栓板から取り外す。(図4㉖)
  - (11) 記録装置を、搭載台から取り外す。(図4㉗)
- (8) Unfasten 4 screws, with which recorder is secured. (㉔ in Fig. 3)
  - (9) Remove all recorder cables plugged in receptacle board on front cover. (㉕ in Fig. 4)
  - (10) Unplug recorder power cable out of receptacle board on power supply unit. (㉖ in Fig. 4)
  - (11) Remove recorder from mounting rack. (㉗ in Fig. 4)

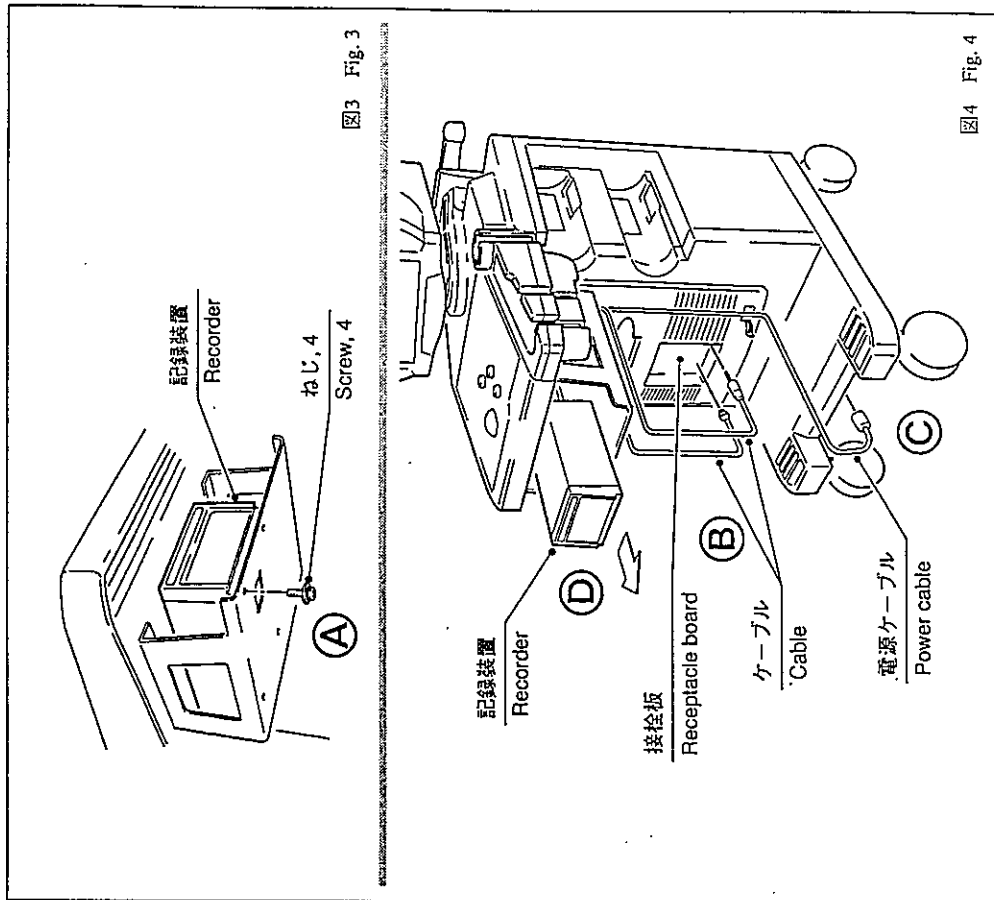


図3 Fig. 3

図4 Fig. 4

- (4) 記録装置をねじ、またはベルトを外して搭載台からおろす。(図中㉘)
  - (5) カラープリンタ搭載台(上部)を、六角穴付きボルト6本を外して取り外す。(図中㉙)
  - (6) カラープリンタ搭載台(下部)を、だるま穴のねじ2本をゆるめ、ねじ2本を外して取り外す。(図中㉚)
  - (7) リアカバーを、ねじ6本を外して取り外す。(図中㉛)
- (4) Remove screw or belt, and put down recorder from mounting rack. (㉘ in Fig.)
  - (5) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (㉙ in Fig.)
  - (6) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (㉚ in Fig.)
  - (7) Unfasten 6 screws and remove rear cover. (㉛ in Fig.)

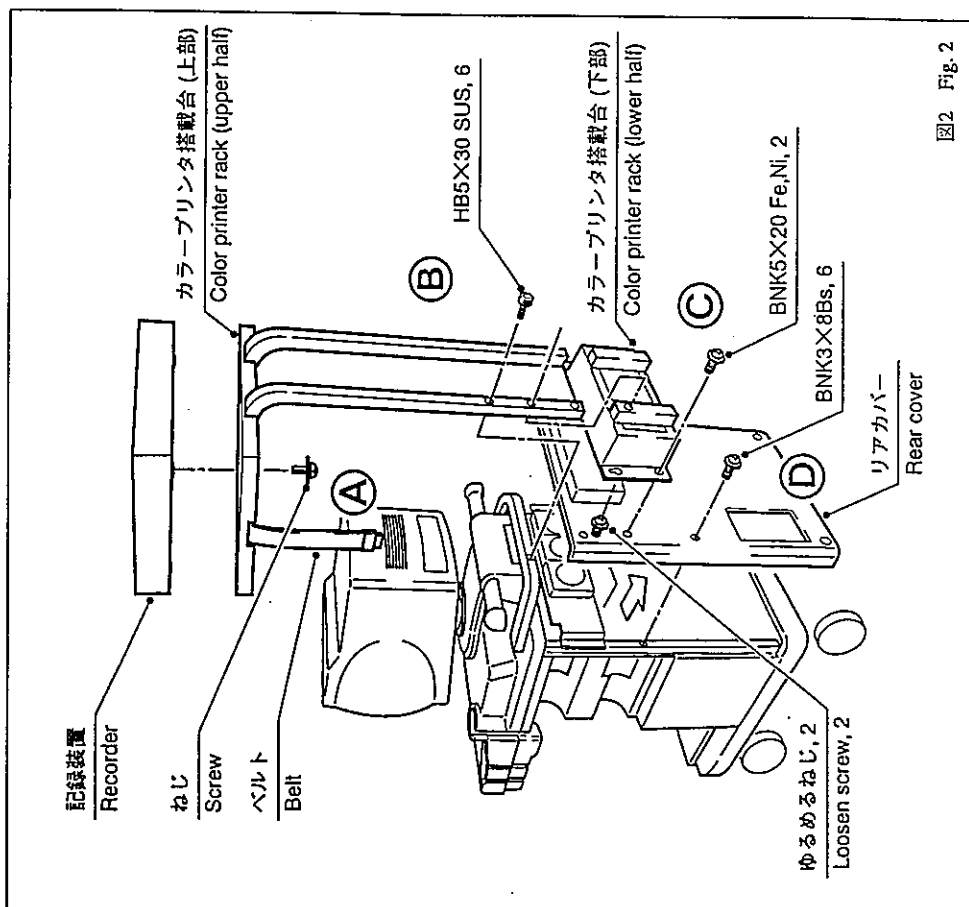


図2 Fig. 2

03 生体ユニットの取り付け方法  
Installing the Physio Unit

※ カラープリンタ搭載台 (MP-FX1700-2) のない装置は、(1)の作業は不要。

- (1) 補強パイプを、ねじ2本を外して取り外す。(図中Ⓐ)
- (2) パネルエスカッション後方のキャップ2個を取り外し、ねじ2本を外す。(図中Ⓑ)
- (3) パネルエスカッションを前方のねじ2本を外して開き、ステーをクランプから外して立てて固定する。(図中Ⓒ)

※ Operation (1) below is not required for equipment without color printer rack (MP-FX1700-2).

- (1) Unfasten 2 screws and remove reinforcement pipe. (Ⓐ in Fig.)
- (2) Remove 2 caps in the rear of panel escutcheon. And unfasten 2 screws. (Ⓑ in Fig.)
- (3) Unfasten 2 screws in front and open panel escutcheon. Then, remove stay from clamp, and erect and secure stay. (Ⓒ in Fig.)

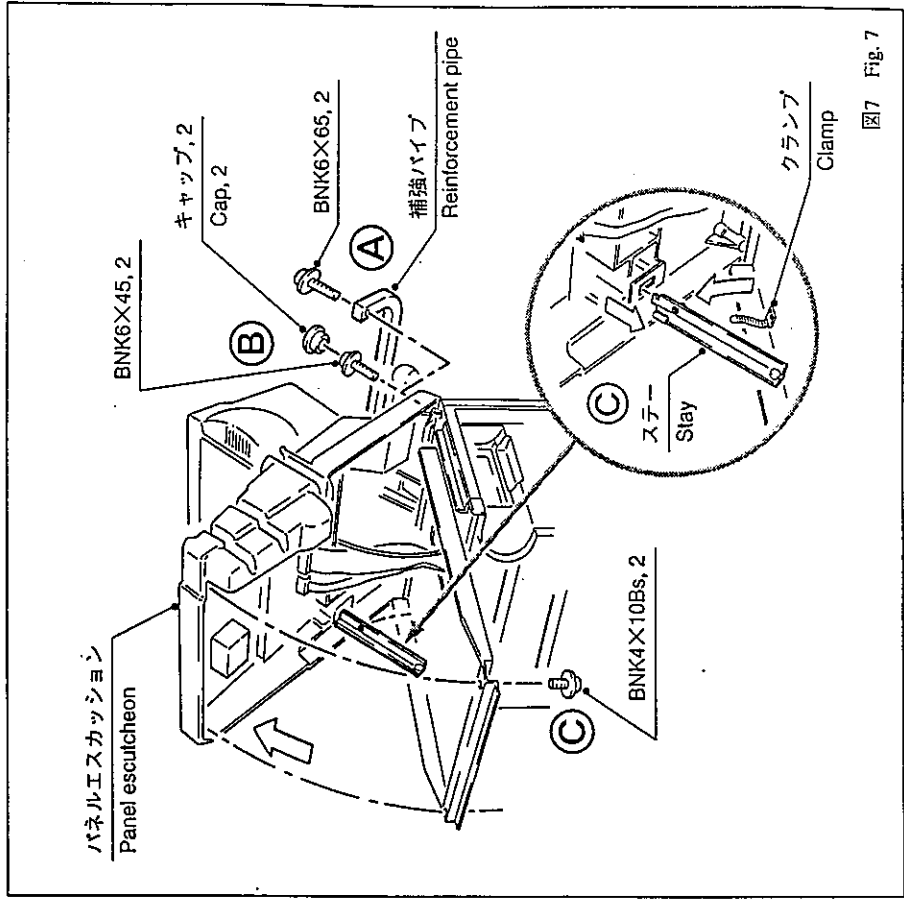


図7 Fig. 7

- (12) SSZ-305搭載台を、ねじ4本をゆるめて取り外す。(図5Ⓐ)
- (13) フロントカバーを、ねじ4本を外して取り外す。(図6Ⓑ)

(12) Unfasten 4 screws and remove SSZ-305 mounting rack. (Ⓐ in Fig. 5)

(13) Unfasten 4 screws and remove front cover. (Ⓑ in Fig. 6)

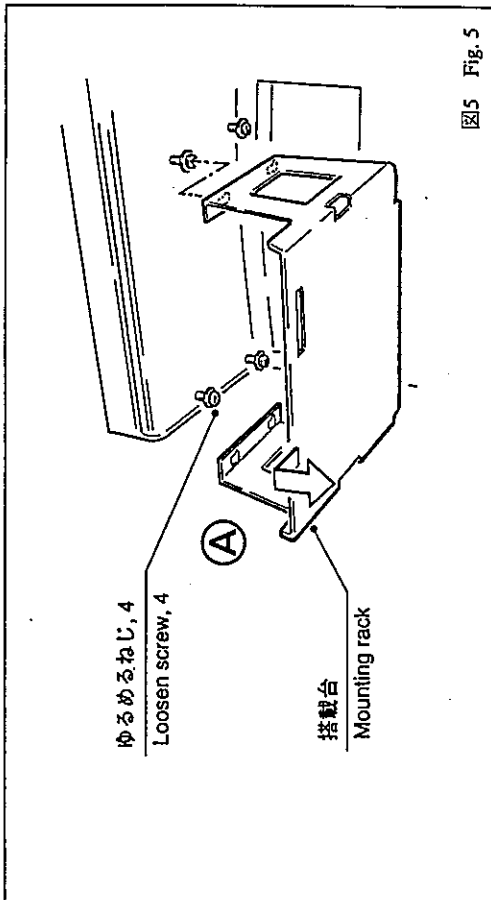


図5 Fig. 5

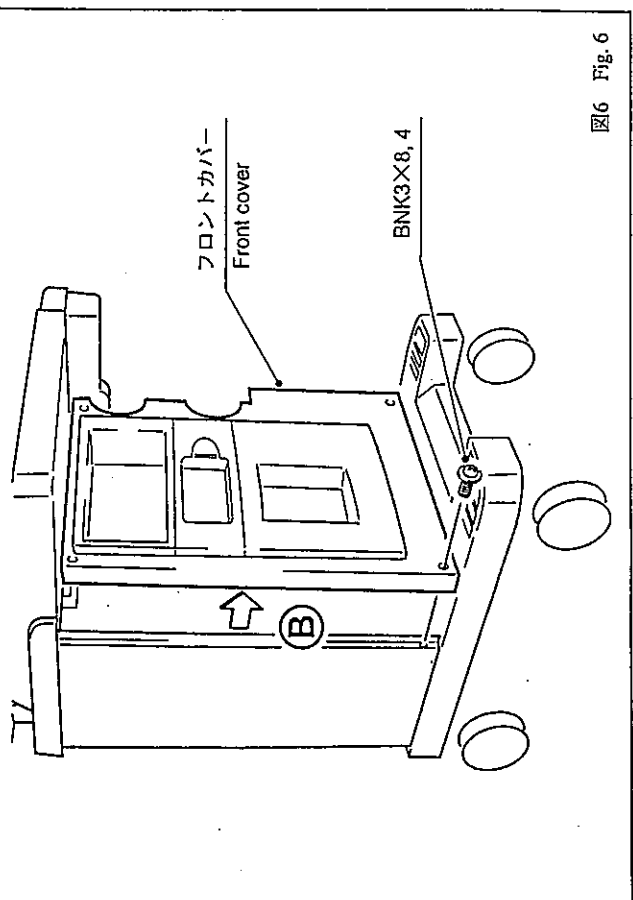


図6 Fig. 6

SECTION 4 DISASSEMBLING PROCEDURE

- (7) フレームのブラインドカバーを、ねじ2本をゆるめて取り外す。(図中Ⓐ)
- (8) 生体ユニットパネル部に、付属ねじ2本をすきまを開けてねじ込む。(図中Ⓑ)
- (9) 生体ユニットパネル部を、フラットケーブルを上部フレームの穴に通してから、ねじをだるま穴に合わせて取り付け、ねじを締め付け固定する。(図中Ⓒ)
- (10) 生体ユニットパネル部のケーブルのコネクタ(P502,P751,P752)を、生体ユニットアンプ部に接続する。(図中Ⓓ)

- (7) Remove blind cover from upper frame by loosening 2screws. (A in Fig.)
- (8) Drive 2 accessory screws into clearance made on physio unit panel. (B in Fig.)
- (9) Pass flat cable through hole in upper frame, first. Then, install physio unit panel, with screw adjusted to dowel hole. Then, tighten screw and secure physio unit panel. (C in Fig.)
- (10) In physio unit panel, plug cable connectors (P502,P751,P752) in physio unit amplifier.

(D in Fig)

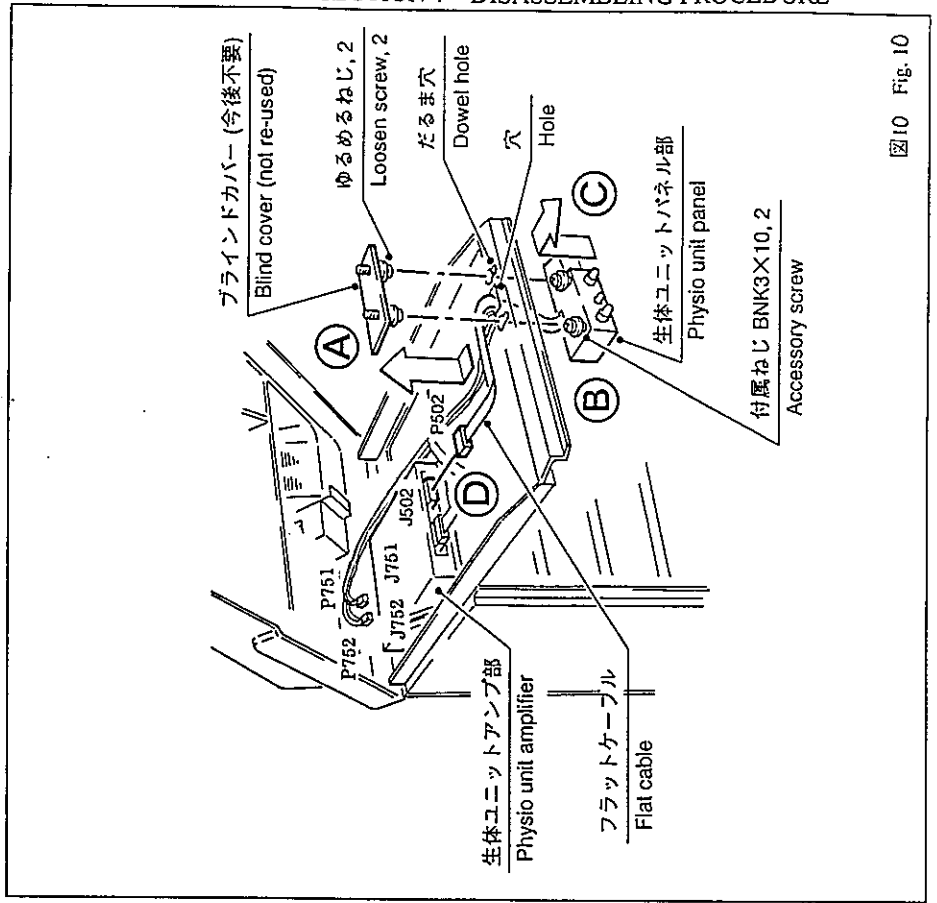


図10 Fig. 10

- (4) パネルエスカッションのブラインドカバーを、ナットとスプリングワッシャーと押さえ板を外して取り外し、付属ねじ2本をすきまを開けて図の位置にねじ込む。(図8Ⓐ)
- (5) 付属ボルト2本を、それぞれ付属スプリングワッシャーと付属ワッシャーに通し、すきまを開けて図の位置にねじ込む。(図8Ⓑ)
- (6) 生体ユニット接続部を、だるま穴と切り欠きをねじに合わせて引っ掛け、ねじとボルトを締め付け固定する。(図9Ⓒ)

- (4) Remove blind cover from escutcheon by taking off nut, spring washer and keeper plate. Then, drive 2 accessory screws into clearance made at illustrated positions. (A in Fig. 8)
- (5) Pass accessory spring washer and accessory washer onto 2 accessory bolt and drive it into clearance made at illustrated positions. (B in Fig. 8)
- (6) With dowel hole and notch adjust to screw, hook physio unit plug block. Then, tighten screw and bolt to secure unit. (C in Fig. 9)

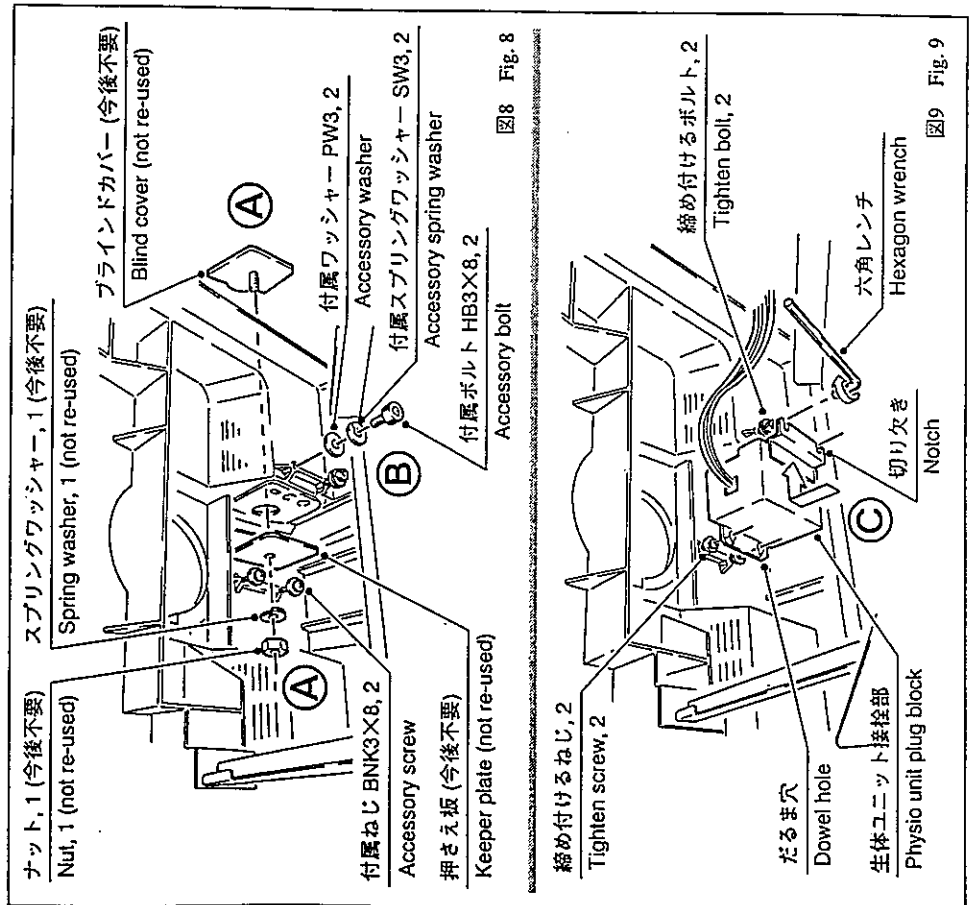


図8 Fig. 8

図9 Fig. 9

SECTION 4 DISASSEMBLING PROCEDURE

- ※ カラープリンタ搭載台 (MP-FX1700-2) のない装置は、(15)の作業は不要。
- ※ カラープリンタ搭載台 (MP-FX1700-2) のある装置は、(16)の作業は不要。
- (15) パネルエスカッションをステアーを外して閉じ、前方をねじ2本で固定する。(図中㊸)
- ※ ケーブルが生体ユニットアンプ部の上に乗らないように閉じること。
- (16) 補強パイプをねじ2本で固定する。(図中㊹)
- (17) パネルエスカッション後方にねじ2本を取り付け、キャップ2個をはめ込む。(図中㊺)

- ※ Operation (15) below is not required for equipment without color printer rack (MP-FX1700-2).
- ※ Operation (16) below is not required for equipment with color printer rack (MP-FX1700-2).
- (15) Remove stay and close panel escutcheon. Then, secure them in front with 2 screws. (㊸ in Fig.)
- ※ Panel escutcheon should be closed so that cable will not be placed on physio unit amplifier.
- (16) Use 2 screws to secure reinforcement pipe. (㊹ in Fig.)
- (17) Attach 2 screws in the rear of panel escutcheon. And fit in 2 caps. (㊺ in Fig.)

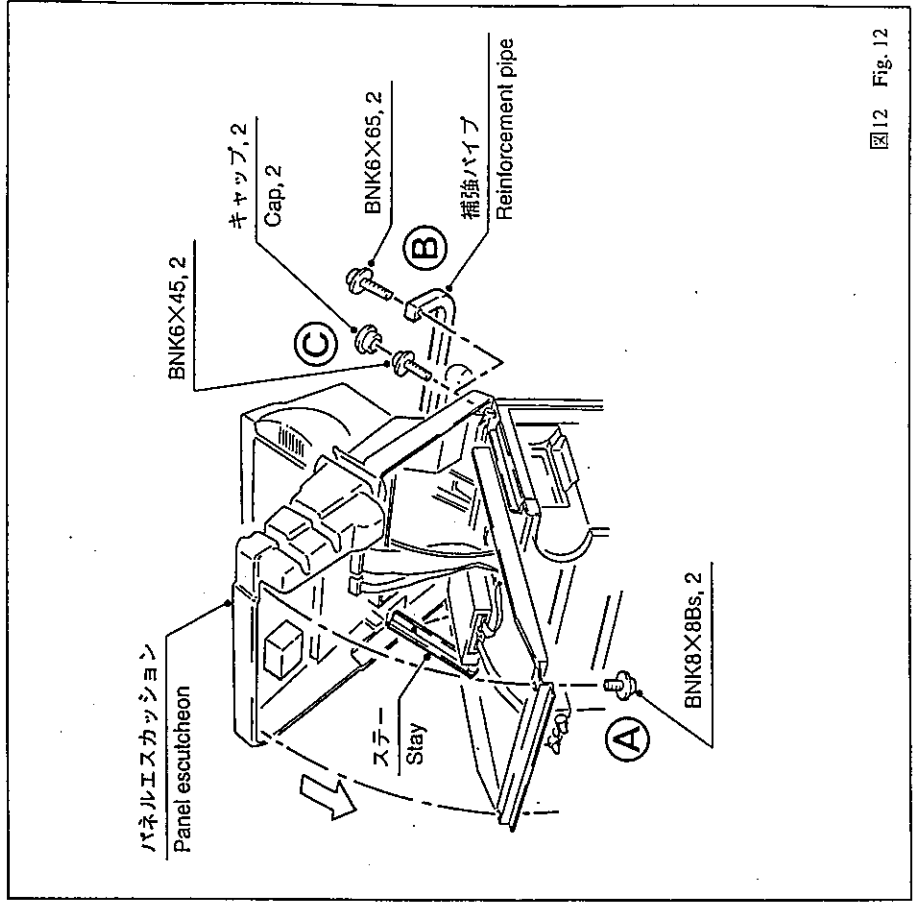


図12 Fig.12

- (1) 生体ユニットアンプ部に、生体ユニット接続部のケーブルのコネクタ (P750) を接続する。(図中㊻)
- (2) 生体ユニットアンプ部を、つめを上部フレームの穴に差し込み、付属ねじ2本で固定する。(図中㊼)
- (3) 付属ケーブル本を、コネクタ (P501) を生体ユニットアンプ部のコネクタ (J501) に接続し、上部フレームの穴に通す。(図中㊽)
- (4) 付属のクランプを図の位置に取り付け、ケーブルを固定する。(図中㊾)
- (1) On physio unit plug block, plug cable connector (P750) in physio unit amplifier. (㊻ in Fig.)
- (2) With claw inserted into hole in upper frame, use 2 accessory screws to secure physio unit amplifier. (㊼ in Fig.)
- (3) Pass 1 side of accessory cable through hole in upper frame with connector (P501) plugged in connector (J501) into physio unit amplifier. (㊽ in Fig.)
- (4) Attach accessory clamp at location shown in illustration, and secure cables. (㊾ in Fig.)

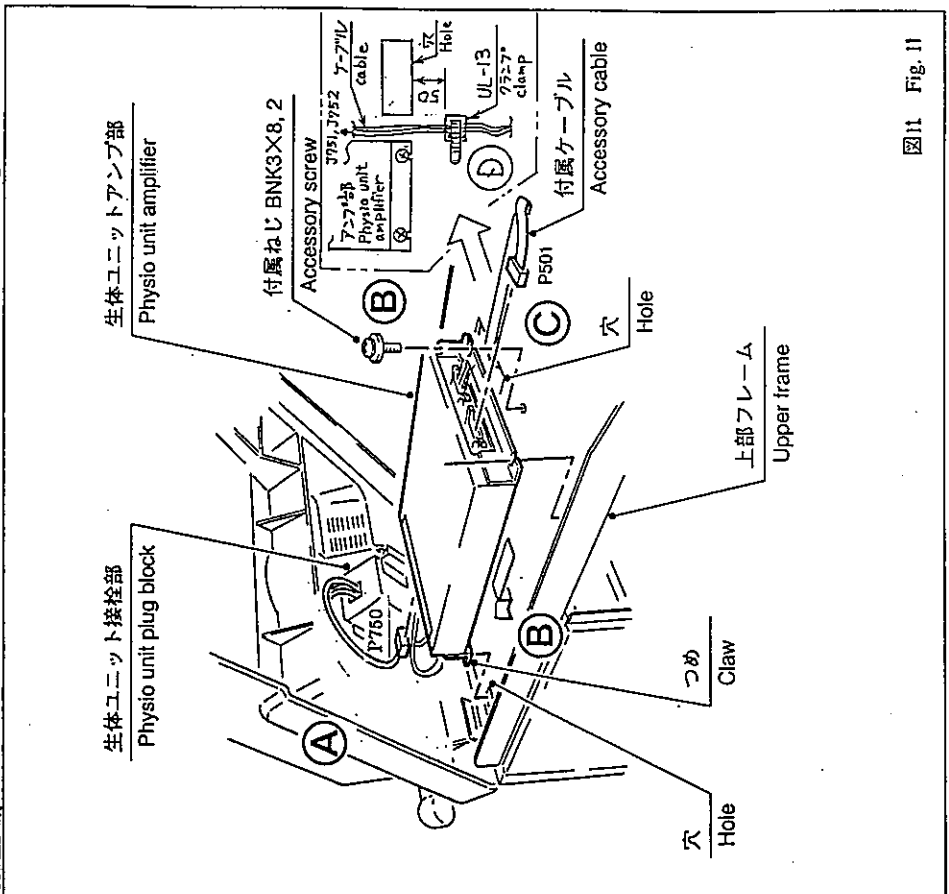


図11 Fig.11



**04**  
Phisio Memory PC板の取り付け方法  
Installing the Phisio Memory PC board

- (1) PC番固定金具3本を、ねじ各2本を外して取り外す。(図13 ㊸)
- (2) PC板抜き差し工具2個を、PC板固定金具の図の位置裏側のクランプより取り外す。(図13 ㊹)
- (3) 付属PC板 (EP404900) を、一番右のスロットに軽く突き当たるまで差し込む。(図14 ㊺)

- (1) Unfasten 2 screws and remove 3 pieces of PC board securing hardware. (㊸ in Fig. 13)
- (2) Remove 2 pieces of PC board push-in / pull-out tool from clamp on the back of PC board securing hardware. (㊹ in Fig. 13)
- (3) Continue to insert accessory PC board (EP404900) until it has lightly hit against slot at the rightmost side. (㊺ in Fig. 14)

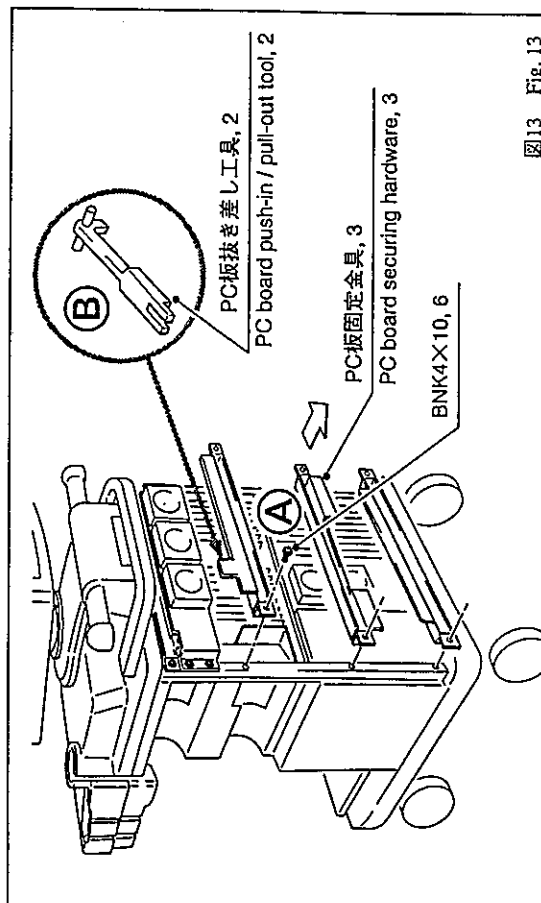


図13 Fig. 13

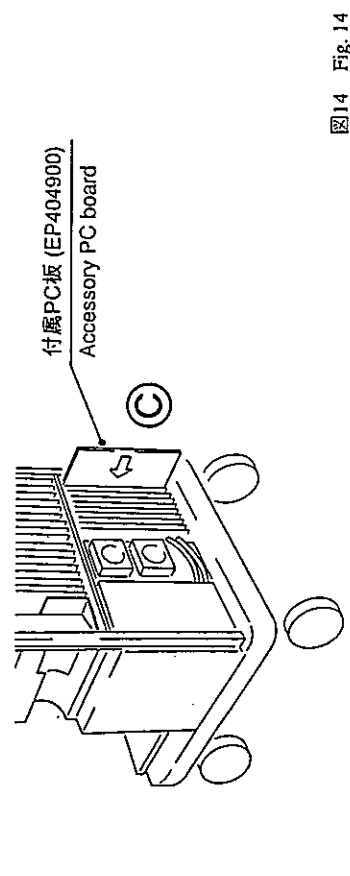


図14 Fig. 14

- (4) PC板抜き差し工具2個のツメを、PC板スロット手前の角穴に引っ掛け、図のようにPC板を確実に押し込む。(図15 ㊻)
- (5) PC板抜き差し工具2個を、PC板固定金具の図の位置裏側にクランプする。(図16 ㊼)
- (6) PC板固定金具3本を、ねじ各2本で取り付ける。(図16 ㊽)

- (4) Put 2 claws of PC board push-in / pull-out tool on square hole in front of PC board slot. And securely push in PC board as illustrated. (㊻ in Fig. 15)

- (5) Clamp 2 pieces of PC board push-in / pull-out tool on the back of PC board securing hardware at locations illustrated. (㊼ in Fig. 16)

- (6) Use 2 screws to install each of 3 PC board securing hardware pieces. (㊽ in Fig. 16)

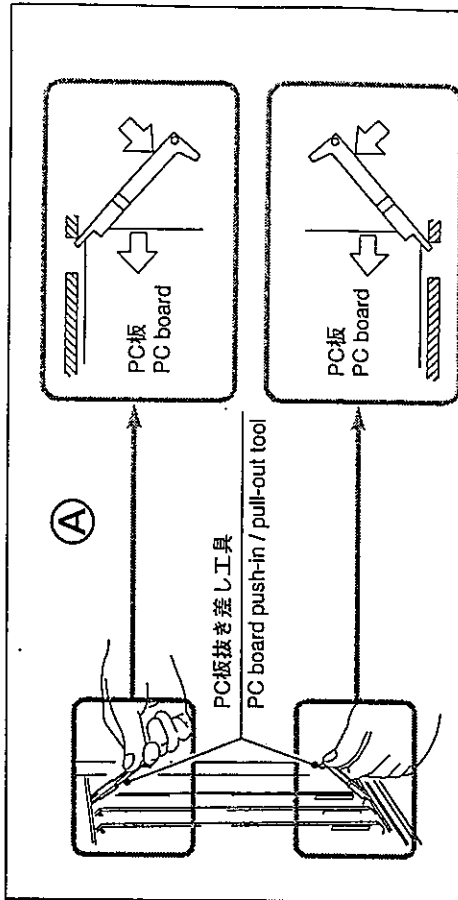


図15 Fig. 15

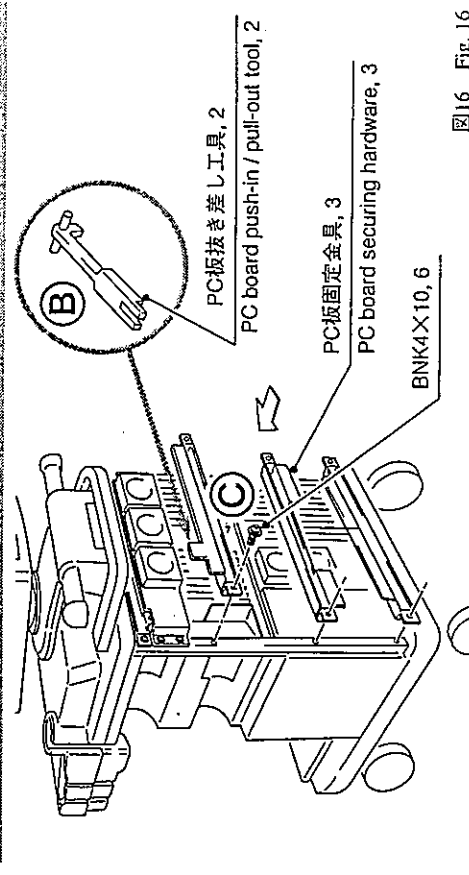


図16 Fig. 16

- ※ コネクタカバーのない装置は、(13)の作業は不要。
- ※ コネクタカバーのある装置は、(11)~(12)の作業は不要。
- (10) 生体ユニットアンプ部からのフラットケーブルのコネクタ (P234) を、マザーボードのコネクタ (J234) に接続する。(図19 (A))
- (11) 基準アース板を、(10)で接続したフラットケーブルの引き回しに注意して、ねじ15本で取り付ける。(図19 (B))
- (12) 接続パネルを、裏側のコネクタを合わせてマザーボードに取り付け、ねじ6本で基準アース板に固定する。(図20 (C))
- (13) コネクタカバーを、(10)で接続したフラットケーブルの引き回しに注意して、ねじ2本で基準アース板に取り付ける。(図19 (D)、図20 (D))

- ※ Operation (13) is not required for equipment without connector cover.
- ※ Operations (11) and (12) are not required for equipment with connector cover.
- (10) Plug connector (P234) of flat cable, which comes out of physio unit amplifier, in receptacle (J234) on motherboard. (A in Fig. 19)
- (11) Use 15 screws to install reference grounding plate while paying attention to in-position layout of flat cable plugged in as referred to in (10) above. (B in Fig. 19)
- (12) Attach connector panel to motherboard, with connectors on the back matched. Then, use 6 screws to secure connector panel onto reference grounding plate. (C in Fig. 20)
- (13) Use 2 screws to install connector panel on reference grounding plate while paying attention to in-position layout of flat cable plugged in as referred to in (8) above. (D in Fig. 19, D in Fig. 20)

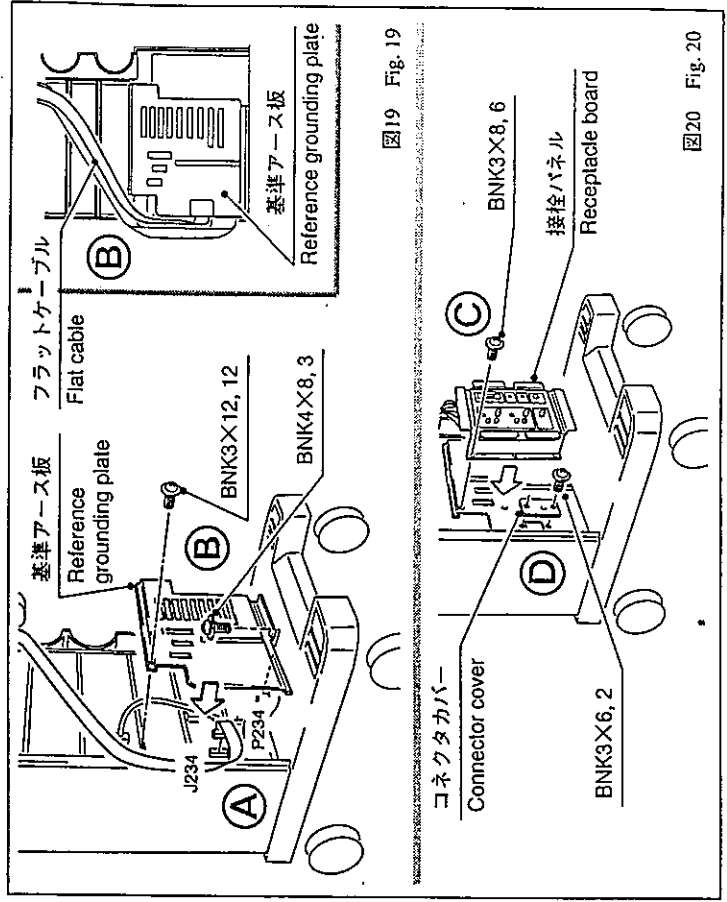


図19 Fig. 19

図20 Fig. 20

- ※ コネクタカバーのない装置は、(7)の作業は不要。
- ※ コネクタカバーのある装置は、(8)~(9)の作業は不要。
- (7) 基準アース板のコネクタカバーを、ねじ2本を外して取り外す。(図17 (A))
- (8) 接続パネルをねじ6本を外し、まっすぐ手前に引いて取り外す。(図17 (B))
- ※ 接続パネルは裏側のコネクタでマザーボードに接続されているので、必ずまっすぐ引き抜くこと。
- (9) 基準アース板をねじ15本を外して取り外す。(図18 (C))

- ※ Operation (7) is not required for equipment without connector cover.
- ※ Operations (8) and (9) are not required for equipment with connector cover.
- (7) Unfasten 2 screws and remove connector cover from reference grounding plate. (A in Fig. 17)
- (8) Unfasten 6 screws and remove receptacle board by pulling it straight toward you.
- ※ Receptacle board, which has been connected to motherboard with plug receptacles on the back, should not fail to be pulled straight. (B in Fig. 17)
- (9) Unfasten 15 screws, and remove reference grounding plate. (C in Fig. 18)

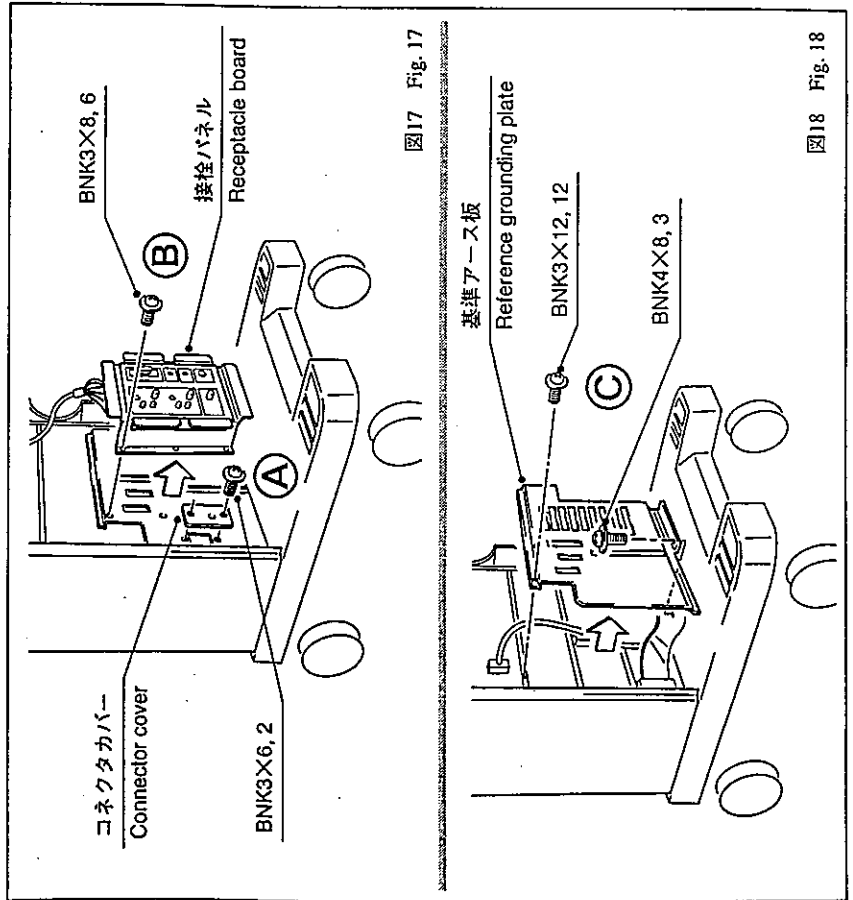


図17 Fig. 17

図18 Fig. 18

05 カバーの取り付け方法  
Installing the Cover

- (1) フロントカバーを、ねじ4本で取り付ける。(図21㊸)
- (2) SSZ-305搭載台を、だるま穴をねじに合わせて取り付け、ねじ4本を締め付け固定する。(図22㊸)
- (1) Use 4 screws to install front cover. (㊸ in Fig. 21)
- (2) Install SSZ-305 mounting rack, with its dowel holes fitted to screws. Fasten 4 screws and secure rack. (㊸ in Fig. 22)

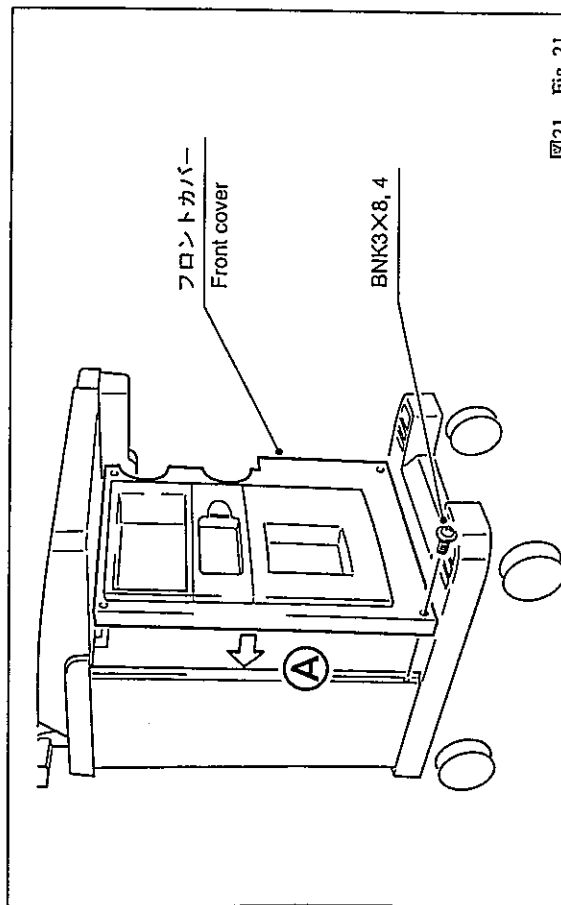


図21 Fig. 21

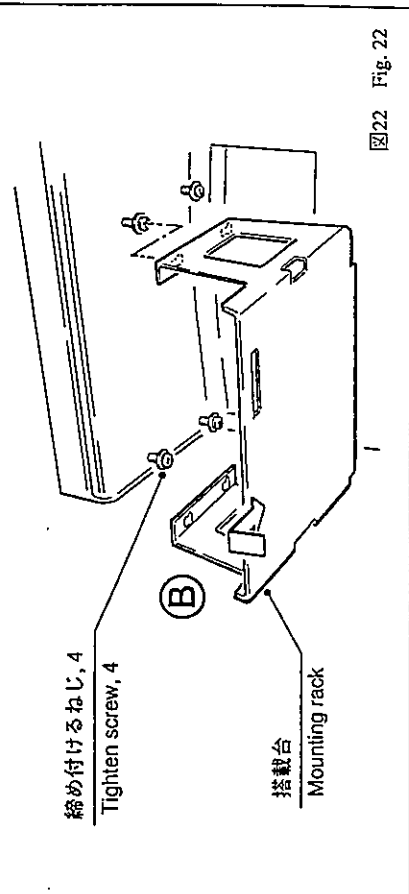


図22 Fig. 22

- (3) 記録装置のケーブルと電源ケーブルを、それぞれフロントカバーの接栓板と電源ユニットの接栓板に接続する。(図23㊸)
- (4) 記録装置をねじ4本で搭載台に取り付ける。(図24㊸)

- (3) Plug both recorder and power cables, respectively, in receptacle boards on front cover and in power supply unit. (㊸ in Fig. 23)
- (4) Use 4 screws to mount recorder onto mounting rack. (㊸ in Fig. 24)

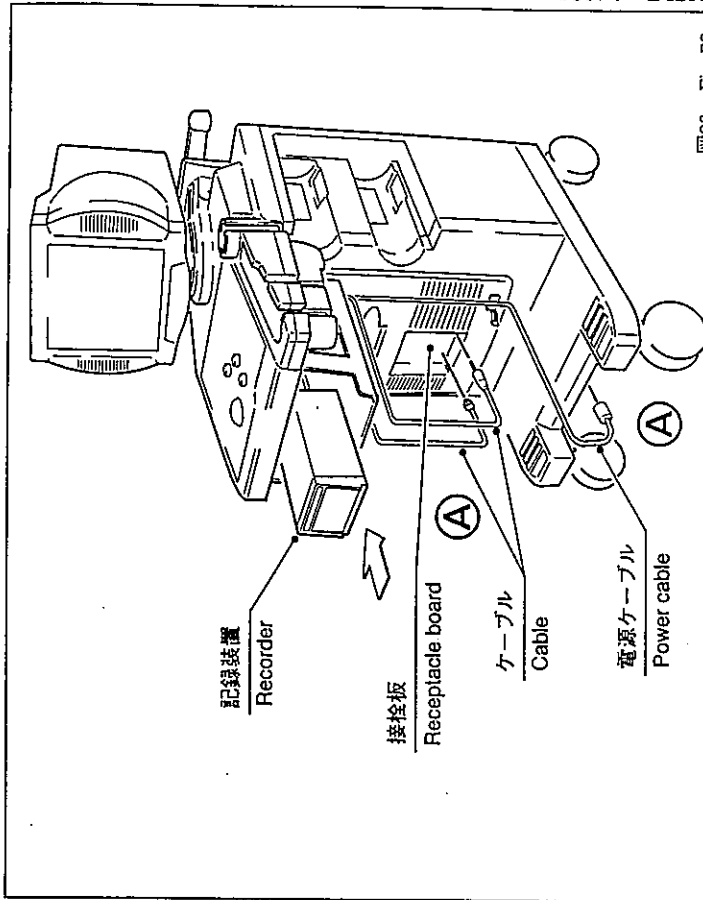


図23 Fig. 23

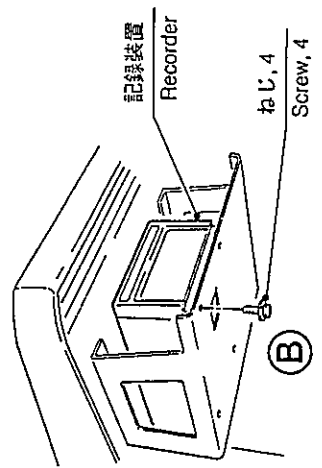


図24 Fig. 24

- (9) 信号ケーブルと電源ケーブルのコネクタを、記録装置背面にそれぞれ接続する。(図中Ⓐ)
- (10) 電源ケーブルを、図の4か所のクランプに固定していく。(図中Ⓑ)
- (11) 信号ケーブルを、図の2か所のクランプに記録装置側から固定していく。(図中Ⓒ)
- (12) Ⓒの位置で余ったケーブルを、取付金具と補強パイプの間に押し込む。(図中Ⓓ)
- (13) ケーブルハンガを取り付ける。(図中Ⓔ)

- (9) Plug both signal and power cable connectors in recorder on the back. (Ⓐ in Fig.)
- (10) Secure power cable with clamps at 4 illustrated locations. (Ⓑ in Fig.)
- (11) Secure signal cable with clamps at 2 illustrated locations sequentially on the recorder side, first. (Ⓒ in Fig.)
- (12) Push excess cable between mounting hardware and reinforcement pipe at Location Ⓓ. (Ⓓ in Fig.)
- (13) Install cable hanger. (Ⓔ in Fig.)

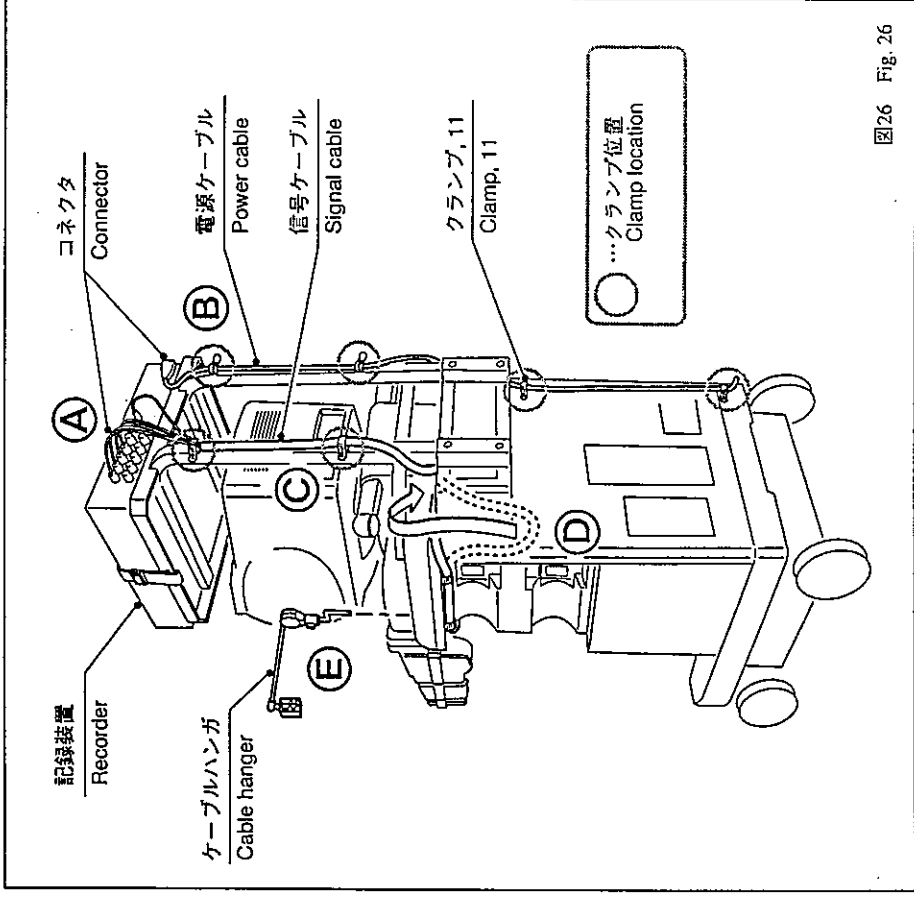


図26 Fig. 26

MS5-0738

-20-

- ※ カラープリンタ搭載台 (MP-FX1700-2) のない装置は、(6)~(12)の作業は不要。
- (5) リアカバーを、ねじ6本で取り付ける。(図中Ⓐ)
- (6) カラープリンタ搭載台 (下部) を、取り外しと逆の手順で取り付ける。(図中Ⓑ)
- (7) カラープリンタ搭載台 (上部) を、取り外しと逆の手順で取り付ける。(図中Ⓒ)
- (8) 記録装置を、取り外しと逆の手順でねじ、またはベルトで搭載台に取り付ける。(図中Ⓓ)

- ※ Operations (6) thru (12) are not required for equipment without color printer rack (MP-FX1700-2).
- (5) Use 6 screws to mount rear cover. (Ⓐ in Fig.)
- (6) Reverse removal steps to install color printer rack (lower half). (Ⓑ in Fig.)
- (7) Reverse removal steps to install color printer rack (upper half). (Ⓒ in Fig.)
- (8) Reverse removal steps to install recorder onto mounting rack with screws or belt. (Ⓓ in Fig.)

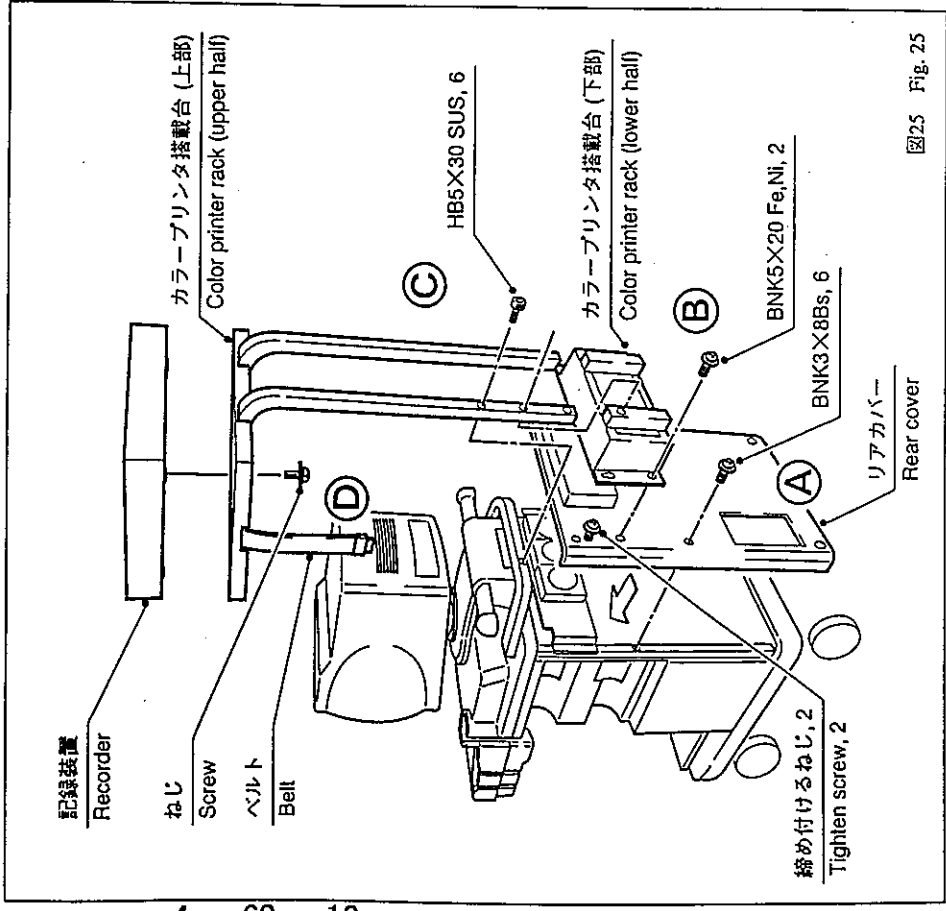


図25 Fig. 25

MS5-0738

-19-

06 接栓パネルの貼り付け方法  
Attaching Accessory Receptacle Panel

- (1) 付属接栓パネルを、パネルエスカッションの図の位置に貼り付ける。(図27)
- (1) Attach accessory receptacle panel to panel escutcheon at illustrated position.(Fig. 27)

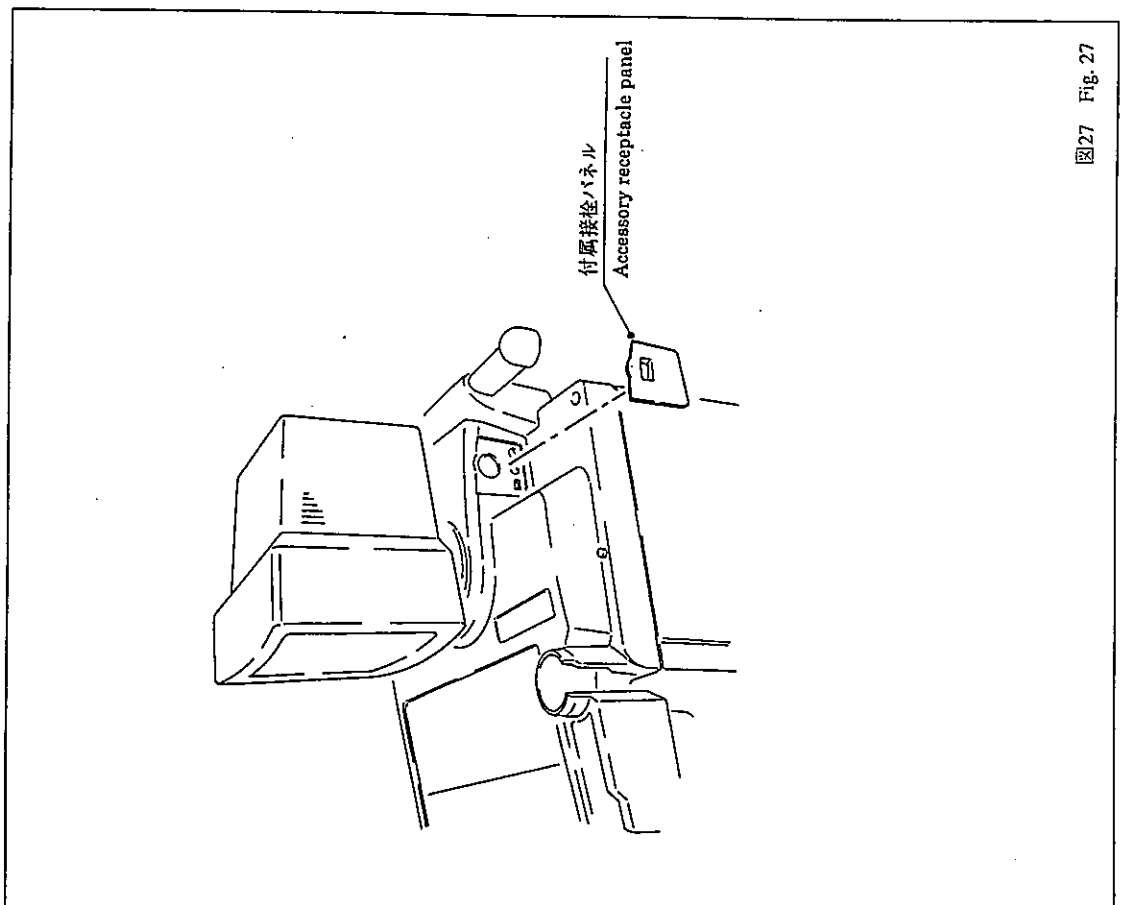


図27 Fig. 27

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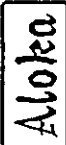
01 据付フローチャート  
Installation Flow Chart

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートのINDEX No. が各ページの見出しと一致しています。

This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.

02	カバーの取り外し方法 Removing of Cover
03	プリント基板の取り付け方法 Installing board
04	JB-227 の取り付け方法 Installing JB-227

EU-3038 据付要領書  
EU-3038 INSTALLATION PROCEDURES



この据付要領書は EU-3038 の納品等の際、据付の資料としてご使用ください。  
なお、本書は据付フローチャートに基づき構成されていますので、手順に従って  
作業を進めてください。  
必要な工具：プラスドライバー (あらかじめ用意すること)

These installation procedures are provided for reference in installation of EU-3038.  
This book is made up based on the installation flow chart, then follow the procedures  
described in this book in installation work.

Tool required : Phillips screw driver (Provide it beforehand)

下記の付属部品が揃っているか確認してください。

Check to assure all the below-listed accessory part to have been included in the shipping case.

00 付属部品リスト List of Accessory Parts			
No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	プリント基板 (EP415600) PC board (EP415600)		1
2	接合板 JB-227 Connector panel JB-227		1
3	鉛板 P-32-SSD1700-6 Seal P-32-SSD1700-6		1
4	UL クランプ UL-13 UL clamp UL-13		1

02 カバリの取り外し方法  
Removing of cover

※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(1)~(5)の作業は不要

- (1) 記録装置からコネクタを全て取り外す。(図中Ⓐ)
- (2) 図の6か所のクランプから、信号ケーブル、電源ケーブルを取り外す。(図中Ⓑ)

※ Operations (1) thru (5) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Unplug all connectors out of recorder. (Ⓐ in Fig.)
- (2) Remove both signal and power cables from 6 clamps illustrated. (Ⓑ in Fig.)

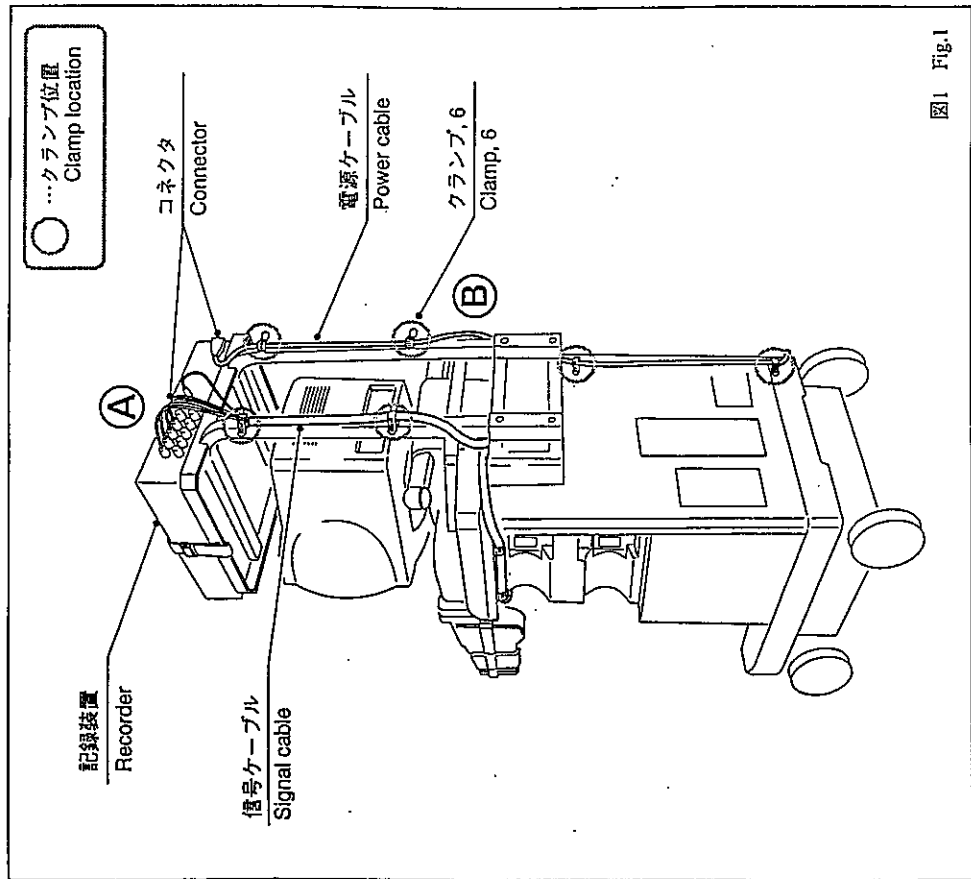


図1 Fig.1

- (3) 記録装置をねじ4本、またはベルトを外して搭載台から降ろす。(図中Ⓐ)
- (4) カラープリンタ搭載台(上部)を六角穴付きボルト6本を外して取り外す。(図中Ⓑ)
- (5) カラープリンタ搭載台(下部)をだるま穴のねじ2本をゆるめ、ねじ2本を外して取り外す。(図中Ⓒ)
- (6) リアカバーをねじ6本を外して取り外す。(図中Ⓓ)
- (7) 右サイドカバーをねじ8本を外して取り外す。(図中Ⓔ)

(3) Remove screw or belt, and put down recorder from mounting rack. (Ⓐ in Fig.)

- (4) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (Ⓑ in Fig.)
- (5) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (Ⓒ in Fig.)

- (6) Unfasten 6 screws and remove rear cover. (Ⓓ in Fig.)
- (7) Unfasten 8 screws and remove right side cover. (Ⓔ in Fig.)

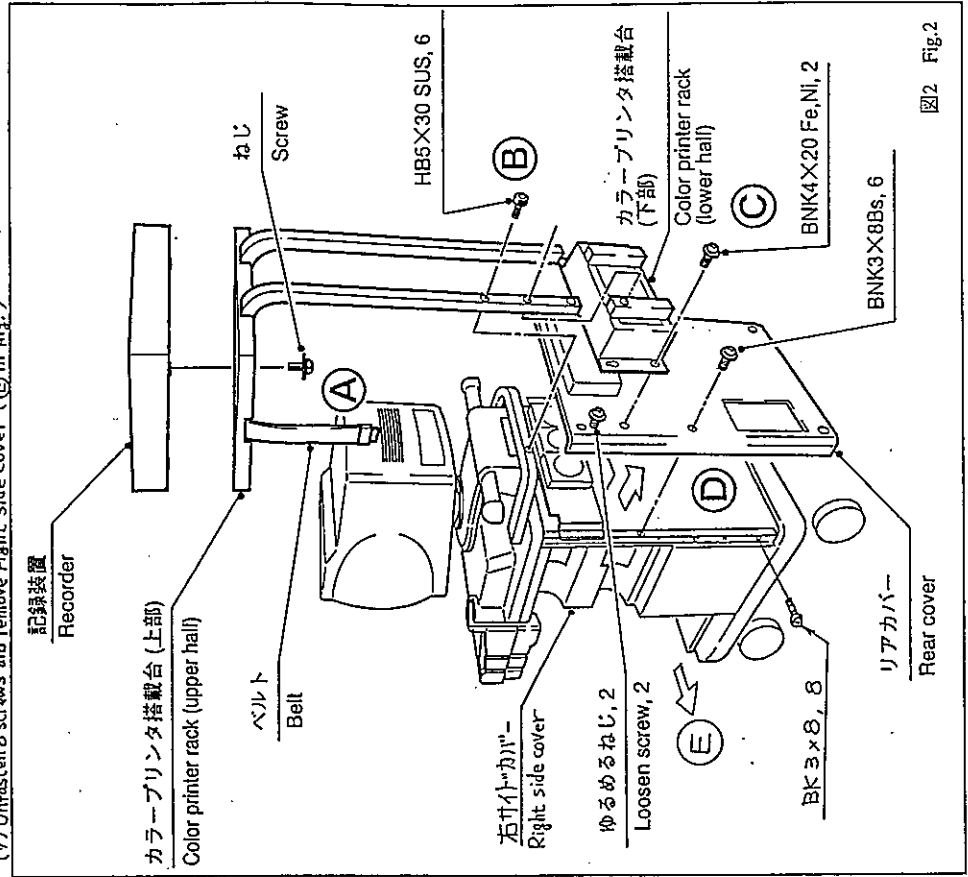


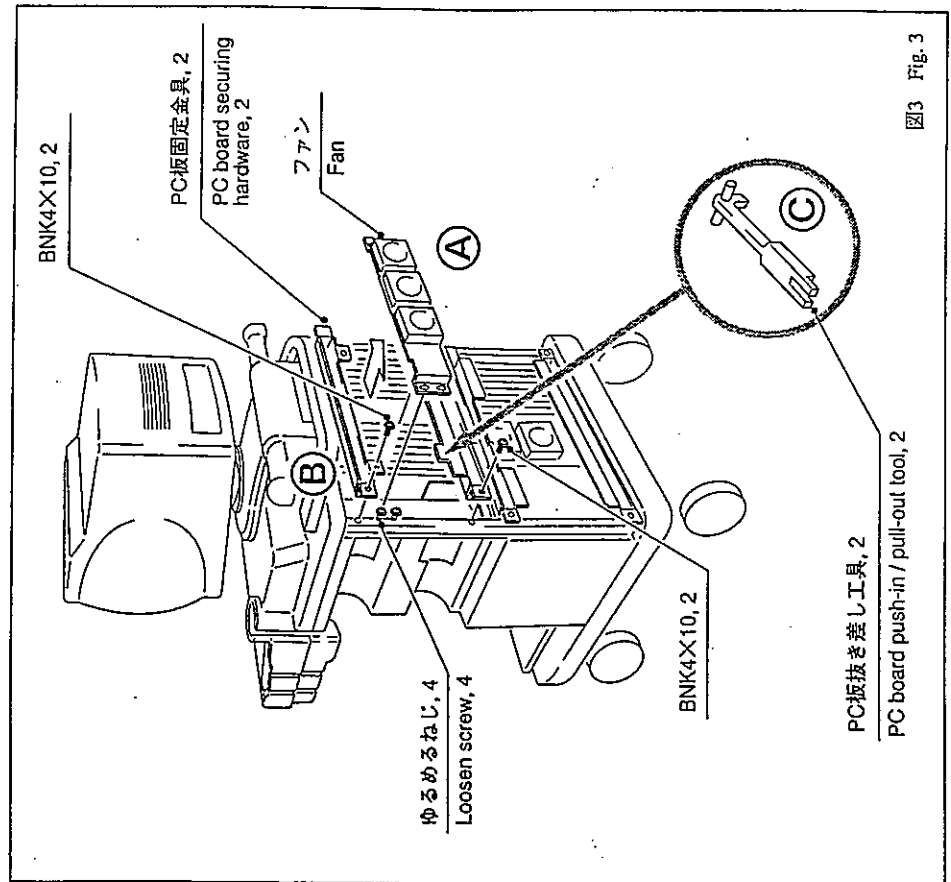
図2 Fig.2



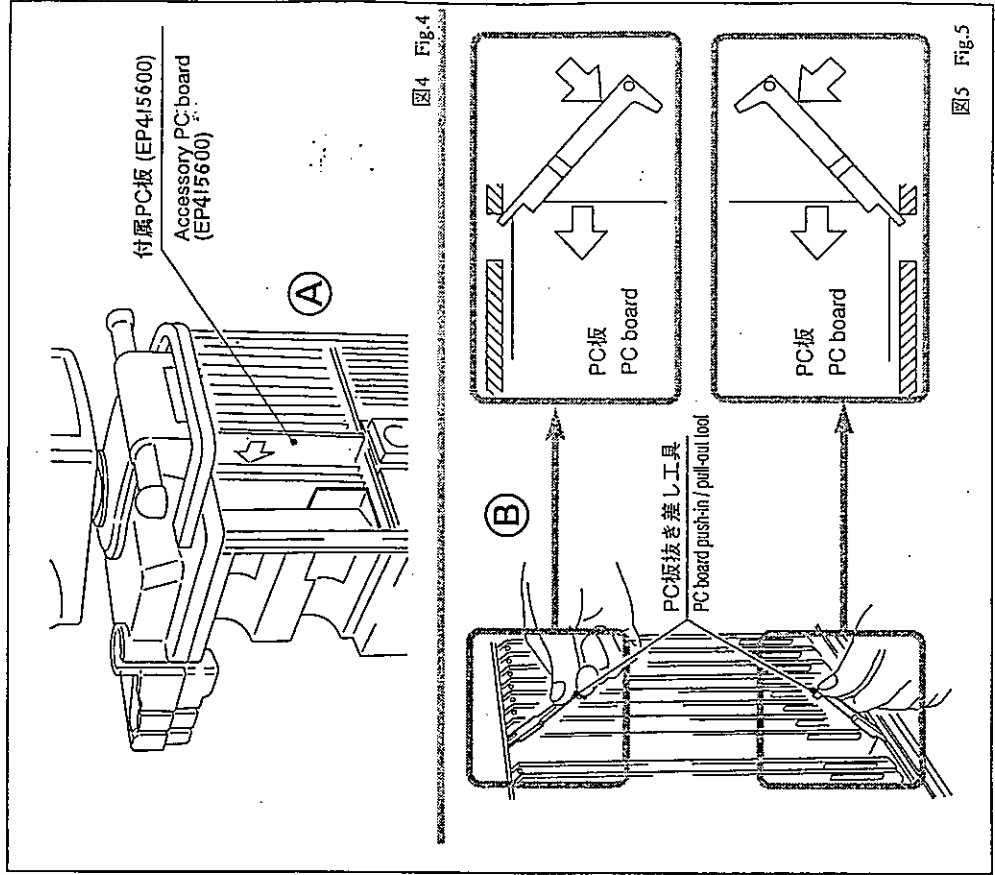
03 付属PC板の取り付け方法  
Installing the Accessory PC Board

- (1) ファンを、だるま穴のねじ4本をゆるめて取り外す。(図中Ⓐ)
- (2) PC板固定金具2本をねじ各2本を外して取り外す。(図中Ⓑ)
- (3) PC板抜き差し工具2個を、PC板固定金具の図の位置裏側のクランプより取り外す。(図中Ⓒ)

- (1) To remove fan, loosen 4 screws. (Ⓐ in Fig.)
- (2) Unfasten 2 screws and remove 2 pieces of PC board securing hardware. (Ⓑ in Fig.)
- (3) Remove 2 pieces of PC board push-in / pull-out tool from clamp on the back of PC board securing hardware. (Ⓒ in Fig.)



- (4) 付属PC板(EP415600)を左から4番目のスロットへ差し込む。(図4Ⓓ)
- (5) PC板抜き差し工具2個のツメをPC板スロット手前の角穴に引っ掛け、図のようにPC板を確実に押し込む。(図5Ⓔ)
- (4) Insert accessory PC boards (EP415600) into 4-th slot as counted from the left. (Ⓓ in Fig.4)
- (5) Put 2 claws of PC board push-in / pull-out tool on square hole in front of PC board slot and securely push in PC board as illustrated. (Ⓔ in Fig.5)



04 JB-227 の取り付け方法  
Installing JB-227

- (1) 図の位置に取り付けられているねじ2本を使ってJB-227を取り付ける。(図中㊸)
  - (2) ケーブル2本を EP415600 のコネクタに接続する。(図中㊹)
  - (3) 付属の UL クランプでケーブルを図の位置に固定する。(図中㊺)
- 動作確認：インデペンデントプロローブを接続し、装置の電源を入れCW画像が表示されることを確認する。

- (1) Use 2 screws attached at location illustrated to mount JB-227. (㊸ in Fig.)
  - (2) Plug 2 cables in EP415600. [P4, P5] (㊹ in Fig.)
  - (3) Attach clamp(UL-13) at position as illustrated. And secure the cables in clamp. (㊺ in Fig.)
- Function test: Check CW Doppler function operate properly before closing cover panels.

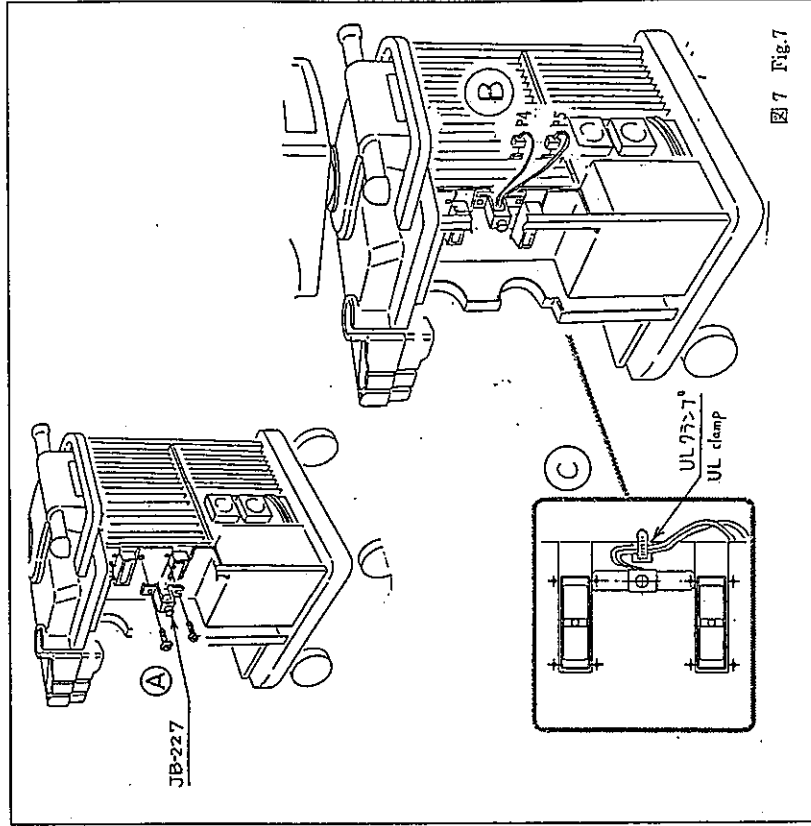


図7 Fig.7

MS5-0733

- 8 -

- (6) 基板(EP415601)のパターンカットを確認する。  
半田面▲の部分がかットされているか確認し、されていない場合はカットする。(図6)
- (6) Check the pattern cut on PC board(EP415601).  
Check the pattern cut on solder plane. (shown as ▲) If not, cut as shown in fig. 6.

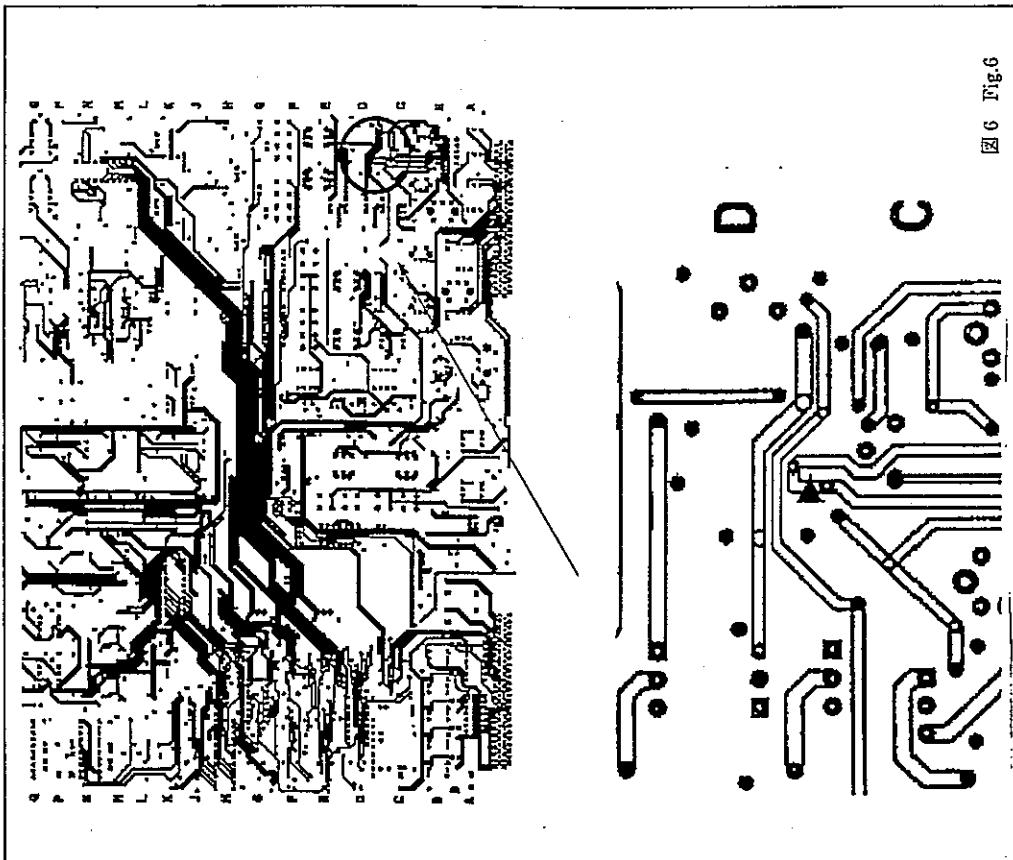
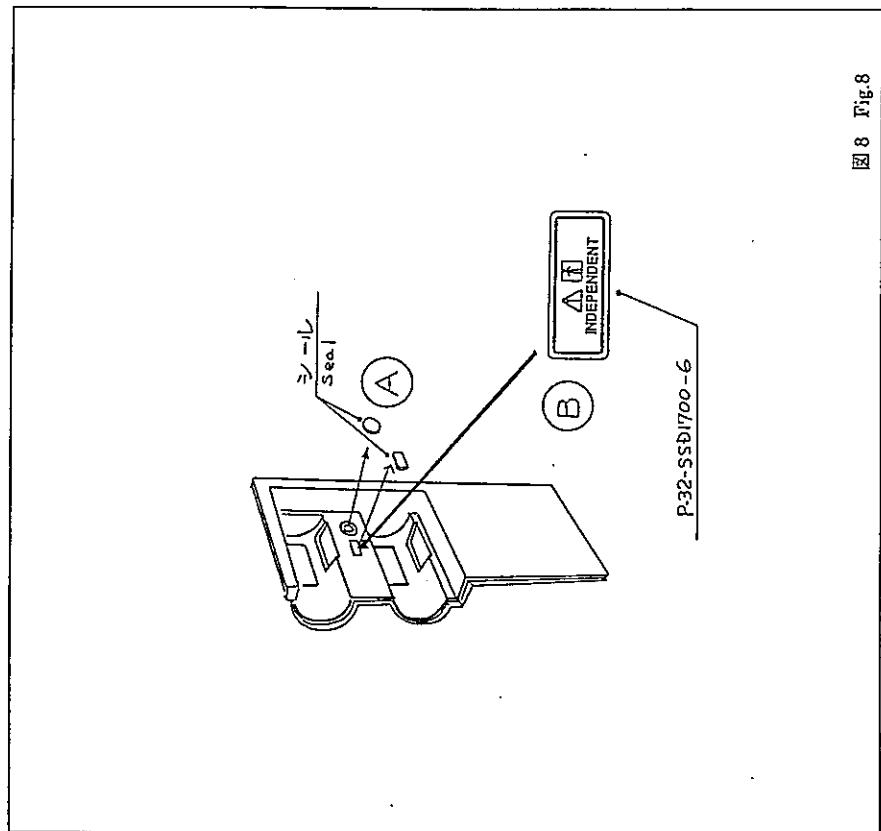


図6 Fig.6

MS5-0733

- 7 -

- (4) 右サイドカバーに貼り付いているシールをはがす。( 図中 ㊸ )
- (5) 付属の銘板(P-32-SSD1700-6)を図の位置に貼り付ける。( 図中 ㊹ )
- (6) 以上で据付は完了し、取り外したカバー、ケーブル類を全て元のように戻す。
- (4) Remove seal attached at right side cover. ( ㊸ in Fig.)
- (5) Attach accessory seal(P-32-SSD1700-6) at illustrated. ( ㊹ in Fig.)
- (6) That is all for steps of completing installation of JB-227. All of covering and cabling removed should be returned to their respective original positions.



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この据付要領書は EU-3038B の納品等の際、据付の資料としてご使用ください。  
なお、本書は据付フローチャートに基づき構成されていますので、手順に従って作業を進めてください。

必要な工具：プラスドライバー、ラジオペンチ、ねじロック（あらかじめ用意すること）  
These installation procedures are provided for reference in installation of EU-3038B.  
This book is made up based on the installation flow chart, then follow the procedures described in this book in installation work.

Tool required : Phillips screw driver, Round Nose Chain Pliers and Screw locking (Provide it beforehand)

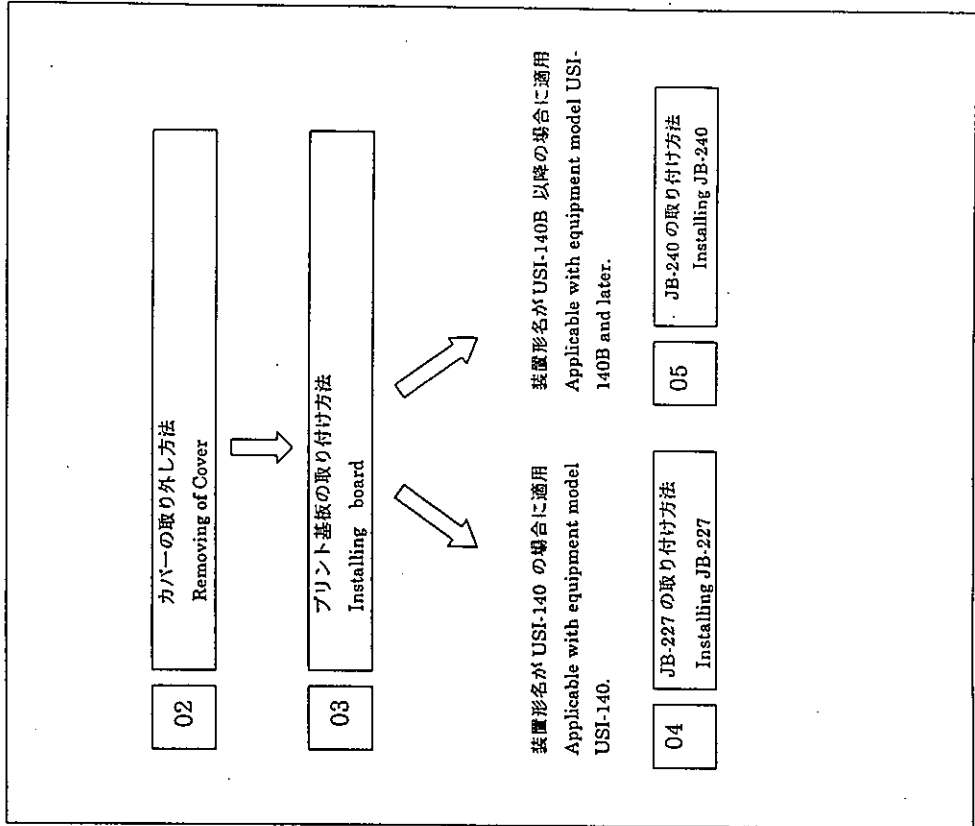
下記の付属部品が揃っているか確認してください。

Check to assure all the below-listed accessory part to have been included in the shipping case.

付属部品リスト List of Accessory Parts			
No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	プリント基板(EP415600) PC board(EP415600)		1
2	接続板(JB-227) Connector panel(JB-227)		1
3	接続板(JB-240) Connector panel(JB-240)		1
4	ケーブル (Cable104) Cable ( Cable104)		1
5	B-セムスねじ BNK3×8		4
6	紙板 (P-32-SSD1700-6) Seal (P-32-SSD1700-6)		1
7	UL クランプ(UL-13) UL clamp(UL-13)		1

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートの INDEX No. が各ページの見出しと一致しています。

This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.



02 カバーの取り外し方法  
Removing of cover

※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(1)~(5)の作業は不要

- (1) 記録装置からコネクタを全て取り外す。(図中Ⓐ)
- (2) 図の6か所のクランプから、信号ケーブル、電源ケーブルを取り外す。(図中Ⓑ)

※ Operations (1) thru (5) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Unplug all connectors out of recorder. (Ⓐ in Fig.)
- (2) Remove both signal and power cables from 6 clamps illustrated. (Ⓑ in Fig.)

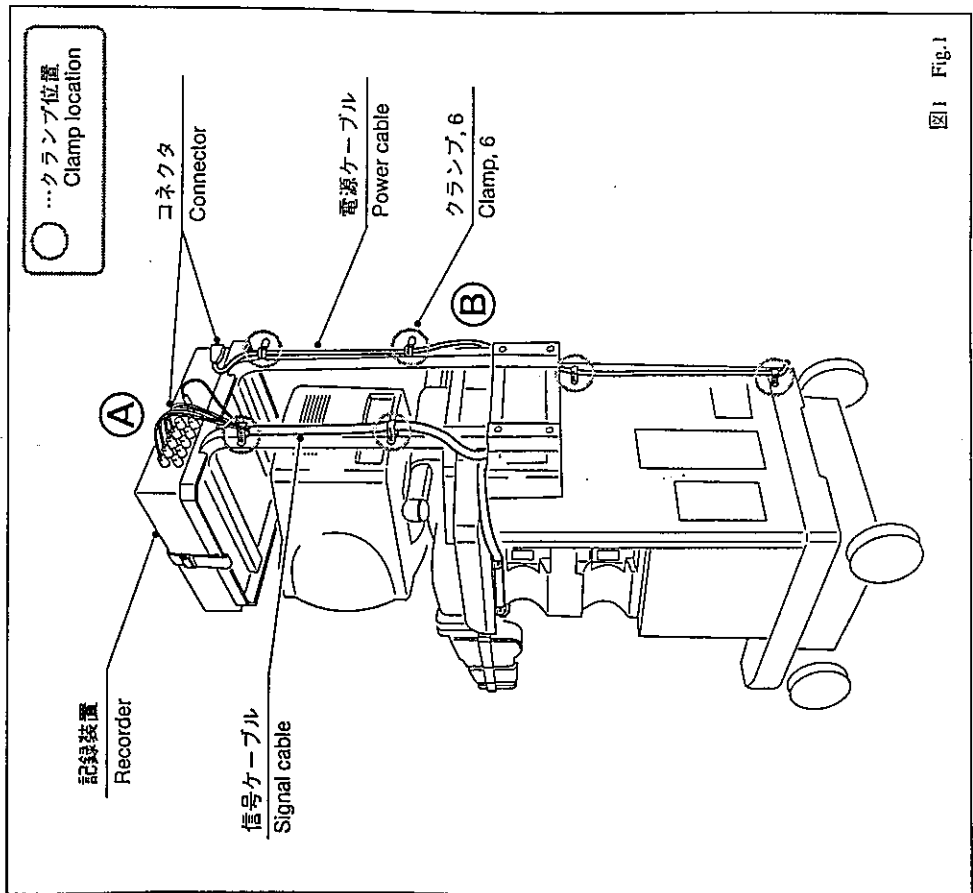


図1 Fig.1

- (3) 記録装置をねじ4本、またはベルトを外して搭載台から降ろす。(図中Ⓐ)
- (4) カラープリンタ搭載台(上部)を六角穴付きボルト6本を外して取り外す。(図中Ⓑ)
- (5) カラープリンタ搭載台(下部)をだるま穴のねじ2本をゆるめ、ねじ2本を外して取り外す。(図中Ⓒ)
- (6) リアカバーをねじ6本を外して取り外す。(図中Ⓓ)
- (7) 右サイドカバーのねじB本を外して取り外す。(図中Ⓔ)

- (3) Remove screw or belt, and put down recorder from mounting rack. (Ⓐ in Fig.)
- (4) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (Ⓑ in Fig.)
- (5) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (Ⓒ in Fig.)
- (6) Unfasten 6 screws and remove rear cover. (Ⓓ in Fig.)
- (7) Unfasten B screws and remove right side cover. (Ⓔ in Fig.)

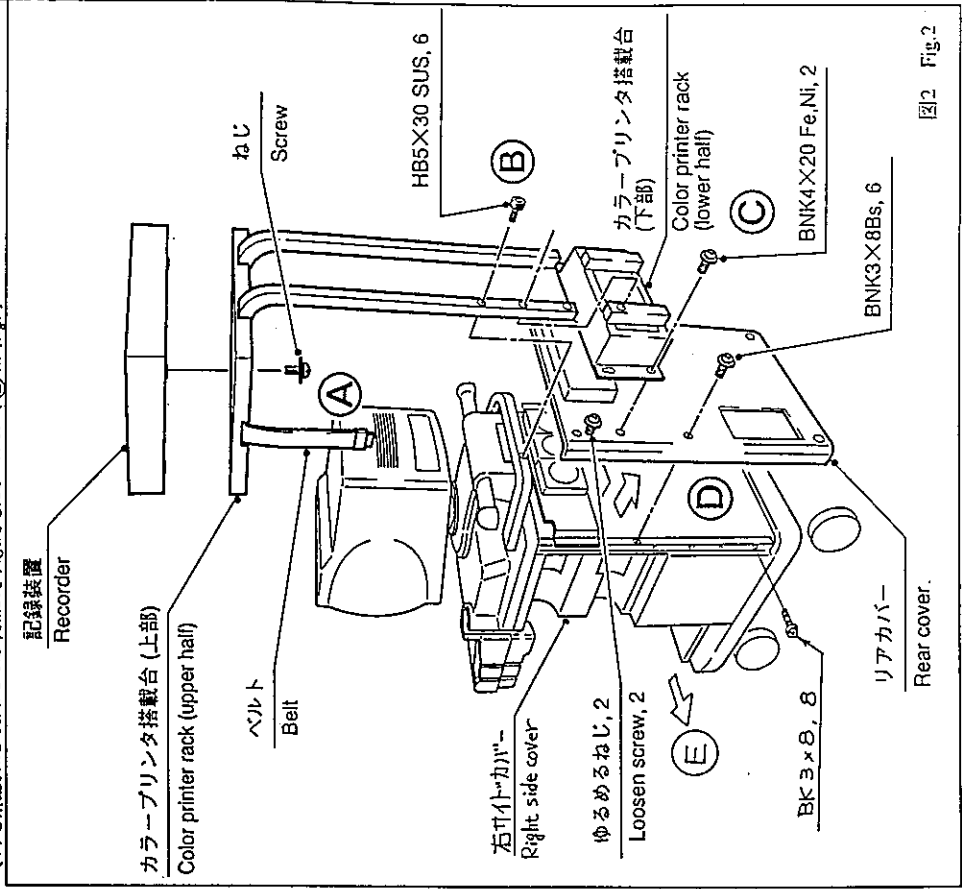


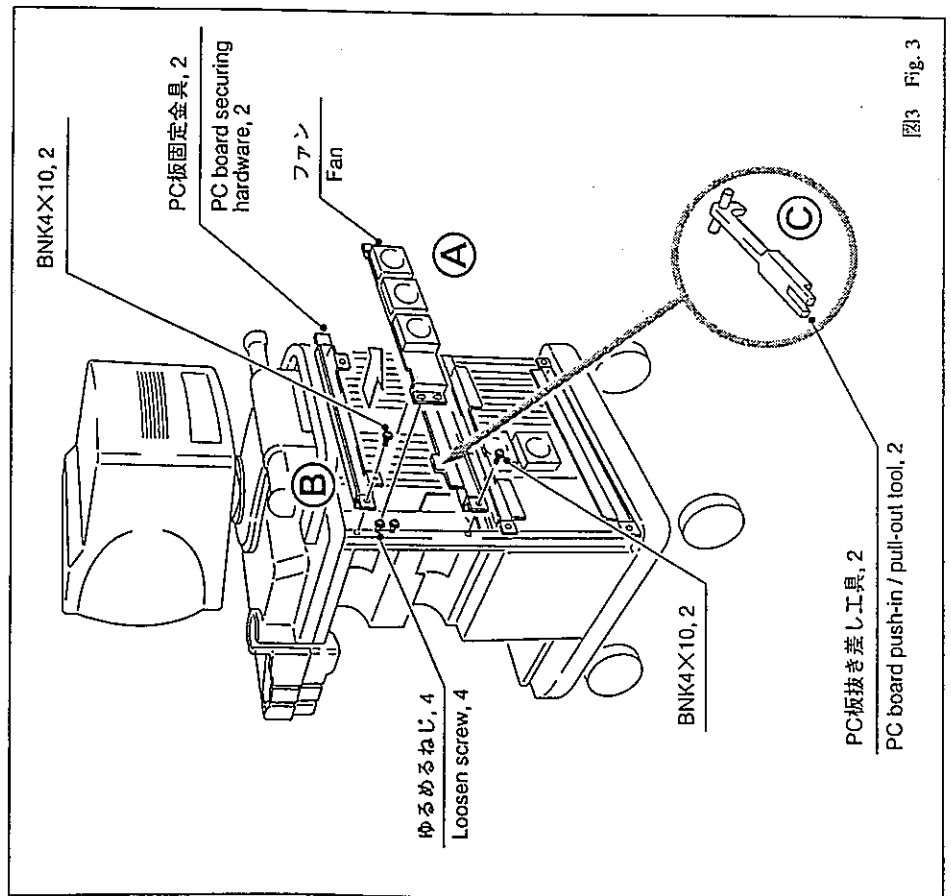
図2 Fig.2

SECTION 4 DISASSEMBLING PROCEDURE

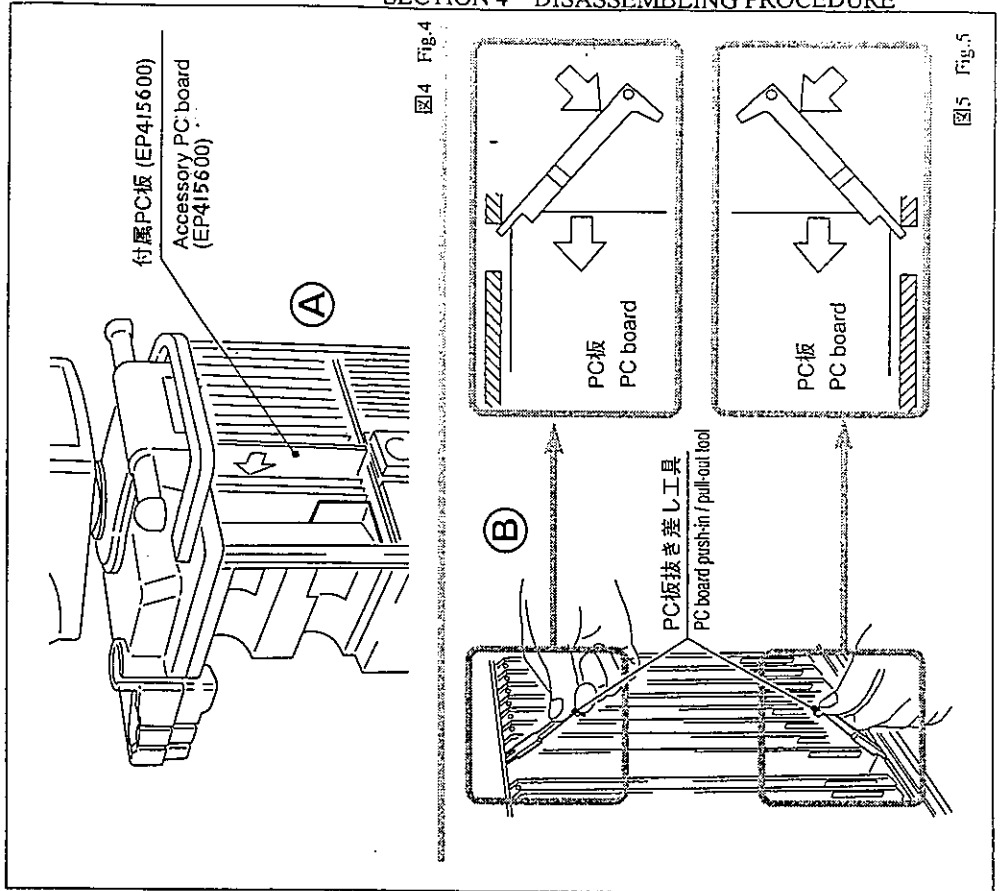
03 付属PC板の取り付け方法  
Installing the Accessory PC Board

- (1) ファンを、だるま穴のねじ4本をゆるめて取り外す。(図中Ⓐ)
- (2) PC板固定金具2本をねじを外して取り外す。(図中Ⓑ)
- (3) PC板抜き差し工具2個を、PC板固定金具の図の位置裏側のクランプより取り外す。(図中Ⓒ)

- (1) To remove fan, loosen 4 screws. (Ⓐ in Fig.)
- (2) Unfasten 2 screws and remove 2 pieces of PC board securing hardware. (Ⓑ in Fig.)
- (3) Remove 2 pieces of PC board push-in / pull-out tool from clamp on the back of PC board securing hardware. (Ⓒ in Fig.)



- (4) 付属PC板(EP415600) を左から 4-番目のスロットへ差し込む。(図4Ⓐ)
- (5) PC板抜き差し工具2個のツメをPC板スロット手前の角穴に引っ掛け、図のようにPC板を確実に押し込む。(図5Ⓓ)
- (4) Insert accessory PC boards (EP415600) into 4th slot as counted from the left. (Ⓐ in Fig.4)
- (5) Put 2 claws of PC board push-in / pull-out tool on square hole in front of PC board slot and securely push in PC board as illustrated. (Ⓓ in Fig.5)



Rev. 1

04 JB-227 の取り付け方法  
Installing JB-227

- (1) Cable104 を JB-227 の溝に入れる。( 図中 ㊸ )
  - (2) JB-227#2 をねじ 2 本で固定する。( 図中 ㊹ )
  - (3) Cable 104 のナットをラジオペンチで固定して、ねじロックを塗布する。( 図中 ㊺ )
- (1) Insert Cable104 into a slot at JB-227. ( ㊸ in Fig.)
  - (2) Use 2 screws to fix JB-227#2. ( ㊹ in Fig.)
  - (3) Using round nose chain pliers, secure the Cable104's nut and apply the screw locking to the nut. ( ㊺ in Fig.)

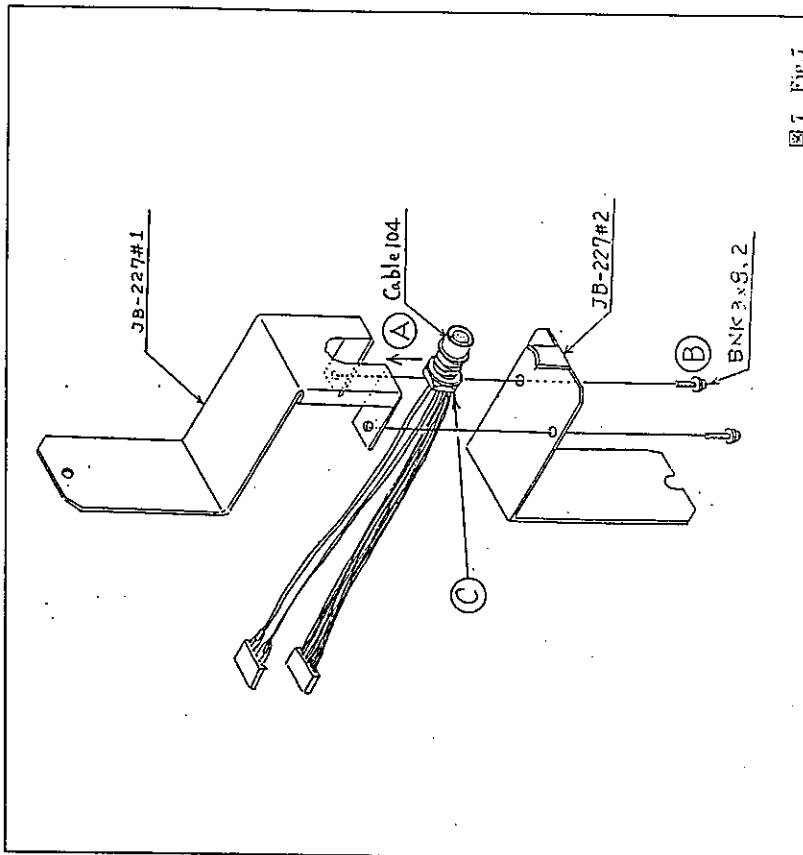


図 7 Fig.7

- (6) 基板(EP415501)のパターンカットを確認する。  
半田面▲の部分がかットされているか確認し、されていない場合はカットする。( 図 6 )
- (6) Check the pattern cut on PC board(EP415501).  
Check the pattern cut on solder plane. (shown as ▲) If not, cut as shown in fig. 6.

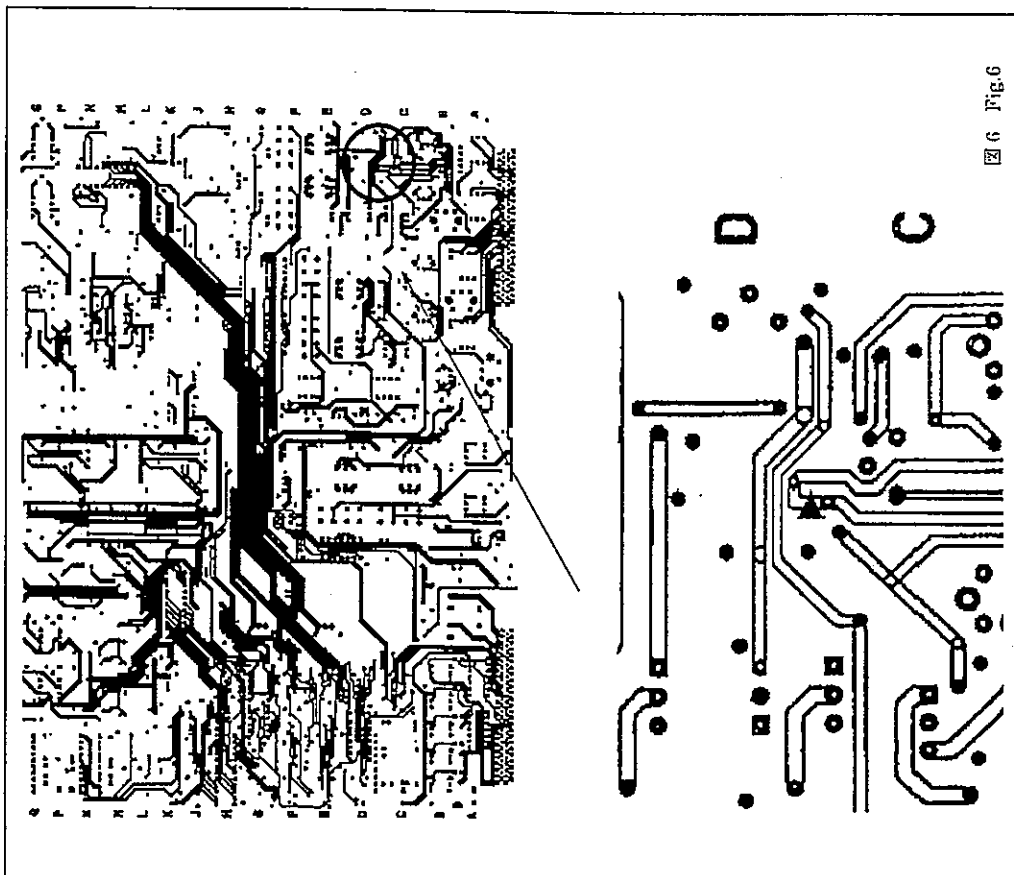


図 6 Fig.6



SECTION 4 DISASSEMBLING PROCEDURE

Rev. 1

- (7) 右サイドカバーに貼り付いているシールをはがす。( 図中 ㊸ )
- (8) 付属の銘板(P-32-SSD1700-6)を図の位置に貼り付ける。( 図中 ㊹ )
- (9) 以上で据付は完了し、取り外したカバー、ケーブル類を全て元のように戻す。
- (7) Remove seal attached at right side cover. ( ㊸ in Fig.)
- (8) Attach accessory seal(P-32-SSD1700-6) at illustrated. ( ㊹ in Fig.)
- (9) That is all for steps of completing installation of JB-227. All of covering and cabling removed should be returned to their respective original positions.

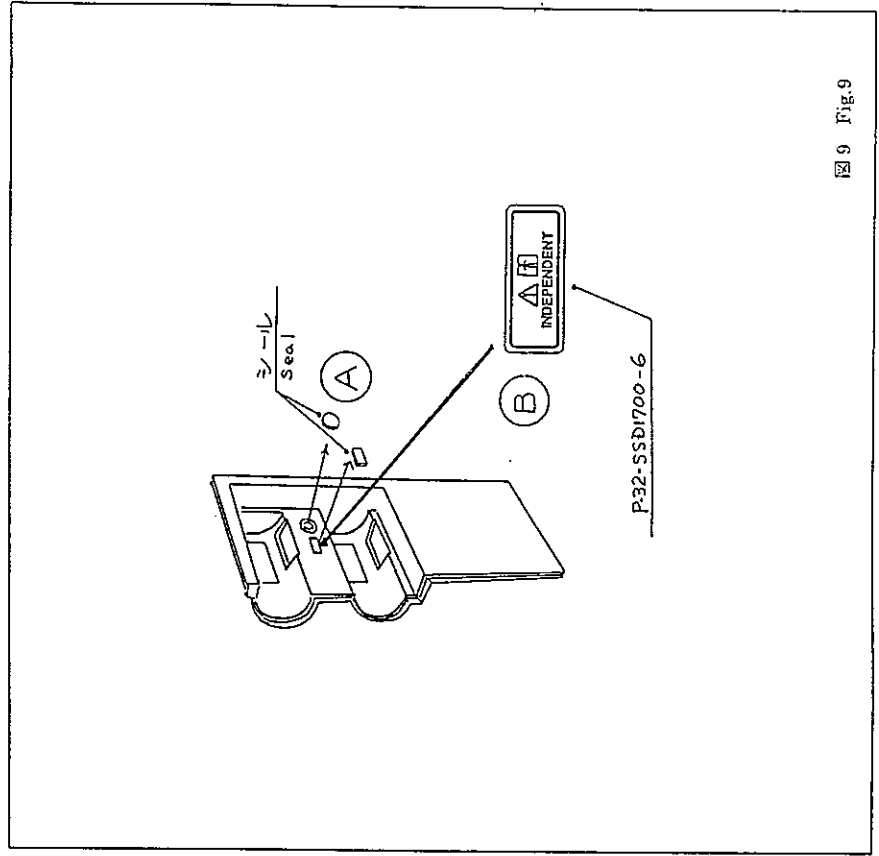


図 9 Fig.9

Rev. 1

- (4) 図の位置に取り付けてあるねじ 2 本を使って JB-227 を取り付ける。( 図中 ㊸ )
  - (5) ケーブル 2 本を EP415600 のコネクタに接続する。( 図中 ㊹ )
  - (6) 付属の UL クランプでケーブルを図の位置に固定する。( 図中 ㊺ )
- 動作確認：インデペンデントプロローブを接続し、装置の電源を入れCW画像が表示されることを確認する。
- (4) Use 2 screws attached at location illustrated to mount JB-227. ( ㊸ in Fig.)
  - (5) Plug 2 cables in EP415600. [P4, P5] ( ㊹ in Fig.)
  - (6) Attach clamp(UL-13) at position as illustrated. And secure the cables in clamp. ( ㊺ in Fig.)
- Function test: Check CW Doppler function operate properly before closing cover panels.

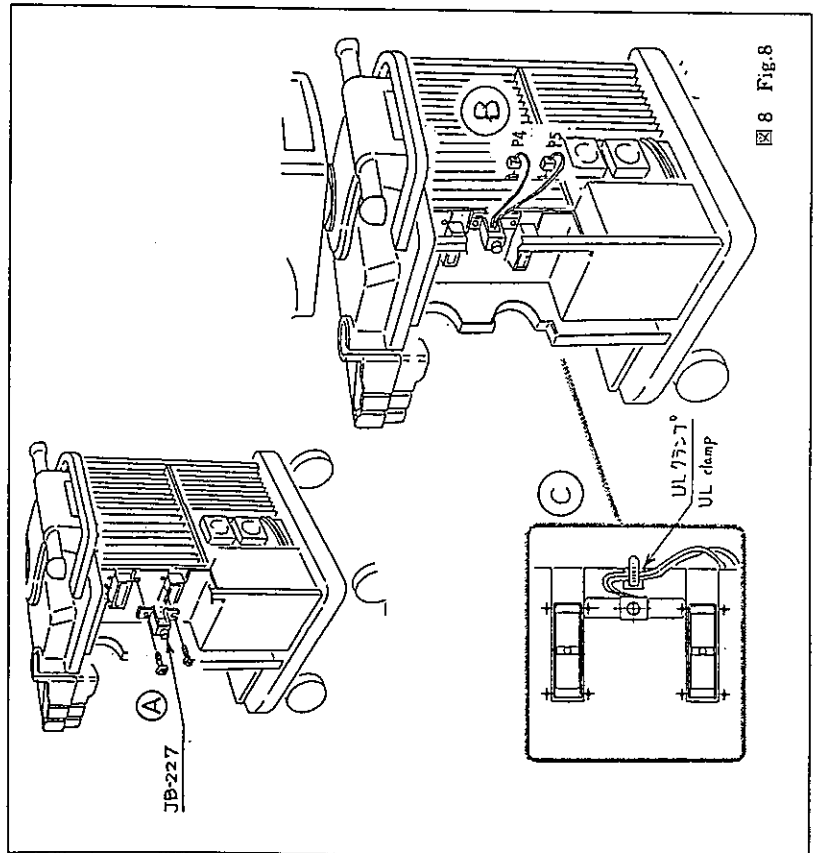
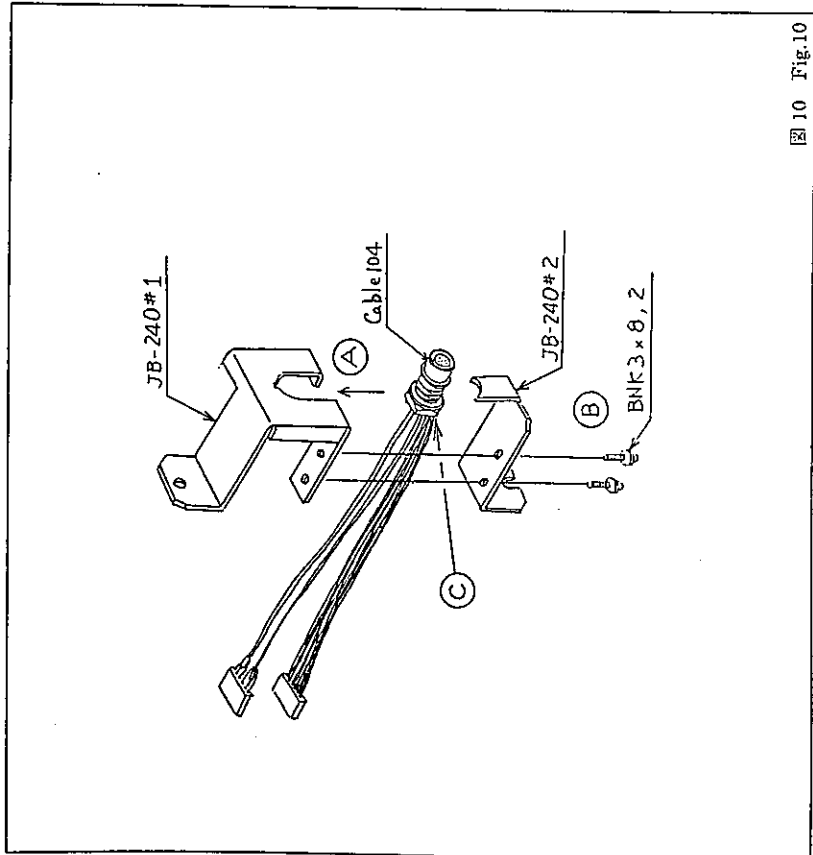


図 8 Fig.8

05 JB-240 の取り付け方法  
Installing JB-240

- (1) Cable104 を JB-240 の溝に入れる。( 図中 ㉑ )
- (2) JB-240#2 をねじ 2 本で固定する。( 図中 ㉒ )
- (3) Cable 104 のナットをラジオペンチで固定して、ねじロックを塗布する。( 図中 ㉓ )

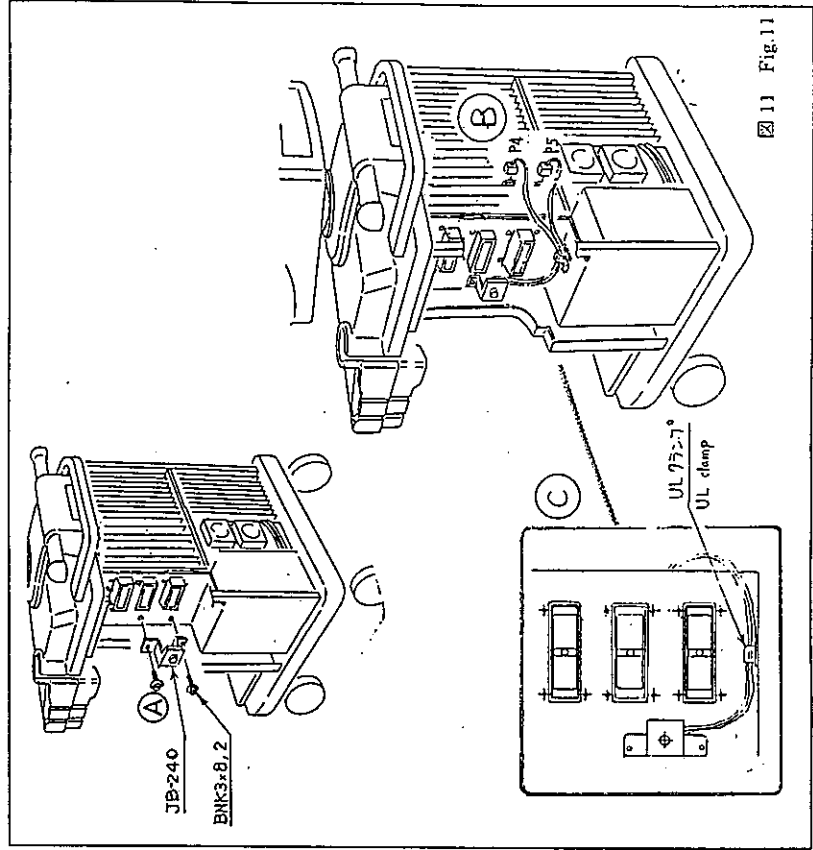
- (1) Insert Cable104 into a slot at JB-240. ( ㉑ in Fig.)
- (2) Use 2 screws to fix JB-240#2. ( ㉒ in Fig.)
- (3) Using round nose chain pliers, secure the Cable104's nut and apply the screw locking to the nut. ( ㉓ in Fig.)



MS5-0733

- (4) 付属ねじ 2 本を使って JB-240 を取り付ける。( 図中 ㉔ )
  - (5) ケーブル 2 本を EP415600 のコネクタに接続する。( 図中 ㉕ )
  - (6) 付属の UL クランプでケーブルを図の位置に固定する。( 図中 ㉖ )
- 動作確認：インデペンデントプロープを接続し、装置の電源を入れCW画像が表示されることを確認する。

- (4) Use 2 accessory screws to mount JB-240. ( ㉔ in Fig.)
  - (5) Plug 2 cables in EP415600. (P4, P5) ( ㉕ in Fig.)
  - (6) Attach clamp(UL-13) at position as illustrated. And secure the cables in clamp. ( ㉖ in Fig.)
- Function test: Check CW Doppler function operate properly before closing cover panels.



MS5-0733

- (7) 右サイドカバーに貼り付いているシールをはがす。( 図中 ㉔ )
- (4) 付底の銘板(P-32-SSD1700-6)を図の位置に貼り付ける。( 図中 ㉕ )
- (5) 以上で据付は完了し、取り外したカバー、ケーブル類を全て元の位置に戻す。
- (7) Remove seal attached at right side cover. ( ㉔ in Fig.)
- (8) Attach accessory seal(P-32-SSD1700-6) at illustrated. ( ㉕ in Fig.)
- (9) That is all for steps of completing installation of JB-240. All of covering and cabling removed should be returned to their respective original positions.

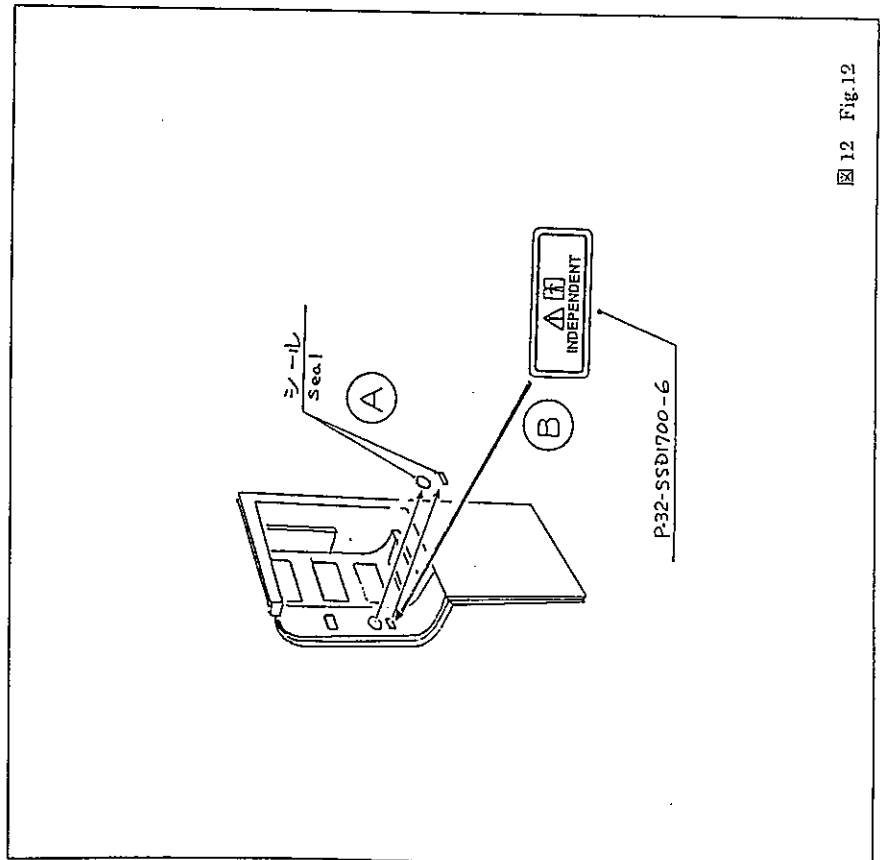


図 12 Fig.12

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**DMS-1700 据付要領書**  
**DMS-1700 INSTALLATION PROCEDURES**

Rev.1

ネットワーク通信機能を使う場合、本据付作業の後ネットワークケーブルを接続した状態で、漏れ電流を測定して下さい。漏れ電流の測定方法、基準については、「サービスマニュアル・電気安全性試験実施マニュアル」 Document Number: MN2-0204 を参照して下さい。

この据付要領書は、DMS-1700の納品等の際、据付の資料としてご使用ください。なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って作業を進めてください。

必要な工具: プラスドライバー (あらかじめ用意すること)

If network communication capability is going to be used, measure leakage current with the network cable connected. For leakage current measurement procedure and criteria, refer to "Service Manuale - Electrical Safety Checks Manual" (Document Number: MN2-0205)

These installation procedures are provided for reference in installation of DMS-1700. This book is made up based on the installation flow chart, then follow the procedures described in this book in installation work.

Tool required: Phillips screw driver (Provide it beforehand.)

**00 付属部品リスト**  
**List of Accessory Parts**

下記の付属品が揃っているか確認してください。

Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	データ管理ユニット (DMU-200) Data management subsystem unit (DMU-200)		1
2	ケーブル (L-CABLE-526-54) Cable (L-CABLE-526-54)		1
3	ケーブル (L-CABLE-527-54) Cable (L-CABLE-527-54)		1

No.	品名 Parts Name	外観 Appearance	個数 Quantity
4	付属ねじ (BNK4×10) Accessory screw (BNK4×10)		2
5	デュアルロック ファスナー (目の粗い方) Dual lock fastener (rough-surface)		2
6	デュアルロック ファスナー (目の細かい方) Dual lock fastener (fine-surface)		2
7	SCSI ケーブル (EC-02822-011) SCSI cable (EC-02822-011)		1
8	クランプ (UL-13, UL-23) Clamp (UL-13, UL-23)		UL-13 : 4 UL-23 : 1
9	MOディスクドライブ用 電源ケーブル (CO-DMU200-A10) Power cable for MO disk drive (CO-DMU200-A10)		1
10	初期設定ディスク (FD1700-1) Initial Setting Disk (FD1700-1)		1 3枚1組

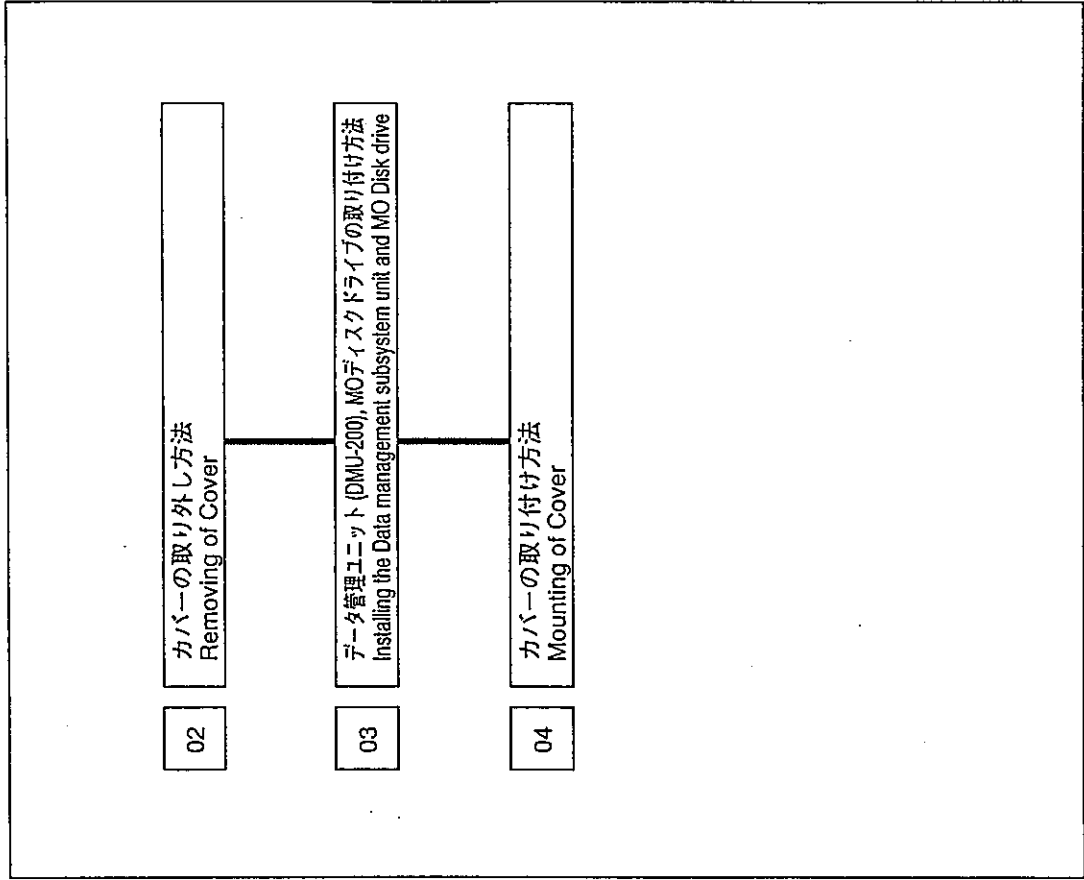
Rev.1

据付フローチャート  
Installation Flow Chart



01

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートのINDEX No.が、各ページの頁出しNo.と一致しています。

This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.



Rev.1

No.	品名 Parts Name	外観 Appearance	個数 Quantity
11	化粧枠 (MP-FX1700-6) 品番3番 Style frame (MP-FX1700-6) Part No. 3		1
12	付属ねじ (BNK3×8Bs) Accessory screw (BNK3×8Bs)		4

MS5-0623

-3-

MS5-0623

-4-

02 カバーの取り外し方法  
Removing of cover

※ カラープリンタ搭載台 (MP-FX1700-2) の無い装置は (1)~(5) の作業は不要

- (1) 記録装置からコネクタを全て取り外す。(図中㉔)
- (2) 図の6か所のクランプから、信号ケーブル、電源ケーブルを取り外す。(図中㉕)

※ Operations (1) thru (5) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Unplug all connectors out of recorder. (㉔ in Fig.)
- (2) Remove both signal and power cables from 6 clamps illustrated. (㉕ in Fig.)

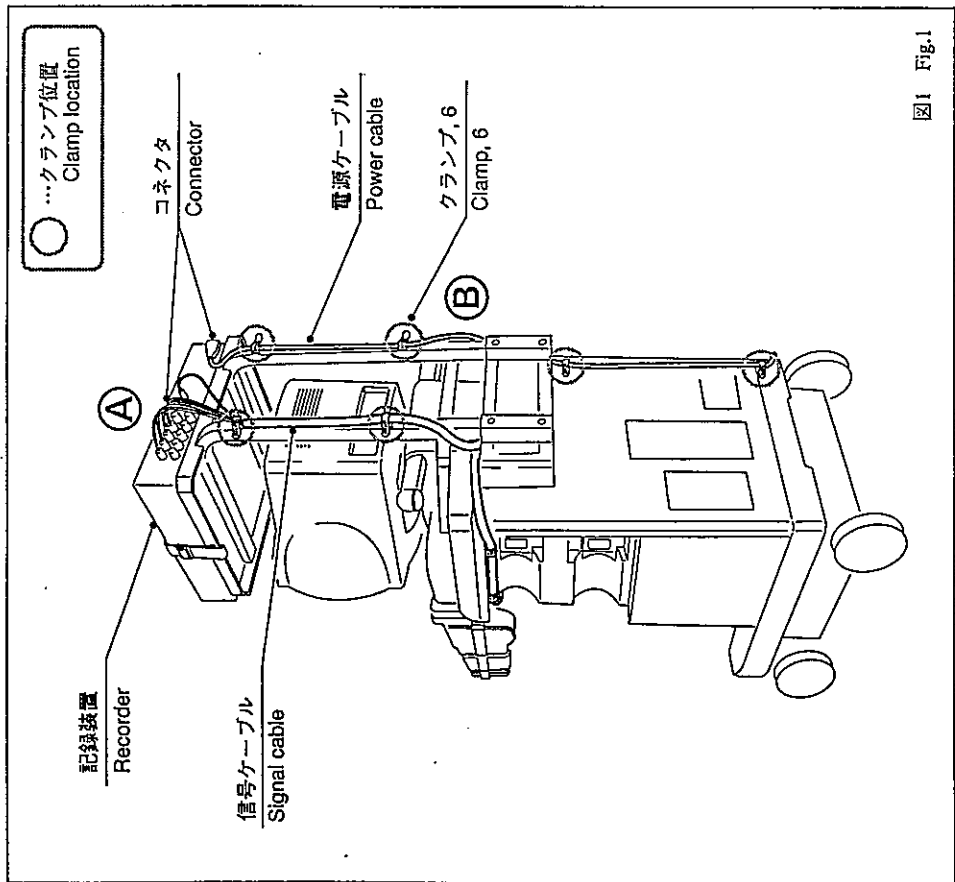


図1 Fig.1

- (3) 記録装置をねじ4本、またはベルトを外して搭載台から降ろす。(図中㉖)
- (4) カラープリンタ搭載台(上部)を六角穴付きボルト6本を外して取り外す。(図中㉗)
- (5) カラープリンタ搭載台(下部)をだるま穴のねじ2本をゆるめ、ねじ2本を外して取り外す。(図中㉘)
- (6) DMS窓カバーを、ねじ4本を外して取り外す。(図中㉙)
- (7) リアカバーをねじ6本を外して取り外す。(図中㉚)

- (3) Remove screw or belt, and put down recorder from mounting rack. (㉖ in Fig.)
- (4) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (㉗ in Fig.)
- (5) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (㉘ in Fig.)
- (6) Unfasten 4 screws and remove DMS window cover. (㉙ in Fig.)
- (7) Unfasten 6 screws and remove rear cover. (㉚ in Fig.)

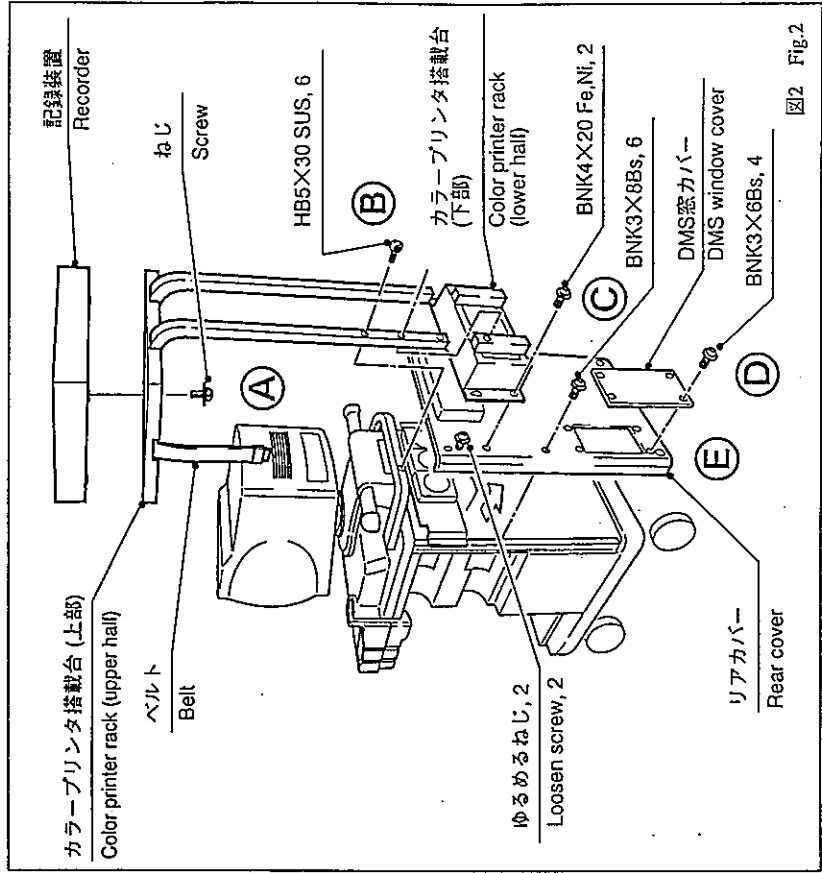


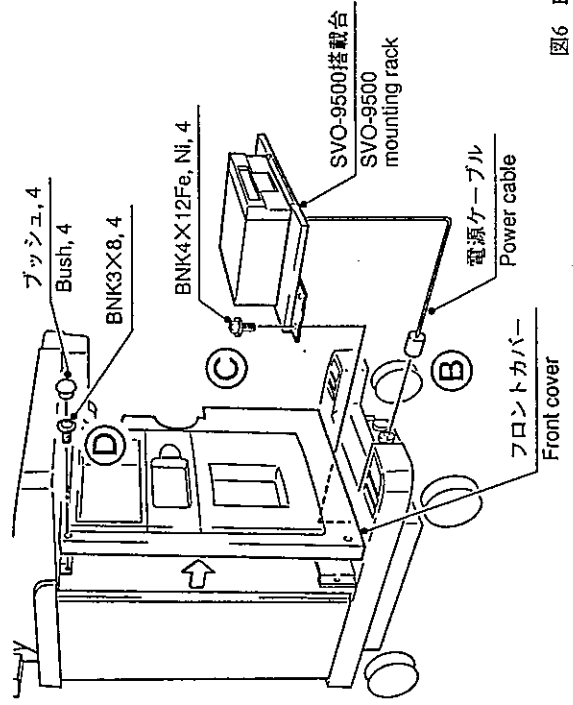
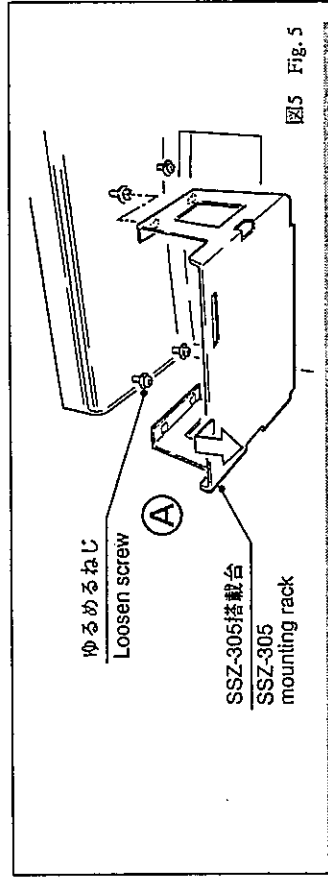
図2 Fig.2

Rev.1

- ※ SVO-9500搭載台 (MP-FX1700-4) のない装置は、(13)~(14)の作業は不要。
- (12) SSZ-305 搭載台を、ねじ4本をゆるめて取り外す。(図5㉔)
- (13) 電源ユニットからSVO-9500の電源ケーブルを取り外す。(図6㉔)
- (14) SVO-9500搭載台を、ねじ4本を外して取り外す。(図6㉔)
- (15) フロントカバーを、ブッシュ4個を外し、ねじ4本を外して取り外す。(図6㉔)

※ Operations (13) and (14) are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).

- (12) Loosen 4 screws and remove SSZ-305 mounting rack. (㉔ in fig.5)
- (13) Disconnect SVO-9500 power cable from power supply unit. (㉔ in fig.6)
- (14) Unfasten 4 screws and remove SVO-9500 mounting rack. (㉔ in fig.6)
- (15) Remove 4 bushes and unfasten 4 screws. Then, remove front cover. (㉔ in fig.6)



MSS-0623

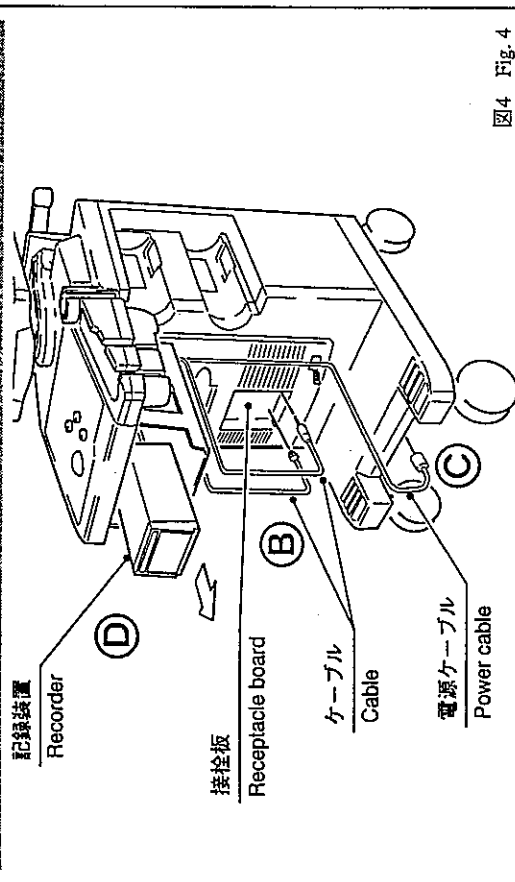
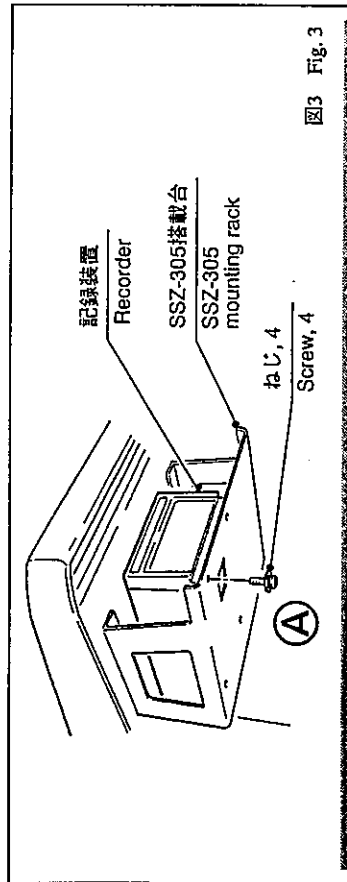
-8-

Rev.2

- ※ SSZ-305搭載台に記録装置が搭載されていない場合は、(8)~(11)の作業は不要。
- (8) 記録装置を固定しているねじ4本を取り外す。(図3㉔)
- (9) フロントカバーの接栓板に接続されている記録装置のケーブルを、すべて取り外す。(図4㉔)
- (10) 記録装置の電源ケーブルを、電源ユニットの接栓板から取り外す。(図4㉔)
- (11) 記録装置を、搭載台から取り外す。(図4㉔)

※ Unless recorder is mounted on SSZ-305 mounting rack, it is unnecessary to perform Operations (8) thru (11) below.

- (8) Unfasten 4 screws, with which recorder is secured. (㉔ in Fig. 3)
- (9) Remove all recorder cables plugged in receptacle board on front cover. (㉔ in Fig. 4)
- (10) Unplug recorder power cable out of receptacle board on power supply unit. (㉔ in Fig. 4)
- (11) Remove recorder from mounting rack. (㉔ in Fig. 4)



MSS-0623

-7-



03 データ管理ユニット (DMU-200), MOディスクドライブの取り付け方法  
Installing the Data management subsystem unit and MO Disk drive

- (1) 接続パネルに接続されているコネクタ2個を取り外す (図中Ⓐ)
- 取り外すコネクタ [P606 P609]
- (2) 接続パネルから、ねじ6本を取り外す (図中Ⓑ)
- (3) 接続パネルを本体から取り外す。 (図中Ⓒ)
- (1) Unplug 2 connectors plugged in connector panel. (Ⓐ in fig.)
- Connectors to unplug: [P606 P609]
- (2) Remove 6 screws from the connector panel. (Ⓑ in fig.)
- (3) Remove the connector panel from the main body. (Ⓒ in fig.)

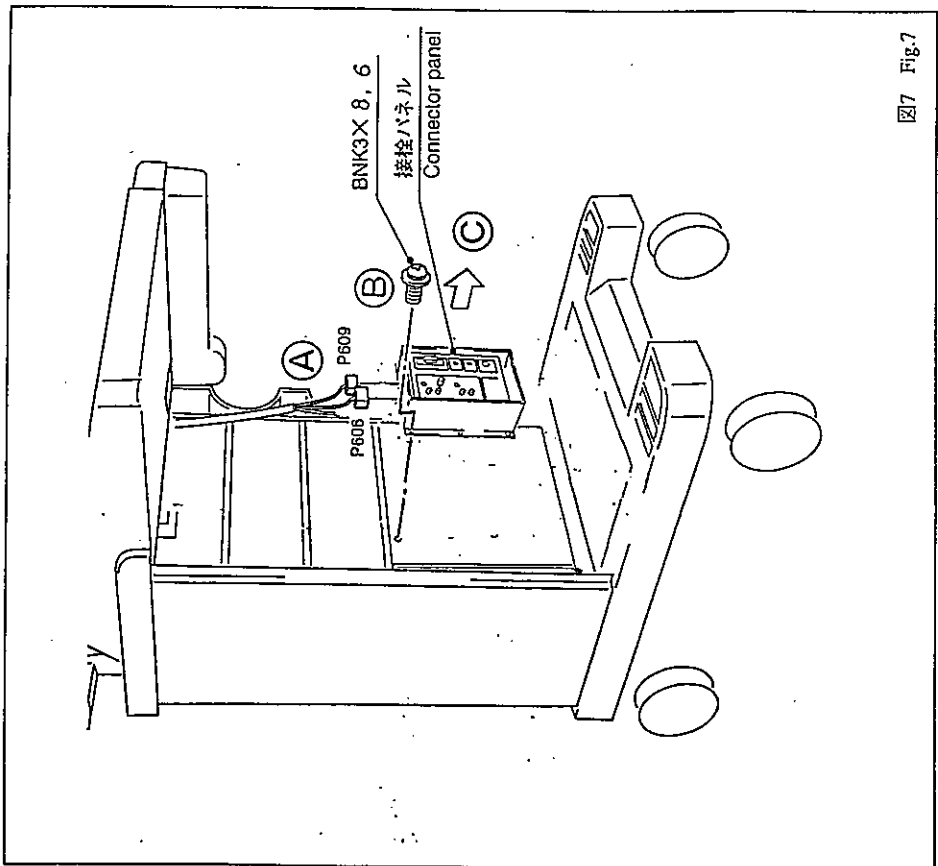


図7 Fig.7

- ※ MOディスクドライブのない場合は、(7)の作業は不要。
- (4) シールドカバーを、ねじ4本を外して取り外す。(図中Ⓓ)
- (5) 付属ケーブル2本をそれぞれデータ管理ユニット、マザーボードに接続する。(図中Ⓔ)
- (6) 電源ケーブルをデータ管理ユニットに接続する。(図中Ⓕ)
- (7) 付属MOディスクドライブ用電源ケーブルを、データ管理ユニットの中継コネクタに接続する。(図中Ⓖ)
- (8) データ管理ユニットを付属ねじ2本で取り付ける。(図中Ⓗ)

- ※ Operation (7) is not required for equipment without MO disk drive.
- (4) Unfasten 4 screws and remove shield cover. (Ⓓ in fig.)
- (5) Plug 2 accessory cables in data management subsystem unit and in motherboard. (Ⓔ in fig.)
- (6) Plug power cable in data management subsystem unit. [ P705 ] (Ⓕ in fig.)
- (7) Plug accessory MO disk drive power cable in relay connector of data management subsystem unit (Ⓖ in fig.)
- (8) Use 2 accessory screws to mount data management subsystem unit. (Ⓗ in fig.)

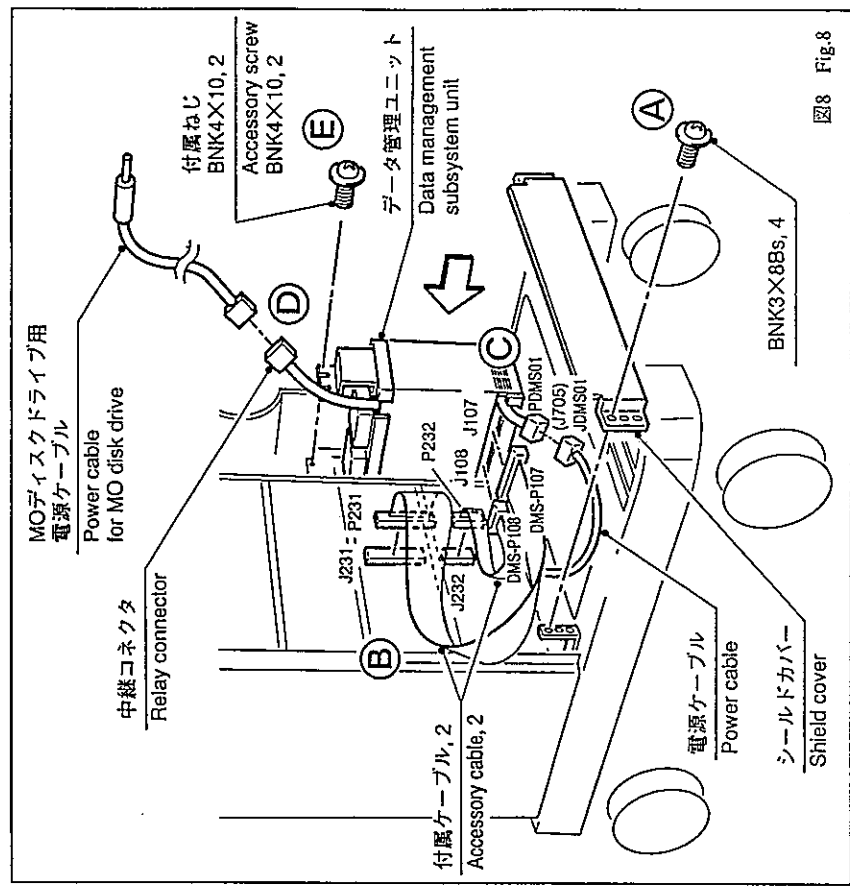


図8 Fig.8

Rev.2

- ※ MOディスクドライブのない場合は、(12)の作業は不要。
- ※ SVO-9500搭載台 (MP-FX1700-4) のない装置は、(14)~(15)の作業は不要。
- (12) MOディスクドライブ用電源ケーブルを図のように引き出す。(図中㊸)
- (13) フロントカバーを、ねじ4本で取り付け、ブッシュ4個をはめる。(図中㊹)
- (14) SVO-9500搭載台を、ねじ4本で取り付ける。(図中㊺)
- (15) 電源ユニットにSVO-9500の電源ケーブルを接続する。(図中㊻)

- ※ Operation (12) is not required for equipment without MO disk drive.
- ※ Operations (14) and (15) are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).
- (12) Pull out MO disk drive power cable as illustrated below. (㊸ in fig.)
- (13) Use 4 screws to mount front cover. And fit in 4 bushes. (㊹ in fig.)
- (14) Use 4 screws to install SVO-9500 mounting rack. (㊺ in fig.)
- (15) Connect the power cable of SVO-9500 to the power supply unit. (㊻ in fig.)

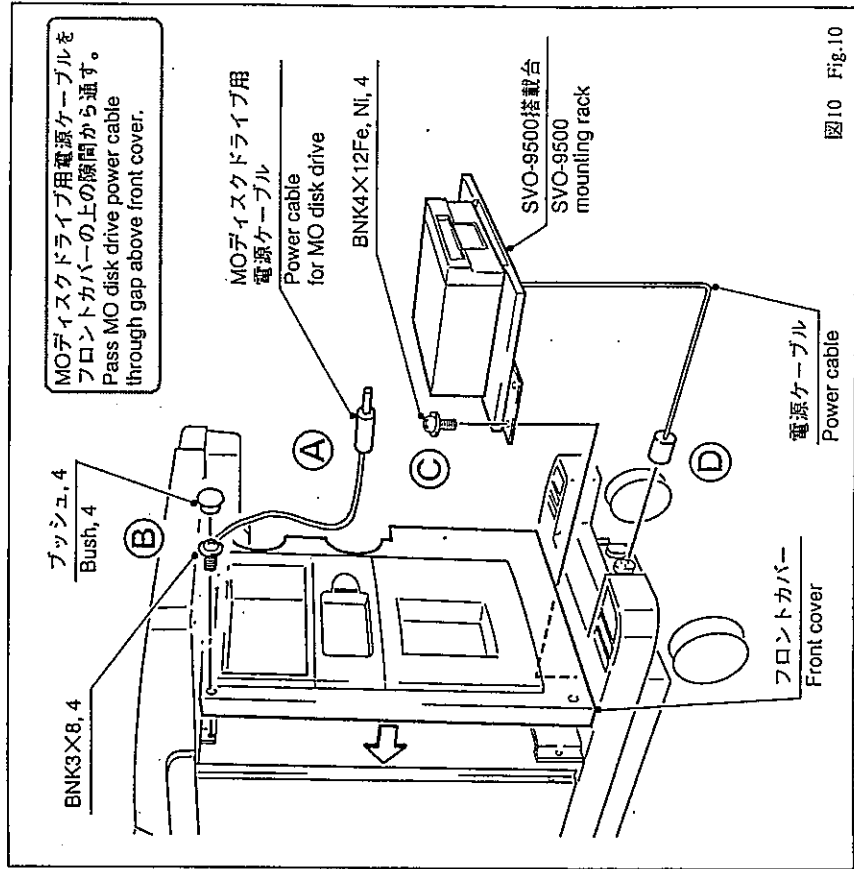


図10 Fig.10

-12-

MS5-0623

Rev.2

- (9) 接続パネルを、ねじ6本で取り付け、クランプ(UL-23)を図の位置に貼り付ける。(図中㊼)
- (10) 接続パネルにコネクタ2個を接続する。(図中㊽)
- 接続するコネクタ [P606 P609]
- (11) ケーブルを図の位置のクランプに固定し、シールドカバーをねじ4本で固定する。(図中㊾)

- (9) Use 15 screws to install the connector panel. And attach clamp(UL-23) at position as illustrated. (㊼ in fig.)
- (10) Plug 2 connectors in connector panel. (㊽ in fig.)
- Connectors to plug: [P606 P609]
- (11) Secure the cables in clamps at position as illustrated. And use 4 screws to mount shield cover. (㊾ in fig.)

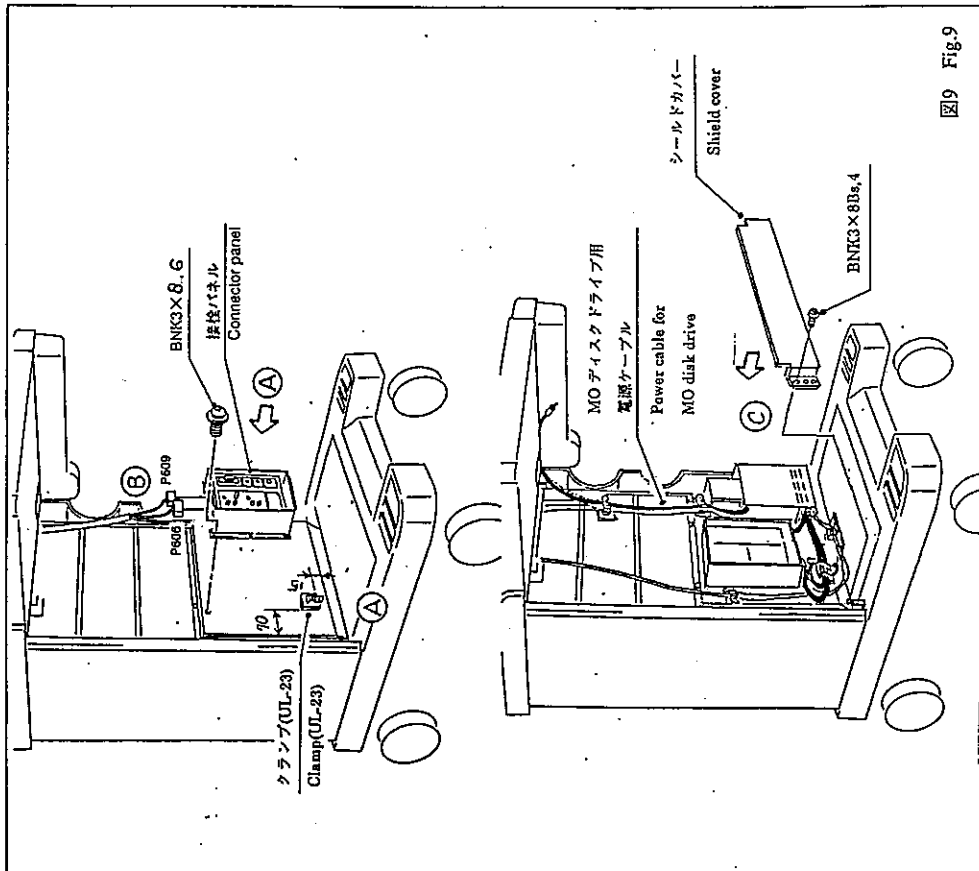
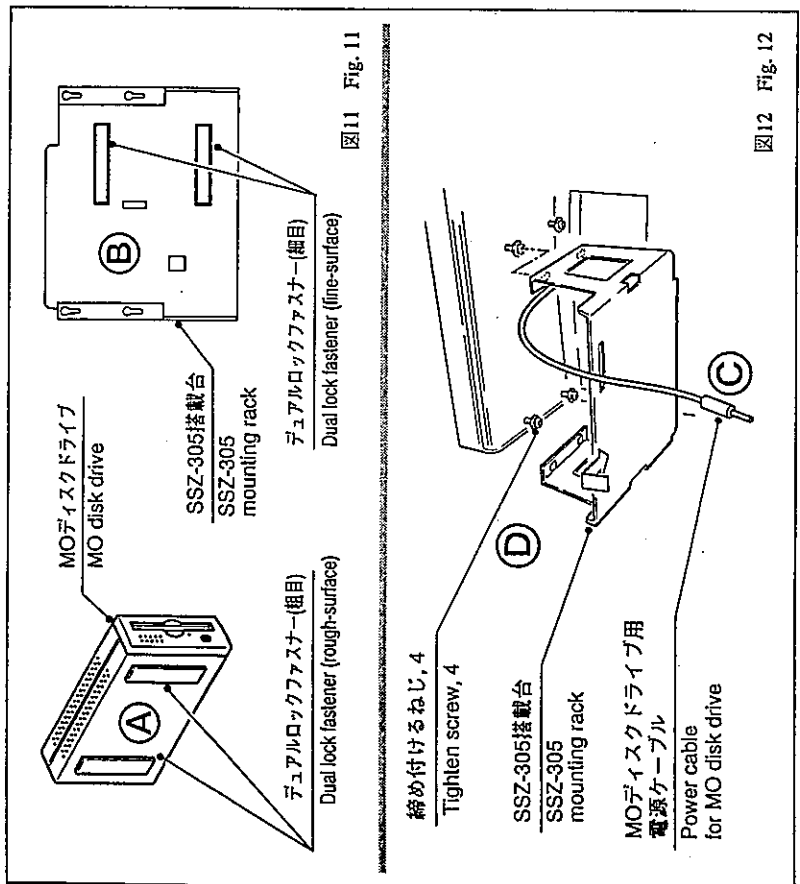


図9 Fig.9

-11-

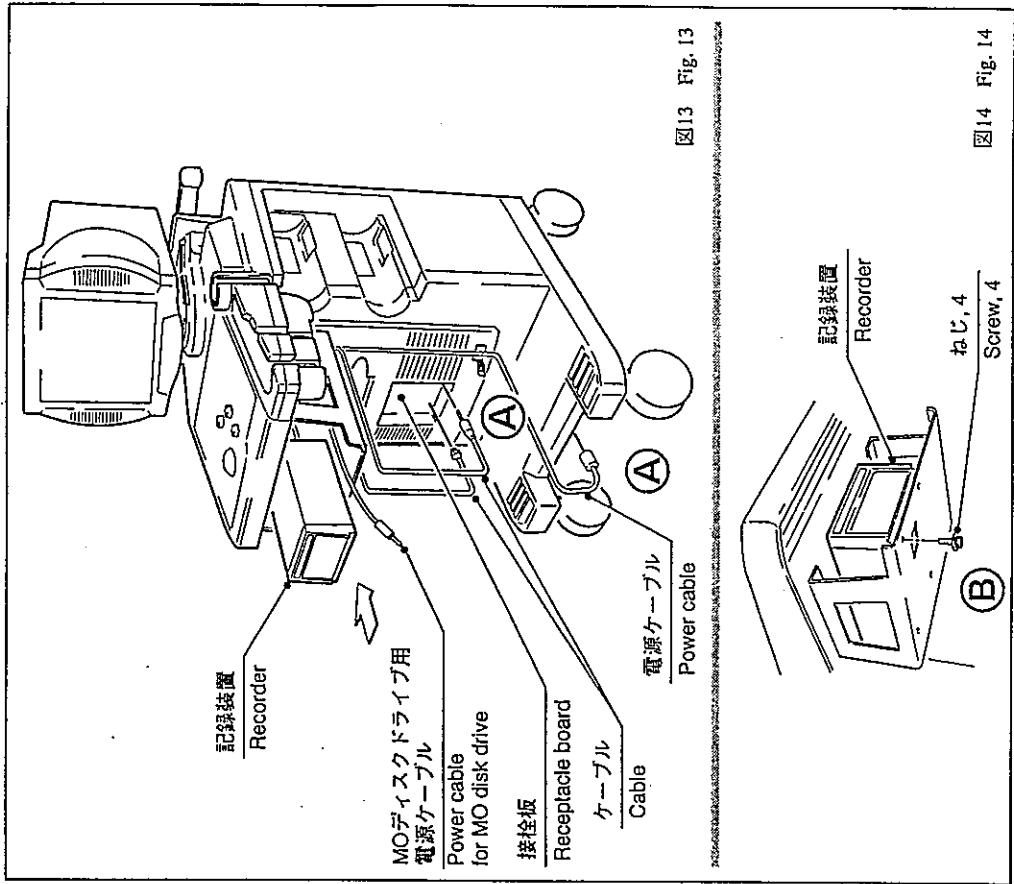
MS5-0623

- ※ MOディスクドライブのない場合は、(16)~(18)の作業は不要。
  - (16) 目の粗い方のデュアルロックファスナー2個を、セパレーターをはがし、MOディスクドライブの図の位置に貼り付ける。(図11㉔)
  - (17) 目の細かい方のデュアルロックファスナー2個を、セパレーターをはがし、SSZ-305搭載台の図の位置に貼り付ける。(図11㉕)
  - (18) MOディスクドライブ用電源ケーブルを図のように引き回す。(図12㉖)
  - (19) SSZ-305搭載台を、だるま穴をねじに合わせて取り付け、ねじ4本を締め付け固定する。(図12㉗)
- ※ Operations (16) thru (18) are not required for equipment without MO disk drive.
- (16) Peel separators off 2 rough-surface dual lock fasteners and attach them onto MO disk drive at positions as illustrated. (㉔ in Fig. 11)
  - (17) Peel separators off 2 fine-surface dual lock fasteners and attach them onto mounting rack at positions as illustrated. (㉕ in Fig. 11)
  - (18) Lay out MO disk drive power cable as illustrated. (㉖ in Fig. 12)
  - (19) Install SSZ-305 mounting rack, with its dowel holes fitted to screws. Fasten 4 screws and secure rack. (㉗ in Fig. 12)



- ※ SSZ-305搭載台に記録装置を搭載しない場合は、(20)~(21)の作業は不要。
- (20) 記録装置のケーブルと電源ケーブルを、それぞれフロントカバーの接検板と電源ユニットの接検板に接続する。(図13㉘)
- (21) 記録装置をねじ4本で搭載台に取り付ける。(図14㉙)

- ※ Unless recorder is mounted on SSZ-305 mounting rack, it is unnecessary to perform Operations (20) and (21) below.
- (20) Plug both recorder and power cables, respectively, in receptacle boards on front cover and in power supply unit. (㉘ in Fig. 13)
  - (21) Use 4 screws to mount recorder onto mounting rack. (㉙ in Fig. 14)



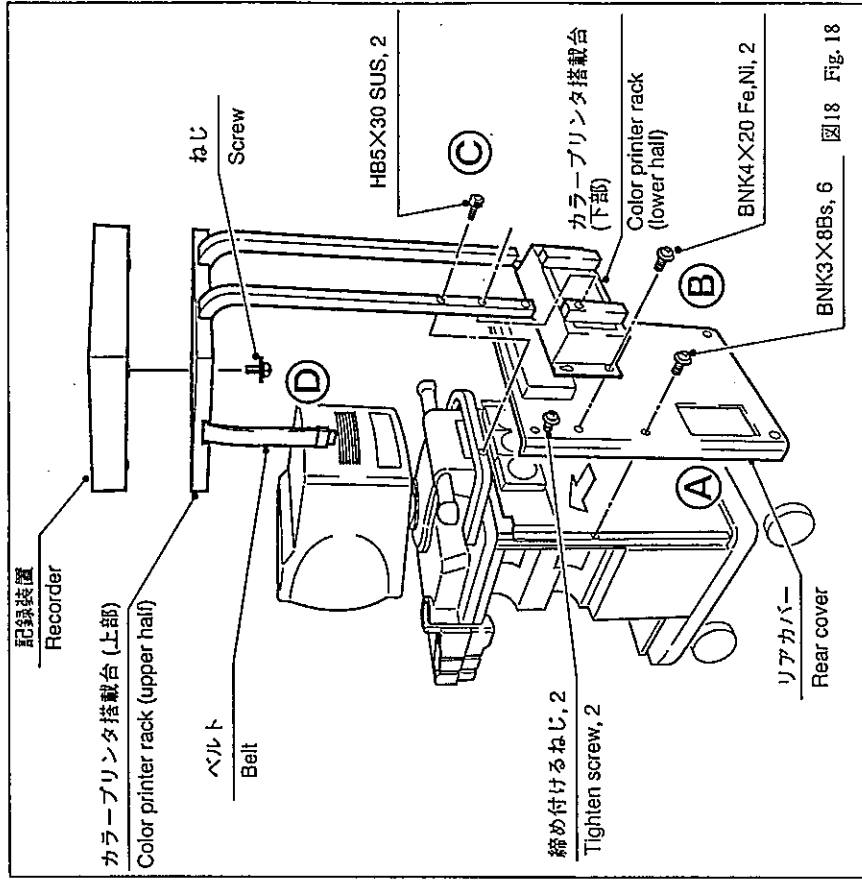
04 カバーの取り付け方法  
Mounting of Cover

※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(2)~(8)の作業は不要

- (1) リアカバーを、ねじ6本で取り付ける。(図中㊸)
- (2) 搭載台(下部)を、取り外しと逆の手順で取り付ける。(図中㊹)
- (3) 搭載台(上部)を、取り外しと逆の手順で取り付ける。(図中㊺)
- (4) 記録装置を、取り外しと逆の手順で、ねじまたはベルトで固定する。(図中㊻)

※ Operations (2) thru (8) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Use 6 screws to mount rear cover. (㊸ in Fig.)
- (2) Reversely follow removal steps to install color printer rack (lower half). (㊹ in Fig.)
- (3) Reversely follow removal steps to install color printer rack (upper half). (㊺ in Fig.)
- (4) Reversely follow removal steps to install recorder onto mounting rack with screws or belt. (㊻ in Fig.)

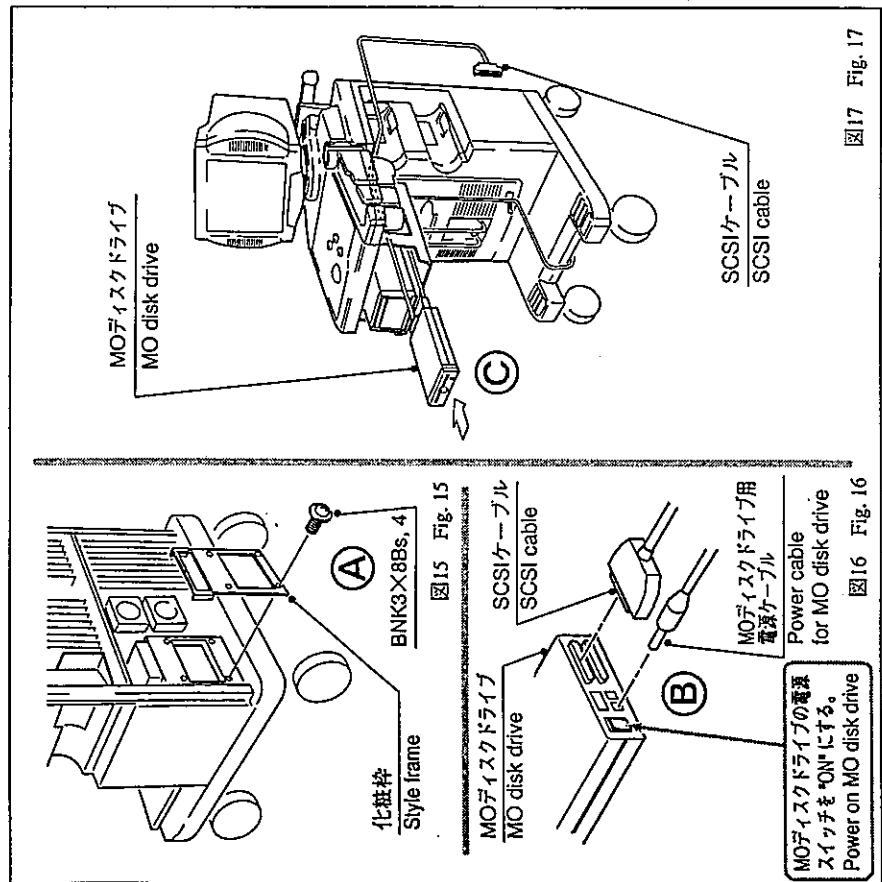


MS5-0623 -16- 図18 Fig.18

- ※ MOディスクドライブのない場合は、(23)~(24)の作業は不要。
- (22) 付属化粧枠を、付属ねじ4本でデータ管理ユニットに取り付ける。(図15㊸)
- (23) 付属のSCSIケーブルとMOディスクドライブ用電源ケーブルを、MOディスクドライブに接続し、MOディスクドライブの電源スイッチを"ON"にする。(図16㊹)
- (24) MOディスクドライブを、デュアルロックファスナーの位置を合わせてSSZ-305搭載台に載せる。(図17㊺)

※ Operations (23) and (24) are not required for equipment without MO disk drive.

- (22) Use four accessory screws to mount accessory style frame onto data management subsystem unit. (㊸ in Fig. 15)
- (23) Plug both accessory SCSI cable and power cable in MO disk drive. And power on MO disk drive. (㊹ in Fig. 16)
- (24) Place MO disk drive on SSZ-305 mounting rack as adjusted to dual lock fastener location. (㊺ in Fig. 17)



MS5-0623 -15- 図15 Fig.15 図16 Fig.16 図17 Fig.17

- ※ MOディスプレイのない場合は、(9)~(10)の作業は不要。
- (9) SCSIケーブルを、データ管理ユニットのSCSIコネクタに接続する。(図中Ⓐ)
- (10) クランプ3個を、図の位置に貼り付け、ケーブルを固定する。(図中Ⓑ)
- ※ MP-FX1700-2が既に取り付けられ、記録装置のケーブルがクランプされている場合は、そのクランプを共用し、ケーブルを固定する。
- (11) 据付要領書 (MS5-0709)に従って電氣的な据付を行う。
- (12) ネットワーク通信機能を使う場合、本据付作業の後ネットワークケーブルを接続した状態で、漏れ電流を測定する。漏れ電流の測定方法、基準については、「サービスマニュアル・電気安全試験実施マニュアル」 Document Number: MN2 - 0204 を参照する。

- ※ Operations (9) and (10) are not required for equipment without MO disk drive.
- (9) Plug SCSI cable in SCSI plug receptacle of data management subsystem unit. (Ⓐ in Fig.)
- (10) Attach 3 clamps at positions as illustrated. And secure cable. (Ⓑ in Fig.)
- ※ If recorder cable has been clamped with MP-FX1700-2 already installed, share such clamps and secure cable.
- (11) In accordance with instructions given in Installation Manual ( MS5 - 0709 ), carry out electrical installation.
- (12) If network communication capability is going to be used, measure leakage current with the network cable connected. For leakage current measurement procedure and criteria, refer to " Service Manuale - Electrical Safety Checks Manual " (Document Number: MN2 - 0205)

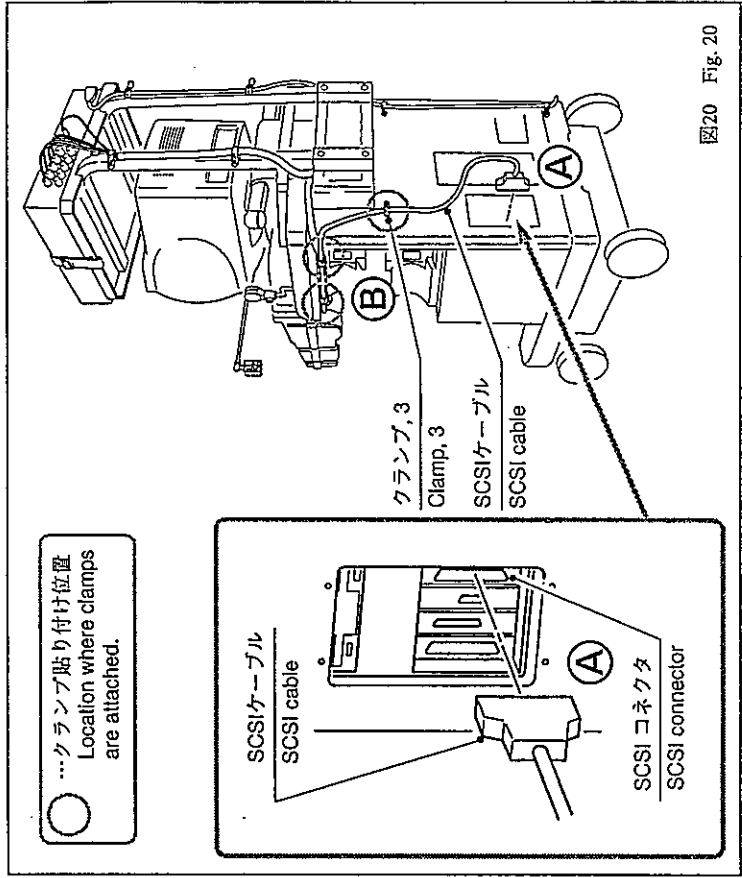


図20 Fig. 20

- (5) 信号ケーブルと電源ケーブルのコネクタを、記録装置背面にそれぞれ接続する。(図中Ⓐ)
- (6) 電源ケーブルを、図の4か所のクランプに固定していく。(図中Ⓑ)
- (7) 信号ケーブルを、図の2か所のクランプに記録装置側から固定していく。(図中Ⓒ)
- (8) Ⓑの位置で余ったケーブルを取り付け金具と補強パイプの間に押し込む。(図中Ⓓ)
- (5) Plug both signal and power cable connectors in recorder on the back. (Ⓐ in Fig.)
- (6) Secure power cable with clamps at 4 illustrated locations. (Ⓑ in Fig.)
- (7) Secure signal cable with clamps at 2 illustrated locations sequentially on the recorder side, first. (Ⓒ in Fig.)
- (8) Push excess cable between mounting hardware and reinforcement pipe at Location Ⓓ. (Ⓓ in Fig.)

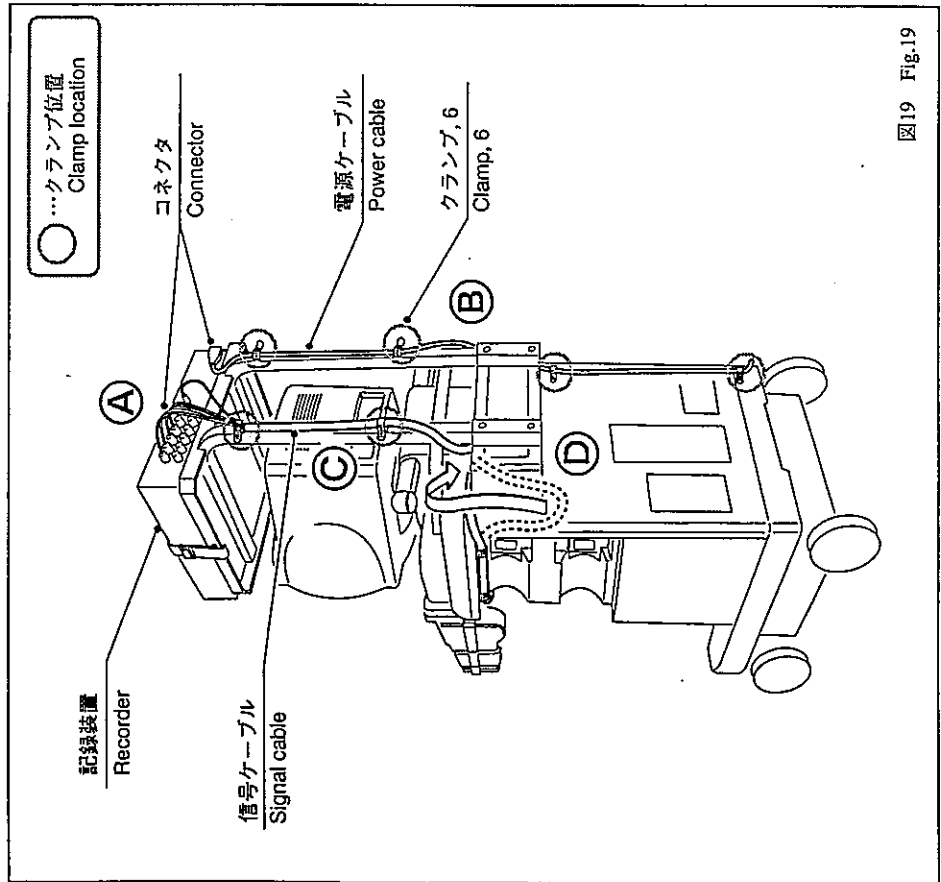


図19 Fig. 19

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PM-1700-7 据付要領書  
PM-1700-7 INSTALLATION PROCEDURES

この据付要領書はPM-1700-7 の納品等の際、据付の資料としてご使用ください。  
なお、本書は据付フローチャートに基づき構成されていますので、手順に従って  
作業を進めてください。

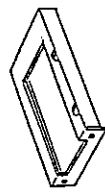


必要な工具：プラスドライバー (あらかじめ用意すること)

These installation procedures are provided for reference in installation of PM-1700-7.  
This book is made up based on the installation flow chart, then follow the procedures  
described in this book in installation work.

Tool required : Phillips screw driver (Provide it beforehand)

00 付属部品リスト  
List of Accessory Parts

下記の付属部品が揃っているか確認してください。  
Check to assure all the below-listed accessory part to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	DMS ベース DMS base		1
2	付属ねじ (BNK3×8) Accessory screw (BNK3×8)		5
3	付属ねじ (S3×6) Accessory screw (S3×6)		3

01

据付フローチャート  
Installation Flow Chart

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートの INDEX No. が各ページの見出しと一致しています。

This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.

02	カバーの取り外し方法 Removing of Cover
03	DMS ベースの取り付け方法 Installing DMS base

02 カバーの取り外し方法  
Removing of cover

※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(1)~(5)の作業は不要  
(1) 記録装置からコネクタを全て取り外す。(図中㉑)  
(2) 図の6か所のクランプから、信号ケーブル、電源ケーブルを取り外す。(図中㉒)

※ Operations (1) thru (5) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Unplug all connectors out of recorder. (㉑ in Fig.)
- (2) Remove both signal and power cables from 6 clamps illustrated. (㉒ in Fig.)

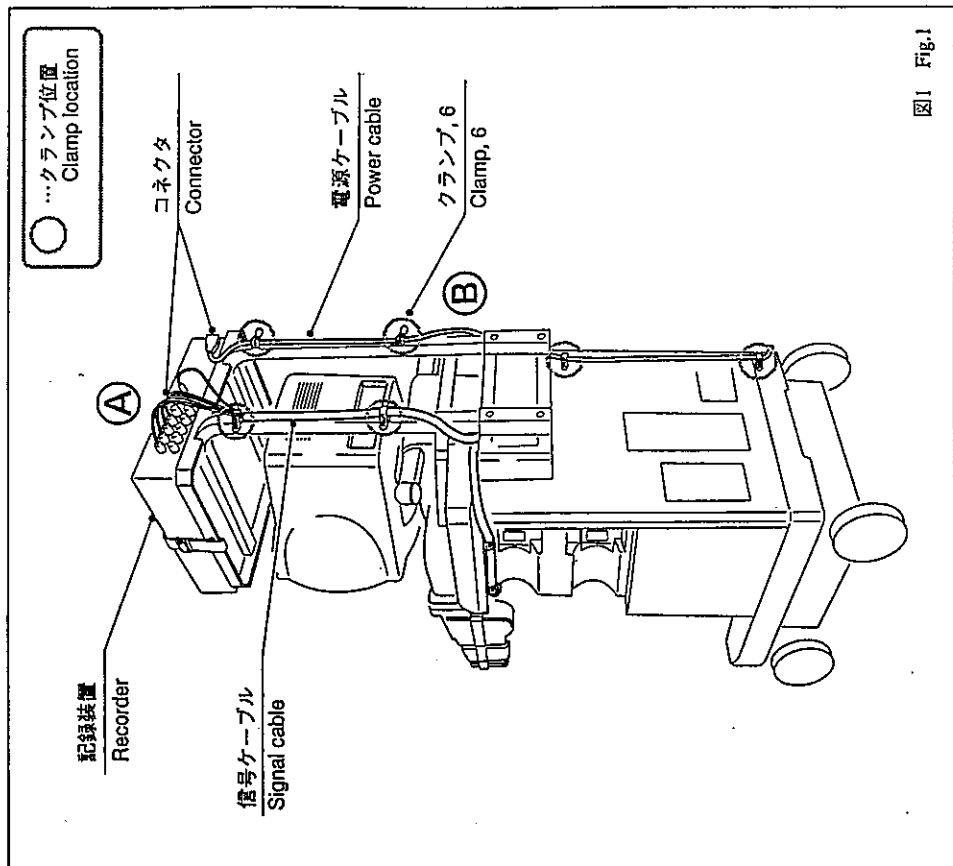


図1 Fig.1

MSS-0731

-3-

- (3) 記録装置をねじ4本、またはベルトを外して搭載台から降ろす。(図中㉓)
- (4) カラープリンタ搭載台(上部)を六角穴付きボルト6本を外して取り外す。(図中㉔)
- (5) カラープリンタ搭載台(下部)を六角穴のねじ2本をゆるめ、ねじ2本を外して取り外す。(図中㉕)
- (6) DMS窓カバーを、ねじ4本を外して取り外す。(図中㉖)
- (7) リアカバーをねじ6本を外して取り外す。(図中㉗)

- (3) Remove screw or belt, and put down recorder from mounting rack. (㉓ in Fig.)
- (4) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (㉔ in Fig.)
- (5) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (㉕ in Fig.)
- (6) Unfasten 4 screws and remove DMS window cover. (㉖ in Fig.)
- (7) Unfasten 6 screws and remove rear cover. (㉗ in Fig.)

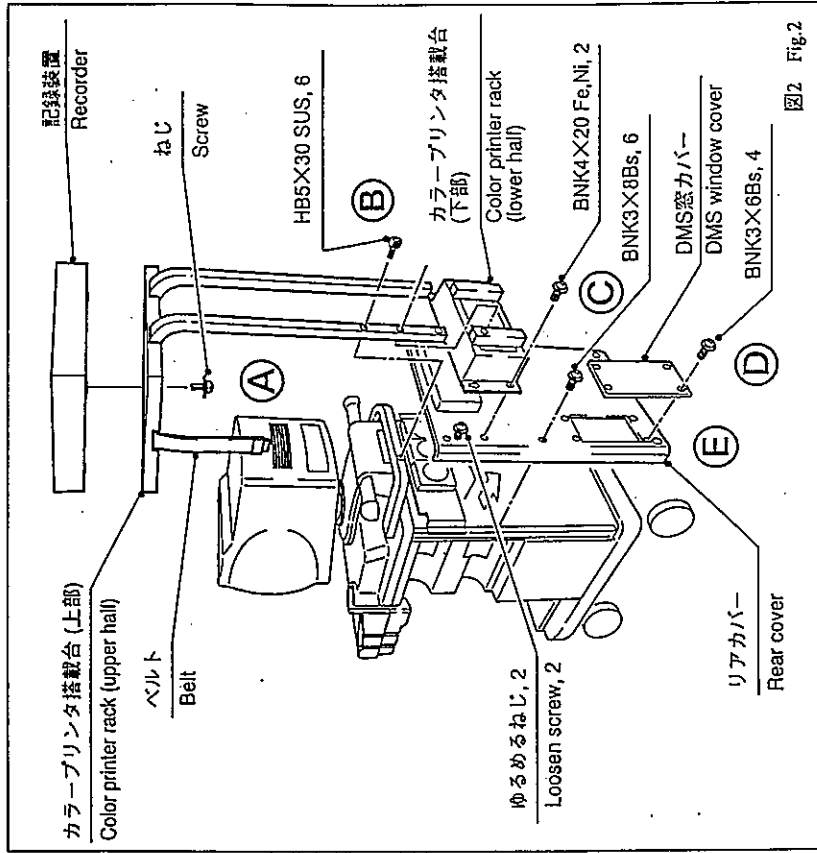


図2 Fig.2

MSS-0731

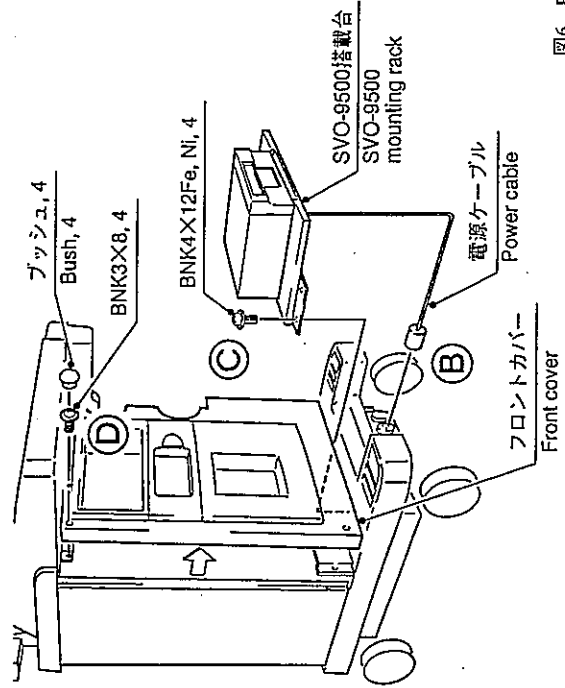
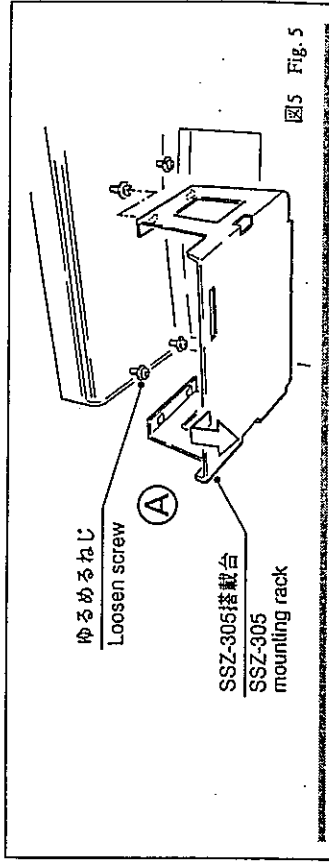
-4-



- ※ SVO-9500搭載台 (MP-FX1700-4) のない装置は、(13)~(14) の作業は不要。
- (12) SSZ-305 搭載台を、ねじ4本をゆるめて取り外す。(図5㉔)
- (13) 電源ユニットからSVO-9500の電源ケーブルを取り外す。(図6㉔)
- (14) SVO-9500搭載台を、ねじ4本を外して取り外す。(図6㉔)
- (15) フロントカバーを、ブッシュ4個を外し、ねじ4本を外して取り外す。(図6㉔)

※ Operations (13) and (14) are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).

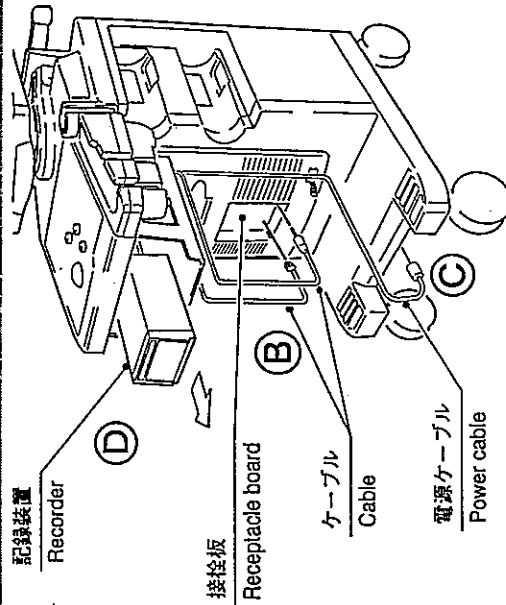
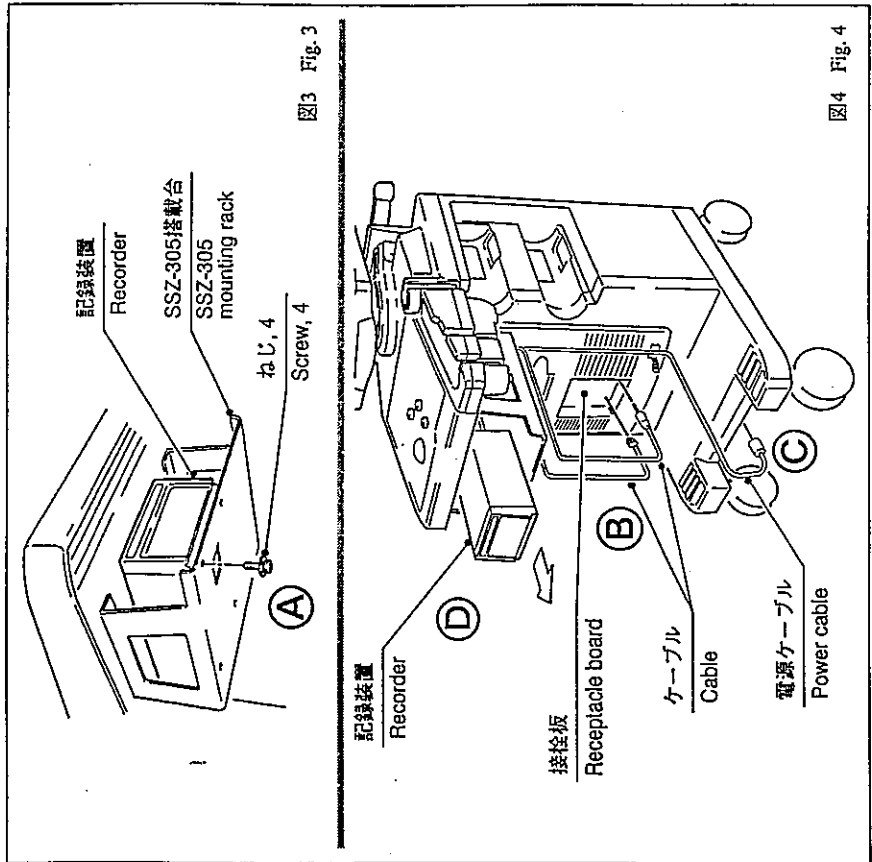
- (12) Loosen 4 screws and remove SSZ-305 mounting rack. (㉔ in fig. 5)
- (13) Disconnect SVO-9500 power cable from power supply unit. (㉔ in fig. 6)
- (14) Unfasten 4 screws and remove SVO-9500 mounting rack. (㉔ in fig. 6)
- (15) Remove 4 bushes and unfasten 4 screws. Then, remove front cover. (㉔ in fig. 6)



- ※ SSZ-305搭載台に記録装置が搭載されていない場合は、(8)~(11) の作業は不要。
- (8) 記録装置を固定しているねじ4本を取り外す。(図3㉔)
- (9) フロントカバーの接栓板に接続されている記録装置のケーブルを、すべて取り外す。(図4㉔)
- (10) 記録装置の電源ケーブルを、電源ユニットの接栓板から取り外す。(図4㉔)
- (11) 記録装置を、搭載台から取り外す。(図4㉔)

※ Unless recorder is mounted on SSZ-305 mounting rack, it is unnecessary to perform Operations (8) thru (11) below.

- (8) Unfasten 4 screws, with which recorder is secured. (㉔ in Fig. 3)
- (9) Remove all recorder cables plugged in receptacle board on front cover. (㉔ in Fig. 4)
- (10) Unplug recorder power cable out of receptacle board on power supply unit. (㉔ in Fig. 4)
- (11) Remove recorder from mounting rack. (㉔ in Fig. 4)



03 DMS ベースの取り付け方法  
Installing DMS base

- (1) 図の位置に取り付けてある DMS ベースをねじ 8 本を外して取り外す。  
( 図中 ㊸ )
- (2) 付属の DMS ベースをねじ 8 本で取り付ける。( 図中 ㊸ )
- (3) 以上で据付けは完了し、取り外したカバー、ケーブル類を全て元のように戻す。
- (1) Unfasten 8 screws and remove DMS base attached at location illustrated. ( ㊸ in Fig.)
- (2) Use 8 accessory screws to mount accessory DMS base. ( ㊸ in Fig.)
- (3) That is all for steps of completing installation of DMS base. All of covering and cabling removed should be returned to their respective original positions.

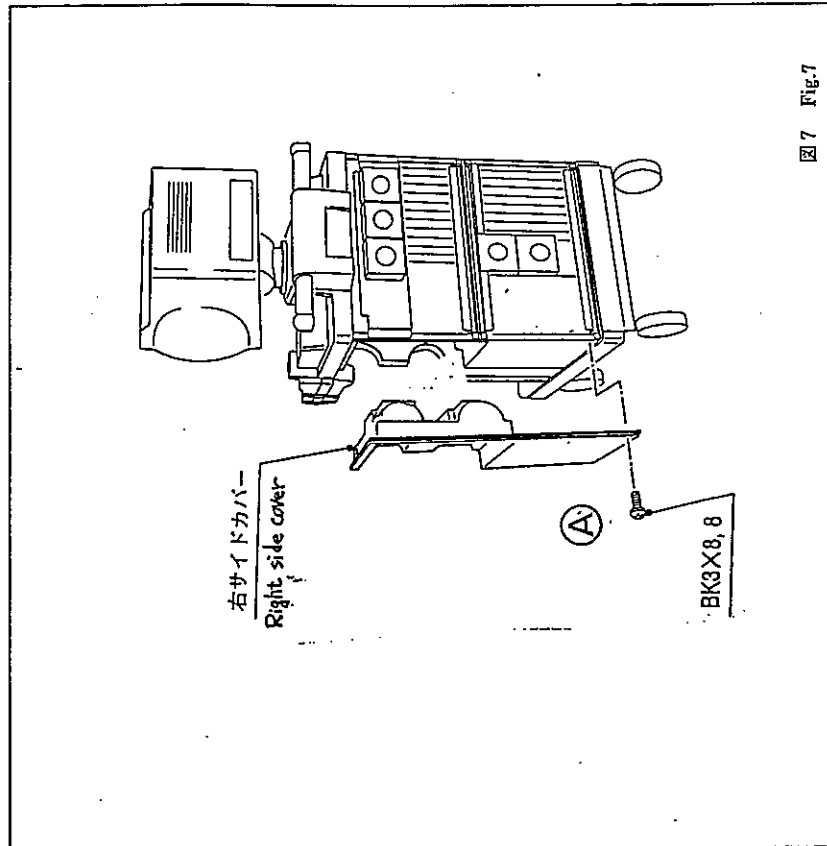


図 7 Fig.7

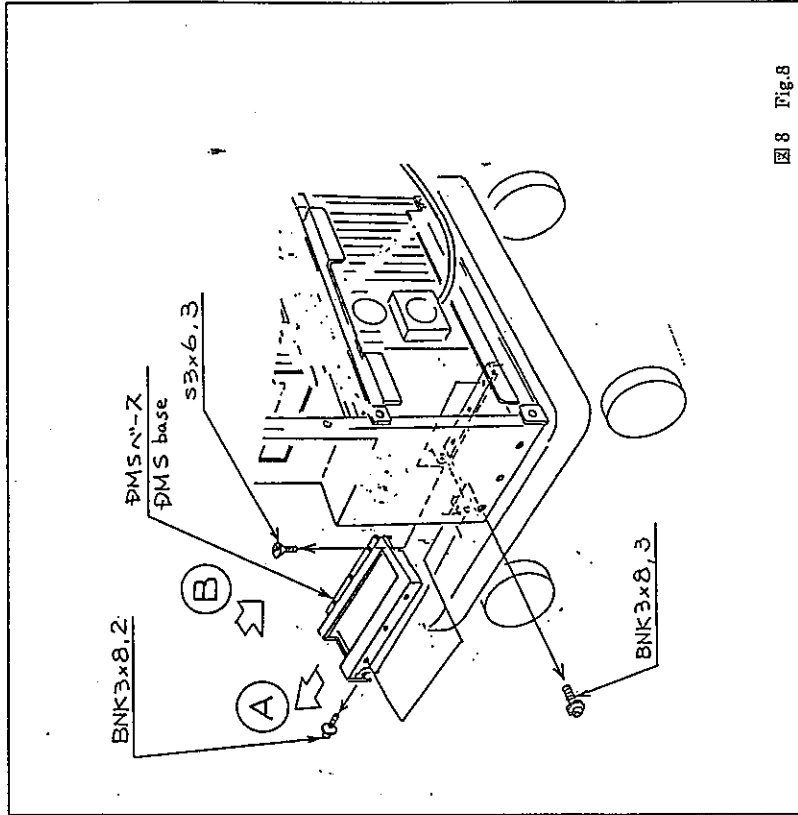


図 8 Fig.8

**MP-FX1700-4 据付要領書  
MP-FX1700-4 INSTALLATION PROCEDURES**

この据付要領書は、MP-FX1700-4の納品等の際、据付の資料としてご使用ください。  
なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って  
作業を進めてください。

必要な工具: プラスドライバー (あらかじめ用意すること)

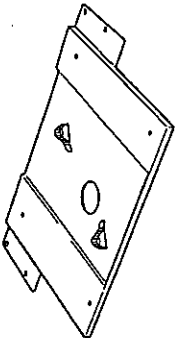
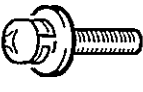
These installation procedures are provided for reference in installation of MP-FX1700-4.

This book is made up based on the installation flow chart, then follow the procedures described in this book in installation work.

Tool required: Phillips screw driver (Provide it beforehand.)

**00 付属部品リスト  
List of Accessory Parts**

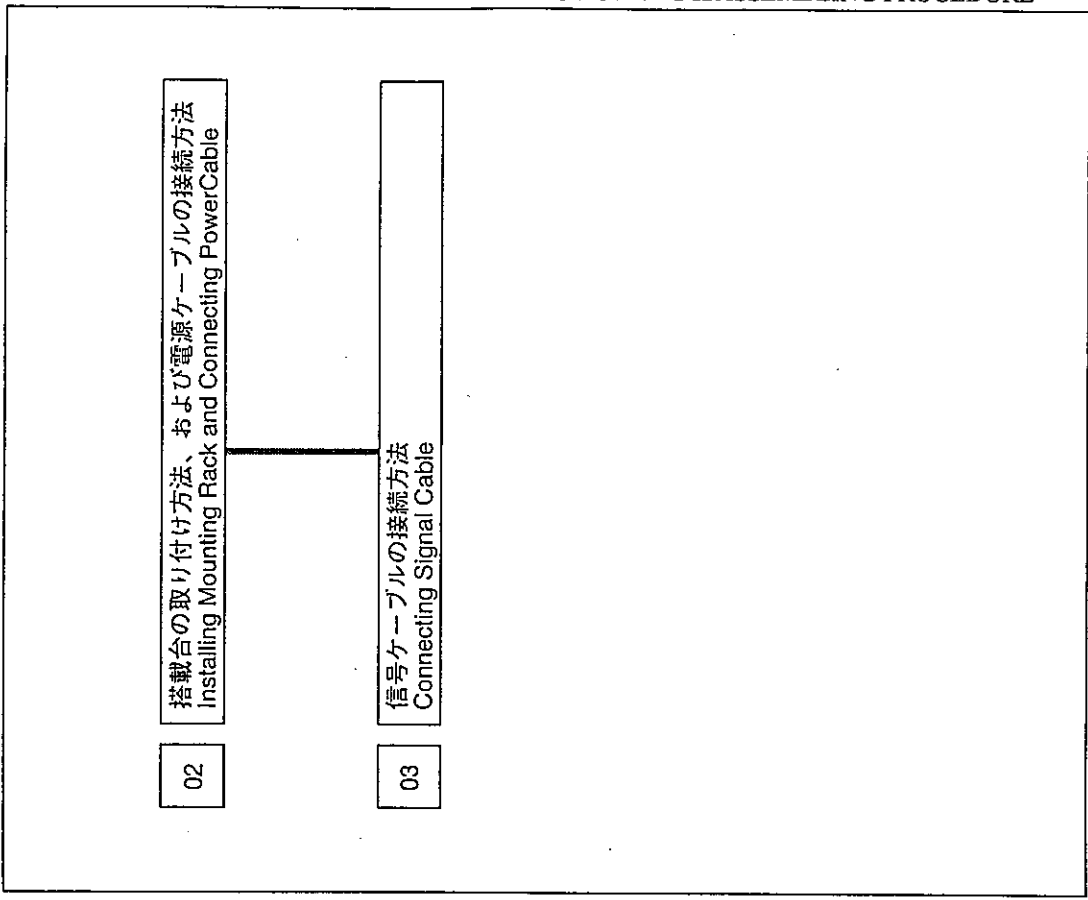
下記の付属品が揃っているか確認してください。  
Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	搭載台 Mounting rack		1
2	付属ねじ (BNK3 X 16, 4) Accessory screw		4

**01 据付フローチャート  
Installation Flow Chart**

このフローチャートは、作業手順の表示と目次を兼ねています。  
フローチャートのINDEX No.が、各ページの見出しNo.と一致しています。

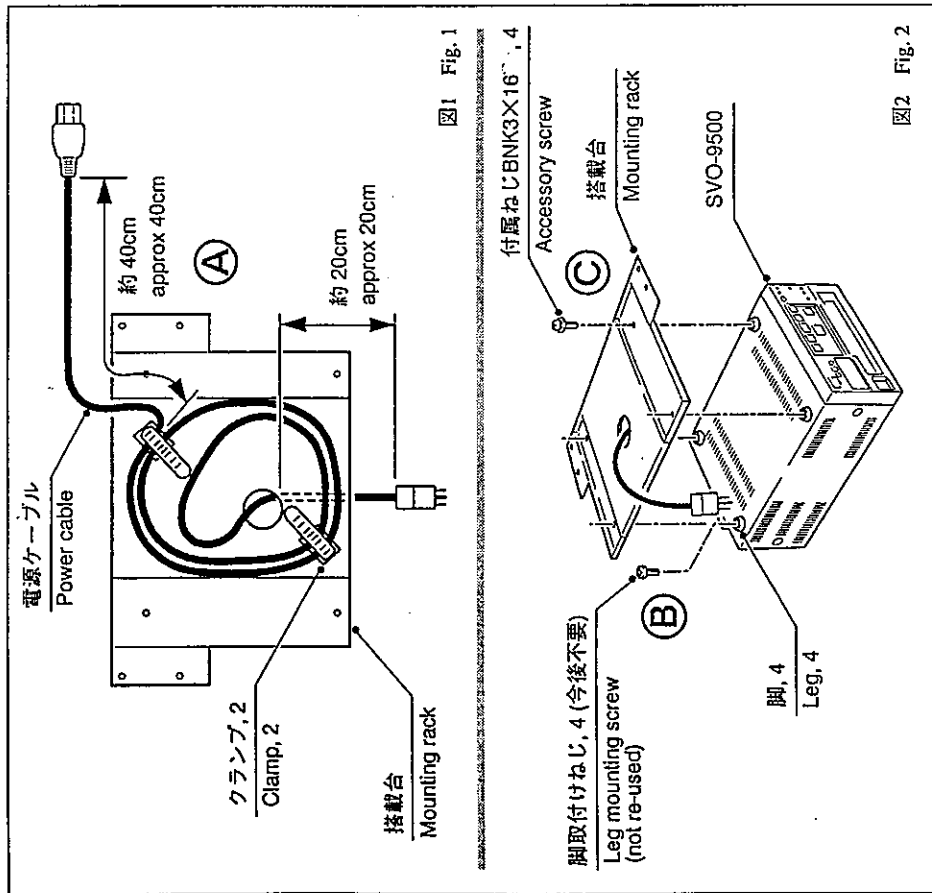
This flow chart shows the indication of working procedures and the table of content.  
Then, No. of the flow chart is coincident with INDEX No. of each page.



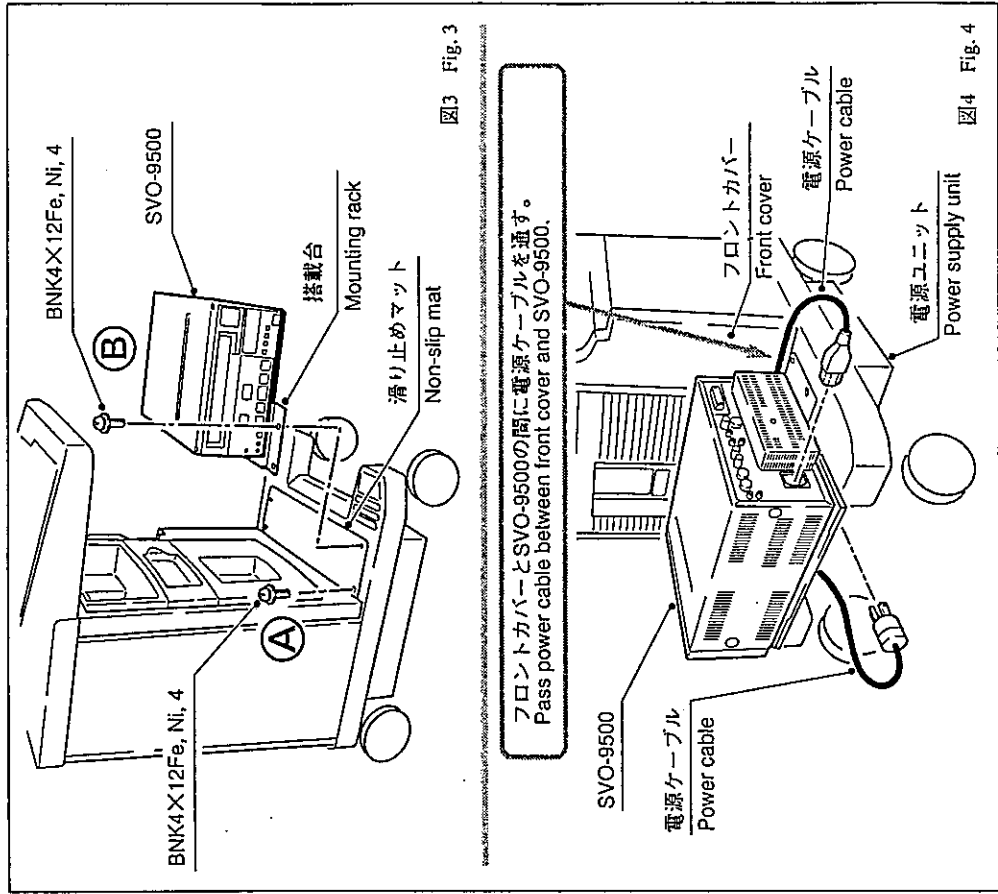
02

搭載台の取り付け方法  
Installing Mounting Rack and Connecting Power Cable

- (1) SVO-9500の電源ケーブルを、図のように搭載台のクランプに固定する。(図中Ⓐ)  
※ クランプ、および穴からケーブル端までの長さは、図の指示に従うこと。
  - (2) SVO-9500底面の脚取付けねじ4本を取り外す。(図中Ⓑ)
  - (3) 搭載台を、SVO-9500に付属ねじ4本で脚と共締めする。(図中Ⓒ)
- (1) Secure power cable of SVO-9500 to clamp on mounting rack as illustrated. (Ⓐ in Fig.)  
※ For lengths from clamp and hole to cable at the end, observe values specified in illustration.
  - (2) Unfasten 4 screws with which SVO-9500 has legs mounted on the bottom. (Ⓑ in Fig.)
  - (3) Tighten mounting rack onto SVO-9500 with legs, using 4 accessory screws. (Ⓒ in Fig.)



- (4) 装置本体の滑り止めマットのねじ4本を外す。(図中Ⓓ)
  - (5) SVO-9500を取り付けた搭載台を、(4)で外したねじ4本で、滑り止めマットの穴に取り付ける。(図中Ⓔ)
  - (6) 電源ケーブルのコネクタを、SVO-9500と電源ユニットの接続板にそれぞれ接続する。(図中Ⓕ)
- (4) Remove 4 screws from non-slip mat on the body of equipment. (Ⓓ in Fig.)
  - (5) Using 4 screws removed as referred to in (4) above, fit in hole on non-slip mat mounting rack on which SVO-9500 has been installed. (Ⓔ in Fig.)
  - (6) Plug power cable connectors in plug receptacle boards, respectively, on SVO-9500 and on power supply unit. (Ⓕ in Fig.)



MS5-0671

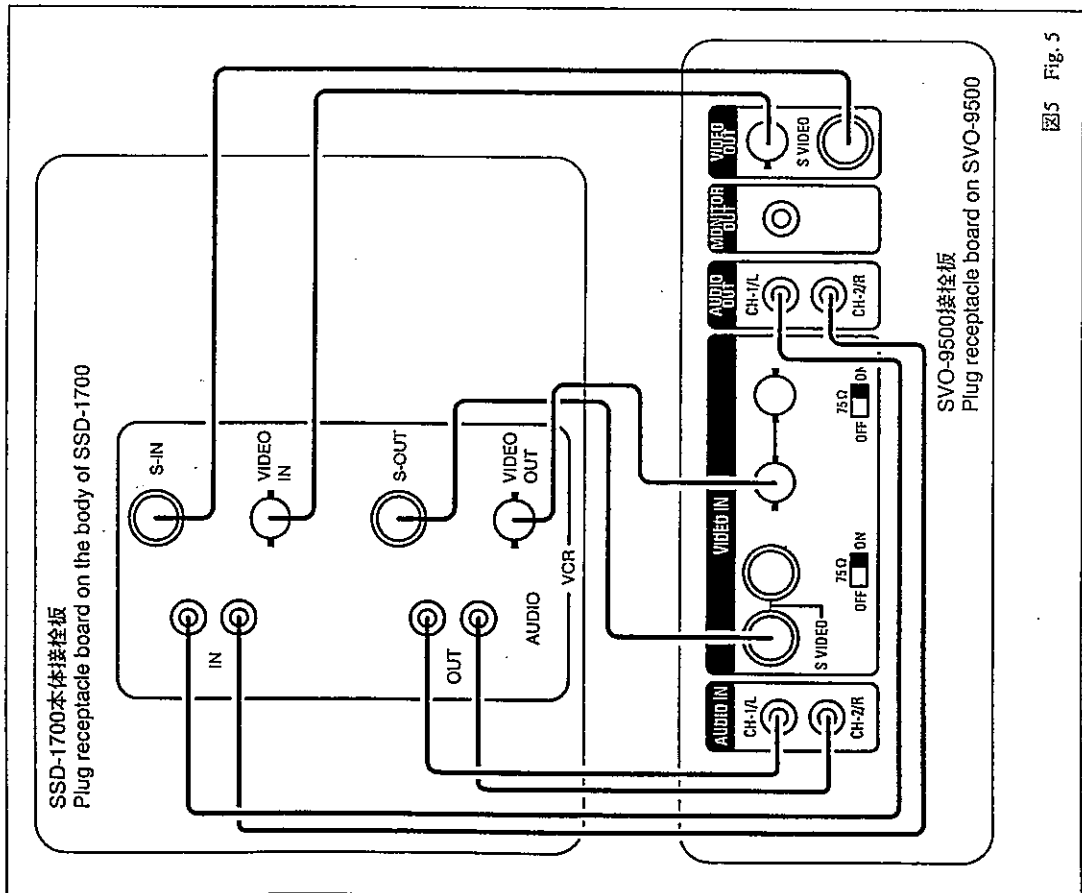
-4-

-3-

MS5-0671

03 信号ケーブルの接続方法  
Connecting Signal Cable

- 下図を参考にして、SVO-9500の接続板とSSD-1700本体接続板とを信号ケーブルで接続する。(図中㊸)
- Using signal cable, connect plug receptacle board on SVO-9500 to plug receptacle board on the body of SSD-1700. (㊸ in Fig.)



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### EU-9068 据付要領書

- 注意
- ・装置の据付作業または改造作業は、有資格者に限られる
  - ・装置を設置する場所の環境条件および電源設備は、取扱説明書を参照すること。
  - ・探針子の接続は、取扱説明書を参照すること。
  - ・指定された機種以外のオプション機器は、取付しないこと。

### EU-9068 INSTALLATION PROCEDURES

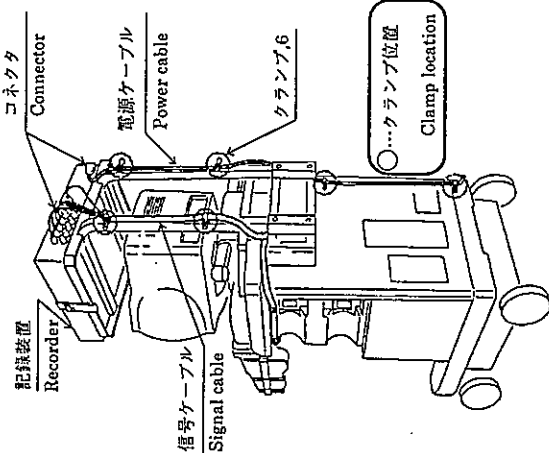
- CAUTION
- ・ The EU-9068 system must be installed or modified only by the qualified personnel.
  - ・ The environmental conditions for the place of installation of the SSD-1400 system and the specifications of the power supply must satisfy the requirements stated in the instruction manual.
  - ・ See the instruction manual for the connection of the probe.
  - ・ Do not install optional equipment of other models.

### (1-1)

### 1. カラープリンタ搭載台及びリアカバーの取り外し方法

※カラープリンタ搭載台 (MP-FX1700-2) のない場合は、①-⑤の作業は不要。

- ①記録装置からコネクタをすべて取り外す。
- ②図の6カ所のクランプから、信号ケーブルと電源ケーブルを取り外す。
- ③記録装置をねじ4本、またはベルトを外して搭載台からおろす。
- ④カラープリンタ搭載台 (上部) を、六角穴付きボルト6本を外して取り出す。
- ⑤カラープリンタ搭載台 (下部) を、だるま穴のねじ2本をゆるめ、ねじ2本を外して取り外す。
- ⑥リアカバーを、ねじ6本を外して取り外す。



### 目次

1. カラープリンタ搭載台及びリアカバーの取り外し方法
2. EP4192 の取り外し方法
3. ラベルの取付方法
4. DMSユニット分解方法
5. JB-228 の取付方法
6. ケーブルハンガの取付方法
7. プロブホルダの取付方法
8. ケーブルハンガの取付方法: ②
9. カバーの取付方法
10. 動作確認

### CONTENTS

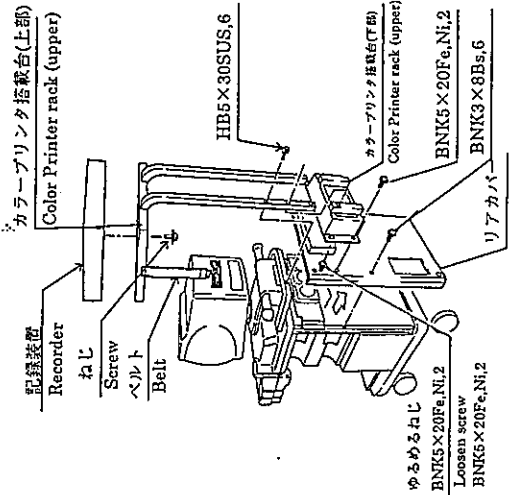
1. Removing of Rear cover and Color printer rack
2. Installing the EP4192
3. Mounting of Label
4. Disassembling the DMS Unit
5. Installing the JB-228
6. Installing the Cable Hanger
7. Installing the Probe Holder
8. Installing the Cable Hanger : ②
9. Mounting of Cover
10. Performance Check

### 1. Removing of Rear cover and Color printer rack

※Operations ① thru ⑤ are not required for equipment without color printer rack (MP-FX1700-2).

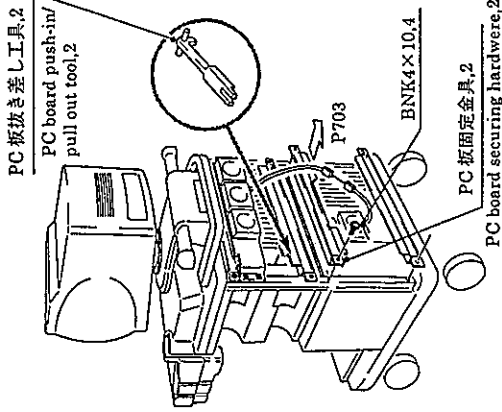
- ① Unplug all connectors out recorder.
- ② Remove both signal and power cables from 6 clamps illustrated.
- ③ Remove screws or belt, and put down recorder from mounting rack.
- ④ Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half).
- ⑤ Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half).
- ⑥ Unfasten 6 screws and remove rear cover.

### (1-2)

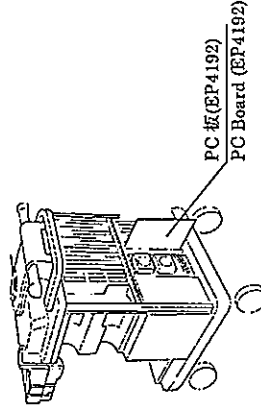


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(2-1)

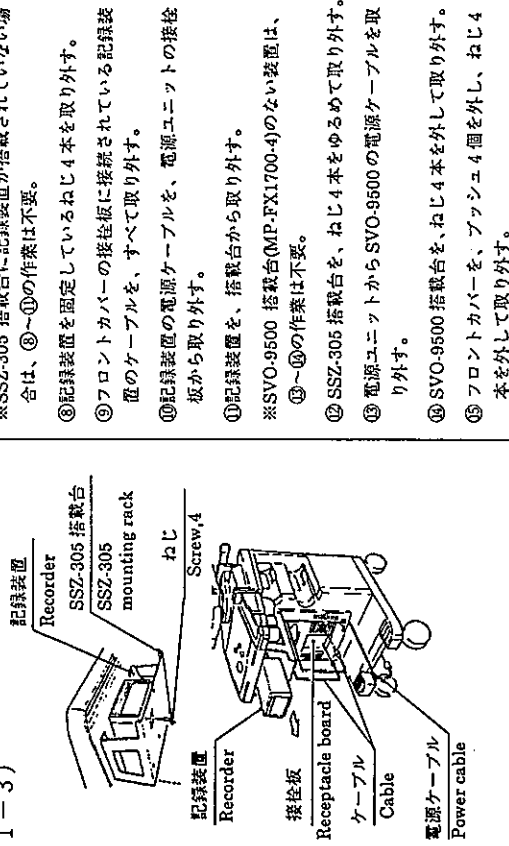


(2-2)

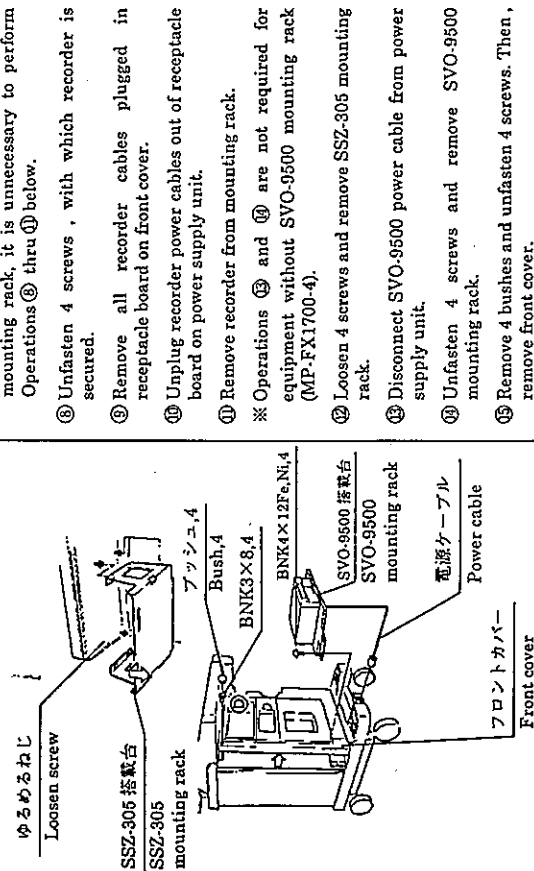


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(1-3)



(1-4)



- ※SSZ-305 搭載台に記録装置が搭載されていない場合は、⑧~⑩の作業は不要。
- ⑧記録装置を固定しているねじ4本を取り外す。
- ⑨フロントカバーの接続板に接続されている記録装置のケーブルを、すべて取り外す。
- ⑩記録装置の電源ケーブルを、電源ユニットの接続板から取り外す。
- ⑪記録装置を、搭載台から取り外す。
- ※SVO-9500 搭載台(MP-FX1700-4)のない装置は、⑨~⑩の作業は不要。
- ⑫SSZ-305 搭載台を、ねじ4本をゆるめて取り外す。
- ⑬電源ユニットからSVO-9500の電源ケーブルを取り外す。
- ⑭SVO-9500 搭載台を、ねじ4本を外して取り外す。
- ⑮フロントカバーを、ブッシュ4個を外し、ねじ4本を外して取り外す。

- ※ Unless recorder is mounted on SSZ-305 mounting rack, it is unnecessary to perform Operations ⑧ thru ⑩ below.
- ⑧ Unfasten 4 screws, with which recorder is secured.
- ⑨ Remove all recorder cables plugged in receptacle board on front cover.
- ⑩ Unplug recorder power cables out of receptacle board on power supply unit.
- ⑪ Remove recorder from mounting rack.
- ※ Operations ⑨ and ⑩ are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).
- ⑫ Loosen 4 screws and remove SSZ-305 mounting rack.
- ⑬ Disconnect SVO-9500 power cable from power supply unit.
- ⑭ Unfasten 4 screws and remove SVO-9500 mounting rack.
- ⑮ Remove 4 bushes and unfasten 4 screws. Then, remove front cover.

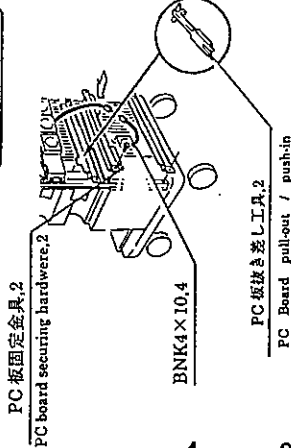
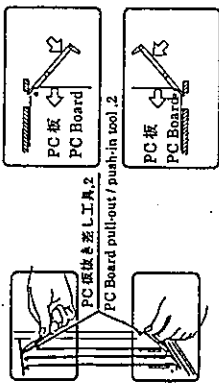
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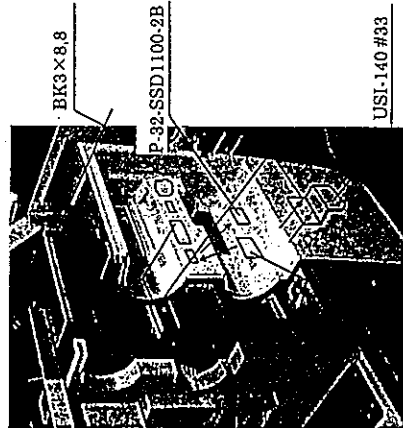


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(2-3)



(3-1)



P-32-SSD1700-6



CONTROL

- ⑤ PC板抜き差し工具2個のツメをPC板スロット手前の角穴に引っ掛け、図のようにPC板(EP4192)を確実に押し込む。
- ⑥ PC板抜き差し工具2個を、PC板固定金具の図の位置裏側にクランプする
- ⑦ ファンケーブルのコネクタ(P703)を接続する。
- ⑧ Let claws on 2 PC board pull-out / push-in tools be caught in square holes prior to PC board slot.
- ⑨ Then, push in PC board (EP4192) securely as illustrated.
- ⑩ Clamp 2 pieces of PC board push-in / pull-out tool on the back of PC board securing hardware at locations illustrated.
- ⑪ Plug in fan cable connector (P703).

3. ラベルの取付方法

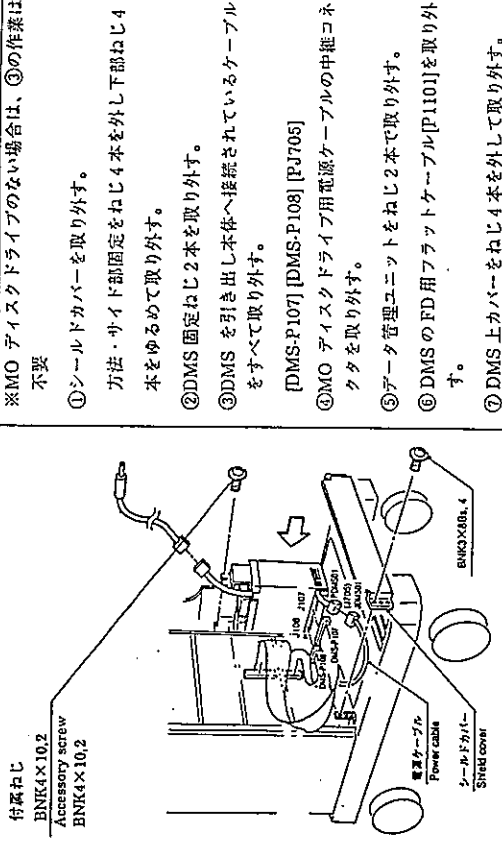
- ① 右サイドカバーをねじ8本を外して取り外す。
- ② 右サイドカバー裏面に取り付けられている板蓋(USI-140#33)をねじを外して取り外す。
- ③ 右サイドカバーに貼り付けられているラベル(P-32-SSD1100-2B)を取り外す。
- ④ ③で取り外した位置に、ラベル(P-32-SSD1700-6)を貼り付ける。

3. Mounting of Label

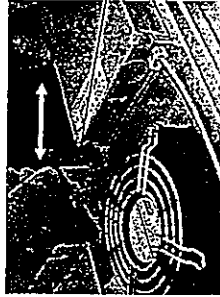
- ① Unfasten eight screws and remove the right side cover.
- ② Unscrew and remove the metal plate (USI-140#33) attached to the right side cover on the back.
- ③ Remove the label (P-32-SSD1100-2B) attached to the right side cover.
- ④ Then, attach another label (P-32-SSD1700-6) to the right side cover at the location from which the former has been removed as referred to above.

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(4-1)



(4-2)



(4-3)



4. DMSユニット分解

- ※MO ディスクドライブのない場合は、③の作業は不要
- ① シールドカバーを取り外す。  
方法・サイド部固定をねじ4本を外し下部ねじ4本をゆるめて取り外す。
- ② DMS 固定ねじ2本を取り外す。
- ③ DMS を引き出し本体へ接続されているケーブルをすべて取り外す。
- ④ DMS-P107 [DMS-P108] [P705]
- ⑤ MO ディスクドライブ用電源ケーブルの中継コネクタを取り外す。
- ⑥ データ管理ユニットをねじ2本で取り外す。
- ⑦ DMS のFD用フラットケーブル[P1101]を取り外す。
- ⑧ DMS 上カバーをねじ4本を外して取り外す。

4. Disassembling the DMS Unit

※If the MO disk drive is not provided, Operation ③ is not required.

- ① Remove the shield cover.  
Method: Unfasten four screws and loosen four lower screws to remove the side unit fixture.
- ② Unfasten two DMS-fixing screws.
- ③ Pull out the DMS and remove every cable connected to the body.
- ④ Unplug the MO disk drive power cable relay connector.
- ⑤ Unfasten two screws and remove the data control unit.
- ⑥ Remove the FD flat cable [P1101] from the DMS.
- ⑦ Unfasten four screws and remove the DMS upper cover.

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(4-7)

⑫ JB-228 のケーブル [CBL106] のコネクタ [SVP4] を取り付ける。

⑬ Attach Connector [SVP4] of Cable [CBL106] for the JB-228.



(4-8)

⑭ [CBL405], [CBL106] を空きスペースにおさめる。

⑮ Place the [CBL405], [CBL106] in unoccupied space.



(4-9)

⑯ 各ケーブルを上カバーの切り欠きから出す。

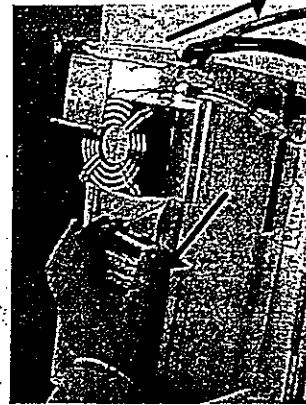
⑰ 上カバーをねじ 4 本で取り付ける。

⑱ FD 用フラットケーブル [P1101] を取り付ける。

⑲ Let each cable come out of the upper cover through the notch.

⑳ Use 4 screws to attach the Top cover.

㉑ Attach FD Flat Cable [P1101].



MS5-0716

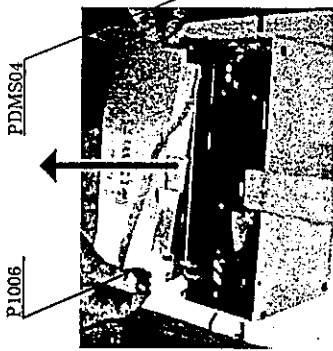
8

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(4-4)

⑧ コネクタ P1006 と PDMS04 の金具を外して、取り外す。

⑨ Unplug Connector P1006 and remove the hardware from the PDMS04. And remove it.



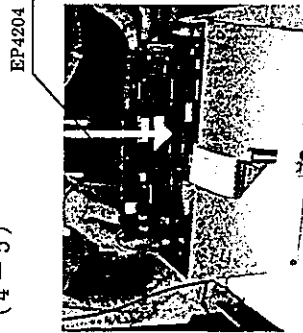
(4-5)

⑩ 空きスロットに EP4204 を入れる。

⑪ [PDMS04] を取り外したねじで EP4204 の固定金具を本体に固定する。

⑫ Put the EP4202 in an unoccupied slot.

⑬ Using the screw with which the [PDMS04] has been removed, secure the EP4204 fixing hardware onto the body.



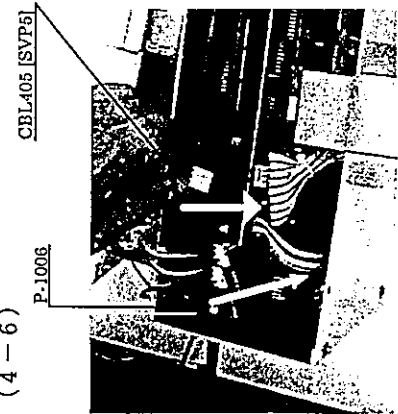
(4-6)

⑭ [CBL405] のコネクタ [SVP5] を取り付ける。

⑮ コネクタ [P-1006] を取り付ける。

⑯ Attach Connector [SVP5] of the [CBL405].

⑰ Attach Connector [P-1006].

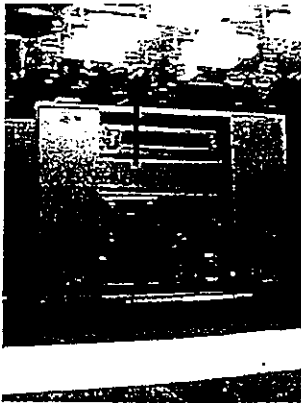


MS5-0716

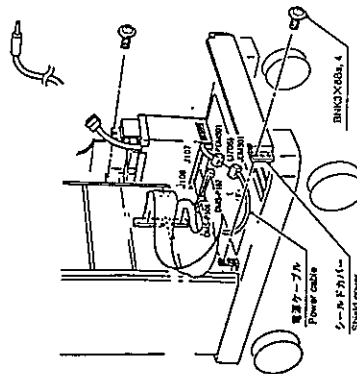
7

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(4-10)



(4-11)



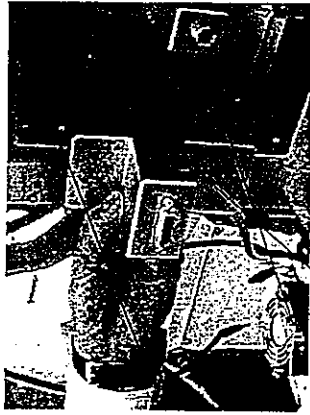
- ⑫ DMSユニットを[J250] (本体側)の手前まで入れる。
- ⑬ 装置手前より、[CBL405]を入れP250を入れる。
- ⑭ Insert the DMS unit up to just before the [J250] (on the body side).
- ⑮ In front of the equipment, insert the [CBL405]. And put in the P250.

- ⑯ データ管理ユニットをねじ2本で取り付ける。
  - ⑰ MO ディスクドライブ用電源ケーブルの中継コネクタを取り付ける。
  - ⑱ DMS を本体に押し込み接続されているコネクタを全て接続する。
  - ⑲ [DMS-P107] [DMS-P108] [P1705]
  - ⑳ DMS 固定ねじ2本を取り付ける。
  - ㉑ シールドカバーを取り付ける。
- サイド固定部をねじ4本を取付け下部ねじ4本をしめて取り付ける。

- ⑳ Use two screws to attach the data control unit.
- ㉑ Attach the MO disk drive power cable relay connector.
- ㉒ Push the DMS into the body and plug in every connector plugged in.
- ㉓ Mount two DMS-fixing screws.
- ㉔ Mount the shield cover. Use four screws and tighten four lower screws to install the side fixture.

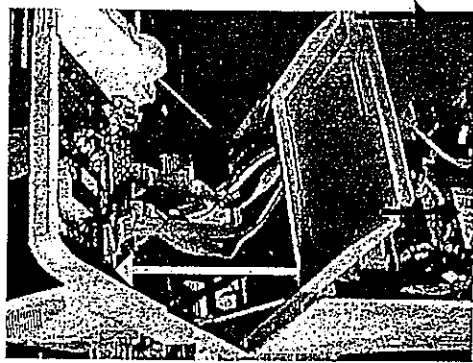
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(5-1)



JB-228  
BNK3×8.2

(6-1)



5. JB-228 の取付け

- ① 右側面に取付けられているねじ2本を取り外し JB-228 を取り付ける。
- ※JB-228 の切り欠きのある面を上にする。

5. Installing the JB-228

- ① Unfasten two screws attached to the right side. And install the JB-228, with its notched side up.

6. ケーブルハンガの取付け

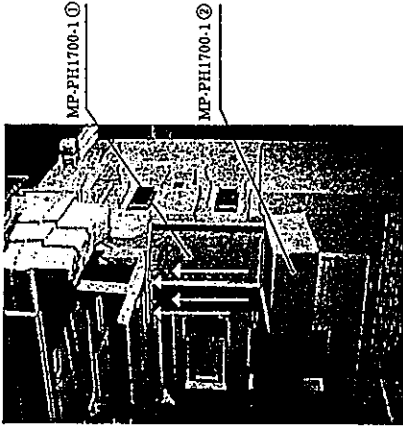
- ① トップカバーをねじ2本を外してあげる。
- ② ストップバーをかける。

6. Installing the Cable Hanger

- ① Unfasten two screws and open the top cover.
- ② Apply the stopper.

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(7-1)



7. プローブホルダの取付
- ① MP-PH1700-1 ①をMP-FX1700-1Bにねじ4本で取り付ける (4-CNK4×8)
  - ② プローブホルダ MP-PH1700-1 ②をMP-PH1700-1 ①に取り付ける。

7. Installing the Probe Holder

- ① Use four screws to install MP-PH1700-1(1) onto the MP-FX1700-1B (4-CNK4 x 8).
- ② Install Probe Holder MP-PH1700-1(2) onto the MP-PH1700-1(1).

(8-1)



8. ケーブルハンガの取付: ②

- ① ケーブルハンガ(MP-HA1700-2)をトップカバーに取り付ける。

8. Installing the Cable Hanger: ②

- ① Install the cable hanger (MP-HA1700-2) onto the top cover.

(8-2)



- ② CBL107をASU-1000Bコネクタと本体側へ接続する。

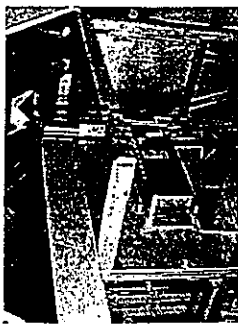
- ② Plug the CBL107 in the ASU-1000B connector and in the body.

MS5-0716

12

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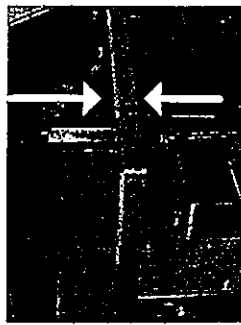
(6-2)



- ③ ケーブルハンガ取付け金具をねじを外して取り外す。この金具は今後不用。

- ③ Unscrew and remove the cable-hanger mounting hardware, which is no longer necessary.

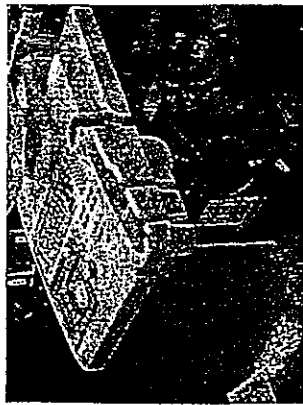
(6-3)



- ④ ケーブルハンガ取付け金具を②で外したねじで仮固定する。

- ④ Using the screw unfastened in ② above, tentatively secure the cable hanger mounting hardware.

(6-4)



- ⑤ トップカバーを閉めてねじ2本で固定する。
- ⑥ ケーブルハンガ固定金具を③で仮固定したねじで固定する。

- ⑦ 右サイドカバーをねじ8本で取り付ける。
- ⑧ フロントカバーをねじ4本で取り付ける。

- ⑤ Close the top cover and secure it with two screws.
- ⑥ Using the screw tentatively secured in ③ above, secure the cable hanger fixing hardware.

- ⑦ Use eight screws and install the right side cover.
- ⑧ Use four screws to install the front cover.

MS5-0716

11

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(8-3)



- ③ ASU-1000B のプローブケーブルを L-Ki-630u 先端金具に取り付ける。
- ④ Attach the ASU-1000B probe cable to the L-Ki-630u at the tip hardware. And install them on the mount.

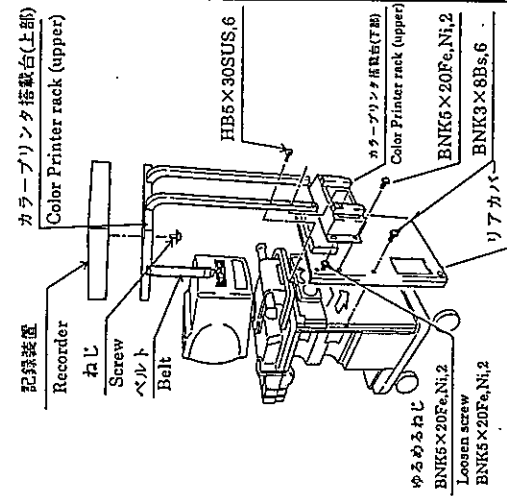
(8-4)



- ④ L-Ki-630u の先端フックを ASU-1000B のフックの取付部に取り付ける。
- ⑤ Hook the L-Ki-630u at the tip onto the ASU-1000B at the hook.

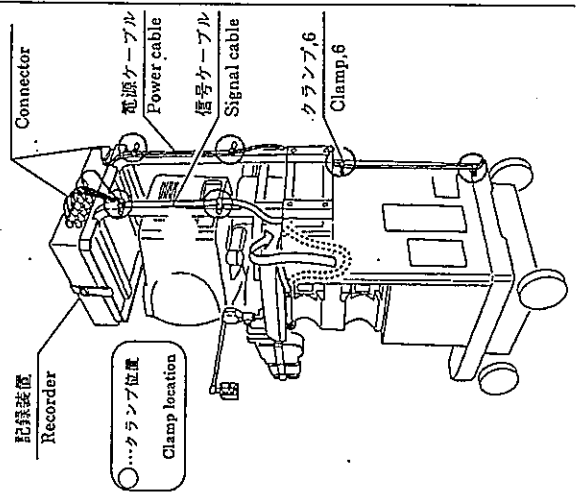
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(9-1)



9. カバーの取付方法  
 ※カラープリンタ搭載台 (MP-FX1700-2) の無い装置は②~③の作業は不用
- ① リアカバーを、ねじ 6 本で取り付ける。
  - ② 搭載台 (下部) を、取り外しと逆の手順で取り付ける。
  - ③ 搭載台 (上部) を、取り外しと逆の手順で取り付ける。
  - ④ 記録装置を、取り外しと逆の手順で、ねじまたはベルトで固定する。
  - ⑤ しんごうケーブルと電源ケーブルのコネクタを、記録装置背面にそれぞれ接続する。
  - ⑥ 電源ケーブルを、図の 4ヶ所のクランプに固定していく。
  - ⑦ 番号ケーブルを、図の 2ヶ所のクランプに記録装置側から固定していく。
  - ⑧ 余ったケーブルを取付金具と補強パイプの間に押し込む。

(9-2)



9. Mounting of Cover  
 ※ Operations ② thru ⑧ are not required for equipment without color printer rack (MP-FX1700-2).
- ① Use 6 screws to mount rear cover.
  - ② Reverse follow removal steps to install color printer rack (lower half).
  - ③ Reverse follow removal steps to install color printer rack (upper half).
  - ④ Reverse follow removal steps to install recorder onto mounting rack with screws or belt.
  - ⑤ Plug both signal and power cable connectors in recorder on the back.
  - ⑥ Secure power cable with clamps at 4 illustrated locations.
  - ⑦ Secure signal cable with clamps at 2 illustrated locations sequentially on the recorder side, first.
  - ⑧ Push excess cable between mounting hardware and reinforcement pipe at Location.

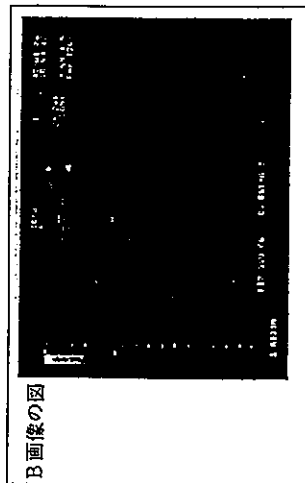
10. 動作確認

EU-9068 の接続が完了したら ASU-1000B を接続し以下の要領で動作を確認すること。

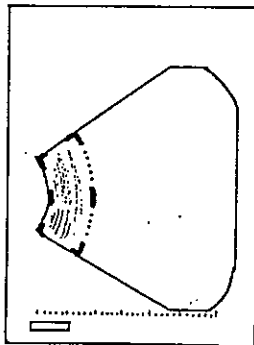
装置の電源を入れ、以下の手順で DMS を起動させる。

NEW PAT sw → DMS 画面で ID に任意の文字を入力 → Mark REF sw → DMS sw

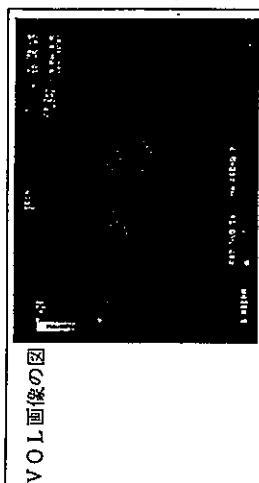
STEER/VOL sw を押すと B 画像上に VOL AREA が表示されるので Mark REF sw を操作して図 1 のようにエリアを近距離に移動する。



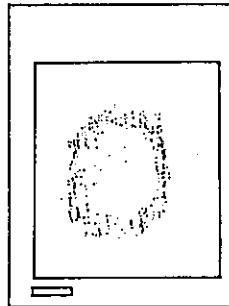
B 画像の図



ACQUIRE sw を押すとスクリーン中の B 画像がリアルタイムで表示され、画像の取り込みが完了すると図 2 のような VOL 画像が表示されること。



VOL 画像の図



10. Performance Check:

Once the EU-9068 has been completely connected, plug in the ASU-1000B and make certain that it is operating properly in accordance with the following procedure.

Power on the equipment and start up the DMS, following the steps given below.  
NEWPAT switch → Enter an arbitrary character in ID on the DMS screen. → MarkREF switch → DMS switch

Press the STEER/VOL switch and Area VOL will be displayed on Image B. Then, operate the track ball and move the area to the short distance.

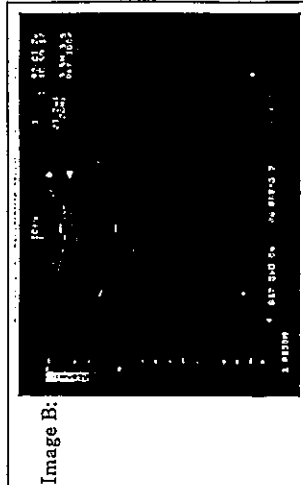
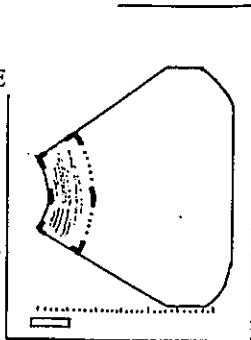


Image B:



Press the ACQUIRE switch and Image B being then scanned will be displayed on a real-time basis. Once the image has been completely taken in, Image VOL will be displayed as shown in Fig. 2.2.

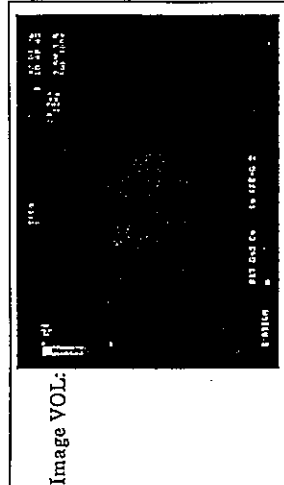
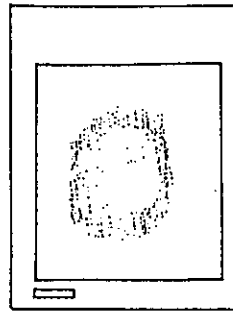
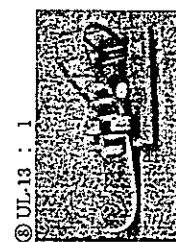
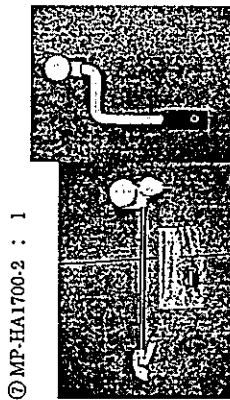
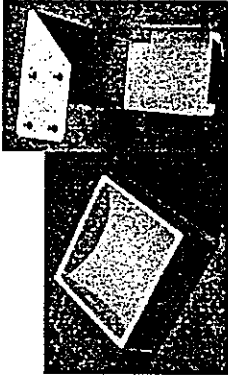
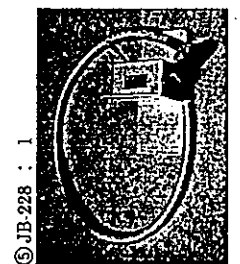
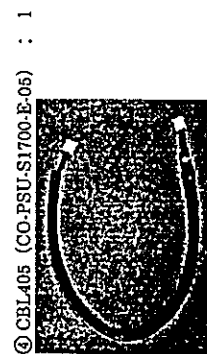
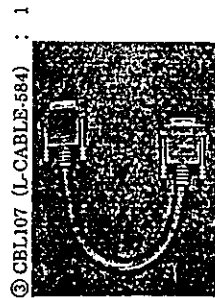
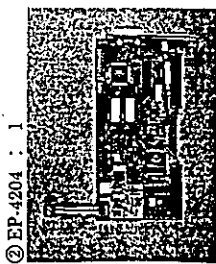
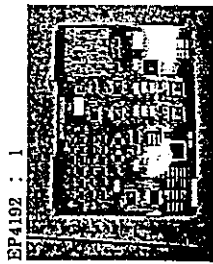


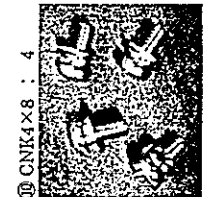
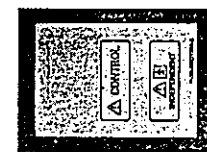
Image VOL:



構成品リスト Parts List



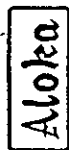
⑨ P-32-SSD1700-6 : 1



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SECTION 4 DISASSEMBLING PROCEDURE



CAS-1700 据付要領書  
CAS-1700 INSTALLATION PROCEDURES

この据付要領書は、CAS-1700の納品等の際、据付の資料としてご使用ください。  
なお、本書は据付フローチャートに基づき構成されていますので、その手順に従って  
作業を進めてください。  
必要な工具: プラスドライバー (あらかじめ用意すること)

These installation procedures are provided for reference in installation of CAS-1700.  
This book is made up based on the installation flow chart, then follow the procedures described in this  
book in installation work.

Tool required: Phillips screw driver (Provide it beforehand.)

00	付属部品リスト List of Accessory Parts
----	------------------------------------

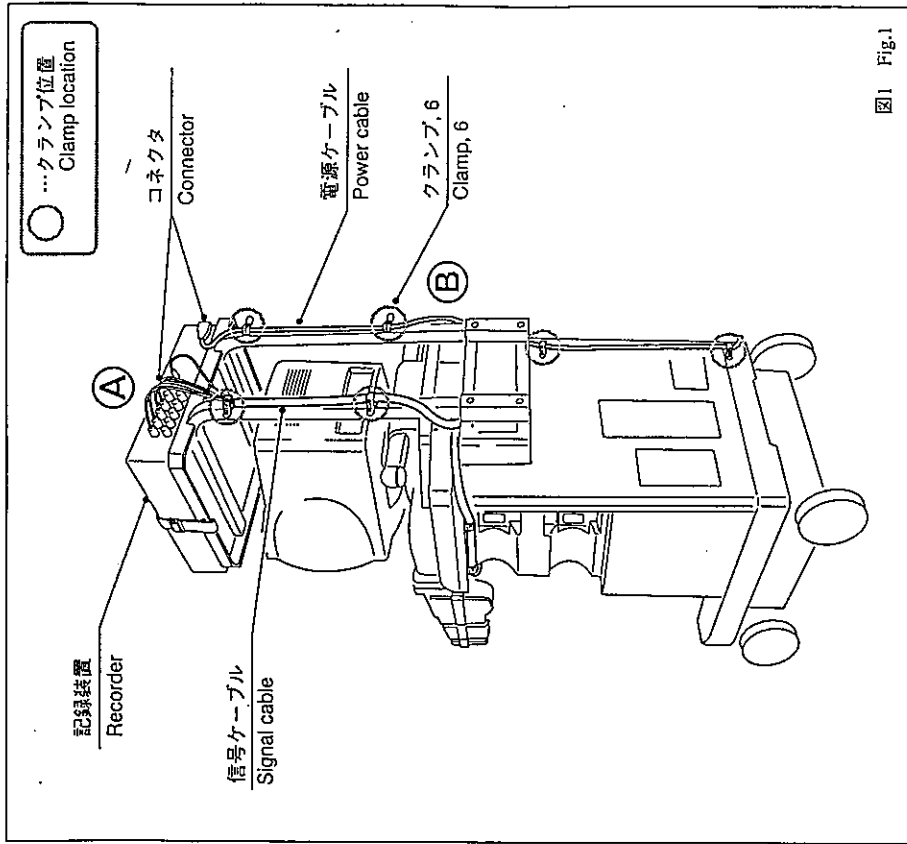
下記の付属品が揃っているか確認してください。  
Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	データ管理ユニット (DMU-100) Data management subsystem unit (DMU-100)		1
2	ケーブル (L-CABLE-526-54) Cable (L-CABLE-526-54)		1
3	ケーブル (L-CABLE-527-54) Cable (L-CABLE-527-54)		1

No.	品名 Parts Name	外観 Appearance	個数 Quantity
4	付属ねじ (BNK4×10) Accessory screw (BNK4×10)		2
5	付属ねじ (BNK3×8Bs) Accessory screw (BNK3×8Bs)		4
6	化粧枠 (MP-FX1700-7) 品番3番 Style frame (MP-FX1700-7) Part No. 3		1
7	クランプ (UL-23) Clamp (UL-23)		1

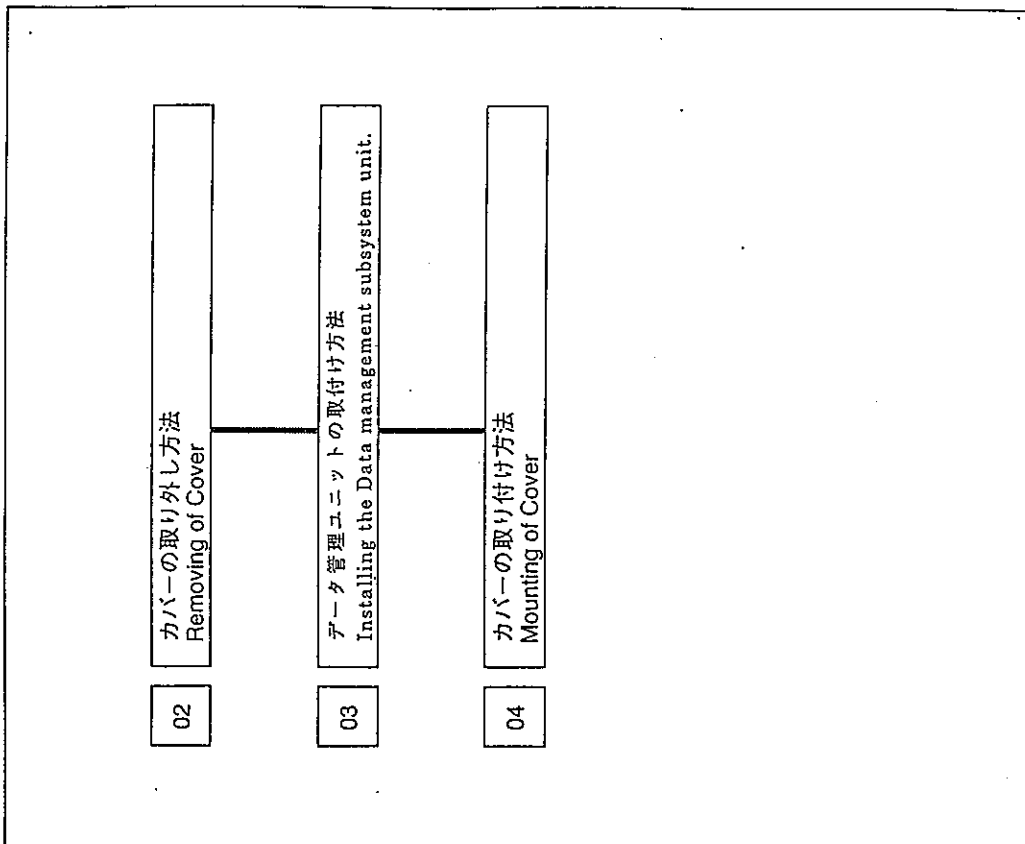
02 カバールの取り外し方法  
Removing of cover

- ※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(1)~(5)の作業は不要  
 (1) 記録装置からコネクタを全て取り外す。(図中㊸)  
 (2) 図の6か所のクランプから、信号ケーブル、電源ケーブルを取り外す。(図中㊹)  
 ※ Operations (1) thru (5) are not required for equipment without color printer rack (MP-FX1700-2).  
 (1) Unplug all connectors out of recorder. (㊸ in Fig.)  
 (2) Remove both signal and power cables from 6 clamps illustrated. (㊹ in Fig.)



01 据付フローチャート  
Installation Flow Chart

このフローチャートは、作業手順の表示と目次を兼ねています。  
 フローチャートのINDEX No.が、各ページのINDEX No.と一致しています。  
 This flow chart shows the indication of working procedures and the table of content.  
 Then, No. of the flow chart is coincident with INDEX No. of each page.

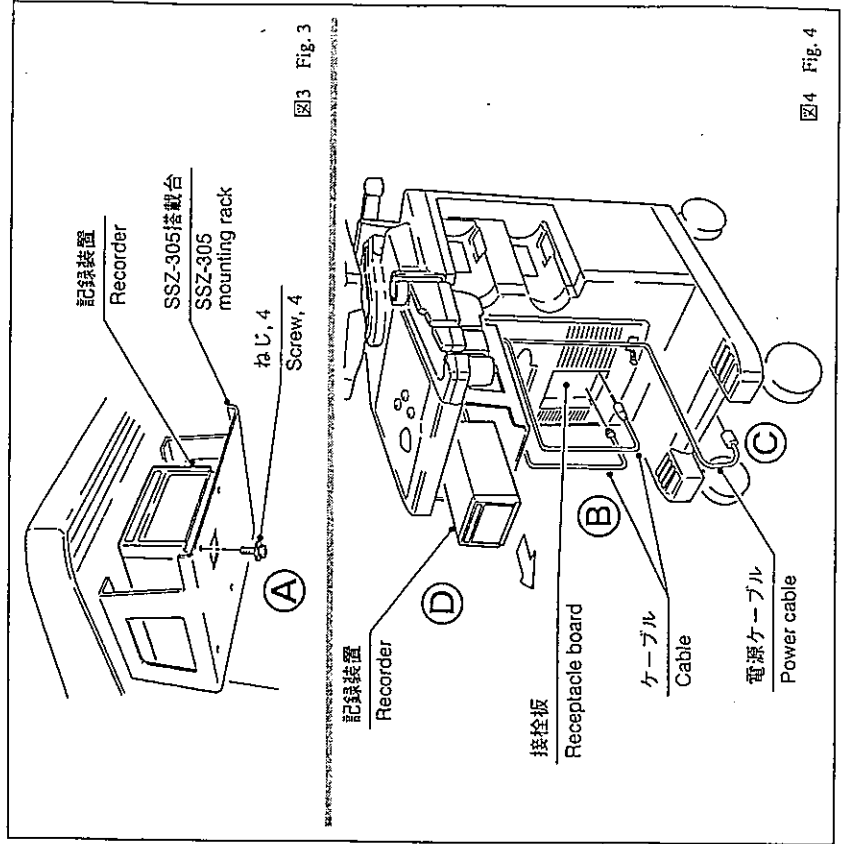


SECTION 4 DISASSEMBLING PROCEDURE

- ※ SSZ-305搭載台に記録装置が搭載されていない場合は、(8)~(11)の作業は不要。
- (8) 記録装置を固定しているねじ4本を取り外す。(図3㉔)
- (9) フロントカバーの接栓板に接続されている記録装置のケーブルを、すべて取り外す。(図4㉕)
- (10) 記録装置の電源ケーブルを、電源ユニットの接栓板から取り外す。(図4㉖)
- (11) 記録装置を、搭載台から取り外す。(図4㉗)

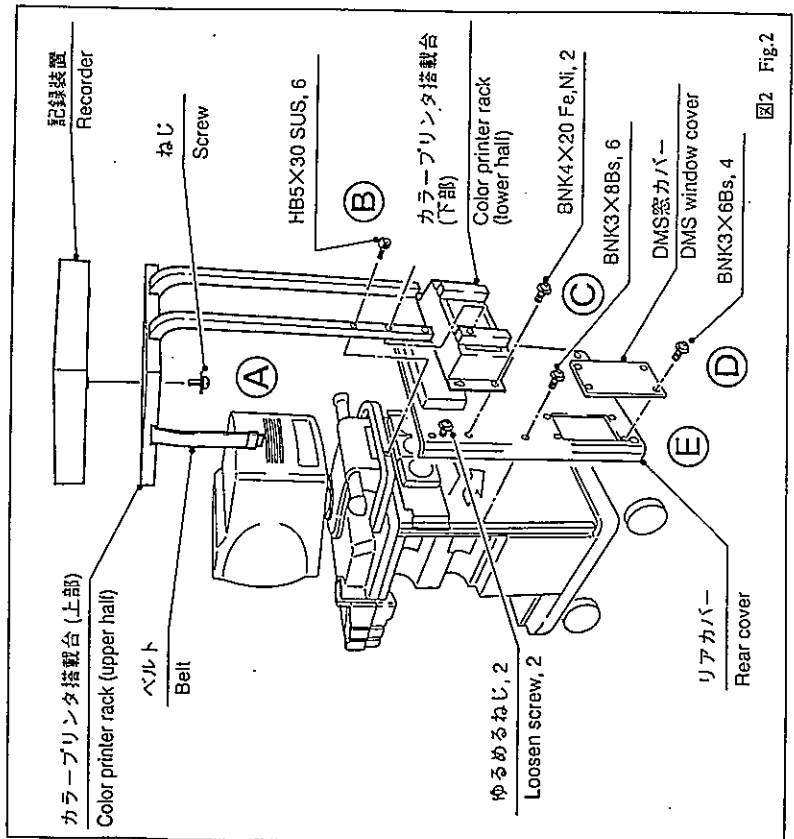
※ Unless recorder is mounted on SSZ-305 mounting rack, it is unnecessary to perform Operations (8) thru (11) below.

- (8) Unfasten 4 screws, with which recorder is secured. (㉔ in Fig. 3)
- (9) Remove all recorder cables plugged in receptacle board on front cover. (㉕ in Fig. 4)
- (10) Unplug recorder power cable out of receptacle board on power supply unit. (㉖ in Fig. 4)
- (11) Remove recorder from mounting rack. (㉗ in Fig. 4)



- (3) 記録装置をねじ4本、またはベルトを外して搭載台から降ろす。(図中㉔)
- (4) カラープリンタ搭載台(上部)を六角穴付きボルト6本を外して取り外す。(図中㉕)
- (5) カラープリンタ搭載台(下部)を六角穴のねじ2本を外して取り外す。(図中㉖)
- (6) DMS窓カバーを、ねじ4本を外して取り外す。(図中㉗)
- (7) リアカバーをねじ6本を外して取り外す。(図中㉘)

- (3) Remove screw or belt, and put down recorder from mounting rack. (㉔ in Fig.)
- (4) Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half). (㉕ in Fig.)
- (5) Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half). (㉖ in Fig.)
- (6) Unfasten 4 screws and remove DMS window cover. (㉗ in Fig.)
- (7) Unfasten 6 screws and remove rear cover. (㉘ in Fig.)



03 データ管理ユニットの取付け方法  
Installing the Data management subsystem unit.

- (1) 接続パネルに接続されているコネクタ2個を取り外す (図中Ⓐ)
- 取り外すコネクタ [P606 P609]
- (2) 接続パネルから、ねじ6本を取り外す (図中Ⓑ)
- (3) 接続パネルを本体から取り外す。 (図中Ⓒ)
- (1) Unplug 2 connectors plugged in connector panel. (Ⓐ in fig.)
- Connectors to unplug: [P606 P609]
- (2) Remove 6 screws from the connector panel. (Ⓑ in fig.)
- (3) Remove the connector panel from the main body. (Ⓒ in fig.)

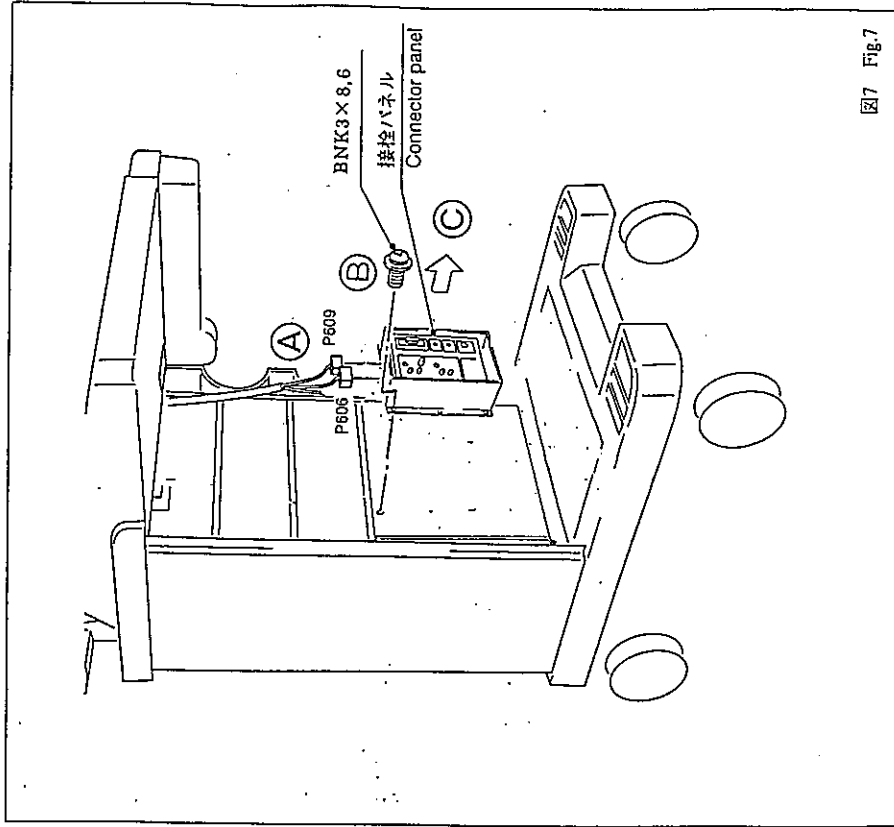


図7 Fig.7

MS5-0729 - 8 -

Rev.1

- ※ SVO-9500搭載台 (MP-FX1700-4) のない装置は、(13)~(14) の作業は不要。
- (12) SSZ-305 搭載台を、ねじ4本をゆるめ取り外す。(図5Ⓐ)
- (13) 電源ユニットからSVO-9500の電源ケーブルを取り外す。(図6Ⓒ)
- (14) SVO-9500搭載台を、ねじ4本を外して取り外す。(図6Ⓓ)
- (15) フロントカバーを、ブッシュ4個を外し、ねじ4本を外して取り外す。(図6Ⓔ)

※ Operations (13) and (14) are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).

- (12) Loosen 4 screws and remove SSZ-305 mounting rack. (Ⓐ in fig. 5)
- (13) Disconnect SVO-9500 power cable from power supply unit. (Ⓒ in fig. 6)
- (14) Unfasten 4 screws and remove SVO-9500 mounting rack. (Ⓓ in fig. 6)
- (15) Remove 4 bushes and unfasten 4 screws. Then, remove front cover. (Ⓔ in fig. 6)

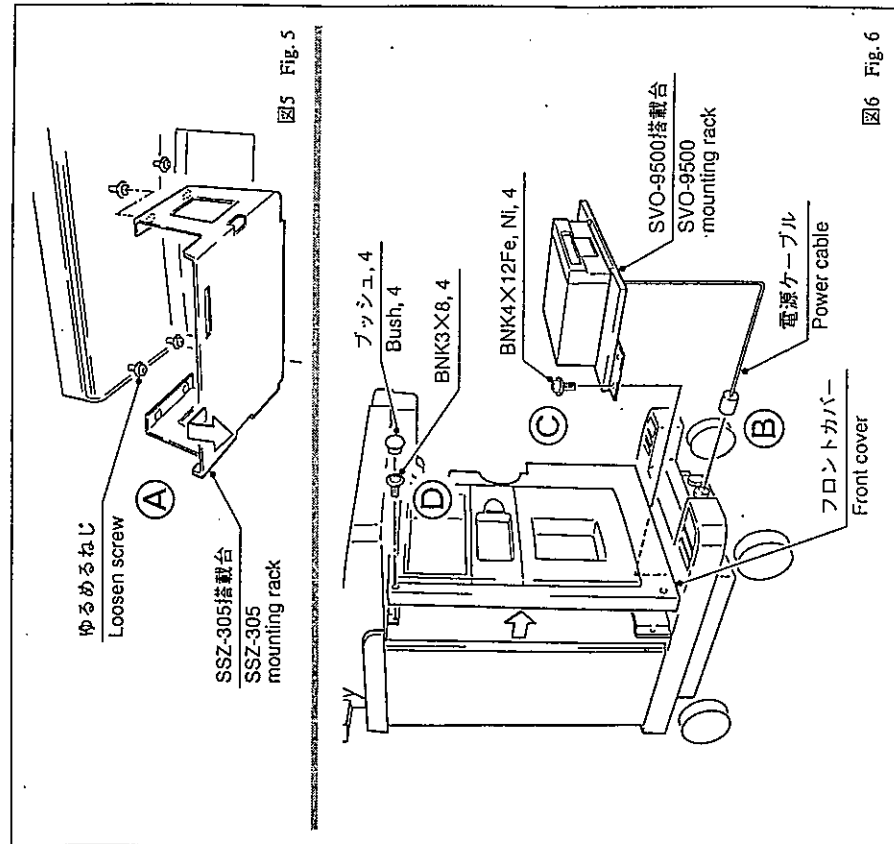


図5 Fig. 5

図6 Fig. 6

MS5-0729 - 7 -

- (8) 接続パネルを、ねじ6本で取り付け、クランプ(UL-23)を図の位置に貼り付ける。(図中Ⓐ)
- (9) 接続パネルにコネクタ2個を接続する。(図中Ⓑ)
- (10) ケーブルを図の位置のクランプに固定し、シールドカバーをねじ4本で固定する。(図中Ⓒ)
- (8) Use 15 screws to install the connector panel. And attach clamp(UL-23) at position as illustrated. (Ⓐ in fig.)
- (9) Plug 2 connectors in connector panel. (Ⓑ in fig.)
- (10) Secure the cables in clamps at position as illustrated. And use 4 screws to mount shield cover. (Ⓒ in fig.)

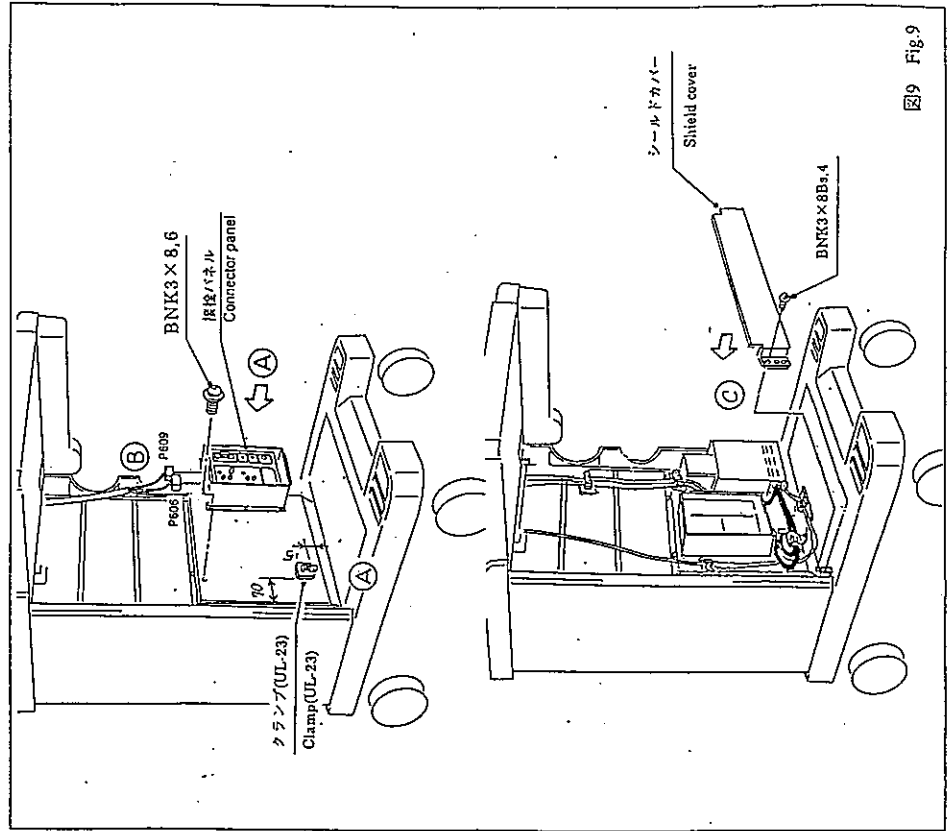


図9 Fig.9

- (4) シールドカバーを、ねじ4本を外して取り外す。(図中Ⓐ)
- (5) 付属ケーブル2本をそれぞれデータ管理ユニット、マザーボードに接続する。(図中Ⓑ)
- (6) 電源ケーブルをデータ管理ユニットに接続する。(図中Ⓒ)
- (7) データ管理ユニットを付属ねじ2本で取り付ける。(図中Ⓓ)

- (4) Unfasten 4 screws and remove shield cover. (Ⓐ in fig.)
- (5) Plug 2 accessory cables in data management subsystem unit and in motherboard. (Ⓑ in fig.)
- (6) Plug power cable in data management subsystem unit. [ P705 ] (Ⓒ in fig.)
- (7) Use 2 accessory screws to mount data management subsystem unit. (Ⓓ in fig.)

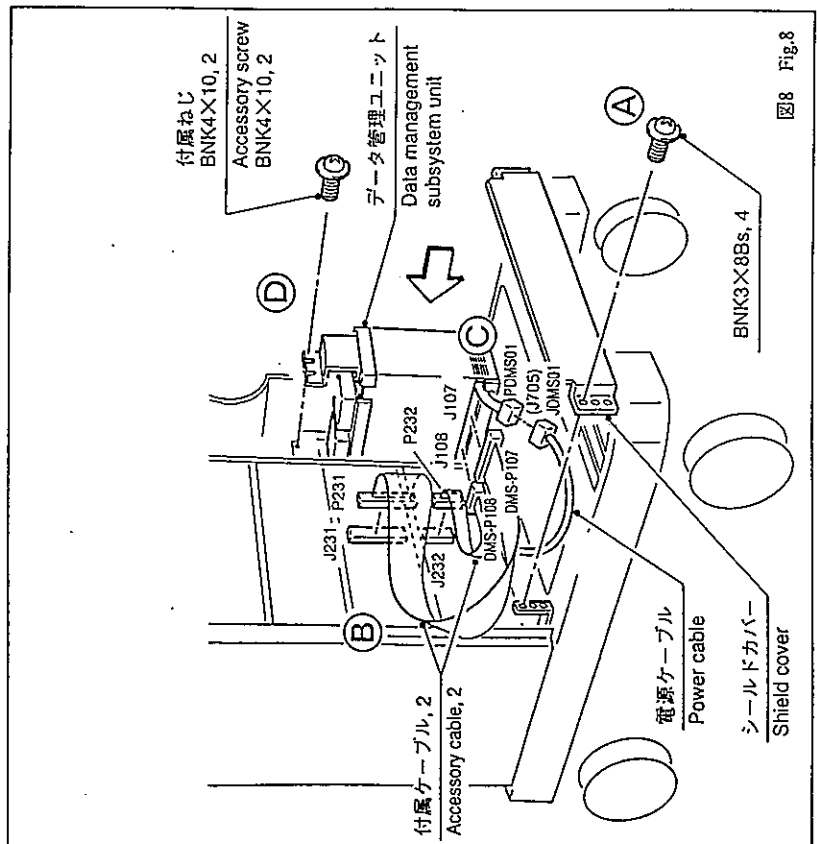


図8 Fig.8

※ SVO-9500搭載台 (MP-FX1700-4) のない装置は、(12)~(13) の作業は不要。

- (11) フロントカバーを、ねじ4本で取り付け、ブッシュ4個をはめる。(図中㊸)
- (12) SVO-9500搭載台を、ねじ4本で取り付ける。(図中㊹)
- (13) 電源ユニットにSVO-9500の電源ケーブルを接続する。(図中㊺)

※ Operations (12) and (13) are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).

- (11) Use 4 screws to mount front cover. And fit in 4 bushes. (㊸ in fig.)
- (12) Use 4 screws to install SVO-9500 mounting rack. (㊹ in fig.)
- (13) Connect the power cable of SVO-9500 to the power supply unit. (㊺ in fig.)

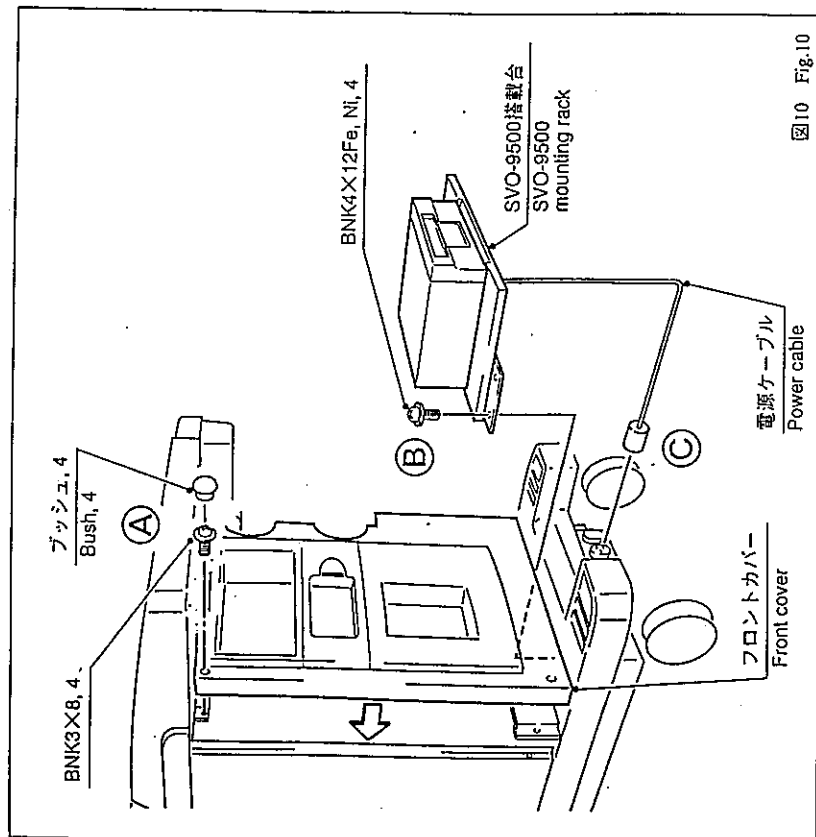


図10 Fig.10

MS5-0729

- (14) SSZ-305搭載台を、だるま穴をねじに合わせて取り付け、ねじ4本を締め付け固定する。(図中㊻)

(14) Install SSZ-305 mounting rack, with its dowel holes fitted to screws. Fasten 4 screws and secure rack. (㊻ in Fig.)

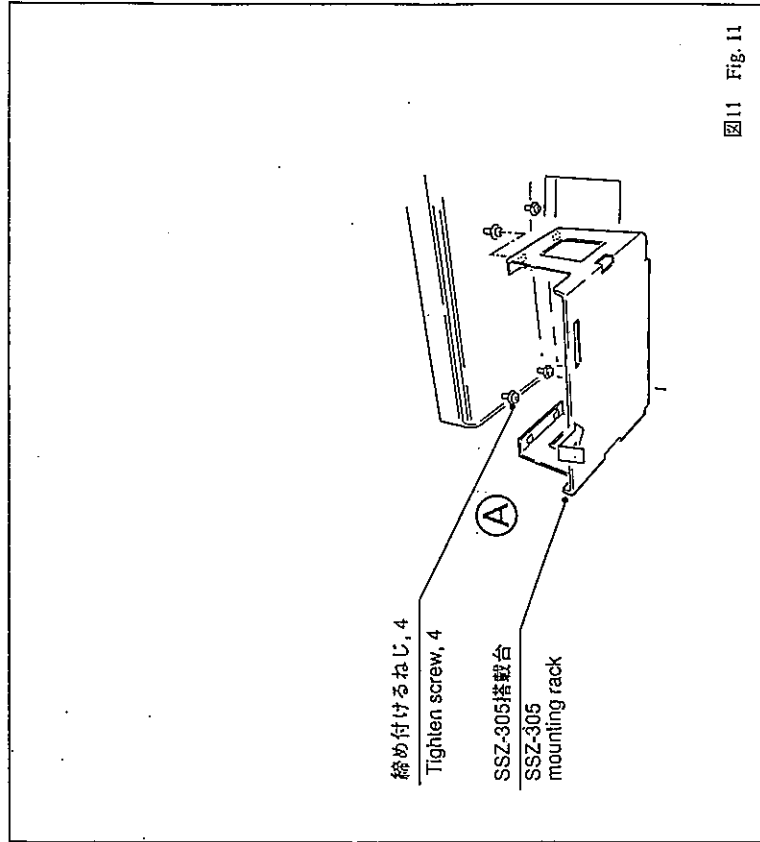
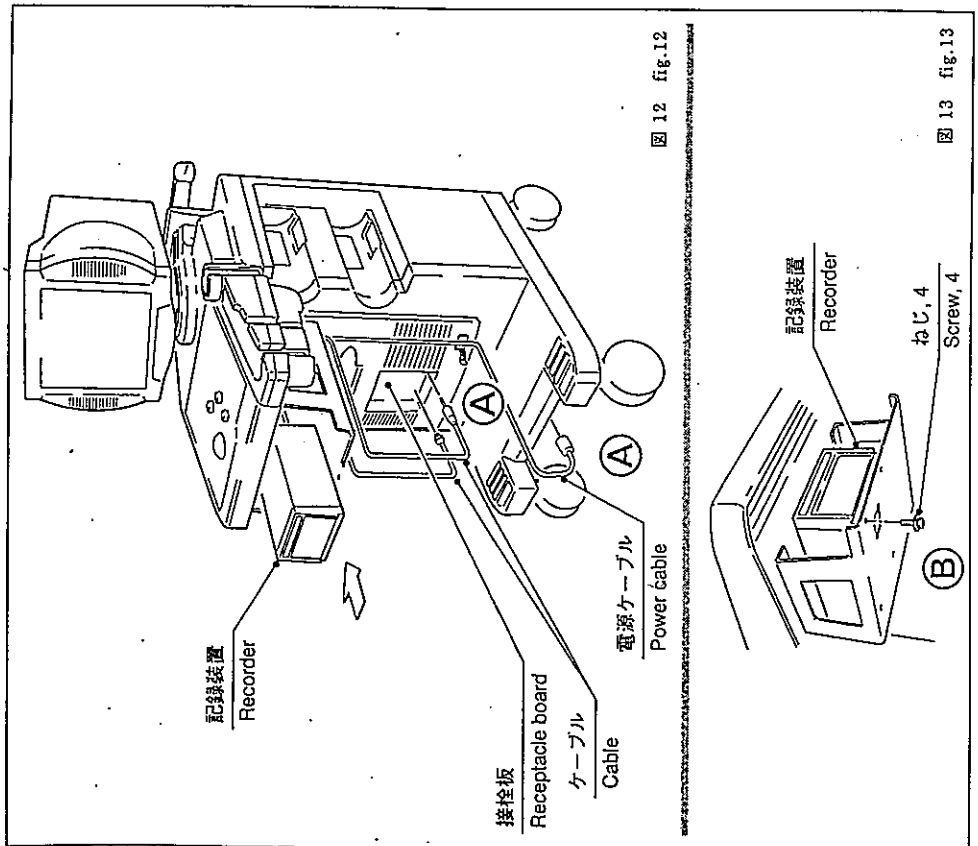


図11 Fig.11

MS5-0729

- ※ SSZ-305搭載台に記録装置を搭載しない場合は、(15)~(16)の作業は不要。
- (15) 記録装置のケーブルと電源ケーブルを、それぞれフロントカバーの接検板と電源ユニットの接検板に接続する。(図12 ㊸)
- (16) 記録装置をねじ4本で搭載台に取り付ける。(図13 ㊹)

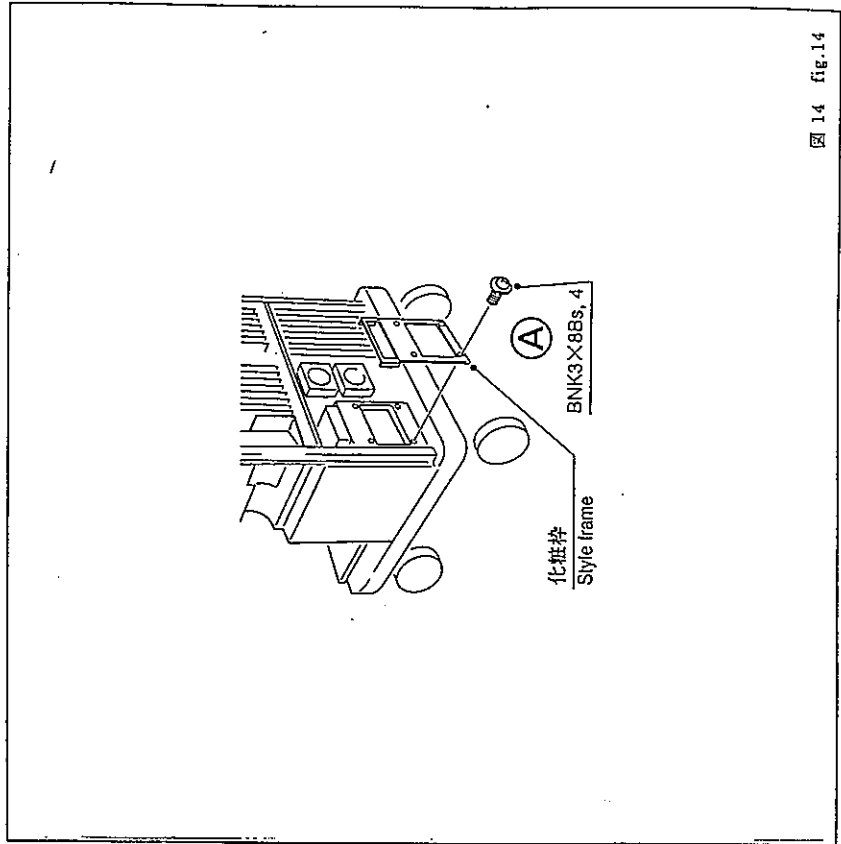
- ※ Unless recorder is mounted on SSZ-305 mounting rack, it is unnecessary to perform Operations (15) and (16) below.
- (15) Plug both recorder and power cables, respectively, in receptacle boards on front cover and in power supply unit. (㊸ in Fig. 12)
- (16) Use 4 screws to mount recorder onto mounting rack. (㊹ in Fig. 13)



MS5-0729

- (17) 付属化粧枠を、付属ねじ4本でデータ管理ユニットに取り付ける。(図中 ㊺)

- (17) Use four accessory screws to mount accessory style frame onto data management subsystem unit. (㊺ in Fig.)



MS5-0729

04 カバーの取り付け方法  
Mounting of Cover

※ カラープリンタ搭載台(MP-FX1700-2)の無い装置は(2)~(8)の作業は不要

- (1) リアカバーを、ねじ6本で取り付ける。(図中㊸)
- (2) 搭載台(下部)を、取り外しと逆の手順で取り付ける。(図中㊸)
- (3) 搭載台(上部)を、取り外しと逆の手順で取り付ける。(図中㊸)
- (4) 記録装置を、取り外しと逆の手順で、ねじまたはベルトで固定する。(図中㊸)

※ Operations (2) thru (8) are not required for equipment without color printer rack (MP-FX1700-2).

- (1) Use 6 screws to mount rear cover. (㊸ in Fig.)
- (2) Reversely follow removal steps to install color printer rack (lower half). (㊸ in Fig.)
- (3) Reversely follow removal steps to install color printer rack (upper half). (㊸ in Fig.)
- (4) Reversely follow removal steps to install recorder onto mounting rack with screws or belt. (㊸ in Fig.)

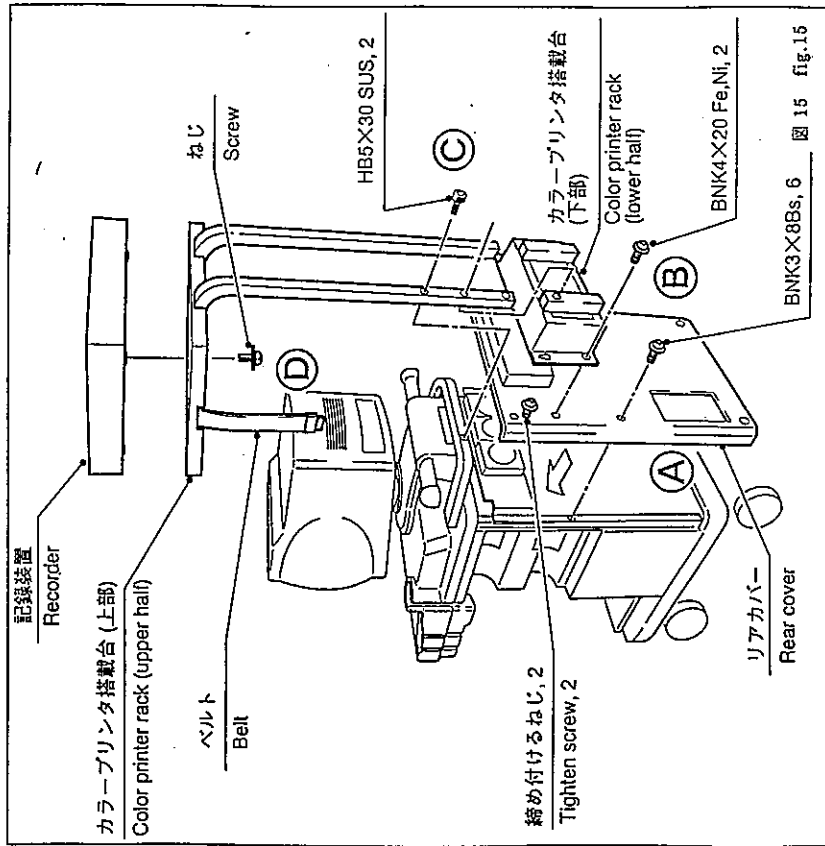


図 15 fig.15

- (5) 信号ケーブルと電源ケーブルのコネクタを、記録装置背面にそれぞれ接続する。(図中㊸)
  - (6) 電源ケーブルを、図の4か所のクランプに固定していく。(図中㊸)
  - (7) 信号ケーブルを、図の2か所のクランプに記録装置側から固定していく。(図中㊸)
  - (8) ㊸の位置で余ったケーブルを取り付け金具と補強パイプの間に押し込む。(図中㊸)
- (5) Plug both signal and power cable connectors in recorder on the back. (㊸ in Fig.)  
 (6) Secure power cable with clamps at 4 illustrated locations. (㊸ in Fig.)  
 (7) Secure signal cable with clamps at 2 illustrated locations sequentially on the recorder side, first. (㊸ in Fig.)  
 (8) Push excess cable between mounting hardware and reinforcement pipe at Location ㊸. (㊸ in Fig.)

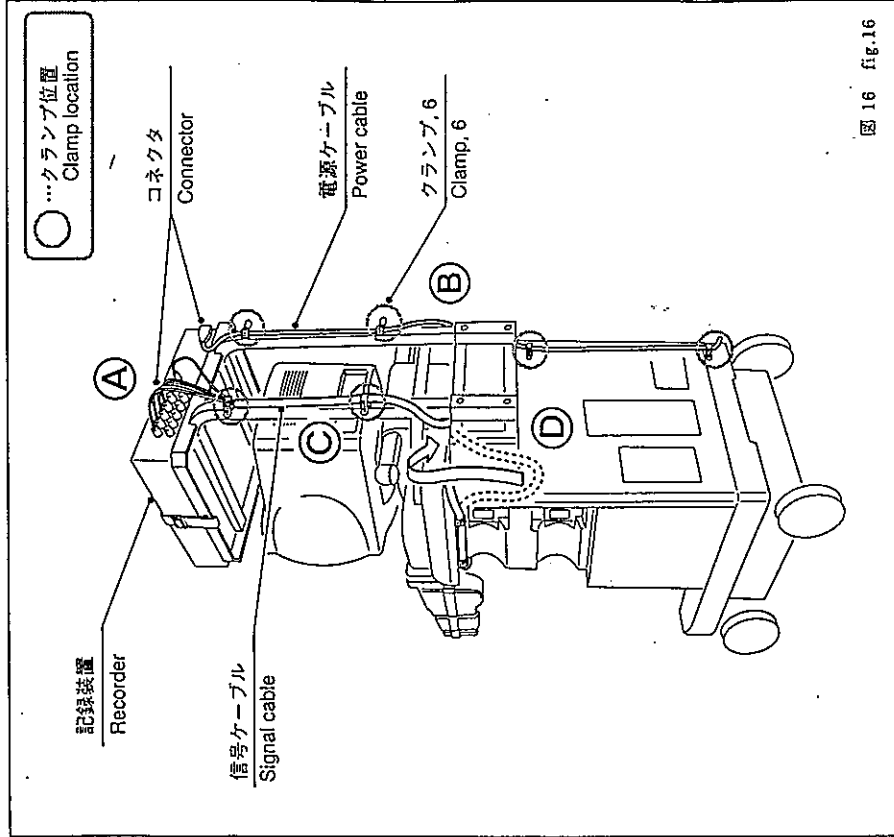


図 16 fig.16



**EU-9074B 据付要領書**  
**INSTALLATION PROCEDURES**

この据付要領書は、EU-9074B の納品等の際、据付の資料としてご使用ください。

These installation procedures are provided for reference in installation of EU-9074B.

「新VOL.1以外：EU-9074BとDMS-1700を組合わせて使用する場合は注意事項」。  
 DMS-1700を使用する場合は、Ver2.5以降のものを使用ください。  
 ASU-1000BでVOL.のスクリーンをして、マルチフレームとしてDMSに画像取り込みさせ、  
 DICOMでネットワークかMOに出力させた際、従来のDMS-1700Ver2.0及びそれ以前を用い  
 ると、Angular Stepという情報がDICOMデータに付加されないため、後でその画像データを使  
 った3D再構築しようとしても、空間的に正しく処理できない。との不具合が発生します。この不  
 具合は、DMS-1700Ver2.5により改善されます。  
 なお、新VOL.1以外を単独でDMSにデータを取り込みますに使用する際は全く問題は発生致しませ  
 ず。

Note  
 In case of using Data Management Subsystem DMS-1700 with this Volume mode unit  
 EU-9074B to acquire 3D slice data including angular step information for 3D image  
 reconstruction, the version of the DMS-1700 should be Ver.2.5 and above.  
 For the purpose other than 3D image reconstruction, DMS-1700 of Ver.1.6 or 2.0 can be  
 used without trouble.

△注意  
 ■ 装置の据付作業または改造作業は、有資格者に限られる。  
 ■ 装置を設置する場所の環境条件および電源設備は、SSD-1700取扱説明書の記載条件に  
 よる。  
 ■ 指定された機種以外のオプション機器は、取り付けられないこと。

△ CAUTION  
 ■ This system must be installed or modified only by the qualified personnel.  
 ■ The environmental conditions for the place of installation of the SSD-1700  
 system and the specifications of the power supply must satisfy the requirements  
 stated in the instruction manual.  
 ■ Do not install optional equipment of other models.

**目次**      **CONTENTS**

1. 必要な工具	1. Tool required
2. 構成部品リスト	2. Components list
3. カバーの取り外し方法	3. Removing of Covers
4. PC板の取り付け方法	4. Mounting of PC board
5. ラベルの貼り付け方法	5. Mounting of Label
6. JB-242の取り付け方法	6. Mounting of JB-242
7. ケーブルハンガールの取り付け方法	7. Mounting of Cable Hanger
8. カバーの取り付け方法	8. Mounting of Covers
9. 動作確認	9. Performance Check

1. 必要な工具 1. Tool required

下記の工具をあらかじめ揃えておいてください。

Have the tools below ready before starting the work.

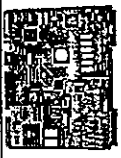
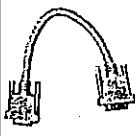

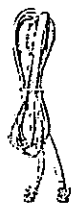

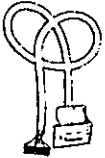
- ① プラスドライバー
- ② スタビライザー

- ① Phillips screw driver
- ② Stabilizing screw driver


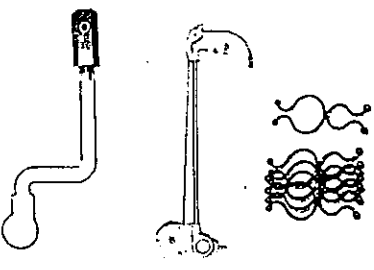



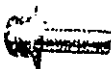
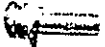
2. 構成部品リスト 2. Components list

下記の構成部品が揃っているか確認してください。

Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	EP422300		1
2	CBL107 (L-CABLE-584)		1
3	CBL108 (CO-EU-9074-A-02C7)		1
4	CBL109 (NTC-44-300-W)		1
5	CBL405 (CO-PSJ-S1700-E-05)		1
6	JB-242		1

MN2-0213 Rev. 2  
SECTION 4 DISASSEMBLING PROCEDURE

No.	品名 Parts Name	外観 Appearance	個数 Quantity
7	MP-PH1700-1		1
8	MP-HA1700-2		1
9	P-32-SSD1700-6		1
10	P-32-EU9074-1		1
11	UL-13		1
12	CNK4X8FeNi		4
13	BNK3X8		2

3. カバーの取り外し方法

記録装置 Recorder

コネクタ Connector

電源ケーブル Power cable

信号ケーブル Signal cable

クランプ Clamp

○...クランプ位置 Clamp location

※カラープリンタ搭載台 (MP-FX1700-2/-2B) のない場合は、①～⑤の作業は不要。  
 ①記録装置からコネクタをすべて取り外す。  
 ②図の6カ所のクランプから、信号ケーブルと電源ケーブルを取り外す。  
 ※Operations ① thru ⑤ are not required for equipment without color printer rack (MP-FX1700-2/-2B).  
 ① Unplug all connectors out recorder.  
 ② Remove both signal and power cables from 6 clamos illustrated .

記録装置 Recorder

ねじ Screw

ベルト Belt

カラープリンタ搭載台(上部) Color Printer rack (upper)

HB5X30SUS.6

カラープリンタ搭載台(下部) Color Printer rack (lower half)

ENK5X20FeNi2

BNK3X8Bs.6

リアカバー Rear Cover

ゆるめるねじ Loosen screw BNK5X20FeNi2

③ 記録装置をねじ4本、またはベルトを外して搭載台からおろす。  
 ④ カラープリンタ搭載台 (上部) を、六角穴付きボルト6本を外して取り出す。  
 ⑤ カラープリンタ搭載台 (下部) を、だるま穴のねじ2本をゆるめ、ねじ2本を外して取り出す。  
 ⑥ リアカバーを、ねじ6本を外して取り出す。  
 ③ Remove screws or belt, and put down recorder from mounting rack.  
 ④ Unfasten 6 hexagon-socket headed bolts and remove color printer rack (upper half).  
 ⑤ Loosen 2 screws in dowel hole and unfasten 2 screws to remove color printer rack (lower half).  
 ⑥ Unfasten 6 screws and remove read cover.

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ゆるめるねじ  
Loosen screw

SSZ-305/-307 搭載台  
SSZ-305/-307  
mounting rack

フロントカバー  
Front cover

ブッシュ  
Bush

BNK3X8,4

BNK4X12FeNi,4

SVO-9500 搭載台  
SVO-9500  
mounting rack

電源ケーブル  
Power cable

※SVO-9500 搭載台 (MP-FX1700-4) のない装置は、②~④の作業は不要。  
 ① SSZ-305/-307 搭載台を、ねじ4本をゆるめて取り外す。  
 ② 電源ユニットから SVO-9500 の電源ケーブルを取り外す。  
 ③ SVO-9500 搭載台を、ねじ4本を外して取り外す。  
 ④ フロントカバーを、ブッシュ4個を外し、ねじ4本を外して取り外す。

※ Operations ② and ④ are not required for equipment without SVO-9500 mounting rack (MP-FX1700-4).  
 ① Loosen 4 screws and remove SSZ-305/-307 mounting rack.  
 ② Disconnect SVO-9500 power cable from power supply unit.  
 ③ Unfasten 4 screws and remove SVO-9500 mounting rack.  
 ④ Remove 4 bushes and unfasten 4 screws. Then, remove front cover.

MS5-0772

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記録装置  
Recorder

SSZ-305/-307 搭載台  
SSZ-305/-307  
mounting rack

ねじ  
Screw, 4

記録装置  
Recorder

接続板  
Receptacle board

ケーブル  
Cable

電源ケーブル  
Power cable

※SSZ-305/-307 搭載台に記録装置が搭載されていない場合は、①~④の作業は不要。  
 ① 記録装置を固定しているねじ4本を取り外す。  
 ② フロントカバーの接続板に接続されている記録装置のケーブルを、すべて取り外す。  
 ③ 記録装置の電源ケーブルを、電源ユニットの接続板から取り外す。  
 ④ 記録装置を、搭載台から取り外す。

※ Unless recorder is mounted on SSZ-305/-307 mounting rack, it is unnecessary to perform Operations ① thru ④ below.  
 ① Unfasten 4 screws, with which recorder is secured.  
 ② Remove all recorder cables plugged in receptacle board on front cover.  
 ③ Unplug recorder power cable out of receptacle board on power supply unit.  
 ④ Remove recorder from mounting rack.

MS5-0772

4. PC 板の取り付け方法

4. Mounting of PC board

PC 板抜き差し工具2  
PC board push-in/  
pull out tool2

① ファンケーブルのコネクタ (P703) を取り外す。  
② PC 板固定金具2本を、ねじ4本を取り外して取り外す。  
③ PC 板抜き差し工具2個を、PC 板固定金具の図の位置裏側にクランプする。  
④ Unplug fan cable connector (P703).  
⑤ Unfasten 4 screws and remove two PC-board securing.  
⑥ Remove 2 PC board push-in / pull-out tool from clamp on the back position illustrated below.

BNK4X10.4  
PC 板固定金具2  
PC board securing hardware,2

④ 下側の左から2番目の空きスロットへPC板(EP4223)をいれる。  
⑤ P-32-EU9074-1の"223"を"192"の上に貼りつける。(残りは不要)  
④ Put the PC board (EP4223) in the unoccupied second slot from the left side at the bottom.  
⑤ Paste the P-32-EU9074-1 "223" over the "192". (The rest is not needed)

PC 板(EP4223)  
PC Board (EP4223)  
223

PC 板抜き差し工具2  
PC Board pull-out / push-in tool,2

⑥ PC 板抜き差し工具2個のツメを PC 板スロット手前の角穴に引っ掛け、図のように PC 板(EP4223)を確実に押し込む。  
⑦ PC 板抜き差し工具2個を、PC 板固定金具の図の位置裏側にクランプする。  
⑧ ファンケーブルのコネクタ(P703)を接続する。  
⑥ Put 2 claws of PC board pull-out/push-in tool on square hole in front of PC board slot and securely push in PC board (EP4223) as illustrated  
⑦ Clamp 2 pieces of PC board push-in / pull-out tool on the back of PC board securing hardware at locations illustrated.  
⑧ Plug in fan cable connector (P703).

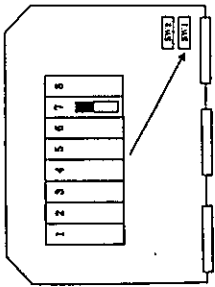
PC 板固定金具2  
PC board securing Hardware,2  
BNK4X10.4  
PC 板抜き差し工具2  
PC Board pull-out / push-in tool,2

⑨ CBL108をEP4268(J901)とEP4223(SVJ6)に接続する。  
⑩-1 CBL109をEP4223(SVJ1)とEP3753(J313)に接続する。  
※ 余ったケーブルは束ねてEP3908とEP3909の間に収める。  
⑩ Connect the CBL108 to the EP4268 (J901) and the EP4223 (SVJ6).  
⑩-1 Connect the CBL109 to the EP4223 (SVJ1) and the EP3753 (J313).  
※ Bundle the remaining cable and store between the EP3908 and the EP3909.

EP4268  
CBL109  
CBL108  
EP4223

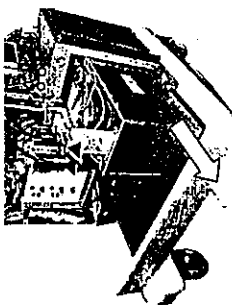
⑩ EP4268\*\*のDIPスイッチ(SW1)の7をONにする。

⑩ Set the 7 of DIP switch(sw1) on EP4268\*\* to ON.



⑪ ネジ2本を外して、DMSユニットを前面に引き出す。

⑪ Remove the two screws, then pull out the DMS unit to the front.

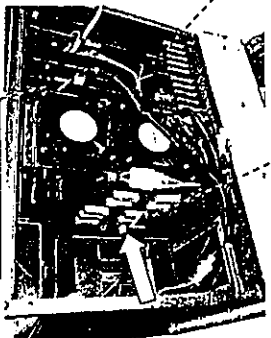


⑫ CBL405 を各コネクタに接続する。

- EP4223→SVJ5
- EP4203→J250

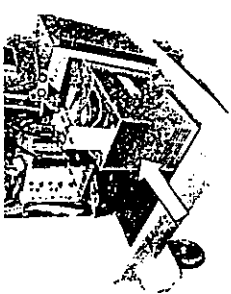
⑫ Connect the CBL405 to the connectors.

- EP4223→SVJ5
- EP4203→J250



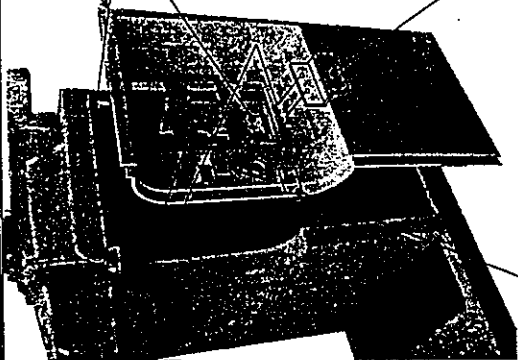
⑬ DMS ユニットを⑩の逆の手順でねじ2本で取り付ける。

⑬ Install the DMS unit with the two screws by reversing the procedure in ⑩.



5. ラベルの貼り付け方法

5. Mounting of Label



① BK3X8.8

② P-32-SSD1100-2B

③ 右サイドカバーをねじ8本を外して取り外す。

③ Right side cover is removed by unscrewing 8 screws.

④ 右サイドカバー裏面に取り付けられている板金(USI-140#33)をねじ2本を外して取り外す。

④ Metal plate (USI-140#33) on the back of the right side cover is removed by unscrewing 2 screws.

⑤ 右サイドカバーに貼り付けられているラベル(P-32-SSD1100-2B)を取り外す。

⑤ Label (P-32-SSD1100-2B) attached to the right side cover is removed.

⑥ ③で取り外した位置に、ラベル(P-32-SSD1700-6)を貼り付ける。

⑥ Label (P-32-SSD1700-6) is attached to the location where it was removed in ③.

⑦ USI-140 #33

⑧ P-32-SSD1700-6

CONTROL

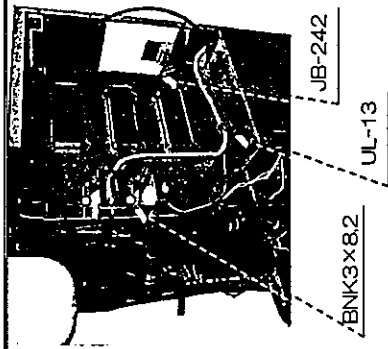
① Unfasten eight screws and remove the right side cover.

② Unscrew and remove the metal plate (USI-140#33) attached to the right side cover on the back.

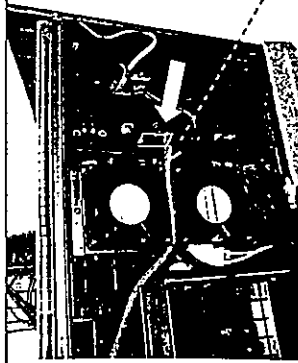
③ Remove the label (P-32-SSD1100-2B) attached to the right side cover.

④ Then, attach another label (P-32-SSD1700-6) to the right side cover at the location from which the former has been removed as referred to above.

6. JB-242 の取り付け方法

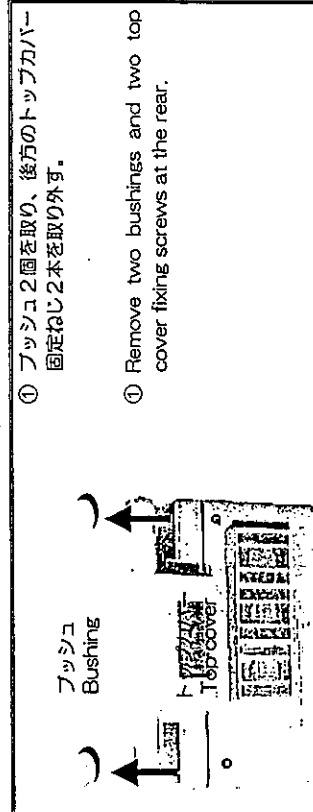


- ① JB-242 をねじ 2 本 (BNK3x8) で表側の右側面に取り付け。  
※JB-242 の切り欠きのある面を下にすること。
- ② 左図の通りケーブルを引き回し、UL-13 をプローブコネクタ左下部に取り付けてクランプする。
- ① Mount the JB-242 to the right side of body with two screws (BNK3x8).  
※With a notched side of JB-242 down.
- ② Put a cable clamp (UL-13) at the left bottom of probe connector, then clamp the cable in accordance with a figure of left.

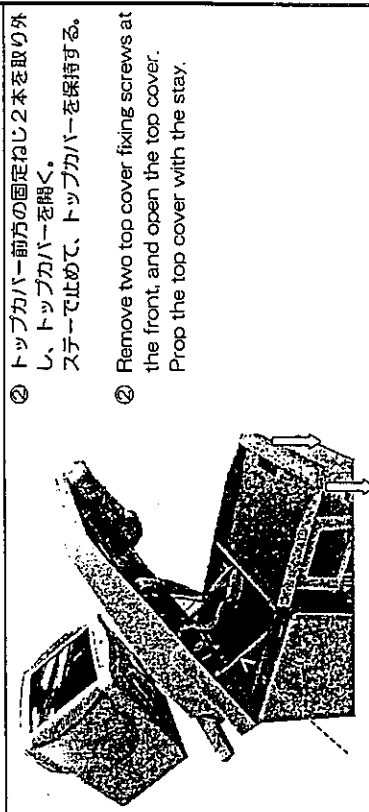


- ③ JB-242 のコネクタを EP4223 に接続する。
- ④ Connect the JB-242 to the EP4223

7. ケーブルハンガーの取り付け方法

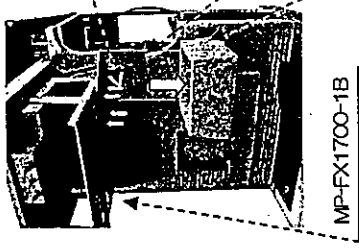


- ① ブッシュ 2 個を取り、後方のトップカバー固定ねじ 2 本を取り外す。
- ① Remove two bushings and two top cover fixing screws at the rear.



- ② トップカバー前方の固定ねじ 2 本を取り外し、トップカバーを開く。  
ステーで止めて、トップカバーを保持する。
- ② Remove two top cover fixing screws at the front, and open the top cover.  
Prop the top cover with the stay.

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⑨ MP-PH1700-1#1 を MP-FX1700-1B にねじ4本で取り付ける。  
⑩ フローホルダMP-PH1700-1#2をMP-PH1700-1#1に取り付ける。

⑨ CNK4×8.4


⑨ Use four screws to install MP-PH1700-1#1 onto the MP-FX1700-1B.

⑩ Install Probe Holder MP-PH1700-1#2 onto the MP-PH1700-1#1.

MP-PH1700-1#1

MP-FX1700-1B

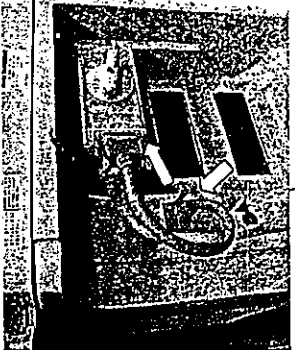
⑩ MP-PH1700-1#2



⑩ ケーブルハンガー(L-KI-630U)をトップカバーに取り付ける。

⑩ Install the cable hanger (L-KI-630U) onto the top cover.

L-KI-630U



⑩ CBL107 を ASU-1000B/C コネクタと本体側へ接続する。

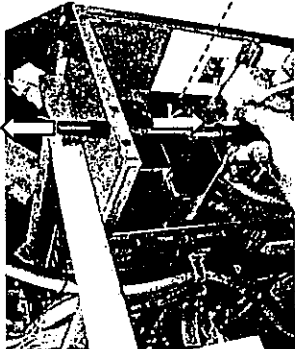
⑩ Plug the CBL107 in the ASU-1000B/C connector and in the body.

CBL107

-16-

MS5-0772

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取り外す金具(PSC-123-1#7)  
Removing fixture (PSC-123-1#7)

③ ケーブルハンガー取付金具(PSC-123-1#7)をネジを外して取り外す。この金具は今後不要。

③ Unscrew and remove the cable-hanger mounting hardware(PSC-123-1#7), which is no longer necessary.

取り外すねじ  
Unfasten screw



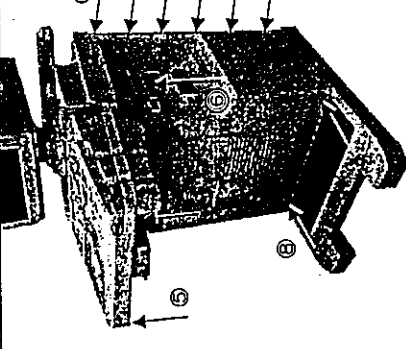
③で外したねじ  
unfastened screw in ③

MP-HA1700-2#4

④ ケーブルハンガー取付金具(MP-HA1700-2#4)を③で外したネジで仮固定する。

④ Using the screw unfastened in ③ above, tentatively secure the cable hanger mounting hardware(MP-HA1700-2#4).

MP-HA1700-2#4



⑤ トップカバーを閉めてねじ2本で固定する。

⑥ ケーブルハンガ固定金具④で仮固定したねじで固定する。

⑦ 右サイドカバ-をねじ8本で取り付ける。

⑧ フロントカバ-をねじ4本で取り付ける。

⑤ Close the top cover and secure it with two screws.

⑥ Using the screw tentatively secured in ④ above, secure the cable hanger fixing hardware.

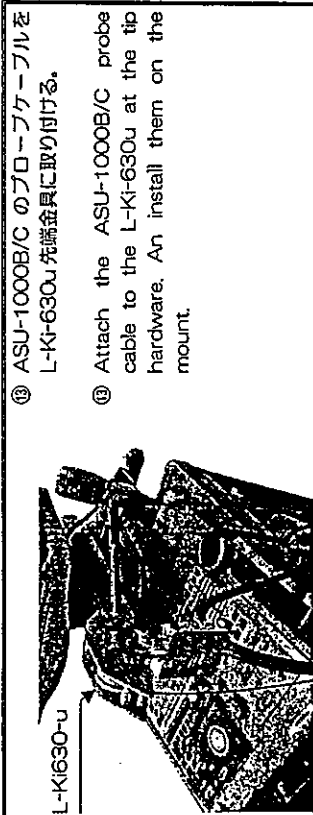
⑦ Use eight screws and install the right side cover.

⑧ Use four screws to install the front cover.

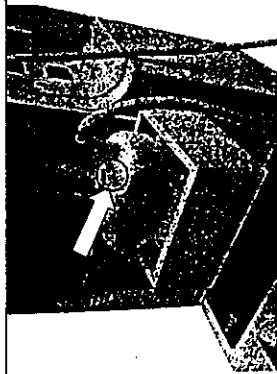
-15-

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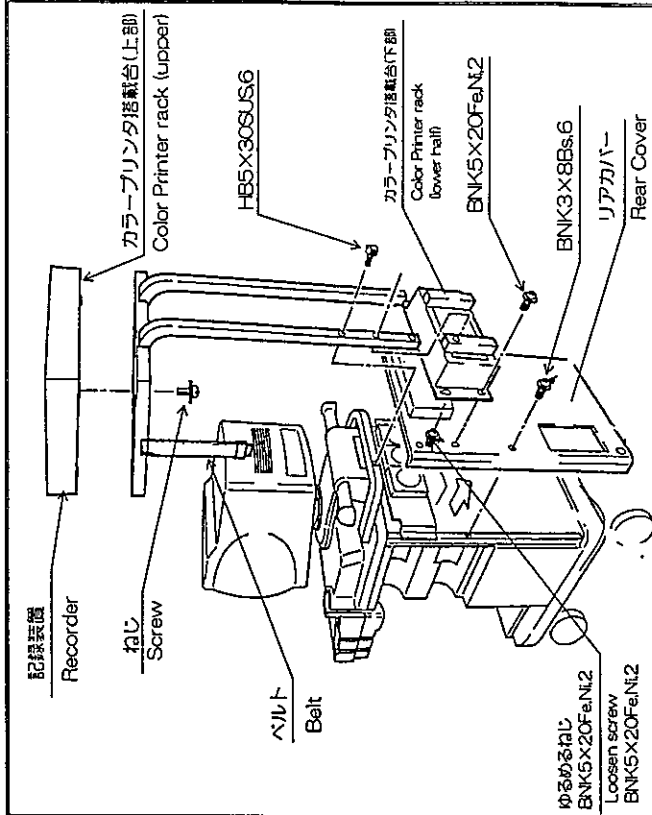
- ③ ASU-1000B/C のプローブケーブルを L-KI-630u 先端金具に取り付ける。
- ③ Attach the ASU-1000B/C probe cable to the L-KI-630u at the tip hardware. An install them on the mount.



- ④ L-KI-630u の先端フックを ASU-1000B/C のフックの取付部に取り付ける。
- ④ Hook the L-KI-630u at the tip onto the ASU-1000B/C at the hook.

8. カバーの取り付け方法

8. Mounting of Cover



※カラープリンタ搭載台 (MP-FX1700-2/2B) の無い装置は②～④の作業は不用

- ① リアカバーを、ねじ6本で取り付け。
- ② 搭載台 (下部) を、取り外しと逆の手順で取り付け。
- ③ 搭載台 (上部) を、取り外しと逆の手順で取り付け。
- ④ 記録装置を、取り外しと逆の手順で、ねじまたはベルトで固定する。

※ Operations ② thru ④ are not required for equipment without color printer rack (MP-FX1700-2/-2B).

- ① Use 6 screws to mount rear cover.
- ② Reverse follow removal steps to install color printer rack (lower half).
- ③ Reverse follow removal steps to install color printer rack (upper half).
- ④ Reverse follow removal steps to install recorder onto mounting rack with screws or belt.

記録装置 Recorder

コネクタ Connector

電源ケーブル Power cable

信号ケーブル Signal cable

クランプ6 Clamp.6

○...クランプ位置 Clamp location

- ⑤ 信号ケーブルと電源ケーブルのコネクタを、記録装置背面にそれぞれ接続する。
- ⑥ 電源ケーブルを、図の4ヶ所のクランプに固定していく。
- ⑦ 信号ケーブルを、図の2ヶ所のクランプに記録装置側から固定していく。
- ⑧ 余ったケーブルを取付金具と補強パイプの間に押し込む。
- ⑨ Plug both signal and power cable connectors in recorder on the back.
- ⑩ Secure power cable with clamps at 4 illustrated locations
- ⑪ Secure signal cable with clamps at 2 illustrated locations sequentially on the recorder side, first.
- ⑫ Push excess cable between mounting hardware and reinforcement pipe at Location.

9. 動作確認

9. Performance check

EU-9074Bの接続が完了したらASU-1000B/Cを接続し以下の要領で動作を確認すること。  
When the EU-9074B connection is complete, connect the ASU-1000B/C and check operations with the instructions below.

EU-9074Bの接続が完了したらASU-1000B/Cを接続し以下の要領で動作を確認すること。  
装置の電源を入れ、以下の手順でDMSを起動させる。

NEW PAT sw → DMS 画面でIDに任意の文字を入力 → Mark REF sw → DMS sw  
STEER/VOL swを押すとB画像上にVOL AREAが表示されるのでトラックが、-1操作で図1のようにエリアを近距離に移動する。

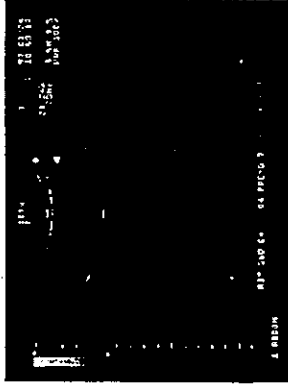


図1 B画像の図

Fig.1 Image B

Once the EU-9074B has been completely connected, plug in the ASU-1000B/C and make certain that it is operating properly in accordance with the following procedure.  
Power on the equipment and start up the DMS, following the steps given below.  
NEWPAT switch → Enter an arbitrary character in ID on the DMS screen. →MarkREF switch → DMS switch.

Press the STEER/VOL switch and Area VOL will be displayed on Image B. Then, operate the track ball and move the area to the short distance.



図2 VOL画像の図

Fig.2 Image VOL

ACQUIRE sw を押すとスキャン中のB画像がリアルタイムで表示され、画像の取り込みが完了すると図2のようなVOL画像が表示されること。

Press the ACQUIRE switch and Image B being then scanned will be displayed on a real-time basis. Once the image has been completely taken in, image VOL will be displayed as shown in Fig.2.

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Rev.1

EU-9074Bの接続が完了したら ASU-1000B/C を接続し以下の要領で動作を確認すること。  
 When the EU-9074B connection is complete, connect the ASU-1000B/C and check operations with the instructions below.

装置の電源を投入後、STEER/VOL sw を押すと B 像上に図1の様な VOL エリアが表示されること。

After turning on the equipment power, press the STEER/VOL switch on the operation panel and confirm the VOL AREA LINE will be displayed on B mode image as shown in Fig.1.

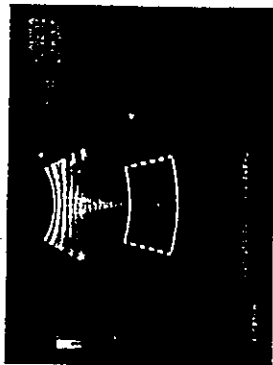


図1 B画像の図  
 Fig.1 Image B

ACQUIRE sw を押すとスキャン中のB画像がリアルタイムで表示され、画像取り込みが完了すると図2のようなVOL画像が表示されること。

By pressing the ACQUIRE switch, the acquiring B-mode images are displayed in real-time during the scanning. Image acquisition has been completed, VOL-mode image will be displayed as shown in Fig.2.

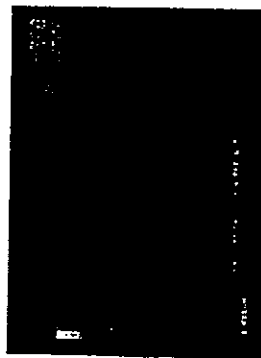


図2 VOL画像の図  
 Fig.2 Image VOL

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目次 CONTENTS

1. 据付の準備	1. The preparation of installation
2. 装置の横割し 2人以上で行うこと	2. Throwing the equipment left- sideways Do by two or more persons
3. MP-FX1700-8 の取り付け方法	3. Installing MP-FX1700-8

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MP-FX1700-8 据付要領書  
INSTALLATION PROCEDURES

この据付要領書は、MP-FX1700-8 の納品等の際、据付の資料としてご使用ください。  
必要な工具：プラスチックドライバー、モンキレンチ、ハンマー、ねじロック  
(あらかじめ用意すること)

These installation procedures are provided for reference in installation of  
MP-FX1700-8. Tool required : Phillips screw driver , Adjustable angle wrench,  
Hammer and Screw locking  
( Provide them beforehand )

注意

- 装置の据付作業または改造作業は、有資格者に限られる。
- 装置を設置する場所の環境条件および電源設備は、取扱説明書の記載条件による。
- 探触子の接続は、取扱説明書を参照すること。
- 指定された機種以外のオプション機器は、取り付けしないこと。

CAUTION

- This system must be installed or modified only by the qualified personnel.
- The environmental conditions for the place of installation of the MP-FX1700-8 system and the specifications of the power supply must satisfy the requirements stated in the instruction manual.
- See the instruction manual for the connection of the probe.
- Do not install optional equipment of other models.

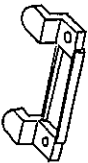





Total Page : 8

付属品リスト

List of Accessory Parts

下記の付属品がそ揃っているか確認してください。

Check to assure all the below-listed accessory parts to have been included in the shipping case.

No.	品名 Parts Name	外観 Appearance	個数 Quantity
1	アダプタ (IMP-FX1700-8) Adapter (IMP-FX1700-8)		1
2	ケーブルクランプ (IMP-FX1700-8#4) Cable clamp (IMP-FX1700-8#4)		1
3	スパナ (367a32c125用) Spanner (for 367a32c125)		1
4	付属ねじ (B16X45) Accessory screw (B16X45)		2
5	ばね座金 (SW16) Spring washer (SW16)		2
6	付属ねじ (B16X20) Accessory screw (B16X20)		2

1. 梱包の準備

1. The preparation of installation

下表にあるオプション類を取り外す。 後続キヤスター自在ヒキットを取付後、再び取り付ける。  
Remove the optional devices in under list. Mount the ones again, after installing

	品名 Parts name
1	モニター The monitor
2	搭載台 : MP-FX1700-1* The loading rack : MP-FX1700-1*
3	MP-FX1700-1*上のオプション The optional device on the MP-FX1700-1*
4	搭載台 : MP-FX1700-2* The loading rack : MP-FX1700-2*
5	MP-FX1700-2*上のオプション The optional device on the MP-FX1700-2*
6	搭載台 : MP-FX1700-4* The loading rack : MP-FX1700-4*
7	MP-FX1700-4*上のオプション The optional device on the MP-FX1700-4*
8	ASU-1000B用プローブホルダ The probe holder for ASU-1000B

注意

- ・電源ケーブルをコンセントより抜く。
- ・プローブを装置から外す。
- ・ケーブルハンガーを装置から外す。

CAUTION

- ・ Pull out the power supply cable from the receptacle.
- ・ Remove probes from the equipment.
- ・ Remove cable hanger from the equipment.

2. 装置の横倒し

注意：この作業は必ず2人以上で行うこと  
 Note: Be sure to have two persons carry out this work.

装置を五側へ倒す。  
 Throw the equipment left-sideways.

倒す方向のキャスターのブレーキ (前) は、あらかじめ必ず「ON」にしておく。  
 Put the brake (front) on the caster "ON" the side of the equipment to be placed face downward in advance.

装置を倒す場所に、柔らかい布などあらかじめ敷くこと。  
 Lay a soft cloth on a floor which the equipment is to be placed in advance.

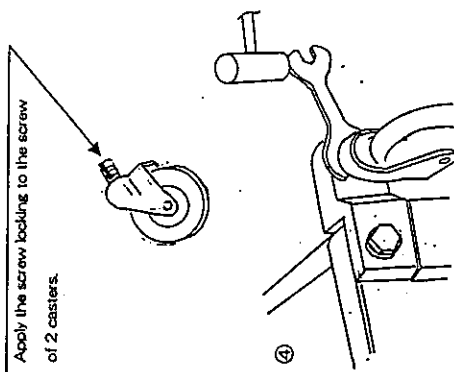
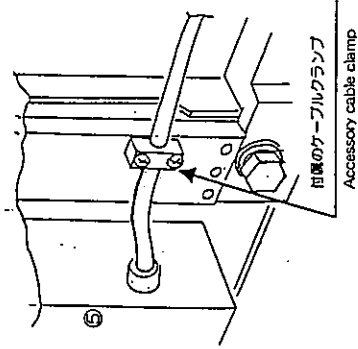
3. MP-FX1700-8の取り付け方法

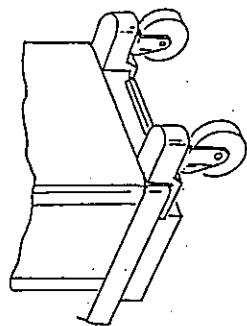
Rev.1

3. Installing MP-FX1700-8

<p>①</p>	<p>MP-FX1700-8の取り付け方法                  Installing MP-FX1700-8</p> <p>①固定金具を取り外す。                  ②後輪キャスター、2個を付属のスパナとハンマーを用いて取り外す。                  (注) 付属スパナをハンマーでたたく際、強くたたき過ぎるとスパナが破壊することが有るため、少しづつたたくこと。</p> <p>① Remove the fixing plate.                  ② Remove 2 rear casters using the accessory spanner.                  (Note) Excessively harsh hammer strokes against the accessory spanner may result in damage to the spanner.                  Be sure to strike the spanner gradually.</p>
<p>②</p>	<p>③ MP-FX1700-8を付属ねじ (B16×45) 2本とばね座金 (SW16) 2個を使いモンキスパナで取り付ける。                  付属ねじ (B16×45) にはねじロックを塗布する。</p> <p>③ Using the adjustable angle wrench, fix MP-FX1700-8 with 2 accessory screws (B16×45) and 2 spring washers (SW16).                  Apply the screw locking to 2 accessory screws (B16×45).</p>
<p>③</p>	<p>ねじロックを付属ねじ (B16×40) 2本に塗布する。                  Apply the screw locking to 2 accessory screws (B16×45).</p>

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<p>Rev.1</p> <p>④ 取り外したキャスター、2個とスプリングワッシャー(SW16)、2個を付属のスパナハンマーを用いて MP-FX1700-8 に取り付ける。キャスターのねじ部にはねじロックを塗布する。 注) 付属スパナをハンマーでたたく際、強くたたき過ぎるとスパナが破損することがあるため、少しづつたたくこと。</p> <p>④ Using the accessory spanner, fix 2 casters and 2 spring washers which removed at MP-FX1700-8. Apply the screw locking to the screw of 2 casters. Note) Excessively harsh hammer strokes against the accessory spanner may result in damage to the spanner. Be sure to strike the spanner gradually.</p>	<p>⑤ 電源ケーブルを付属のケーブルクランプと付属ねじ(BNK4X20) 2本を使って MP-FX1700-8 に固定する。</p> <p>⑤ Using the accessory cable clamp and 2 accessory screws (BNK4X20), fix the power cable at MP-FX1700-8.</p>
<p>ねじロックを2個のキャスターのねじに塗布する Apply the screw locking to the screw of 2 casters.</p> 	

<p>⑥ 装置を起こす。 以上で据付は完了。</p> <p>⑥ Wake up the equipment. That is all for steps of completing installation of MP-FX1700-8.</p>	
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MSS-0763

MSS-0763





MP-HA1700-1 据付要領書

MP-HA1700-1 INSTALLATION PROCEDURES

- (1) 水平アームを取り付け穴に差し込む。(図1(A))
  - (2) ケーブルハンガを水平アームの穴に差し込み、ロックノブを締め付け固定する。(図1(B))
  - (3) プローブケーブルを図のように引き回す。(図2(C))
  - (4) ケーブルハンガの角度はラチェットを押しながら調節する。(図2(D))
  - (5) パースロックをケーブルハンガの図の2か所に取り付けケーブルを固定する。(図2(E))
- ※パースロックにはケーブルが2本まで装着可能。

- (1) Insert horizontal arm into mounting hole. (A in Fig. 1)
  - (2) Insert cable hanger into hole on horizontal arm. Then, tighten lock knob to secure them. (B in Fig. 1)
  - (3) Lay out probe cable as illustrated. (C in Fig. 2)
  - (4) Adjust cable hanger to appropriate angle while pressing ratchet. (D in Fig. 2)
  - (5) Install purse locks at 2 locations as illustrated on cable hanger, and secure cable. (E in Fig. 2)
- ※Up to 2 cables may be loaded on 1 purse lock.

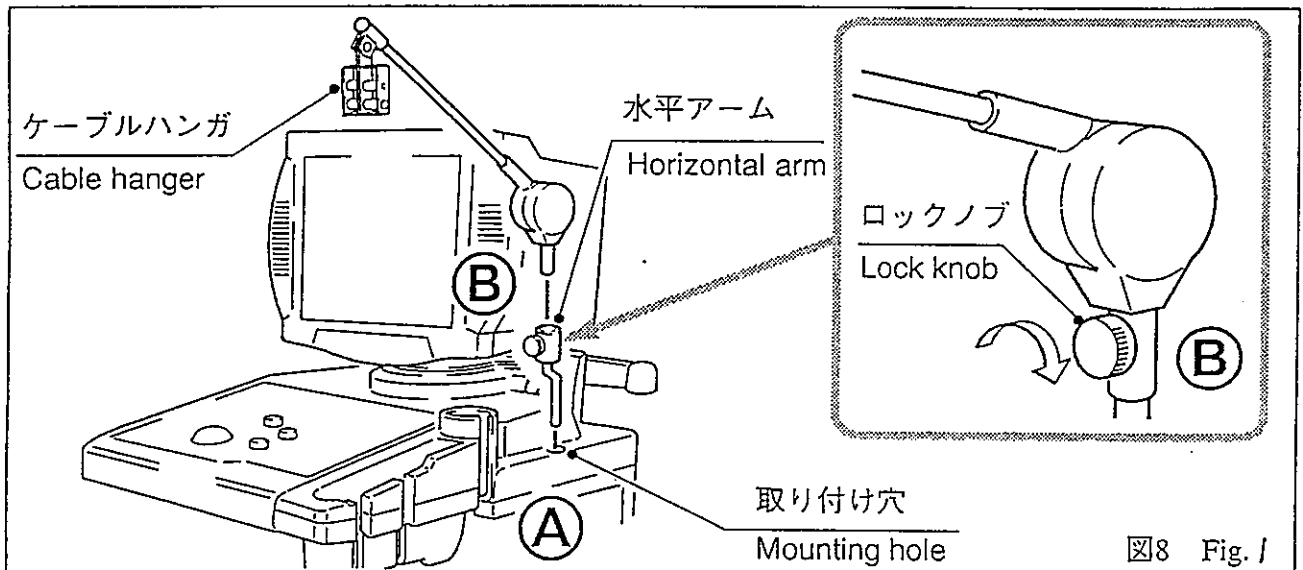


図8 Fig. 1

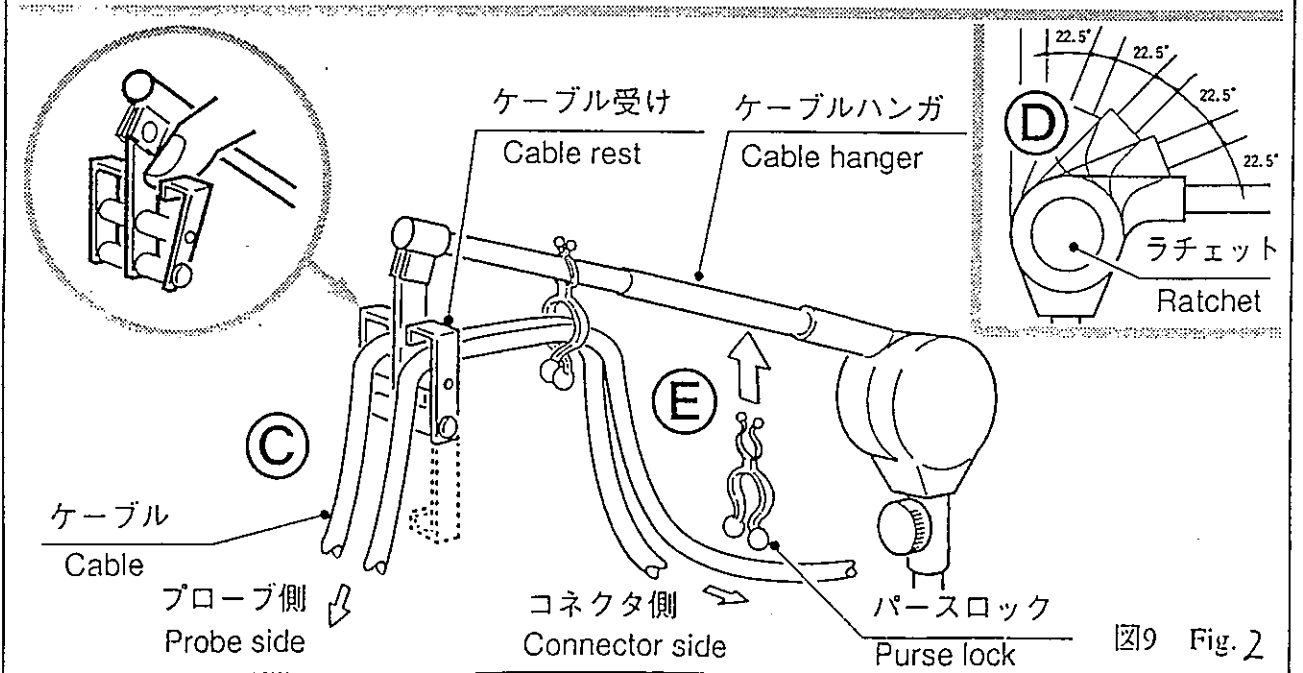


図9 Fig. 2

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**SECTION 5**

**SYSTEM BLOCK DIAGRAM**

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## 5-1 System Configuration

This ultrasound diagnostic system (SSD-1700) is configured from the following units.

- Main Body
  - PSC-126
    - Tx/Rx Unit
    - DIU Unit
    - DOPPLER Unit
    - Stabilized Power Supply  
(Low Voltage, High Voltage)
- Operation Panel
  - L-KEY-56 (Less than version 4)
  - L-KEY-56B (Version 4 and higher)
  - L-KEY-71 (Version 6 and higher)
- Trackball
  - L-TB-6
- Color TV Monitor for Observation
  - IPC-1231 (NTSC)/IPC-1231V (PAL)
- Power Supply Unit
  - PSU-S1700-1 (100 V)
  - PSU-S1700-2 (115 V)
  - PSU-S1700-3 (230 V)

### Optional Equipment

- Recording Equipments (Black and White, Color Printers)
- VCR
- Physiological Signal Display Unit
  - PEU-1700
  - PEU-1700B (Applicable to CE)
- Phased Array Sector Unit
  - EU-3037
  - EU-3037B (Version 4.3 and higher)
- Data Management Subsystem
  - DMS-1700 (Version 4 and higher)
- 3-point Foot Switch
  - MP-2614
- VOL mode Unit
  - EU-9068 (Version 4 and higher)
  - EU-9074\* (Version 6 and higher)
- CW Doppler Unit
  - EU-3038\* (Version 4 and higher)
- Computer Aided Subsystem
  - CAS-1700 (Version 4 and higher, USA only)

5-2 System Block Diagram

5-2-1 Transmission and reception

Electronic Linear/Convex sector/Phased array sector

Number of Tx/Rx circuit: 120 Channels (48 channels in Phased array sector)

Simultaneous Tx/Rx: Maximum 48 channels

Transmission

Dynamic focusing: Max 4 steps among 8 focal points.

Transmit Pulse Frequency: 2.0, 2.5, 3.0, 3.5, 3.75, 4.0, 5.0, 6.0, 7.5 MHz,  
selectable.

(Manual switching can be done by the same probe.)

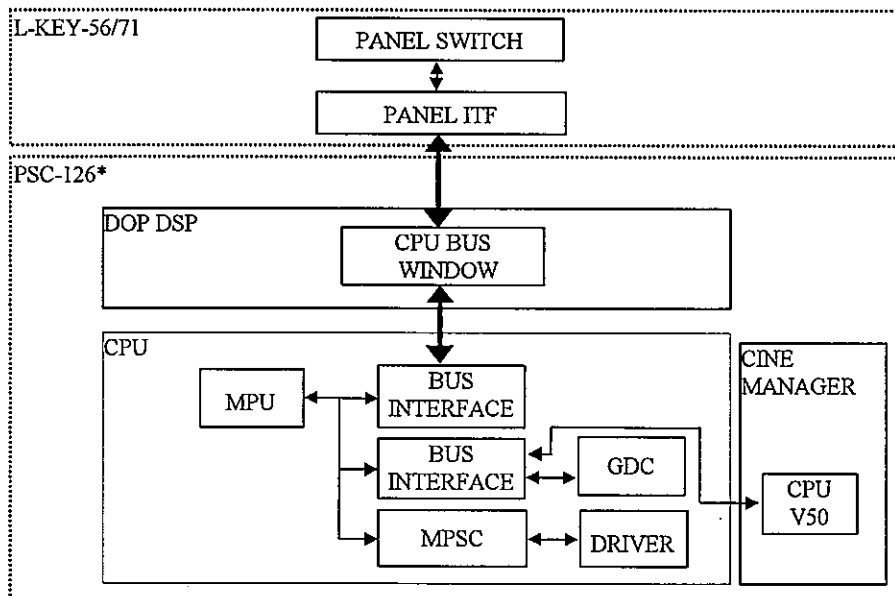
Reception

Dynamic focusing: 16 steps

Frequency: After receiving echo signals for B/W image, the band  
width is limited by Variable Band Pass Filter.

5-2-2 Control System

This equipment is controlled by a MPU with the CPU PCB mounted on it. Connections between this MPU and the panel are as shown in the following diagram.



## SECTION 5 SYSTEM BLOCK DIAGRAM

From the following page, lists containing all the PCB's included in this equipment (except the power supply unit and PCB's for external option units), as well as system block diagrams, are shown. (Refer to SECTION 6 concerning the block diagram of each PCB.)

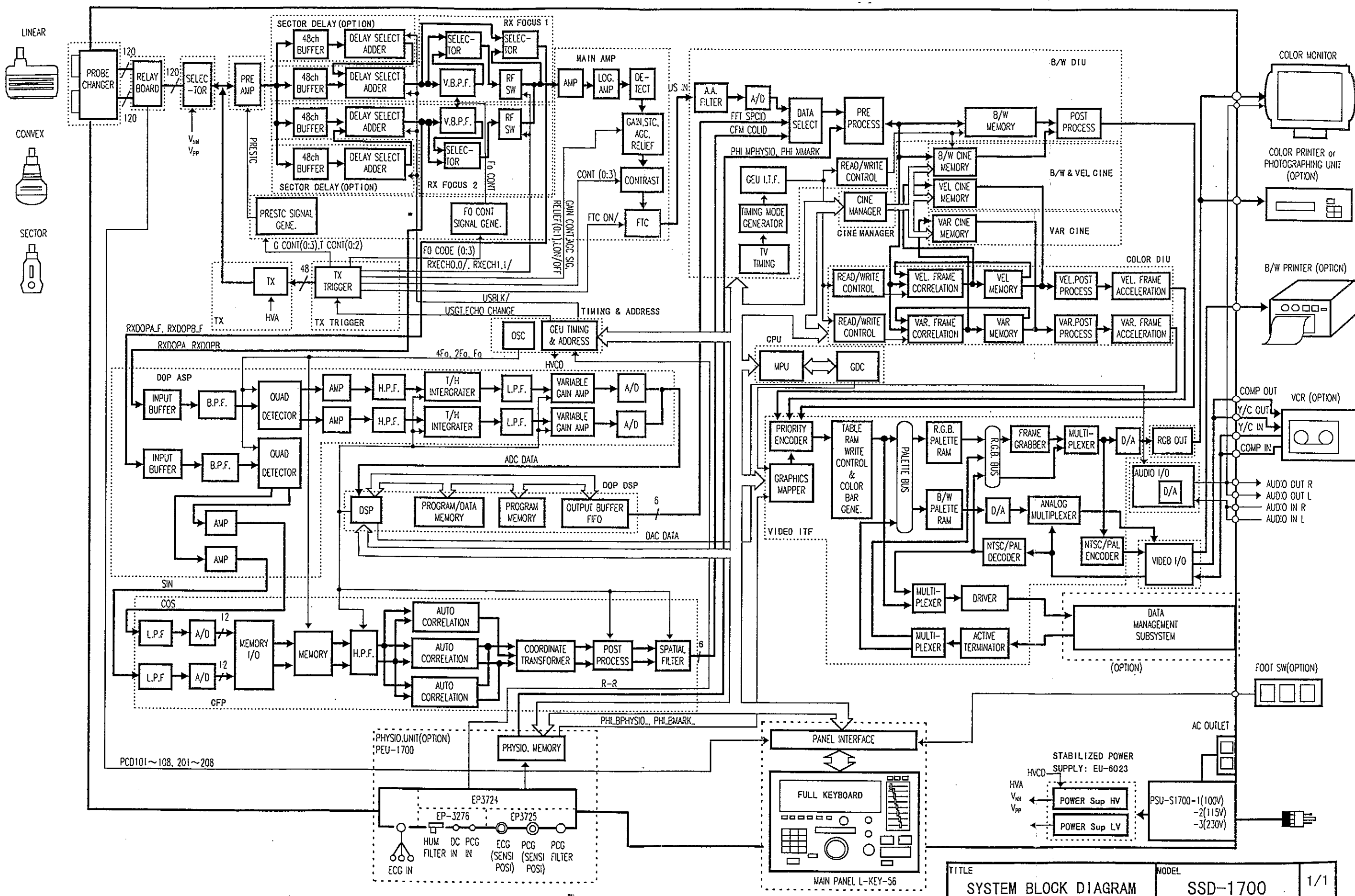
MN2-0213  
SECTION 5 SYSTEM BLOCK DIAGRAM

SSD-1700 (1/2)	MODEL	NAME	OUTLINE
PANEL	SW PANEL		
	PANEL I/F		Data is sent to CPU board, whenever panel is pressed
MAIN BODY	STC PCB		
	TX/RX UNIT		
	EP3880**	PROBE CHARGER	Probe connectors for linear/convex sector/phased array sector (120ch)x2
	EP-3746	RELAY BOARD	Selects transmission/reception signals for PROBE1 or PROBE2
	EP3961**	SELECTOR	HVS, HVS protection CCT., HVS control, L ON/OFF CCT.
	EP3962**	TX	Generation of transmission pulses for linear/convex sector/phased array sector
	EP3964**	PRE AMP	Pre-amplifier CCT., Reception of ultrasound echo signal
	EP3897**	SECTOR DELAY	Addition of Rx delay time for phased array sector
	EP3897**	SECTOR DELAY	Addition of Rx delay time for phased array sector
	EP389800	RX FOCUS1	Addition of Rx delay times for linear/convex sector/phased array sector, V.B.P.F CCT., DOP RF signal output
	EP389801	RX FOCUS2	Addition of Rx delay times for linear/convex sector/phased array sector, V.B.P.F CCT.,
	EP3899**	MAIN AMP	Amplifier, Logarithmic compression, Detector, Signal processes
	EP3900**/	DOP ASP	High frequency tuning CCT., Quadrature detector, Sample/Hold CCT., Wall motion filter, Anti-aliasing filter, A/D, Base band amplifier for color flow
	EP3949**		
	EP3802**/	CFP	12-bit A/D, Memory, auto correlation CCT.
	EP3901**		
	DIU UNIT	EP396300	TX TRIGGER
EP396301		TX TRIGGER	Generation of transmission trigger signals and GEU address, timing control for transmission
EP3950**		TIMING & ADDRESS	Standard clock generating CCT., Reference timing generating CCT., Address generating CCT.
EP3965**		MOTHER	
EP3832**		DOP DSP	FFT frequency analysis, Audio signal processing, Trackball I/F
EP3753**		CPU	Control of whole system, Generation of character and graphics
EP390700		B/W DIU (NTSC)	A/D, Pre process, Main memory, Post process, GEU I.T.F., Parameter memory, Display control, Generation of TV timing
EP390701		B/W DIU (PAL)	A/D, Pre process, Main memory, Post process, GEU I.T.F., Parameter memory, Display control, Generation of TV timing
EP3908**		CINE MANAGER	Control of write in/read out for cine memory, Counter for HEART RATE/FRAME RATE
EP390900		B/W & VEL CINE	Cine memory for B/W and velocity
EP390901	VAR CINE	Cine memory for variance	
EP3910**	COLOR DIU	Frame correlation for color flow, Image memory, Post process	



SSD-1700 (2/2)	MODEL	NAME	OUTLINE
POWER SUPPLY UNIT	EP3951**/ EP4072**	VIDEO I/F	Addition of character/graphic, Palette conversion, Color bar generation, External video IN/OUTPUT, Encoder/decoder for NTSC/PAL, Frame grabber, DMS I.T.F
	EP3916**	AUDIO I/O	D/A
	EP3917**	VIDEO I/O	Connectors
	EP3918**	RGB OUT	Connectors
	EP3952**	DIU MOTHER	
	EP3947**	HIGH VOLTAGE	Generation of high voltage (HVA, VPP, VNN)
	EP3948**	LOW VOLTAGE	Generation of low voltage ( $\pm 5V$ , $\pm 15V$ )
	PSU-SI700-1	FOR 100V	Built-in isolation transformer, Switching power supply
	PSU-SI700-2	FOR 115V	Built-in isolation transformer, Switching power supply
	PSU-SI700-3	FOR 230V	Built-in isolation transformer, Switching power supply
VIEWING TV MONITOR	IPC-1231	FOR NTSC	Color TV monitor
	IPC-1231V	FOR PAL	Color TV monitor
PHYSIOLOGICAL SIGNAL UNIT PEU-1700(OPTION)	EU-5034	PHYSIO. AMP	ECG AMP, PCG AMP, R-wave detector
	EP3725**	PHYSIO. PANEL1	
	EP-3726	PHYSIO. PANEL2	
DATA MANAGEMENT SUBSYSTEM (OPTION)	EP4049**	PHYSIO. MEMORY	A/D, physio. signal processing block for plane mode, Scroll mode display, Physio. signal storage, Physio. signal processing block for sweep mode, ECG sync. mark display
	(DMS-1700)		

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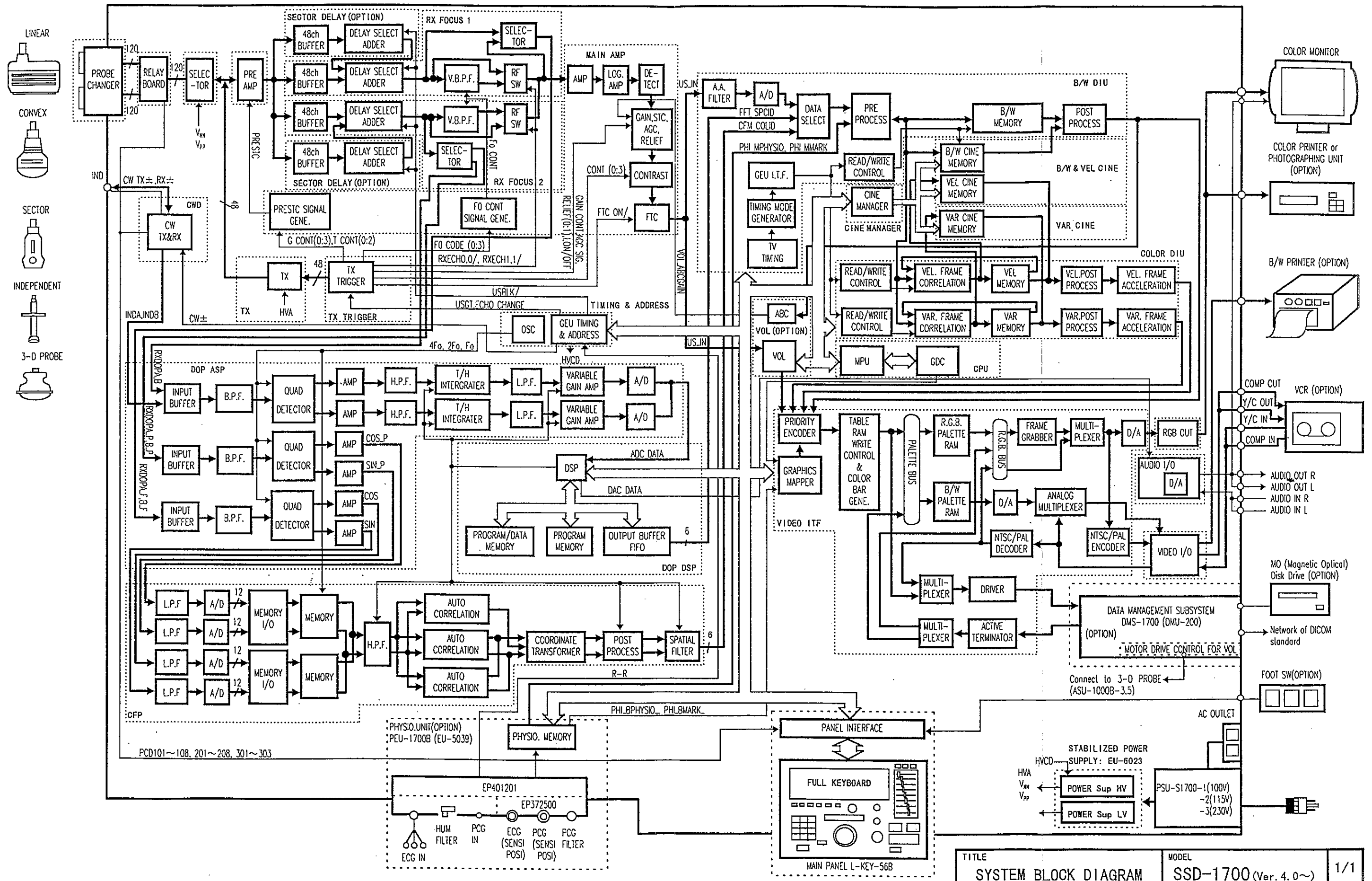
TITLE	MODEL	
SYSTEM BLOCK DIAGRAM	SSD-1700	1/1

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SSD-1700 (1/2)	(Ver.4~)	MODEL	NAME	OUTLINE		
PANEL	OPERATION	SW PANEL				
	PANEL	PANEL ITF		Data is sent to CPU board, whenever panel switch is pressed.		
	L-KEY-56B	STC PCB				
MAIN BODY	TX/RX UNIT	EP3880**	PROBE CHANGER	Probe connectors for linear/convex sector/phased array sector (120ch x 2)		
		EP-3746B	RELAY BOARD	Selects transmission/reception signals for PROBE1 or PROBE2		
		EP3961**	SELECTOR	HVS, HVS protection CCT, HVS control, L ON/OFF CCT.		
		EP3962**	TX	Generation of transmission pulses for linear/convex sector/phased array sector		
		EP3964**	PRE AMP	Pre-amplifier CCT., Reception of ultrasound echo signal		
		EP389701	SECTOR DELAY	Addition of RX delay time for phased array sector ✓		
		EP389702	SECTOR DELAY	Addition of RX delay time for phased array sector ✓		
		EP415100	RX FOCUS 1	Addition of RX delay times for linear/convex sector/phased array sector, V.B.P.F. CCT., RF signal output, Color RF signal output		
		EP415101	RX FOCUS 2	Addition of RX delay times for linear/convex sector/phased array sector, V.B.P.F. CCT, Color RF output, DOP RF signal output		
		EP4194**	MAIN AMP	Amplifier, Logarithmic compression, Detector, Signal process		
		EP415501	DOP ASP	High frequency tuning CCT, Quadrature detector, Sample/Hold CCT, Wal motion filter, Anti-aliasing filter, A/D, Base band amplifier for Color flow		
		EP390101	CFP	12-bit A/D, Memory, Auto-correlation CCT		
		EP396302	TX TRIGGER	Generation of transmission trigger signals and GEU address, timing control for transmission		
		EP4152**	TIMING & ADDRESS	Standard clock generating CCT., Reference timing generating CCT., Address generating CCT., Parallel processing CCT		
		EP4195**	MOTHER			
		DIU UNIT		EP3832**	DOP DSP	FFT frequency analysis, Audio signal processing, Trackball ITF
				EP3753**	CPU	Control of whole system, Generation of character and graphics
				EP415300	B/W DIU (NTSC)	A/D, Pre process, Main memory, Post process, GEU ITF., Parameter memory, Display control, Generation of TV timing
				EP415301	B/W DIU (PAL)	A/D, Pre process, Main memory, Post process, GEU ITF., Parameter memory, Display control, Generation of TV timing
				EP3908**	CINE MANAGER	Control of write in/read out for CINE memory, Counter for HEART RATE/FREAME RATE
EP390900	B/W & VEL CINE			CINE memory for B/W and velocity		
EP390901	VAR CINE			CINE memory for variance		
EP3910**	COLOR DIU			Frame correlation for Color flow, Image memory, Post process		

MN2-0213 Rev. 1  
SECTION 5 SYSTEM BLOCK DIAGRAM

SSD-1700 (2/2)	(Ver.4~)	MODEL	NAME	OUTLINE
DIU UNIT		EP4072**	VIDEO ITF	Addition of character/graphic, Palette conversion, Color bar generation, External video IN/OUTPUT, Encoder/decoder for NTSC/PAL, Frame grabber, DMS ITF, CAS ITF
		EP3916**	AUDIO I/O	D/A
		EP3917**	VIDEO I/O	Connectors
		EP2918**	RGB OUT	Connectors
		EP4196**	DIU MOTHER	
		EP3947**	HIGH VOLTAGE	Generation of high voltage (HVA, Vpp, Vmm)
		EP4203**	LOW VOLTAGE	Generation of low voltage ( $\pm 5V$ , $\pm 15V$ )
		PSU-S1700B-1	FOR 100V	Built-in isolation transformer, switching power supply
		PSU-S1700B-2	FOR 115V	Built-in isolation transformer, switching power supply
		PSU-S1700B-3	FOR 230V	Built-in isolation transformer, switching power supply
POWER SUPPLY UNIT		IPC-1231	FOR NTSC	Color TV monitor
		IPC-1231V	FOR PAL	Color TV monitor
VIEWING MONITOR		EP3724**	PHYSIO. AMP	ECG AMP, PCG AMP, R-wave detector (For EU-5034)
		EP4012**	PHYSIO. AMP	ECG AMP, PCG AMP, R-wave detector (For EU-5039)
		EP3725**	PHYSIO.PANEL1	
		EP-3726	PHYSIO.PANEL2	(For EU-5034)
PHYSIOLOGICAL SIGNAL UNIT PEU-1700/1700B (OPTION)		EP4049**	PHYSIO.MEMORY	A/D, Physio signal processing block for plane mode, Scroll mode display, Physio signal storage, Physio signal processing block for sweep mode, ECG sync. mark display
		DMU-200	DATA MANAGEMENT UNIT	CPU, VCM board, SCSI Card, Ethernet Card, FDD, HDD
DATA MANAGEMENT SUBSYSTEM		DMU-100	DATA MANAGEMENT UNIT	CPU, VCM board, HDD, FDD
		EP4192**	VOL	10-bit A/D, Pre Gamma, Mean of Accumulated Addition CCT, Vol calculator, Memory, Post Gamma, ABC gate array, D/A
COMPUTER AIDED SUBSYSTEM		EP4204**	MOTOR CONTROL	Controller, Power AMP, Bus Interface, I/O Interface, Encoder Interface
		EP4156**	CWD	RF reception for CW, B.P.Filter, Transmitter for CW, D/A
DATA MANAGEMENT SUBSYSTEM		DMU-1700 (OPTION)		
COMPUTER AIDED SUBSYSTEM		CAS-1700 (OPTION)		
VOLUME MODE UNIT		EU-9068 (OPTION)		
CW DOPPLER UNIT		EU-3038 (OPTION)		



TITLE	MODEL	
SYSTEM BLOCK DIAGRAM	SSD-1700 (Ver. 4.0~)	1/1

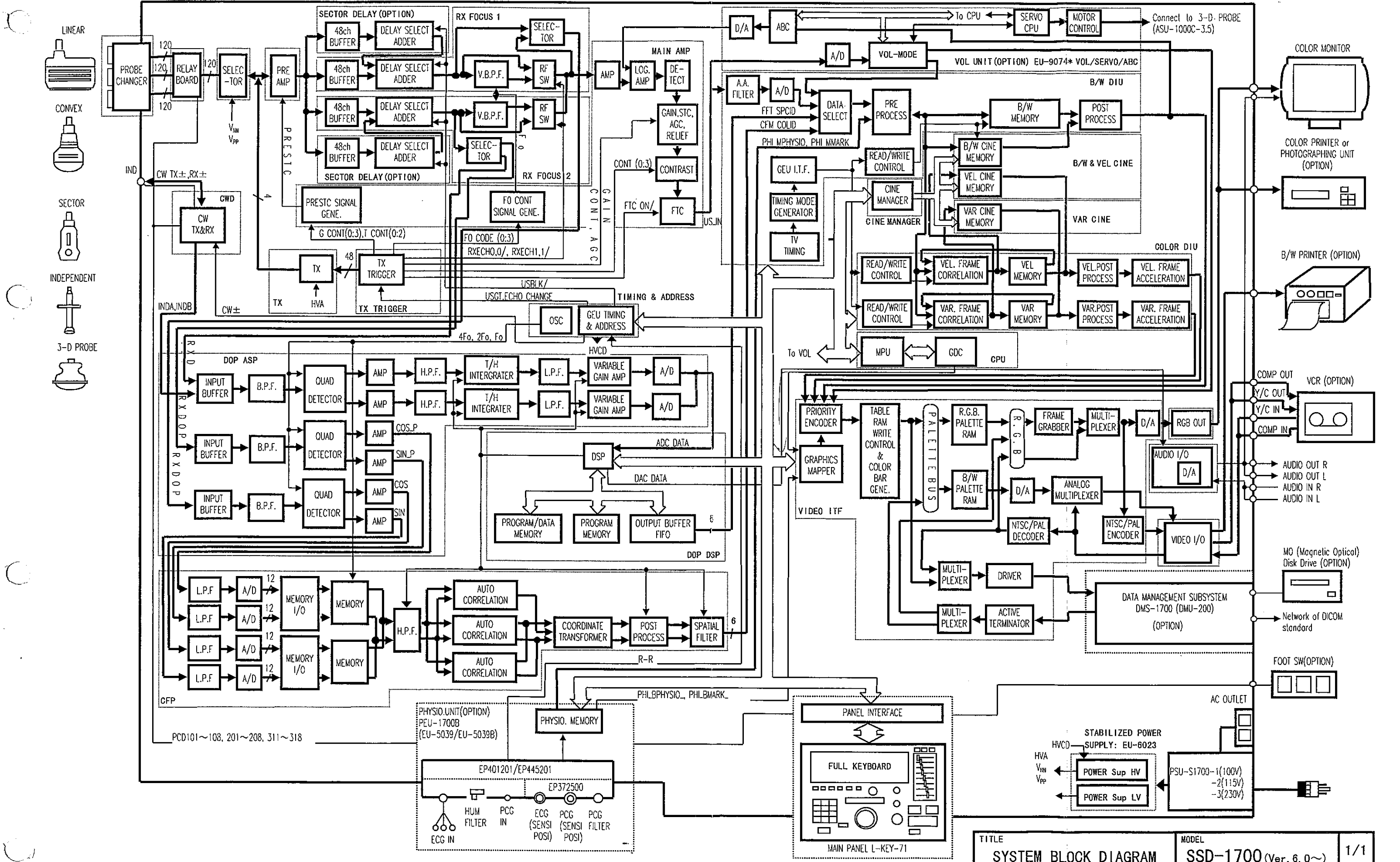
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SSD-1700 (1/2)	(Ver.6~)	MODEL	NAME	OUTLINE		
PANEL	OPERATION	SW PANEL				
	PANEL L-KEY-71	PANEL ITF STC PCB		Data is sent to CPU board, whenever panel switch is pressed.		
MAIN BODY	TX/RX UNIT	EP4285** ✓	PROBE CHANGER	Probe connectors for linear/convex sector/phased array sector (120ch x 3)		
		EP4286**	RELAY BOARD	Selects transmission/reception signals for PROBE1, PROBE2 or PROBE3		
		EP4256** ✓	SELECTOR	HVS, HVS protection CCT, HVS control, L ON/OFF CCT.		
		EP3962**	TX	Generation of transmission pulses for linear/convex sector/phased array sector		
		EP3964**	PRE AMP	Pre-amplifier CCT., Reception of ultrasound echo signal		
		EP389701	SECTOR DELAY	Addition of RX delay time for phased array sector		
		EP389702	SECTOR DELAY	Addition of RX delay time for phased array sector		
		EP415102	RX FOCUS 1	Addition of RX delay times for linear/convex sector/phased array sector, V.B.P.F. CCT., RF signal output, Color RF signal output		
		EP415103	RX FOCUS 2	Addition of RX delay times for linear/convex sector/phased array sector, V.B.P.F. CCT, Color RF output, DOP RF signal output		
		EP4194**	MAIN AMP	Amplifier, Logarithmic compression, Detector, Signal process		
		EP415501	DOP ASP	High frequency tuning CCT, Quadrature detector, Sample/Hold CCT, Wal motion filter, Anti-aliasing filter, A/D, Base band amplifier for Color flow		
		EP390101	CFP	12-bit A/D, Memory, Auto-correlation CCT		
		EP396303	TX TRIGGER	Generation of transmission trigger signals and GEU address, timing control for transmission		
		EP4152**	TIMING & ADDRESS	Standard clock generating CCT., Reference timing generating CCT., Address generating CCT., Parallel processing CCT		
		EP4287**	MOTHER			
		DIU UNIT	EP3832**	DOP DSP		FFT frequency analysis, Audio signal processing, Trackball ITF
			EP3753**	CPU		Control of whole system, Generation of character and graphics, Serial data communication circuit for New Volume mode unit, Connector for external data communication (ALK1 for A/D, Pre process, Main memory, Post process, GEU ITF., Parameter memory, Display control, Generation of TV timing...)
EP426800	B/W DIU (NTSC)			A/D, Pre process, Main memory, Post process, GEU ITF., Parameter memory, Display control, Generation of TV timing		
EP426801	B/W DIU (PAL)			A/D, Pre process, Main memory, Post process, GEU ITF., Parameter memory, Display control, Generation of TV timing		
EP3908**	CINE MANAGER			Control of write in/read out for CINE memory, Counter for HEART RATE/FREAME RATE		
EP390900	B/W & VEL CINE			CINE memory for B/W and velocity		
EP390901	VAR CINE			CINE memory for variance		
EP3910**	COLOR DIU			Frame correlation for Color flow, Image memory, Post process		

SECTION 5 SYSTEM BLOCK DIAGRAM

SSD-1700 (2/2)	(Ver.6~)	MODEL	NAME	OUTLINE
DIU UNIT		EP4072**	VIDEO I/F	Addition of character/graphic, Palette conversion, Color bar generation, External video IN/OUTPUT, Encoder/decoder for NTSC/PAL, Frame grabber, DMS I/F, CAS I/F
		EP3916**	AUDIO I/O	D/A
		EP3917**	VIDEO I/O	Connectors
		EP3918**	RGB OUT	Connectors
		EP4196**	DIU MOTHER	
		EP3947**	HIGH VOLTAGE	Generation of high voltage (HVA, Vpp, Vnn)
		EP4203**	LOW VOLTAGE	Generation of low voltage ( $\pm 5V, \pm 15V$ )
		PSU-S1700B-1	FOR 100V	Built-in isolation transformer, switching power supply
		PSU-S1700B-2	FOR 115V	Built-in isolation transformer, switching power supply
		PSU-S1700B-3	FOR 230V	Built-in isolation transformer, switching power supply
POWER SUPPLY UNIT		IPC-1231	FOR NTSC	Color TV monitor
		IPC-1231V	FOR PAL	Color TV monitor
VIEWING MONITOR		EP3724**	PHYSIO. AMP	ECG AMP, PCG AMP, R-wave detector (For EU-5034)
		EP4012**/EP445201	PHYSIO. AMP	ECG AMP, PCG AMP, R-wave detector (For EU-5039/EU-5039B)
		EP3725**	PHYSIO.PANEL1	
PHYSIOLOGICAL SIGNAL UNIT	EU-5034 /EU-5039 /EU-5039B (OPTION)	EP-3726	PHYSIO.PANEL2	(For EU-5034)
		EP4049**	PHYSIO.MEMORY	A/D, Physio.signal processing block for plane mode, Scroll mode display, Physio.signal storage, Physio signal processing block for sweep mode, ECG sync. mark display
DATA MANAGEMENT UNIT	DMS-1700 (OPTION)	DMU-200	DATA MANAGEMENT UNIT	CPU, VCM board, SCSI Card, Ethernet Card, FDD, HDD
		DMU-100	DATA MANAGEMENT UNIT	CPU, VCM board, HDD, FDD
COMPUTER AIDED SUBSYSTEM	CAS-1700 (OPTION)	EP4192**	VOL	10-bit A/D, Pre Gamma, Mean of Accumulated Addition CCT, Vol calculator, Memory, Post Gamma, ABC gate array, D/A
		EP4204**	MOTOR CONTROL	Controller, Power AMP, Bus Interface, I/O Interface, Encoder Interface
VOLUME MODE UNIT	EU-9068 (OPTION)	EP4223**	VOL/SERVO/ABC	DMS interface, Video signal input/output circuit, Volume mode calculating block, Motor servo circuit
		EP4156**	CWD	RF reception for CW, B.P.Filter, Transmitter for CW, D/A
CW DOPPLER UNIT	EU-3038* (OPTION)			



TITLE: SYSTEM BLOCK DIAGRAM  
MODEL: SSD-1700 (Ver. 6.0~)  
1/1

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**SECTION 6**

**PCB BLOCK DIAGRAM**

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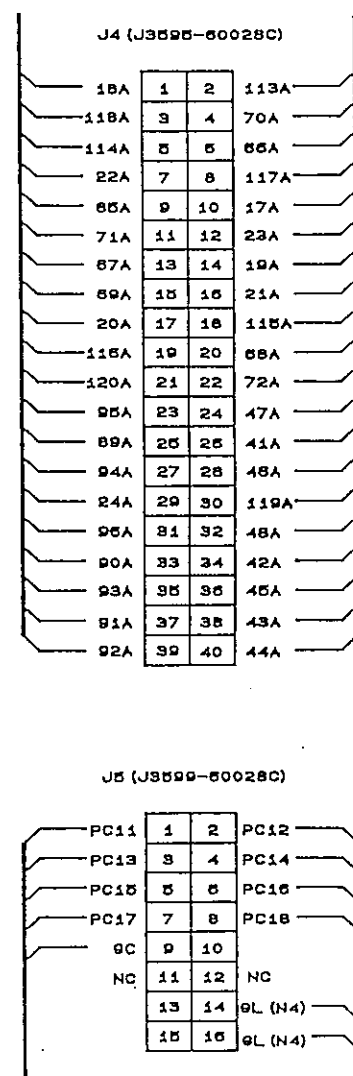
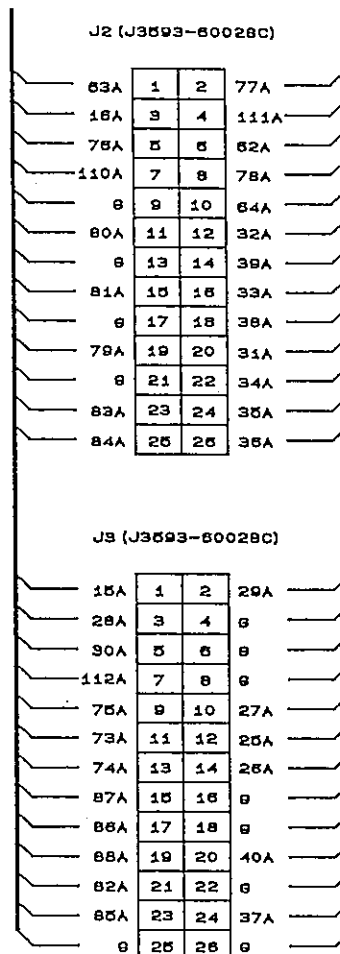
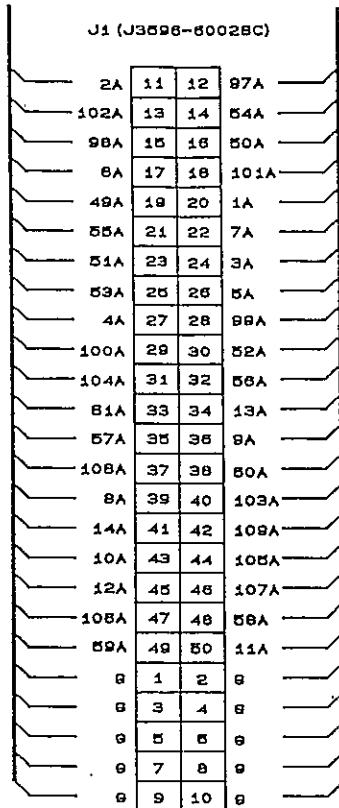
PCB REFERENCE TABLE IN SECTION 6

No.	TITLE	MODEL(1)	MODEL(2)	MODEL(3)
6-1	PROBE CHANGER	EP3880**	EP4216**	
6-1-1	PROBE CHANGER	EP4285**		
6-2	RELAY BOARD	EP-3746	EP4217**	
6-2-1	RELAY BOARD	EP4286**		
6-3	SELECTOR	EP3961**	EP4256**	
6-4	TX	EP3962**		
6-5	TX TRIGGER	EP3963**		
6-6	PRE AMP	EP3964**		
6-7	SECTOR DELAY	EP3897**		
6-8	RX FOCUS1/2	EP3898**		
6-9	MAIN AMP	EP3899**		
6-10	TIMING & ADDRESS	EP3950**	EP4152**	
6-11	DOP ASP	EP3900**	EP3949**	
6-12	CFP	EP3802**	EP3901**	
6-13	DOP DSP	EP3832**		
6-14	CPU	EP3753**		
6-15	B/W DIU	EP3907**		
6-16	CINE MANAGER	EP3908**		
	CINE MEMORY	EP3909**		
6-17	COLOR DIU	EP3910**		
6-18	VIDEO ITF	EP3951**	EP4072**	
6-19	AV I.T.F.			
	Audio I/O	EP3916**		
	VIDEO I/O	EP3917**		
	RGB OUT	EP3918**		
6-20	PHYSIO MEMORY	EP4049**		
6-21	PHYSIO AMP	EP3724**		
6-21-1	PHYSIO AMP	EP4012**	EP445201	
6-22	VOL	EP4192**		
6-23	Motor Control & Drive	EP4204**		
6-24	VOL/SERVO/ABC	EP4223**		
6-25	CWD	EP4156**		

6-1 PROBE CHANGER

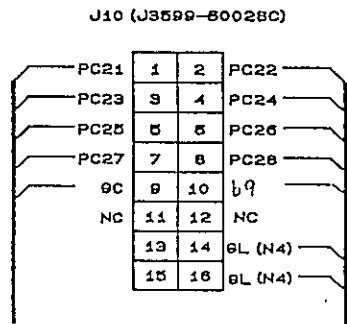
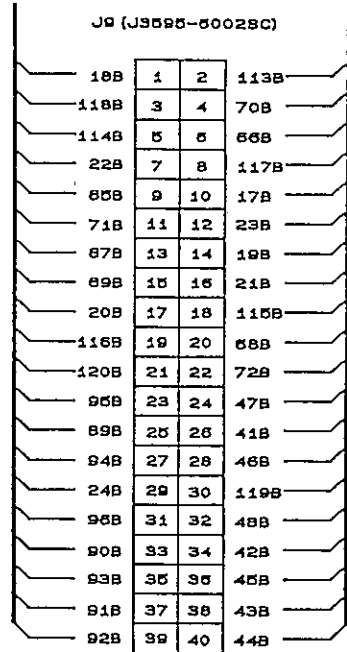
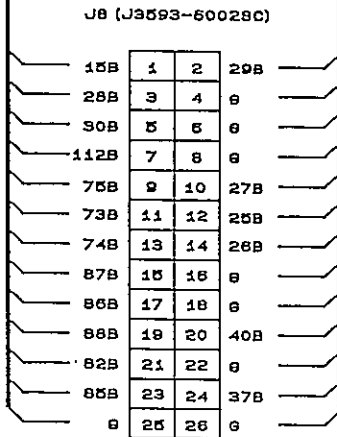
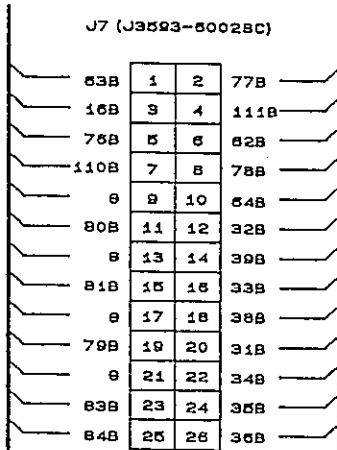
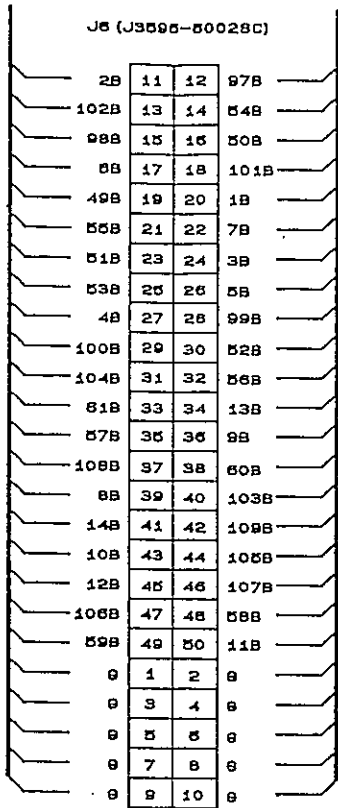
This PCB has two probe connectors mounted on it and outputs 2 × 120-channel transmission and reception lines and 2 × 8-channel probe code to the Relay Board.

SIGNAL LIST



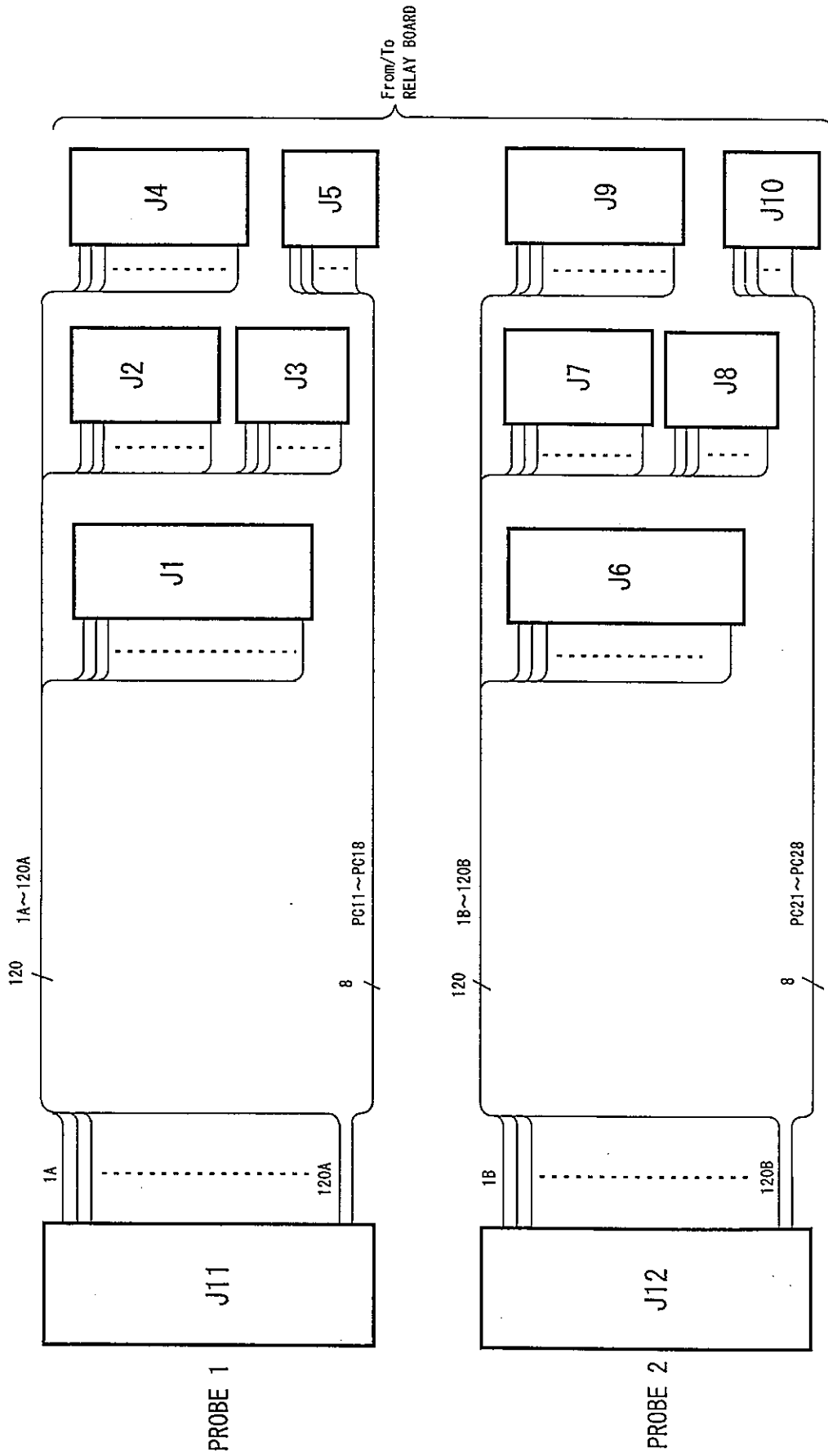


MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM



MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM

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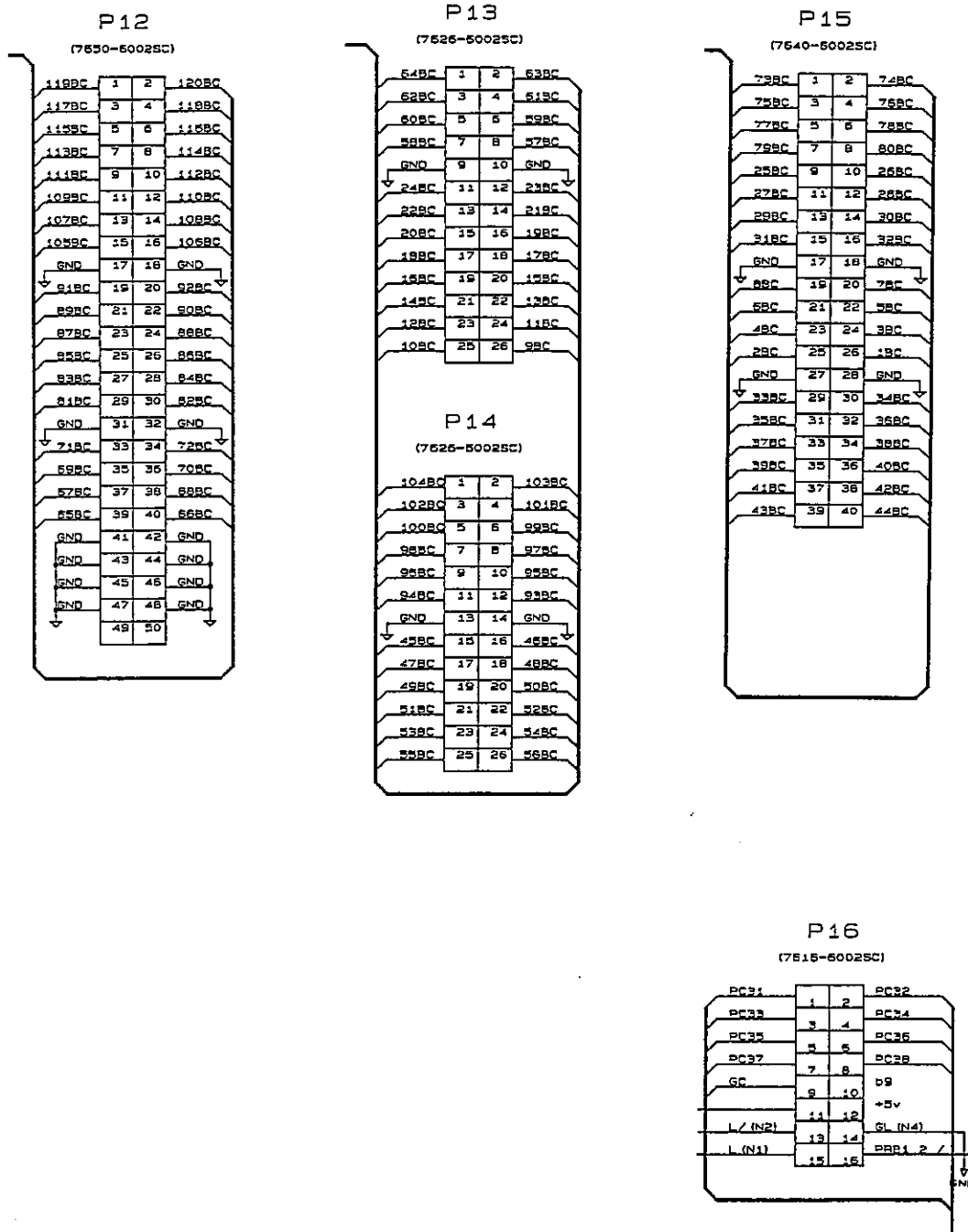


<b>Aloka</b>	TITLE 名称 <b>PROBE CHANGER</b>	MODEL 形名 <b>EP3880**</b>	1/1
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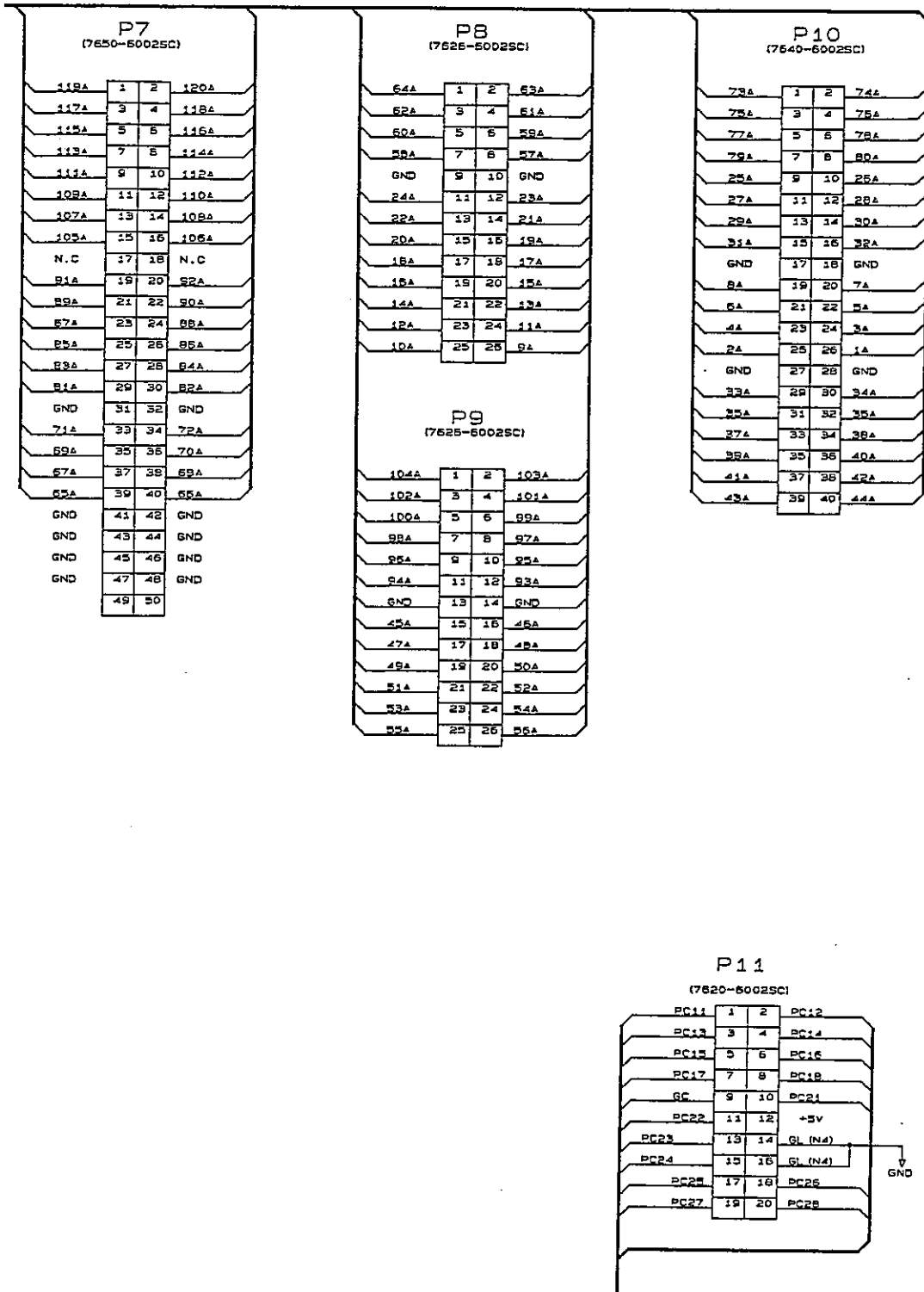
6-1-1. PROBE CHANGER

This PCB has three probe connectors mounted on it and outputs  $2 \times 120$ -channel transmission and reception lines. The signal for PROBE 2 and PROBE 3 are selected by sixties relay circuit mounted on this board.

Signal list

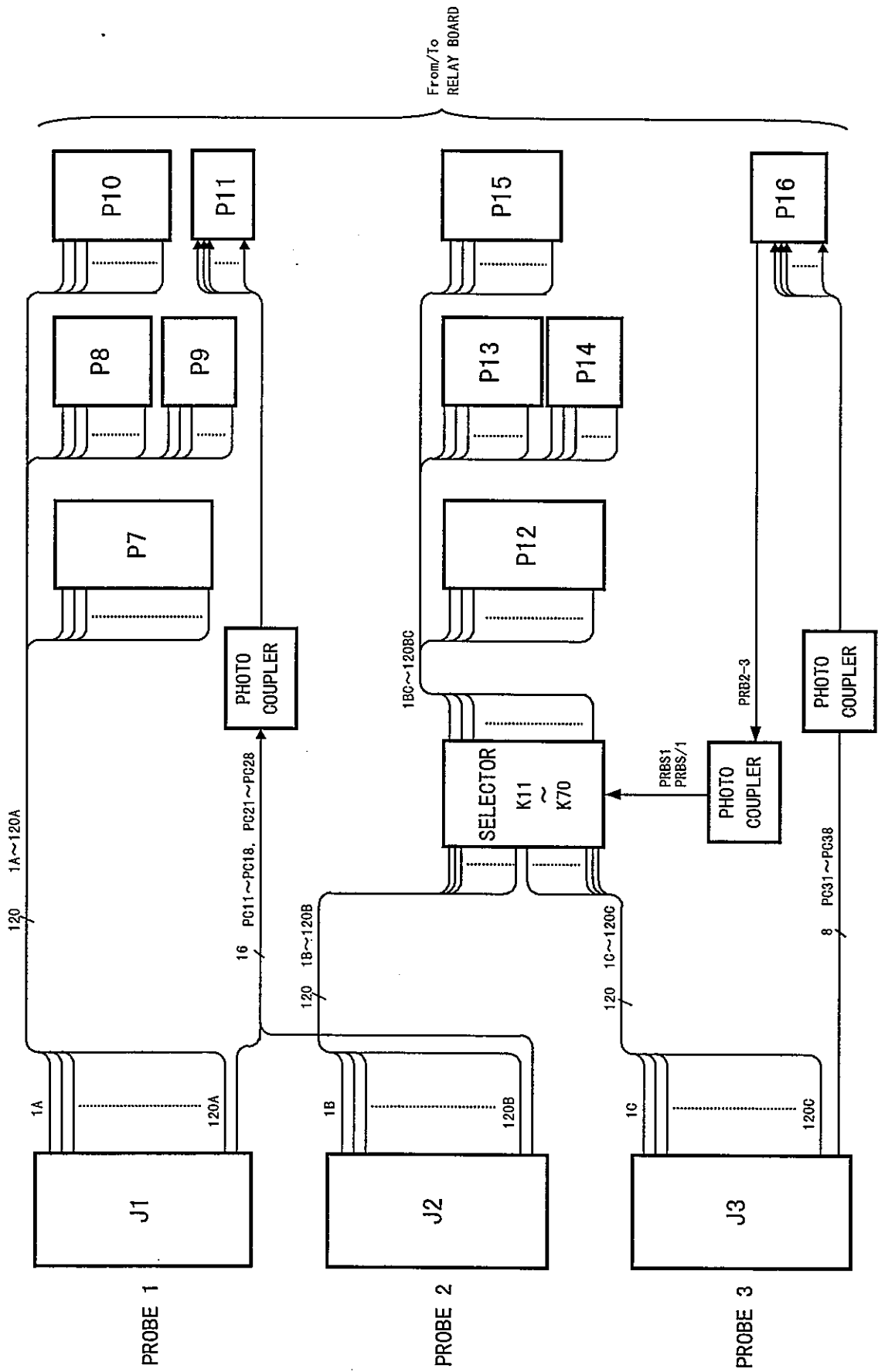


Signal list



MN2-0213 Rev. 2  
SECTION 6 PCB BLOCK DIAGRAM

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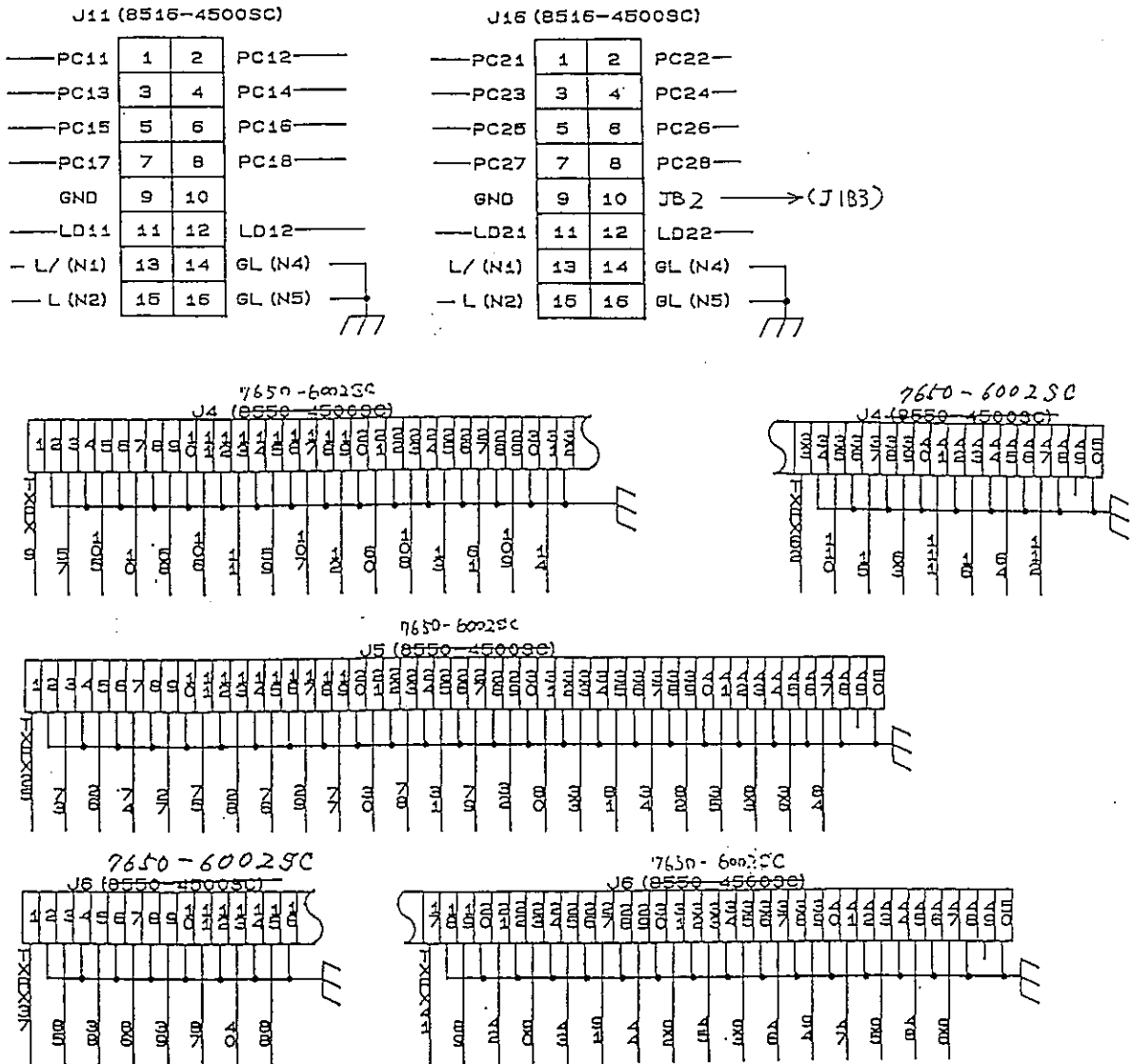
<b>Aloka</b>	TITLE 名称 <b>PROBE CHANGER</b>	MODEL 形名 <b>EP4285**</b>	1/1
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6-2 RELAY BOARD

This circuit board is configured from the following three blocks.

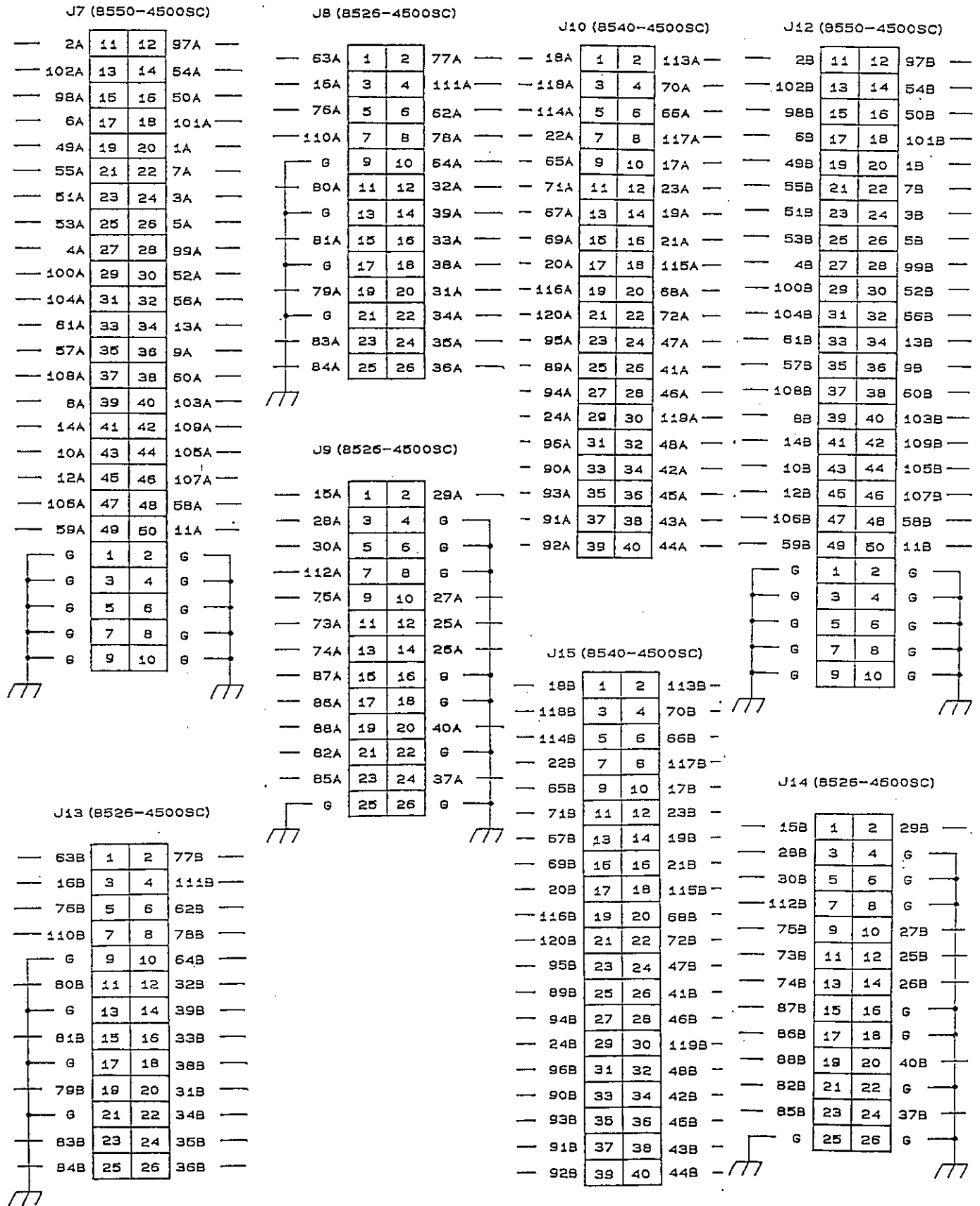
- SELECTOR (Selects the Transmit/Receive Signals of PROBE 1 or 2.)
- PROBE CODE ISOLATOR (Isolation of the PROBE CODE of PROBE 1 or 2.)
- RELAY

SIGNAL LIST





MN2-0213 Rev. 1  
SECTION 6 PCB BLOCK DIAGRAM

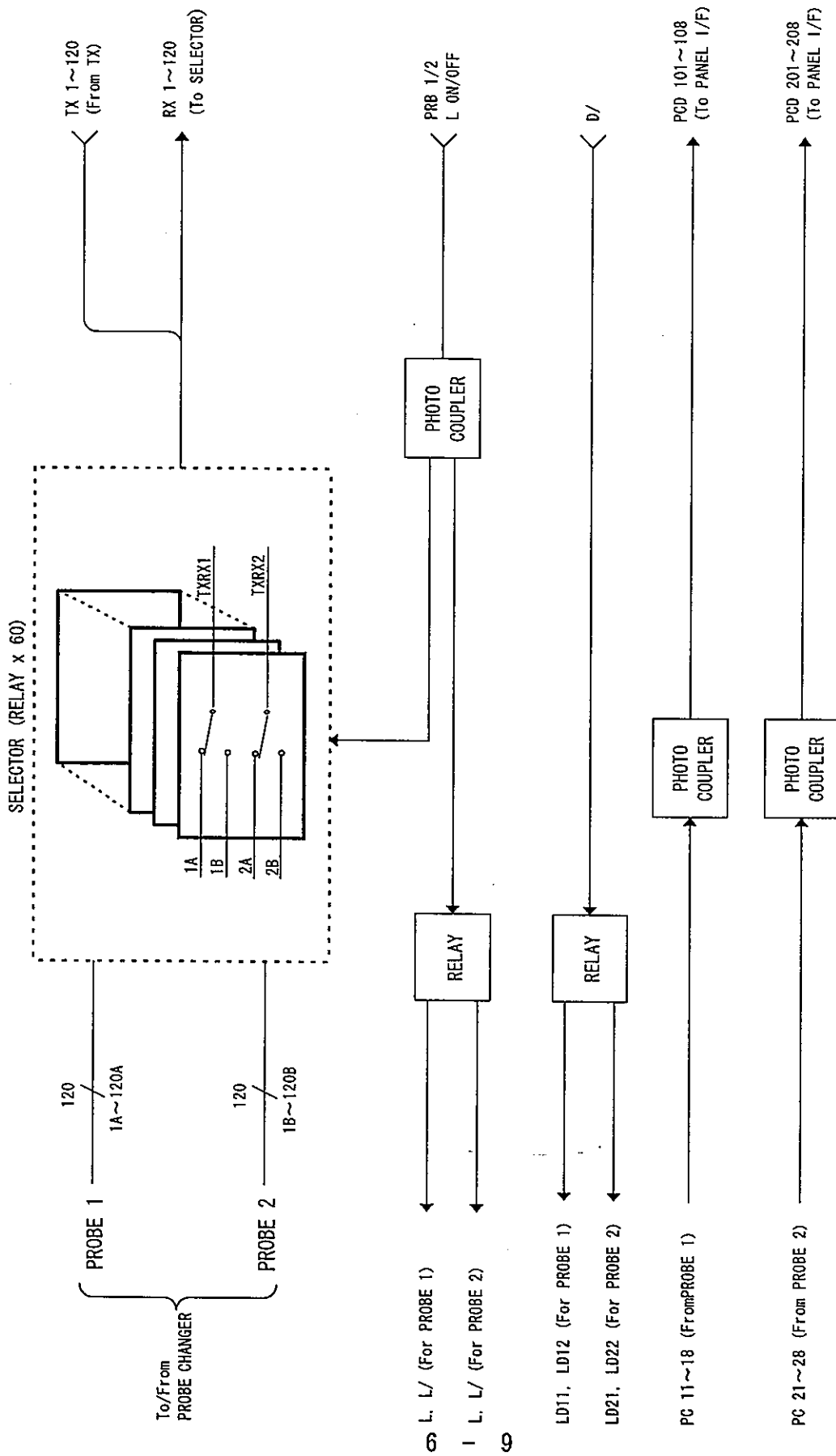


MN2-0213 Rev. 1  
SECTION 6 PCB BLOCK DIAGRAM

PIN No.	EP3746			
	CHANGER (RELAY)			
	J100-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	PRB1_2			
4	PCD104	PCD103	PCD102	PCD101
5	PCD108	PCD107	PCD106	PCD105
6	PCD204	PCD203	PCD202	PCD201
7	PCD208	PCD207	PCD206	PCD205
8		GNDPHT		GNDPHT
9		LON_OFF		LON_OFF
10	5V	5V	5V	5V
11	5.1V	5.1V	5.1V	5.1V
12	GND	GND	GND	GND
13			GND	GND
14			GND	GND
15			GND	GND
16			GND	GND
17			GND	GND
18			GND	GND
19			GND	GND
20			GND	GND
21	TX72	TX120	GND	GND
22	TX119	TX24	GND	GND
23	TX23	TX71	GND	GND
24	TX70	TX118	GND	GND
25	TX117	TX22	GND	GND

PIN No.	EP3746			
	CHANGER (RELAY)			
	J100-2			
	A	B	C	D
1	TX21	TX69	GND	GND
2	TX68	TX116	GND	GND
3	TX115	TX20	GND	GND
4	TX19	TX67	GND	GND
5	TX66	TX114	GND	GND
6	TX113	TX18	GND	GND
7	TX17	TX65	GND	GND
8			GND	GND
9			GND	GND
10			GND	GND
11			GND	GND
12			GND	GND
13			GND	GND
14			GND	GND
15			GND	GND
16			GND	GND
17			GND	GND
18			GND	GND
19			GND	GND
20			GND	GND
21			GND	GND
22			GND	GND
23			GND	GND
24			GND	GND
25			GND	GND

PIN No.	J100-3			
	A	B	C	D
1			GND	GND
2			GND	GND
3			GND	GND
4			GND	GND
5			GND	GND
6			GND	GND
7			GND	GND
8			GND	GND
9			GND	GND
10			GND	GND
11	TX56	TX104	GND	GND
12	TX103	TX8	GND	GND
13	TX7	TX55	GND	GND
14	TX54	TX102	GND	GND
15	TX101	TX6	GND	GND
16	TX5	TX53	GND	GND
17	TX52	TX100	GND	GND
18	TX99	TX4	GND	GND
19	TX3	TX51	GND	GND
20	TX50	TX98	GND	GND
21	TX97	TX2	GND	GND
22	TX1	TX49	GND	GND
23				
24	GND	GND	GND	GND
25	GND	GND	GND	GND



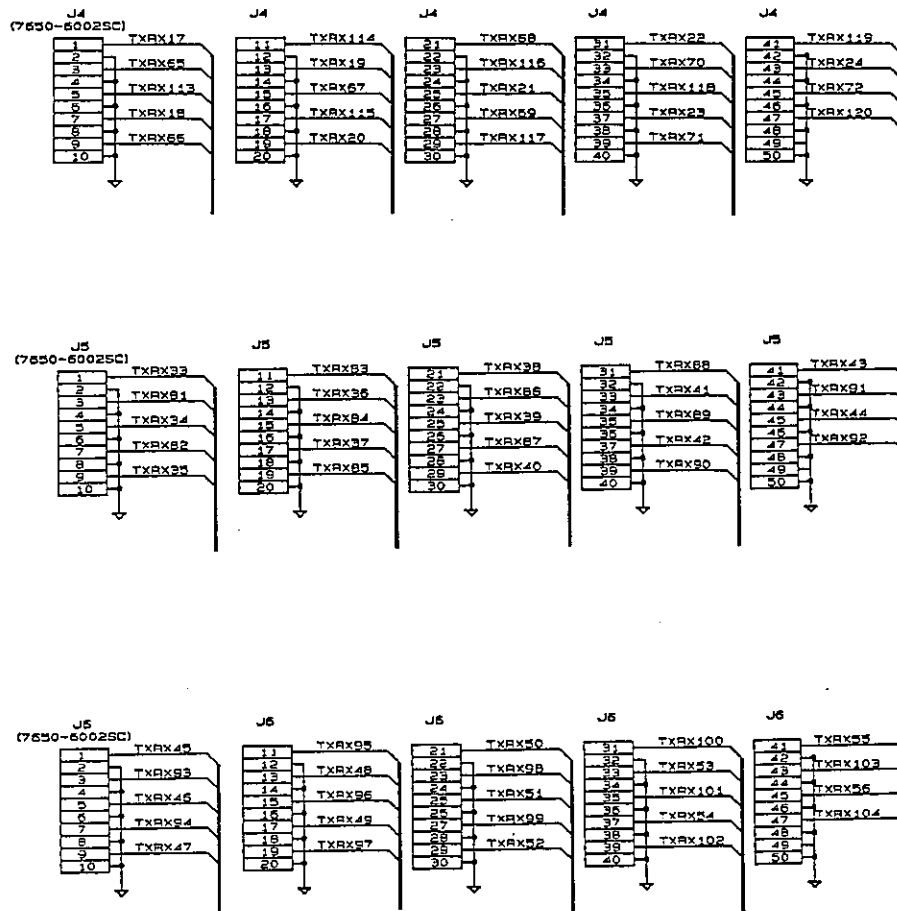
<b>Aloka</b>	TITLE 名称 <b>RELAY BOARD</b>	MODEL 形名 <b>EP-3746</b>	1/1
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6-2-1. RELAY BOARD

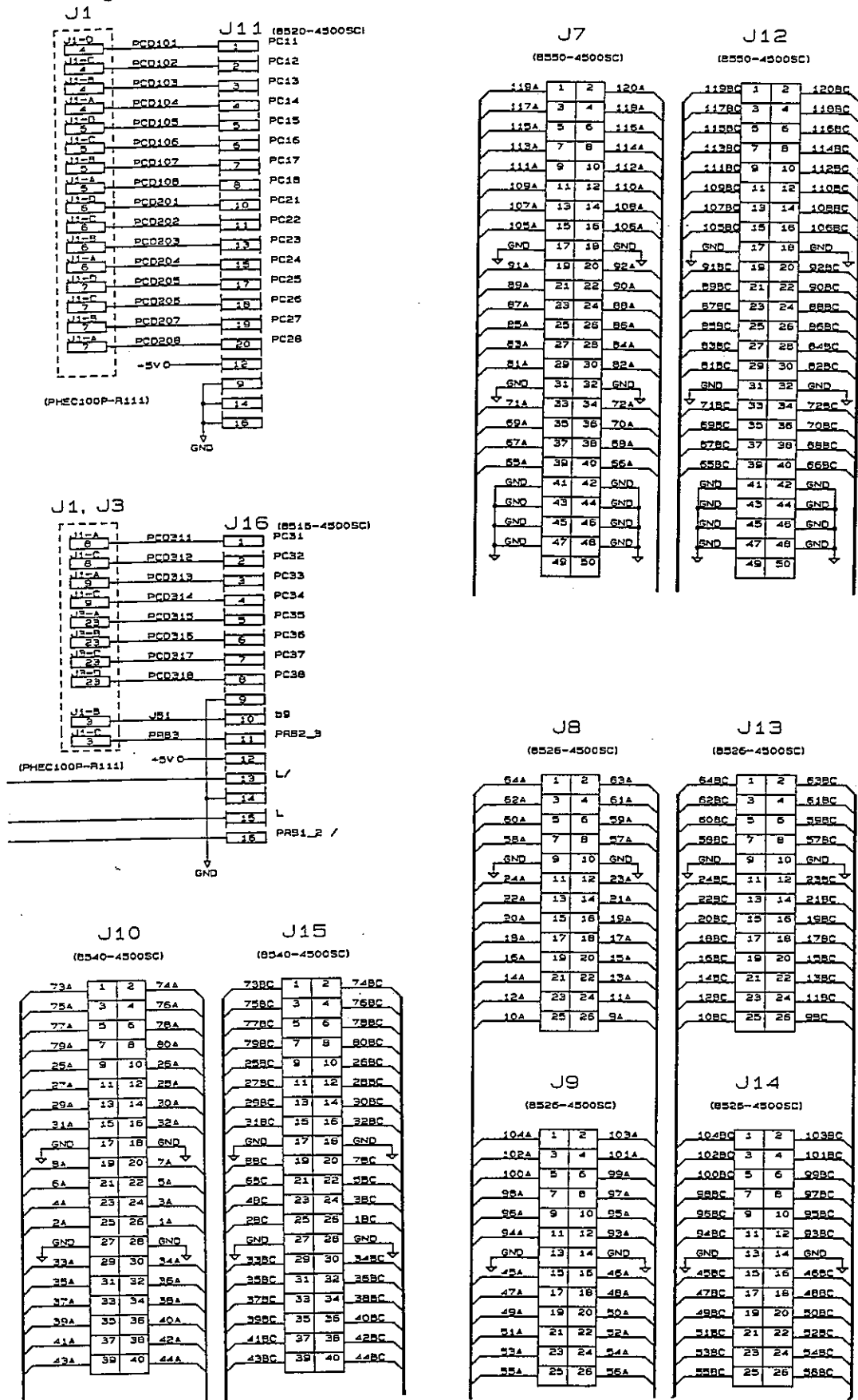
This circuit board is configured from the following two blocks.

- ♦ SELECTOR (Selects the Transmit/Receive Signals of PROBE 1 or 2/3.)
- ♦ RELAY

Signal list



Signal list



MN2-0213 Rev. 2  
SECTION 6 PCB BLOCK DIAGRAM

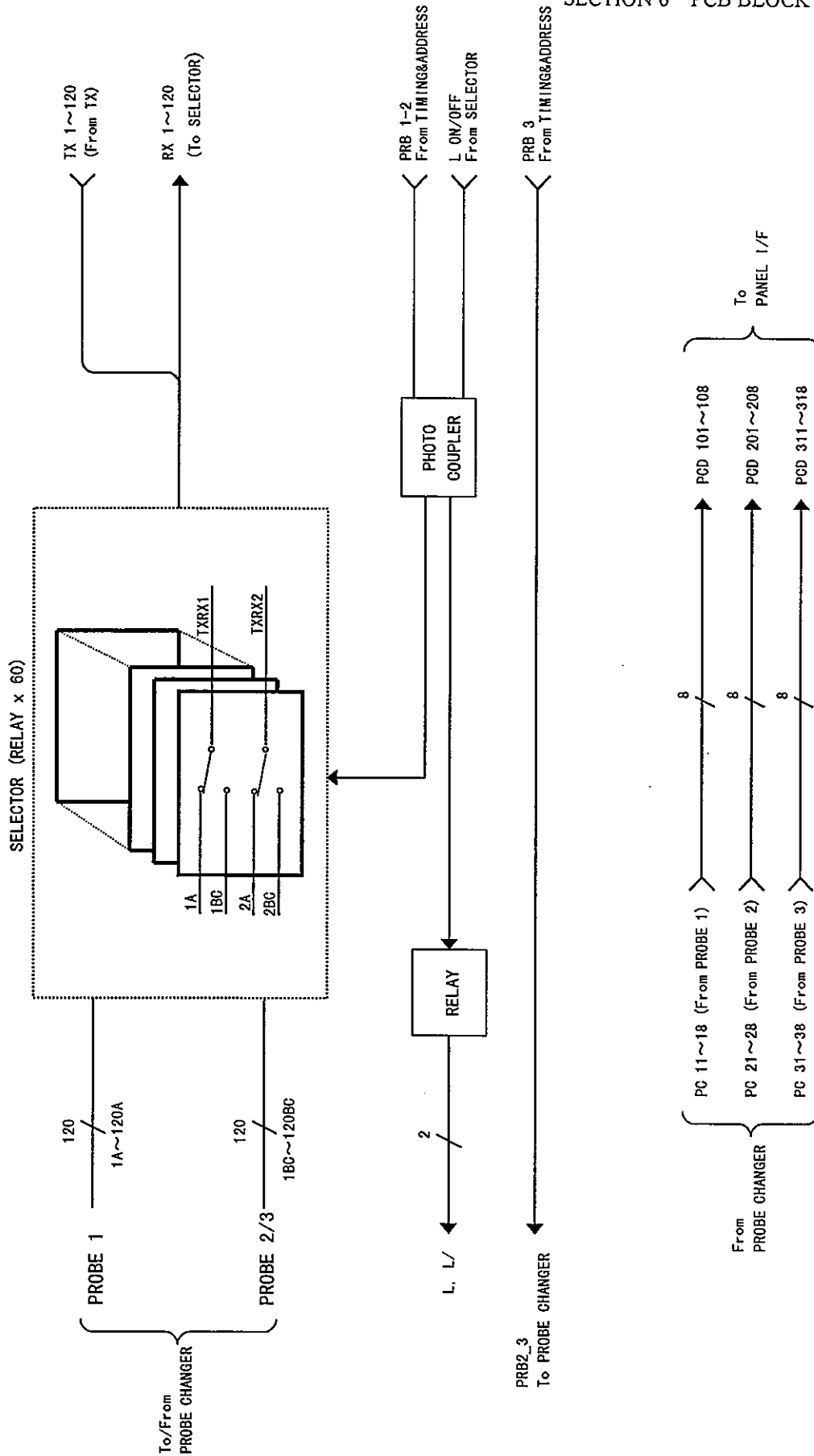
Signal list

PIN No.	EP4286			
	CHANGER (RELAY)			
	J100-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	PRB1_2		PRB3_	OPT4
4	PCD104	PCD103	PCD102	PCD101
5	PCD108	PCD107	PCD106	PCD105
6	PCD204	PCD203	PCD202	PCD201
7	PCD208	PCD207	PCD206	PCD205
8	PCD311	GNDPHT	PCD312	GNDPHT
9	PCD313	LON_OFF	PCD314	LON_OFF
10	5V	5V	5V	5V
11	5.1V	5.1V	5.1V	5.1V
12	GND	GND	GND	GND
13	TX56	TX104	GND	GND
14	TX55	TX103	GND	GND
15	TX54	TX102	GND	GND
16	TX53	TX101	GND	GND
17	TX52	TX100	GND	GND
18	TX51	TX99	GND	GND
19	TX50	TX98	GND	GND
20	TX49	TX97	GND	GND
21	TX80	TX8	GND	GND
22	TX7	TX32	GND	GND
23	TX31	TX79	GND	GND
24	TX78	TX6	GND	GND
25	TX5	TX30	GND	GND

PIN No.	EP4286			
	CHANGER (RELAY)			
	J100-2			
	A	B	C	D
1	TX28	TX77	GND	GND
2	TX76	TX4	GND	GND
3	TX3	TX28	GND	GND
4	TX27	TX75	GND	GND
5	TX74	TX2	GND	GND
6	TX1	TX25	GND	GND
7	TX25	TX73	GND	GND
8	TX48	TX96	GND	GND
9	TX47	TX95	GND	GND
10	TX46	TX94	GND	GND
11	TX45	TX93	GND	GND
12	TX44	TX92	GND	GND
13	TX43	TX91	GND	GND
14	TX42	TX90	GND	GND
15	TX41	TX89	GND	GND
16	TX40	TX88	GND	GND
17	TX39	TX87	GND	GND
18	TX38	TX86	GND	GND
19	TX37	TX85	GND	GND
20	TX36	TX84	GND	GND
21	TX35	TX83	GND	GND
22	TX34	TX82	GND	GND
23	TX33	TX81	GND	GND
24	TX72	TX120	GND	GND
25	TX119	TX24	GND	GND

PIN No.	J100-3			
	A	B	C	D
1	TX23	TX71	GND	GND
2	TX70	TX118	GND	GND
3	TX117	TX22	GND	GND
4	TX21	TX59	GND	GND
5	TX88	TX116	GND	GND
6	TX115	TX20	GND	GND
7	TX19	TX67	GND	GND
8	TX86	TX114	GND	GND
9	TX113	TX18	GND	GND
10	TX17	TX65	GND	GND
11	TX54	TX112	GND	GND
12	TX111	TX16	GND	GND
13	TX15	TX63	GND	GND
14	TX62	TX110	GND	GND
15	TX109	TX14	GND	GND
16	TX13	TX61	GND	GND
17	TX60	TX108	GND	GND
18	TX107	TX12	GND	GND
19	TX11	TX59	GND	GND
20	TX58	TX106	GND	GND
21	TX105	TX10	GND	GND
22	TX9	TX57	GND	GND
23	PCD315	PCD315	PCD317	PCD318
24	GND	GND	GND	GND
25	GND	GND	GND	GND

SECTION 6 PCB BLOCK DIAGRAM



6 - 9 - 4

<b>Aloka</b>	TITLE 名称 <b>RELAY BOARD</b>	MODEL 形名 <b>EP4286**</b>	1/1
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### 6-3 SELECTOR

This circuit board is configured from the following five blocks.

1. HVS
2. HVS Protection Circuit (Signal)
3. HVS Protection Circuit (Power Supply)
4. HVS Control
5. L ON/OFF Control



SIGNAL LIST

PIN No.	SELECTOR J101-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	HV0FF		LON	LON_
8	FADRS0	FADRS1	FADRS2	FADRS3
9	FADRS4	FADRS5	FADRS6	FADRS7
10	US3LK		BDO	LIN_SEC
11	LON_OFF	HVTXOK_	GBLOF	CKOG
12	GND	GND		
13	TX72	TX120	GND	GND
14	TX119	TX24	GND	GND
15	TX23	TX71	GND	GND
16	TX70	TX119	GND	GND
17	TX117	TX22	GND	GND
18	TX21	TX69	GND	GND
19	TX68	TX116	GND	GND
20	TX115	TX20	GND	GND
21	TX19	TX67	GND	GND
22	TX66	TX114	GND	GND
23	TX113	TX18	GND	GND
24	TX17	TX65	GND	GND
25	GND	GND	GND	GND

PIN No.	SELECTOR J101-2			
	A	B	C	D
1	TXRX47	TXRX48	GND	GND
2	TXRX45	TXRX46	GND	GND
3	TXRX43	TXRX44	GND	GND
4	TXRX41	TXRX42	GND	GND
5	TXRX39	TXRX40	GND	GND
6	TXRX37	TXRX38	GND	GND
7	TXRX35	TXRX36	GND	GND
8	TXRX33	TXRX34	GND	GND
9	TXRX31	TXRX32	GND	GND
10	TXRX29	TXRX30	GND	GND
11	TXRX27	TXRX28	GND	GND
12	TXRX25	TXRX26	GND	GND
13	GND	GND	GND	GND
14	TXRX23	TXRX24	GND	GND
15	TXRX21	TXRX22	GND	GND
16	TXRX19	TXRX20	GND	GND
17	TXRX17	TXRX18	GND	GND
18	TXRX15	TXRX16	GND	GND
19	TXRX13	TXRX14	GND	GND
20	TXRX11	TXRX12	GND	GND
21	TXRX9	TXRX10	GND	GND
22	TXRX7	TXRX8	GND	GND
23	TXRX5	TXRX6	GND	GND
24	TXRX3	TXRX4	GND	GND
25	TXRX1	TXRX2	GND	GND

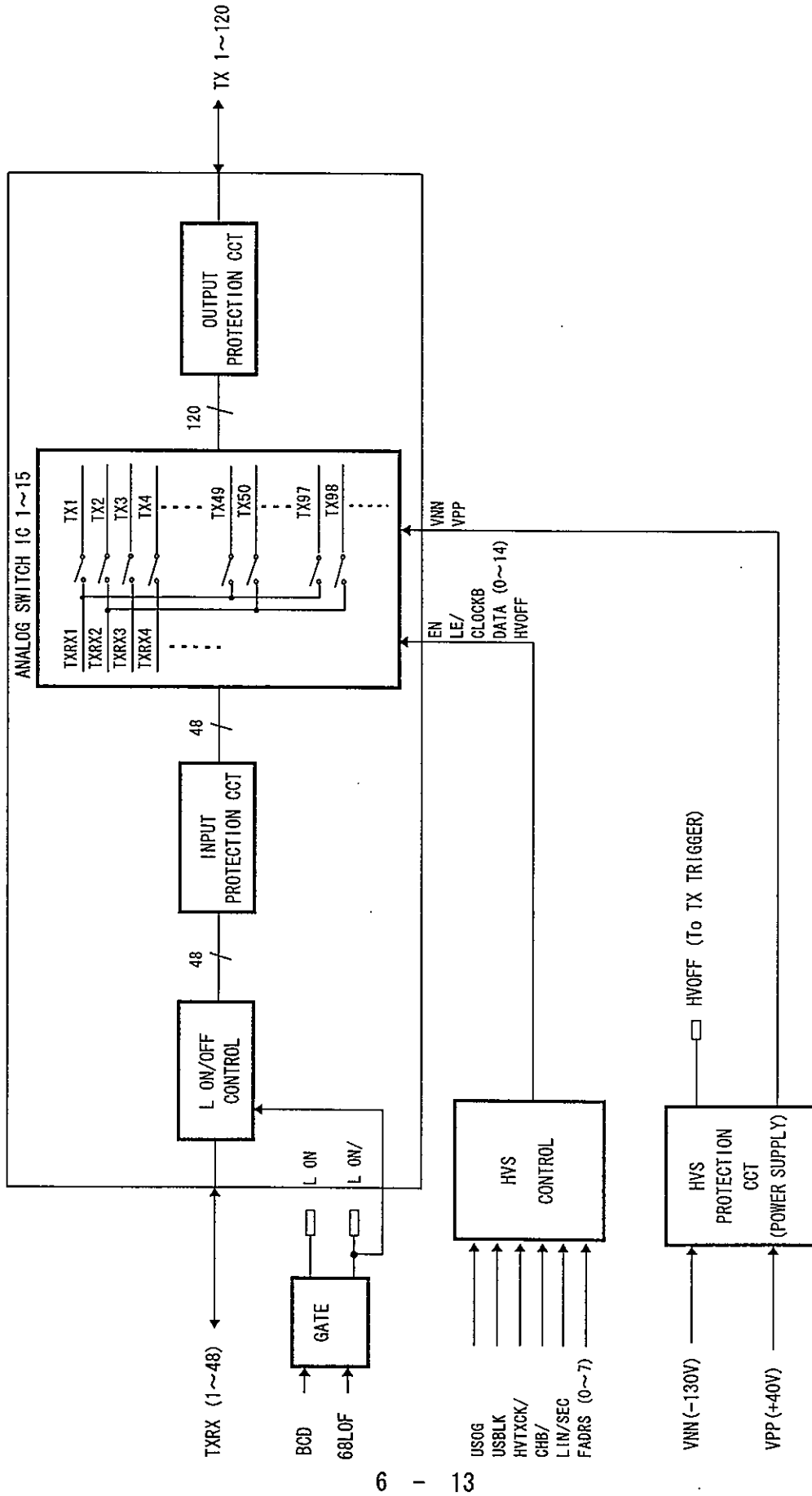
PIN No.	J101-3			
	A	B	C	D
1	GND	GND	GND	GND
2	40V	40V	40V	40V
3	GND	GND	GND	GND
4	HVSVNN	HVSVNN	HVSVNN	HVSVNN
5	GND	GND	GND	GND
6				
7				
8				
9				
10	GND	GND	GND	GND
11	TX56	TX104	GND	GND
12	TX103	TX8	GND	GND
13	TX7	TX55	GND	GND
14	TX54	TX102	GND	GND
15	TX101	TX6	GND	GND
16	TX5	TX53	GND	GND
17	TX52	TX100	GND	GND
18	TX59	TX4	GND	GND
19	TX3	TX01	GND	GND
20	TX50	TX90	GND	GND
21	TX97	TX2	GND	GND
22	TX1	TX49	GND	GND
23				
24	GND	GND	GND	GND
25	GND	GND	GND	GND

MN2-0213 Rev. 2  
SECTION 6 PCB BLOCK DIAGRAM

EP4256				
SELECTOR				
J101-1				
PIN No.	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	HV0FF		LCM	LDN_
8	FADRS6	FADRS1	FADRS2	FADRS3
9	FADRS4	FADRS5	FADRS6	FADRS7
10	USBLK		BCD	LTM_SEC
11	LDN_OFF	HVTKOK_	GBLOF	CK00
12	GND	GND		
13	TX80	TX8	GND	GND
14	TX7	TX32	GND	GND
15	TX31	TX79	GND	GND
16	TX78	TX8	GND	GND
17	TX5	TX39	GND	GND
18	TX29	TX77	GND	GND
19	TX78	TX4	GND	GND
20	TX3	TX28	GND	GND
21	TX27	TX75	GND	GND
22	TX74	TX2	GND	GND
23	TX1	TX25	GND	GND
24	TX25	TX73	GND	GND
25	GND	GND	GND	GND

EP4256				
SELECTOR				
J101-2				
PIN No.	A	B	C	D
1	TXRX47	TXRX48	GND	GND
2	TXRX45	TXRX46	GND	GND
3	TXRX43	TXRX44	GND	GND
4	TXRX41	TXRX42	GND	GND
5	TXRX39	TXRX40	GND	GND
6	TXRX37	TXRX38	GND	GND
7	TXRX35	TXRX36	GND	GND
8	TXRX33	TXRX34	GND	GND
9	TXRX31	TXRX32	GND	GND
10	TXRX29	TXRX30	GND	GND
11	TXRX27	TXRX28	GND	GND
12	TXRX25	TXRX26	GND	GND
13	GND	GND	GND	GND
14	TXRX23	TXRX24	GND	GND
15	TXRX21	TXRX22	GND	GND
16	TXRX19	TXRX20	GND	GND
17	TXRX17	TXRX18	GND	GND
18	TXRX15	TXRX16	GND	GND
19	TXRX13	TXRX14	GND	GND
20	TXRX11	TXRX12	GND	GND
21	TXRX9	TXRX10	GND	GND
22	TXRX7	TXRX8	GND	GND
23	TXRX5	TXRX6	GND	GND
24	TXRX3	TXRX4	GND	GND
25	TXRX1	TXRX2	GND	GND

J101-3				
PIN No.	A	B	C	D
1	GND	GND	GND	GND
2	40V	40V	40V	40V
3	GND	GND	GND	GND
4	HVSVNM	HVSVNM	HVSVNM	HVSVNM
5	GND	GND	GND	GND
6				
7				
8				
9				
10	GND	GND	GND	GND
11	TX64	TX112	GND	GND
12	TX111	TX18	GND	GND
13	TX19	TX83	GND	GND
14	TX82	TX110	GND	GND
15	TX109	TX14	GND	GND
16	TX13	TX81	GND	GND
17	TX60	TX108	GND	GND
18	TX107	TX12	GND	GND
19	TX11	TX59	GND	GND
20	TX58	TX106	GND	GND
21	TX105	TX10	GND	GND
22	TX9	TX57	GND	GND
23				
24	GND	GND	GND	GND
25	GND	GND	GND	GND



6 - 13

1/1	MODEL 形名 EP3961**	TITLE 名称 SELECTOR	Aloka
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6-4 TX

Receives trigger signals, which contain transmission focus information, that are sent from the TX TRIGGER GENERATOR and generates transmission pulses in the probe.

SIGNAL LIST

PIN No.	TX J103-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7				
8				
9				
10				
11				
12				
13			GND	GND
14			GND	GND
15			GND	GND
16			GND	GND
17			GND	GND
18			GND	GND
19			GND	GND
20			GND	GND
21			GND	GND
22			GND	GND
23			GND	GND
24			GND	GND
25			GND	GND

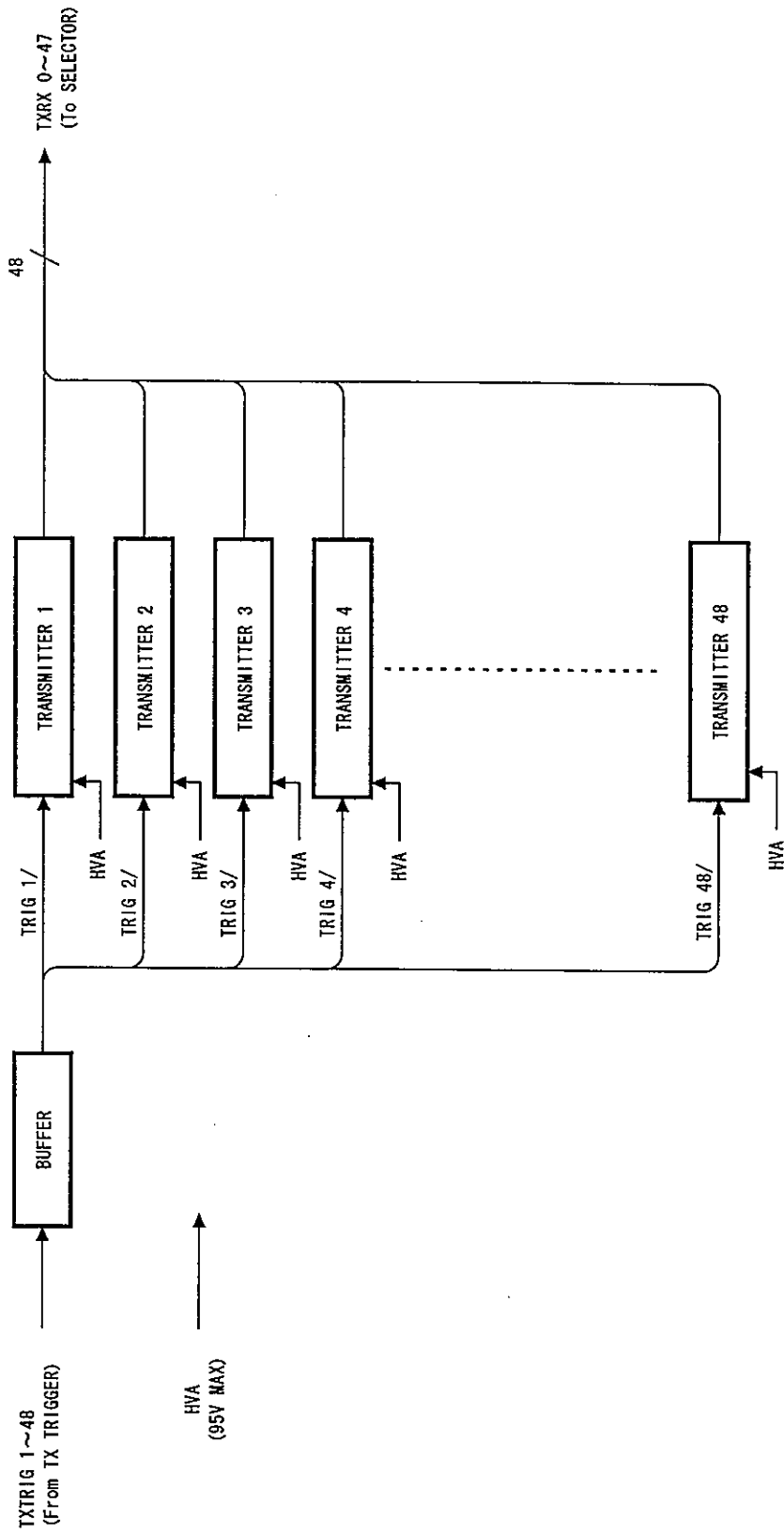
PIN No.	TX J103-2			
	A	B	C	D
1	TXRX47	TXRX48	GND	GND
2	TXRX45	TXRX46	GND	GND
3	TXRX43	TXRX44	GND	GND
4	TXRX41	TXRX42	GND	GND
5	TXRX39	TXRX40	GND	GND
6	TXRX37	TXRX38	GND	GND
7	TXRX35	TXRX36	GND	GND
8	TXRX33	TXRX34	GND	GND
9	TXRX31	TXRX32	GND	GND
10	TXRX29	TXRX30	GND	GND
11	TXRX27	TXRX28	GND	GND
12	TXRX25	TXRX26	GND	GND
13	GND	GND	GND	GND
14	TXRX23	TXRX24	GND	GND
15	TXRX21	TXRX22	GND	GND
16	TXRX19	TXRX20	GND	GND
17	TXRX17	TXRX18	GND	GND
18	TXRX15	TXRX16	GND	GND
19	TXRX13	TXRX14	GND	GND
20	TXRX11	TXRX12	GND	GND
21	TXRX9	TXRX10	GND	GND
22	TXRX7	TXRX8	GND	GND
23	TXRX5	TXRX6	GND	GND
24	TXRX3	TXRX4	GND	GND
25	TXRX1	TXRX2	GND	GND

PIN No.	TX J103-3			
	A	B	C	D
1			GND	GND
2			GND	GND
3			GND	GND
4			GND	GND
5			GND	GND
6			GND	GND
7			GND	GND
8			GND	GND
9			GND	GND
10			GND	GND
11			GND	GND
12			GND	GND
13			GND	GND
14			GND	GND
15			GND	GND
16			GND	GND
17			GND	GND
18			GND	GND
19	GND	GND	GND	GND
20	HV	HV	HV	HV
21	GND	GND	GND	GND
22				
23				
24	GND	GND	GND	GND
25	GND	GND	GND	GND

J121	50	TXTRIG47
J121	59	TXTRIG48
J121	58	TXTRIG45
J121	57	TXTRIG44
J121	56	
J121	55	TXTRIG43
J121	54	TXTRIG42
J121	53	TXTRIG41
J121	52	TXTRIG40
J121	51	
J121	50	TXTRIG39
J121	49	TXTRIG38
J121	48	TXTRIG37
J121	47	TXTRIG36
J121	46	
J121	45	TXTRIG35
J121	44	TXTRIG34
J121	43	TXTRIG33
J121	42	TXTRIG32
J121	41	
J121	40	TXTRIG31
J121	39	TXTRIG30
J121	38	TXTRIG29
J121	37	TXTRIG28
J121	36	
J121	35	TXTRIG27
J121	34	TXTRIG26
J121	33	TXTRIG25
J121	32	TXTRIG24
J121	31	
J121	30	TXTRIG23
J121	29	TXTRIG22
J121	28	TXTRIG21
J121	27	TXTRIG20
J121	26	
J121	25	TXTRIG19
J121	24	TXTRIG18
J121	23	TXTRIG17
J121	22	TXTRIG16
J121	21	
J121	20	TXTRIG15
J121	19	TXTRIG14
J121	18	TXTRIG13
J121	17	TXTRIG12
J121	16	
J121	15	TXTRIG11
J121	14	TXTRIG10
J121	13	TXTRIG9
J121	12	TXTRIG8
J121	11	
J121	10	TXTRIG7
J121	9	TXTRIG6
J121	8	TXTRIG5
J121	7	TXTRIG4
J121	6	
J121	5	TXTRIG3
J121	4	TXTRIG2
J121	3	TXTRIG1
J121	2	TXTRIG0
J121	1	

MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM

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Aloka	TITLE 名称 TX	MODEL 形名 EP3962**	1/1
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MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM

6-5 TX TRIGGER

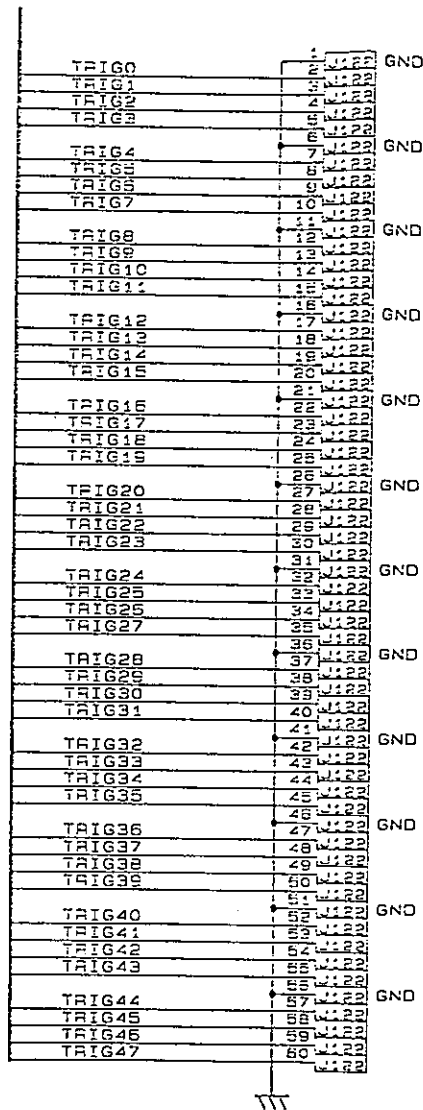
This circuit board can be roughly divided into the following five blocks.

1. Transmission Trigger Generator
2. GEU Address Generator
3. Receiving Dynamic Focus Switching Signal Generator
4. Sector Scanning Circuit
5. Image Control for MAIN AMP.

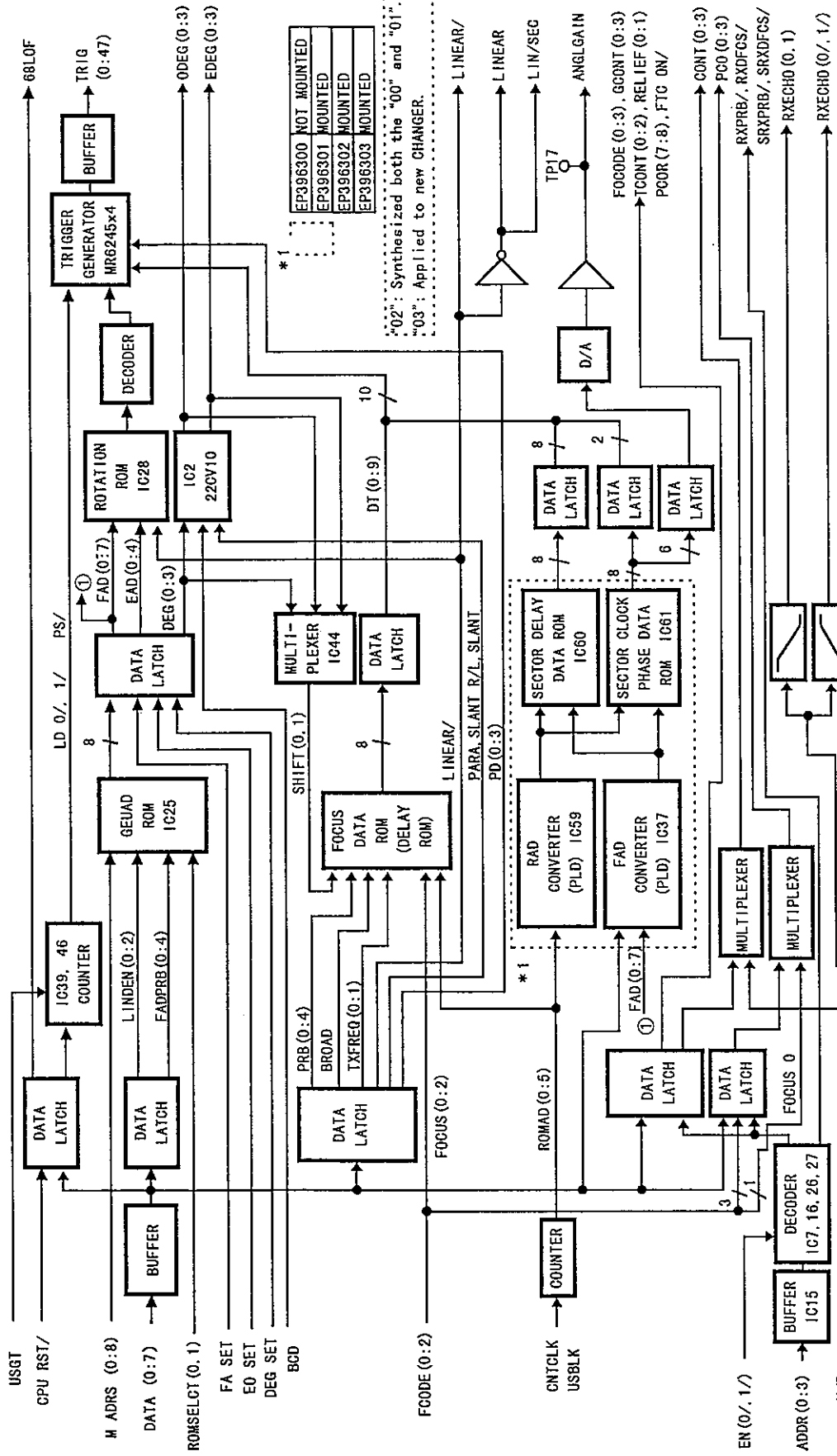
SIGNAL LIST

PIN No.	TX TRIG J112-1			
	A	B	C	D
1	OGND	OGND	OGND	OGND
2	OGND	OGND	OGND	OGND
3				
4				
5	5.1V	5.1V	5.1V	5.1V
6				EN2_
7	5.1V	5.1V	5.1V	5.1V
8	OGND	OGND	OGND	OGND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11	ADDR0	ADDR1	ADDR2	ADDR3
12	RXPFB_	RXFCS_	ENO_	EN1_
13	SXPFB_	SXFCS_	CPURST_	ENDAG4
14	ENDAG0	ENDAG1	ENDAG2	ENDAG3
15	FADRS0	FADRS1	FADRS2	FADRS3
16	FADRS4	FADRS5	FADRS6	FADRS7
17	ODEG0	ODEG1	ODEG2	LIN_SEC
18	EDEG0	EDEG1	EDEG2	USG1
19	CK0	OGND	CK1	OGND
20	DSND	OGND	OGND	OGND
21	ECHCHG	ODEG3	EDG3	
22	HYTOK	HYTOK		
23	HYTOK_	N_B	8BLOF	SCD
24	B_0	USBLK	ANGL	
25	OGND	OGND	OGND	OGND

PIN No.	J112-3			
	A	B	C	D
1	PCCR0	PCOR1	PCOR2	PCOR3
2	PCCR4		RELIEF0	RELIEF1
3	GCONT0	GCONT1	GCONT2	GCONT3
4	FCODE0	FCODE1	FCODE2	FCODE3
5	CONT0	CONT1	CONT2	
6	TCNT0	TCNT1	TCNT2	PCOR3
7	PCOR6	PCOR7	PCOR8	FTCON_
8	OGND	OGND	OGND	OGND
9	AXECH1	GND	AXECH1_	GND
10	AXECH0	GND	AXECH0_	GND
11	OGND	OGND	OGND	OGND
12	A0_	A1_	A2_	A3_
13	A4_	A5_	A6_	A7_
14	A8_	RONSLCT0	FASET	ESSET
15	FCODE0	FCODE1	FCODE2	TXOFF
16			RONSLCT1	CESSET
17				
18	GND	GND	GND	GND
19	GND	GND	GND	GND
20	3V_	3V_	3V_	3V_
21	3V	3V	3V	3V
22	15V_	15V_	15V_	15V_
23	15V	15V	15V	15V
24	GND	GND	GND	GND
25	GND	GND	GND	GND







TITLE 名称	TX TRIGGER
MODEL 形名	EP3963**
	1/1

6-6 PRE AMP

This circuit board contains the 48-channel PRE AMP circuit. When receiving signals are sent, it inputs PRESTC, which controls the near GAIN, into all 48 circuits, and controls the receiving signals.

In this circuit board, the 48 channels of receiving signals, which are amplified + 20 dB in the first stage, are output in parallel to RX FOCUS 1 and 2 in the subsequent stage and to SECTOR DELAY.

SIGNAL LIST

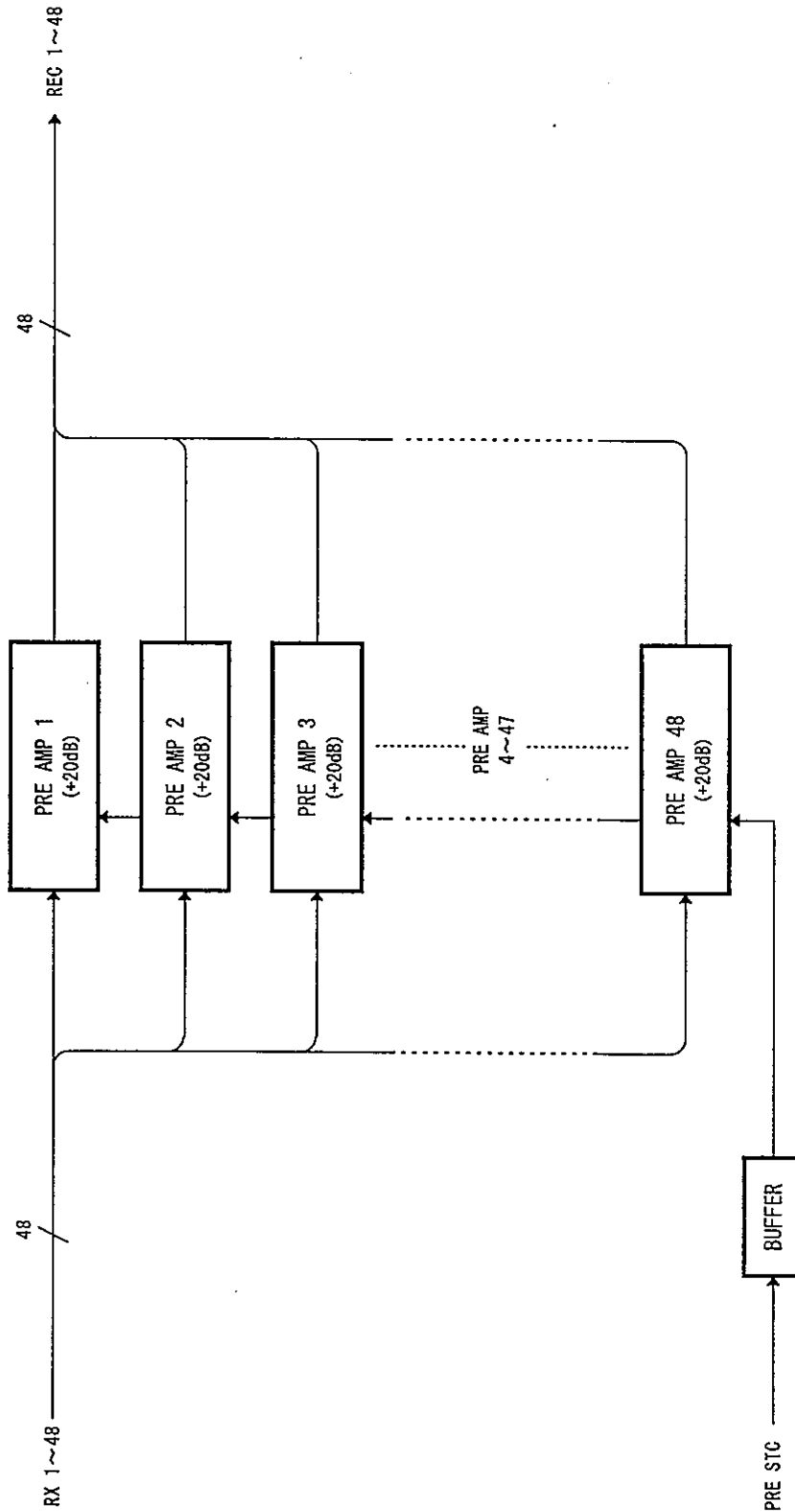
PIN No.	PRE AMP J104-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18	GND	GND	GND	GND
19	PRESTC	PRESTC	PRESTC	PRESTC
20	GND	GND	GND	GND
21			GND	GND
22		LDN	GND	GND
23		LDN_	GND	GND
24			GND	GND
25			GND	GND

PIN No.	PRE AMP J104-2			
	A	B	C	D
1	TXRX47	TXRX48	GND	GND
2	TXRX45	TXRX46	GND	GND
3	TXRX43	TXRX44	GND	GND
4	TXRX41	TXRX42	GND	GND
5	TXRX39	TXRX40	GND	GND
6	TXRX37	TXRX38	GND	GND
7	TXRX35	TXRX36	GND	GND
8	TXRX33	TXRX34	GND	GND
9	TXRX31	TXRX32	GND	GND
10	TXRX29	TXRX30	GND	GND
11	TXRX27	TXRX28	GND	GND
12	TXRX25	TXRX26	GND	GND
13	GND	GND	GND	GND
14	TXRX23	TXRX24	GND	GND
15	TXRX21	TXRX22	GND	GND
16	TXRX19	TXRX20	GND	GND
17	TXRX17	TXRX18	GND	GND
18	TXRX15	TXRX16	GND	GND
19	TXRX13	TXRX14	GND	GND
20	TXRX11	TXRX12	GND	GND
21	TXRX9	TXRX10	GND	GND
22	TXRX7	TXRX8	GND	GND
23	TXRX5	TXRX6	GND	GND
24	TXRX3	TXRX4	GND	GND
25	TXRX1	TXRX2	GND	GND

PIN No.	J104-3			
	A	B	C	D
1	REC47	REC48	GND	GND
2	REC45	REC46	GND	GND
3	REC43	REC44	GND	GND
4	REC41	REC42	GND	GND
5	REC39	REC40	GND	GND
6	REC37	REC38	GND	GND
7	REC35	REC36	GND	GND
8	REC33	REC34	GND	GND
9	REC31	REC32	GND	GND
10	REC29	REC30	GND	GND
11	REC27	REC28	GND	GND
12	REC25	REC26	GND	GND
13	GND	GND	GND	GND
14	REC23	REC24	GND	GND
15	REC21	REC22	GND	GND
16	REC19	REC20	GND	GND
17	REC17	REC18	GND	GND
18	REC15	REC16	GND	GND
19	REC13	REC14	GND	GND
20	REC11	REC12	GND	GND
21	REC9	REC10	GND	GND
22	REC7	REC8	GND	GND
23	REC5	REC6	GND	GND
24	REC3	REC4	GND	GND
25	REC1	REC2	GND	GND

MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM

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<b>Aloka</b>	TITLE 名称 <i>PRE AMP</i>	MODEL 形名 EP3964**	1/1
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6-7 SECTOR DELAY

In the SSD-1700, sector scanning is enabled by adding two SECTOR DELAY boards to the standard system.

SIGNAL LIST

PIN No.	SECTOR DELAY			
	J105-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	5V	5V	5V	5V
8	OGND	OGND	OGND	OGND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11				
12	SRXPRB_	SRXOFCS_		
13	OGND	OGND	OGND	ENDAD4
14	ENDAD0	ENDAD1	ENDAD2	ENDAD3
15	FADRS0	FADRS1	FADRS2	FADRS3
16	FADRS4	FADRS5	FADRS6	FADRS7
17				
18	EX0	EX1	EX2	EX3
19	EX4	EX5	EX6	EX7
20	EAD0	EAD1	EAD2	EAD3
21	ECHOCHG	EAD4	EAD5	ERXCK
22	ESTB0	ESTB1	ESTB2	ESTB3
23	ESTB4	ESTB5	EFCLK	BCO
24	B_D	USBLK	EYAD0	EYAD1
25				EYAD2

PIN No.	SECTOR DELAY			
	J105-2			
	A	B	C	D
1	5V	5V	5V	5V
2	5V	5V	5V	5V
3	5V	5V	5V	5V
4	GND	GND	GND	GND
5	5V_	5V_	5V_	5V_
6	5V_	5V_	5V_	5V_
7	5V_	5V_	5V_	5V_
8				
9				
10				
11	GND	GND	GND	GND
12	GND	GND	GND	GND
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	GND	GND	GND	GND
16	GND	GND	GND	ENG
17	REC47	REC48	GND	GND
18	REC45	REC46	GND	GND
19	REC43	REC44	GND	GND
20	REC41	REC42	GND	GND
21	REC39	REC40	GND	GND
22	REC37	REC38	GND	GND
23	REC35	REC36	GND	GND
24	REC33	REC34	GND	GND
25	REC31	REC32	GND	GND

PIN No.	J105-3			
	A	B	C	D
1	REC29	REC30	GND	GND
2	REC27	REC28	GND	GND
3	REC25	REC26	GND	GND
4	REC23	REC24	GND	GND
5	REC21	REC22	GND	GND
6	REC19	REC20	GND	GND
7	REC17	REC18	GND	GND
8	REC15	REC16	GND	GND
9	REC13	REC14	GND	GND
10	REC11	REC12	GND	GND
11	REC9	REC10	GND	GND
12	REC7	REC8	GND	GND
13	REC5	REC6	GND	GND
14	REC3	REC4	GND	GND
15	REC1	REC2	GND	GND
16	ESECOUT	ESECUT	GND	GND
17	GND	GND	GND	GND
18	RXECH1	RXECH1_	GND	GND
19	GND	GND	GND	GND
20	GND	GND	GND	GND
21	GND	GND	GND	GND
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24			GND	GND
25			GND	GND

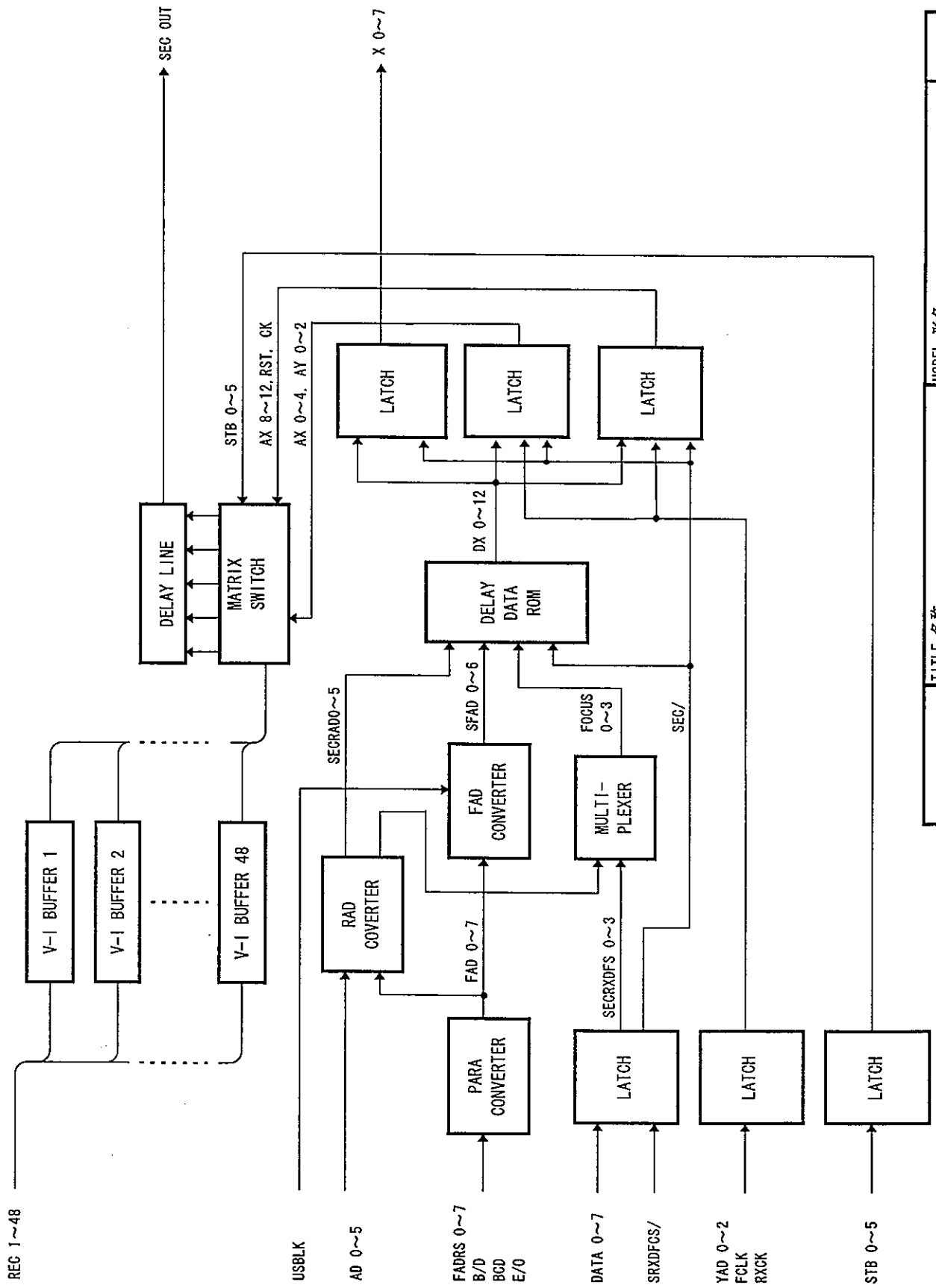
MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM

PIN No.	SECTOR DELAY			
	J106-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	5V	5V	5V	5V
8	DGND	DGND	DGND	DGND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11				
12	SRXPB_	SRXFCS_	DGND	
13	OPT6	DGND	DGND	ENDAD4
14	ENDAD0	ENDAD1	ENDAD2	ENDAD3
15	FAORS0	FAORS1	FAORS2	FAORS3
16	FAORS4	FAORS5	FAORS6	FAORS7
17				
18	OX0	OX1	OX2	OX3
19	OX4	OX5	OX6	OX7
20	OAO0	OAO1	OAO2	OAO3
21	ECHOCH6	OAO4	OAO5	DRXCK
22	OSTB0	OSTB1	OSTB2	OSTB3
23	OSTB4	OSTB5	OFCLK	BC0
24	B_D	USBLK	OYAD0	OYAD1
25				OYAD2

PIN No.	SECTOR DELAY			
	J106-2			
	A	B	C	D
1	5V	5V	5V	5V
2	5V	5V	5V	5V
3	5V	5V	5V	5V
4	GND	GND	GND	GND
5	5V_	5V_	5V_	5V_
6	5V_	5V_	5V_	5V_
7	5V_	5V_	5V_	5V_
8				
9				
10				
11	GND	GND	GND	GND
12	GND	GND	GND	GND
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	GND	GND	GND	GND
16	GND	GND	GND	GND
17	REC47	REC48	GND	GND
18	REC45	REC46	GND	GND
19	REC43	REC44	GND	GND
20	REC41	REC42	GND	GND
21	REC39	REC40	GND	GND
22	REC37	REC38	GND	GND
23	REC35	REC36	GND	GND
24	REC33	REC34	GND	GND
25	REC31	REC32	GND	GND

PIN No.	J106-3			
	A	B	C	D
1	REC29	REC30	GND	GND
2	REC27	REC28	GND	GND
3	REC25	REC26	GND	GND
4	REC23	REC24	GND	GND
5	REC21	REC22	GND	GND
6	REC19	REC20	GND	GND
7	REC17	REC18	GND	GND
8	REC15	REC16	GND	GND
9	REC13	REC14	GND	GND
10	REC11	REC12	GND	GND
11	REC9	REC10	GND	GND
12	REC7	REC8	GND	GND
13	REC5	REC6	GND	GND
14	REC3	REC4	GND	GND
15	REC1	REC2	GND	GND
16	OSECOUT	OSECOUT	GND	GND
17	GND	GND	GND	GND
18	RXECHO	RXECHO_	GND	GND
19	GND	GND	GND	GND
20	GND	GND	GND	GND
21	GND	GND	GND	GND
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24			GND	GND
25			GND	GND





## 6-8 RX FOCUS 1/2

In the SSD-1700, two RX FOCUS boards are used. While one board is receiving, the operation in the next stage which carries out data setting is repeated and receiving dynamic focus is accomplished. Switching between receiving period and data setting period is controlled by RXECH0, RXECH0/, RXECH1 and RXECH1/. Also, the control circuit begins data setting in response to the "MRT" signal, which is sent in the first stage only, then data setting begins when the rise of RXEHO, RXECHO/,RXECH1 and RXECH1/ is detected.

Sector scanning can also be done by installing two additional SECTOR DELAY boards.

SIGNAL LIST

PIN No.	RX DELAY			
	J107-1			
	A	B	C	D
1	OGND	OGND	OGND	OGND
2	OGND	OGND	OGND	OGND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	5V	5V	5V	5V
8	OGND	OGND	OGND	OGND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11				
12	RXPB_	RXPCS_		
13	OGND	OGND	OGND	ENDAO4
14	ENDAO0	ENDAO1	ENDAO2	ENDAO3
15	FAORS0	FAORS1	FAORS2	FAORS3
16	FAORS4	FAORS5	FAORS6	FAORS7
17	EDEG0	EDEG1	EDEG2	CK0
18	EX0	EX1	EX2	EX3
19	EX4	EX5	EX6	EX7
20	EAD0	EAD1	EAD2	EAD3
21	ECHOCHK	EAD4	EAD5	ERXCK
22	ESTB0	ESTB1	ESTB2	ESTB3
23	ESTB4	ESTB5	EFCLK	BC0
24	B_D	USBLK	EYAO0	EYAO1
25	KRT		EDEG3	EYAO2

PIN No.	RX DELAY			
	J107-2			
	A	B	C	D
1	5V	5V	5V	5V
2	5V	5V	5V	5V
3	5V	5V	5V	5V
4	GND	GND	GND	GND
5	5V_	5V_	5V_	5V_
6	5V_	5V_	5V_	5V_
7	5V_	5V_	5V_	5V_
8				
9				
10				
11	GND	GND	GND	GND
12	GND	GND	GND	GND
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	GND	GND	GND	GND
16	GND	GND	GND	GND
17	REC47	REC48	GND	GND
18	REC45	REC46	GND	GND
19	REC43	REC44	GND	GND
20	REC41	REC42	GND	GND
21	REC39	REC40	GND	GND
22	REC37	REC38	GND	GND
23	REC35	REC36	GND	GND
24	REC33	REC34	GND	GND
25	REC31	REC32	GND	GND

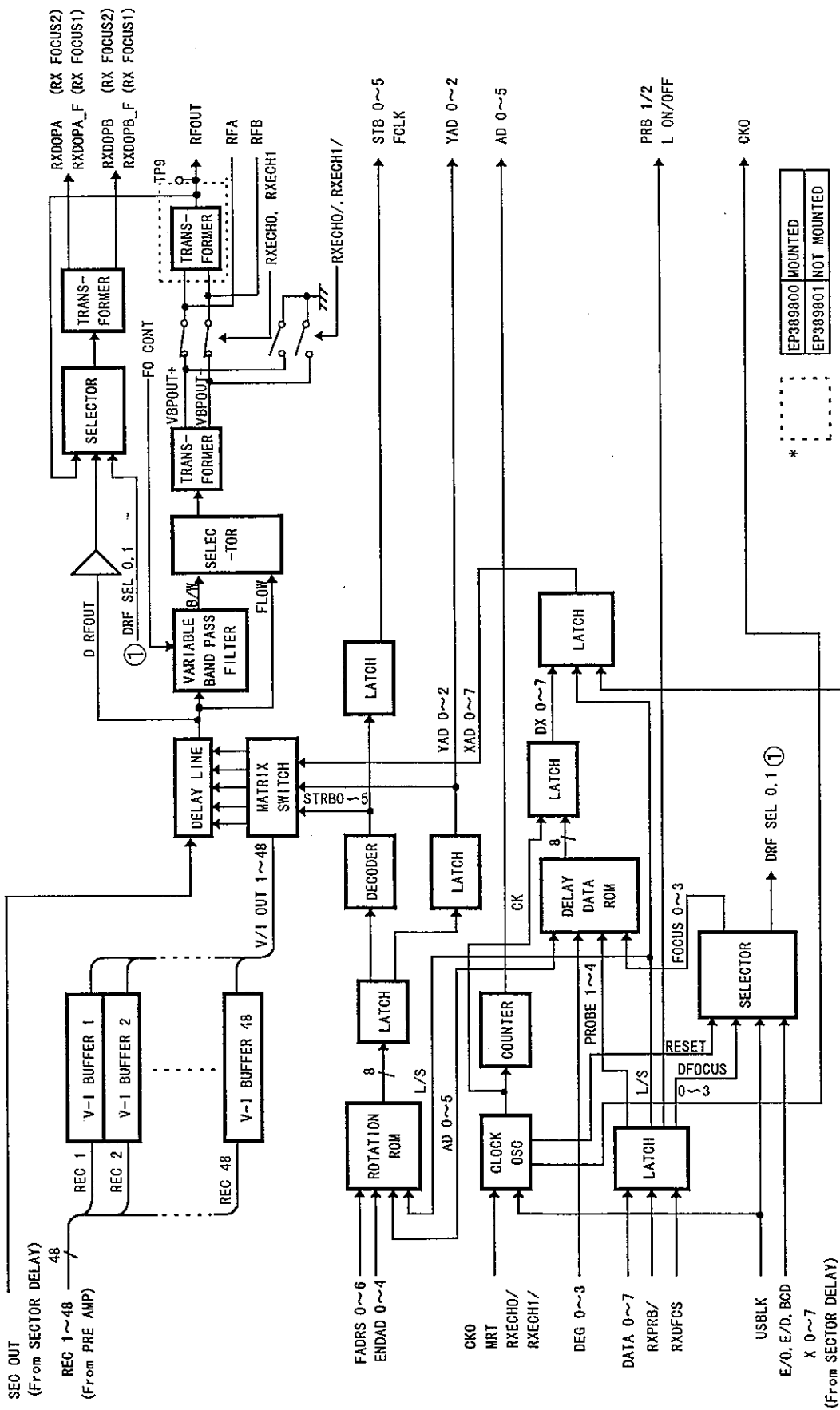
PIN No.	J107-3			
	A	B	C	D
1	REC29	REC30	GND	GND
2	REC27	REC28	GND	GND
3	REC25	REC26	GND	GND
4	REC23	REC24	GND	GND
5	REC21	REC22	GND	GND
6	REC19	REC20	GND	GND
7	REC17	REC18	GND	GND
8	REC15	REC16	GND	GND
9	REC13	REC14	GND	GND
10	REC11	REC12	GND	GND
11	REC9	REC10	GND	GND
12	REC7	REC8	GND	GND
13	REC5	REC6	GND	GND
14	REC3	REC4	GND	GND
15	REC1	REC2	GND	GND
16	ESECOUT	ESECOUT	GND	GND
17	GND	GND	GND	GND
18	GND	GND	GND	
19	RXECH1	RXECH1_	GND	FCCONT
20	GND	GND	GND	GND
21	RFA	RFA	RFB	RFB
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24				
25	GND	RXCOPA	GND	RXCOPB

MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM

PIN No.	RX DELAY J108-1			
	A	B	C	D
1	0GND	0GND	0GND	0GND
2	0GND	0GND	0GND	0GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	5V	5V	5V	5V
8	0GND	0GND	0GND	0GND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11	PRB1_2	LOC_OFF		
12	RXPB8_	RXCPCS_	0GND	
13	0GND	0GND	0GND	ENDAO4
14	ENDAO0	ENDAO1	ENDAO2	ENDAO3
15	FAORS0	FAORS1	FAORS2	FAORS3
16	FAORS4	FAORS5	FAORS6	FAORS7
17	0DEG0	0DEG1	0DEG2	CK0
18	0X0	0X1	0X2	0X3
19	0X4	0X5	0X6	0X7
20	0A00	0A01	0A02	0A03
21	ECHOCMS	0A04	0A05	0RXCK
22	0STB0	0STB1	0STB2	0STB3
23	0STB4	0STB5	0FCLK	BC0
24	B_D	USBK	0YA00	0YA01
25	HRT	CK0G	0DEG3	0YA02

PIN No.	RX DELAY J108-2			
	A	B	C	D
1	5V	5V	5V	5V
2	5V	5V	5V	5V
3	5V	5V	5V	5V
4	GND	GND	GND	GND
5	5V_	5V_	5V_	5V_
6	5V_	5V_	5V_	5V_
7	5V_	5V_	5V_	5V_
8				
9				
10				
11	GND	GND	GND	GND
12	GND	GND	GND	GND
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	GND	GND	GND	GND
16	GND	GND	GND	GND
17	REC47	REC48	GND	GND
18	REC45	REC46	GND	GND
19	REC43	REC44	GND	GND
20	REC41	REC42	GND	GND
21	REC39	REC40	GND	GND
22	REC37	REC38	GND	GND
23	REC35	REC36	GND	GND
24	REC33	REC34	GND	GND
25	REC31	REC32	GND	GND

PIN No.	J108-3			
	A	B	C	D
1	REC29	REC30	GND	GND
2	REC27	REC28	GND	GND
3	REC25	REC26	GND	GND
4	REC23	REC24	GND	GND
5	REC21	REC22	GND	GND
6	REC19	REC20	GND	GND
7	REC17	REC18	GND	GND
8	REC15	REC16	GND	GND
9	REC13	REC14	GND	GND
10	REC11	REC12	GND	GND
11	REC9	REC10	GND	GND
12	REC7	REC8	GND	GND
13	REC5	REC6	GND	GND
14	REC3	REC4	GND	GND
15	REC1	REC2	GND	GND
16	0SECOUT	0SECUT	GND	GND
17	GND	GND	GND	GND
18	GND	GND	GND	
19	RXCNO	RXCNO_	GND	FOCOUT
20	GND	GND	GND	GND
21	RFA	RFA	RFB	RFB
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24	RFCUT	RFOUT	GND	GND
25	GND	RXDPA_F	GND	RXDPA_F



TITLE 名称	RX FOCUS 1, 2	MODEL 形名	EP3898**	1/1
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MN2-0213 Rev. 1  
SECTION 6 PCB BLOCK DIAGRAM

PIN No.	EP4151			
	RX FOCUS			
	J107-1			
	A	B	C	D
1	DGND	DGND	DGND	DGND
2	DGND	DGND	DGND	DGND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	5V	5V	5V	5V
8	DGND	DGND	DGND	DGND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11			KC_INIT_	CPURST_
12	RXPB8_	RXFCS_		CK1
13	DGND	DGND	DGND	ENDAD4
14	ENDAD0	ENDAD1	ENDAD2	ENDAD3
15	FADRS0	FADRS1	FADRS2	FADRS3
16	FADRS4	FADRS5	FADRS6	FADRS7
17	EDEG0	EDEG1	EDEG2	CK0
18	EX0	EX1	EX2	EX3
19	EX4	EX5	EX6	EX7
20	EAD0	EAD1	EAD2	EAD3
21	ECHDCHG	EAD4	EAD5	ERXCK
22	ESTB0	ESTB1	ESTB2	ESTB3
23	ESTB4	ESTB5	EFCLK	BGD
24	B_D	USBLK	ETAD0	ETAD1
25	HRT		EDEC3	ETAD2

PIN No.	EP4151			
	RX FOCUS			
	J107-2			
	A	B	C	D
1	5V	5V	5V	5V
2	5V	5V	5V	5V
3	5V	5V	5V	5V
4	GND	GND	GND	GND
5	5V_	5V_	5V_	5V_
6	5V_	5V_	5V_	5V_
7	5V_	5V_	5V_	5V_
8				
9				
10				
11	GND	GND	GND	GND
12	GND	GND	GND	GND
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	GND	GND	GND	GND
16	GND	GND	GND	GND
17	REC47	REC48	GND	GND
18	REC45	REC46	GND	GND
19	REC43	REC44	GND	GND
20	REC41	REC42	GND	GND
21	REC39	REC40	GND	GND
22	REC37	REC38	GND	GND
23	REC35	REC36	GND	GND
24	REC33	REC34	GND	GND
25	REC31	REC32	GND	GND

PIN No.	J107-3			
	A	B	C	D
1	REC29	REC30	GND	GND
2	REC27	REC28	GND	GND
3	REC25	REC26	GND	GND
4	REC23	REC24	GND	GND
5	REC21	REC22	GND	GND
6	REC19	REC20	GND	GND
7	REC17	REC18	GND	GND
8	REC15	REC16	GND	GND
9	REC13	REC14	GND	GND
10	REC11	REC12	GND	GND
11	REC9	REC10	GND	GND
12	REC7	REC8	GND	GND
13	REC5	REC6	GND	GND
14	REC3	REC4	GND	GND
15	REC1	REC2	GND	GND
16	ESECOUT	ESECOUT	GND	GND
17	GND	GND	GND	GND
18	GND	GND	GND	
19	RXECH1	RXECH1_	GND	FOCDH1
20	GND	GND	GND	GND
21	RFA	RFA	RFB	RFB
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24	RXDOPA_P	RXDOPA_P		
25	GND	RXDOPA	GND	RXDOPB

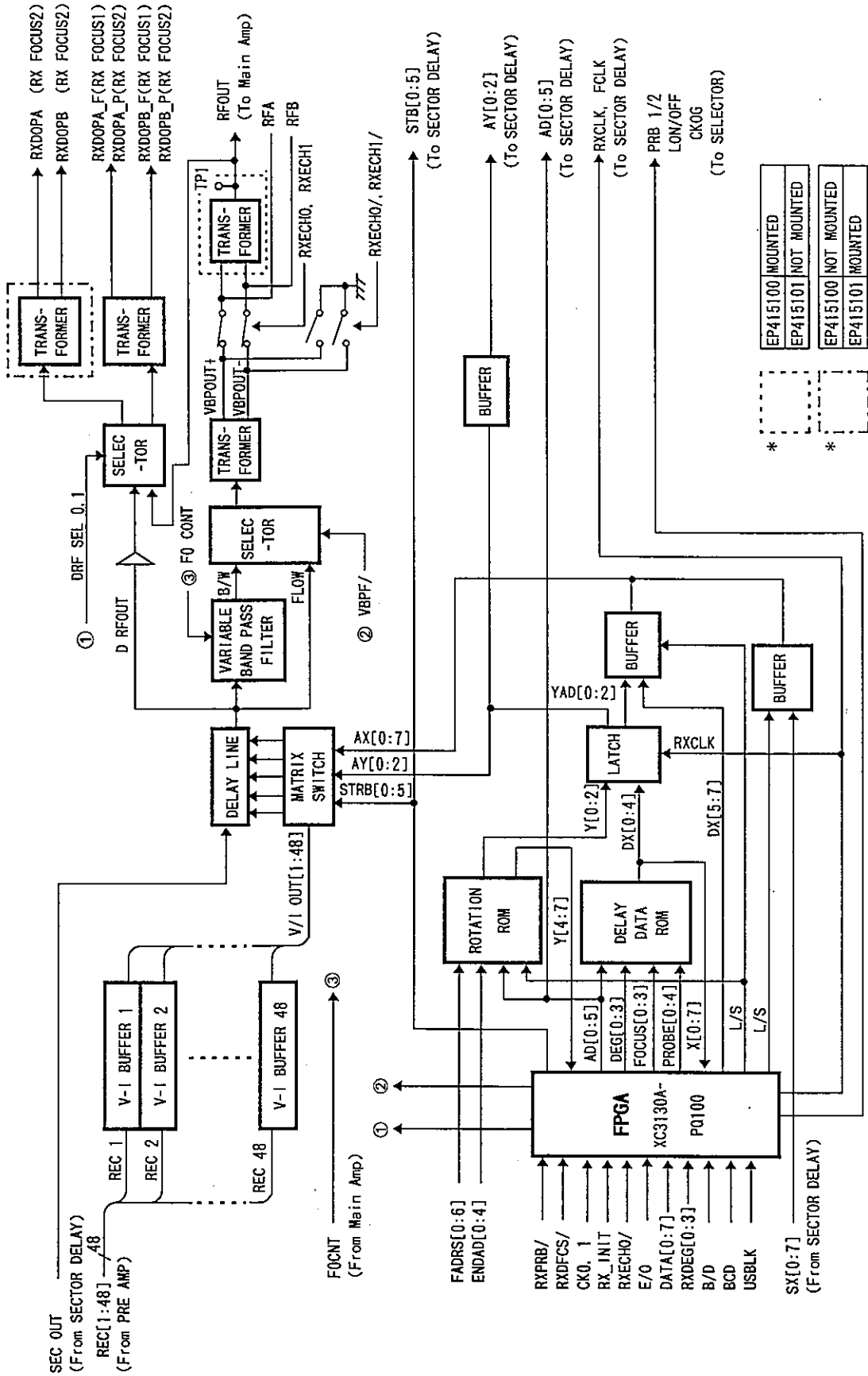
MN2-0213 Rev. 1  
SECTION 6 PCB BLOCK DIAGRAM

PIN No.	EP4151			
	RX FOCUS			
	J108-1			
	A	B	C	D
1	DGND	DGND	DGND	DGND
2	DGND	DGND	DGND	DGND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	5V	5V	5V	5V
8	DGND	DGND	DGND	DGND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11	PRBI_2	LOW_OFF	XC_INIT_	CPURST_
12	RKPRB_	RKDFCS_	DGND	CK1
13	DGND	DGND	DGND	ENDAD4
14	ENDAD0	ENDAD1	ENDAD2	ENDAD3
15	FADRS0	FADRS1	FADRS2	FADRS3
16	FADRS4	FADRS5	FADRS6	FADRS7
17	ODEC0	ODEC1	ODEC2	CK0
18	OX0	OX1	OX2	OX3
19	OX4	OX5	OX6	OX7
20	OAD0	OAD1	OAD2	OAD3
21	ECHOCHG	OAD4	OAD5	ORXCK
22	OSTB0	OSTB1	OSTB2	OSTB3
23	OSTB4	OSTB5	DFCLK	BCD
24	B_D	USBLK	DTAD0	DTAD1
25	MIT	CK0G	ODEC3	DTAD2

PIN No.	EP4151			
	RX FOCUS			
	J108-2			
	A	B	C	D
1	5V	5V	5V	5V
2	5V	5V	5V	5V
3	5V	5V	5V	5V
4	GND	GND	GND	GND
5	5V_	5V_	5V_	5V_
6	5V_	5V_	5V_	5V_
7	5V_	5V_	5V_	5V_
8				
9				
10				
11	GND	GND	GND	GND
12	GND	GND	GND	GND
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	GND	GND	GND	GND
16	GND	GND	GND	GND
17	REC47	REC48	GND	GND
18	REC45	REC46	GND	GND
19	REC43	REC44	GND	GND
20	REC41	REC42	GND	GND
21	REC39	REC40	GND	GND
22	REC37	REC38	GND	GND
23	REC35	REC36	GND	GND
24	REC33	REC34	GND	GND
25	REC31	REC32	GND	GND

PIN No.	J108-3			
	A	B	C	D
1	REC29	REC30	GND	GND
2	REC27	REC28	GND	GND
3	REC25	REC26	GND	GND
4	REC23	REC24	GND	GND
5	REC21	REC22	GND	GND
6	REC19	REC20	GND	GND
7	REC17	REC18	GND	GND
8	REC15	REC16	GND	GND
9	REC13	REC14	GND	GND
10	REC11	REC12	GND	GND
11	REC9	REC10	GND	GND
12	REC7	REC8	GND	GND
13	REC5	REC6	GND	GND
14	REC3	REC4	GND	GND
15	REC1	REC2	GND	GND
16	OSECOUT	OSECOUT	GND	GND
17	GND	GND	GND	GND
18	GND	GND	GND	GND
19	RXECHO	RXECHO_	GND	FQCONT
20	GND	GND	GND	GND
21	RFA	RFA	RFB	RFB
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24	RFOUT	RFOUT	GND	GND
25	GND	RXDDPA_F	GND	RXDDPB_F

MN2-0213 Rev. 1  
SECTION 6 PCB BLOCK DIAGRAM



TITLE 名称	RX FOCUS 1, 2
MODEL 形名	EP4151**
	1/1



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6-9 MAIN AMP

This circuit board inputs the black and white receiving signals added from RX FOCUS 1 and 2, executes the various types of signal processing, then outputs the results to the DIU.

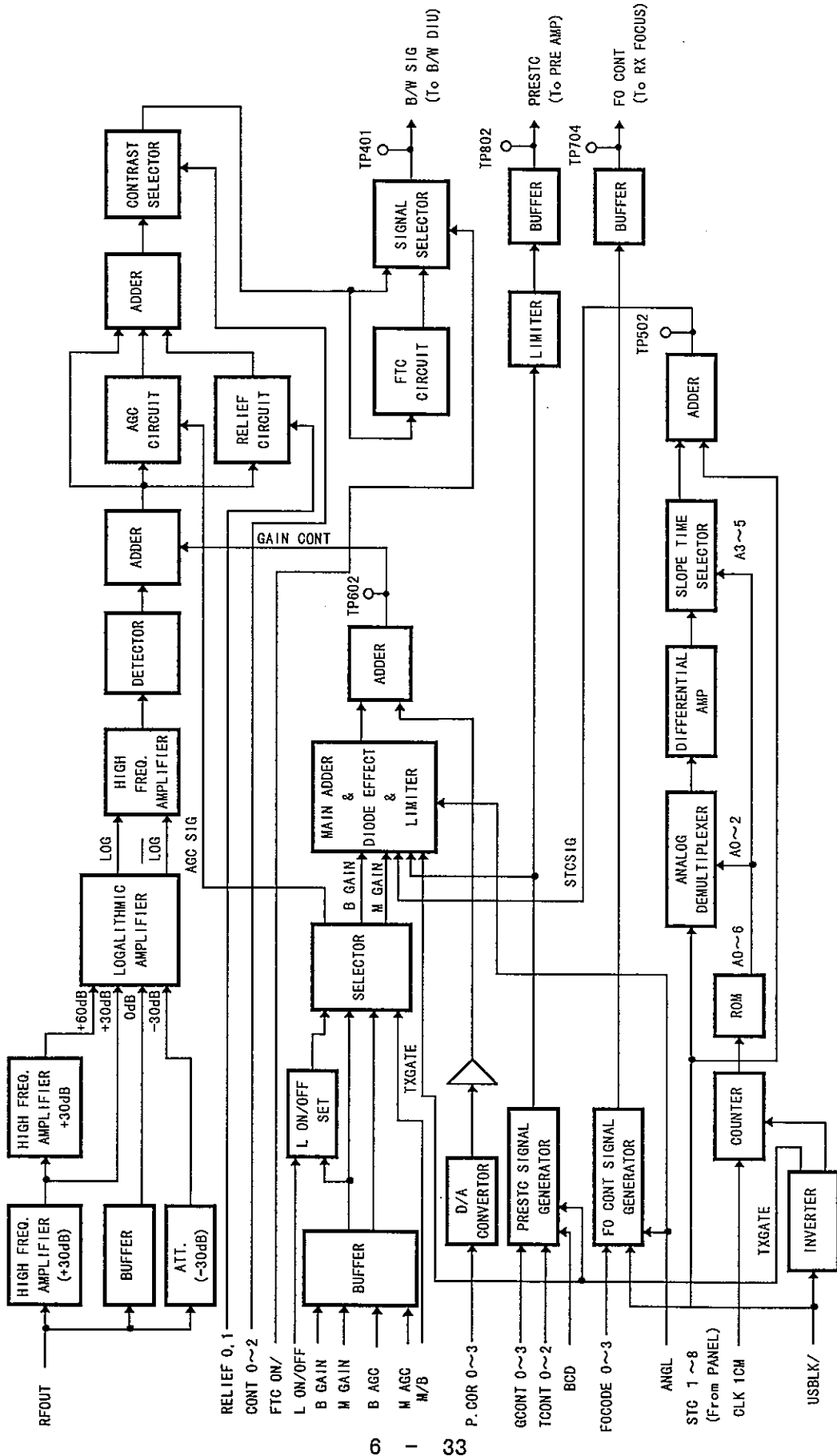
This circuit board is configured mainly from the circuits which carry out amplification, wave detection and signal processing of black and white receiving signals and circuits which create control signals necessary for itself and other circuits.

SIGNAL LIST

EP3899				
MAIN AMP				
J109-1				
PIN No.	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7				
8	GND	GND	GND	GND
9	8_VS18	8_VS10		
10				
11				
12				
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	GND	GND	GND	GND
16	GND	GND	GND	GND
17	GND	GND	GND	GND
18	GND	GND	GND	GND
19	GND	GND	GND	GND
20	PRESTC	PRESTC	PRESTC	PRESTC
21	GND	GND	GND	GND
22	CLKICK		GND	GND
23			GND	GND
24			GND	GND
25			GND	GND

EP3899				
MAIN AMP				
J109-2				
PIN No.	A	B	C	D
1	GND	GND	GND	GND
2			GND	GND
3	TCONT0	TCONT1	TCONT2	GND
4			GND	GND
5	GCNT0	GCNT1	GCNT2	GCNT3
6	RELIEF0	RELIEF1	GND	GND
7	BCD	USBLK_	GND	GND
8	SPARE1		GND	GND
9	GND	GND	GND	GND
10	FCCONT	FCCONT	GND	GND
11	GND	GND	GND	GND
12	ANGL		GND	GND
13	FCCODE0	FCCODE1	FCCODE2	FCCODE3
14	LDN_OFF		GND	GND
15	K_5		GND	GND
16	B.AGC	K.AGC	GND	GND
17	B.GAIN	K.GAIN	GND	GND
18			GND	GND
19	STC5	STC5	STC7	STC8
20	STC1	STC2	STC3	STC4
21	PCOR0	PCOR1	PCOR2	PCOR3
22	PCOR4	CONT0	CONT1	CONT2
23	PCOR5	PCOR6	PCOR7	LTN_SEC
24	PCOR8	GND	FTCON_	GND
25	GND	GND	GND	GND

J109-3				
PIN No.	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	GND	GND	GND	GND
8			GND	GND
9	SAMPLE_		GND	GND
10			GND	GND
11	GND	GND	GND	GND
12			GND	GND
13	GND	GND	GND	GND
14			GND	GND
15	GND	GND	GND	GND
16			GND	GND
17			GND	GND
18			GND	GND
19			GND	GND
20	GND	GND	GND	GND
21			GND	GND
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24	RFOUT	RFOUT	GND	GND
25	GND	GND	GND	GND



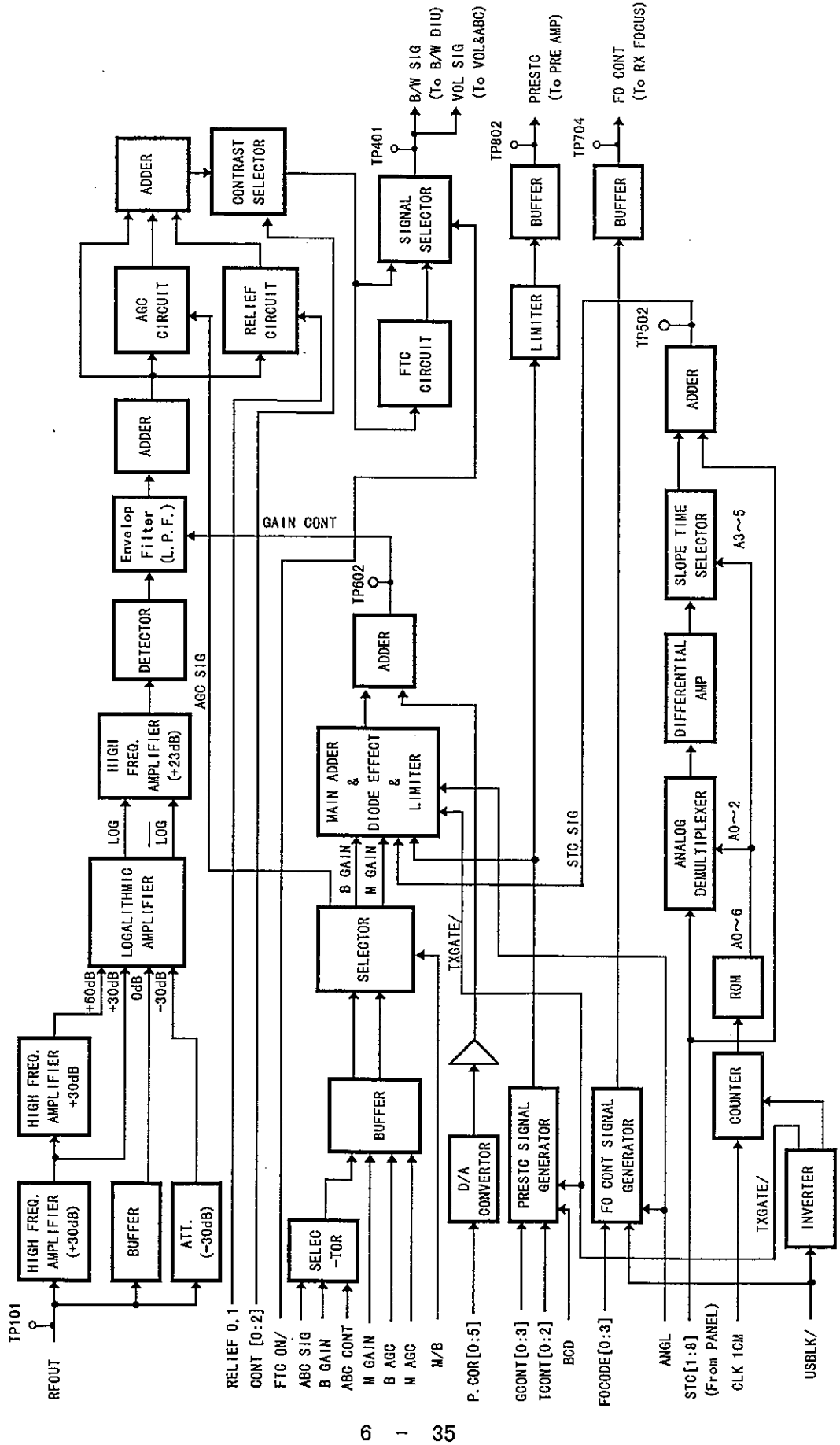
TITLE 名称	MODEL 形名	1/1
	MAIN AMP	EP3899**

SIGNAL LIST

PIN No.	EP4194			
	MAIN AMP			
	J109-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7				
8	GND	GND	GND	GND
9	B_WSIG	B_WSIG		
10				
11				
12			VOLSIG	
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	GND	GND	GND	GND
16	GND	GND	GND	GND
17	GND	GND	GND	GND
18	GND	GND	GND	GND
19	GND	GND	GND	GND
20	PRESTC	PRESTC	PRESTC	PRESTC
21	GND	GND	GND	GND
22	CLKICK		GND	GND
23			GND	GND
24			GND	GND
25		ABCSIG	GND	GND

PIN No.	EP4194			
	MAIN AMP			
	J109-2			
	A	B	C	D
1	GND	GND	GND	GND
2			GND	GND
3	TCONT0	TCONT1	TCONT2	GND
4			GND	GND
5	GCONT0	GCONT1	GCONT2	GCONT3
6	RELIEF0	RELIEF1	GND	GND
7	BCD	USBLK_	GND	GND
8	SPARE1		GND	GND
9	GND	GND	GND	GND
10	FOCONT	FOCONT	GND	GND
11	GND	GND	GND	GND
12	ANGL		GND	GND
13	FOCODE0	FOCODE1	FOCODE2	FOCODE3
14	LON_OFF	ABCCONT	GND	GND
15	X_B		GND	GND
16	B.AGC	M.AGC	GND	GND
17	B.GAIN	M.GAIN	GND	GND
18			GND	GND
19	STC5	STC6	STC7	STC8
20	STC1	STC2	STC3	STC4
21	PCOR0	PCOR1	PCOR2	PCOR3
22	PCOR4	CONT0	CONT1	CONT2
23	PCOR5	PCOR6	PCOR7	LIN_SEC
24	PCOR8	GND	FTCON_	GND
25	GND	GND	GND	GND

PIN No.	J109-3			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V_	15V_	15V_	15V_
5	5V	5V	5V	5V
6	5V_	5V_	5V_	5V_
7	GND	GND	GND	GND
8			GND	GND
9	SAMPLE_		GND	GND
10			GND	GND
11	GND	GND	GND	GND
12			GND	GND
13	GND	GND	GND	GND
14			GND	GND
15	GND	GND	GND	GND
16			GND	GND
17			GND	GND
18			GND	GND
19			GND	GND
20	GND	GND	GND	GND
21			GND	GND
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24	RFOUT	RFOUT	GND	GND
25	GND	GND	GND	GND



TITLE 名称	MODEL 形名	1/1
MAIN AMP		EP4194**

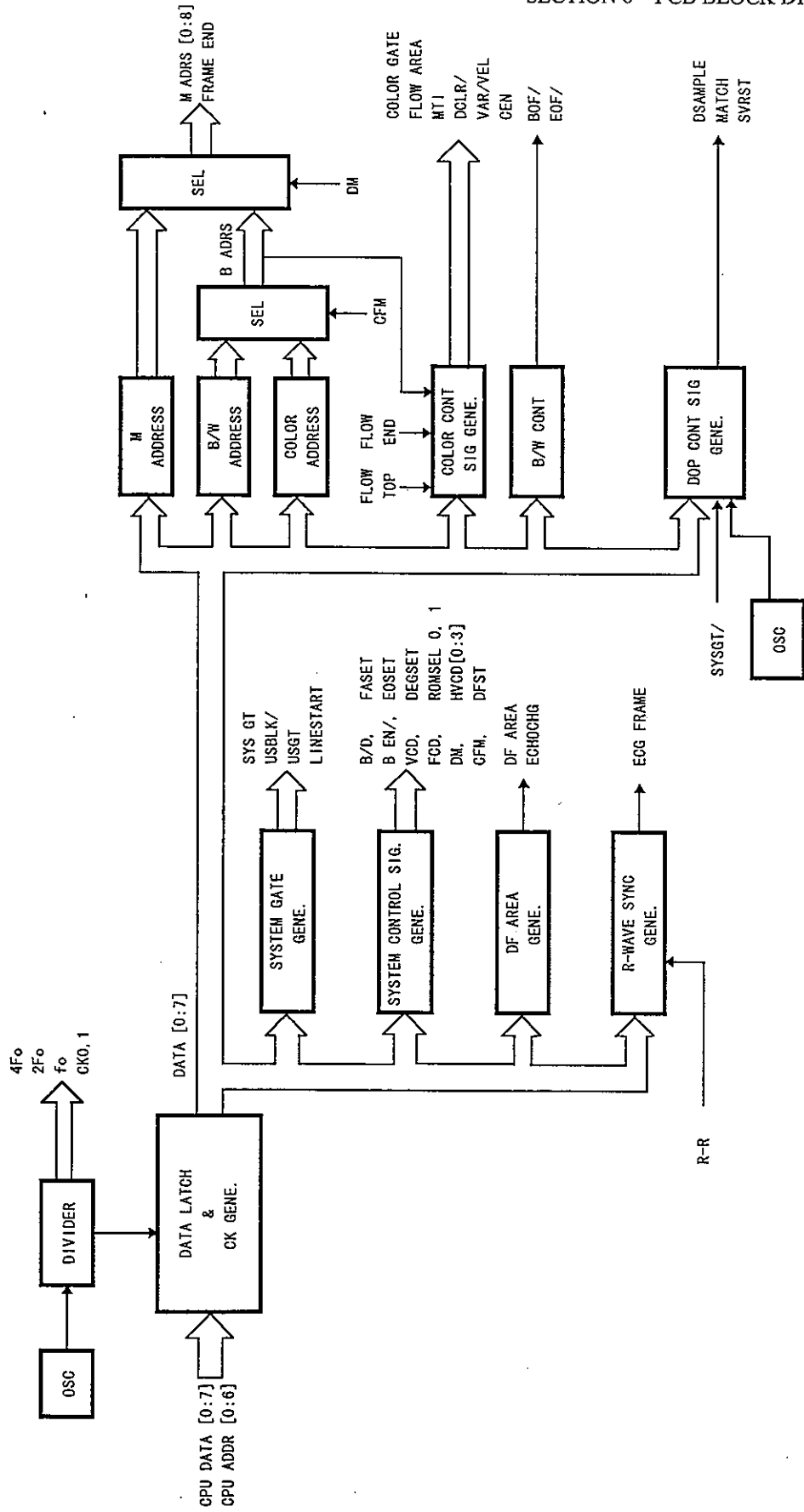
MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM  
6-10 TIMING & ADDRESS

This circuit board can be roughly divided into a clock generator circuit, timing generator circuit and address generator circuit.

SIGNAL LIST

PIN No.	TIMING & ADDRESS			
	J113-1			
	A	B	C	D
1	OGND	OGND	OGND	OGND
2	OGND	OGND	OGND	OGND
3	DSP_CLK	DSP_RST_	PRF100	PRF_RST_
4	PROCESS	H_B	CFM_NET1	B_OOP_
5	5.1V	5.1V	5.1V	5.1V
6			COLAYER_	
7	5.1V	5.1V	5.1V	5.1V
8	OGND	OGND	OGND	OGND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11	ADDR0	ADDR1	ADDR2	ADDR3
12	EN0_	EN1_		EN2_
13	GEU_READ	ADDR4	ADDR5	ADDR6
14	OGND	OGND	OGND	EN_
15	WATCH_	DSNPL	SVRST	CPURST_
16	100PRF	B_OGATE_	PRFRST_	
17				
18	2F00			USGT
19	CK0	OGND	CK1	OGND
20	4F0	OGND	CLK4F0	CLKF0
21	ECHOCNG			
22	HVTXOK		CLK1CH	
23	HRT	H_B	R_DLY_	BCD
24	B_D	USBLK	USSLK_	SPARE1
25	OGND	OGND	OGND	OGND

PIN No.	J113-3			
	A	B	C	D
1	OGND	OGND	OGND	OGND
2	R_R			
3				
4				
5				
6				
7				
8	XTIEN		DCLR_	
9		GATE_	FLOXAREA	SAMPLE_
10	CEN	GEU_NET0	GEU_NET1	30F_
11	OGND	OGND	OGND	OGND
12	A0_	A1_	A2_	A3_
13	A4_	A5_	A6_	A7_
14	AB_	EGF_	ECGFRH_	OSCSBLK
15	OFAREA	LINESTART	YCO0	YCO1
16	FC00E0	FC00E1	FASET	EOSET
17		FC00E2	ROMSLCT0	TACFF
18	HVC00	HVC01	HVC02	HVC03
19			ROMSLCT1	DEESET
20				
21				
22				
23				
24	OGND	OGND	OGND	OGND
25	OGND	OGND	OGND	OGND



TITLE 名称	MODEL 形名	1/1
TIMING & ADDRESS		EP3950**

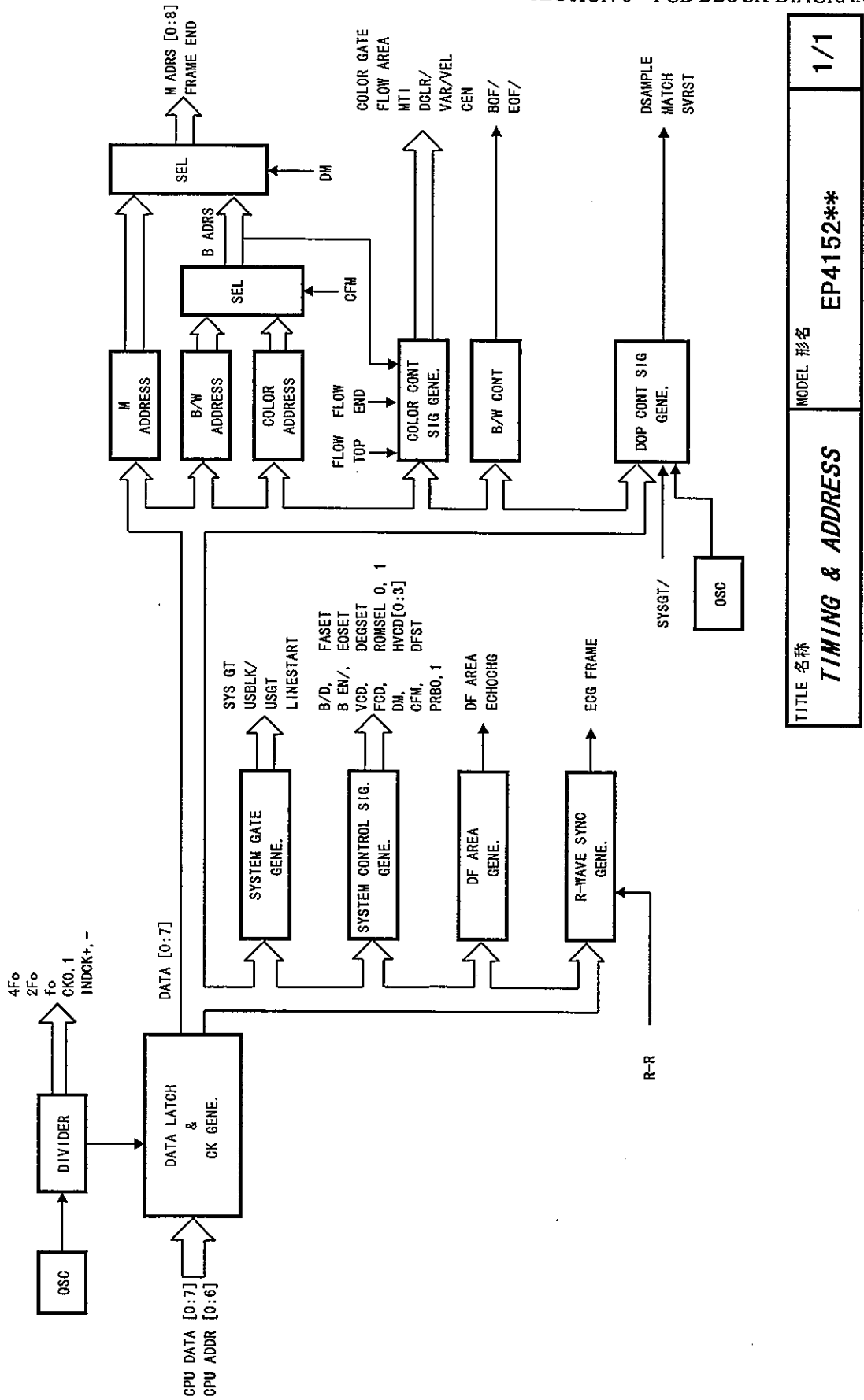
MN2-0213 Rev. 2  
SECTION 6 PCB BLOCK DIAGRAM

EP4152				
TIMING & ADDRESS				
J113-1				
PIN No.	A	B	C	D
1	OGND	OGND	OGND	OGND
2	OGND	OGND	OGND	OGND
3			PRF100	PRF_RST_
4	PROCESS	M_B	CFM_NET1	0_OOP_
5	5.1V	5.1V	5.1V	5.1V
6	PRB3_	XC_INIT_	COLRVER_	PRB4_
7	5.1V	5.1V	5.1V	5.1V
8	OGND	OGND	OGND	OGND
9	DATA0	DATA1	DATA2	DATA3
10	DATA4	DATA5	DATA6	DATA7
11	ADDR0	ADDR1	ADDR2	ADDR3
12	EN0_	EN1_		EN2_
13	GEU_READ	ADDR4	ADDR5	ADDR6
14	OGND	OGND	OGND	EN_
15	WATCH_	DSNPL	SVRST	CPURST_
16	100PRF	S_GATE_	PRFRST_	
17		INDTRIG_	INDCK_	
18		INDTRIG*	INDCK**	USGT
19	CK0	OGND	CK1	OGND
20	4F0	OGND	CLK4F0	CLKF0
21	ECHOCHG			
22	HVTXOK		CLK1CH	OPT8
23	HRT	M_B	R_DLY_	BC0
24	B_D	USBLK	USBLK_	SPARE1
25	OGND	OGND	OGND	OGND

EP4152				
TIMING & ADDRESS				
J113-2				
PIN No.	A	B	C	D
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

J113-3				
PIN No.	A	B	C	D
1	OGND	OGND	OGND	OGND
2	R_R			
3				
4				
5				
6				
7				
8	HTIEK		OCLR_	
9		GATE_	FLOWAREA	SAMPLE_
10	CEN	GEU_MET0	LINECLR_	BOF_
11	OGND	OGND	OGND	OGND
12	A0_	A1_	A2_	A3_
13	A4_	A5_	A6_	A7_
14	A8_	EOF_	ECBFRM_	OSUSBLK
15	DFAREA	LINESTART	VCD0	VCD1
16	FCODE0	FCODE1	FASET	EOSET
17		FCODE2	ROMSLCT0	TXOFF
18	HVCD0	HVCD1	HVCD2	HVCD3
19			ROMSLCT1	DESSET
20				
21				
22				
23				
24	OGND	OGND	OGND	OGND
25	OGND	OGND	OGND	OGND





TITLE 名称	MODEL 形名	1/1
<b>TIMING &amp; ADDRESS</b>		<b>EP4152**</b>

6-11 DOP ASP

This circuit board, which has the RF signal input to it after the delay is added to it, is configured from the following circuits and carries out analog signal processing up to the stage before frequency analysis.

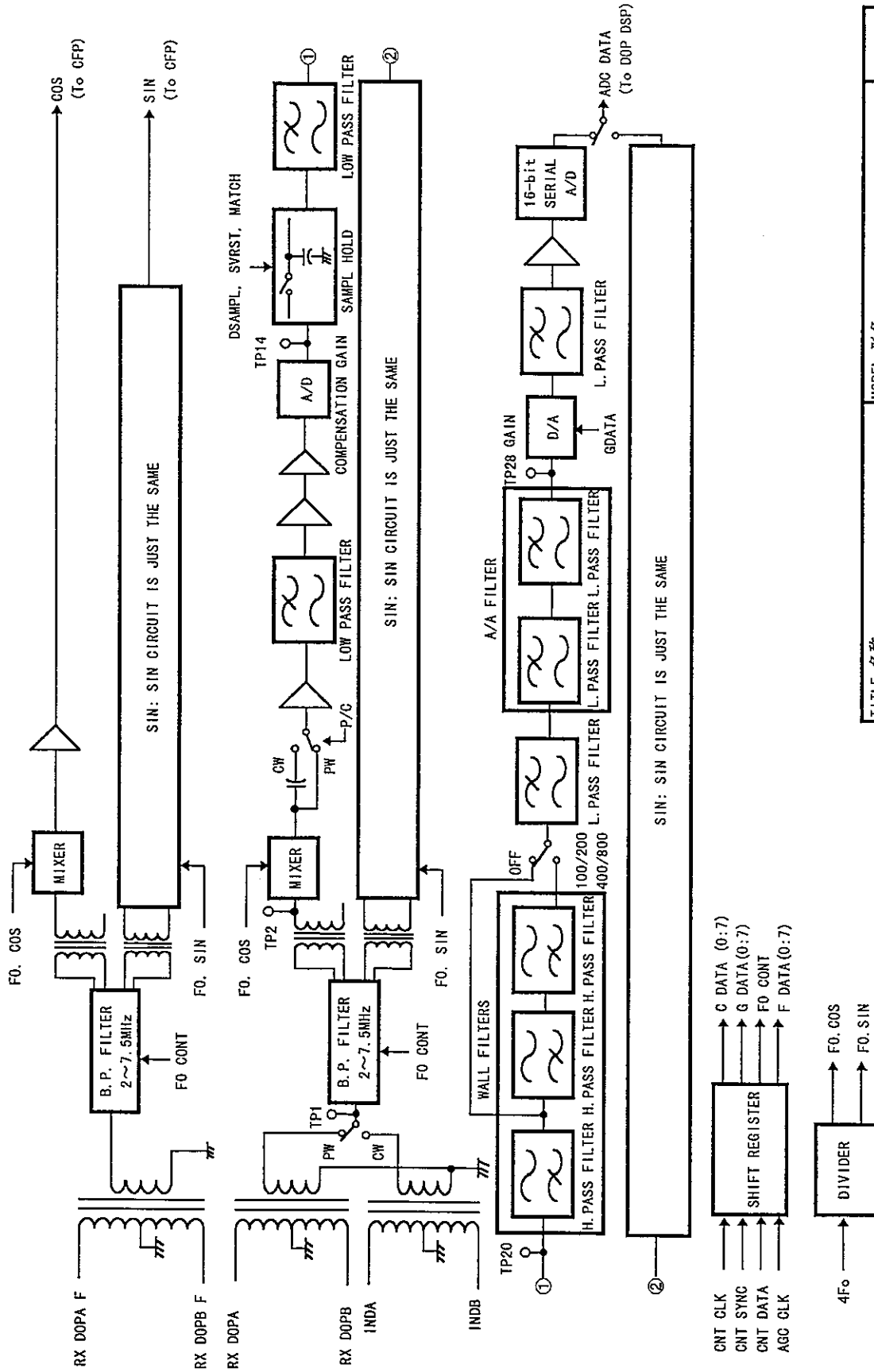
1. High Frequency Tuning Circuit
2. Quadrature Detection Circuit \*1
3. Low Frequency Amp Circuit \*1
4. Base Band Amp Circuit \*1
5. Sample & Hold circuit \*1
6. High Pass Filter (Wall motion filter)\*1
7. Low Pass Filter (Anti-aliasing filter)\*1
8. A/D Converter \*1
9. A/D Clock Generator Circuit
10. Serial Control Register
11. Local Signal Generator Circuit

Note \*1) In order to handle complex signals, 2 systems containing the same circuits, for real and imaginary number signals, are used.

SIGNAL LIST

PIN No.	ASP			
	J110-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3				
4		H_B		
5				
6				
7	5.1V	5.1V	5.1V	5.1V
8	GND	GND	GND	GND
9	CNT_DATA	CNT_SYNC	CNT_CLK	GAIN_CLK
10	DGND	DGND	DGND	DGND
11	AOC_DATA			
12	GND	GND	GND	GND
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	HATCH_	DSHPL	SVRST	
16	GND	GND	GND	GND
17	100PRF	GND	S_0GATE_	PRFRST_
18	GND	GND	GND	GND
19			GND	GND
20	4F0	GND	GND	GND
21	GND	GND	GND	GND
22	15V2_	15V2_	15V2_	15V2_
23	15V2_	15V2_	15V2_	15V2_
24	15V2	15V2	15V2	15V2
25	15V2	15V2	15V2	15V2

PIN No.	J110-3			
	A	B	C	D
	1	GND	GND	GND
2	GND	GND	GND	GND
3	GND	GND	GND	GND
4	GND	GND	GND	GND
5	GND	GND	GND	GND
6	GND	GND	GND	GND
7	COS_P	COS_P	GND	GND
8	GND	GND	GND	GND
9	SIN_P	SIN_P	GND	GND
10	GND	GND	GND	GND
11	RX00PA	RX00PA	RX00PB	RX00PB
12	GND	GND	GND	GND
13	RX00PA_F	RX00PA_F	RX00PB_F	RX00PB_F
14	GND	GND	GND	GND
15	COS	COS	GND	GND
16	GND	GND	GND	GND
17	SIN	SIN	GND	GND
18	GND	GND	GND	GND
19	INDA	INDA	INDB	INDB
20	GND	GND	GND	GND
21	RX00PA	RX00PA	RX00PB	RX00PB
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24	GND	GND	GND	GND
25	GND	GND	GND	GND

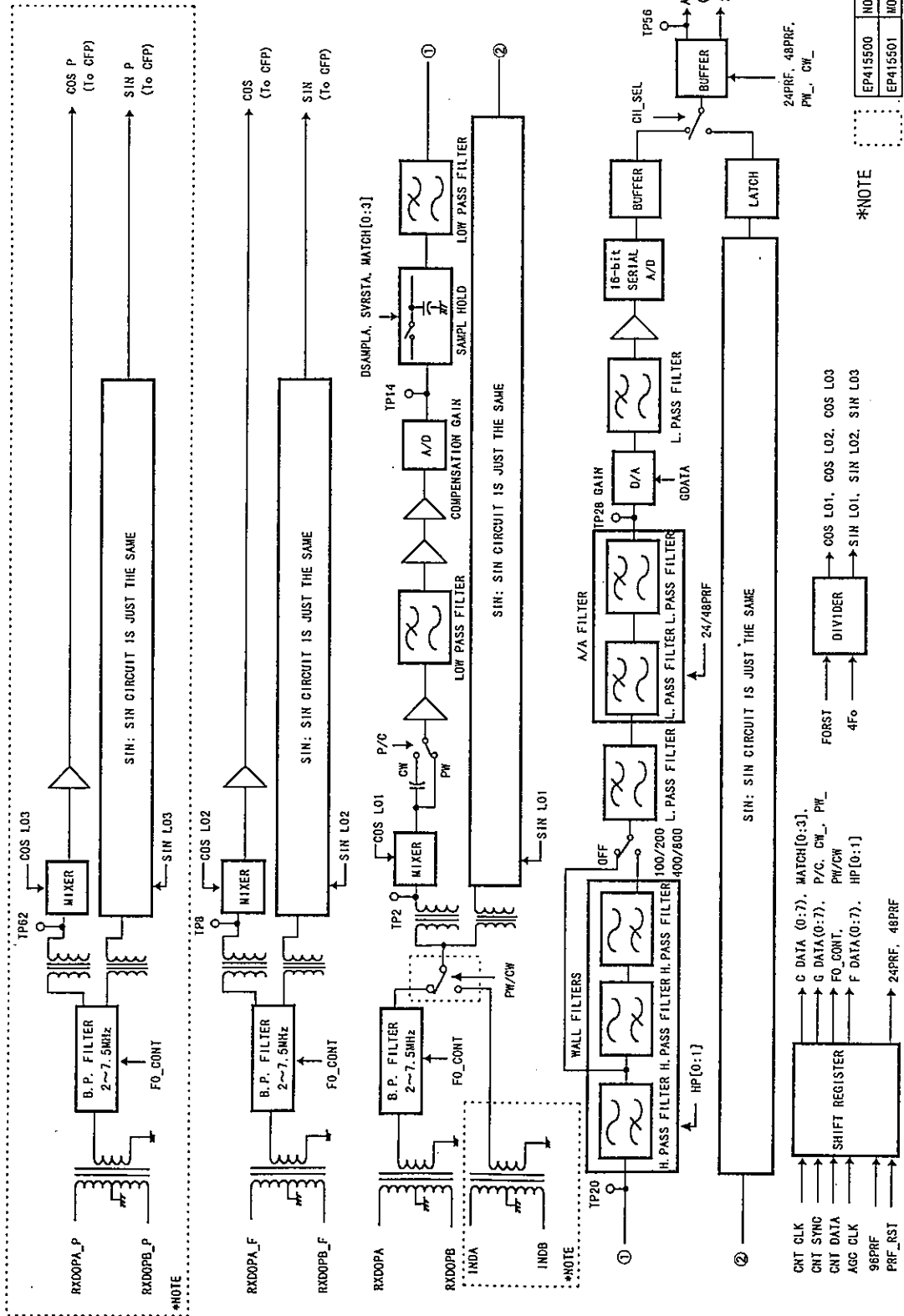


TITLE 名称	DOP ASP
MODEL 形名	EP3900**
	1/1

SECTION 6 PCB BLOCK DIAGRAM

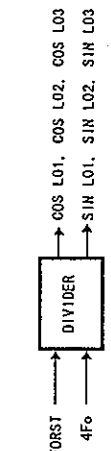
PIN No.	EP4155			
	ASP			
	J110-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3				
4		H_B		
5				
6				
7	5.1V	5.1V	5.1V	5.1V
8	GND	GND	GND	GND
9	CNT_DATA	CNT_SYNC	CNT_CLK	GAIN_CLK
10	DGND	DGND	DGND	DGND
11	ADC_DATA			
12	GND	GND	GND	GND
13	GND	GND	GND	GND
14	GND	GND	GND	GND
15	MATCH_	DSMPL	SVRST	
16	GND	GND	GND	GND
17	1DOPRF	GND	B_OGATE_	PRFRST_
18	GND	GND	GND	GND
19			GND	GND
20	4F0	GND	GND	GND
21	GND	GND	GND	GND
22	15V2_	15V2_	15V2_	15V2_
23	15V2_	15V2_	15V2_	15V2_
24	15V2	15V2	15V2	15V2
25	15V2	15V2	15V2	15V2

PIN No.	J110-3			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	GND	GND	GND	GND
4	GND	GND	GND	GND
5	GND	GND	GND	GND
6	GND	GND	GND	GND
7	COS_P	COS_P	GND	GND
8	GND	GND	GND	GND
9	SIN_P	SIN_P	GND	GND
10	GND	GND	GND	GND
11	RXDOPA_P	RXDOPA_P	RXDOPB_P	RXDOPB_P
12	GND	GND	GND	GND
13	RXDOPA_F	RXDOPA_F	RXDOPB_F	RXDOPB_F
14	GND	GND	GND	GND
15	COS	COS	GND	GND
16	GND	GND	GND	GND
17	SIN	SIN	GND	GND
18	GND	GND	GND	GND
19	INDA	INDA	INDB	INDB
20	GND	GND	GND	GND
21	RXDOPA	RXDOPA	RXDOPB	RXDOPB
22	GND	GND	GND	GND
23	GND	GND	GND	GND
24	GND	GND	GND	GND
25	GND	GND	GND	GND



\*NOTE

EP415500	NOT MOUNTED
EP415501	MOUNTED



TITLE 名称	DOP ASP
MODEL 形名	EP4155**
	1/1

6-12 CFP (COLOR FLOW PROCESSOR)

Analog base band signals COS and SIN, output by the quadrature detector which demodulates them at the ultrasound carrier frequency from 2.5 MHz to 5.0 MHz, are supplied from DOP ASP. After these signals pass through the passive anti-aliasing filter, they are digitized in the 12-bit A/D Converter.

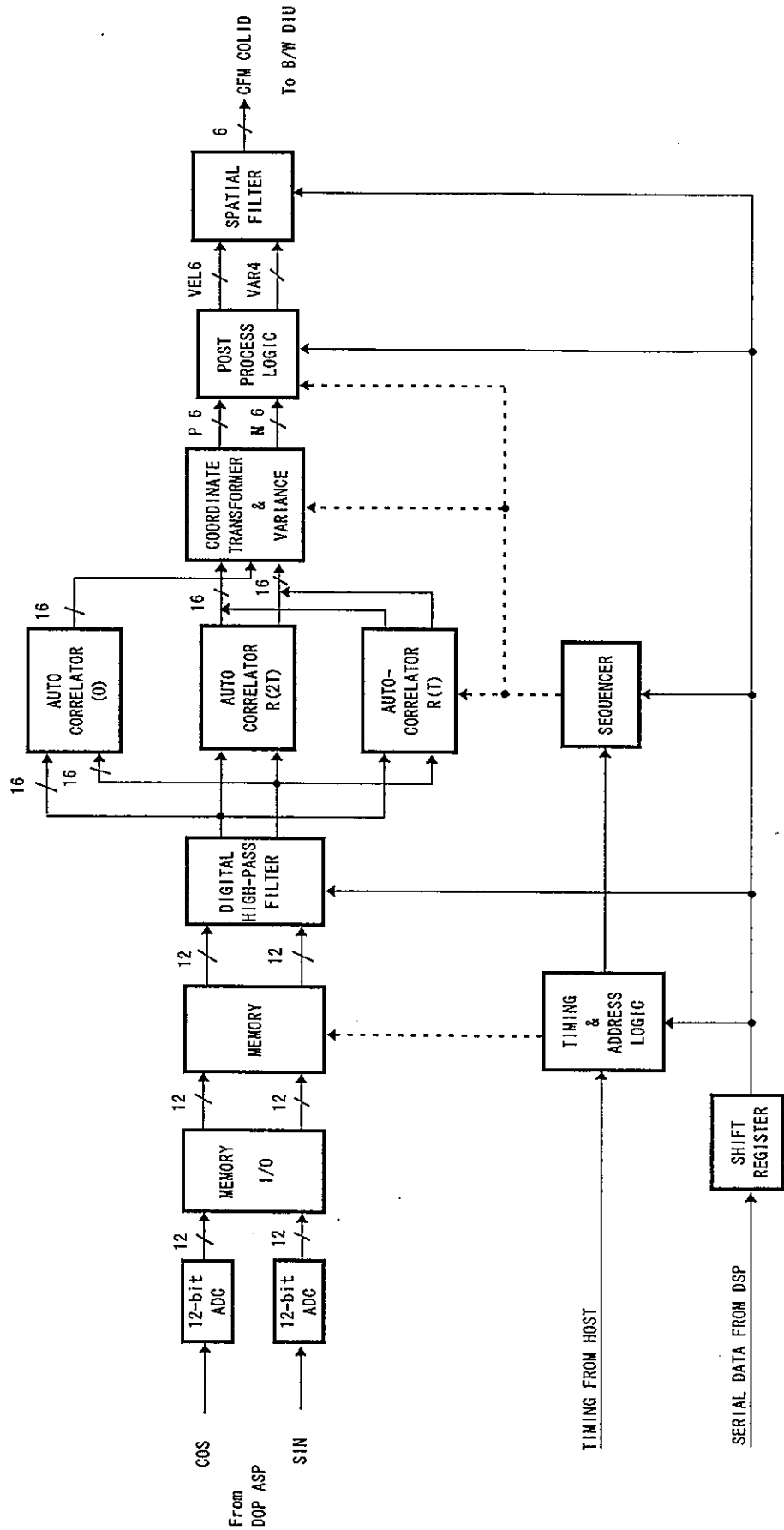
Samples, which are the output of the A/D Converter, enter the Buffer Memory.

When data are written to memory, reading begins, with the data being sent continuously one line at a time to the next processor.

SIGNAL LIST

PIN No.	CSP			
	J111-1			
	A	B	C	D
1	OGND	OGND	OGND	OGND
2	OGND	OGND	OGND	OGND
3				
4		H_B		
5	5.1V	5.1V	5.1V	5.1V
6				
7	5.1V	5.1V	5.1V	5.1V
8	OGND	OGND	OGND	OGND
9	COLR0_	COLR1_	COLR2_	COLR3_
10	COLR4_	COLR5_		COLR_CLK
11	OGND	OGND	OGND	OGND
12	XC_DIN	XC_DOUT	XC_CLK	
13	XC_TSYNC	XC_RSYNC	PRFRST_	XC_PROG_
14	CFP_DATA	CFP_CLK	CFP_SYNC	CFP_METO
15				
16				
17				
18				
19				
20			CLK4F0	CLKF0
21	OGND	OGND	OGND	OGND
22	HTIEN	FLOKAREA	DCLR_	
23	B_D	GATE_		SAMPLE_
24	OGND	OGND	OGND	OGND
25	OGND	OGND	OGND	OGND

PIN No.	J111-3			
	A	B	C	D
1				
2				
3				
4				
5				
6	GND	GND	GND	GND
7	COS_P	COS_P	COS_P	COS_P
8	GND	GND	GND	GND
9	SIN_P	SIN_P	SIN_P	SIN_P
10	GND	GND	GND	GND
11				
12				
13				
14	GND	GND	GND	GND
15	COS	COS	COS	COS
16	GND	GND	GND	GND
17	SIN	SIN	SIN	SIN
18	GND	GND	GND	GND
19				
20	5V_	5V_	5V_	5V_
21	5V_	5V_	5V_	5V_
22	5V	5V	5V	5V
23	5V	5V	5V	5V
24	GND	GND	GND	GND
25	GND	GND	GND	GND



<b>Aloka</b>	TITLE 名称 <i>CFP</i>	MODEL 形名 EP3802**	1/1
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SECTION 6 PCB BLOCK DIAGRAM

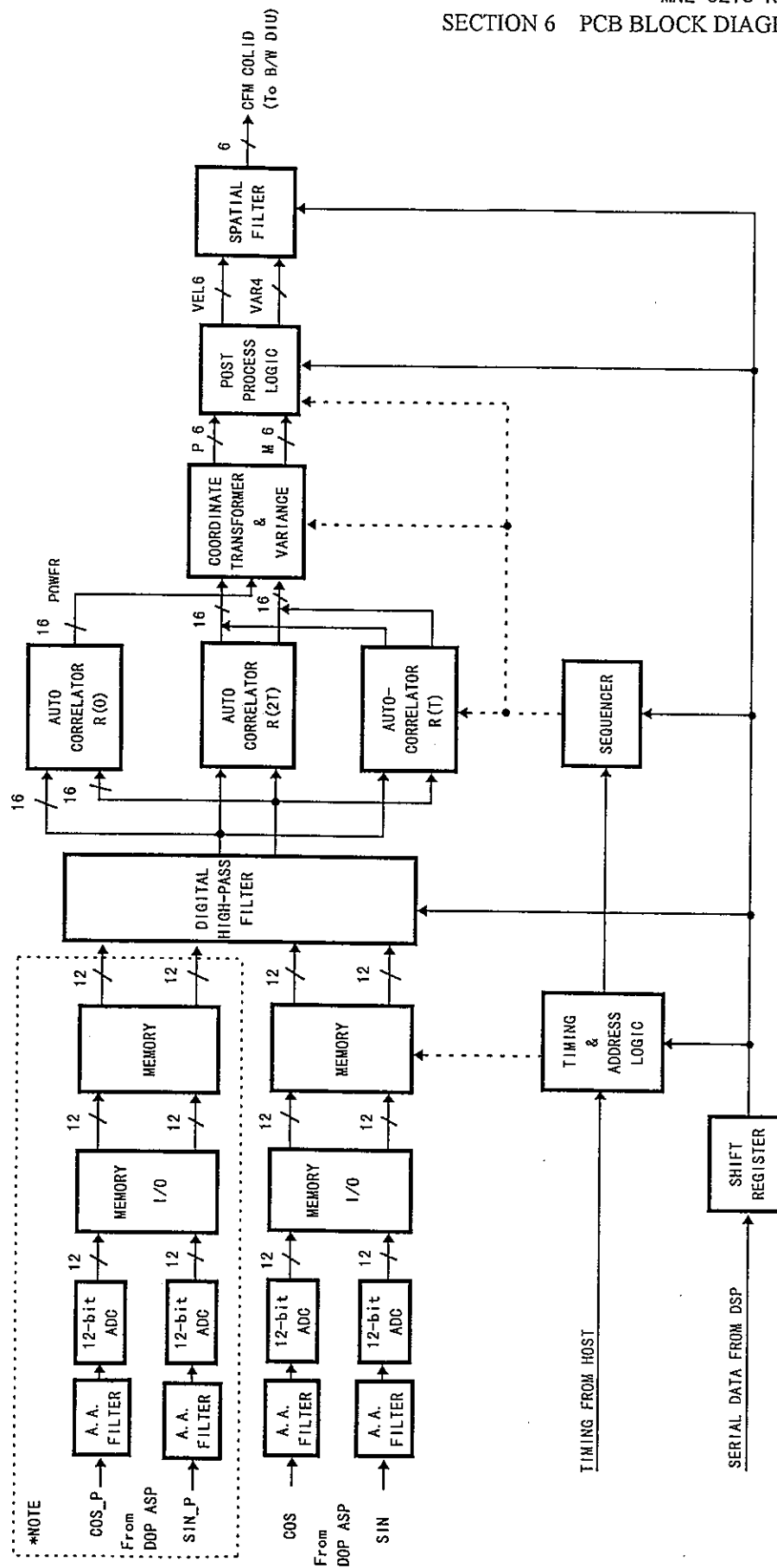
PIN No.	EP3901			
	CSP			
	J111-1			
	A	B	C	D
1	DGND	DGND	DGND	DGND
2	DGND	DGND	DGND	DGND
3				
4		H_B		
5	5.1V	5.1V	5.1V	5.1V
6				
7	5.1V	5.1V	5.1V	5.1V
8	DGND	DGND	DGND	DGND
9	COLR0_	COLR1_	COLR2_	COLR3_
10	COLR4_	COLR5_		COLR_CLK
11	DGND	DGND	DGND	DGND
12	XC_DIN	XC_ODUT	XC_CLK	
13	XC_TSYNC	XC_RSYNC	PRFRST_	XC_PROG_
14	CFP_DATA	CFP_CLK	CFP_SYNC	CFM_NET0
15				
16				
17				
18				
19				
20			CLK4F0	CLKF0
21	DGND	DGND	DGND	DGND
22	MTIEN	FLOHAREA	DCLR_	OPT5
23	CEN	GATE_		SAMPLE_
24	DGND	DGND	DGND	DGND
25	DGND	DGND	DGND	DGND

PIN No.	J111-3			
	A	B	C	D
1				
2				
3				
4				
5				
6	GND	GND	GND	GND
7	COS_P	COS_P	COS_P	COS_P
8	GND	GND	GND	GND
9	SIN_P	SIN_P	SIN_P	SIN_P
10	GND	GND	GND	GND
11				
12				
13				
14	GND	GND	GND	GND
15	COS	COS	COS	COS
16	GND	GND	GND	GND
17	SIN	SIN	SIN	SIN
18	GND	GND	GND	GND
19				
20	5V_	5V_	5V_	5V_
21	5V_	5V_	5V_	5V_
22	5V	5V	5V	5V
23	5V	5V	5V	5V
24	GND	GND	GND	GND
25	GND	GND	GND	GND



\*NOTE

EP390100	NOT MOUNTED
EP390101	MOUNTED



TITLE 名称	MODEL 形名	1/1
CFP		EP3901**

6-13 DOP DSP

After quadrature detection, A/D converted digital serial data are input to this circuit board, and the spectrum of this Doppler signal is output as digital parallel data. This board also includes a FFT frequency analysis module as well as audio baseline shift and audio reverse signal separation functions for audio signal processing. Audio outputs are also in the digital serial data form.

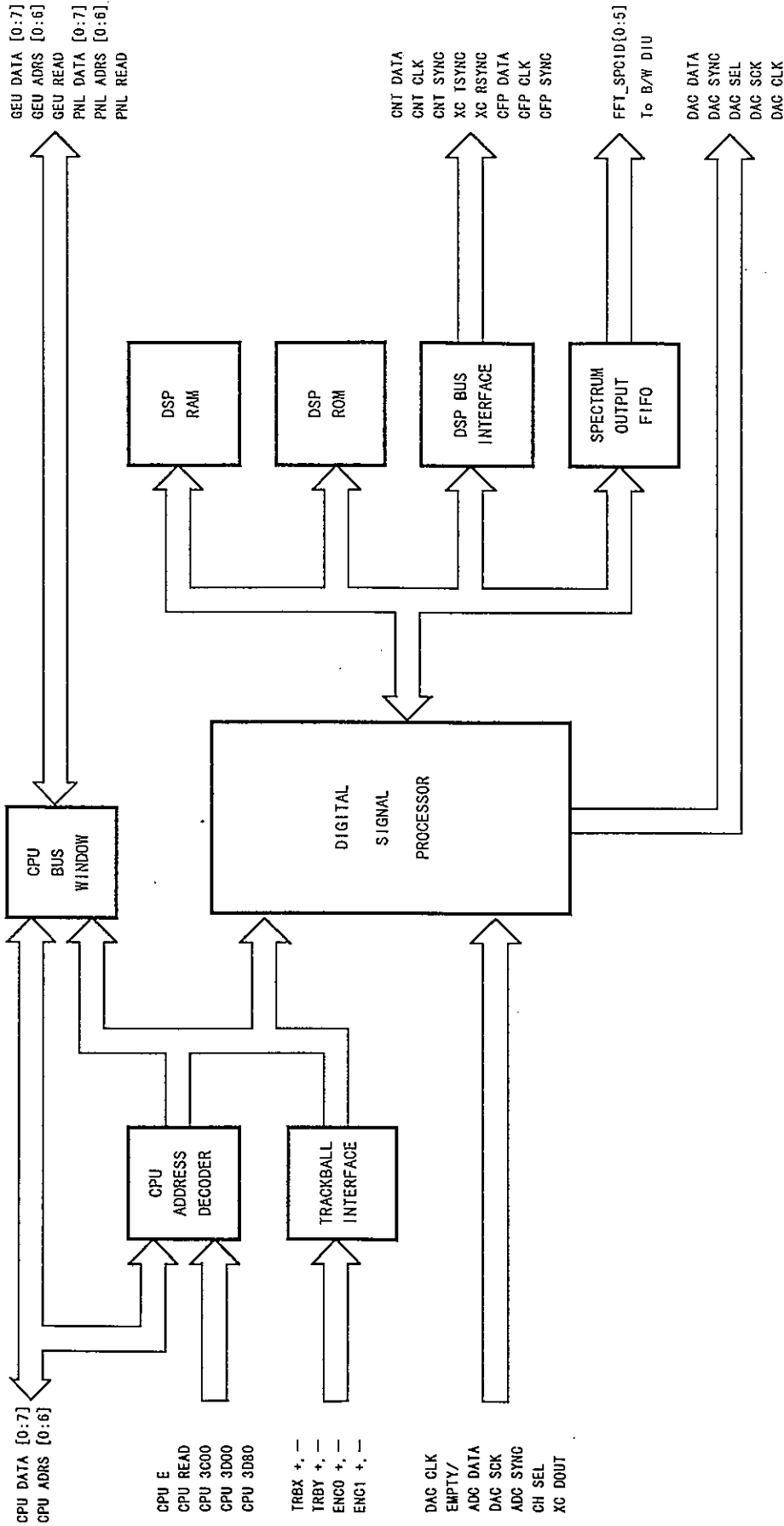
SIGNAL LIST

J201

PIN No.	EP3904			
	OSP			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2				
3				
4				
5				CPU_E_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAMEN	CPU_READ	
9	CPU_DATA_[0]	CPU_DATA_[2]	CPU_DATA_[1]	CPU_DATA_[3]
10	CPU_DATA_[4]	CPU_DATA_[6]	CPU_DATA_[5]	CPU_DATA_[7]
11	CPU_ADRS [0]	CPU_ADRS [2]	CPU_ADRS [1]	CPU_ADRS [3]
12	CPU_ADRS [4]	CPU_ADRS [6]	CPU_ADRS [5]	
13	GND	GND	GND	GND
14				CPU_HRDY
15	CPU_3C00_	CPU_3080_	CPU_3000_	
16			DIU_NET4	
17	PNL_EN_	PNL_CPUA [1]	PNL_CPUA [0]	PNL_CPUA [2]
18	PNL_CPUA [3]	PNL_CPUA [5]	PNL_CPUA [4]	PNL_CPUA [6]
19	PNL_CPUD_[0]	PNL_CPUD_[2]	PNL_CPUD_[1]	PNL_CPUD_[3]
20	PNL_CPUD_[4]	PNL_CPUD_[6]	PNL_CPUD_[5]	PNL_CPUD_[7]
21				
22	PNL_READ	ENCO+		ENCO-
23	TRBX+	TRBY+	TRBX-	TRBY-
24			FFT_RAMEN_	
25	GND	GND	GND	GND

PIN No.	J2			
	A	B	C	D
1	FFT_SPCID_[0]	FFT_SPCID_[2]	FFT_SPCID_[1]	FFT_SPCID_[3]
2	FFT_SPCID_[4]	DIU_SPC_CE_	FFT_SPCID_[5]	DIU_SPC_CK
3	OSP_CLK			
4	OAC_SYNC	OAC_DATA	OAC_CLK	OAC_SEL
5	GND	GND	GND	GND
6	ADC_DATA	CNT_CLK	CNT_DATA	CNT_SYNC
7	GND	GND	GND	GND
8	PRF_RST_	B_DOP_	PRF100	OSP_RST_
9	XC_DIN	XC_CLK	XC_ODUT	XC_TSYNC
10	XC_RSYNC		XC_PROG_	CFP_DATA
11	CFP_CLK	GEU_PROC	CFP_SYNC	GAIN_CLK
12	GEU_EN_	GEU_CPUA [1]	GEU_CPUA [0]	GEU_CPUA [2]
13	GEU_CPUA [3]	GEU_CPUA [5]	GEU_CPUA [4]	GEU_CPUA [6]
14	GEU_CPUD [0]	GEU_CPUD [2]	GEU_CPUD [1]	GEU_CPUD [3]
15	GEU_CPUD [4]	GEU_CPUD [6]	GEU_CPUD [5]	GEU_CPUD [7]
16	GEU_READ	CFM_NET0		CFM_NET1
17	GND	GND	GND	GND
18	VCC	VCC	VCC	VCC
19	VCC	VCC	VCC	VCC
20	AGND	AGND	AGND	AGND
21	5VA	5VA	5VA	5VA
22	5VA_	5VA_	5VA_	5VA_
23	15V	15V	15V	15V
24	15V_	15V_	15V_	15V_
25	AGND	AGND	AGND	AGND

SECTION 6 PCB BLOCK DIAGRAM



TITLE 名称	DOP DSP	MODEL 形名	EP3832**	1/1
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6-14 CPU

This circuit board is centered on the 63B09 MPU, RAM and Program ROM, and also contains the MPSC for carrying on communications with the DSC externally, the RTC for obtaining the real time, and two GDC for displaying text and graphics on the screen, etc. The 63B09 MPU contains 1 Mbyte of ROM capacity and 128 Kbytes of RAM as address space.

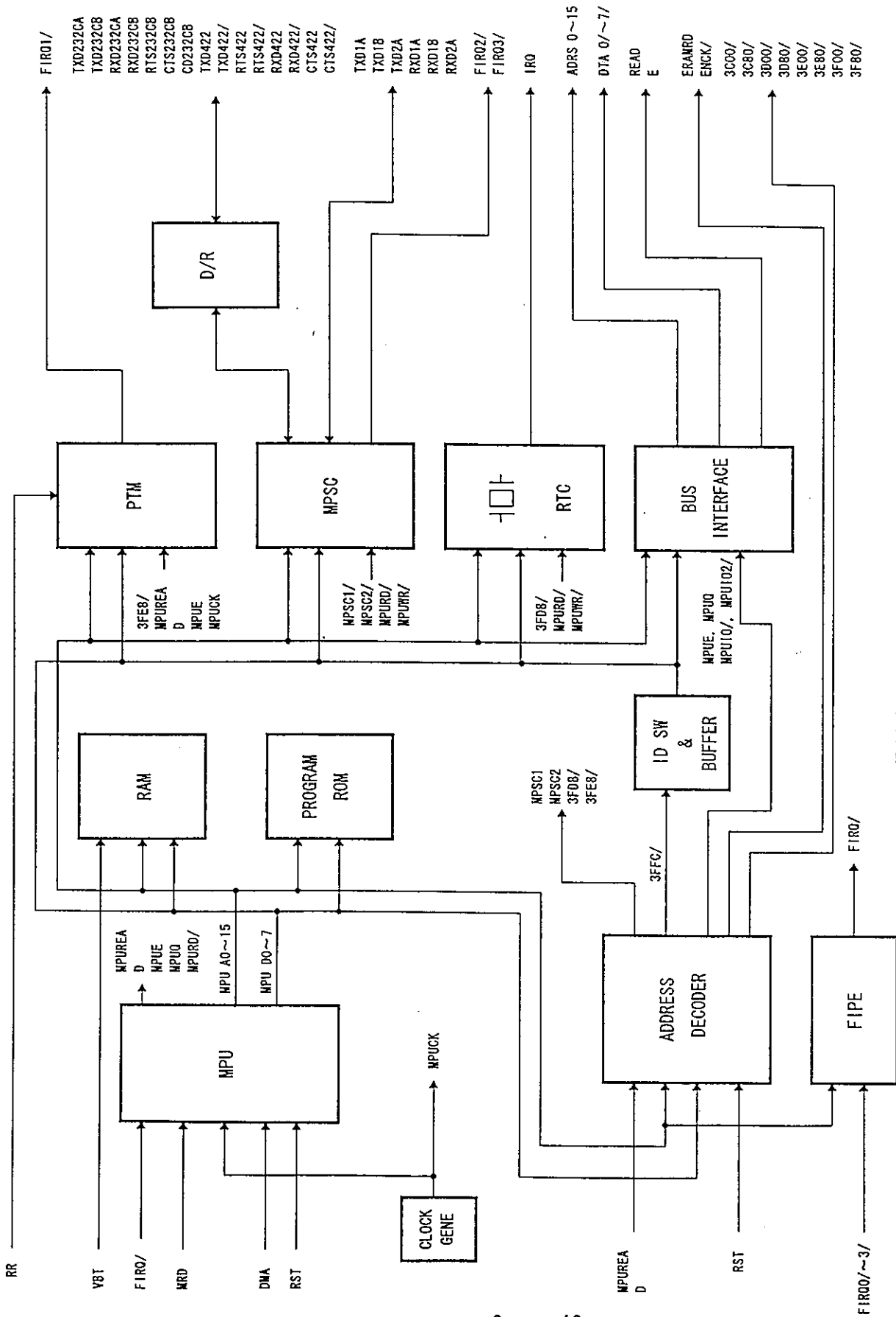
SIGNAL LIST

J202

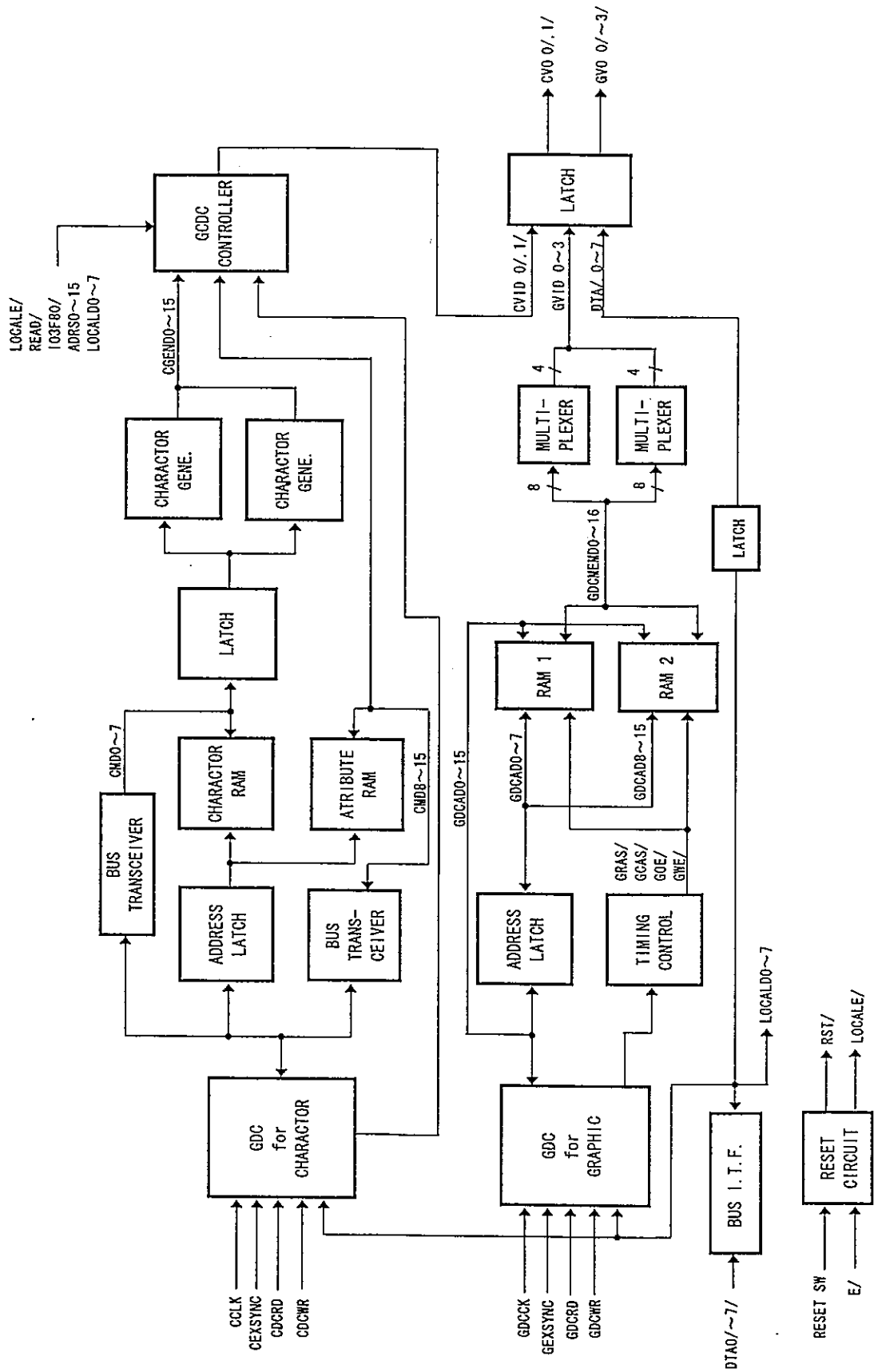
PIN No.	EP3753			
	CPU			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2				
3	CPU_B_TXD	CPU_B_RXD	CPU_B_RTS	CPU_B_CTS
4	CPU_B_CD	CPU_A_TXD	CPU_A_RXD	
5				CPU_E_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAKEN	CPU_READ	CPU_PNLRST_
9	CPU_DATA_[0]	CPU_DATA_[2]	CPU_DATA_[1]	CPU_DATA_[3]
10	CPU_DATA_[4]	CPU_DATA_[5]	CPU_DATA_[5]	CPU_DATA_[7]
11	CPU_ADRS [0]	CPU_ADRS [2]	CPU_ADRS [1]	CPU_ADRS [3]
12	CPU_ADRS [4]	CPU_ADRS [6]	CPU_ADRS [5]	
13	GND	GND	GND	GND
14				CPU_MRDY
15	CPU_3C00_	CPU_3D00_	CPU_3C80_	CPU_3D80_
16	CPU_3E00_	CPU_3E80_	CPU_3F00_	CPU_3F80_
17				DIU_NET0
18	CPU_B6_	DIU_NET3	DIU_NET4	
19				
20				
21				
22				
23				
24				
25	DIU_12MHZA	GND	GND	GND

PIN No.	J2			
	A	B	C	D
1		CPU_RR		
2		CPU-GEURST_		
3	GEU_DSCA [0]	GEU_DSCA [2]	GEU_DSCA [1]	GEU_DSCA [3]
4	GEU_DSCA [4]	GEU_DSCA [6]	GEU_DSCA [5]	GEU_DSCA [7]
5	GEU_DSCA [8]		CPU_ERAKRO	
6				
7	GND	GND	GND	GND
8				
9	GEU_BOF_	DIU_BTR_	GEU_EOF_	DIU_VRST_
10	DIU_EVEN_	DIU_VO_	DIU_HO_	
11				
12	CPU_GV00_	CPU_GV00_	CPU_GV01_	CPU_GV01_
13	CPU_GV02_	CPU_FIR00_	CPU_GV03_	CPU_FIR04_
14	CPU_FIR05_	CPU_FIR07_	CPU_FIR06_	CPU_DNA_
15	CPU_NMI_	GEU_IINST_		GEU_DFA
16	GEU_PRC00	GEU_SCN000		GEU_USBLK_
17	GND	GND	GND	GND
18				
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21	GEU_ECGFRM_	CPU_CORE0_		CPU_GORE0_
22	CPU_COAK_	CPU_C40_64	CPU_GOAK_	CPU_LPEN_
23	15V_	15V_	15V_	15V_
24	15V_	15V_	15V_	15V_
25	AGND	AGND	AGND	AGND

MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM



<b>Aloka</b>	TITLE 名称	CPU	MODEL 形名	EP3753**	1/2
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MODEL 名称	EP3753**	TITLE 名称	CPU
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**Aloha**

6-15 B/W DIU

The B/W DIU (Digital Imaging Unit) fetches ultrasound data coming from the GEU after A/D conversion in synchronized with the DIU clock, writing ultrasound data to the display memory in XY writing method, then reading out the ultrasound data in synchronized with the TV signal. After this, gradation conversion of display data, addition of gray scale bar and other post processing are executed by this block.



SIGNAL LIST

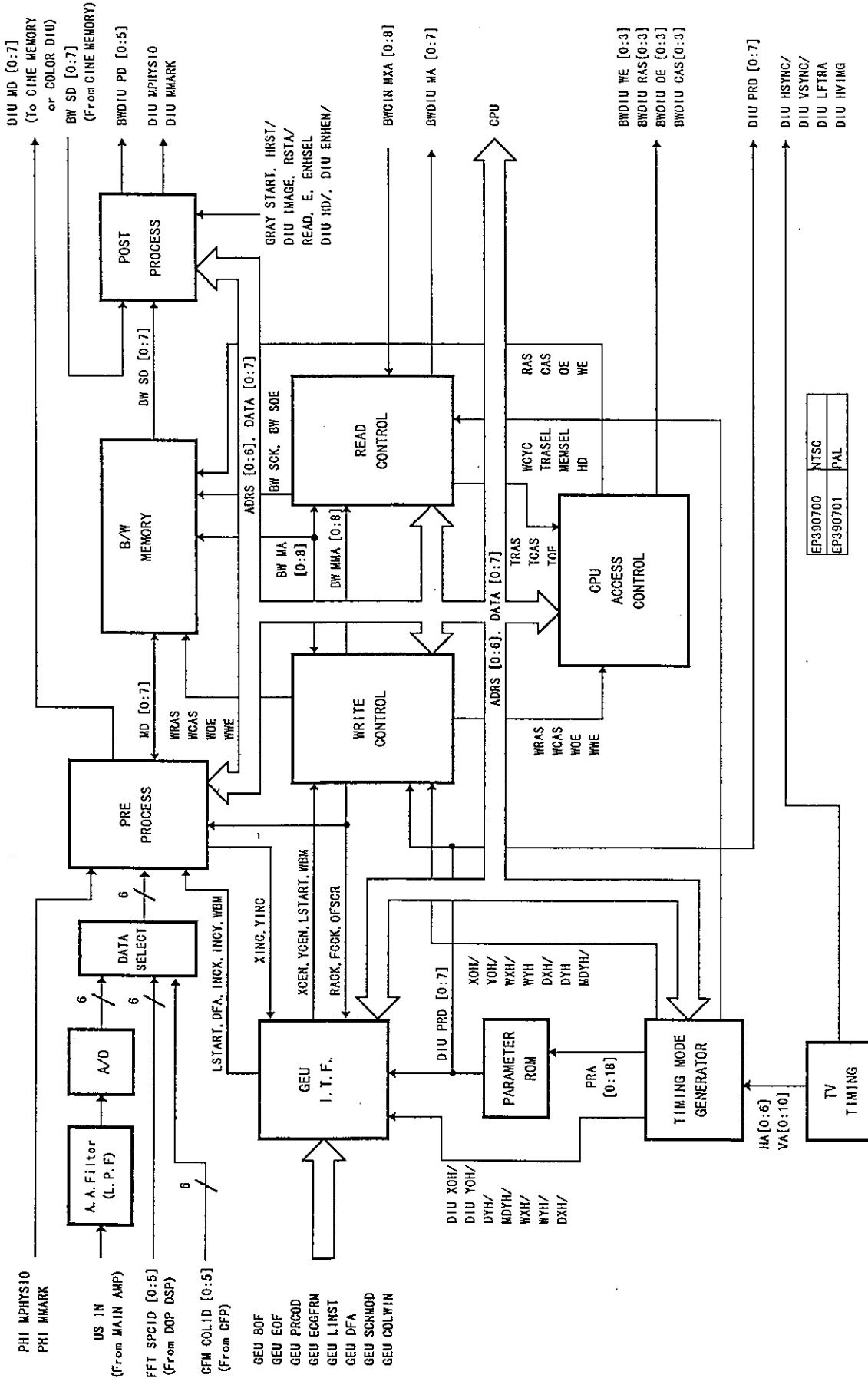
J203

PIN No.	EP3907			
	BW_DIU			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	DIU_PRO(0)	DIU_PRO(2)	DIU_PRO(1)	DIU_PRO(3)
4	DIU_PRO(4)	DIU_PRO(6)	DIU_PRO(5)	DIU_PRO(7)
5	DIU_VSYNC_	DIU_3E90R_	DIU_HSYNC_	CPU_E_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAKEN	CPU_READ	DIU_CMPS_
9	CPU_DATA_[0]	CPU_DATA_[2]	CPU_DATA_[1]	CPU_DATA_[3]
10	CPU_DATA_[4]	CPU_DATA_[6]	CPU_DATA_[5]	CPU_DATA_[7]
11	CPU_ADRS[0]	CPU_ADRS[2]	CPU_ADRS[1]	CPU_ADRS[3]
12	CPU_ADRS[4]	CPU_ADRS[6]	CPU_ADRS[5]	DIU_HAENX
13	GND	GND	GND	GND
14	DIU_HAENY	DIU_YOH_	DIU_XOH_	CPU_HMOY
15	CPU_3E00_	POS_BWIO_	CPU_3E60_	DIU_LFTRA
16	POS_FLTSET_	POS_VHOD	POS_COPSET_	DIU_NET1
17	POS_HMOD[0]	POS_HMOD[2]	POS_HMOD[1]	DIU_NET0
18	DIU_HRCK_	DIU_NET3	DIU_MENU	POS_RFZDNE
19	BWDIU_PD[0]	BWDIU_PD[2]	BWDIU_PD[1]	BWDIU_PD[3]
20	BWDIU_PD[4]	DIU_NET7	BWDIU_PD[5]	DIU_NET5
21	BWDIU_HROM	BWDIU_PROW	BWDIU_TROW	DIU_NET6
22	PHI_MPHYSIO_	VARCIN_ON_	PHI_MHARK_	DIU_ECGF_
23	CFM_COLID_[0]	CFM_VELDAT_	CFM_COLID_[1]	CFM_COLCK
24	CFM_COLID_[2]	CFM_COLID_[4]	CFM_COLID_[3]	CFM_COLID_[5]
25	DIU_25MHZ_	GND	GND	DIU_12MHZ_

PIN No.	J2			
	A	B	C	D
1	DIU_12MHZA	DIU_12MHZC	DIU_12MHZB	DIU_DIV2
2	FFT_SPCID_[0]	FFT_SPCID_[2]	FFT_SPCID_[1]	FFT_SPCID_[3]
3	FFT_SPCID_[4]	DIU_SPC_OE_	FFT_SPCID_[5]	DIU_SPC_CK
4	DIU_BOSP	DIU_BN	DIU_HOSP	DIU_BMCNT
5	DIU_NET9	DIU_ENHSEL	DIU_IMAGE	DIU_ENHEN_
6	DIU_SOSA	DIU_MCYC	DIU_SDSB	DIU_FGINH_
7	GND	GND	GND	GND
8	DIU_VELCSEN_	DIU_VELWINH	DIU_VARCSEN_	DIU_VARWINH
9	DIU_AREQ_		DIU_RSTART_	PHI_PMRD
10	DIU_TRSEL	DIU_UL	DIU_MSEL	BWDIU_SCK
11	BWDIU_SE0_	BWDIU_SE2_	BWDIU_SE1_	BWDIU_SE3_
12	BWCIN_SD[0]	BWCIN_SD[2]	BWCIN_SD[1]	BWCIN_SD[3]
13	BWCIN_SD[4]	BWCIN_SD[6]	BWCIN_SD[5]	BWCIN_SD[7]
14	BWDIU_TRRFCYC	BWDIU_HAGRS6_	BWDIU_RFCYC	BWDIU_OSF
15	BWDIU_RAS0_	BWDIU_RAS2_	BWDIU_RAS1_	BWDIU_RAS3_
16	BWDIU_CAS0_	BWDIU_CAS2_	BWDIU_CAS1_	BWDIU_CAS3_
17	GND	GND	GND	GND
18	BWDIU_CEO_	BWDIU_C22_	BWDIU_O21_	BWDIU_C23_
19	BWDIU_WEO_	BWDIU_W22_	BWDIU_W21_	BWDIU_W23_
20	CIN_MXA[0]	CIN_MXA[2]	CIN_MXA[1]	CIN_MXA[3]
21	CIN_MXA[4]	CIN_MXA[6]	CIN_MXA[5]	CIN_MXA[7]
22	CIN_MXA[8]	VELDIU_PROW	COLDIU_ER5BUSY	YARDIU_PROW
23	DIU_BFRZ	DIU_RACK_	DIU_HFRZ	DIU_FCCK1
24	DIU_FCCK2	DIU_WGATE_	DIU_HSINH	DIU_OFSCR_
25	DIU_1ST_	DIU_EOF_	DIU_BOF_	DIU_EBSY

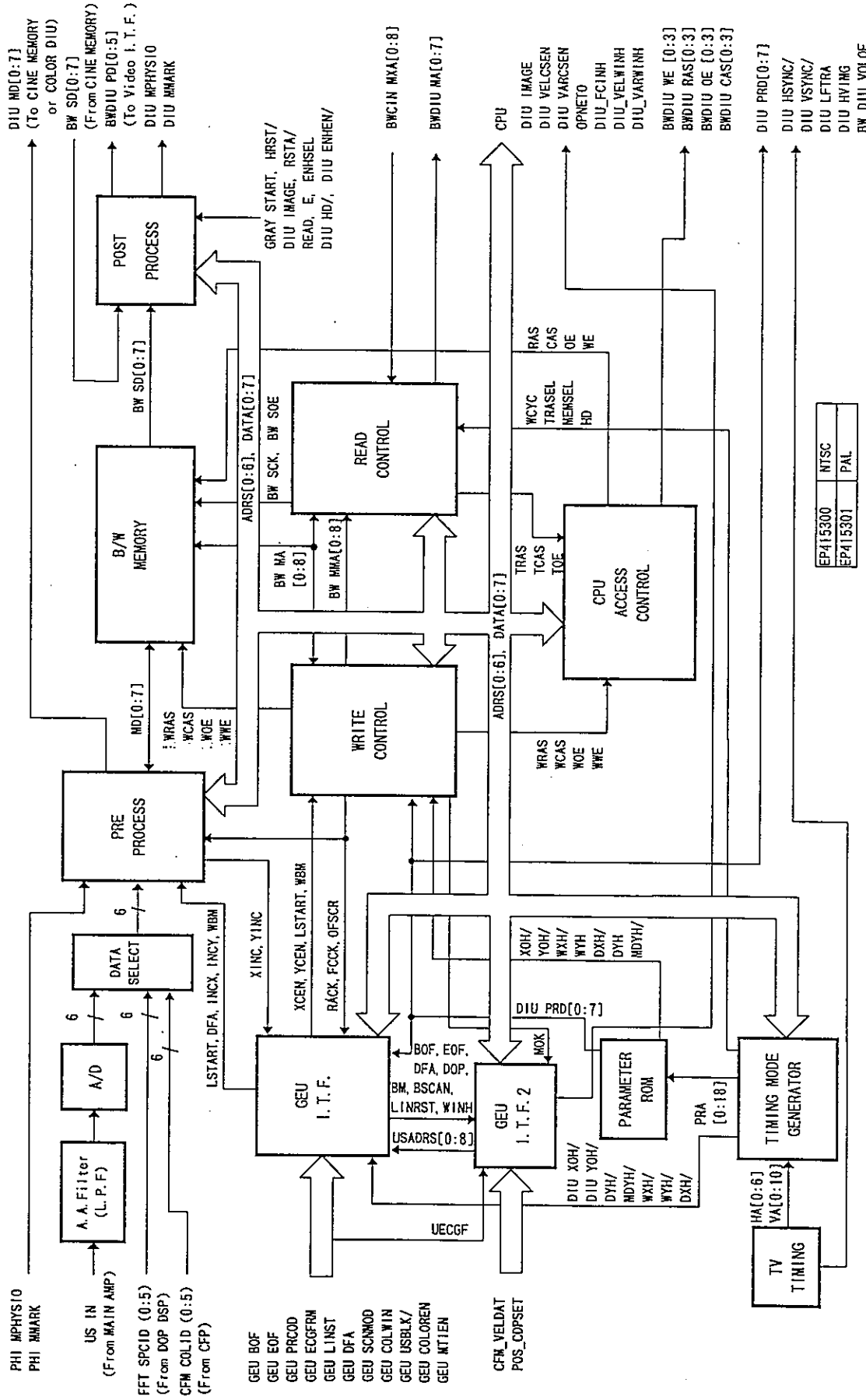
PIN No.	J3			
	A	B	C	D
1	OPTO_ON_	GEU_LRST_	GEU_NET1	OPT1_ON_
2	GND	GND	GND	GND
3	DIU_REN	DIU_MCNTEN	DIU_HMACRY	DIU_525
4	DIU_HDP	DIU_HD_	DIU_VCP	DIU_VD_
5	DIU_HRST_	DIU_2XH	DIU_VRST_	DIU_EVEN_
6	DIU_BTR_	DIU_DHGRY	DIU_HYIM6	DIU_CHGRY
7	DIU_DVGRY	DIU_HMARK	DIU_CVGRY	DIU_MPHYSIO
8	BWDIU_MA[0]	BWDIU_MA[2]	BWDIU_MA[1]	BWDIU_MA[3]
9	BWDIU_MA[4]	BWDIU_MA[6]	BWDIU_MA[5]	BWDIU_MA[7]
10	DIU_HD[0]	DIU_HD[2]	DIU_HD[1]	DIU_HD[3]
11	DIU_HD[4]	DIU_HD[6]	DIU_HD[5]	DIU_HD[7]
12	GEU_BDF_	GEU_ECGFRM_	GEU_EOF_	GEU_USBLK_
13	GND	GND	GND	GND
14	GEU_LINST_	GEU_SCNMOD	GEU_DFA	GEU_PRCOD
15	GEU_DSCA[0]	GEU_DSCA[2]	GEU_DSCA[1]	GEU_DSCA[3]
16	GEU_DSCA[4]	GEU_DSCA[6]	GEU_DSCA[5]	GEU_DSCA[7]
17	GEU_DSCA[8]	GEU_COLOREN	GEU_COLWIN	PHI_ON_
18	US_IN	GEU_HTIEN	US_IN_R	POS_TBLBUSY
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21	5VA	5VA	5VA	5VA
22	5VA_	5VA_	5VA_	5VA_
23	15V	15V	15V	15V
24	15V_	15V_	15V_	15V_
25	AGND	AGND	AGND	AGND

MN2-0213 Rev. 1  
SECTION 6 PCBLOCK DIAGRAM



EP390700	NTSC
EP390701	PAL

TITLE 名称	MODEL 形名
B/W DIU	EP3907**
1/1	

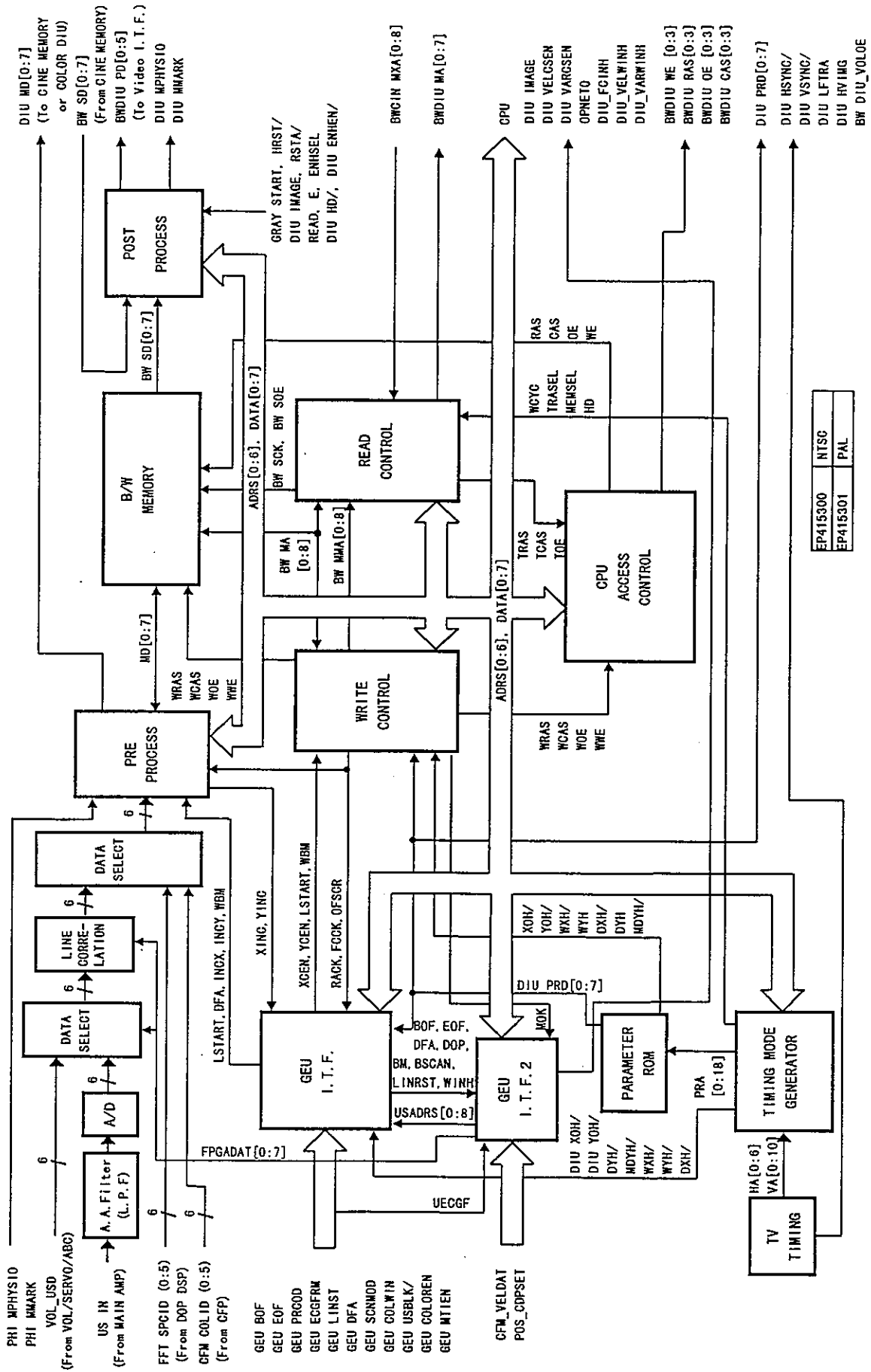


EP415300	NTSC
EP415301	PAL

TITLE 名称	B/W DIU
MODEL 形名	EP4153**
	1/1

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MN2-0213 Rev. 2  
SECTION 6 PCB BLOCK DIAGRAM



TITLE 名称	B/W DIU
MODEL 形名	EP4286**
1/1	

EP415300	NTSC
EP415301	PAL

6-16 CINE MANAGER & CINE MEMORY

This CINE memory is a large capacity display memory capable of storing 32 screens (in the case of the 1B mode) of ultrasound display image data before freezing.

This CINE memory is configured from the memory part of B/W & VEL, VAR and the control part of CINE MANAGER.

Also, functions which differ from CINE MEMORY include counting of the heart rate interval and frame rate interval, and a block is included which generates interrupts to the host CPU.

SIGNAL LIST

J204

PIN No.	EP3908			
	CINE_MANAGER			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	CIN_NET0	CIN_NET2	CIN_NET1	CIN_NET3
4	CIN_NET4	CIN_NET6	CIN_NET5	CIN_NET7
5	VELOIU_WROW	VELOIU_PROW	VELOIU_TROW	CPU_E_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAMEN	CPU_READ	
9	CPU_DATA_[0]	CPU_DATA_[2]	CPU_DATA_[1]	CPU_DATA_[3]
10	CPU_DATA_[4]	CPU_DATA_[6]	CPU_DATA_[5]	CPU_DATA_[7]
11	CPU_ADRS [0]	CPU_ADRS [2]	CPU_ADRS [1]	CPU_ADRS [3]
12	CPU_ADRS [4]	CPU_ADRS [6]	CPU_ADRS [5]	
13	GND	GND	GND	GND
14				CPU_MRDY
15	CPU_3C00_	CPU_3D00_	CPU_3C80_	CPU_3D80_
16	CPU_3E00_	CPU_3F00_	CPU_3E80_	CPU_3F80_
17				DIU_NET0
18	CPU_B6_	DIU_NET3	DIU_NET4	
19		POS_VELIO_	POS_BWIO_	POS_YARIO_
20				
21	BWDIU_WROW	BWDIU_PROW	BWDIU_TROW	DIU_NET5
22	YARDIU_WROW	YARDIU_PROW	YARDIU_TROW	DIU_NET6
23	V50_DATA [0]	V50_DATA [2]	V50_DATA [1]	V50_DATA [3]
24	V50_DATA [4]	V50_DATA [6]	V50_DATA [5]	V50_DATA [7]
25		GND	GND	

PIN No.	J2			
	A	B	C	D
1	DIU_12MHZA			
2	V50_DATA [8]	V50_DATA [10]	V50_DATA [9]	V50_DATA [11]
3	V50_DATA [12]	V50_DATA [14]	V50_DATA [13]	V50_DATA [15]
4	V50_ADRS [0]	V50_ADRS [2]	V50_ADRS [1]	V50_ADRS [3]
5	DIU_BM	CIN_RCTRL_SET_		
6	V50_I020_	V50_I030_	V50_I028_	V50_I038_
7	GND	GND	GND	GND
8	V50_I0RD_		V50_I0WR_	
9	CIN_BMWADIR	CIN_YARMADIR	CIN_YELMADIR	
10	DIU_TSESEL	DIU_UL	DIU_MSEL	BWDIU_SCK
11		BWDIU_DSF		YARDIU_DSF
12				
13		CPU_FIR06_		
14	BWDIU_IRRFCYC		BWDIU_RFCYC	CPU_DMA_
15				
16	CIN_MXA [0]	CIN_MXA [2]	CIN_MXA [1]	CIN_MXA [3]
17	GND	GND	GND	GND
18	CIN_MXA [4]	CIN_MXA [6]	CIN_MXA [5]	CIN_MXA [7]
19	CIN_MXA [8]	CINE_NET8	CINE_NET10	CINE_NET9
20	CINE_NET11	CINE_NET13	CINE_NET12	CINE_NET14
21	DIU_ECGF_	BWDIU_MADRS0_	VELOIU_MADRS6_	YARDIU_MADRS6_
22	DIU_BFRZ	CINE_NET15	DIU_MFRZ	CINE_NET16
23	CIN_MBA0	CIN_MBA2	CIN_MBA1	CIN_MBA3
24	CIN_MBA4	CIN_MBA6	CIN_MBA5	CIN_MBA7
25	DIU_LST_	DIU_EOF_	DIU_BDF_	DIU_E89Y

PIN No.	J3			
	A	B	C	D
1				
2	GND	GND	GND	GND
3				
4				
5		DIU_HD_		DIU_VRST_
6		DIU_MCONTEN	DIU_MWACRY	
7				
8				
9				
10				
11				
12				
13	GND	GND	GND	GND
14				
15				VELOIU_DSF
16	CIN_PSEL0_	CIN_PSEL2_	CIN_PSEL1_	CIN_PSEL3_
17	CIN_PSEL4_	CIN_PSEL6_	CIN_PSEL5_	CIN_PSEL7_
18	PHA_RTR6_			
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21				
22	CIN_SOEEEN0_	CIN_SOEEEN2_	CIN_SOEEEN1_	CIN_SOEEEN3_
23	CIN_SOEEEN4_	CIN_SOEEEN6_	CIN_SOEEEN5_	CIN_SOEEEN7_
24				
25	GND	GND	GND	GND

MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM

J205

PIN No.	EP390900			
	BW_& VEL_CINE_MEMORY			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	CIN_NET0	CIN_NET2	CIN_NET1	CIN_NET3
4	CIN_NET4	CIN_NET6	CIN_NET5	CIN_NET7
5				CPU_E_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAKEN	CPU_READ	
9	CPU_DATA_ [0]	CPU_DATA_ [2]	CPU_DATA_ [1]	CPU_DATA_ [3]
10	CPU_DATA_ [4]	CPU_DATA_ [6]	CPU_DATA_ [5]	CPU_DATA_ [7]
11	CPU_ADRS [0]	CPU_ADRS [2]	CPU_ADRS [1]	CPU_ADRS [3]
12	CPU_ADRS [4]	CPU_ADRS [6]	CPU_ADRS [5]	
13	GND	GND	GND	GND
14				CPU_HRDY
15	CPU_3E00_	CPU_3F00_	CPU_3E80_	CPU_3F80_
16				DIU_NET1
17		DIU_NET3		DIU_NET0
18	VELDIU_SE0_	VELDIU_SE2_	VELDIU_SE1_	VELDIU_SE3_
19	VELCIN_SD [0]	VELCIN_SD [2]	VELCIN_SD [1]	VELCIN_SD [3]
20	VELCIN_SD [4]	VELCIN_SD [6]	VELCIN_SD [5]	VELCIN_SD [7]
21				VELDIU_SCK
22				
23	V50_DATA [0]	V50_DATA [2]	V50_DATA [1]	V50_DATA [3]
24	V50_DATA [4]	V50_DATA [6]	V50_DATA [5]	V50_DATA [7]
25		GND	GND	DIU_12MHZ_

PIN No.	J2			
	A	B	C	D
1	DIU_12MHZA			
2	V50_DATA [8]	V50_DATA [10]	V50_DATA [9]	V50_DATA [11]
3	V50_DATA [12]	V50_DATA [14]	V50_DATA [13]	V50_DATA [15]
4	V50_ADRS [0]	V50_ADRS [2]	V50_ADRS [1]	V50_ADRS [3]
5		CIN_ACTRL_SET_		
6	V50_I020_	V50_I030_	V50_I02B_	V50_I03B_
7	GND	GND	GND	GND
8	V50_I0RD_		V50_I0WR_	
9	CIN_BKNADIR	CIN_VELMADIR		
10		DIU_UL		
11				VELDIU_DSF
12	VELDIU_RAS0_	VELDIU_RAS2_	VELDIU_RAS1_	VELDIU_RAS3_
13	VELDIU_CAS0_	VELDIU_CAS2_	VELDIU_CAS1_	VELDIU_CAS3_
14	VELDIU_OE0_	VELDIU_OE2_	VELDIU_OE1_	VELDIU_OE3_
15	VELDIU_WE0_	VELDIU_WE2_	VELDIU_WE1_	VELDIU_WE3_
16	CINE_NET8	CINE_NET10	CINE_NET9	CINE_NET11
17	GND	GND	GND	GND
18	CINE_NET12	CINE_NET14	CINE_NET13	CINE_NET15
19	BWDIU_SE0_	BWDIU_SE2_	BWDIU_SE1_	BWDIU_SE3_
20	BWCIN_SD [0]	BWCIN_SD [2]	BWCIN_SD [1]	BWCIN_SD [3]
21	BWCIN_SD [4]	BWCIN_SD [6]	BWCIN_SD [5]	BWCIN_SD [7]
22		CINE_NET16		
23	CIN_M8A0	CIN_M8A2	CIN_M8A1	CIN_M8A3
24	CIN_M8A4	CIN_M8A6	CIN_M8A5	CIN_M8A7
25		BWDIU_SCK		BWDIU_DSF

PIN No.	J3			
	A	B	C	D
1	BWDIU_RAS0_	BWDIU_RAS2_	BWDIU_RAS1_	BWDIU_RAS3_
2	GND	GND	GND	GND
3	BWDIU_CAS0_	BWDIU_CAS2_	BWDIU_CAS1_	BWDIU_CAS3_
4	BWDIU_OE0_	BWDIU_OE2_	BWDIU_OE1_	BWDIU_OE3_
5	BWDIU_WE0_	BWDIU_WE2_	BWDIU_WE1_	BWDIU_WE3_
6	VELDIU_MA [0]	VELDIU_MA [2]	VELDIU_MA [1]	VELDIU_MA [3]
7	VELDIU_MA [4]	VELDIU_MA [6]	VELDIU_MA [5]	VELDIU_MA [7]
8	BWDIU_MA [0]	BWDIU_MA [2]	BWDIU_MA [1]	BWDIU_MA [3]
9	BWDIU_MA [4]	BWDIU_MA [6]	BWDIU_MA [5]	BWDIU_MA [7]
10	DIU_MD [0]	DIU_MD [2]	DIU_MD [1]	DIU_MD [3]
11	DIU_MD [4]	DIU_MD [6]	DIU_MD [5]	DIU_MD [7]
12	COLDIU_MD [0]	COLDIU_MD [2]	COLDIU_MD [1]	COLDIU_MD [3]
13	GND	GND	GND	GND
14	COLDIU_MD [4]	COLDIU_MD [6]	COLDIU_MD [5]	COLDIU_MD [7]
15				
16	CIN_PSEL0_	CIN_PSEL2_	CIN_PSEL1_	CIN_PSEL3_
17	CIN_PSEL4_	CIN_PSEL6_	CIN_PSEL5_	CIN_PSEL7_
18				
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21				
22	CIN_SOEN0_	CIN_SOEN2_	CIN_SOEN1_	CIN_SOEN3_
23	CIN_SOEN4_	CIN_SOEN6_	CIN_SOEN5_	CIN_SOEN7_
24				
25	GND	GND	GND	GND



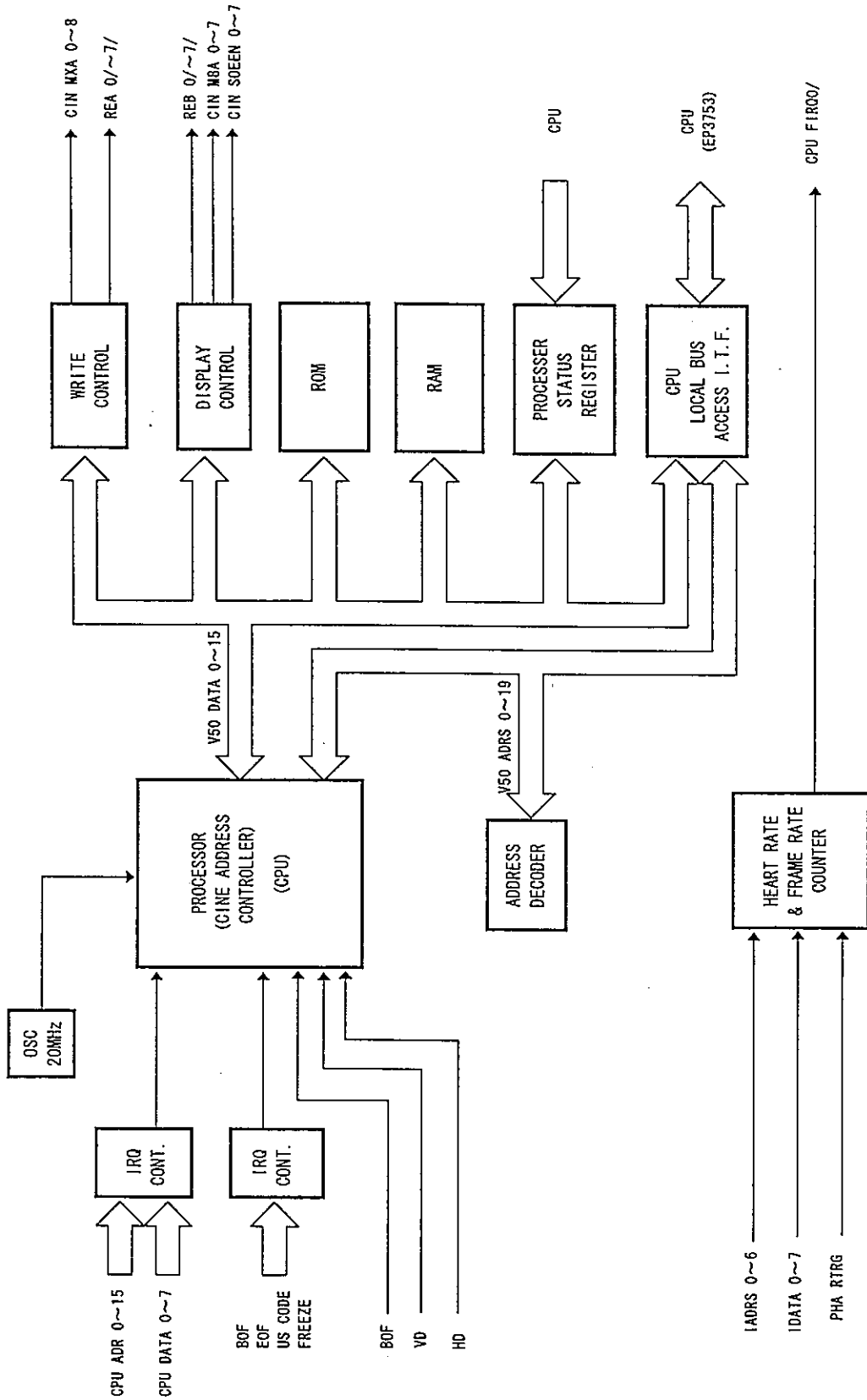
J207

EP390901				
VAR_CINE				
J1				
PIN No.	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	CIN_NET0	CIN_NET2	CIN_NET1	CIN_NET3
4	CIN_NET4	CIN_NET6	CIN_NET5	CIN_NET7
5				CPU_F_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAMEN	CPU_READ	
9	CPU_DATA_ [0]	CPU_DATA_ [2]	CPU_DATA_ [1]	CPU_DATA_ [3]
10	CPU_DATA_ [4]	CPU_DATA_ [6]	CPU_DATA_ [5]	CPU_DATA_ [7]
11	CPU_ADRS [0]	CPU_ADRS [2]	CPU_ADRS [1]	CPU_ADRS [3]
12	CPU_ADRS [4]	CPU_ADRS [6]	CPU_ADRS [5]	
13	GND	GND	GND	GND
14				CPU_HRDY
15	CPU_3E00_	CPU_3F00_	CPU_3E80_	CPU_3F80_
16				DIU_NET1
17	DIU_NET2	DIU_NET3		DIU_NET0
18				
19				
20				
21				
22		YARCIN_ON_		
23	V50_DATA [0]	V50_DATA [2]	V50_DATA [1]	V50_DATA [3]
24	V50_DATA [4]	V50_DATA [6]	V50_DATA [5]	V50_DATA [7]
25		GND	GND	DIU_12MHZ_

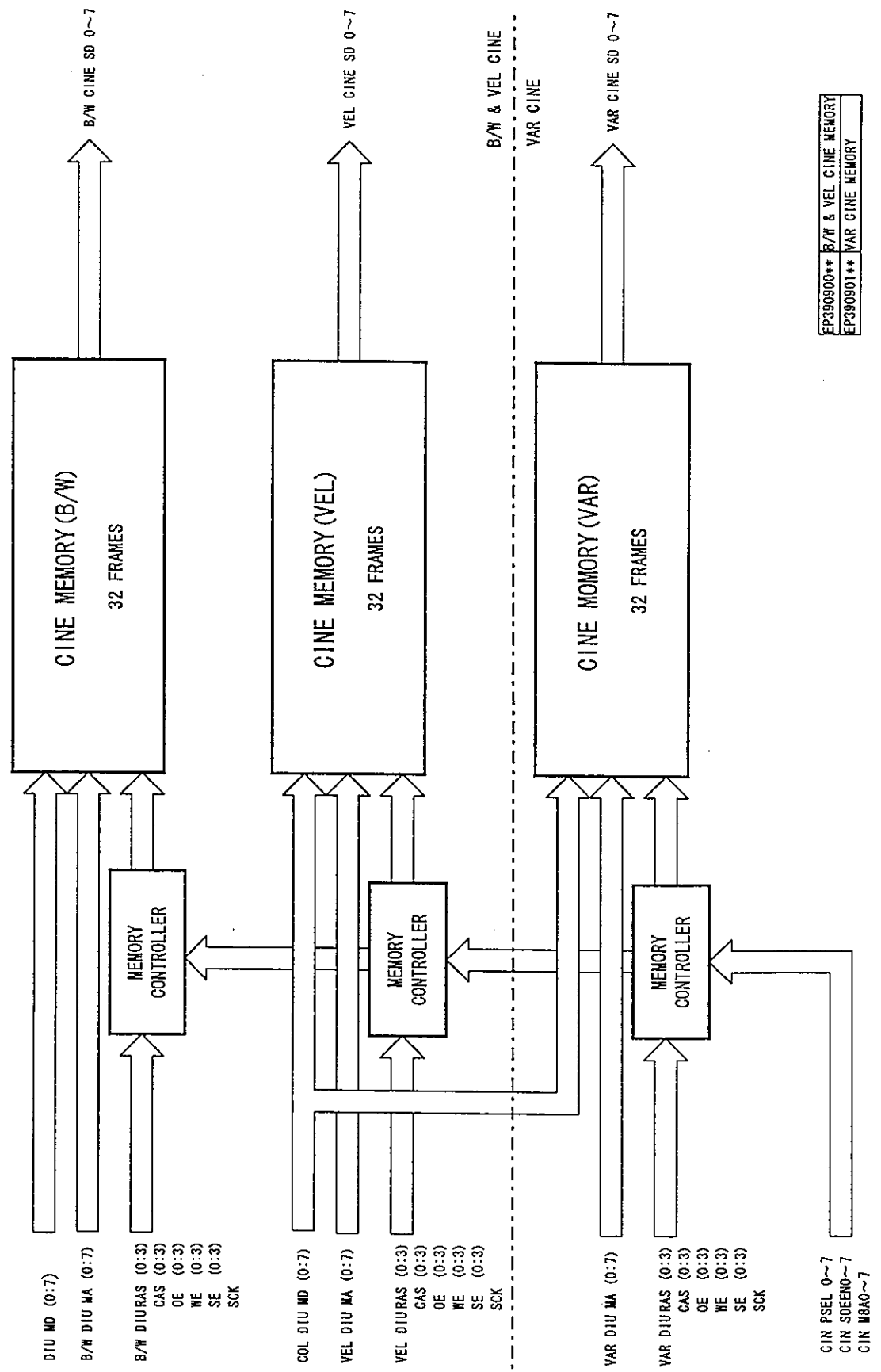
J2				
PIN No.	A	B	C	D
1	DIU_12MHZA			
2	V50_DATA [8]	V50_DATA [10]	V50_DATA [9]	V50_DATA [11]
3	V50_DATA [12]	V50_DATA [14]	V50_DATA [13]	V50_DATA [15]
4	V50_ADRS [0]	V50_ADRS [2]	V50_ADRS [1]	V50_ADRS [3]
5		CIN_CTRL_SET_		
6	V50_I020_	V50_I030_	V50_I028_	V50_I038_
7	GND	GND	GND	GND
8	V50_I0RD_		V50_I0WR_	
9	CIN_VARKADIR			
10		DIU_UL		
11				
12				
13				
14				
15				
16	CINE_NET8	CINE_NET10	CINE_NET9	CINE_NET11
17	GND	GND	GND	GND
18	CINE_NET12	CINE_NET14	CINE_NET13	CINE_NET15
19	VARDIU_SE0_	VARDIU_SE2_	VARDIU_SE1_	VARDIU_SE3_
20	VARCIN_SD [0]	VARCIN_SD [2]	VARCIN_SD [1]	VARCIN_SD [3]
21	VARCIN_SD [4]	VARCIN_SD [6]	VARCIN_SD [5]	VARCIN_SD [7]
22		CINE_NET16		
23	CIN_MBA0	CIN_MBA2	CIN_MBA1	CIN_MBA3
24	CIN_MBA4	CIN_MBA6	CIN_MBA5	CIN_MBA7
25		VARDIU_SCK		VARDIU_DSP

J3				
PIN No.	A	B	C	D
1	VARDIU_RAS0_	VARDIU_RAS2_	VARDIU_RAS1_	VARDIU_RAS3_
2	GND	GND	GND	GND
3	VARDIU_CAS0_	VARDIU_CAS2_	VARDIU_CAS1_	VARDIU_CAS3_
4	VARDIU_DE0_	VARDIU_DE2_	VARDIU_DE1_	VARDIU_DE3_
5	VARDIU_WE0_	VARDIU_WE2_	VARDIU_WE1_	VARDIU_WE3_
6				
7				
8	VARDIU_M0 [0]	VARDIU_M0 [2]	VARDIU_M0 [1]	VARDIU_M0 [3]
9	VARDIU_M0 [4]	VARDIU_M0 [6]	VARDIU_M0 [5]	VARDIU_M0 [7]
10	COLDIU_M0 [0]	COLDIU_M0 [2]	COLDIU_M0 [1]	COLDIU_M0 [3]
11	COLDIU_M0 [4]	COLDIU_M0 [6]	COLDIU_M0 [5]	COLDIU_M0 [7]
12				
13	GND	GND	GND	GND
14				
15				
16	CIN_PSEL0_	CIN_PSEL2_	CIN_PSEL1_	CIN_PSEL3_
17	CIN_PSEL4_	CIN_PSEL6_	CIN_PSEL5_	CIN_PSEL7_
18				
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21				
22	CIN_S0EEN0_	CIN_S0EEN2_	CIN_S0EEN1_	CIN_S0EEN3_
23	CIN_S0EEN4_	CIN_S0EEN6_	CIN_S0EEN5_	CIN_S0EEN7_
24				
25	GND	GND	GND	GND

MN2-0213  
SECTION 6 PCBLOCK DIAGRAM



<b>Aloka</b>	TITLE 名称 <i>C/INE MANAGER</i>	MODEL 形名 EP3908**	1/1
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EP390900\*\* B/W & VEL CINE MEMORY  
EP390901\*\* VAR CINE MEMORY

<b>Aloka</b>	TITLE 名称	CINE MEMORY	1/1
	MODEL 形名	EP3909**	

6-17 COLOR DIU

This circuit board is configured from the following four blocks, whose function is mainly concerned with color data processing for the Digital Imaging Unit, which scans and converts ultrasound image data sent and received by the GEU and outputs TV Video signals for TV display.

- 1) Frame Correlation (VELOCITY/VARIANCE)
- 2) Image Memory (VELOCITY/VARIANCE)
- 3) Post Processor (VELOCITY/VARIANCE)
- 4) Frame Acceleration (VELOCITY/VARIANCE)

Further, the only difference this block has with the B/W DIU is the initial stage frame correlation and frame acceleration blocks. The operation of the other blocks is the same as that of the B/W DIU.

SIGNAL LIST

J206

PIN No.	EP3910			
	COL_DIU			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	DIU_PRD[0]	DIU_PRD[2]	DIU_PRD[1]	DIU_PRD[3]
4	DIU_PRD[4]	DIU_PRD[6]	DIU_PRD[5]	DIU_PRD[7]
5	VELOIU_WROW	DIU_3E90R_	VELOIU_TROW	CPU_F_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAMEN	CPU_READ	
9	CPU_DATA_[0]	CPU_DATA_[2]	CPU_DATA_[1]	CPU_DATA_[3]
10	CPU_DATA_[4]	CPU_DATA_[6]	CPU_DATA_[5]	CPU_DATA_[7]
11	CPU_ADRS[0]	CPU_ADRS[2]	CPU_ADRS[1]	CPU_ADRS[3]
12	CPU_ADRS[4]	CPU_ADRS[6]	CPU_ADRS[5]	DIU_HAENX
13	GND	GND	GND	GND
14	DIU_HAENY	DIU_YOH_	DIU_XOH_	CPU_HRDY
15	CPU_3E00_	POS_VELID_	CPU_3E80_	POS_VARIO_
16	DIU_NET2	VARDIU_WROW	DIU_JFTRA	VARDIU_TROW
17	POS_FCNVEL_	POS_YARFC	POS_VELFC	DIU_NET0
18	VELOIU_SE0_	VELOIU_SE2_	VELOIU_SE1_	VELOIU_SE3_
19	VELCIN_SD[0]	VELCIN_SD[2]	VELCIN_SD[1]	VELCIN_SD[3]
20	VELCIN_SD[4]	VELCIN_SD[6]	VELCIN_SD[5]	VELCIN_SD[7]
21	VELOIU_PD_[0]	DIU_NET3	VELOIU_PD_[1]	VELOIU_SCK
22	VELOIU_PD_[2]	VELOIU_PD_[4]	VELOIU_PD_[3]	VELOIU_PD_[5]
23	POS_FITPTF[0]	POS_FITPTF[2]	POS_FITPTF[1]	POS_FITPTF[3]
24	POS_FCRAMA[0]	POS_FCRAMA[2]	POS_FCRAMA[1]	POS_FCRAMA[3]
25	DIU_12MHZ_	GND	GND	DIU_DIV2

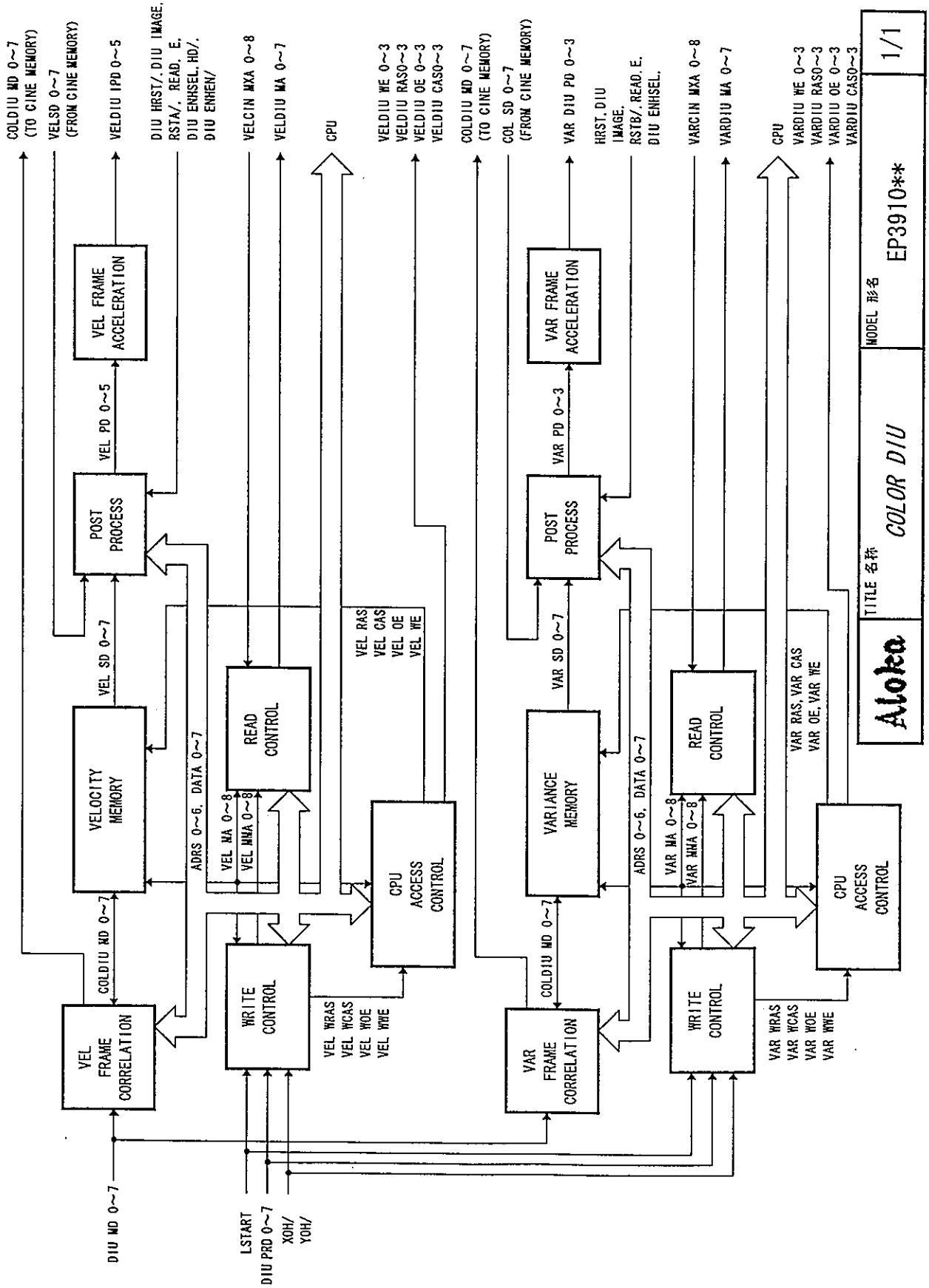
PIN No.	J2			
	A	B	C	D
1	DIU_12MHZB			
2	POS_FCRAMA[4]	POS_FCRAMA[6]	POS_FCRAMA[5]	POS_FCRAMA[7]
3	POS_FCRAMA[8]	POS_FCRAMA[10]	POS_FCRAMA[9]	POS_FCRAMA[11]
4	DIU_BDSP	DIU_BM	DIU_HDSP	DIU_BMCNT
5	DIU_MCNTEN	DIU_ENHSEL	DIU_IMAGE	DIU_ENHEN_
6	DIU_SOSA	DIU_MCYC	DIU_SDSB	DIU_FCINH_
7	GND	GND	GND	GND
8	DIU_VELCSEN_	DIU_VARNINH	DIU_VARCSEN_	DIU_VELNINH
9	DIU_FREQ_	POS_COLFC[0]	DIU_RSTART_	POS_COLFC[1]
10	DIU_TRSEL	DIU_UL	DIU_MSEL	
11	VELDIU_TRRFCYC	VELDIU_WADRS6_	VELDIU_RFCYC	VELDIU_DSF
12	VELOIU_RAS0_	VELOIU_RAS2_	VELOIU_RAS1_	VELOIU_RAS3_
13	VELOIU_CAS0_	VELOIU_CAS2_	VELOIU_CAS1_	VELOIU_CAS3_
14	VELOIU_OE0_	VELOIU_OE2_	VELOIU_OE1_	VELOIU_OE3_
15	VELOIU_ME0_	VELOIU_ME2_	VELOIU_ME1_	VELOIU_ME3_
16	CIN_MXA[0]	CIN_MXA[2]	CIN_MXA[1]	CIN_MXA[3]
17	GND	GND	GND	GND
18	CIN_MXA[4]	CIN_MXA[6]	CIN_MXA[5]	CIN_MXA[7]
19	CIN_MXA[8]	VARDIU_SE1_	VARDIU_SE0_	VARDIU_SE2_
20	VARDIU_SE3_	VARCIN_SD[1]	VARCIN_SD[0]	VARCIN_SD[2]
21	VARCIN_SD[3]	VARCIN_SD[5]	VARCIN_SD[4]	VARCIN_SD[6]
22	VARCIN_SD[7]	VELOIU_PROW	COLDIU_ER5BUSY	VARDIU_PROW
23	DIU_BFRZ	DIU_RACK_	DIU_MFRZ	DIU_FCCK1
24	DIU_FCCK2	DIU_WGATE_	DIU_MSINH	DIU_OFSCR_
25	DIU_1ST_	DIU_EGF_		POS_BIMG

PIN No.	J3			
	A	B	C	D
1		VARDIU_SCK		
2	GND	GND	GND	GND
3	VARDIU_PO_[0]	VARDIU_PO_[2]	VARDIU_PO_[1]	VARDIU_PO_[3]
4	POS_COLFITP	DIU_HO_	DIU_REN	DIU_MACK_
5	DIU_HRST_	DIU_2XH	DIU_VRBT_	DIU_EVEN_
6	VELOIU_MA[0]	VELOIU_MA[2]	VELOIU_MA[1]	VELOIU_MA[3]
7	VELOIU_MA[4]	VELOIU_MA[6]	VELOIU_MA[5]	VELOIU_MA[7]
8	VARDIU_MA[0]	VARDIU_MA[2]	VARDIU_MA[1]	VARDIU_MA[3]
9	VARDIU_MA[4]	VARDIU_MA[6]	VARDIU_MA[5]	VARDIU_MA[7]
10	DIU_MD[0]	DIU_MD[2]	DIU_MD[1]	DIU_MD[3]
11	DIU_MD[4]	DIU_MD[6]	DIU_MD[5]	DIU_MD[7]
12	COLDIU_MD[0]	COLDIU_MD[2]	COLDIU_MD[1]	COLDIU_MD[3]
13	GND	GND	GND	GND
14	COLDIU_MD[4]	COLDIU_MD[6]	COLDIU_MD[5]	COLDIU_MD[7]
15	VARDIU_TRRFCYC	VARDIU_WADRS6_	VARDIU_RFCYC	VARDIU_DSF
16	VARDIU_RAS0_	VARDIU_RAS2_	VARDIU_RAS1_	VARDIU_RAS3_
17	VARDIU_CAS0_	VARDIU_CAS2_	VARDIU_CAS1_	VARDIU_CAS3_
18	VARDIU_OE0_	VARDIU_OE2_	VARDIU_OE1_	VARDIU_OE3_
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21	VARDIU_ME0_	VARDIU_ME2_	VARDIU_ME1_	VARDIU_ME3_
22	CIN_MXA[0]	CIN_MXA[2]	CIN_MXA[1]	CIN_MXA[3]
23	CIN_MXA[4]	CIN_MXA[6]	CIN_MXA[5]	CIN_MXA[7]
24	CIN_MXA[8]	POS_FCRANWR_	POS_FCEN_	POS_DATSET_
25	GND	GND	GND	GND

MN2-0213  
SECTION 6 PCBBLOCK DIAGRAM  
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MN2-0213  
SECTION 6 PCB BLOCK DIAGRAM



TITLE 名称		MODEL 形名	1/1
Aloka		COLOR DIU	EP3910**

## 6-18 VIDEO ITF

This block adds attributes and adds characters and graphics, to ultrasound data read at TV timing, then after color conversion, they undergo D/A conversion then are output as TV display signals. This block includes a composite video decoder and encoder, a TV frame grabber and DMS connection block.

This block is configured from the following four blocks.

- Post Processor
- External Video Input/Output Block
- Frame Grabber
- DMS Interface Block



SIGNAL LIST

J209

PIN No.	EP3951			
	VIDEO_ITF			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3				
4				
5	OIU_VSYNC_		OIU_HSYNC_	CPU_E_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAMEN	CPU_READ	OIU_CMPS_
9	CPU_DATA_[0]	CPU_DATA_[2]	CPU_DATA_[1]	CPU_DATA_[3]
10	CPU_DATA_[4]	CPU_DATA_[6]	CPU_DATA_[5]	CPU_DATA_[7]
11	CPU_ADRS [0]	CPU_ADRS [2]	CPU_ADRS [1]	CPU_ADRS [3]
12	CPU_ADRS [4]	CPU_ADRS [6]	CPU_ADRS [5]	
13	GND	GND	GND	GND
14	OIU_NET5	OIU_NET6	OIU_NET7	CPU_MRDY
15	CPU_3080_	POS_VELIO_	POS_8WIO_	POS_VARIO_
16	POS_FLTSET_	POS_VH00	POS_C0PSET_	OIU_NET1
17	POS_HM00 [0]	POS_HM00 [2]	POS_HM00 [1]	OIU_NET0
18	POS_FCWVEL_	POS_VARFC	POS_YELFC	POS_RFZD0NE
19	8W0IU_PD [0]	8W0IU_PD [2]	8W0IU_PD [1]	8W0IU_PD [3]
20	8W0IU_PD [4]	VELOIU_PD_[0]	8W0IU_PD [5]	VELOIU_PD_[1]
21	VELOIU_PD_[2]	VELOIU_PD_[4]	VELOIU_PD_[3]	VELOIU_PD_[5]
22	OIU_NET2	OIU_NET3	OIU_MENU	FFT_RAMEN_
23	POS_FLTPTF [0]	POS_FLTPTF [2]	POS_FLTPTF [1]	POS_FLTPTF [3]
24	POS_FCRAMA [0]	POS_FCRAMA [2]	POS_FCRAMA [1]	POS_FCRAMA [3]
25	OIU_25MHZ_	GND	GND	OIU_12MHZ_

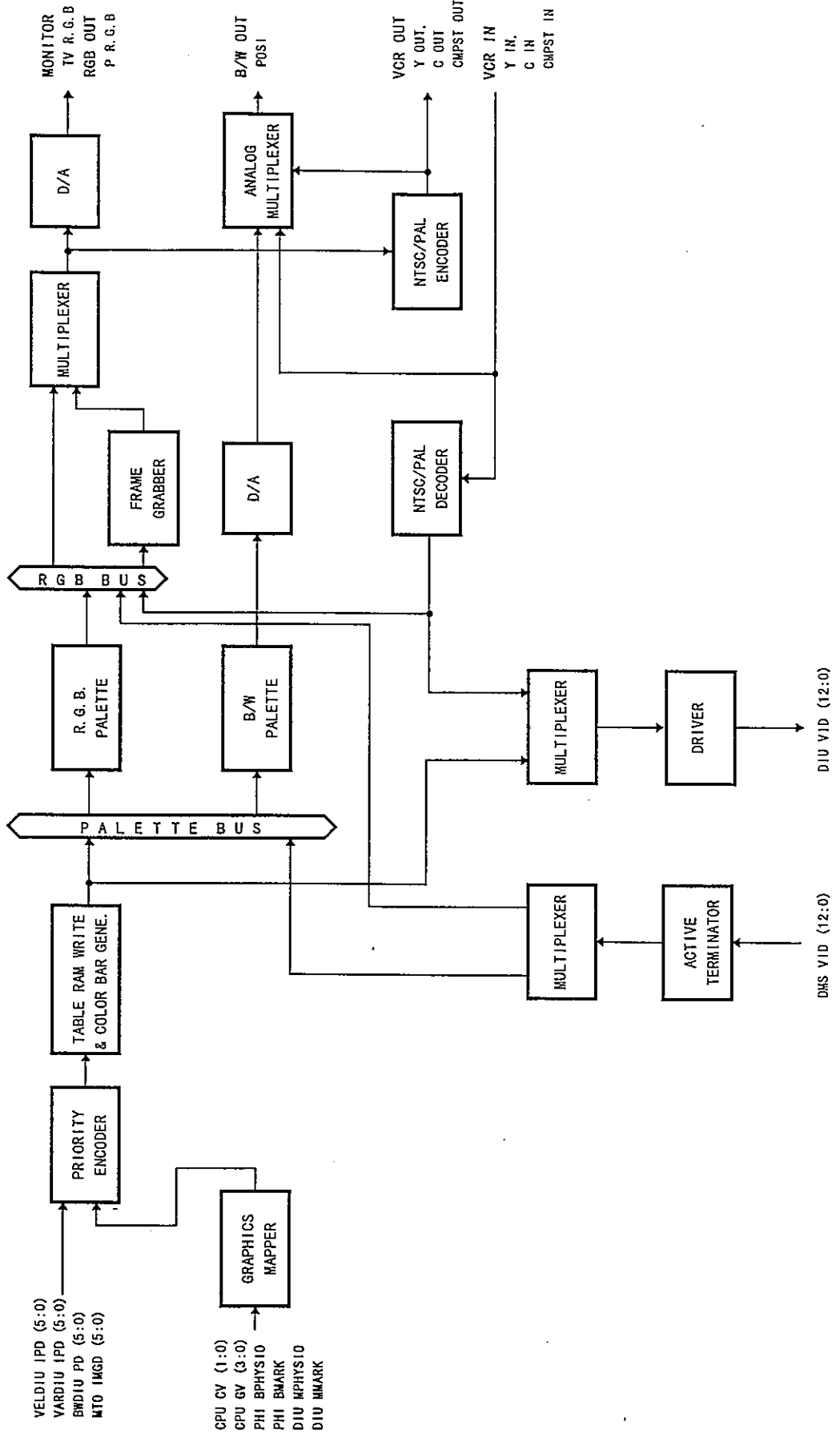
PIN No.	J2			
	A	B	C	D
1	OIU_12MHZC			
2	POS_FCRAMA [4]	POS_FCRAMA [6]	POS_FCRAMA [5]	POS_FCRAMA [7]
3	POS_FCRAMA [8]	POS_FCRAMA [10]	POS_FCRAMA [9]	POS_FCRAMA [11]
4	PHA_RTNG_	POS_FCRANKR_	POS_FCWEN_	POS_DATSET_
5	OIU_IMAGE	POS_COLFC [0]	OIU_ENHSEL	POS_COLFC [1]
6	DMS_RGB_	DMS_DATA [7]		DMS_DATA [6]
7	GND	GND	GND	GND
8	DMS_YIO_[17]	DMS_DATA [5]	DMS_YIO_[16]	DMS_DATA [4]
9	DMS_YIO_[15]	DMS_DATA [3]	DMS_YIO_[14]	DMS_DATA [2]
10	DMS_YIO_[13]	DMS_DATA [1]	DMS_YIO_[12]	DMS_DATA [0]
11	DMS_YIO_[11]	DMS_ADRS [1]	DMS_YIO_[10]	DMS_ADRS [0]
12	DMS_YIO_[9]	DMS_READ	DMS_YIO_[8]	DMS_GEN_
13	DMS_YIO_[7]	RGB_	DMS_YIO_[6]	DMS_HSYNC_
14	DMS_YIO_[5]	DMS_VSTNC_	DMS_YIO_[4]	DMS_CLK_
15	DMS_YIO_[3]	DMS_UPDT_	DMS_YIO_[2]	DMS_ECC_
16	DMS_YIO_[1]	FCS_YIO_[17]	DMS_YIO_[0]	POS_YIO_[16]
17	GND	GND	GND	GND
18	POS_YIO_[15]	POS_YIO_[13]	POS_YIO_[14]	POS_YIO_[12]
19	POS_YIO_[11]	POS_YIO_[9]	POS_YIO_[10]	POS_YIO_[8]
20	POS_YIO_[7]	POS_YIO_[5]	POS_YIO_[6]	POS_YIO_[4]
21	POS_YIO_[3]	POS_YIO_[1]	POS_YIO_[2]	POS_YIO_[0]
22	CPU_CV00_	PHI_3PHYSIO_	CPU_CV01_	PHI_8MARK_
23	OIU_BFRZ		OIU_MFRZ	
24	CPU_GV03_	CPU_GV02_	CPU_GV01_	CPU_GV00_
25	OIU_NET8	POS_3LBSUSY	OIU_EOF_	POS_BING

PIN No.	J3			
	A	B	C	D
1	HTO_INGO [0]	HTO_INGO [2]	HTO_INGO [1]	HTO_INGO [3]
2	GND	GND	GND	GND
3	VAR0IU_PD_[0]	VAR0IU_PD_[2]	VAR0IU_PD_[1]	VAR0IU_PD_[3]
4	POS_COLFITP	HTO_INGO [4]	POS_AUD[0]VCR	HTO_INGO [5]
5		OIU_V0P		OIU_EVEN_
6	OIU_Y0_	OIU_OHGRY	OIU_HYING	OIU_CHGRY
7	OIU_OVGRY	OIU_MMARK	OIU_CVGRY	OIU_MPHYSIO
8				
9	TV_R	TV_G_R	TV_B_R	TV_G
10	TV_B	TV_SYNC_R	TV_B_R	TV_SYNC
11	P_R	P_G_R	P_B_R	P_G
12	P_B	P_SYNC_R	P_B_R	P_SYNC
13	GND	GND	GND	GND
14	C_OUT	Y_OUT_R	C_OUT_R	Y_OUT
15	CMPST_OUT	POST_R	CMPST_OUT_R	POST
16				
17	CMPST_IN		CMPST_IN_R	
18	C_IN	Y_IN_R	C_IN_R	Y_IN
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21	5VA	5VA	5VA	5VA
22	5VA_	5VA_	5VA_	5VA_
23	15V	15V	15V	15V
24	15V_	15V_	15V_	15V_
25	AGND	AGND	AGND	AGND

MN2-0213  
SECTION 6 PCBBLOCK DIAGRAM

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SECTION 6 PCB BLOCK DIAGRAM



TITLE 名称	VIDEO I/F
MODEL 形名	EP3951**
1/1	

6-19 AV I.T.F

This block is configured from the following PCB's.

- Audio I/O
- RGB OUT
- Video I/O

SIGNAL LIST

J221

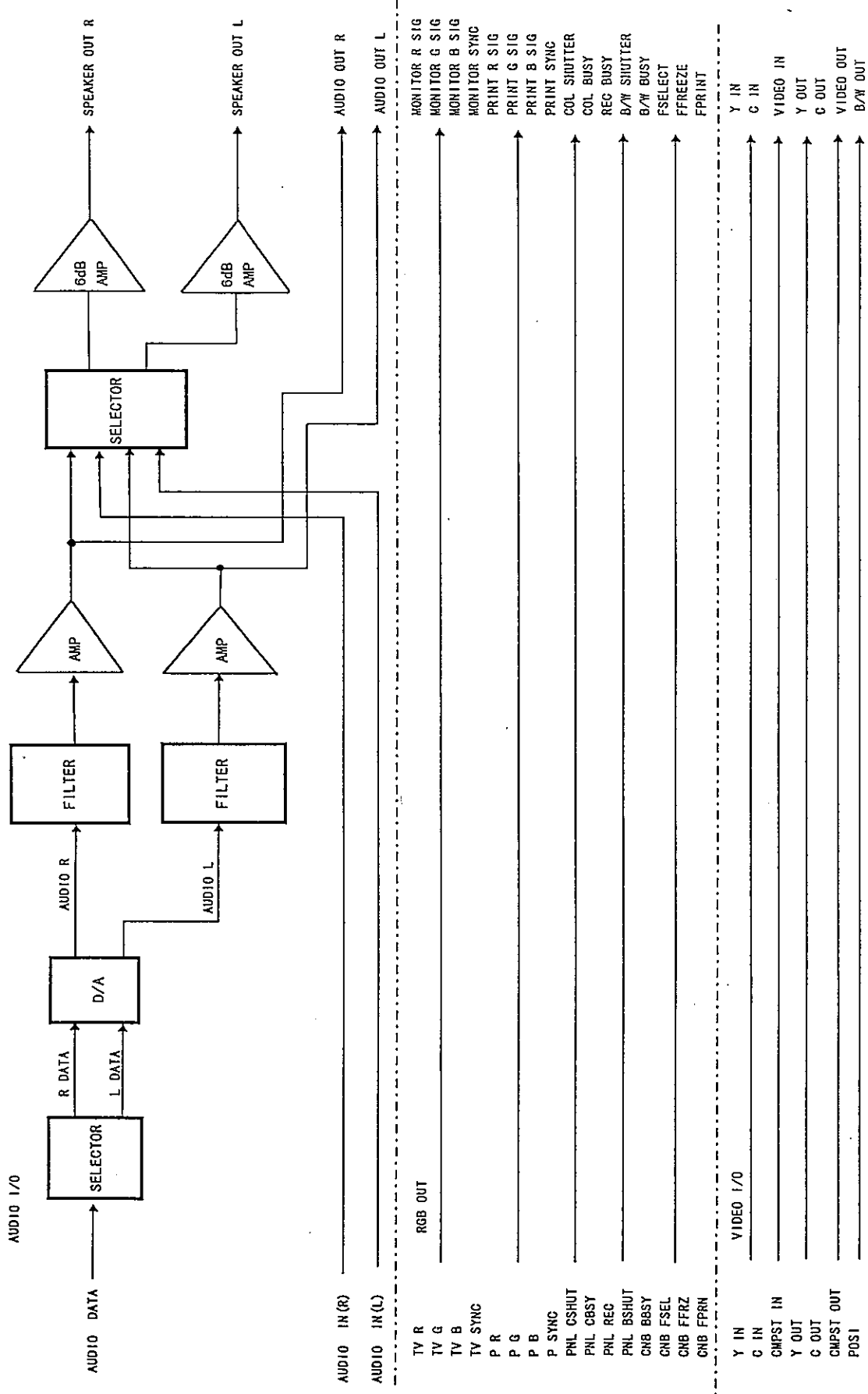
PIN No.	AUDIO_I/O
1	DAC_DATA
2	GND
3	DAC_SYNC
4	GND
5	DAC_SEL
6	GND
7	DAC_CLK
8	GND
9	GND
10	GND
11	SYA
12	AGND
13	SYA_
14	AGND
15	AGND
16	AGND
17	POS_AUDI0VCR
18	AGND
19	
20	

J222

PIN No.	VIDEO_I/O
1	Y_IN
2	Y_IN_R
3	C_IN
4	C_IN_R
5	
6	CHPST_IN_R
7	CHPST_IN
8	
9	Y_OUT
10	Y_OUT_R
11	C_OUT
12	C_OUT_R
13	
14	CHPST_OUT_R
15	CHPST_OUT
16	
17	POST_R
18	POST
19	
20	

J223

PIN No.	RGB_OUT
1	GND
2	CNB_FFRN
3	GND
4	CNB_FFRZ
5	GND
6	CNB_FSEL
7	GND
8	CNB_BBSY
9	GND
10	PNL_BSHUT
11	CNB_RECBSY
12	PNL_REC
13	GND
14	CNB_CBSY
15	GND
16	PNL_CSHUT
17	AGND
18	P_SYNC_R
19	P_SYNC
20	P_B_R
21	P_B
22	P_G_R
23	P_G
24	P_R_R
25	P_R
26	TV_SYNC_R
27	TV_SYNC
28	TV_B_R
29	TV_B
30	TV_G_R
31	TV_G
32	TV_R_R
33	AGND
34	TV_R



TITLE 名称	MODEL 形名	1/1
A V I . T . F .		
EP3916**/EP3917**/EP3918**		

6-20 PHYSIO. MEMORY

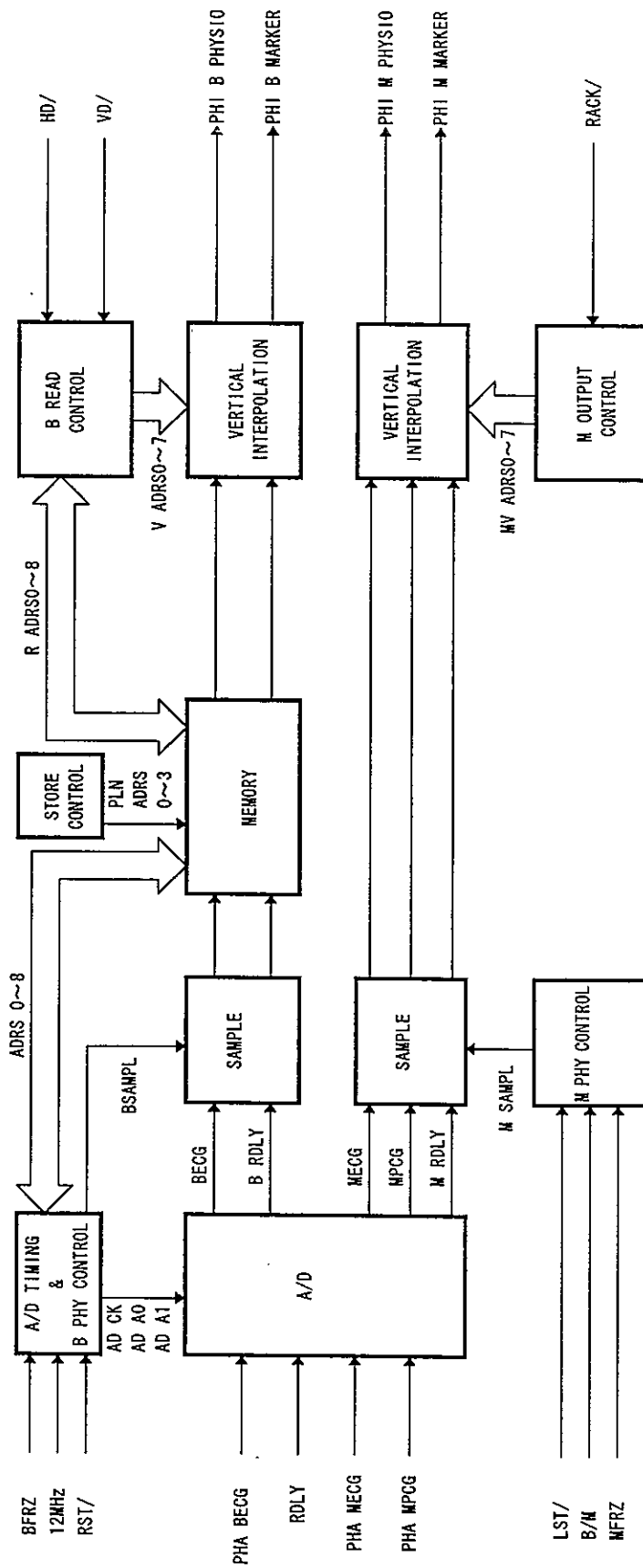
This system receives the analog singles from the amplifier, saves the signals in the memory, and outputs them by synchronizing with the TV signals. The unit consists of the plane mode block and sweep mode block. The plane mode block receives the analog data from the amplifier, interpolates the analog signal for display, writes the data in the separate memory (not the ultrasound data display memory), and displays the signals on the plane mode image. The sweep mode block receives the analog signals from the amplifier, interpolates the signals for display, writes the data in the DIU display sweep mod data area, and displays the signals on the sweep mode image. The ECG signals are displayed on the plane mode image, and the ECG and PCG signals are displayed on the sweep mode image.

SIGNAL LIST

J200

PIN No.	PHY_MEMORY			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2				
3				
4				
5		DIU_BM		CPU_F_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAKEN	CPU_READ	
9	CPU_DATA_[0]	CPU_DATA_[2]	CPU_DATA_[1]	CPU_DATA_[3]
10	CPU_DATA_[4]	CPU_DATA_[6]	CPU_DATA_[5]	CPU_DATA_[7]
11	CPU_ADRS[0]	CPU_ADRS[2]	CPU_ADRS[1]	CPU_ADRS[3]
12	CPU_ADRS[4]	CPU_ADRS[6]	CPU_ADRS[5]	
13	AGND	AGND	AGND	AGND
14	DIU_LST_			CPU_HRDY
15				
16	CPU_3E00_	CPU_3F00_	CPU_3E80_	CPU_3F80_
17	PHA_BECCG	PHA_BECCG_R	PHA_MECG	PHA_MECG_R
18	PHA_MPCG	PHA_MPCG_R	DIU_NET4	DIU_NET0
19				
20				
21				
22				
23				
24				
25	DIU_12MHZA	GND	GND	GND

PIN No.	J2			
	A	B	C	D
1				
2				
3				PHI_ON_
4	PHI_SPHYSIO_	PHI_MPHYSIO_	PHI_SNARK_	PHI_MMARK_
5	DIU_BFAZ	GND	DIU_MFAZ	GND
6	DIU_NET9			
7	GND	GND	GND	GND
8	DIU_RACK_	DIU_MCNTEN		DIU_S25
9	DIU_HDP	DIU_HD_	DIU_VCP	DIU_VD_
10	DIU_STA_	DIU_EVEN_	DIU_VRST_	
11				
12				
13				
14				
15				
16				PHI_PPHO
17	GND	GND	GND	GND
18				
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21	DIU_ECCF_	PHA_RTTRG_	PHI_STNGDLY_	
22	DIU_NET8			
23	15V	15V	15V	15V
24	15V_	15V_	15V_	15V_
25	GND	GND	GND	GND



6 - 69

<b>Aloka</b>	TITLE 名称 <i>PHYSIO. MEMORY</i>	MODEL 形名 EP4049**	1/1
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MN2-0213  
 SECTION 6 PCBBLOCK DIAGRAM  
 6-21 PHYSIO. AMP

This PCB functions as the amplifier for physiological signals.

It's inputs are as following:

ECG insulated input

ECG DC input

PCG

Also, the PCB has a circuit which can detect R-wave from ECG waveform.

SIGNAL LIST

J501	
1	ECG
2	GND
3	ECG OFS
4	GND
5	PCG OFS
6	GND
7	R-R/
8	
9	+5.1V
10	GND
11	+15V
12	GND
13	-15V
14	GND
15	NC
16	NC

3408-5002SCSC

J503	
HI	1
NC	2
GUARD	3
G	4
G	5
NC	6
LO	7

5046-07A

J504	
50/60	1
GND	2
ECG EXCH	3
GND	4
ECG DC IN	5
GND	6

5046-05A

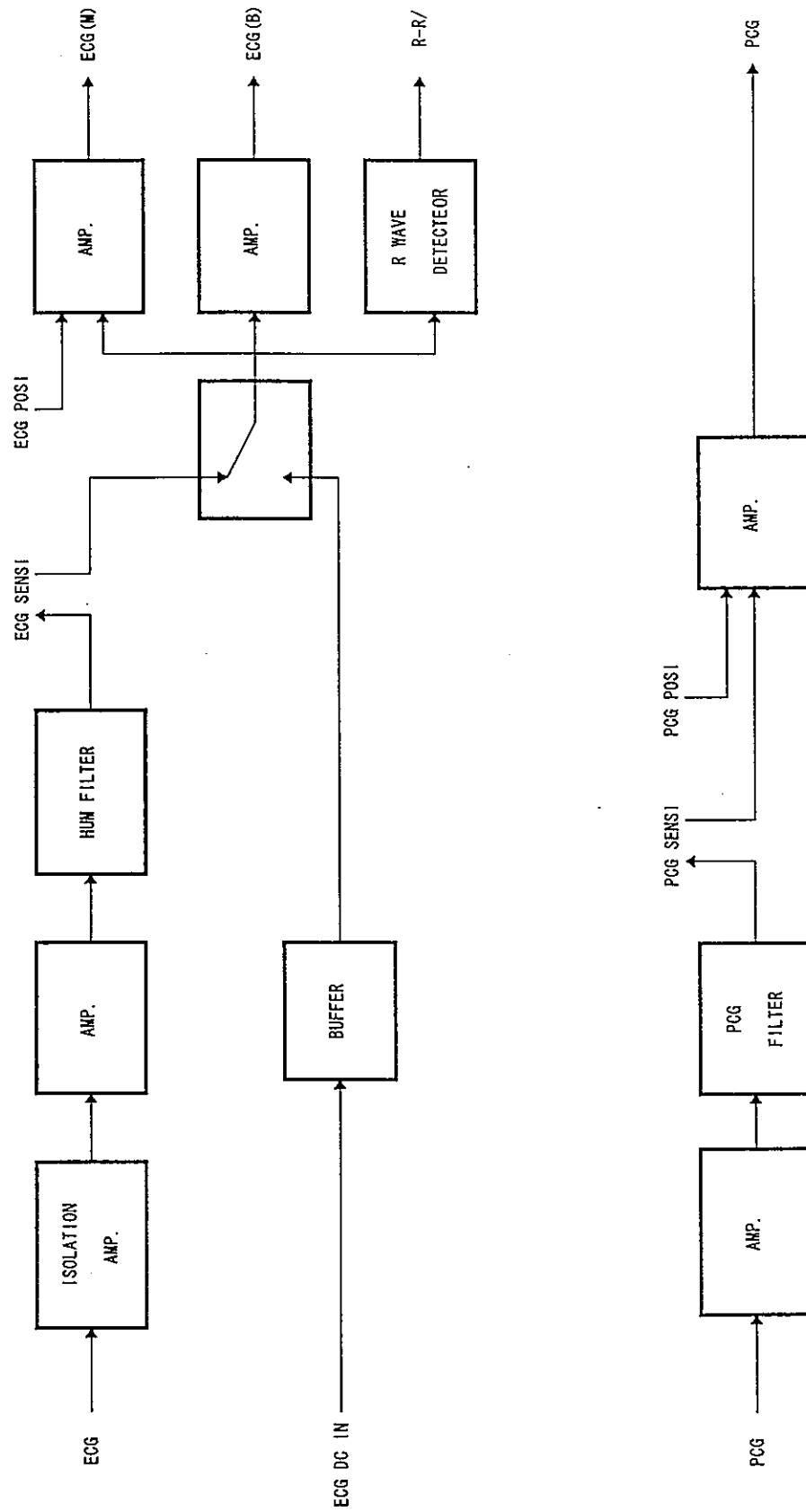
J502	
ECG SENSI A	1
ECG SENSI B	2
ECG SENSI C	3
ECG POSI	4
GND	5
NC	6
PCG SENSI A	7
PCG SENSI B	8
PCG SENSI C	9
PCG POSI	10
GND	11
PCG FLO	12
PCG FL1	13
NC	14
+15V	15
GND	16

3408-5002SCSC

J505	
PCG H	1
NC	2
PCG L	3

5046-03A





<b>Aloka</b>	TITLE 名称 <i>PHYSIO AMP</i>	MODRL 形名 EP3724**	1/1
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6-21-1 PHYSIO. AMP

This PCB functions as the amplifier for physiological signals.

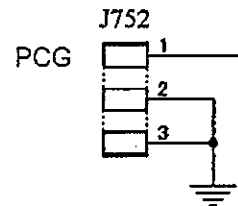
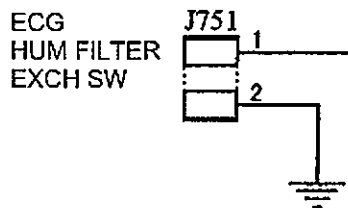
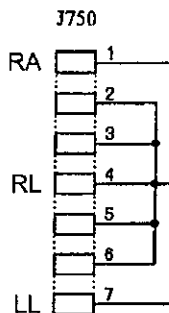
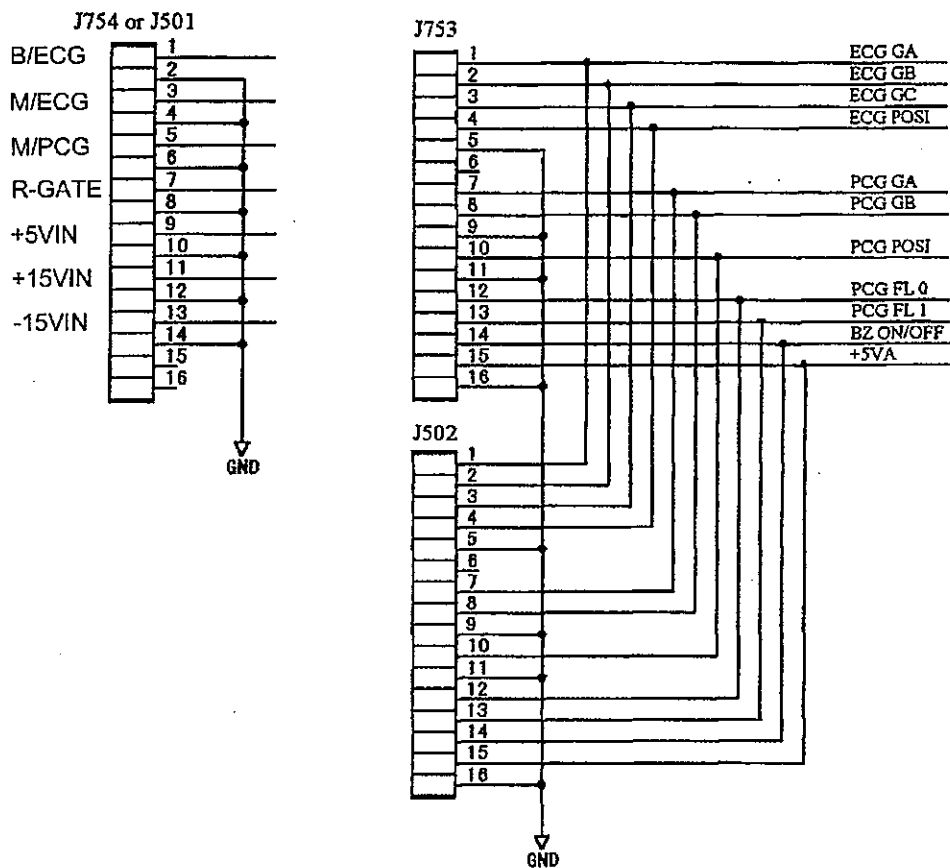
It's inputs are as following:

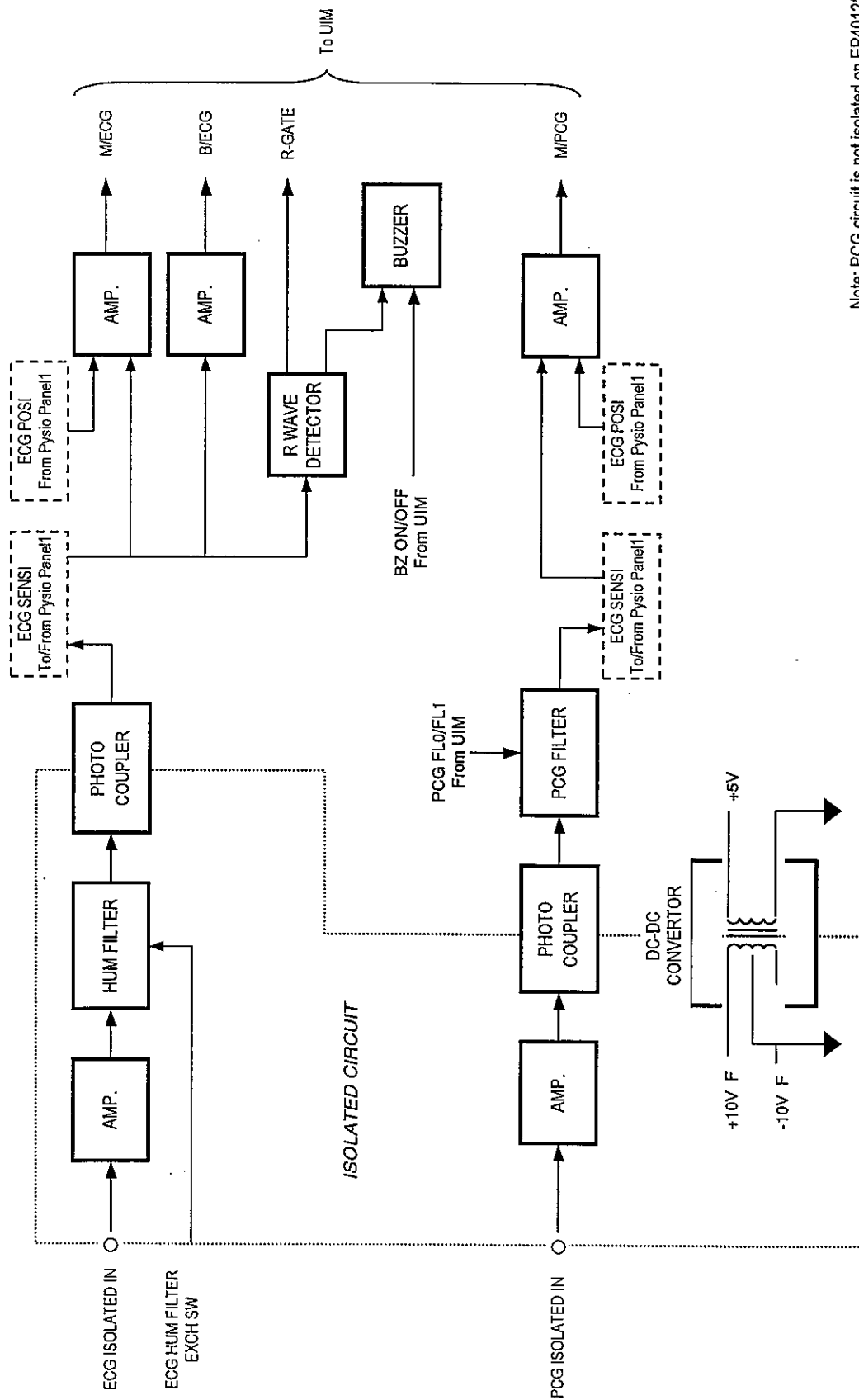
ECG insulated input

PCG insulated input

Also, the PCB has circuits which are detection of R-wave from ECG waveform, and beep sound genelator synchronized with R-wave.

SIGNAL LIST





Note: PCG circuit is not isolated on EP4012\*\*

Aloka	TITLE 名称	PHYSIO AMP	MODEL 形名	EP4012**/EP445201	1/1

6-22 VOL

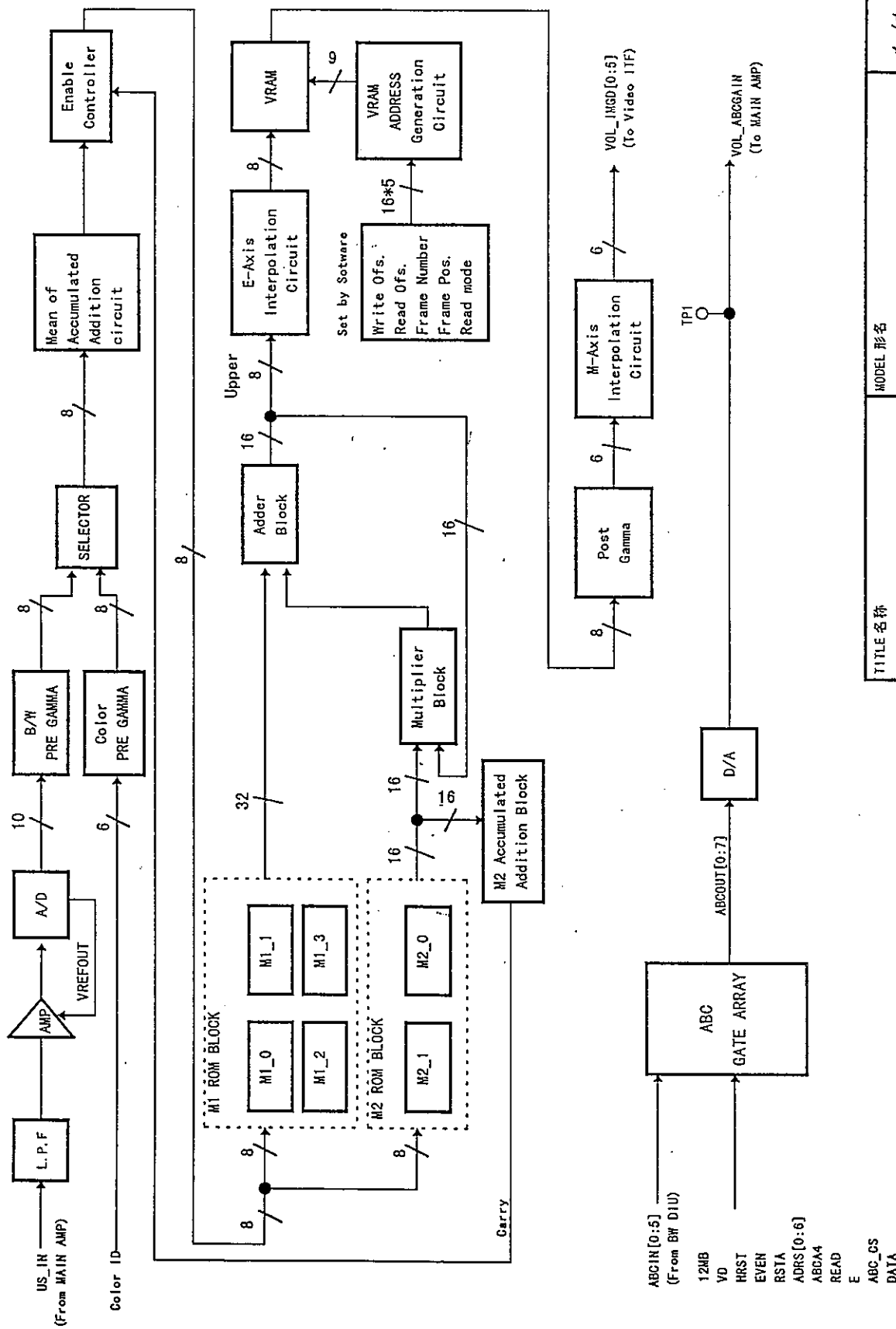
This PC board consists of Image memory, arithmetic unit to build up 3D image using volume rendering algorithm, and circuit for ABC (Automatic B-mode gain Control).

SIGNAL LIST

J208

PIN No.	EP4192			
	VOL&ABC			
	J1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3				
4				
5				CPU_F_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAKEN	CPU_READ	
9	CPU_DATA_[0]	CPU_DATA_[2]	CPU_DATA_[1]	CPU_DATA_[3]
10	CPU_DATA_[4]	CPU_DATA_[6]	CPU_DATA_[5]	CPU_DATA_[7]
11	CPU_ADRS [0]	CPU_ADRS [2]	CPU_ADRS [1]	CPU_ADRS [3]
12	CPU_ADRS [4]	CPU_ADRS [6]	CPU_ADRS [5]	
13	GND	GND	GND	GND
14				CPU_MRDY
15	CPU_3080_	CPU_3F00_	CPU_3E80_	
16				DIU_NET1
17	DIU_NET2	DIU_NET3	DIU_NET4	DIU_NET0
18				
19	BWDIU_PD [0]	BWDIU_PD [2]	BWDIU_PD [1]	BWDIU_PD [3]
20	BWDIU_PD [4]		BWDIU_PD [5]	
21	CIN_FRMUP_	DMS_30TRG	YOL_UPEN_	DMS_SVRST_
22	DIU_IMAGE			
23	CFM_COLID_[0]	CFM_YELODAT_	CFM_COLID_[1]	CFM_COLCK
24	CFM_COLID_[2]	CFM_COLID_[4]	CFM_COLID_[3]	CFM_COLID_[5]
25	DIU_32MHZB	GND	GND	DIU_25MHZ_

PIN No.	J3			
	A	B	C	D
1	VOL_IMGD [0]	VOL_IMGD [2]	VOL_IMGD [1]	VOL_IMGD [3]
2	GND	GND	GND	GND
3	VOL_IMGD [4]	XC_INIT_	VOL_IMGD [5]	
4	OPTO_ON_	DIU_HO_		DIU_VO_
5	DIU_HRST_		DIU_VRST_	DIU_EVEN_
6			DIU_HVING	
7	DIU_LST_	DIU_EOF_		
8				
9				
10				
11				
12				
13	GND	GND	GND	GND
14				
15				
16	YOL_ABCGIN			
17		GEU_COLOREN		
18	US2_IN		US2_IN_R	
19	VCC	VCC	VCC	VCC
20	VCC	VCC	VCC	VCC
21	5VA	5VA	5VA	5VA
22	5VA_	5VA_	5VA_	5VA_
23	15V	15V	15V	15V
24	15V_	15V_	15V_	15V_
25	AGND	AGND	AGND	AGND



TITLE 名称	VOL	MODEL 形名	EP4192**	1/1
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6-23 MOTOR CONTROL & DRIVE

This PC board consists of the following five parts.

- 1) Bus Interface
- 2) Controller
- 3) Power AMP
- 4) I/O Interface
- 5) Encoder

SIGNAL LIST

SVJ1

PIN No.	A	B	C	D
1	SD14	SD15	MASTER	GND
2	SD12	SD13	DRQ7	+5V
3	SD10	SD11	DRQ6	DACK7
4	SD8	SD9	DRQ5	DACK6
5	MEMR	MEMW	DRQ0	DACK5
6	LA18	LA17	IRQ14	DACK0
7	LA20	LA19	IRQ12	IRQ15
8	LA22	LA21	IRQ10	IRQ11
9	SD16	LA23	MEM CS16	I O CS16
10	SA0		GND	
11	SA2	SA1	+5V	OSC
12	SA4	SA3	T C	BALE
13	SA6	SA5	IRQ3	DACK2
14	SA8	SA7	IRQ5	IRQ4
15	SA10	SA9	IRQ7	IRQ6
16	SA12	SA11	REFRESH1	CLK
17	SA14	SA13	DACK1	DRQ1
18	SA16	SA15	DACK3	DRQ3
19	SA18	SA17	IGW	ICR
20	AEN	SO19	SMEMW	SMEMR
21	SD0	I O CH RDY	+12V	GND
22	SD2	SD1	-12V	GWS
23	SD4	SD3	-5V	DRQ2
24	SD6	SD5	+5V	IRQ9
25	I O CH CK	SD7	GND	RESET DRV

SVJ2

PIN No.	A	B	C	D
1	N.C	N.C	N.C	N.C
2	N.C	N.C	N.C	N.C
3	N.C	N.C	GND	N.C
4	N.C	N.C	N.C	GND
5	GND	GND	GND	N.C
6	N.C	N.C	N.C	GND
7	GND	GND	N.C	N.C
8	N.C	N.C	N.C	N.C
9	GND	GND	GND	GND
10	N.C	N.C	GND	N.C
11	N.C	N.C	N.C	3D TRIG
12	N.C	N.C	3D SCW	N.C
13	GND	GND	GND	GND
14	N.C	N.C	N.C	N.C
15	N.C	N.C	N.C	N.C
16	N.C	N.C	N.C	N.C
17	N.C	N.C	N.C	N.C
18	N.C	N.C	N.C	N.C
19	N.C	N.C	N.C	N.C
20	N.C	N.C	N.C	N.C
21	N.C	N.C	N.C	N.C
22	N.C	N.C	N.C	N.C
23	GND	GND	GND	GND
24	+5V	+5V	+5V	+5V
25	+5V	+5V	+5V	+5V

SVJ3

	PIN No.	PIN No.	
GND	2	1	GND
Input 1	4	3	Output 2
Input 2	6	5	Output 3
Input 3	8	7	Output 4
Input 4	10	9	Output 5
Output 1	12	11	Output 6
GND	14	13	GND

:TTL

SVJ4

	PIN No.	PIN No.	
Motor X +	1	2	GND
Motor X -	3	4	GND
Phase X A1+	5	6	GND
Phase X A1-	7	8	GND
Phase X B1+	9	10	GND
Phase X B1-	11	12	GND
GND	13	14	GND
Vcc	15	16	GND
Limit X SW-	17	18	GND
Limit X SW+	19	20	GND
SCOM	21	22	GND
Code 1 (LSB)	23	24	GND
Code 2	25	26	GND
Code 3	27	28	GND
Code 4 (MSB)	29	30	GND

SVJ5

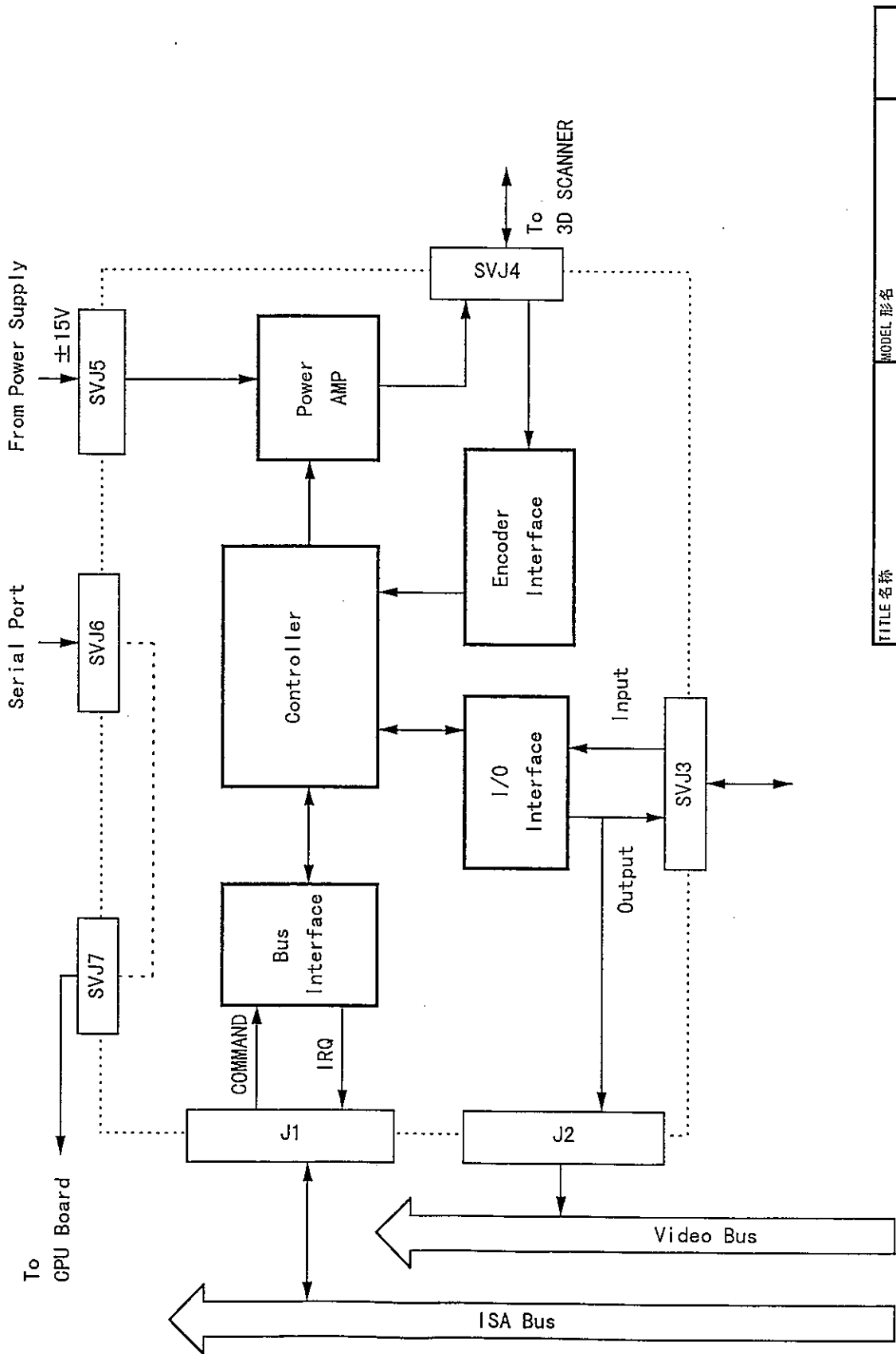
PIN No.	
1	+15 V
2	GND
3	-15 V

SVJ6

PIN No.	
1	CD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	CI

SVJ7

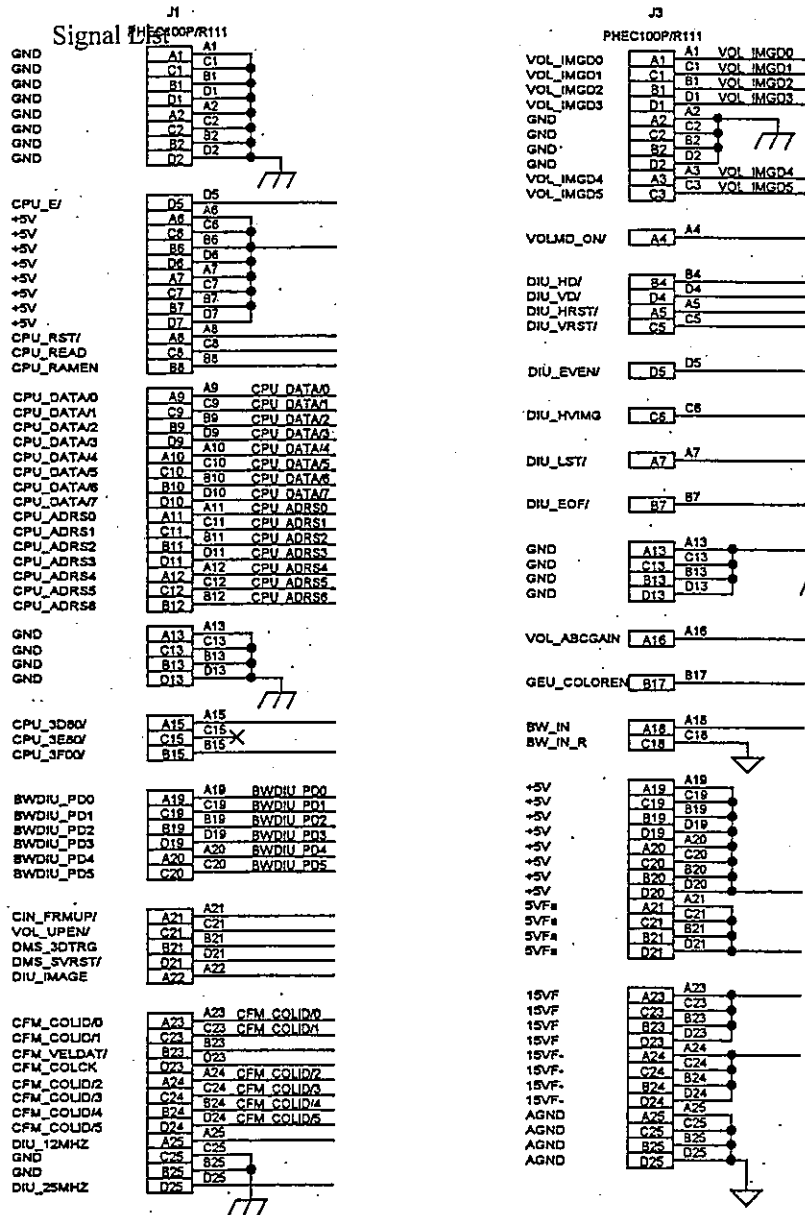
PIN No.	
1	CD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	CI
10	N.C



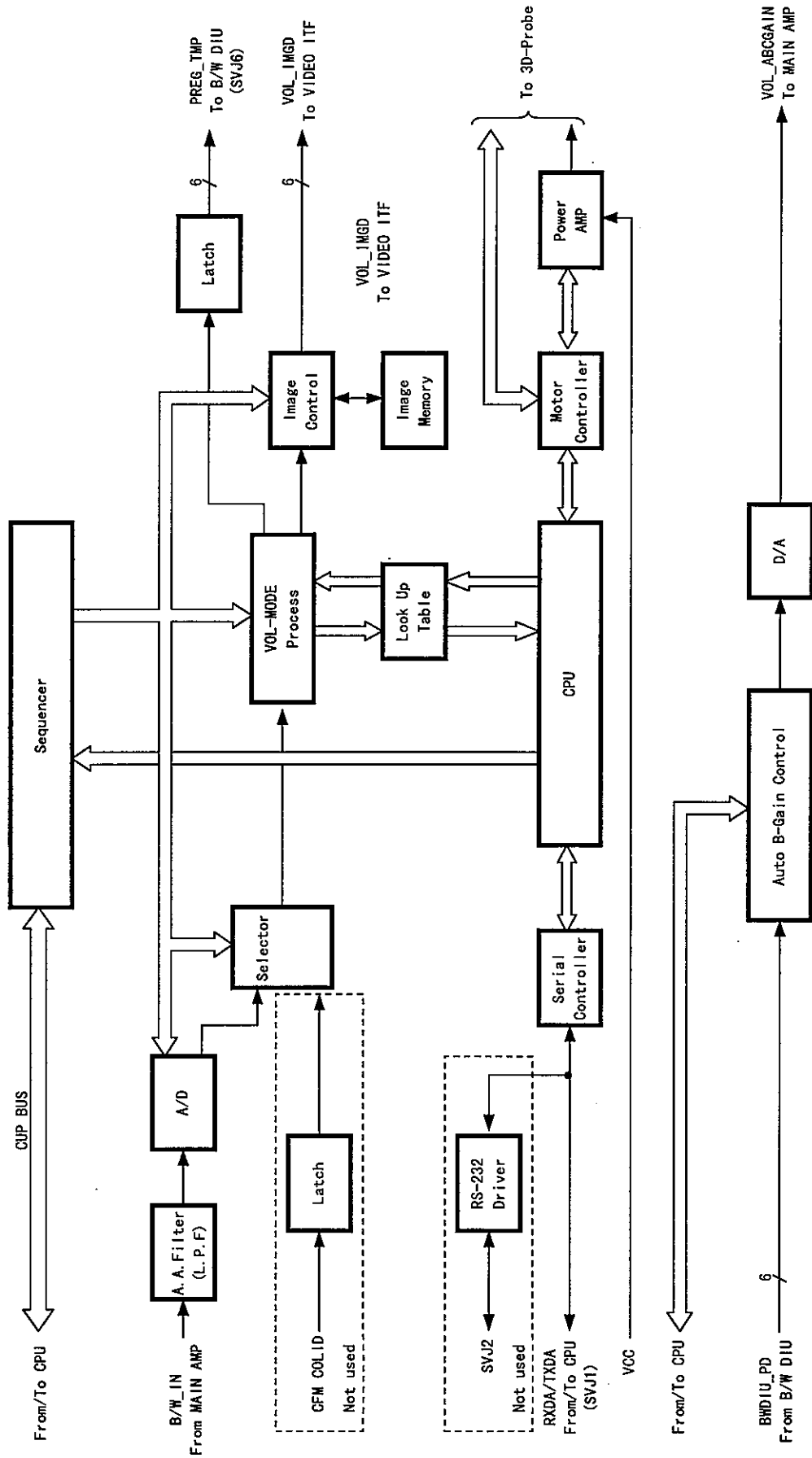
TITLE 名称	MODEL 形名	1/1
Motor Control & Drive	EP4204**	

6-24 VOL/SERVO/ABC

This board has volume mode calculating block, motor servo control block and ABC (Auto-B-Gain Control) block.







TITLE 名称	VOL/SERVO/ABC	1/1
MODEL 形名	EP4223**	

6-25 CWD

This PC board consists of the following two sections.

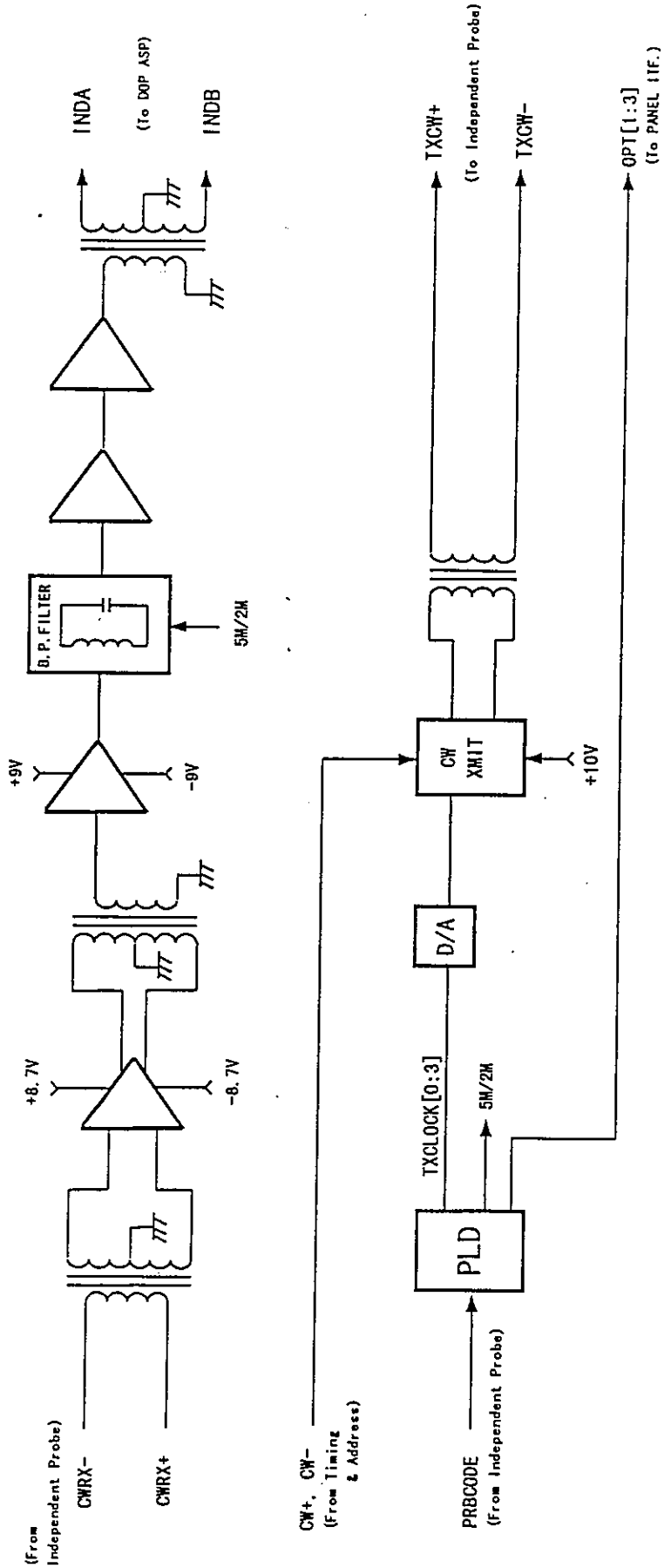
- ♦ Transmission unit for the CW Doppler employing an Independent probe
- ♦ RF reception unit for the CW Doppler

SIGNAL LIST

PIN No.	EP4155			
	CWD			
	J102-1			
	A	B	C	D
1	GND	GND	GND	GND
2	GND	GND	GND	GND
3	15V	15V	15V	15V
4	15V <sub>-</sub>	15V <sub>-</sub>	15V <sub>-</sub>	15V <sub>-</sub>
5	5V	5V	5V	5V
6	5V <sub>-</sub>	5V <sub>-</sub>	5V <sub>-</sub>	5V <sub>-</sub>
7				
8		PC0301	PC0302	PC0303
9				
10				
11				
12				
13			GND	GND
14			GND	GND
15			GND	GND
16			GND	GND
17			GND	GND
18			GND	GND
19		INDCK <sub>-</sub>	GND	GND
20		INDCK <sub>+</sub>	GND	GND
21			GND	GND
22			GND	GND
23			GND	GND
24			GND	GND
25			GND	GND

PIN No.	J102-3			
	A	B	C	D
1			GND	GND
2			GND	GND
3			GND	GND
4			GND	GND
5			GND	GND
6			GND	GND
7			GND	GND
8			GND	GND
9			GND	GND
10			GND	GND
11			GND	GND
12			GND	GND
13			GND	GND
14			GND	GND
15			GND	GND
16		INDA	GND	GND
17		INDB	GND	GND
18			GND	GND
19			GND	GND
20			HY	HY
21			GND	GND
22				
23				
24			GND	GND
25			GND	GND

SECTION 6 PCB BLOCK DIAGRAM



TITLE 名称	CWD	MODEL 型号	EP4156**	1/1
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**SECTION 7**

**SCHEMATICS**

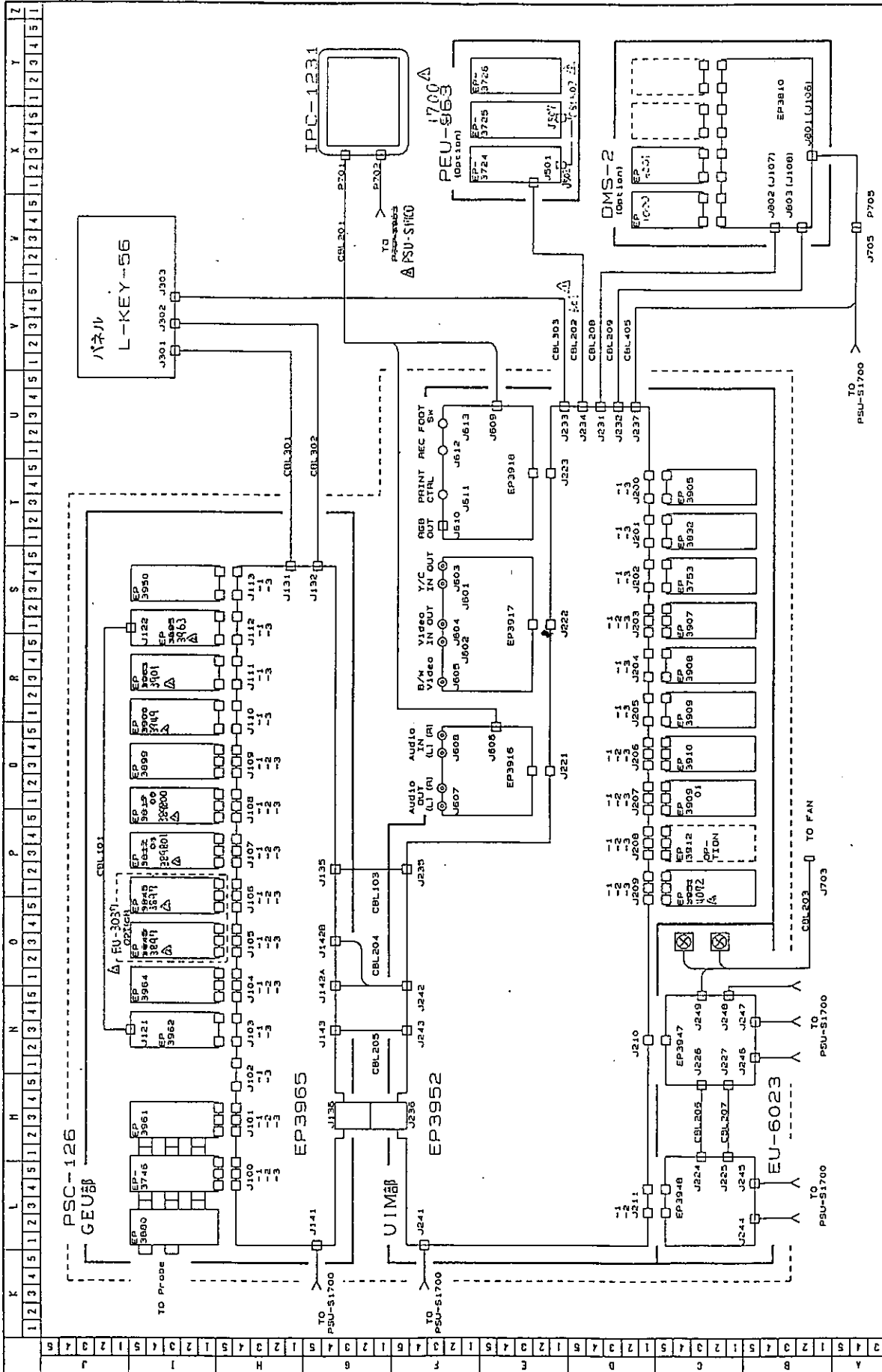
(

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SECTION 7 SCHEMATICS



REVISEMENTS	REV.	DATE	BY	REASON
	1	58.11.22	W/T	
	2	58.12.10	M/T	
	3	58.11.24	P/I	

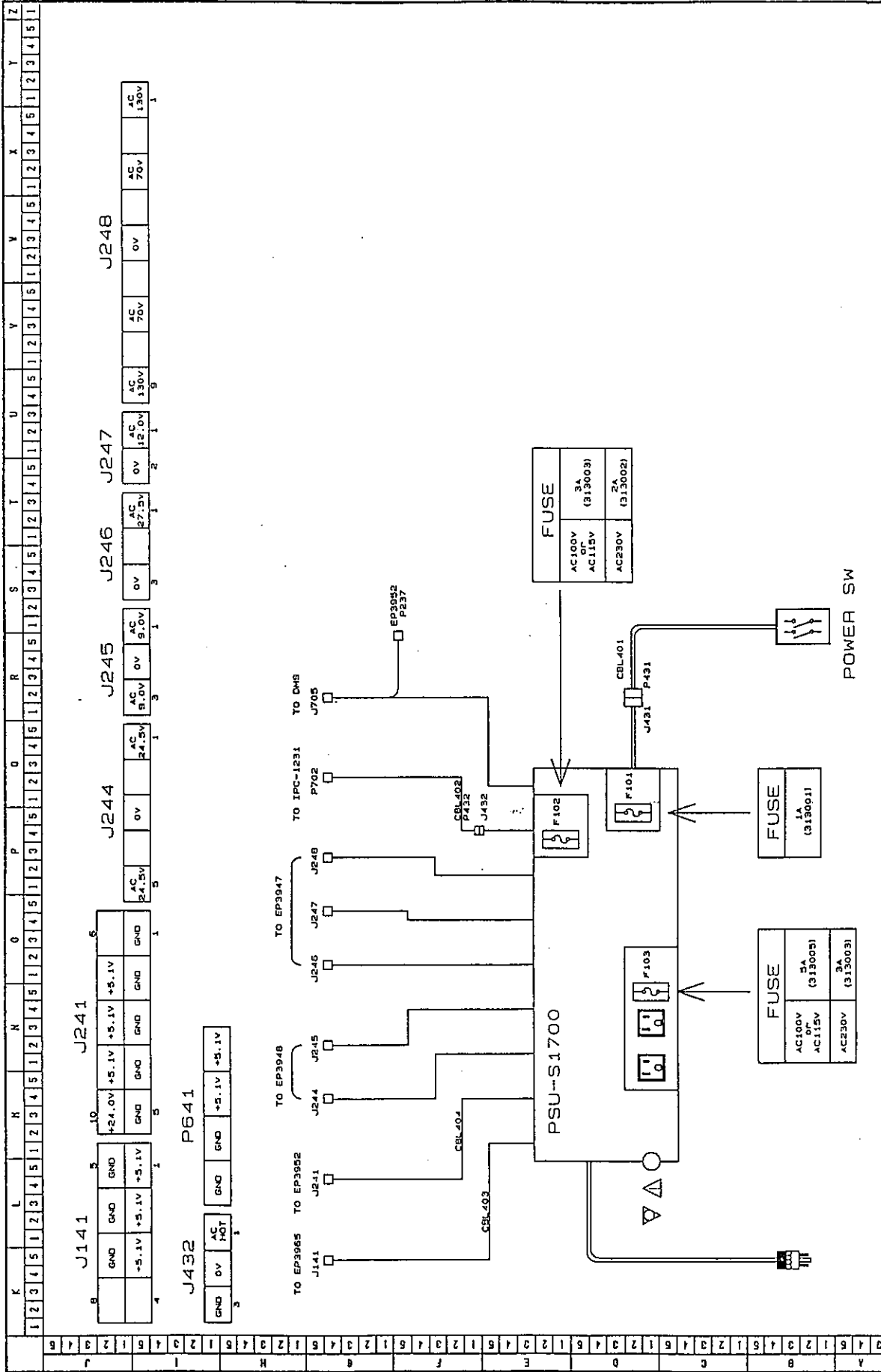
  

TO PSU-S1700	J211	J210	J209	J208	J207	J206	J205	J204	J203	J202	J201	J200	J199	J198	J197	J196	J195	J194	J193	J192	J191	J190	J189	J188	J187	J186	J185	J184	J183	J182	J181	J180	J179	J178	J177	J176	J175	J174	J173	J172	J171	J170	J169	J168	J167	J166	J165	J164	J163	J162	J161	J160	J159	J158	J157	J156	J155	J154	J153	J152	J151	J150	J149	J148	J147	J146	J145	J144	J143	J142	J141	J140	J139	J138	J137	J136	J135	J134	J133	J132	J131	J130	J129	J128	J127	J126	J125	J124	J123	J122	J121	J120	J119	J118	J117	J116	J115	J114	J113	J112	J111	J110	J109	J108	J107	J106	J105	J104	J103	J102	J101	J100	J99	J98	J97	J96	J95	J94	J93	J92	J91	J90	J89	J88	J87	J86	J85	J84	J83	J82	J81	J80	J79	J78	J77	J76	J75	J74	J73	J72	J71	J70	J69	J68	J67	J66	J65	J64	J63	J62	J61	J60	J59	J58	J57	J56	J55	J54	J53	J52	J51	J50	J49	J48	J47	J46	J45	J44	J43	J42	J41	J40	J39	J38	J37	J36	J35	J34	J33	J32	J31	J30	J29	J28	J27	J26	J25	J24	J23	J22	J21	J20	J19	J18	J17	J16	J15	J14	J13	J12	J11	J10	J9	J8	J7	J6	J5	J4	J3	J2	J1
--------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	----	----	----	----	----	----	----	----

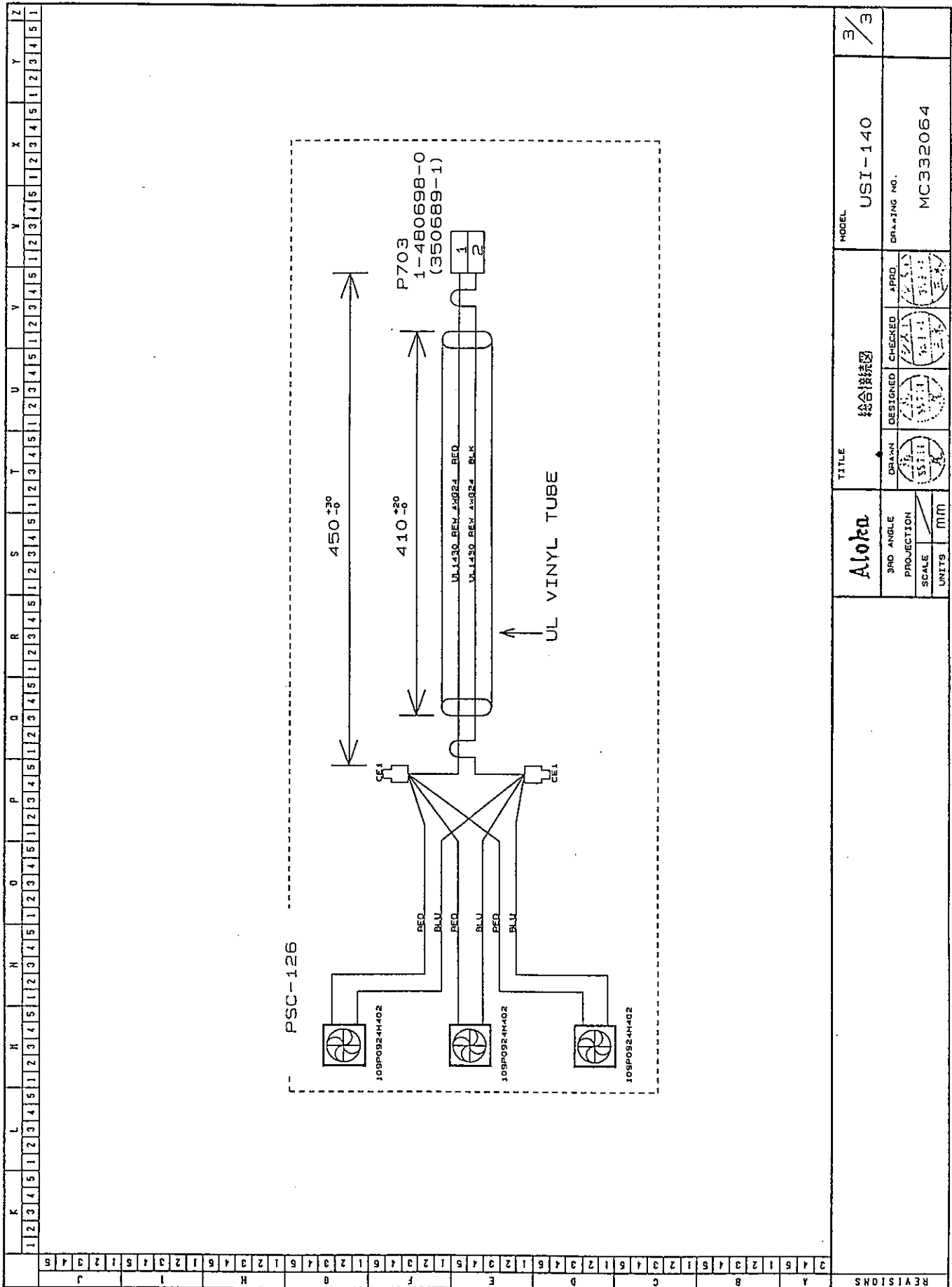
TITLE	綜合接続図
MODEL	USI-140
FRAMING NO.	MC332062
3RD ANGLE	PROJECTION
SCALE	1/1
UNITS	MM
ORANI	55711
DESIGNED	55711
CHECKED	55711
APP'D	55711

MN2-0213  
SECTION 7 SCHEMATICS



REVIEWS		TITLE		MODEL	
Aloka		綜合機図		USI-140	
3RD ANGLE		DRAWN		DESIGNED	
PROJECTION		CHECKED		APPD	
SCALE		UNITS		DRAWING NO.	
M/M		M/M		MC332063	
				2/3	



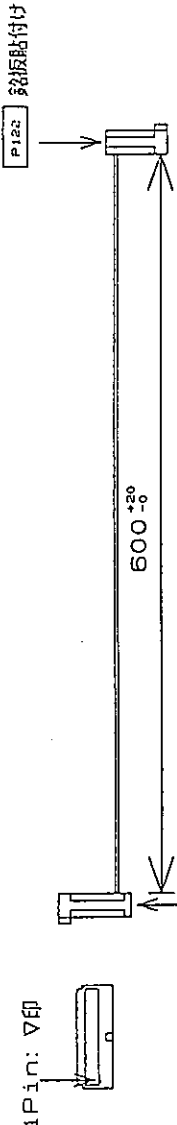


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
GND	TRIG0	TRIG1	TRIG2	TRIG3	TRIG4	TRIG5	TRIG6	TRIG7	GND	TRIG8	TRIG9	TRIG10	TRIG11	TRIG12	TRIG13	TRIG14	TRIG15	TRIG16	TRIG17	TRIG18	TRIG19	GND	TRIG20	TRIG21	TRIG22	TRIG23	TRIG24	TRIG25	GND	TRIG26	TRIG27	GND	TRIG28	TRIG29	TRIG30	TRIG31	TRIG32	TRIG33	TRIG34	TRIG35	TRIG36	TRIG37	TRIG38	TRIG39	GND	TRIG40	TRIG41	TRIG42	TRIG43	GND	TRIG44	TRIG45	TRIG46	TRIG47					

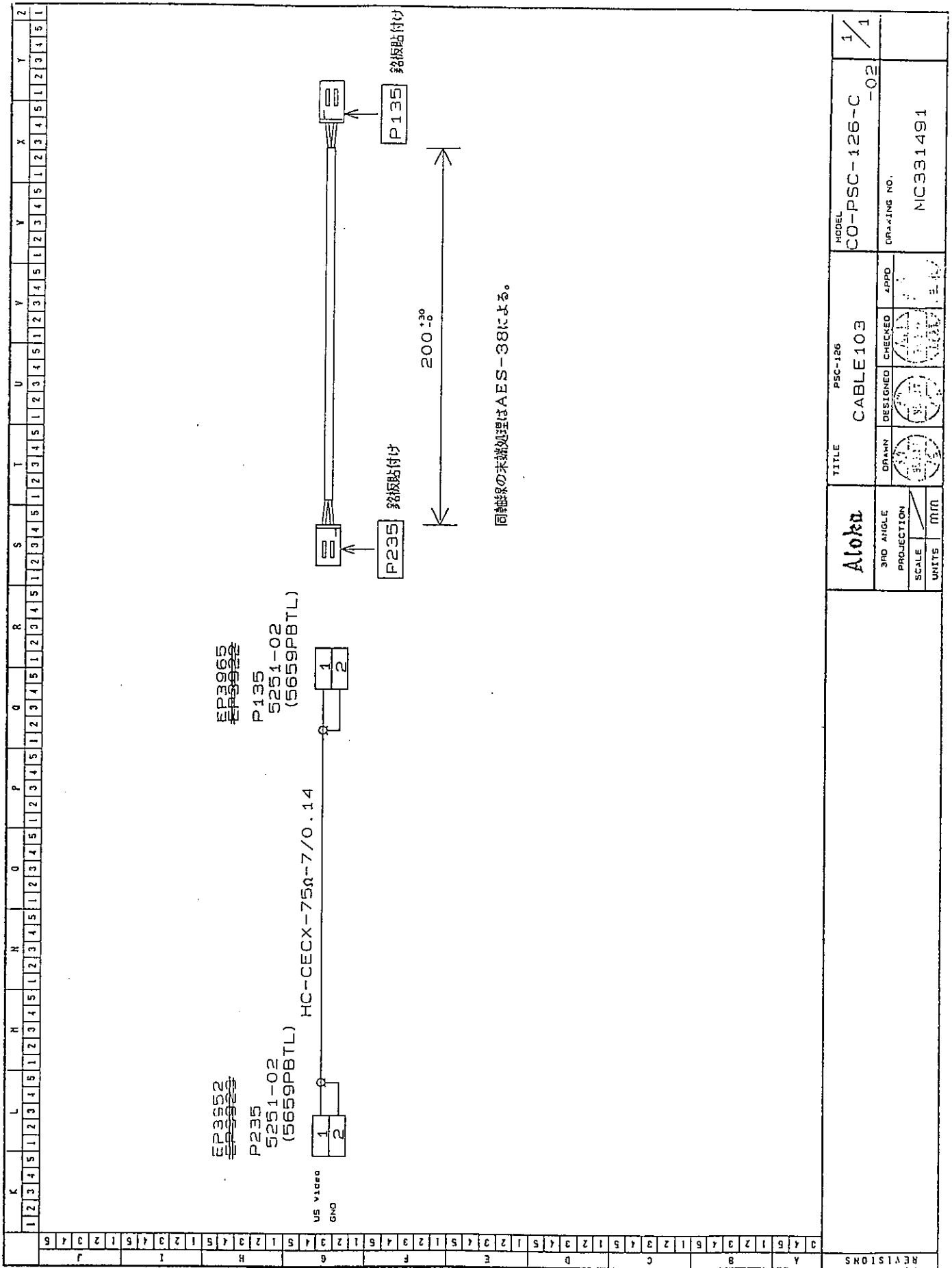
EP3963  
P122  
7960-6500SC

EP3962  
P121  
7960-6500SC

TFC-1528-60C or TFC28-60C



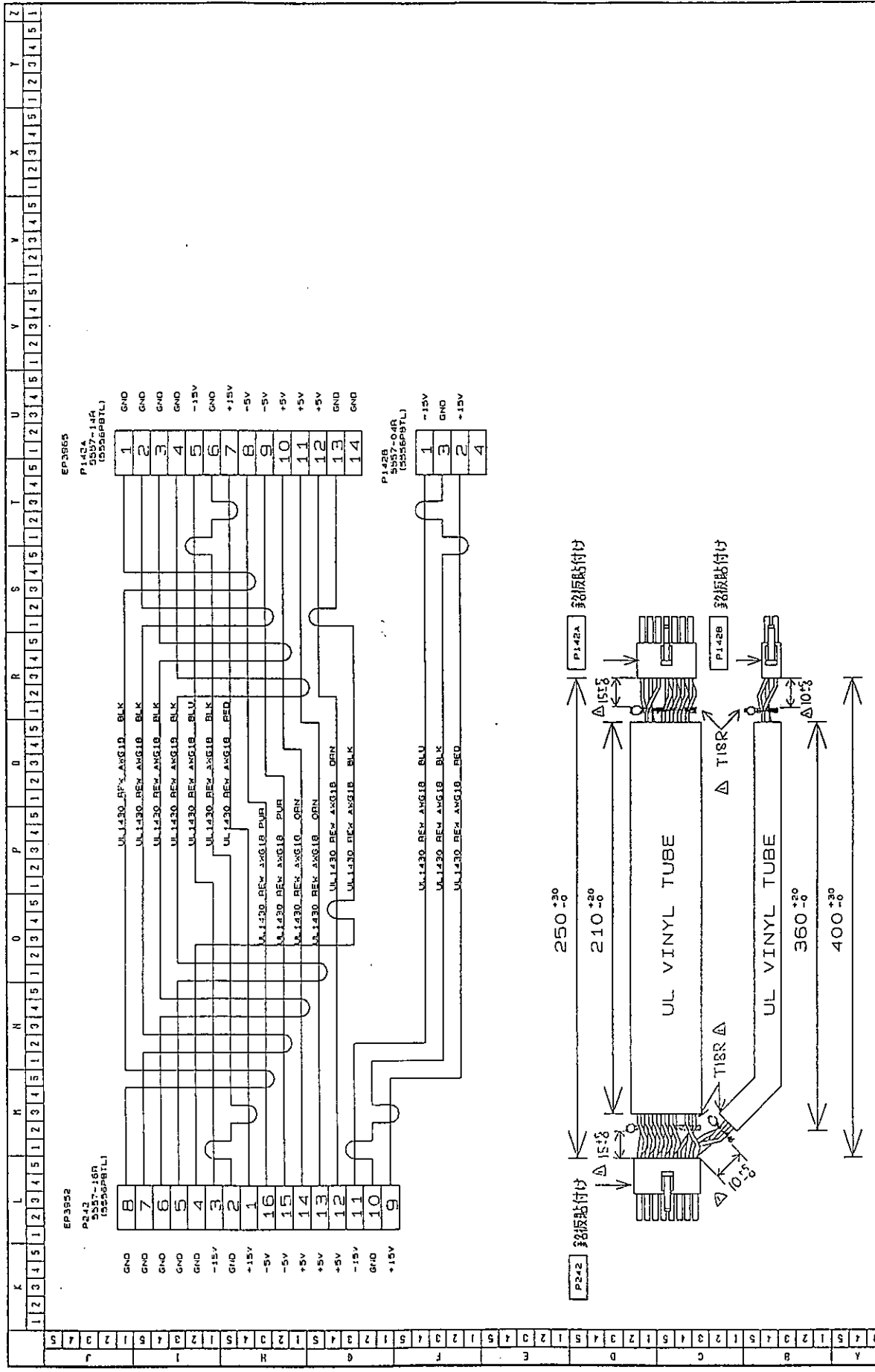
REVISIONS	TITLE		MODEL	
3	Aloka	PSC-136	CO-PSC-128-A	1/1
4	CABLE101		-06	
5	3RD ANGLE PROJECTION	DRAWN	DESIGNED	CHECKED
6	SCALE	UNITS		MM
7	DRAWN		CHECKED	
8	DESIGNED		CHECKED	
9	SCALE		UNITS	
10	UNITS		MM	
11	DRAWING NO.		MC332065	



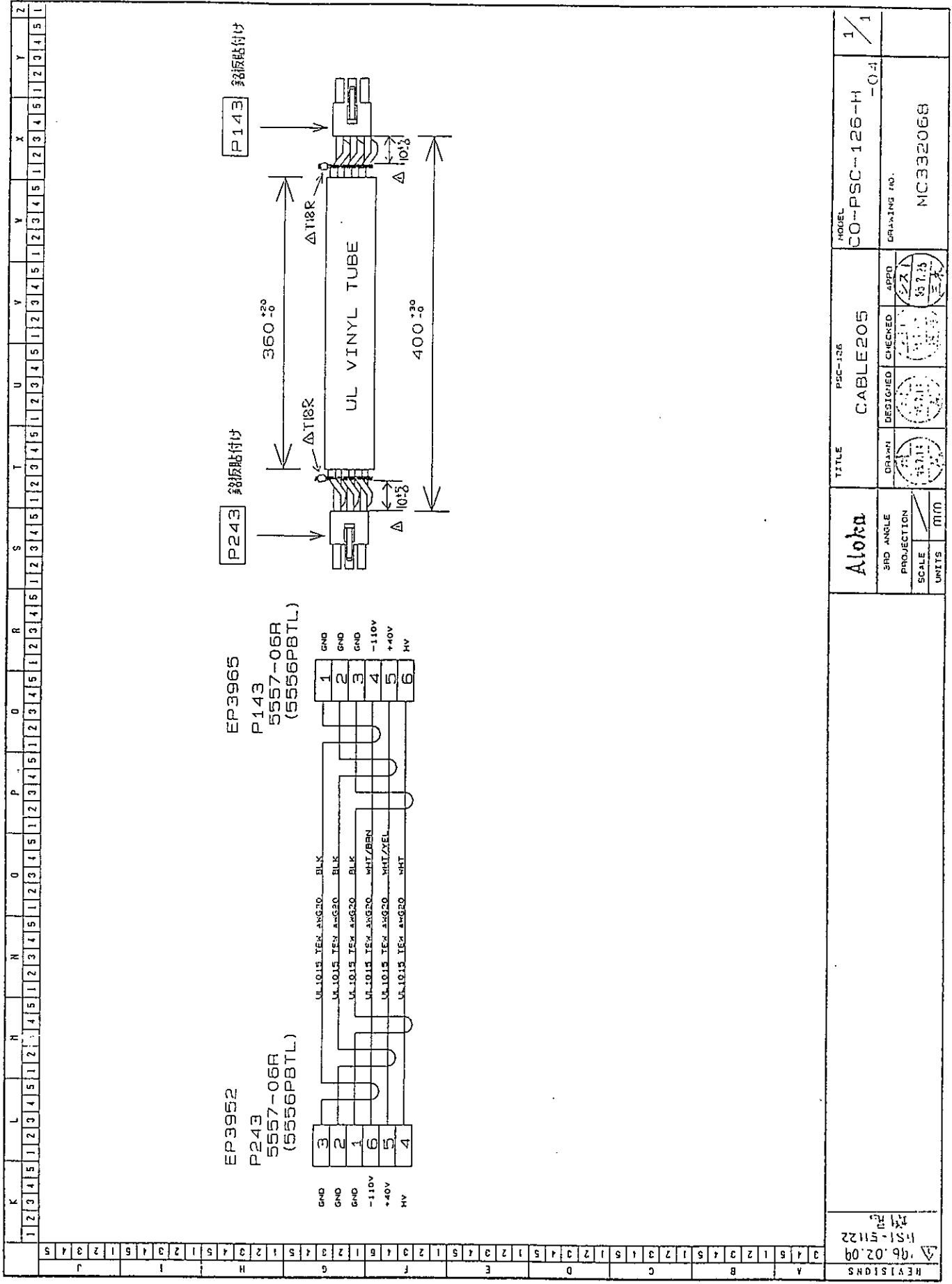
同軸線の末端処理はAES-38による。

REVISEIONS		TITLE		MODEL	
		PSC-126		CO-PSC-126-C	
Aloka		CABLE103		-02	
3RD ANGLE		DRAWN		DESIGNED	
PROJECTION		CHECKED		APPRO	
SCALE		SCALE		SCALE	
UNITS		UNITS		UNITS	
mm		mm		mm	
				DRAWING NO.	
				NC331491	
				1/1	

MN2-0213  
SECTION 7 SCHEMATICS



REVISONS		DATE		BY		CHKD		APPD		TITLE		MODEL		1/1	
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											DESIGNED	CHECKED	APPRO	DRAWING NO.	
											SCALE	PROJECTION	3RD ANGLE	MCS332067	
											UNITS	MM			



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REVISIONS	DATE	BY	CHKD	APPD	MODEL	TITLE	SCALE	UNITS	PROJECTION	3RD ANGLE	Aloka	PSC-126	CABLE205	CO-PSC-126-H	1/1
3	96.02.09	HSI-51122													
2															
1															



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<p style="font-size: 0.8em;">REVIEWS</p>															

MN2-0213  
SECTION 7 SCHEMATICS

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L-KEY-56

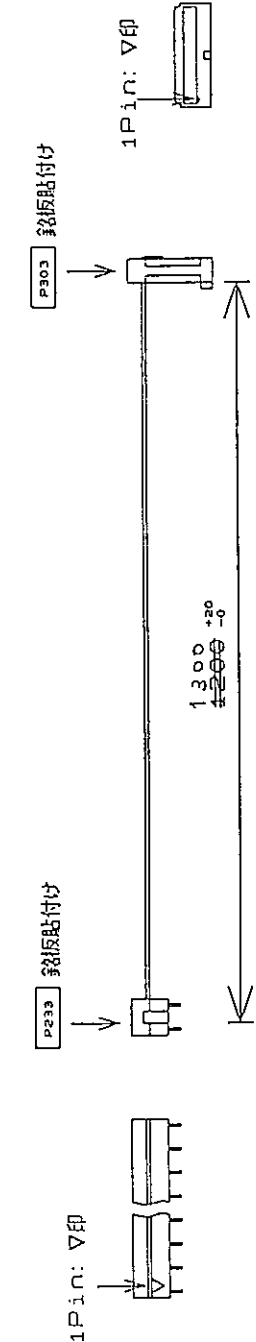
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EP3952

P233  
7850-0000T

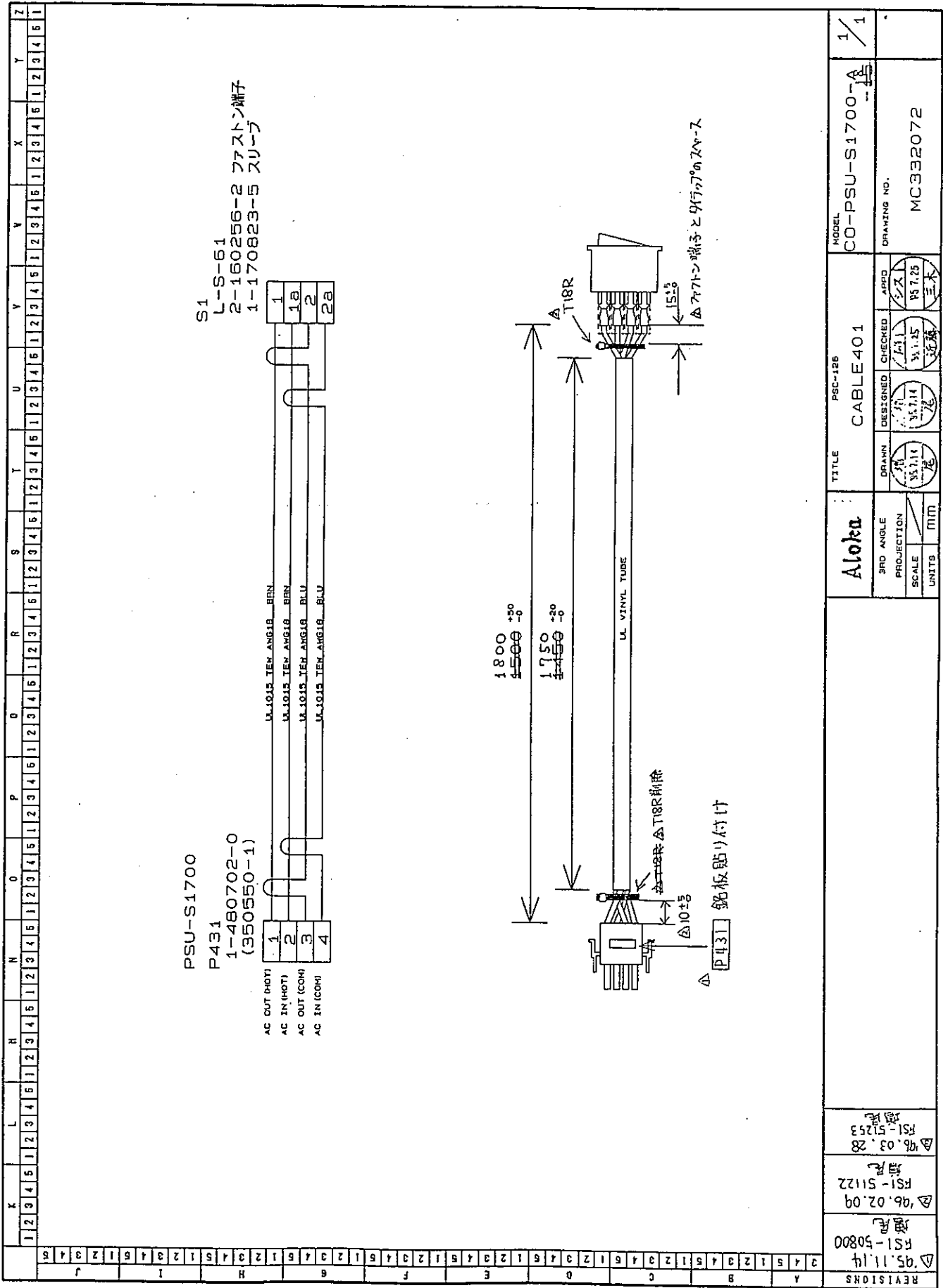
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2	VCC
3	VCC
4	VCC
5	GND
6	GND
7	GND
8	PNL_EN
9	PNL_ADDR (0)
10	PNL_ADDR (1)
11	PNL_ADDR (2)
12	GND
13	PNL_ADDR (3)
14	PNL_ADDR (4)
15	PNL_ADDR (5)
16	PNL_ADDR (6)
17	GND
18	GND
19	PNL_DATA (0)
20	PNL_DATA (1)
21	PNL_DATA (2)
22	PNL_DATA (3)
23	PNL_DATA (4)
24	PNL_DATA (5)
25	PNL_DATA (6)
26	PNL_DATA (7)
27	GND
28	GND
29	PNL_READ
30	HO_LED
31	CPU_READY
32	CPU_BUSY
33	CPU_PAREN
34	GND
35	ENCO+
36	ENCO-
37	TRBX+
38	TRBX-
39	TRBY+
40	TRBY-
41	CPU_RST
42	CNB_RECBSY
43	PNL_CSHUT
44	CNB_LBSY
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50	CNB_TPRN

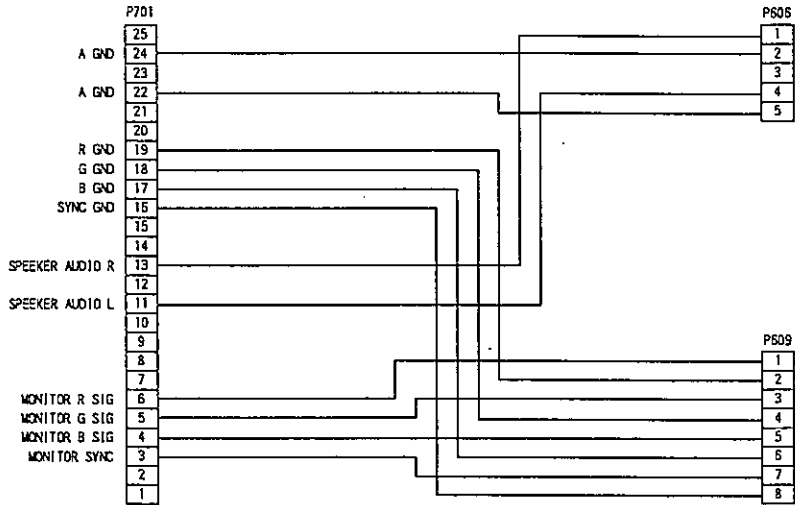
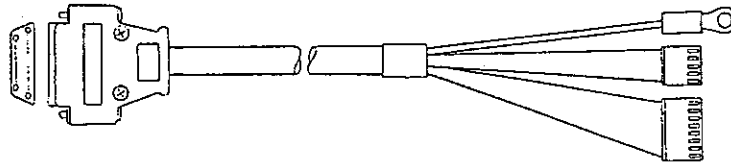


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REVISIONS																																					
A		B		C		D		E		F		G		H																							
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Aloka	PSC-126		CABLE303		MODEL		CO-PSC-126-N		1/1																												
3RD ANGLE	PROJECTION	SCALE	UNITS	DRAWN	DESIGNED	CHECKED	ASSEMBLED	DRAWING NO.		MC332071																											

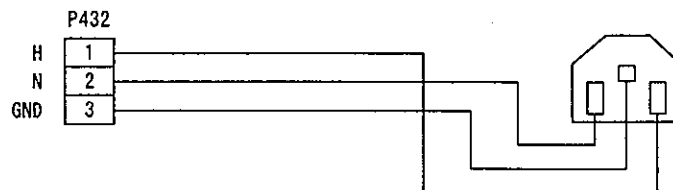
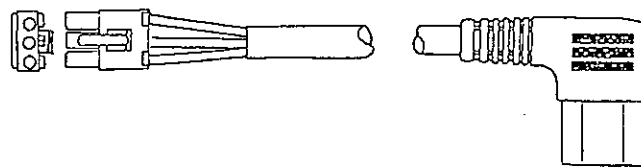




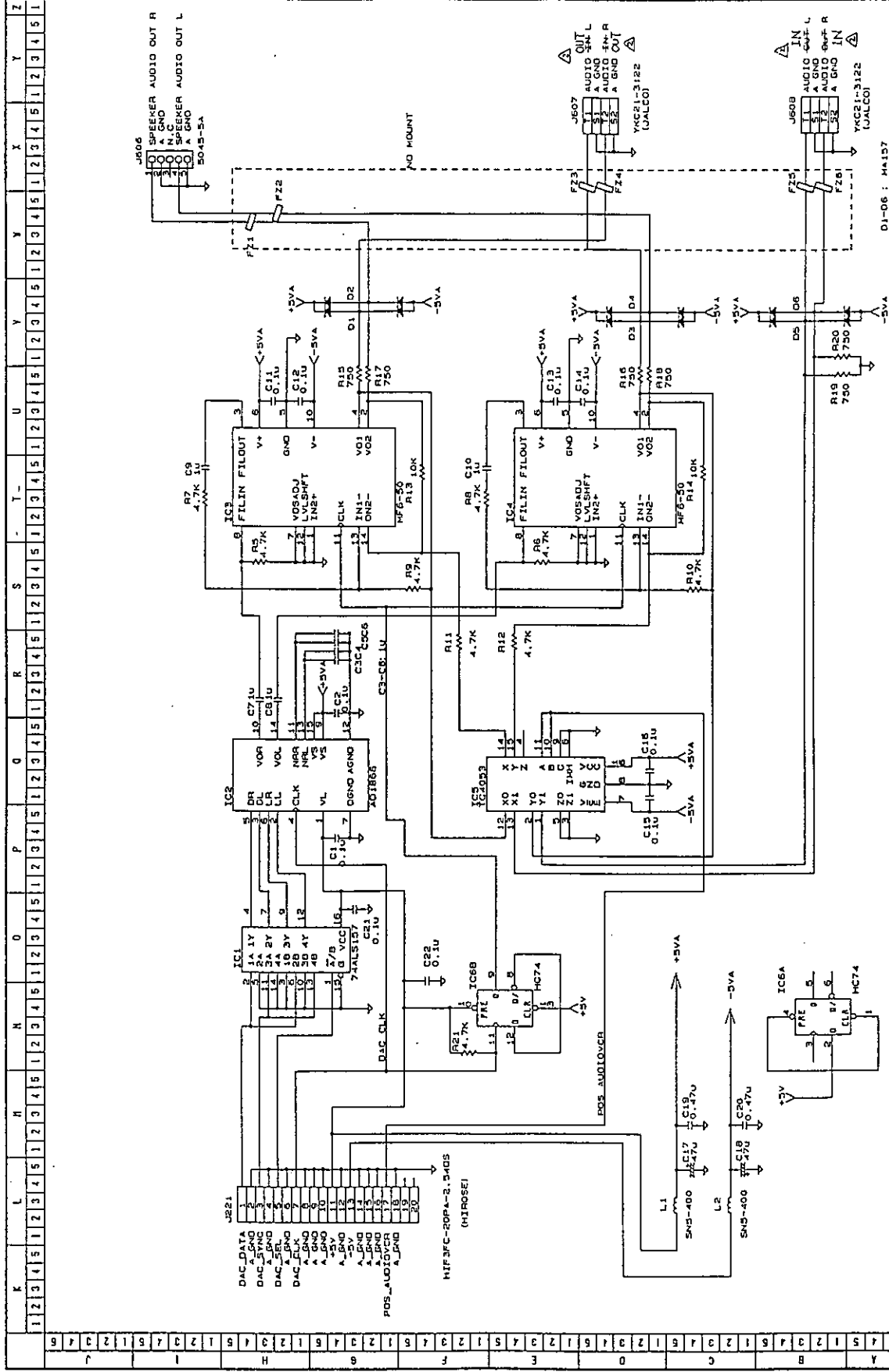
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5	6	3RD ANGLE		DESIGNED		CHECKED	
6	7	PROJECTION		DRAWN		APPROVED	
7	8	SCALE		DESIGNED		APPROVED	
8	9	UNITS		DRAWN		APPROVED	
9	10	MM		DESIGNED		APPROVED	
10	11			DRAWN		APPROVED	
11	12			DESIGNED		APPROVED	
12	13			DRAWN		APPROVED	
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39	40			DESIGNED		APPROVED	
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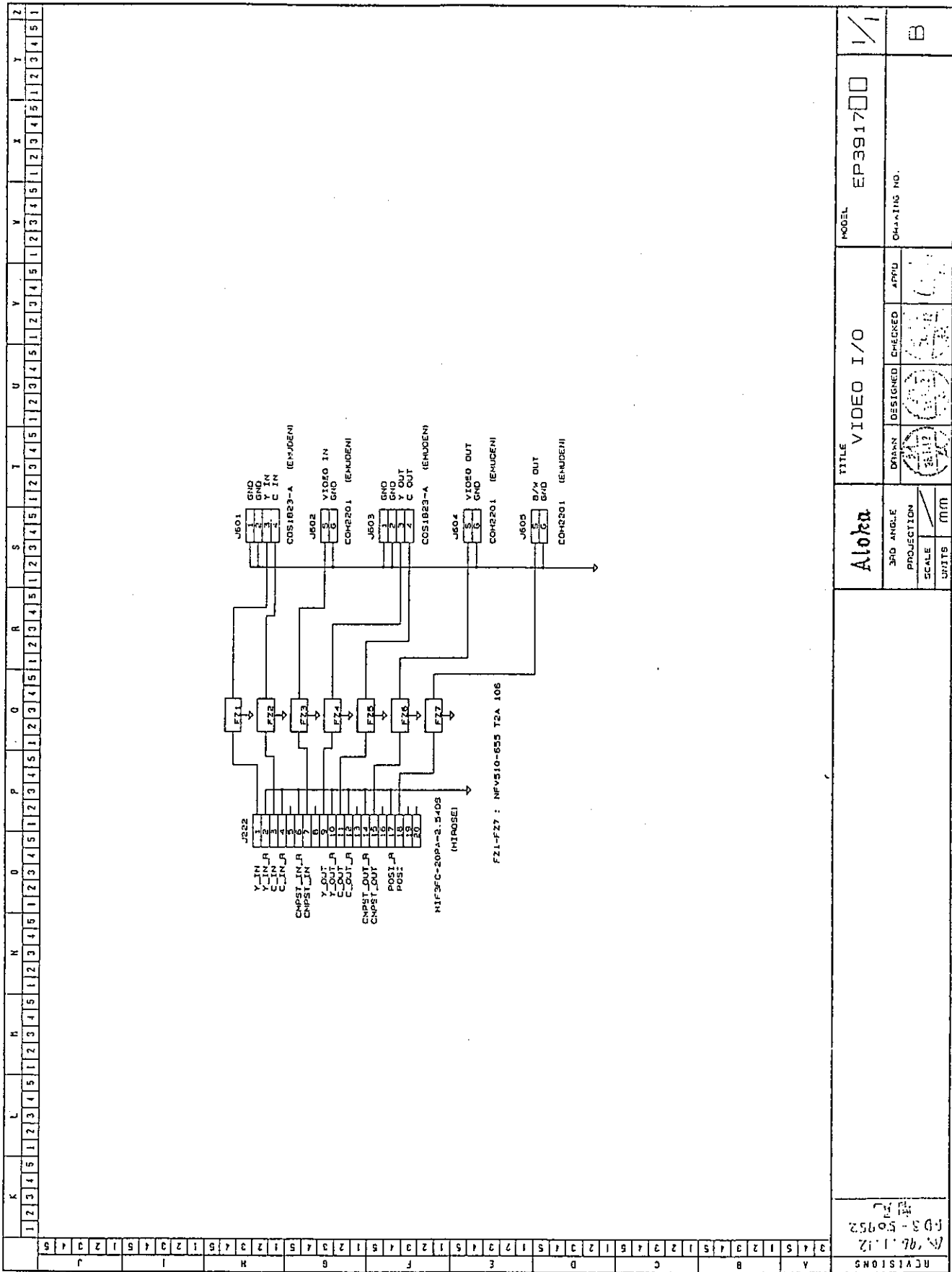


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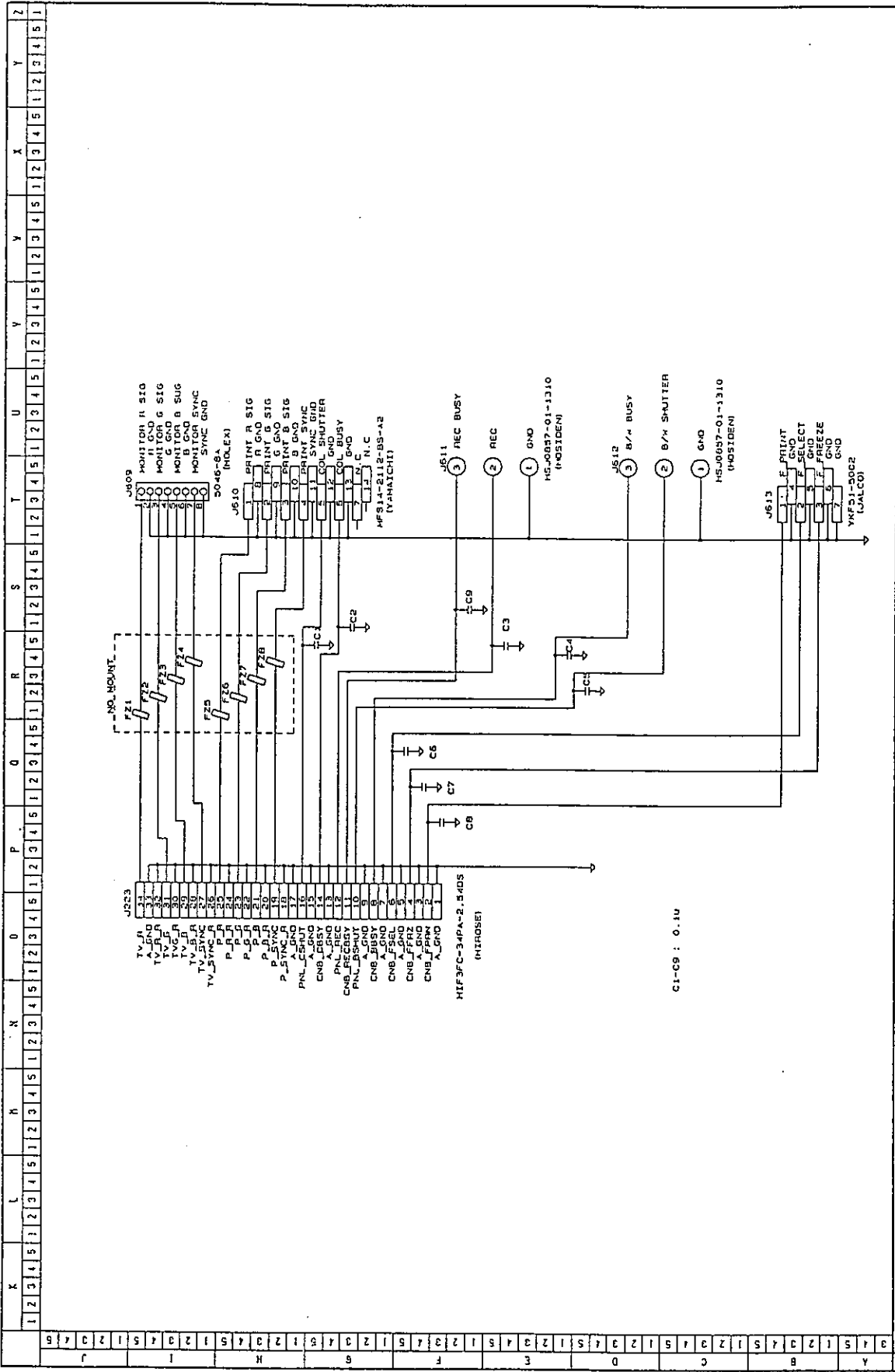


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5			DESIGNED	
6			CHECKED	
7			DRAWN	
8			SCALE	
9			UNITS	
10			PROJECTION	
11			3RD ANGLE	
12			MM	

R96.1.12  
 RD3-50952  
 96.2.29  
 FD3-51181  
 15/8



REVISONS	1/96.1.12 FD3-50952	TITLE <b>Aloka</b> VIDEO I/O				MODEL EP391700	1/1
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B		PROJECTION					
C		SCALE					
D		UNITS					
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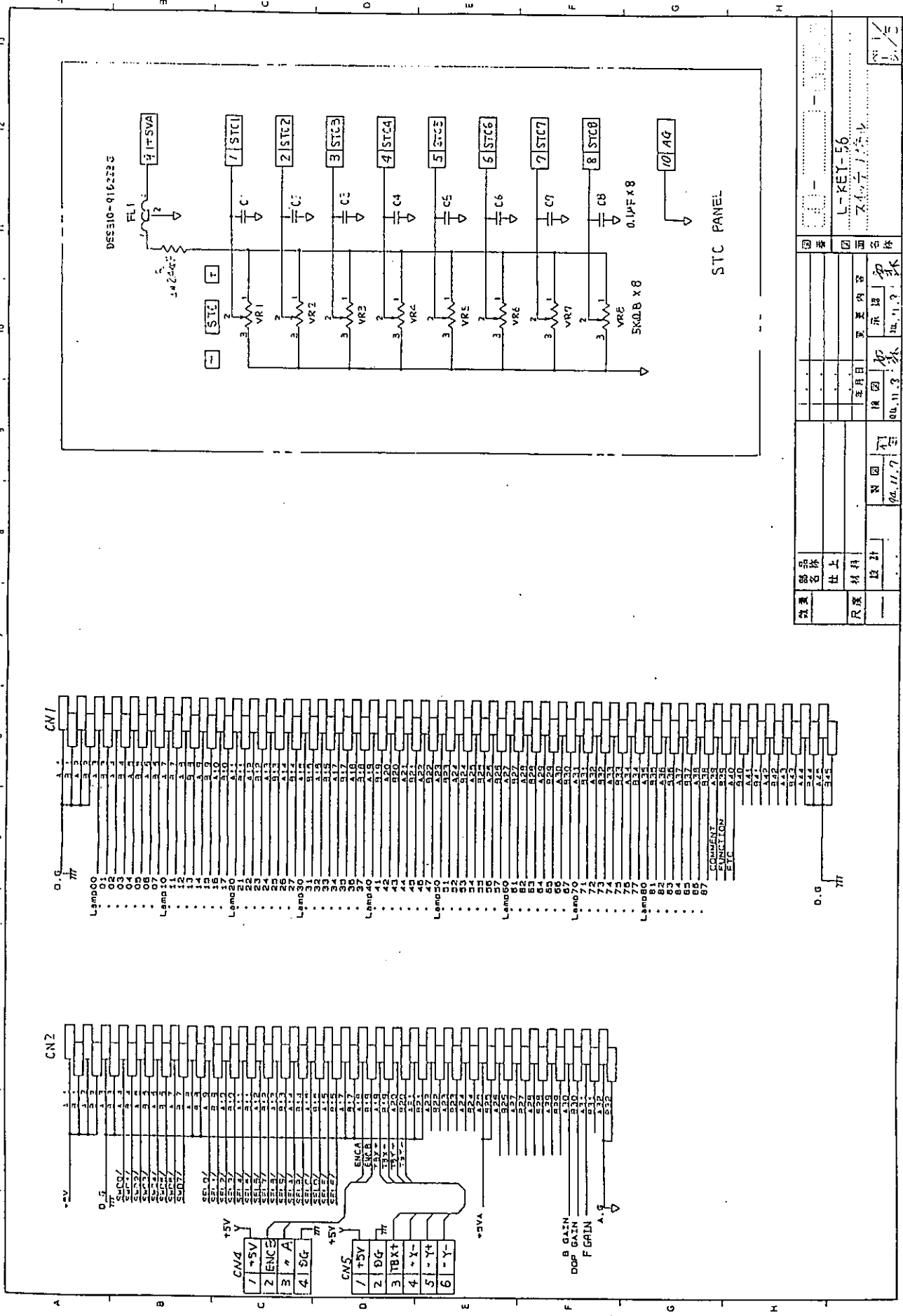
  

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Aloka		EP391800	
3RD ANGLE	DRAWN	CHECKED	APPD
PROJECTION	SCALE	UNITS	mm

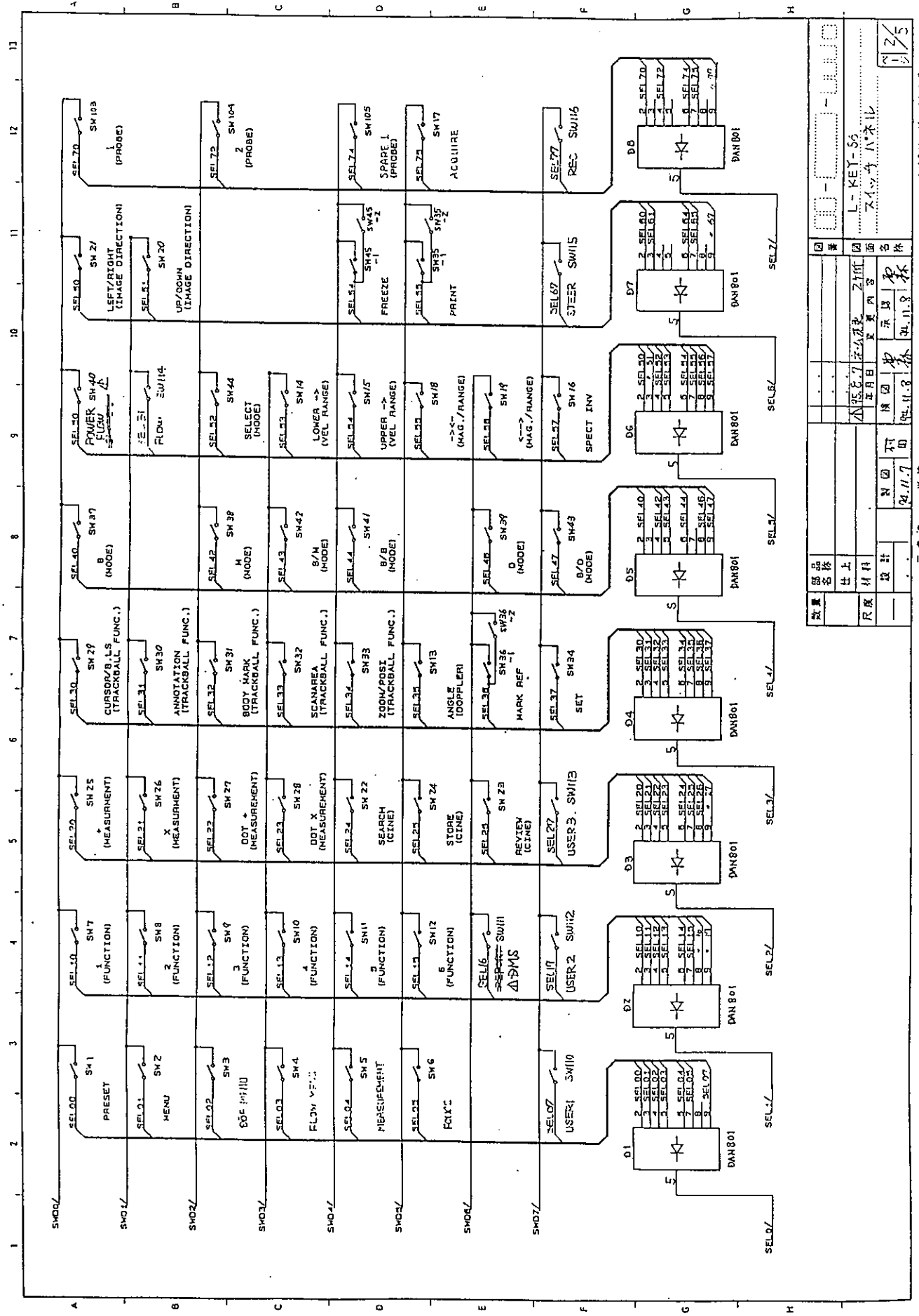
  

MODEL	EP391800
DRAWING NO.	B

MN2-0213  
SECTION 7 SCHEMATICS



改定	部品名	仕様	数量	注
修正	材料	設計		
設計	設計			
検査	検査			
組立	組立			
出荷	出荷			
納品	納品			
廃棄	廃棄			
回収	回収			
修理	修理			
その他	その他			
図名: L-KEY-56 図番: STCパネル 製図: 00.11.7 年月日: 00.11.3 単位: mm 株式会社 シーエニエム子				

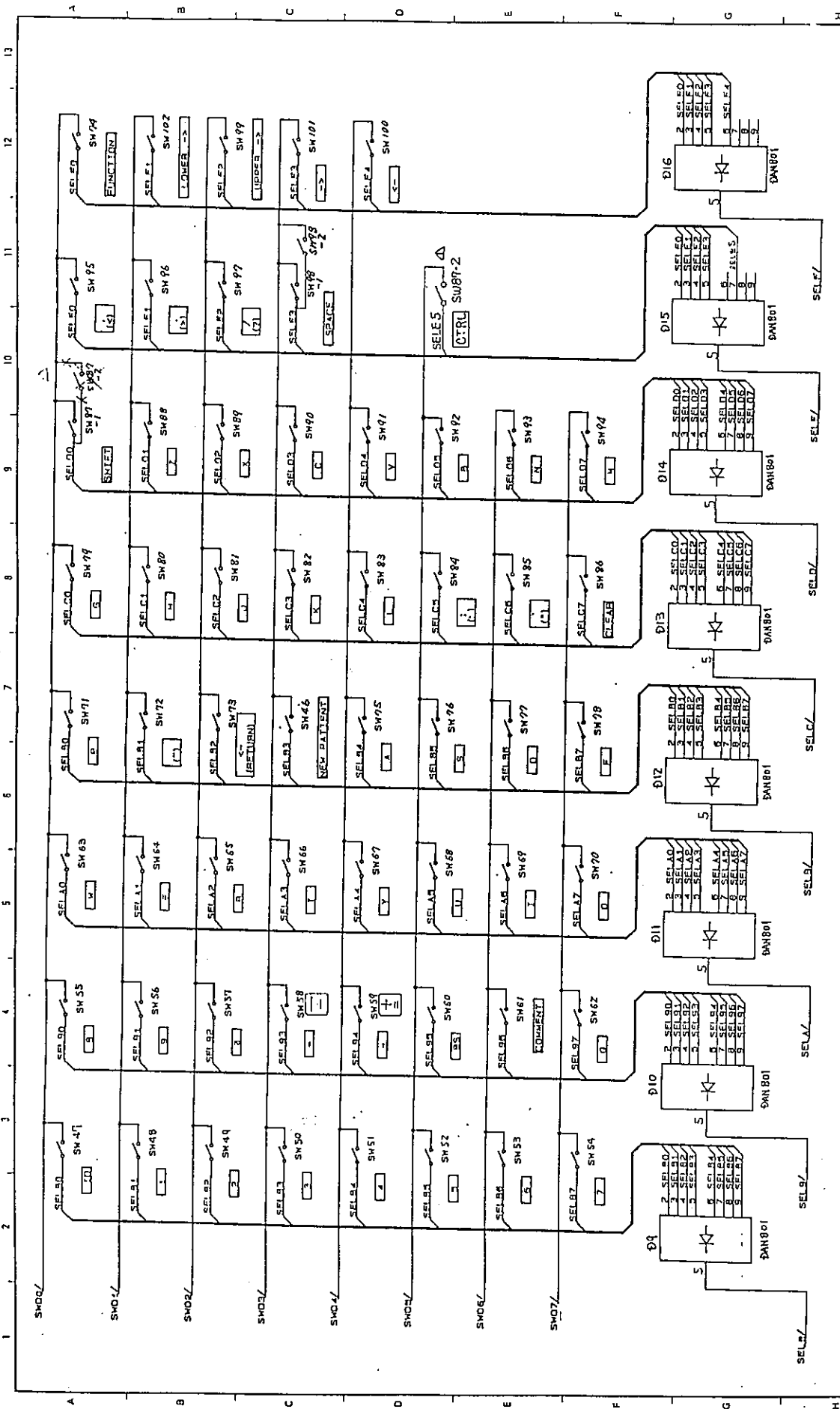


数量	品名	出上	尺度	設計	製日	行	材	面	名

KEY-55  
スイッチパネル  
12/5

三菱 単位 mm  
株式会社 ジェイエムシー

MN2-0213  
SECTION 7 SCHEMATICS



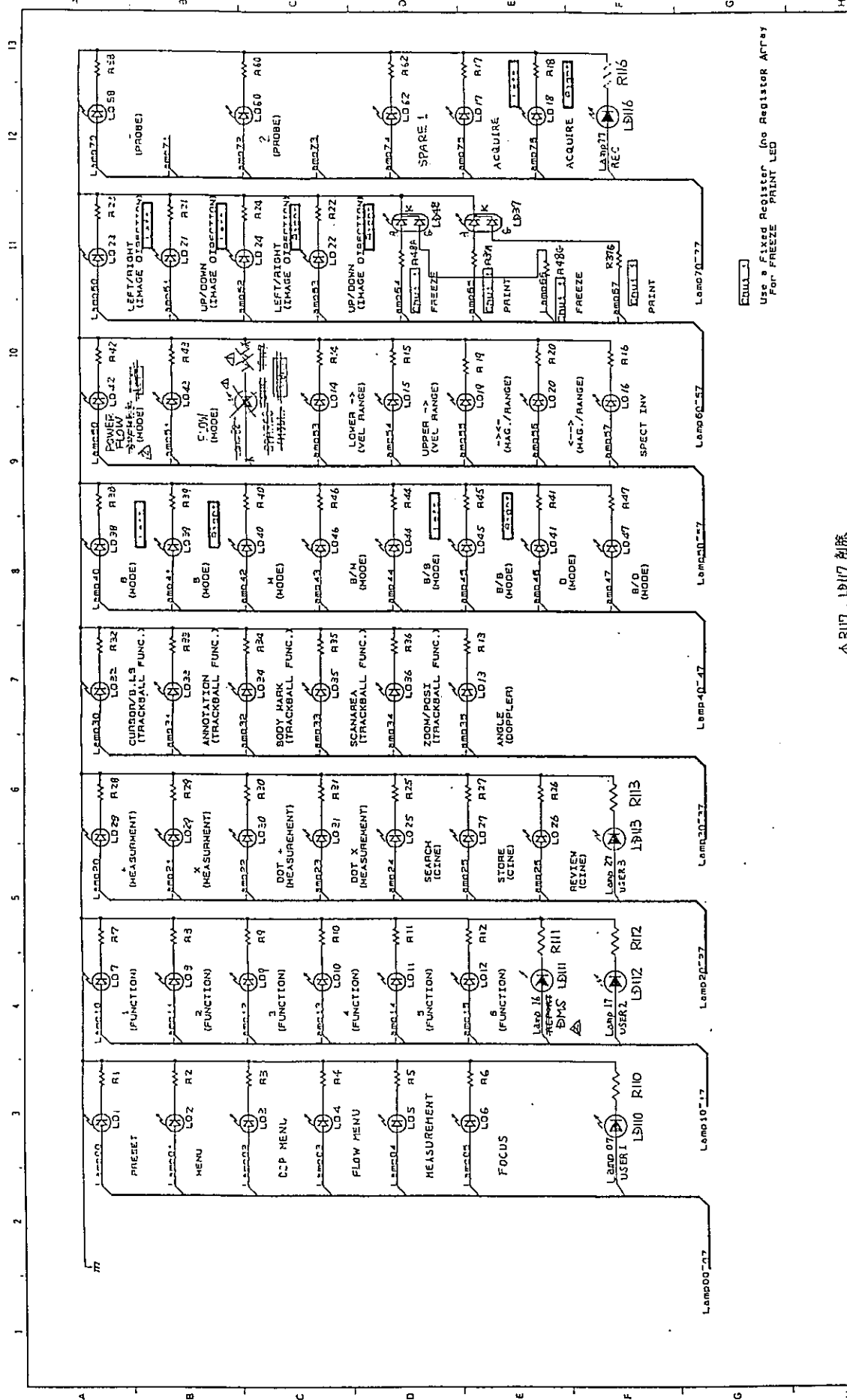
数量	1	品名	スイッチパネル
尺度	1000	材料	ステンチネル
設計	1/3	校核	1/3
製図	1/3	承認	1/3
年月日	1957.08	変更内容	
機番	00-0000	機名	

注) Δ SW87-1, -2は、右記し2機換とする。(SW87-1(SHIFTキー))(SW87-2(CTRLキー))

株式会社 ジェイエムピー

三角法 単位mm



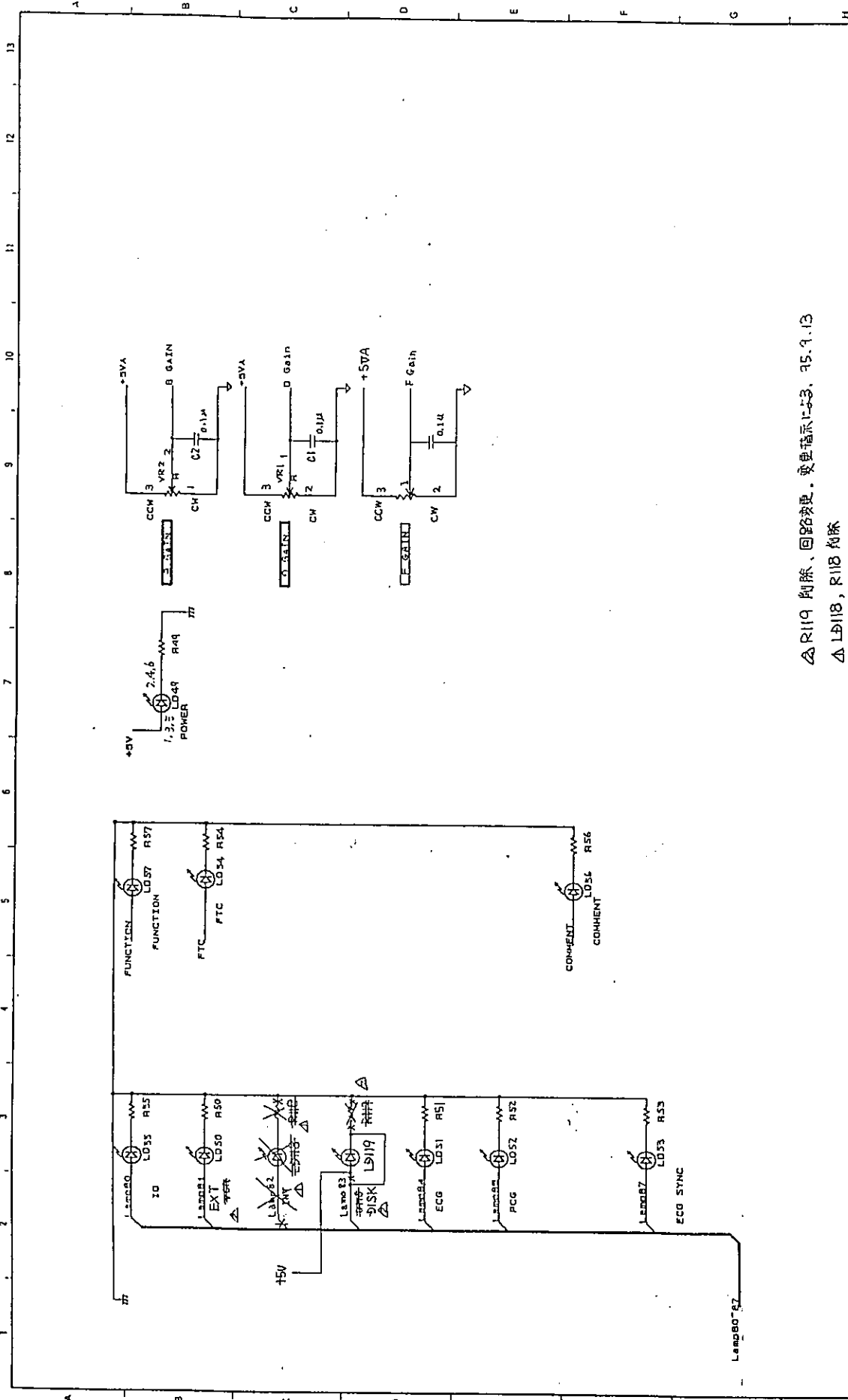


Use a Fixed Register (no Register Array)  
For FREEZE PRINT LED

△R117, LD117 削除

設置 品名	数量	位置	部品名
社上	214	△R5, B7 1線-6 変更 △R5, B7 1線-6 削除	LED
戻り材料		使用日	変更内容
貸出		検出	社内
		検出	社内
		検出	社内

三菱電機 システム部



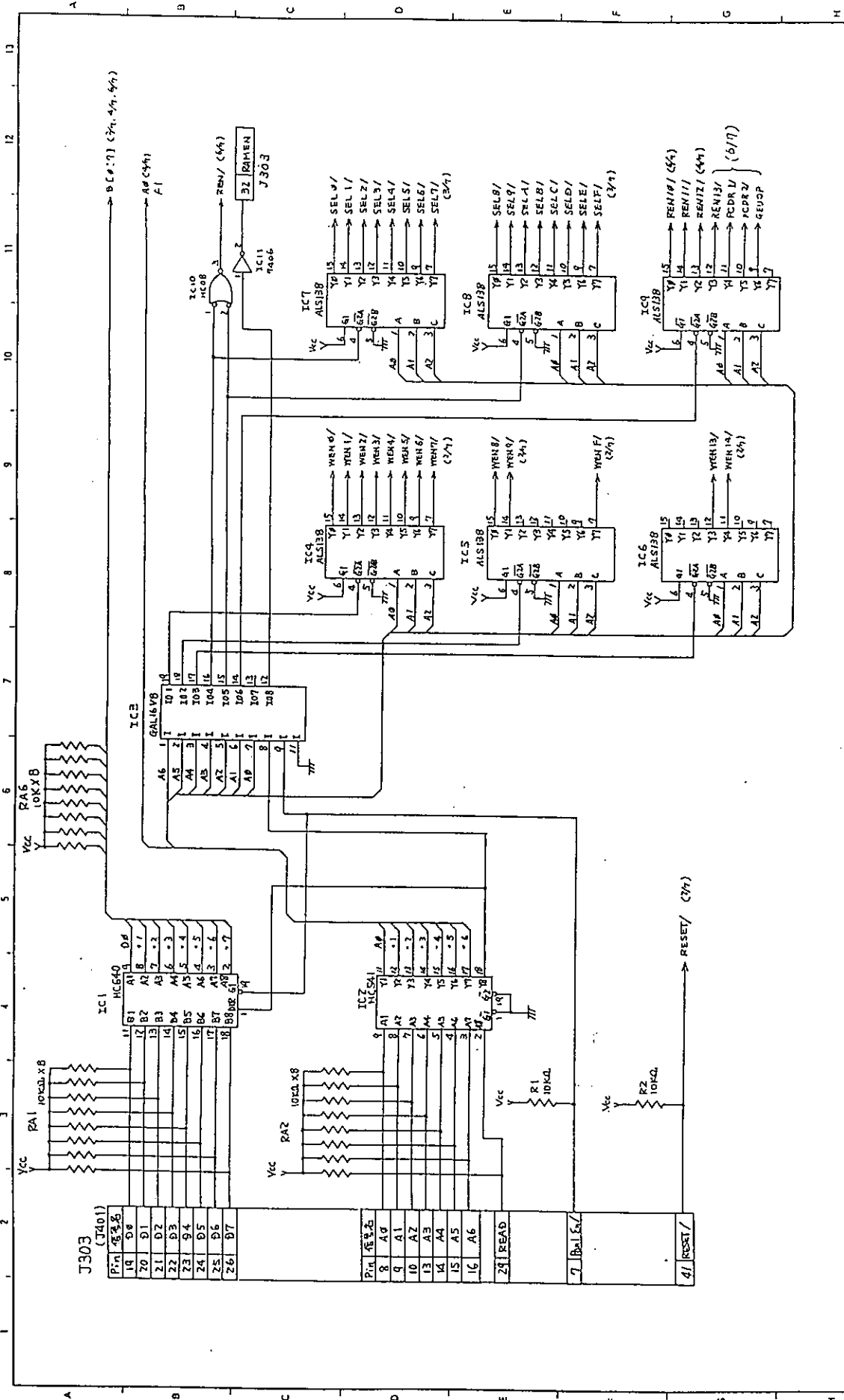
数量	部品名	仕上	材料	設計	検出	年月日	実測内容	検査内容	検査者	検査日
—					4/11/7				和	4/11/8
三角法 単位 mm										

図番	図名
	L-KEY-56
スイッチパネル	
00-000-0000	

△ R119 削除、回路変更。変更指示による。 35.9.13  
△ L918, R118 削除

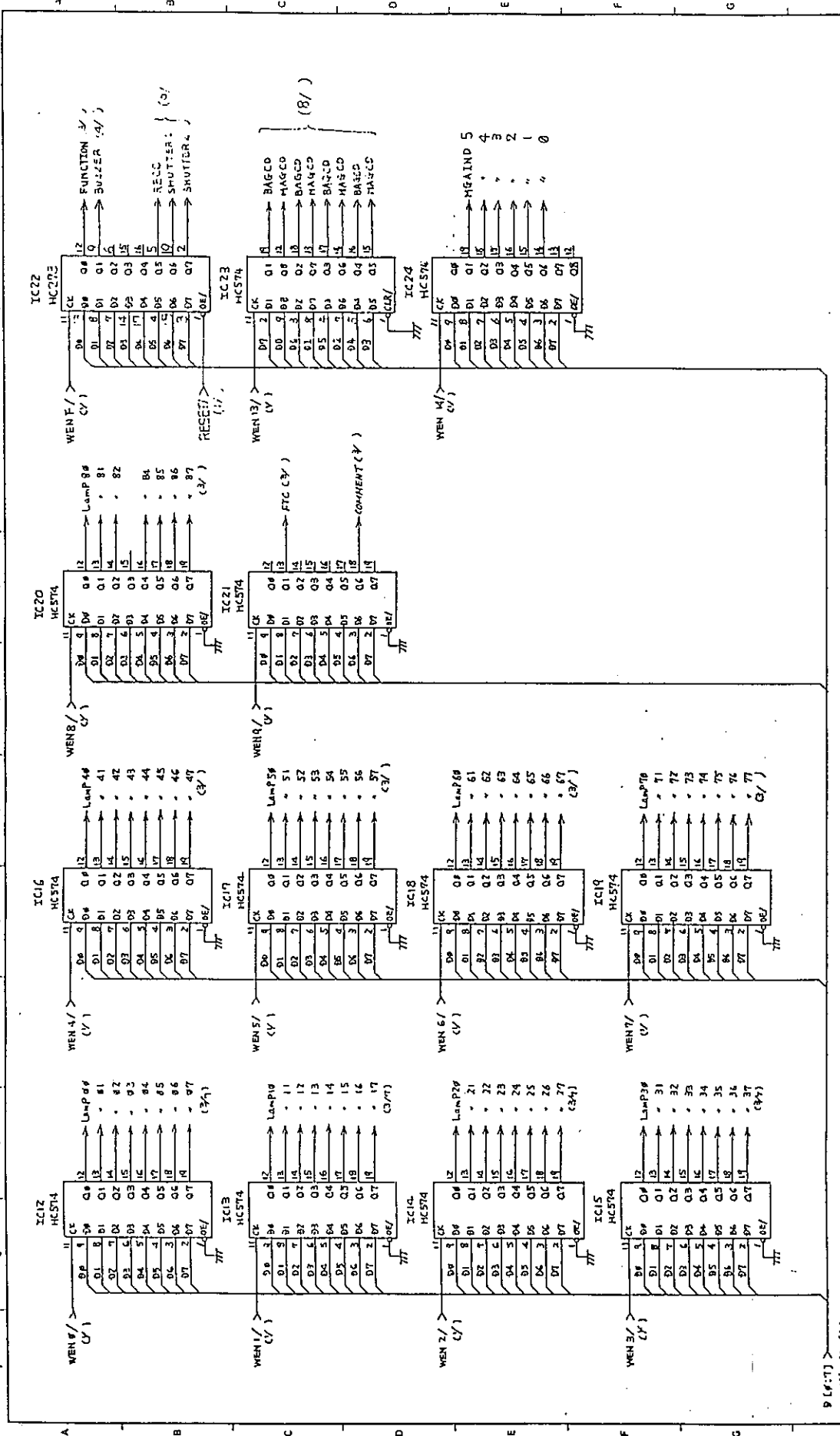
株式会社 ジャイエム子



数量	部品名	仕様	材料	設計	検出	打	組	年月日	変更内容	図面番	図名
1	LSI				10.11.7			24.11.9		00-0000	L-KEY-56 I/F
											EP-3887

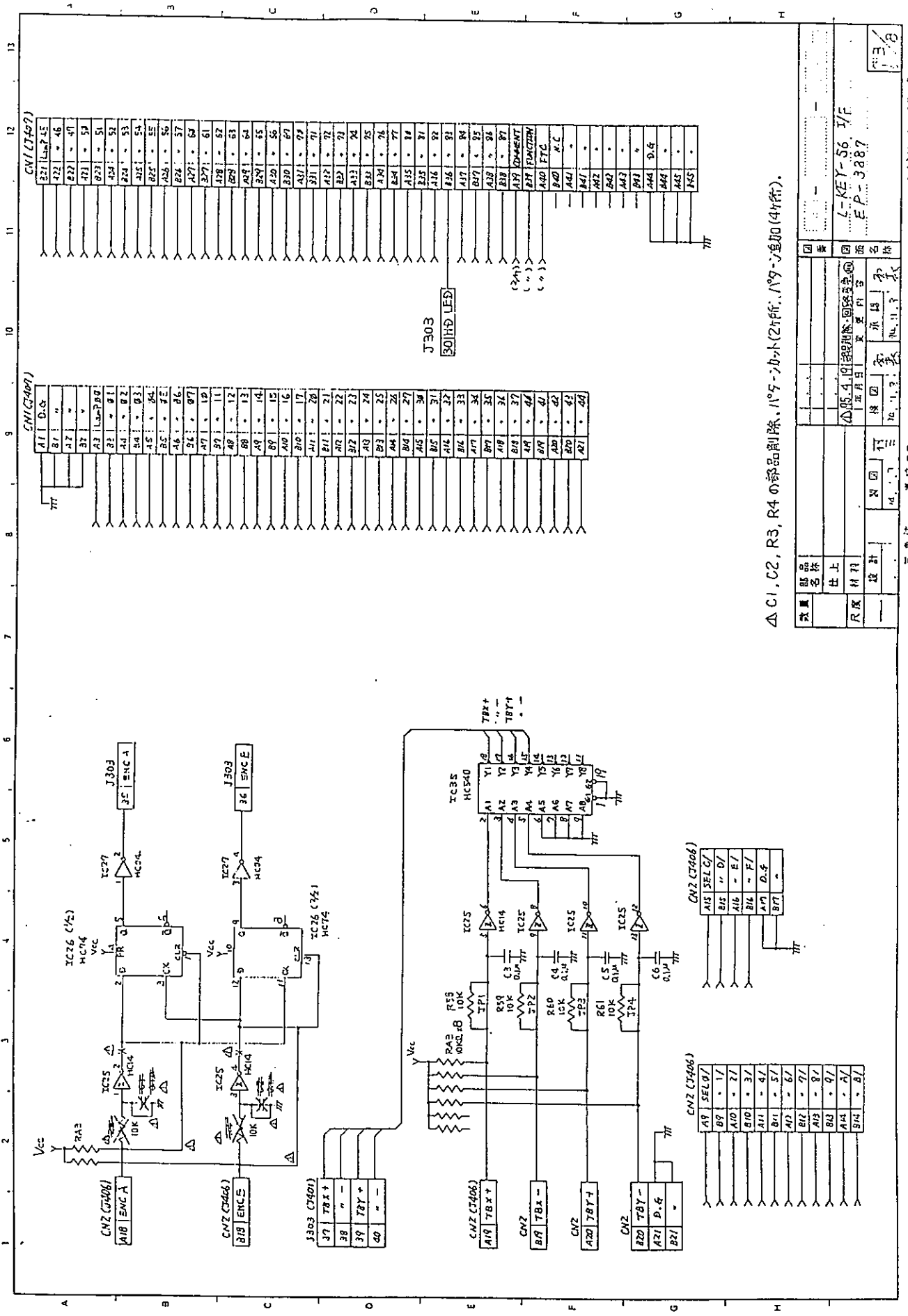
三菱電機 株式会社 システム部

MN2-0213  
SECTION 7 SCHEMATICS



数量	部品名称	仕上	材料	設計	校核	承認	年月日	工程	面名

00-0000  
L-KEY 56 Y/E  
EP-3337  
12/8  
株式会社 ジエイエム子  
三角法 単位mm

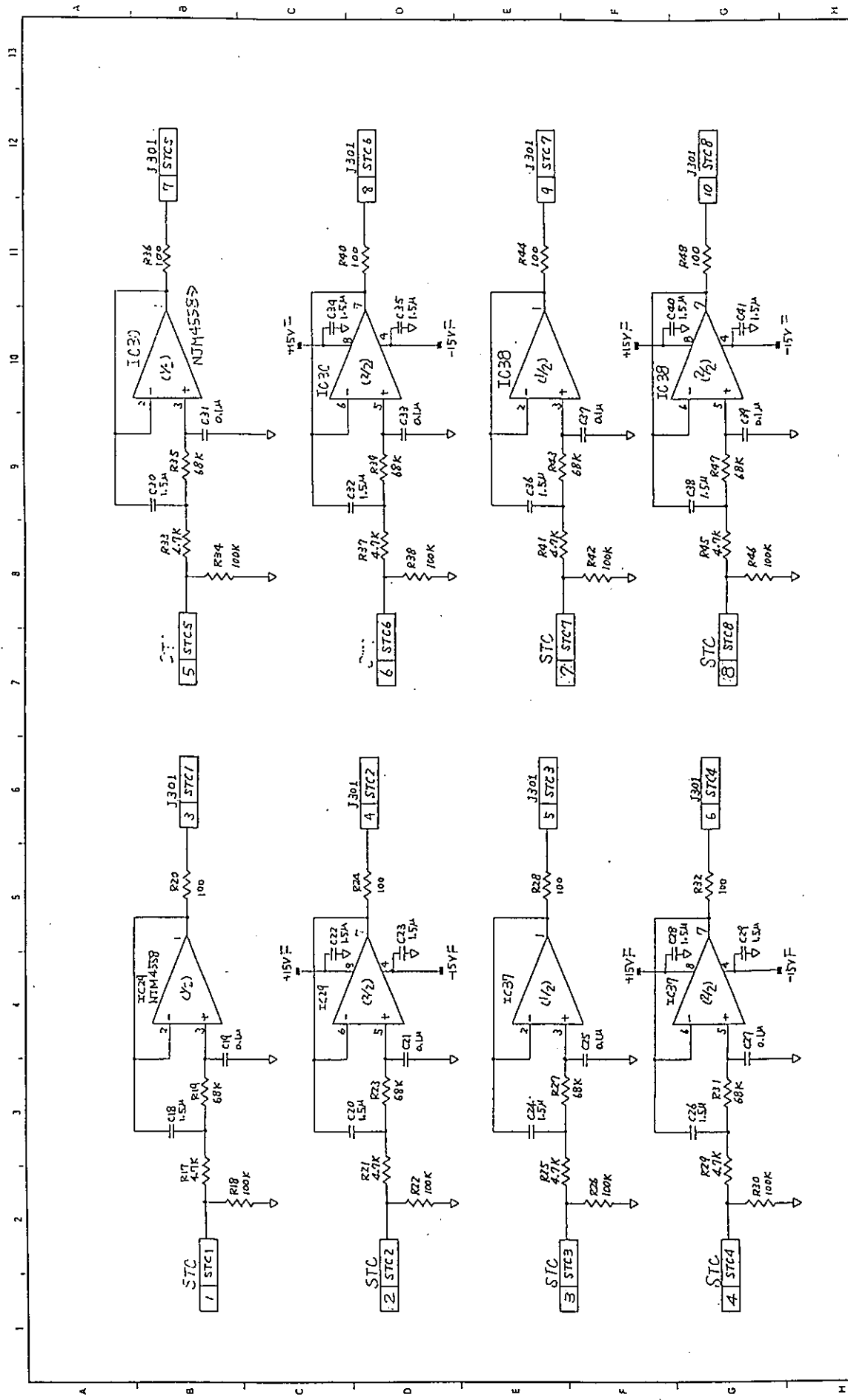


△C1, C2, R3, R4 の部品削除、P5-ノット(2ヶ所)、P9-ノット(4ヶ所)。

CN1 (C7406)		CN2 (C7406)	
A1	D.5	A9	SEL 0/
A2	"	B9	" 1/
A3	"	A10	" 2/
A4	"	B10	" 3/
A5	"	A11	" 4/
A6	"	B11	" 5/
A7	"	A12	" 6/
A8	"	B12	" 7/
A9	"	A13	" 8/
A10	"	B13	" 9/
A11	"	A14	" A/
A12	"	B14	" B/
A13	"		
A14	"		
A15	"		
A16	"		
A17	"		
A18	"		
A19	"		
A20	"		
A21	"		
A22	"		
A23	"		
A24	"		
A25	"		
A26	"		
A27	"		
A28	"		
A29	"		
A30	"		
A31	"		
A32	"		
A33	"		
A34	"		
A35	"		
A36	"		
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A38	"		
A39	"		
A40	"		
A41	"		
A42	"		
A43	"		
A44	"		
A45	"		
A46	"		
A47	"		
A48	"		
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A50	"		
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A91	"		
A92	"		
A93	"		
A94	"		
A95	"		
A96	"		
A97	"		
A98	"		
A99	"		
A100	"		

部品名	数量	単位	備考
IC25	1	個	
IC26	1	個	
IC27	1	個	
IC28	1	個	
IC29	1	個	
IC35	1	個	
IC36	1	個	
J303	1	個	
RA2	1	個	
RA3	1	個	
RA4	1	個	
RA5	1	個	
RA6	1	個	
RA7	1	個	
RA8	1	個	
RA9	1	個	
RA10	1	個	
RA11	1	個	
RA12	1	個	
RA13	1	個	
RA14	1	個	
RA15	1	個	
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RA97	1	個	
RA98	1	個	
RA99	1	個	
RA100	1	個	

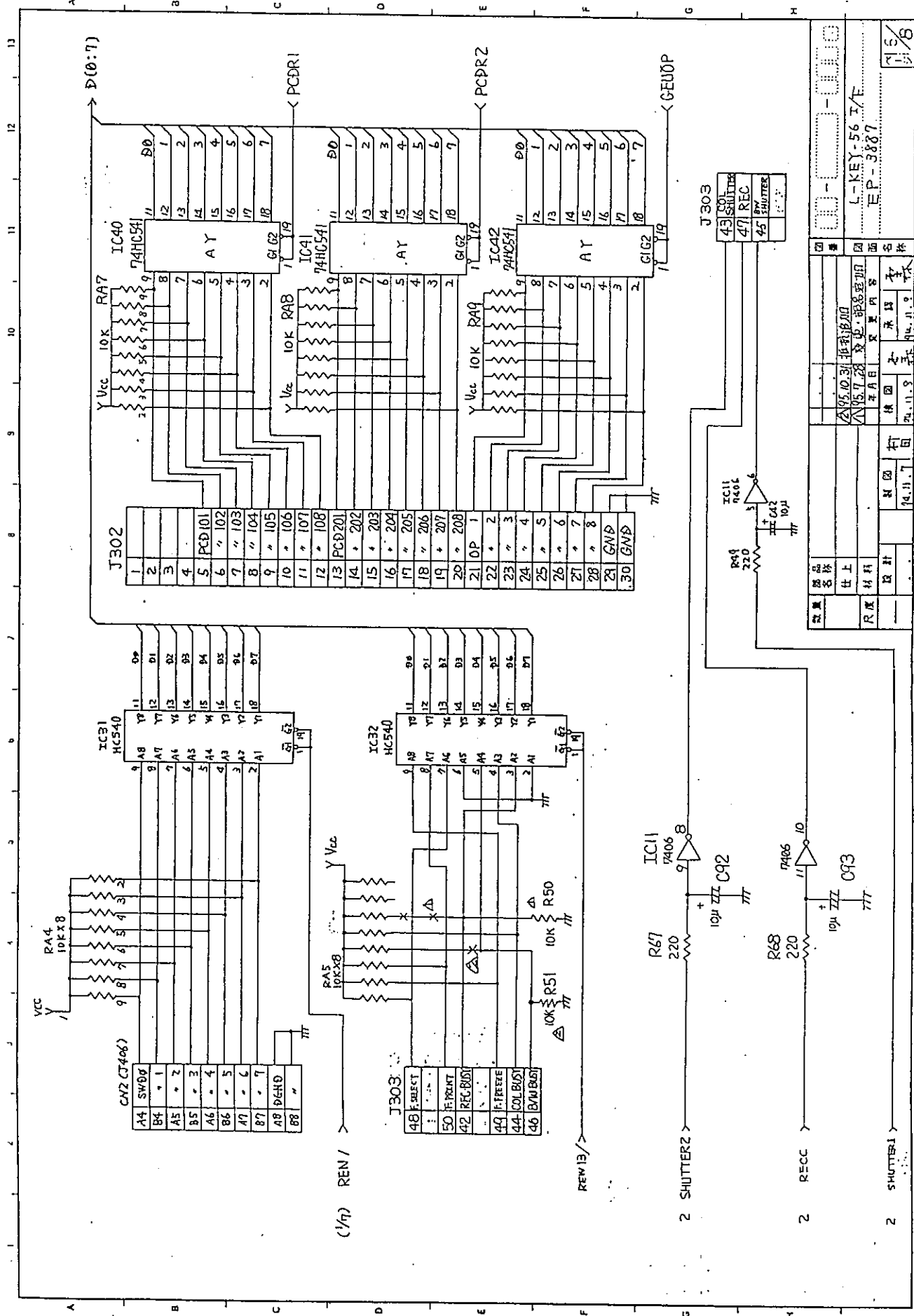




数量	品名	仕様	材料	設計	製図	年月日	承認	書名
						04.11.07		...
00								L-KEY-56 I/F
								EP-3887

株式会社 システムエー

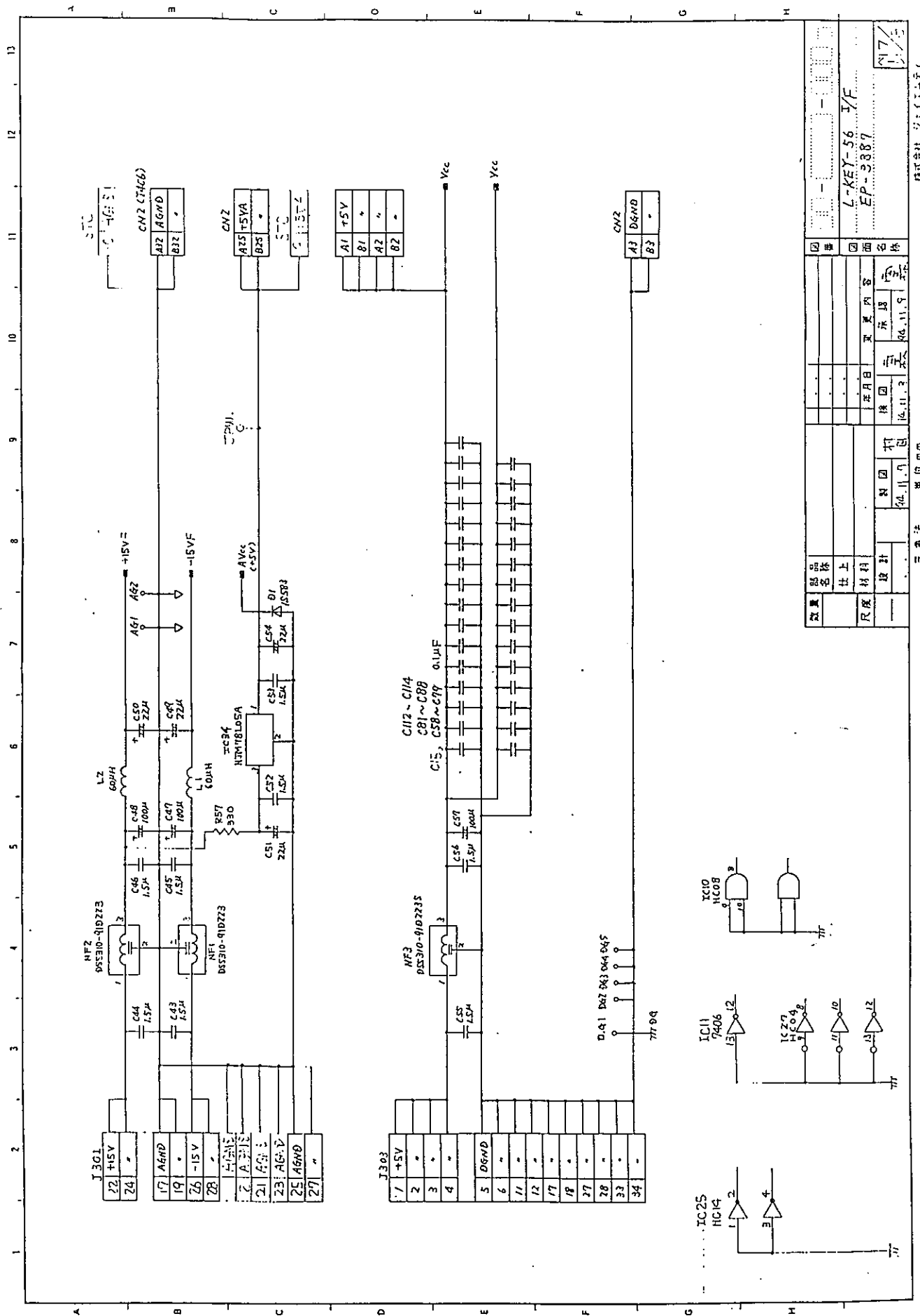
MN2-0213  
SECTION 7 SCHEMATICS



株式会社 ジェイエムエフ

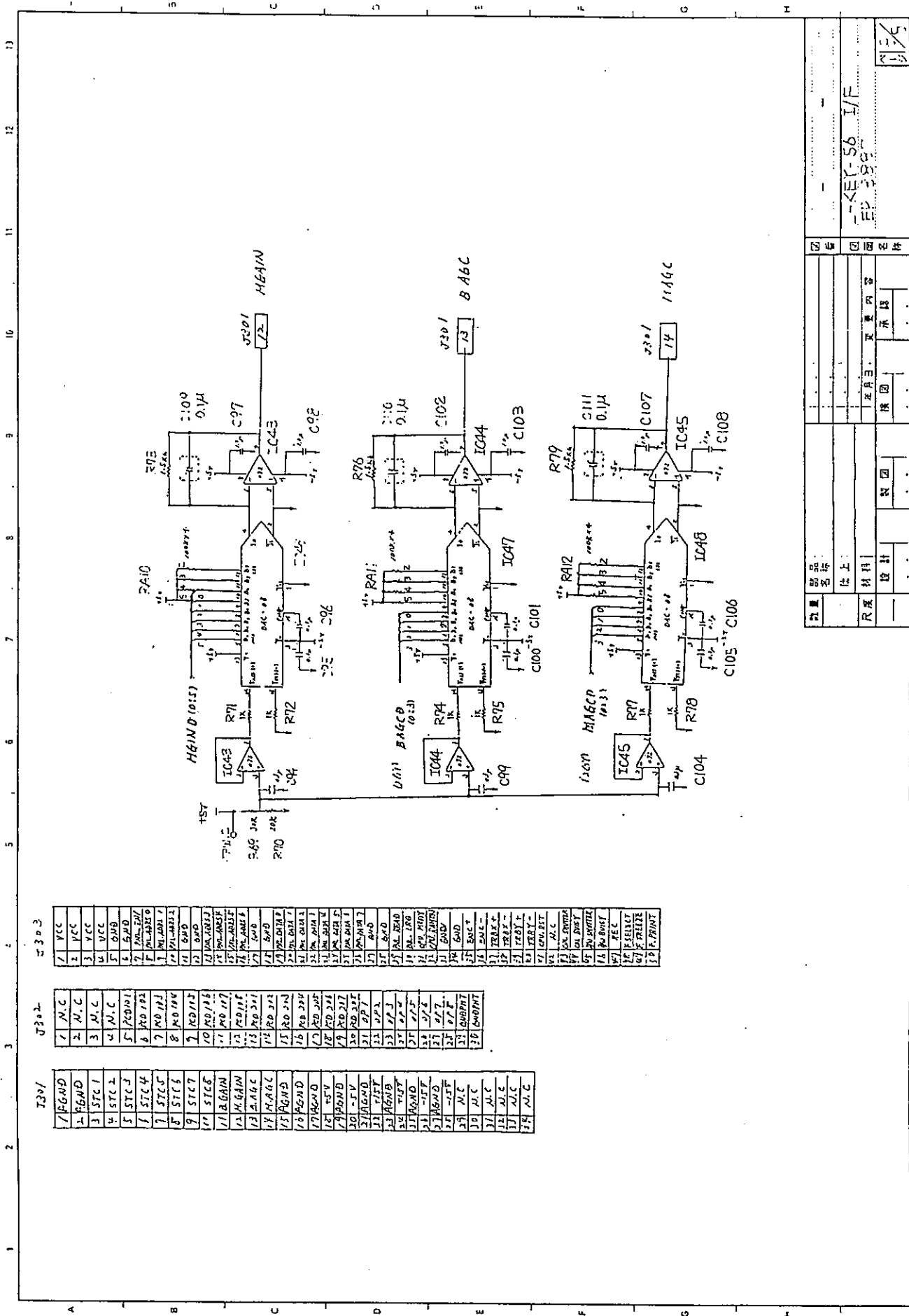
三角法 単位 mm





数量	部品名称	仕様	社名	材料	設計	製図	打	年月日	変更内容	承認	年月日	承認
								84.11.9			84.11.9	
図番: 00-000 図面名称: L-KEY-56 Y/F EP-3887 株式会社 ジェイエエ子												

MN2-0213  
SECTION 7 SCHEMATICS




数量	部品名	図番	図名
1	IC43	IC43	IC43
1	IC44	IC44	IC44
1	IC45	IC45	IC45
1	J201	J201	J201
1	J202	J202	J202
1	J203	J203	J203
1	J204	J204	J204
1	J205	J205	J205
1	J206	J206	J206
1	J207	J207	J207
1	J208	J208	J208
1	J209	J209	J209
1	J210	J210	J210
1	J211	J211	J211
1	J212	J212	J212
1	J213	J213	J213
1	J214	J214	J214
1	J215	J215	J215
1	J216	J216	J216
1	J217	J217	J217
1	J218	J218	J218
1	J219	J219	J219
1	J220	J220	J220

三菱電機 単位 mm  
株式会社 システム




MN2-0213  
SECTION 7 SCHEMATICS

K	J	I	H	G	F	E	D	C	B	A	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z																																																																																																																																																																																																																																																																																																																																																																										
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<table border="1"> <thead> <tr> <th colspan="2">EP3683 CHANGER(RELAY)</th> <th colspan="5">EP3961 SELECTOR</th> <th colspan="5">EP3962 IX</th> </tr> <tr> <th rowspan="2">PIN No.</th> <th colspan="3">J100-2</th> <th colspan="3">J101-2</th> <th colspan="3">J102-2</th> <th colspan="3">J103-2</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> <th>A</th> <th>B</th> <th>C</th> <th>A</th> <th>B</th> <th>C</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr><td>1</td><td>T181</td><td>T182</td><td>T183</td><td>1</td><td>T1824</td><td>T1825</td><td>1</td><td>T1827</td><td>T1828</td><td>1</td><td>T1831</td><td>T1832</td></tr> <tr><td>2</td><td>T184</td><td>T185</td><td>T186</td><td>2</td><td>T1826</td><td>T1827</td><td>2</td><td>T1829</td><td>T1830</td><td>2</td><td>T1833</td><td>T1834</td></tr> <tr><td>3</td><td>T187</td><td>T188</td><td>T189</td><td>3</td><td>T1828</td><td>T1829</td><td>3</td><td>T1831</td><td>T1832</td><td>3</td><td>T1835</td><td>T1836</td></tr> <tr><td>4</td><td>T191</td><td>T192</td><td>T193</td><td>4</td><td>T1830</td><td>T1831</td><td>4</td><td>T1833</td><td>T1834</td><td>4</td><td>T1837</td><td>T1838</td></tr> <tr><td>5</td><td>T195</td><td>T196</td><td>T197</td><td>5</td><td>T1832</td><td>T1833</td><td>5</td><td>T1835</td><td>T1836</td><td>5</td><td>T1839</td><td>T1840</td></tr> <tr><td>6</td><td>T199</td><td>T200</td><td>T201</td><td>6</td><td>T1834</td><td>T1835</td><td>6</td><td>T1837</td><td>T1838</td><td>6</td><td>T1841</td><td>T1842</td></tr> <tr><td>7</td><td>T203</td><td>T204</td><td>T205</td><td>7</td><td>T1836</td><td>T1837</td><td>7</td><td>T1839</td><td>T1840</td><td>7</td><td>T1843</td><td>T1844</td></tr> <tr><td>8</td><td>T207</td><td>T208</td><td>T209</td><td>8</td><td>T1838</td><td>T1839</td><td>8</td><td>T1841</td><td>T1842</td><td>8</td><td>T1845</td><td>T1846</td></tr> <tr><td>9</td><td>T211</td><td>T212</td><td>T213</td><td>9</td><td>T1840</td><td>T1841</td><td>9</td><td>T1843</td><td>T1844</td><td>9</td><td>T1847</td><td>T1848</td></tr> <tr><td>10</td><td>T215</td><td>T216</td><td>T217</td><td>10</td><td>T1842</td><td>T1843</td><td>10</td><td>T1845</td><td>T1846</td><td>10</td><td>T1849</td><td>T1850</td></tr> <tr><td>11</td><td>T219</td><td>T220</td><td>T221</td><td>11</td><td>T1844</td><td>T1845</td><td>11</td><td>T1847</td><td>T1848</td><td>11</td><td>T1851</td><td>T1852</td></tr> <tr><td>12</td><td>T223</td><td>T224</td><td>T225</td><td>12</td><td>T1846</td><td>T1847</td><td>12</td><td>T1849</td><td>T1850</td><td>12</td><td>T1853</td><td>T1854</td></tr> <tr><td>13</td><td>T227</td><td>T228</td><td>T229</td><td>13</td><td>T1848</td><td>T1849</td><td>13</td><td>T1851</td><td>T1852</td><td>13</td><td>T1855</td><td>T1856</td></tr> <tr><td>14</td><td>T231</td><td>T232</td><td>T233</td><td>14</td><td>T1850</td><td>T1851</td><td>14</td><td>T1853</td><td>T1854</td><td>14</td><td>T1857</td><td>T1858</td></tr> <tr><td>15</td><td>T235</td><td>T236</td><td>T237</td><td>15</td><td>T1852</td><td>T1853</td><td>15</td><td>T1855</td><td>T1856</td><td>15</td><td>T1859</td><td>T1860</td></tr> <tr><td>16</td><td>T239</td><td>T240</td><td>T241</td><td>16</td><td>T1854</td><td>T1855</td><td>16</td><td>T1857</td><td>T1858</td><td>16</td><td>T1861</td><td>T1862</td></tr> <tr><td>17</td><td>T243</td><td>T244</td><td>T245</td><td>17</td><td>T1856</td><td>T1857</td><td>17</td><td>T1859</td><td>T1860</td><td>17</td><td>T1863</td><td>T1864</td></tr> <tr><td>18</td><td>T247</td><td>T248</td><td>T249</td><td>18</td><td>T1858</td><td>T1859</td><td>18</td><td>T1861</td><td>T1862</td><td>18</td><td>T1865</td><td>T1866</td></tr> <tr><td>19</td><td>T251</td><td>T252</td><td>T253</td><td>19</td><td>T1860</td><td>T1861</td><td>19</td><td>T1863</td><td>T1864</td><td>19</td><td>T1867</td><td>T1868</td></tr> <tr><td>20</td><td>T255</td><td>T256</td><td>T257</td><td>20</td><td>T1862</td><td>T1863</td><td>20</td><td>T1865</td><td>T1866</td><td>20</td><td>T1869</td><td>T1870</td></tr> <tr><td>21</td><td>T259</td><td>T260</td><td>T261</td><td>21</td><td>T1864</td><td>T1865</td><td>21</td><td>T1867</td><td>T1868</td><td>21</td><td>T1871</td><td>T1872</td></tr> <tr><td>22</td><td>T263</td><td>T264</td><td>T265</td><td>22</td><td>T1866</td><td>T1867</td><td>22</td><td>T1869</td><td>T1870</td><td>22</td><td>T1873</td><td>T1874</td></tr> <tr><td>23</td><td>T267</td><td>T268</td><td>T269</td><td>23</td><td>T1868</td><td>T1869</td><td>23</td><td>T1871</td><td>T1872</td><td>23</td><td>T1875</td><td>T1876</td></tr> <tr><td>24</td><td>T271</td><td>T272</td><td>T273</td><td>24</td><td>T1870</td><td>T1871</td><td>24</td><td>T1873</td><td>T1874</td><td>24</td><td>T1877</td><td>T1878</td></tr> <tr><td>25</td><td>T275</td><td>T276</td><td>T277</td><td>25</td><td>T1872</td><td>T1873</td><td>25</td><td>T1875</td><td>T1876</td><td>25</td><td>T1879</td><td>T1880</td></tr> </tbody> </table>																									EP3683 CHANGER(RELAY)		EP3961 SELECTOR					EP3962 IX					PIN No.	J100-2			J101-2			J102-2			J103-2			A	B	C	A	B	C	A	B	C	A	B	C	1	T181	T182	T183	1	T1824	T1825	1	T1827	T1828	1	T1831	T1832	2	T184	T185	T186	2	T1826	T1827	2	T1829	T1830	2	T1833	T1834	3	T187	T188	T189	3	T1828	T1829	3	T1831	T1832	3	T1835	T1836	4	T191	T192	T193	4	T1830	T1831	4	T1833	T1834	4	T1837	T1838	5	T195	T196	T197	5	T1832	T1833	5	T1835	T1836	5	T1839	T1840	6	T199	T200	T201	6	T1834	T1835	6	T1837	T1838	6	T1841	T1842	7	T203	T204	T205	7	T1836	T1837	7	T1839	T1840	7	T1843	T1844	8	T207	T208	T209	8	T1838	T1839	8	T1841	T1842	8	T1845	T1846	9	T211	T212	T213	9	T1840	T1841	9	T1843	T1844	9	T1847	T1848	10	T215	T216	T217	10	T1842	T1843	10	T1845	T1846	10	T1849	T1850	11	T219	T220	T221	11	T1844	T1845	11	T1847	T1848	11	T1851	T1852	12	T223	T224	T225	12	T1846	T1847	12	T1849	T1850	12	T1853	T1854	13	T227	T228	T229	13	T1848	T1849	13	T1851	T1852	13	T1855	T1856	14	T231	T232	T233	14	T1850	T1851	14	T1853	T1854	14	T1857	T1858	15	T235	T236	T237	15	T1852	T1853	15	T1855	T1856	15	T1859	T1860	16	T239	T240	T241	16	T1854	T1855	16	T1857	T1858	16	T1861	T1862	17	T243	T244	T245	17	T1856	T1857	17	T1859	T1860	17	T1863	T1864	18	T247	T248	T249	18	T1858	T1859	18	T1861	T1862	18	T1865	T1866	19	T251	T252	T253	19	T1860	T1861	19	T1863	T1864	19	T1867	T1868	20	T255	T256	T257	20	T1862	T1863	20	T1865	T1866	20	T1869	T1870	21	T259	T260	T261	21	T1864	T1865	21	T1867	T1868	21	T1871	T1872	22	T263	T264	T265	22	T1866	T1867	22	T1869	T1870	22	T1873	T1874	23	T267	T268	T269	23	T1868	T1869	23	T1871	T1872	23	T1875	T1876	24	T271	T272	T273	24	T1870	T1871	24	T1873	T1874	24	T1877	T1878	25	T275	T276	T277	25	T1872	T1873	25	T1875	T1876	25	T1879	T1880
EP3683 CHANGER(RELAY)		EP3961 SELECTOR					EP3962 IX																																																																																																																																																																																																																																																																																																																																																																																											
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7	T203	T204	T205	7	T1836	T1837	7	T1839	T1840	7	T1843	T1844																																																																																																																																																																																																																																																																																																																																																																																						
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		title 名称 MOTHER		model 型号 EP396500		drawing no. 圖號 MC332122	
3rd angle projection 第三角法		checked 校核 58.21		appd 校對 58.21		58.21	
scale 尺碼 1:1		units 單位 mm		58.21		58.21	

PIN No.	EP3364 PRE AMP J104-1			EP3897 SECTOR DELAY J105-1			EP3897 SECTOR DELAY J106-1			EP3898 RX DELAY J107-1		
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6	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V
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16	FADRS4	FADRS4	FADRS4	FADRS4	FADRS4	FADRS4	FADRS4	FADRS4	FADRS4	FADRS4	FADRS4	FADRS4
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50	END	END	END	END	END	END	END	END	END	END	END	END

 JPD single projection 單字投送 調出 調出 調出 調出	Model 號碼 <b>EP396500</b>	Title 名稱 <b>MOTHER</b>	3/9	
			A	



PIN No.	EP3898 RX DELAY J108-1				EP3889 MAIN AMP J109-1				EP3900 ASR J110-1				EP3901 CSP J111-1			
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4	13V	13V	13V	13V	13V	13V	13V	13V	13V	13V	13V	13V	13V	13V	13V	13V
5	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V
6	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V
7	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V	3V
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15	EN030	EN031	EN032	EN033	EN034	EN035	EN036	EN037	EN038	EN039	EN040	EN041	EN042	EN043	EN044	EN045
16	FA034	FA035	FA036	FA037	FA038	FA039	FA040	FA041	FA042	FA043	FA044	FA045	FA046	FA047	FA048	FA049
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PIN No.	J108-3				J109-3				J110-3				J111-3			
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1	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
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3	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
4	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
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6	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
7	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
8	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
9	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
10	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
11	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
12	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
13	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
14	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
15	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
16	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
17	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
18	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
19	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
20	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
21	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
22	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
23	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
24	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED
25	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED	RECEA	RECEB	RECEC	RECED

5/9

EP396500

model no.

MOTHER

Alorico

3rd angle projection  
第3角法

drawn by  
張 21

checked by  
張 21

designated by  
張 21

approved  
張 21

scale 尺規

units 單位

drawing no. 圖號





K	L	M	N	D	P	Q	R	S	T	U	V	W	X	Y	Z										
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1

EP3963 TX TRIG			EP3963 TIMING & ADDRESS																						
PIN No.	A		B		C		D		E		F		G												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
2	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
3	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
4	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
5	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
6	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
7	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
8	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
9	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
10	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
11	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
12	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
13	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
14	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
15	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
16	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
17	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
18	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
19	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
20	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
21	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
22	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
23	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
24	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0
25	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0

EP3963 TX TRIG			EP3963 TIMING & ADDRESS																						
PIN No.	A		B		C		D		E		F		G												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	PCOR0	PCOR1	PCOR2	PCOR3	PCOR4	PCOR5	PCOR6	PCOR7	PCOR8	PCOR9	PCOR10	PCOR11	PCOR12	PCOR13	PCOR14	PCOR15	PCOR16	PCOR17	PCOR18	PCOR19	PCOR20	PCOR21	PCOR22	PCOR23	PCOR24
2	PCOR4	PCOR5	PCOR6	PCOR7	PCOR8	PCOR9	PCOR10	PCOR11	PCOR12	PCOR13	PCOR14	PCOR15	PCOR16	PCOR17	PCOR18	PCOR19	PCOR20	PCOR21	PCOR22	PCOR23	PCOR24	PCOR25	PCOR26	PCOR27	PCOR28
3	PCOR10	PCOR11	PCOR12	PCOR13	PCOR14	PCOR15	PCOR16	PCOR17	PCOR18	PCOR19	PCOR20	PCOR21	PCOR22	PCOR23	PCOR24	PCOR25	PCOR26	PCOR27	PCOR28	PCOR29	PCOR30	PCOR31	PCOR32	PCOR33	PCOR34
4	PCOR16	PCOR17	PCOR18	PCOR19	PCOR20	PCOR21	PCOR22	PCOR23	PCOR24	PCOR25	PCOR26	PCOR27	PCOR28	PCOR29	PCOR30	PCOR31	PCOR32	PCOR33	PCOR34	PCOR35	PCOR36	PCOR37	PCOR38	PCOR39	PCOR40
5	PCOR22	PCOR23	PCOR24	PCOR25	PCOR26	PCOR27	PCOR28	PCOR29	PCOR30	PCOR31	PCOR32	PCOR33	PCOR34	PCOR35	PCOR36	PCOR37	PCOR38	PCOR39	PCOR40	PCOR41	PCOR42	PCOR43	PCOR44	PCOR45	PCOR46
6	PCOR28	PCOR29	PCOR30	PCOR31	PCOR32	PCOR33	PCOR34	PCOR35	PCOR36	PCOR37	PCOR38	PCOR39	PCOR40	PCOR41	PCOR42	PCOR43	PCOR44	PCOR45	PCOR46	PCOR47	PCOR48	PCOR49	PCOR50	PCOR51	PCOR52
7	PCOR34	PCOR35	PCOR36	PCOR37	PCOR38	PCOR39	PCOR40	PCOR41	PCOR42	PCOR43	PCOR44	PCOR45	PCOR46	PCOR47	PCOR48	PCOR49	PCOR50	PCOR51	PCOR52	PCOR53	PCOR54	PCOR55	PCOR56	PCOR57	PCOR58
8	PCOR40	PCOR41	PCOR42	PCOR43	PCOR44	PCOR45	PCOR46	PCOR47	PCOR48	PCOR49	PCOR50	PCOR51	PCOR52	PCOR53	PCOR54	PCOR55	PCOR56	PCOR57	PCOR58	PCOR59	PCOR60	PCOR61	PCOR62	PCOR63	PCOR64
9	PCOR46	PCOR47	PCOR48	PCOR49	PCOR50	PCOR51	PCOR52	PCOR53	PCOR54	PCOR55	PCOR56	PCOR57	PCOR58	PCOR59	PCOR60	PCOR61	PCOR62	PCOR63	PCOR64	PCOR65	PCOR66	PCOR67	PCOR68	PCOR69	PCOR70
10	PCOR52	PCOR53	PCOR54	PCOR55	PCOR56	PCOR57	PCOR58	PCOR59	PCOR60	PCOR61	PCOR62	PCOR63	PCOR64	PCOR65	PCOR66	PCOR67	PCOR68	PCOR69	PCOR70	PCOR71	PCOR72	PCOR73	PCOR74	PCOR75	PCOR76
11	PCOR58	PCOR59	PCOR60	PCOR61	PCOR62	PCOR63	PCOR64	PCOR65	PCOR66	PCOR67	PCOR68	PCOR69	PCOR70	PCOR71	PCOR72	PCOR73	PCOR74	PCOR75	PCOR76	PCOR77	PCOR78	PCOR79	PCOR80	PCOR81	PCOR82
12	PCOR64	PCOR65	PCOR66	PCOR67	PCOR68	PCOR69	PCOR70	PCOR71	PCOR72	PCOR73	PCOR74	PCOR75	PCOR76	PCOR77	PCOR78	PCOR79	PCOR80	PCOR81	PCOR82	PCOR83	PCOR84	PCOR85	PCOR86	PCOR87	PCOR88
13	PCOR70	PCOR71	PCOR72	PCOR73	PCOR74	PCOR75	PCOR76	PCOR77	PCOR78	PCOR79	PCOR80	PCOR81	PCOR82	PCOR83	PCOR84	PCOR85	PCOR86	PCOR87	PCOR88	PCOR89	PCOR90	PCOR91	PCOR92	PCOR93	PCOR94
14	PCOR76	PCOR77	PCOR78	PCOR79	PCOR80	PCOR81	PCOR82	PCOR83	PCOR84	PCOR85	PCOR86	PCOR87	PCOR88	PCOR89	PCOR90	PCOR91	PCOR92	PCOR93	PCOR94	PCOR95	PCOR96	PCOR97	PCOR98	PCOR99	PCOR100
15	PCOR82	PCOR83	PCOR84	PCOR85	PCOR86	PCOR87	PCOR88	PCOR89	PCOR90	PCOR91	PCOR92	PCOR93	PCOR94	PCOR95	PCOR96	PCOR97	PCOR98	PCOR99	PCOR100	PCOR101	PCOR102	PCOR103	PCOR104	PCOR105	PCOR106
16	PCOR88	PCOR89	PCOR90	PCOR91	PCOR92	PCOR93	PCOR94	PCOR95	PCOR96	PCOR97	PCOR98	PCOR99	PCOR100	PCOR101	PCOR102	PCOR103	PCOR104	PCOR105	PCOR106	PCOR107	PCOR108	PCOR109	PCOR110	PCOR111	PCOR112
17	PCOR94	PCOR95	PCOR96	PCOR97	PCOR98	PCOR99	PCOR100	PCOR101	PCOR102	PCOR103	PCOR104	PCOR105	PCOR106	PCOR107	PCOR108	PCOR109	PCOR110	PCOR111	PCOR112	PCOR113	PCOR114	PCOR115	PCOR116	PCOR117	PCOR118
18	PCOR100	PCOR101	PCOR102	PCOR103	PCOR104	PCOR105	PCOR106	PCOR107	PCOR108	PCOR109	PCOR110	PCOR111	PCOR112	PCOR113	PCOR114	PCOR115	PCOR116	PCOR117	PCOR118	PCOR119	PCOR120	PCOR121	PCOR122	PCOR123	PCOR124
19	PCOR106	PCOR107	PCOR108	PCOR109	PCOR110	PCOR111	PCOR112	PCOR113	PCOR114	PCOR115	PCOR116	PCOR117	PCOR118	PCOR119	PCOR120	PCOR121	PCOR122	PCOR123	PCOR124	PCOR125	PCOR126	PCOR127	PCOR128	PCOR129	PCOR130
20	PCOR112	PCOR113	PCOR114	PCOR115	PCOR116	PCOR117	PCOR118	PCOR119	PCOR120	PCOR121	PCOR122	PCOR123	PCOR124	PCOR125	PCOR126	PCOR127	PCOR128	PCOR129	PCOR130	PCOR131	PCOR132	PCOR133	PCOR134	PCOR135	PCOR136
21	PCOR118	PCOR119	PCOR120	PCOR121	PCOR122	PCOR123	PCOR124	PCOR125	PCOR126	PCOR127	PCOR128	PCOR129	PCOR130	PCOR131	PCOR132	PCOR133	PCOR134	PCOR135	PCOR136	PCOR137	PCOR138	PCOR139	PCOR140	PCOR141	PCOR142
22	PCOR124	PCOR125	PCOR126	PCOR127	PCOR128	PCOR129	PCOR130	PCOR131	PCOR132	PCOR133	PCOR134	PCOR135	PCOR136	PCOR137	PCOR138	PCOR139	PCOR140	PCOR141	PCOR142	PCOR143	PCOR144	PCOR145	PCOR146	PCOR147	PCOR148
23	PCOR130	PCOR131	PCOR132	PCOR133	PCOR134	PCOR135	PCOR136	PCOR137	PCOR138	PCOR139	PCOR140	PCOR141	PCOR142	PCOR143	PCOR144	PCOR145	PCOR146	PCOR147	PCOR148	PCOR149	PCOR150	PCOR151	PCOR152	PCOR153	PCOR154
24	PCOR136	PCOR137	PCOR138	PCOR139	PCOR140	PCOR141	PCOR142	PCOR143	PCOR144	PCOR145	PCOR146	PCOR147	PCOR148	PCOR149	PCOR150	PCOR151	PCOR152	PCOR153	PCOR154	PCOR155	PCOR156	PCOR157	PCOR158	PCOR159	PCOR160
25	PCOR142	PCOR143	PCOR144	PCOR145	PCOR146	PCOR147	PCOR148	PCOR149	PCOR150	PCOR151	PCOR152	PCOR153	PCOR154	PCOR155	PCOR156	PCOR157	PCOR158	PCOR159	PCOR160	PCOR161	PCOR162	PCOR163	PCOR164	PCOR165	PCOR166

7/9

EP3965

MOTHER

Altera

3rd angle projection  
第三角法

scale 1:1  
比例尺 1:1

units mm  
单位 毫米

title 名稱

drawn 製圖

designed 設計

checked 校對

date 日期

drawing no. 圖號

drawn: 21  
designed: 21  
checked: 21  
date: 95.9.1  
drawing no.: 7/9

A

K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z										
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1					
3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

PIN No.	EP3963 TX TRIG J111-2	PIN No.	EP3903 TIMING & ADDRESS J112-2
1	A	1	A
2	B	2	B
3	C	3	C
4	D	4	D
5	E	5	E
6	F	6	F
7	G	7	G
8	H	8	H
9	I	9	I
10	J	10	J
11	K	11	K
12	L	12	L
13	M	13	M
14	N	14	N
15	O	15	O
16	P	16	P
17	Q	17	Q
18	R	18	R
19	S	19	S
20	T	20	T
21	U	21	U
22	V	22	V
23	W	23	W
24	X	24	X
25	Y	25	Y

<b>Aloka</b>	title 名稱 MOTHER	model 模型 EP396500	8/9
3rd angle projection 第三角法	drawn 製圖 checked 校核 design 設計 approved 核准	drawing no. 圖號	A
scale 尺碼 units 單位	date 日期		

U	V	W	X	Y	Z
1	2	3	4	5	1
2	3	4	5	1	2
3	4	5	1	2	3
4	5	1	2	3	4
5	1	2	3	4	5
1	2	3	4	5	1
2	3	4	5	1	2
3	4	5	1	2	3
4	5	1	2	3	4
5	1	2	3	4	5
1	2	3	4	5	1
2	3	4	5	1	2
3	4	5	1	2	3
4	5	1	2	3	4
5	1	2	3	4	5
1	2	3	4	5	1
2	3	4	5	1	2
3	4	5	1	2	3
4	5	1	2	3	4
5	1	2	3	4	5

J131

PIN No.	COMMENT	PIN No.	COMMENT
1	GND	2	GND
3	STC1	4	STC2
5	STC3	6	STC4
7	STC5	8	STC6
9	STC7	10	STC8
11	B_GAIN	12	M_GAIN
13	S_AGC	14	M_AGC
15	GND	16	GND
17	GND	18	5V
19	GND	20	5V
21	GND	22	15V
23	GND	24	15V
25	GND	26	15V
27	GND	28	15V
29	GND	30	15V
31	GND	32	15V
33	GND	34	15V

J132

PIN No.	COMMENT	PIN No.	COMMENT
1	PCD101	2	PCD102
3	PCD103	4	PCD104
5	PCD105	6	PCD106
7	PCD107	8	PCD108
9	PCD109	10	PCD110
11	PCD111	12	PCD112
13	PCD113	14	PCD114
15	PCD115	16	PCD116
17	PCD117	18	PCD118
19	PCD119	20	PCD120
21	OPT1	22	OPT2
23	OPT3	24	OPT4
25	OPT5	26	OPT6
27	GNOPHT	28	GNOPHT
29	GNOPHT	30	GNOPHT

J136

PIN No.	DIU	PIN No.	DIU	PIN No.	DIU
1	DIU1	1	DIU1	1	DIU1
2	DIU2	2	DIU2	2	DIU2
3	DIU3	3	DIU3	3	DIU3
4	DIU4	4	DIU4	4	DIU4
5	DIU5	5	DIU5	5	DIU5
6	DIU6	6	DIU6	6	DIU6
7	DIU7	7	DIU7	7	DIU7
8	DIU8	8	DIU8	8	DIU8
9	DIU9	9	DIU9	9	DIU9
10	DIU10	10	DIU10	10	DIU10
11	DIU11	11	DIU11	11	DIU11
12	DIU12	12	DIU12	12	DIU12
13	DIU13	13	DIU13	13	DIU13
14	DIU14	14	DIU14	14	DIU14
15	DIU15	15	DIU15	15	DIU15
16	DIU16	16	DIU16	16	DIU16
17	DIU17	17	DIU17	17	DIU17
18	DIU18	18	DIU18	18	DIU18
19	DIU19	19	DIU19	19	DIU19
20	DIU20	20	DIU20	20	DIU20
21	DIU21	21	DIU21	21	DIU21
22	DIU22	22	DIU22	22	DIU22
23	DIU23	23	DIU23	23	DIU23
24	DIU24	24	DIU24	24	DIU24

J135

PIN No.	COMMENT
1	US_VIB
2	5046-02A
3	B_WSIG
4	GND

J141

PIN No.	COMMENT
1	POWER0
2	5555-08A
3	5.1V
4	5.1V
5	5.1V
6	DGND
7	DGND
8	DGND

J142A

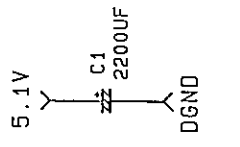
PIN No.	COMMENT
1	POWER1
2	5555-14A
3	GND
4	GND
5	GND
6	15V
7	GND
8	5V
9	5V
10	5V
11	5V
12	5V
13	GND
14	GND

J143

PIN No.	COMMENT
1	HY
2	5555-08A
3	GND
4	GND
5	HVS1VNN
6	40V
7	HY

J142B

PIN No.	COMMENT
1	POWER2
2	5555-04A
3	15V2
4	GND



PIN No.	TP
1	CP/10B
1	DGND

PIN No.	TP
1	CP/10B
1	100PRF

PIN No.	TP
1	CP/10B
1	CLKFD

REVISED 9/9

Aloko

3rd angle projection  
第三角法

SCALE 1:1

UNITS 毫米

DATE 9/9

DRAWN 王 5.8.21

CHECKED 王 5.8.21

DESIGNED 王 5.8.21

PROJECT NO. EP396500

DATE 9/9

A

MN2-0213  
SECTION 7 SCHEMATICS

K L M N O P Q R S T U V W X Y Z

1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1

**EP3905 PH1\_MEMORY**

PIN No.	A	B	C	D
1	GND	GND	GND	GND
2				
3				
4				
5	VCC	VCC	VCC	CPU_F_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAMPEN	CPU_READ	CPU_PNL_RST_
9	CPU_DATA_1(0)	CPU_DATA_1(1)	CPU_DATA_1(2)	CPU_DATA_1(3)
10	CPU_DATA_1(4)	CPU_DATA_1(5)	CPU_DATA_1(6)	CPU_DATA_1(7)
11	CPU_ADDR1(0)	CPU_ADDR1(1)	CPU_ADDR1(2)	CPU_ADDR1(3)
12	CPU_ADDR1(4)	CPU_ADDR1(5)	CPU_ADDR1(6)	CPU_ADDR1(7)
13	AGND	AGND	AGND	AGND
14	DIU_VST_			CPU_MOT
15	CPU_VREG_	CPU_VREG_	CPU_VREG_	CPU_VREG_
16	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
17	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
18	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
19	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
20	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
21	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
22	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
23	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
24	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
25	DIU_VREG_	GND	GND	GND

**EP3904 OSP**

PIN No.	A	B	C	D
1	GND	GND	GND	GND
2				
3				
4				
5	VCC	VCC	VCC	CPU_F_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAMPEN	CPU_READ	CPU_PNL_RST_
9	CPU_DATA_1(0)	CPU_DATA_1(1)	CPU_DATA_1(2)	CPU_DATA_1(3)
10	CPU_DATA_1(4)	CPU_DATA_1(5)	CPU_DATA_1(6)	CPU_DATA_1(7)
11	CPU_ADDR1(0)	CPU_ADDR1(1)	CPU_ADDR1(2)	CPU_ADDR1(3)
12	CPU_ADDR1(4)	CPU_ADDR1(5)	CPU_ADDR1(6)	CPU_ADDR1(7)
13	AGND	AGND	AGND	AGND
14	DIU_VST_			CPU_MOT
15	CPU_VREG_	CPU_VREG_	CPU_VREG_	CPU_VREG_
16	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
17	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
18	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
19	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
20	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
21	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
22	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
23	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
24	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
25	DIU_VREG_	GND	GND	GND

**EP3753 CPU**

PIN No.	A	B	C	D
1	GND	GND	GND	GND
2				
3	CPU_B_VST_	CPU_B_VST_	CPU_B_VST_	CPU_B_VST_
4	CPU_B_VST_	CPU_B_VST_	CPU_B_VST_	CPU_B_VST_
5	VCC	VCC	VCC	CPU_F_
6	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC
8	CPU_RST_	CPU_RAMPEN	CPU_READ	CPU_PNL_RST_
9	CPU_DATA_1(0)	CPU_DATA_1(1)	CPU_DATA_1(2)	CPU_DATA_1(3)
10	CPU_DATA_1(4)	CPU_DATA_1(5)	CPU_DATA_1(6)	CPU_DATA_1(7)
11	CPU_ADDR1(0)	CPU_ADDR1(1)	CPU_ADDR1(2)	CPU_ADDR1(3)
12	CPU_ADDR1(4)	CPU_ADDR1(5)	CPU_ADDR1(6)	CPU_ADDR1(7)
13	AGND	AGND	AGND	AGND
14	DIU_VST_			CPU_MOT
15	CPU_VREG_	CPU_VREG_	CPU_VREG_	CPU_VREG_
16	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
17	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
18	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
19	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
20	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
21	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
22	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
23	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
24	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
25	DIU_VREG_	GND	GND	GND

**J2**

PIN No.	A	B	C	D
1				
2				
3	PH1_ON			PH1_ON
4	PH1_SHARE			PH1_SHARE
5	DIU_VST_			GND
6	DIU_VST_			GND
7	GND			GND
8	DIU_VST_			DIU_VST_
9	DIU_VST_			DIU_VST_
10	DIU_VST_			DIU_VST_
11	DIU_VST_			DIU_VST_
12	DIU_VST_			DIU_VST_
13	DIU_VST_			DIU_VST_
14	DIU_VST_			DIU_VST_
15	DIU_VST_			DIU_VST_
16	DIU_VST_			DIU_VST_
17	GND			GND
18	VCC			VCC
19	VCC			VCC
20	VCC			VCC
21	PH1_VREG_			PH1_VREG_
22	DIU_VST_			DIU_VST_
23	13V			13V
24	13V			13V
25	GND			GND

**J3**

PIN No.	A	B	C	D
1	FFT_SPEC1(0)	FFT_SPEC1(1)	FFT_SPEC1(2)	FFT_SPEC1(3)
2	FFT_SPEC1(4)	FFT_SPEC1(5)	FFT_SPEC1(6)	FFT_SPEC1(7)
3	DSP_CLK			DIU_VST_
4	DAC_SYNC	DAC_DATA	DAC_CLK	DAC_SEL
5	ADC_DATA	CHT_CLK	CHT_DATA	CHT_SYNC
6	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
7	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
8	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
9	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
10	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
11	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
12	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
13	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
14	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
15	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
16	PH1_VREG_	PH1_VREG_	PH1_VREG_	PH1_VREG_
17	AGND	AGND	AGND	AGND
18	VCC	VCC	VCC	VCC
19	VCC	VCC	VCC	VCC
20	AGND	AGND	AGND	AGND
21	3VA	3VA	3VA	3VA
22	3VA	3VA	3VA	3VA
23	13V	13V	13V	13V
24	13V	13V	13V	13V
25	AGND	AGND	AGND	AGND

**J2**

PIN No.	A	B	C	D
1				
2	CPU_VST_			CPU_VST_
3	DIU_VST_			DIU_VST_
4	DIU_VST_			DIU_VST_
5	DIU_VST_			DIU_VST_
6	GND			GND
7	GND			GND
8	DIU_VST_			DIU_VST_
9	DIU_VST_			DIU_VST_
10	DIU_VST_			DIU_VST_
11	DIU_VST_			DIU_VST_
12	DIU_VST_			DIU_VST_
13	DIU_VST_			DIU_VST_
14	DIU_VST_			DIU_VST_
15	DIU_VST_			DIU_VST_
16	DIU_VST_			DIU_VST_
17	GND			GND
18	VCC			VCC
19	VCC			VCC
20	VCC			VCC
21	CPU_VST_			CPU_VST_
22	CPU_VST_			CPU_VST_
23	13V			13V
24	13V			13V
25	AGND			AGND

**Altera**

title 名称  
**DIU Mother**

model 型号  
**EP395200**

3rd angle projection  
第三角法

scale 比例  
1:1

units 单位  
mm

drawn 制图  
designer 设计  
checked 审核  
date 日期

drawing no. 图号  
**A**

95119-267  
F03-5029  
98-2-13-263  
F03-51051

1/7



PIN No.	EP39000				EP3910			
	A	B	C	D	A	B	C	D
1	3RD	3RD	3RD	3RD	3RD	3RD	3RD	3RD
2	3RD	3RD	3RD	3RD	3RD	3RD	3RD	3RD
3	CIN_M10	CIN_M12	CIN_M11	CIN_M13	CIN_M10	CIN_M12	CIN_M11	CIN_M13
4	CIN_M14	CIN_M16	CIN_M15	CIN_M17	CIN_M14	CIN_M16	CIN_M15	CIN_M17
5	VCC	VCC	VCC	VCC	VCC	VCC	VCC	VCC
7	VCC	VCC	VCC	VCC	VCC	VCC	VCC	VCC
8	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0
9	CPU_DATA_0	CPU_DATA_0	CPU_DATA_0	CPU_DATA_0	CPU_DATA_0	CPU_DATA_0	CPU_DATA_0	CPU_DATA_0
10	CPU_DATA_1	CPU_DATA_1	CPU_DATA_1	CPU_DATA_1	CPU_DATA_1	CPU_DATA_1	CPU_DATA_1	CPU_DATA_1
11	CPU_ADDR_0	CPU_ADDR_0	CPU_ADDR_0	CPU_ADDR_0	CPU_ADDR_0	CPU_ADDR_0	CPU_ADDR_0	CPU_ADDR_0
12	CPU_ADDR_1	CPU_ADDR_1	CPU_ADDR_1	CPU_ADDR_1	CPU_ADDR_1	CPU_ADDR_1	CPU_ADDR_1	CPU_ADDR_1
13	3RD	3RD	3RD	3RD	3RD	3RD	3RD	3RD
14	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0
15	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0
16	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0
17	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0	CPU_M0
18	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0
19	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0
20	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0
21	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0
22	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0
23	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0
24	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0
25	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0	VELCU_M0

title 名称		DIU Mother		model 型号		EP395200	
3rd angle projection 第三角投影		drawing no. 图号		drawing no. 图号		drawing no. 图号	
scale 比例		1:1		scale 比例		1:1	
units 单位		mm		units 单位		mm	

Revision 3																															
K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z																
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2

EP399001 VAR_CINE J27																																										
PIN No.					A	B	C	D																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																		
					0				0																																	

EP39912 MOTION_DETECTOR J28																																										
PIN No.					A	B	C	D																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																		
					0																																					

J29																																										
PIN No.					A	B	C	D																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																		
					0																																					

J30																																										
PIN No.					A	B	C	D																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																		
					0																																					

J31																																										
PIN No.					A	B	C	D																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																		
					0																																					

J32																																										
PIN No.					A	B	C	D																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																		
					0																																					

J33																																										
PIN No.					A	B	C	D																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																		
					0																																					

Alcoro  
 3rd angle projection  
 第3角画

scale 尺規  
 UNITS 單位  
 mm

3  
 30.00 31.00  
 打 打  
 35.00 35.80  
 打 打

designated drawing 出圖  
 drawing no. 圖號

model no. 機型號碼  
 EP395200

DIU Mother

4/7  
 A

MN2-0213  
SECTION 7 SCHEMATICS

K L M N O P Q R S T U V W X Y Z  
1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1

J209

PIN NO.		A		B		C		D	
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

J236

PIN NO.		A		B		C		D	
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

AT\_GAIN

PIN NO.		A		B		C		D	
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

EP3951 VIDEO\_IFT

PIN NO.		A		B		C		D	
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

J205

PIN NO.		A		B		C		D	
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

J21

PIN NO.		A		B		C		D	
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

J210

PIN NO.		A		B		C		D	
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

J211

PIN NO.		A		B		C		D	
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10

**Aloko**

3rd angle projection  
第3角法

UNITS: MM

DIU Mother

EP395200

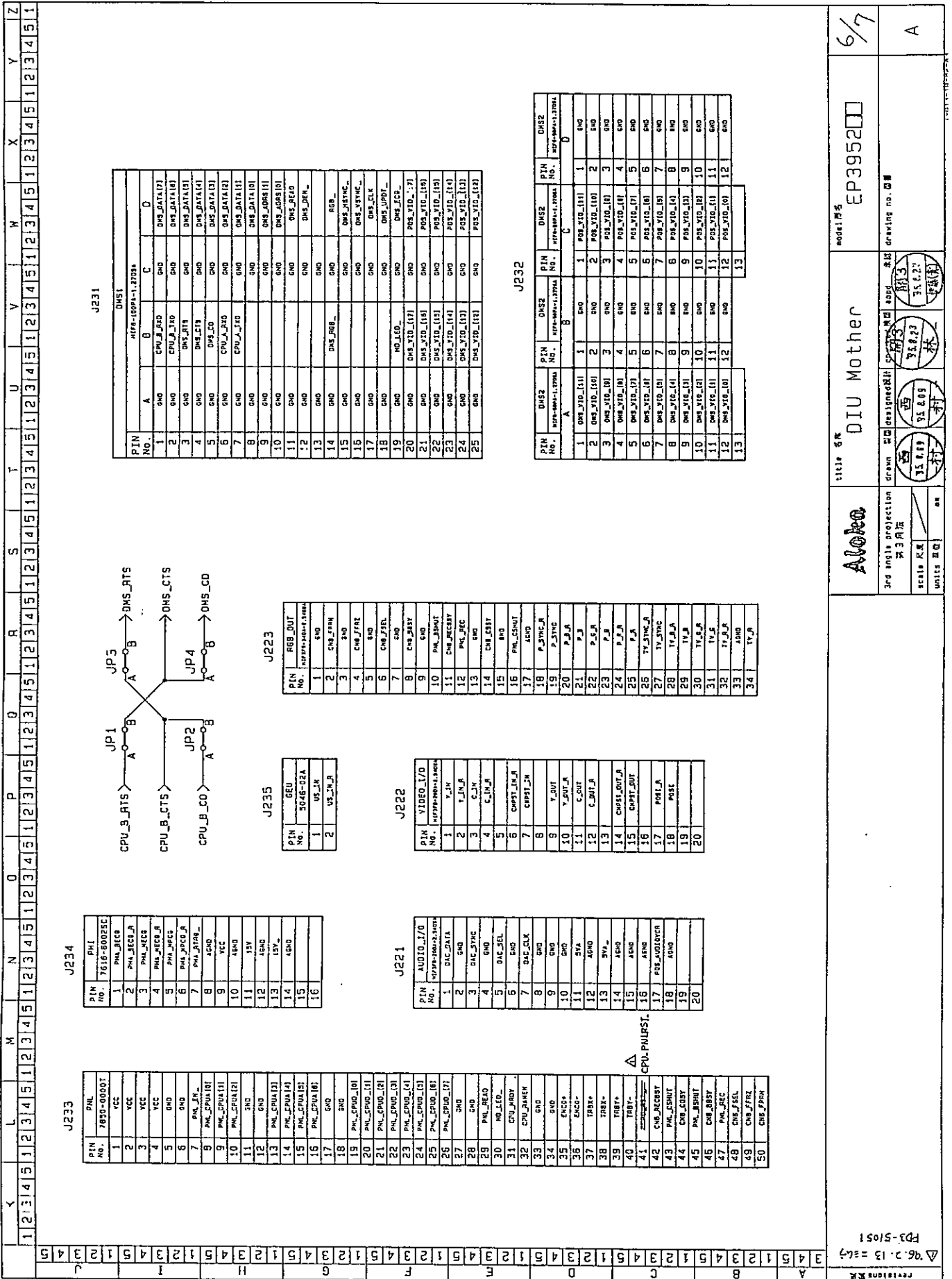
revision 5/4

drawing no. 003

A



MN2-0213 SECTION 7 SCHEMATICS



△ CPU\_POINTER

6/7

A

DIU Mother

model no. EP395200

drawing no. □

drawing scale 1:1

units mm

3rd angle projection 第三角法

西 35.000 西 35.000 西 35.000 西 35.000

東 35.000 東 35.000 東 35.000 東 35.000

南 35.000 南 35.000 南 35.000 南 35.000

北 35.000 北 35.000 北 35.000 北 35.000

Alcoa

FD3-51051

△ 96.2.13 = 6/7

MN2-0213  
SECTION 7 SCHEMATICS

K	J	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102

EP3947 POM_HV J3			
Pin No.	A	B	C
1	SEL_VCC101	SEL_VCC111	SEL_VCC121
2			
3			
4	POM_JVA	POM_JVA	
5			
6	POM_SDA	POM_SDA	
7			
8			
9			
10	POM_21V	POM_21V	
11			
12			
13	POM_SDA	POM_SDA	
14	POM_SDA	POM_SDA	
15			
16	POM_SDA	POM_SDA	
17			
18			
19	POM_40V	POM_40V	
20			
21			
22	POM_SDA	POM_SDA	
23			
24			
25	POM_110V	POM_110V	

EP3948 POM_LV J1			
Pin No.	A	B	C
1	POM_3V	POM_3V	POM_3V
2	POM_3V	POM_3V	POM_3V
3	POM_3V	POM_3V	POM_3V
4	POM_3V	POM_3V	POM_3V
5	POM_3V	POM_3V	POM_3V
6	POM_3V	POM_3V	POM_3V
7			
8	POM_SDA	POM_SDA	POM_SDA
9	POM_SDA	POM_SDA	POM_SDA
10	POM_SDA	POM_SDA	POM_SDA
11	POM_SDA	POM_SDA	POM_SDA
12	POM_SDA	POM_SDA	POM_SDA
13	POM_SDA	POM_SDA	POM_SDA
14	POM_SDA	POM_SDA	POM_SDA
15	POM_SDA	POM_SDA	POM_SDA
16	POM_SDA	POM_SDA	POM_SDA
17	POM_SDA	POM_SDA	POM_SDA
18	POM_SDA	POM_SDA	POM_SDA
19			
20			
21	POM_3V	POM_3V	POM_3V
22	POM_3V	POM_3V	POM_3V
23	POM_3V	POM_3V	POM_3V
24	POM_3V	POM_3V	POM_3V
25	POM_3V	POM_3V	POM_3V

<b>Alcoa</b>		Title 名称 <b>DIU Mother</b>		model 型号 <b>EP3952□□</b>
3rd angle projection 第三角法		drawing no. 圖號 7/7		A
units 單位		units 單位		A

**J242**

Pin No.	GEU
1	555B-08A1
2	POM_SDA
3	POM_SDA
4	POM_SDA
5	POM_10V
6	POM_110V

**J241**

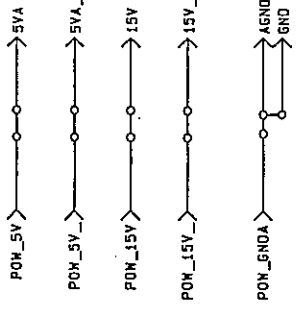
Pin No.	GEU
1	555B-16A1
2	POM_15V
3	POM_SDA
4	POM_SDA
5	POM_SDA
6	POM_SDA
7	POM_SDA
8	POM_SDA
9	POM_13V
10	POM_SDA
11	POM_13V
12	POM_3V
13	POM_3V
14	POM_3V
15	POM_3V
16	POM_3V

**J243**

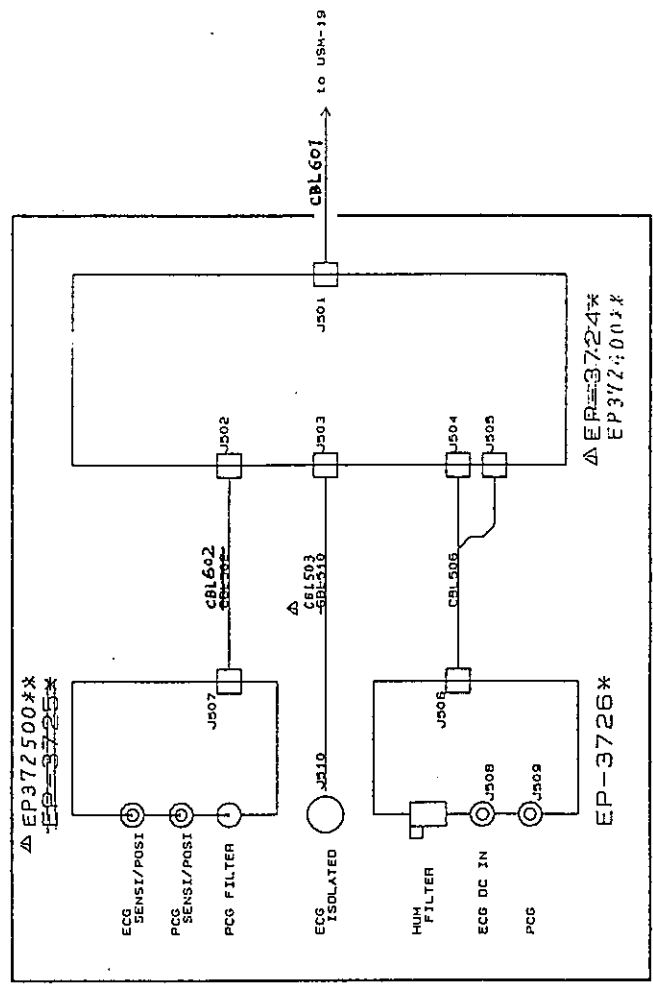
Pin No.	GEU
1	555B-08A1
2	POM_SDA
3	POM_SDA
4	POM_SDA
5	POM_10V
6	POM_110V

**J244**

Pin No.	POM_DIU
1	555B-10A1
2	GND
3	GND
4	GND
5	GND
6	GND
7	VCC
8	VCC
9	VCC
10	POM_24V

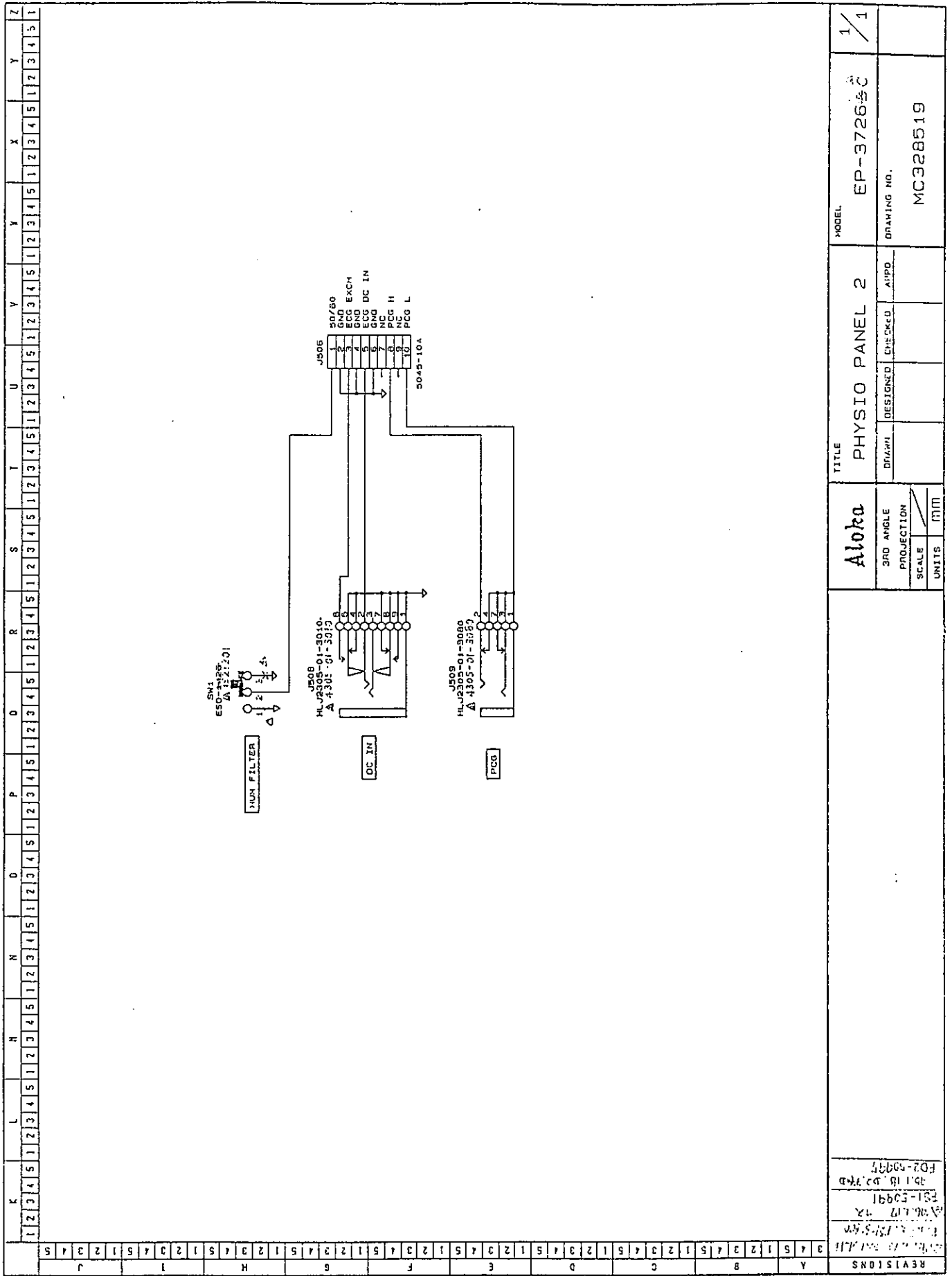


K																										L																										M																										N																										O																										P																										Q																										R																										S																										T																										U																										V																										W																										X																										Y																										Z																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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REVISIONS																										REV 10																										REV 9																										REV 8																										REV 7																										REV 6																										REV 5																										REV 4																										REV 3																										REV 2																										REV 1																										REV 0																										REV -1																										REV -2																										REV -3																										REV -4																										REV -5																										REV -6																										REV -7																										REV -8																										REV -9																										REV -10																										REV -11																										REV -12																										REV -13																										REV -14																										REV -15																										REV -16																										REV -17																										REV -18																										REV -19																										REV -20																										REV -21																										REV -22																										REV -23																										REV -24																										REV -25																										REV -26																									



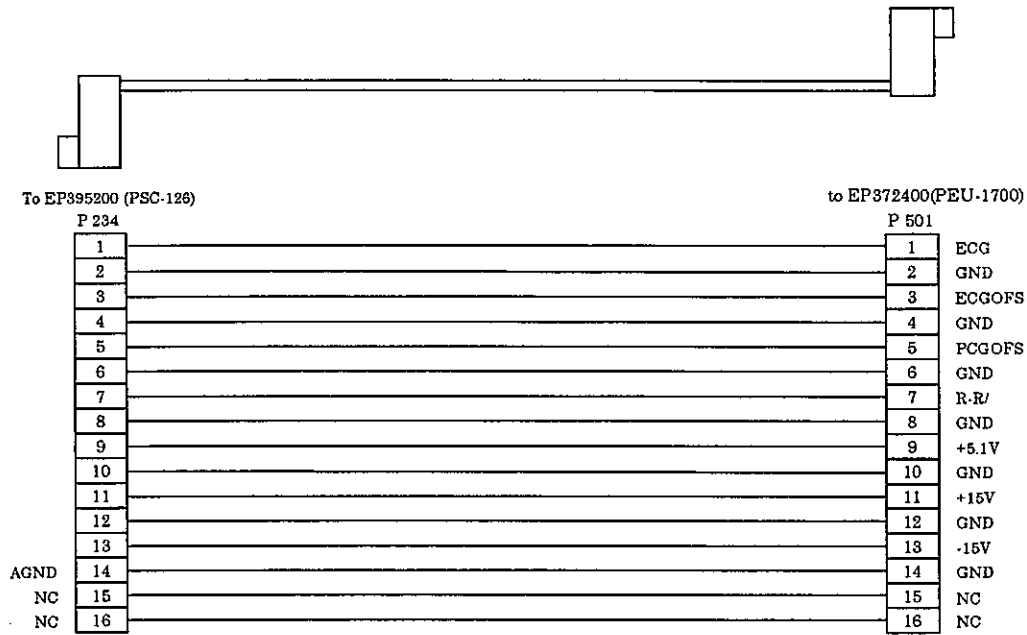
MODEL		EU-5034	
DRAWING NO.		1/1	
TITLE		4 信号処理	
DRAWN		DESIGNED	
CHECKED		APPRO	
PROJECTION		SCALE	
UNITS		M/M	



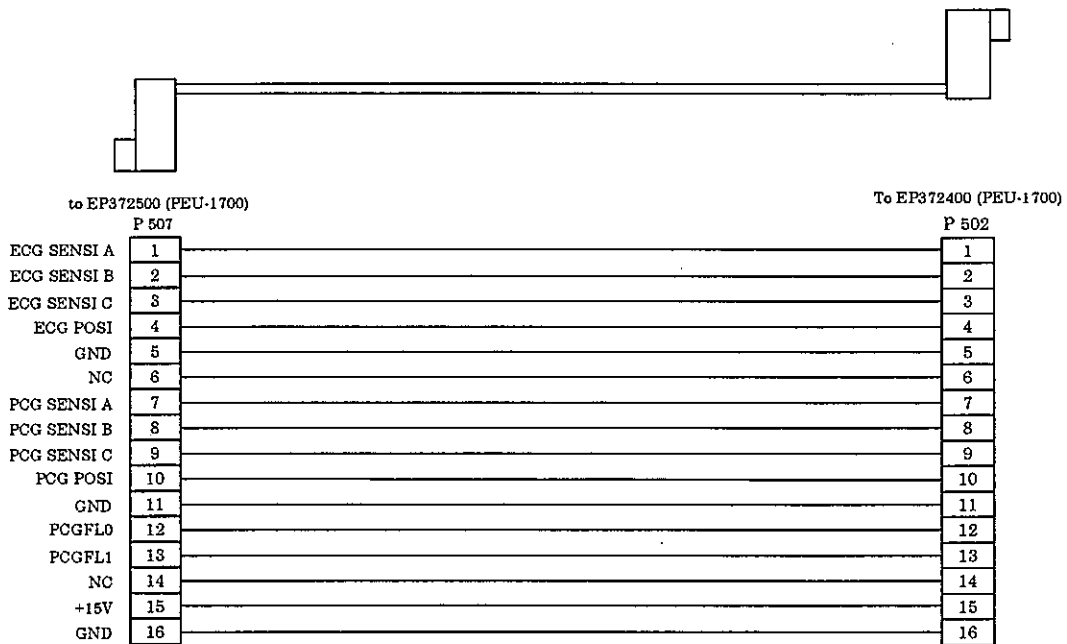


REVISEMENTS		DATE		BY		REASON																																	
3	4	5	1	2	3	4	5																																
<table border="1"> <tr> <td colspan="2">Aloka</td> <td colspan="2">TITLE</td> <td colspan="2">MODEL</td> <td colspan="2">1/1</td> </tr> <tr> <td colspan="2">3RD ANGLE PROJECTION</td> <td colspan="2">PHYSIO PANEL 2</td> <td colspan="2">EP-3726-5C</td> <td colspan="2"></td> </tr> <tr> <td>SCALE</td> <td>UNITS</td> <td>DESIGNED</td> <td>CHECKED</td> <td>AIPOD</td> <td>DRAWING NO.</td> <td colspan="2">MC328519</td> </tr> <tr> <td></td> <td>M/M</td> <td></td> <td></td> <td></td> <td></td> <td colspan="2"></td> </tr> </table>								Aloka		TITLE		MODEL		1/1		3RD ANGLE PROJECTION		PHYSIO PANEL 2		EP-3726-5C				SCALE	UNITS	DESIGNED	CHECKED	AIPOD	DRAWING NO.	MC328519			M/M						
Aloka		TITLE		MODEL		1/1																																	
3RD ANGLE PROJECTION		PHYSIO PANEL 2		EP-3726-5C																																			
SCALE	UNITS	DESIGNED	CHECKED	AIPOD	DRAWING NO.	MC328519																																	
	M/M																																						

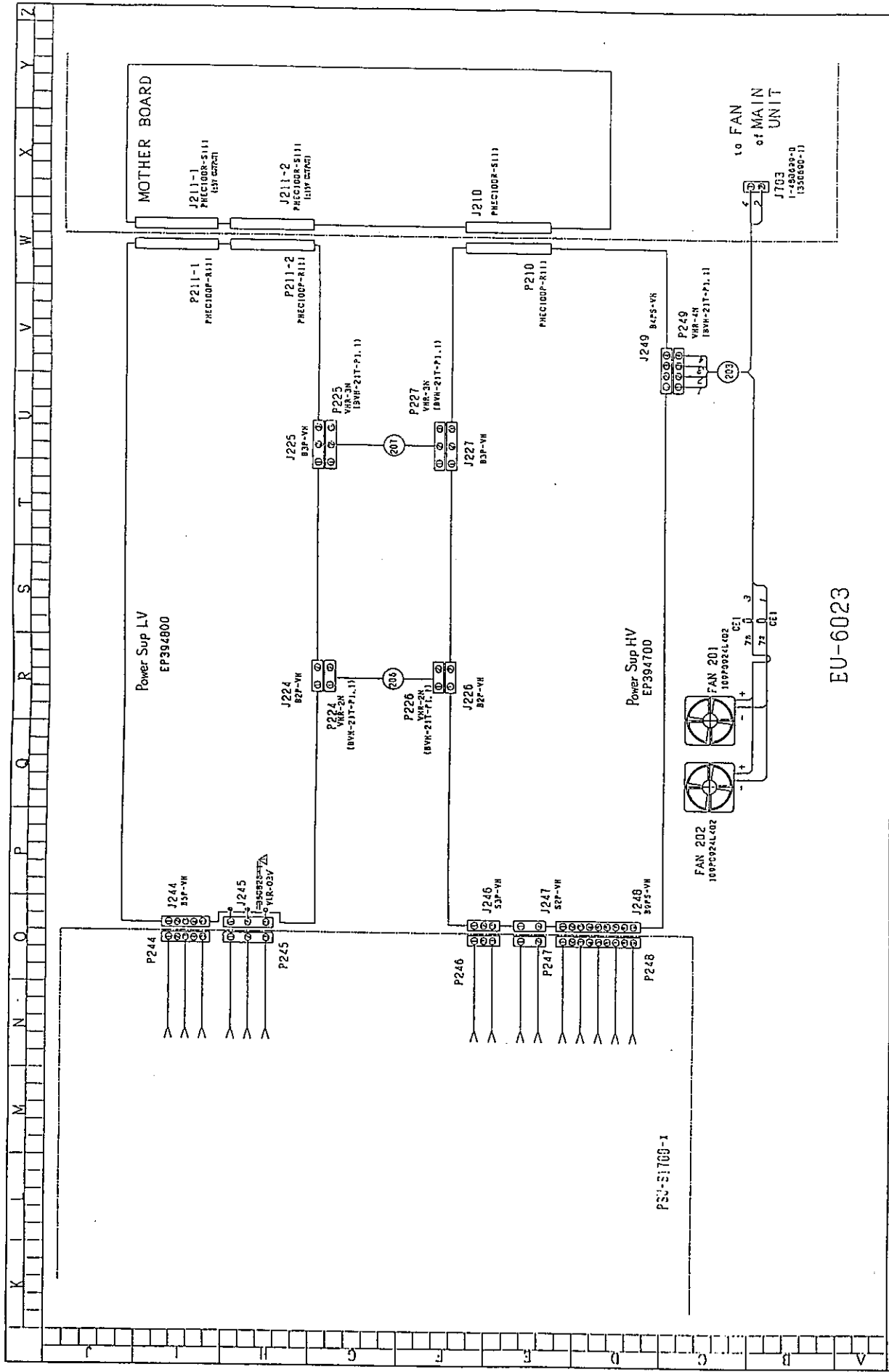
MN2-0213  
SECTION 7 SCHEMATICS



<b>Aloka</b>	TITLE CBL-601	MODEL L-CABLE-537	1/1
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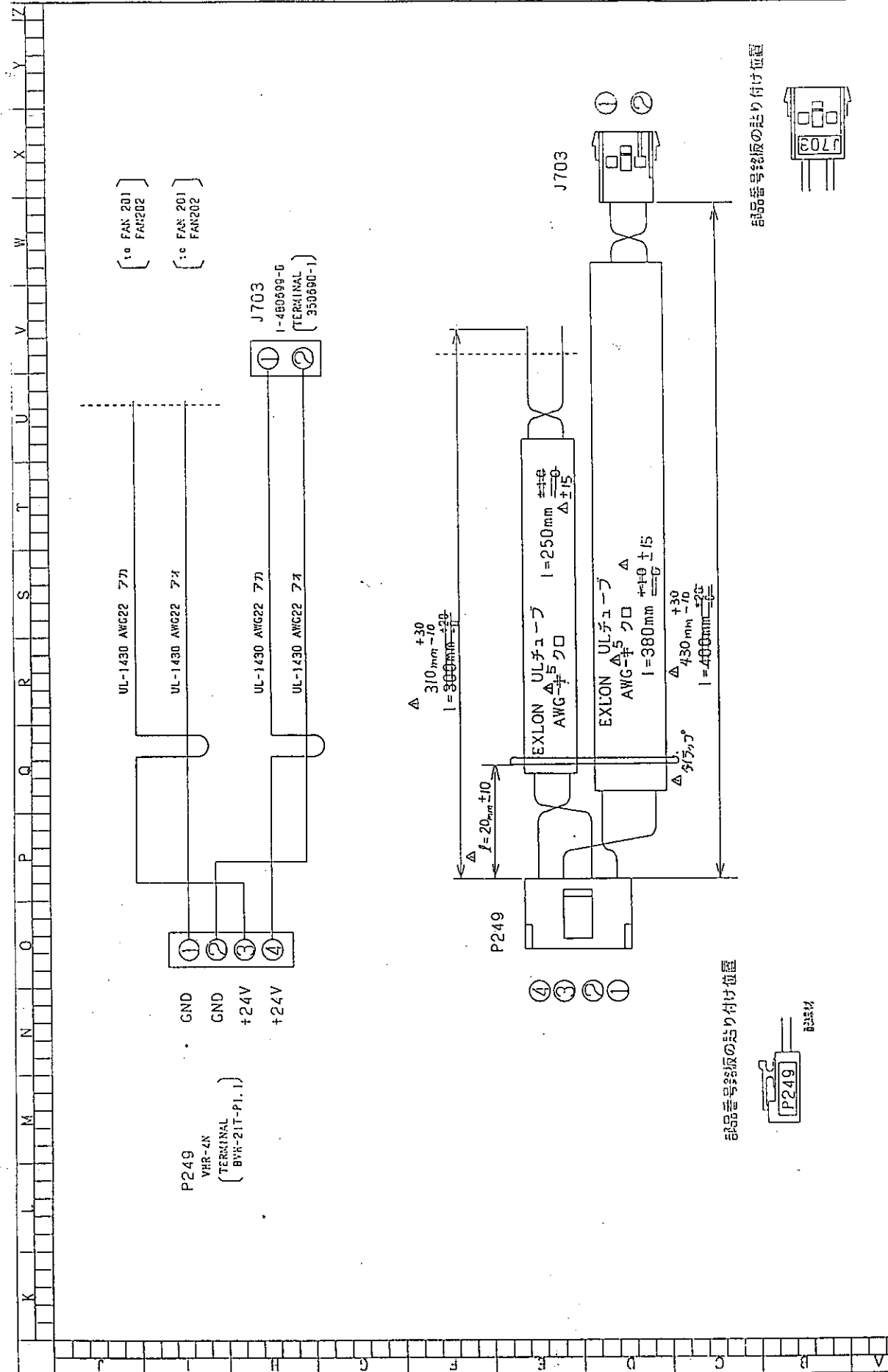


<b>Aloka</b>	TITLE CBL602	MODEL L-CABLE-538	1/1
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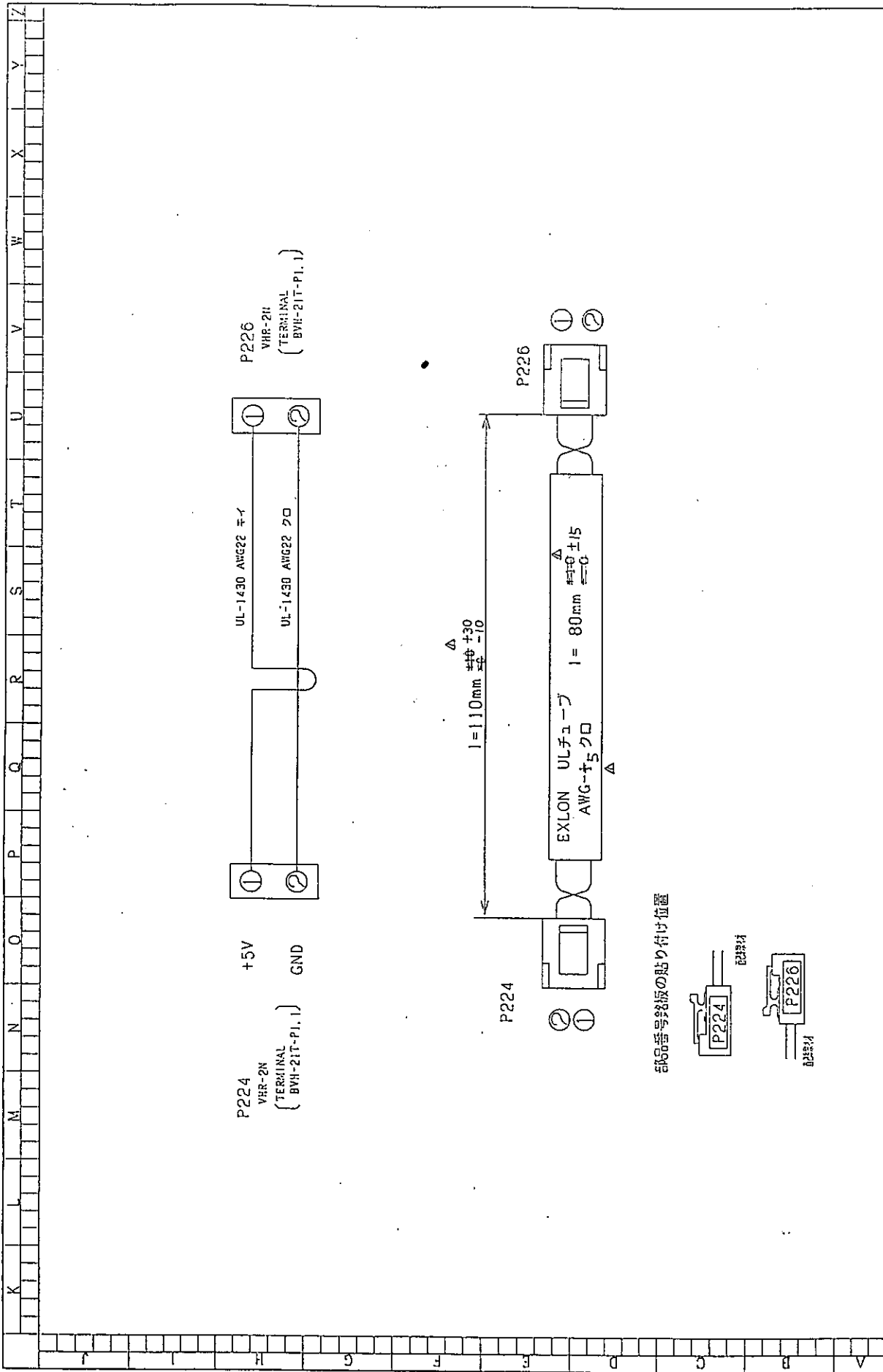
REVISEMENTS		TITLE IS		MODEL IS		DRAWING NO. IS	
		Alloka		安定化電源部		EU-6023	
3RD ANGLE PROJECTION 第三角法		DRAWN BY 木村		DESIGN BY 木村		CHECKED BY 木村	
SCALE 1:1		SCALE 1:1		SCALE 1:1		SCALE 1:1	
UNITS mm		UNITS mm		UNITS mm		UNITS mm	
						MC331889	

MN2-0213  
SECTION 7 SCHEMATICS

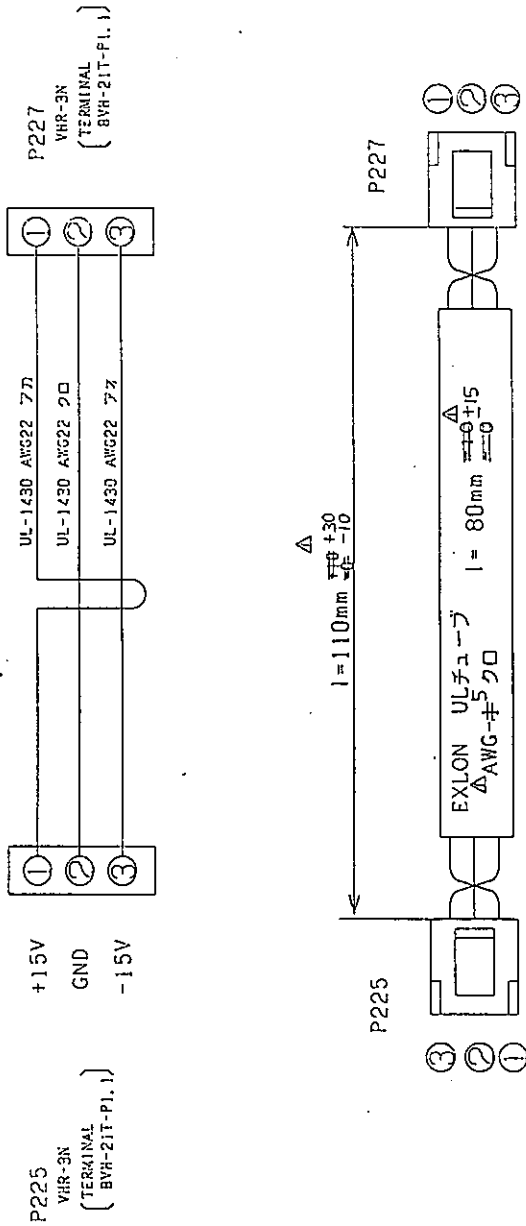


REVISEMENTS 3M	Δ 95-1-12 4/82	FW-53076	FS1-50650
TITLE 24 <b>Alcoa</b> 3RD ANGLE PROJECTION 第3角法 SCALE 2:1 UNITS mm		MODEL 21 <b>CABLE 203</b> CO-PSC-126 -F-04 DRAWING NO. 81 MC331899	
DRAWN 23	DESIGN 23	CHECKED 23	APRD 23
7.11	8.11	9.11	10.11
製	製	製	製
高橋	高橋	高橋	高橋
実	実	実	実
実	実	実	実



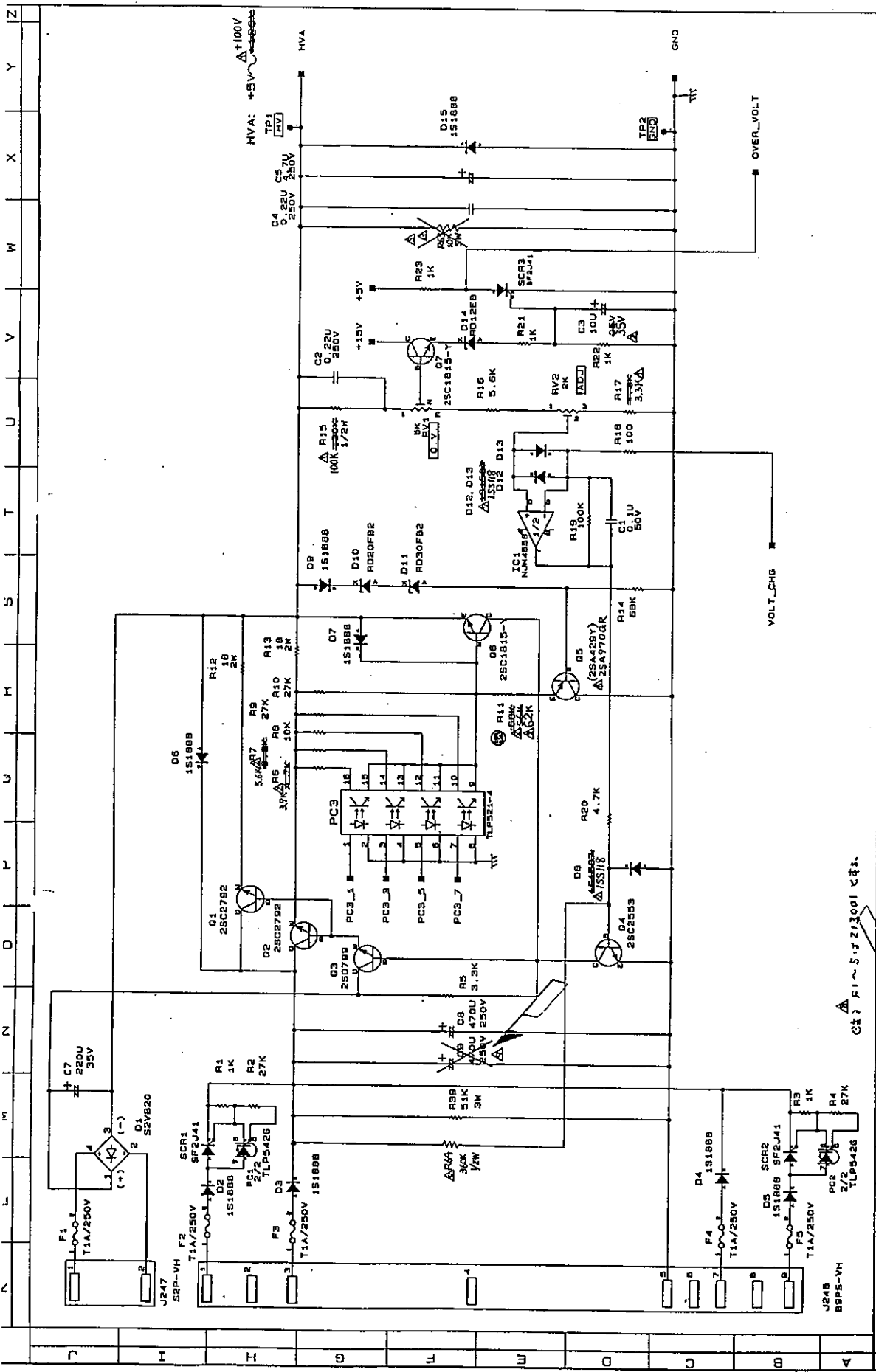


REV. NO.	TITLE 26		MODEL 26		CO-PSC-126 - J-01		1/1
	Aloka		CABLE 206		DRAWING NO. 26		
Δ 95.1.13 為 認	DRW. NO.	DESIGN NO.	CHECKED NO.	APPR. 認	MC331900		
△ 51-50650	SCALE 認	UNIT 認	DATE 認	DATE 認			



REVISED 38	Δ 95-1-13 47 NW-53078 ~ FSI-50650	TITLE #		MODEL #		DRAWING NO. #1		1/1	
Aloka		CABLE 207		CO-PSC-126 -K-01		MC331901			
3RD ANGLE PROJECTION 第3角法	SCALE 1:1	DESIGNER Y.T.II	CHECKED S.S.	APPR S.S.	DRAWING NO. #1				
UNITS #	M/M								

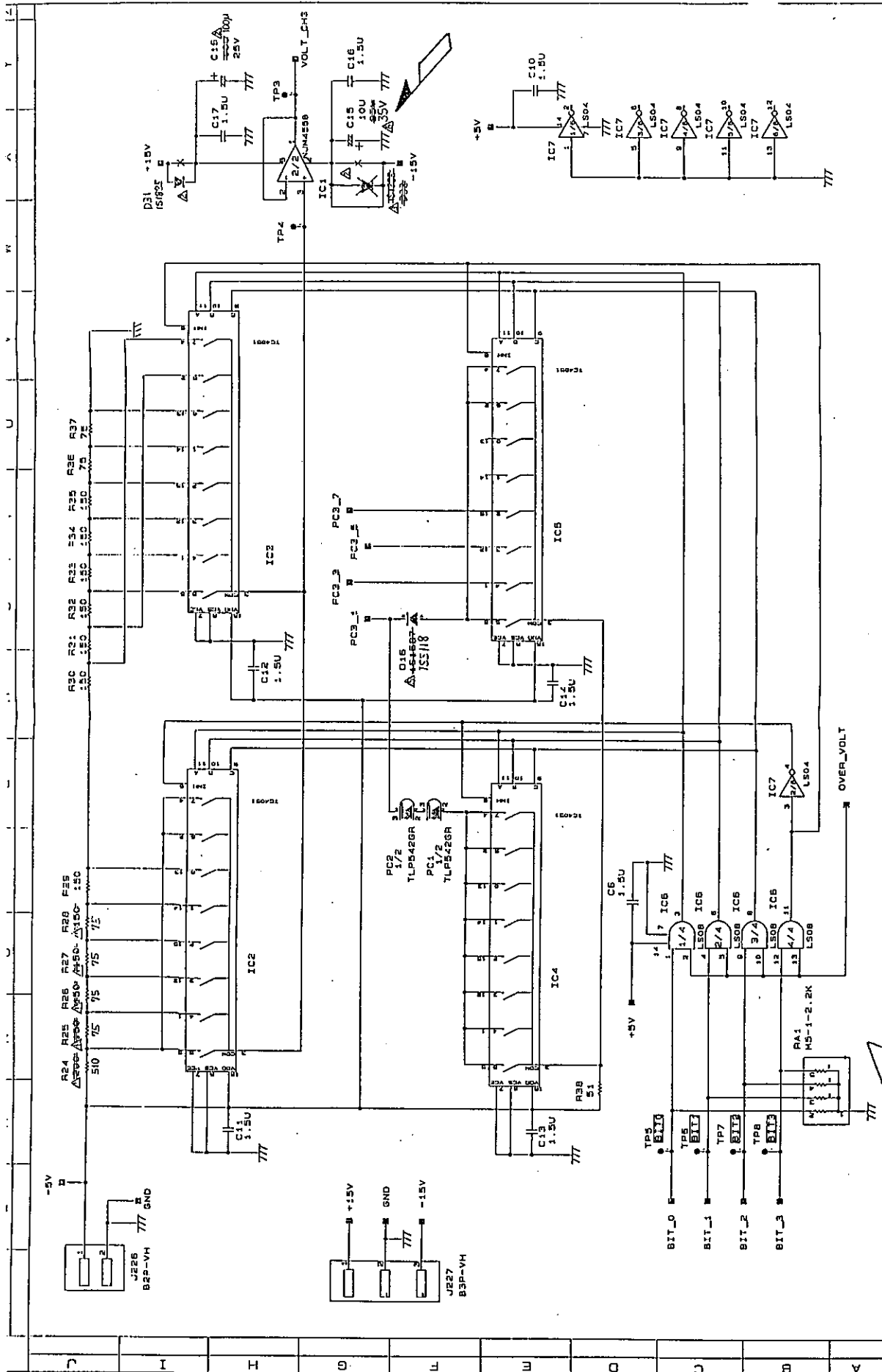
E-015-10 52.003



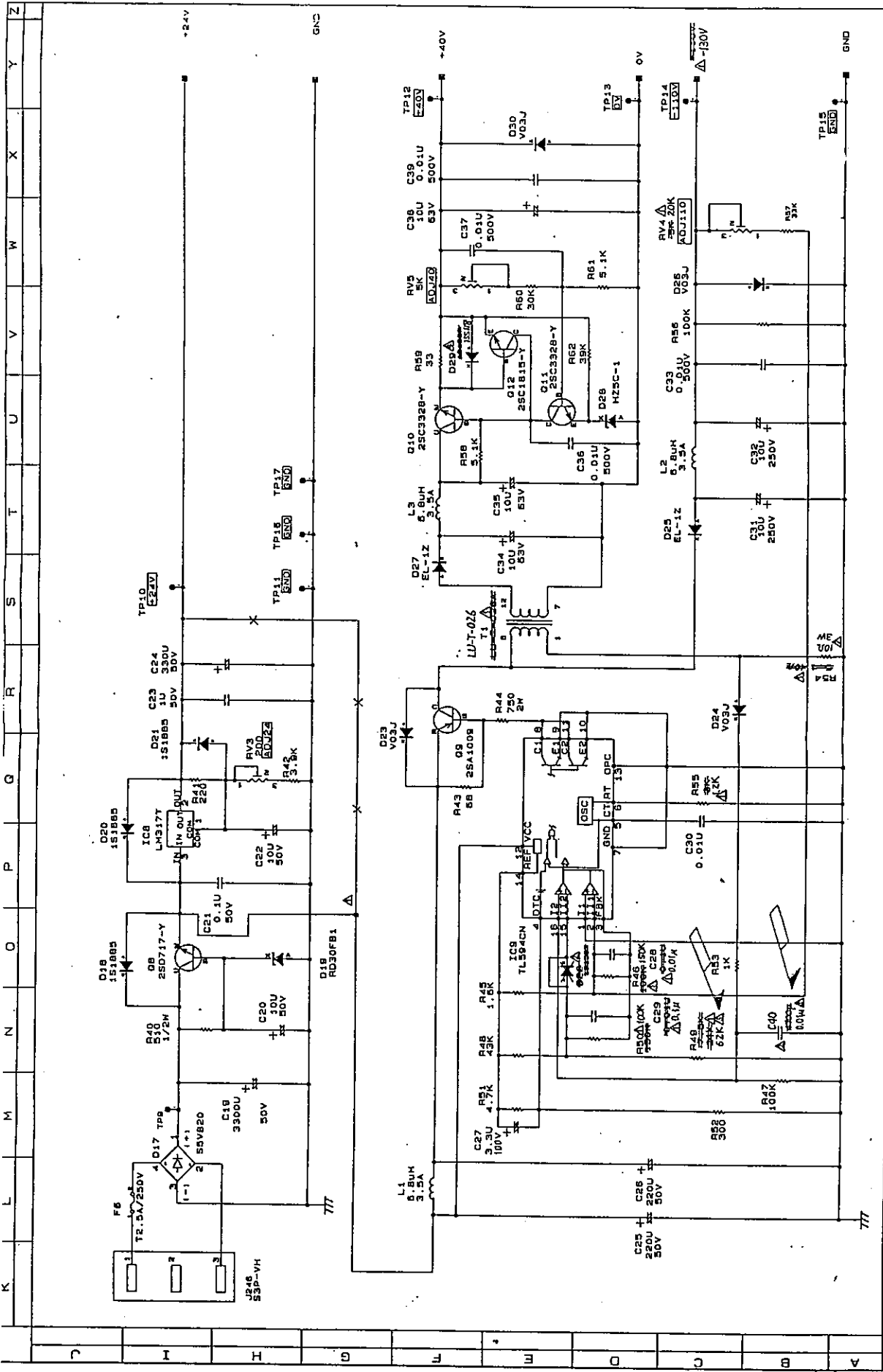
REVISEMENTS	△97-97 高橋	F1-50621	△95-11-21 高橋	MN-53098~	△97-1-18 高橋	F1-51020	△97-1-18 高橋	F1-51035	△97-2-13 高橋	F1-51126	△96-3-11 高橋	F1-51212	△95-7-18 高橋	HM-62538~	F1-62531	△99-1-29 高橋	MN-85560	F1-80802	△97-2-22 高橋	MN-94536, #1~	M1-80948
TITLES	Power SUP HV																				
MODEL 名称	EP394700																				
DRAWING NO. 原番	MC331891																				
DATE	2/5																				
SCALE	1:1																				
UNIT	mm																				

L-015-10-82-A3

MN2-0213 Rev. 2  
SECTION 7 SCHEMATICS

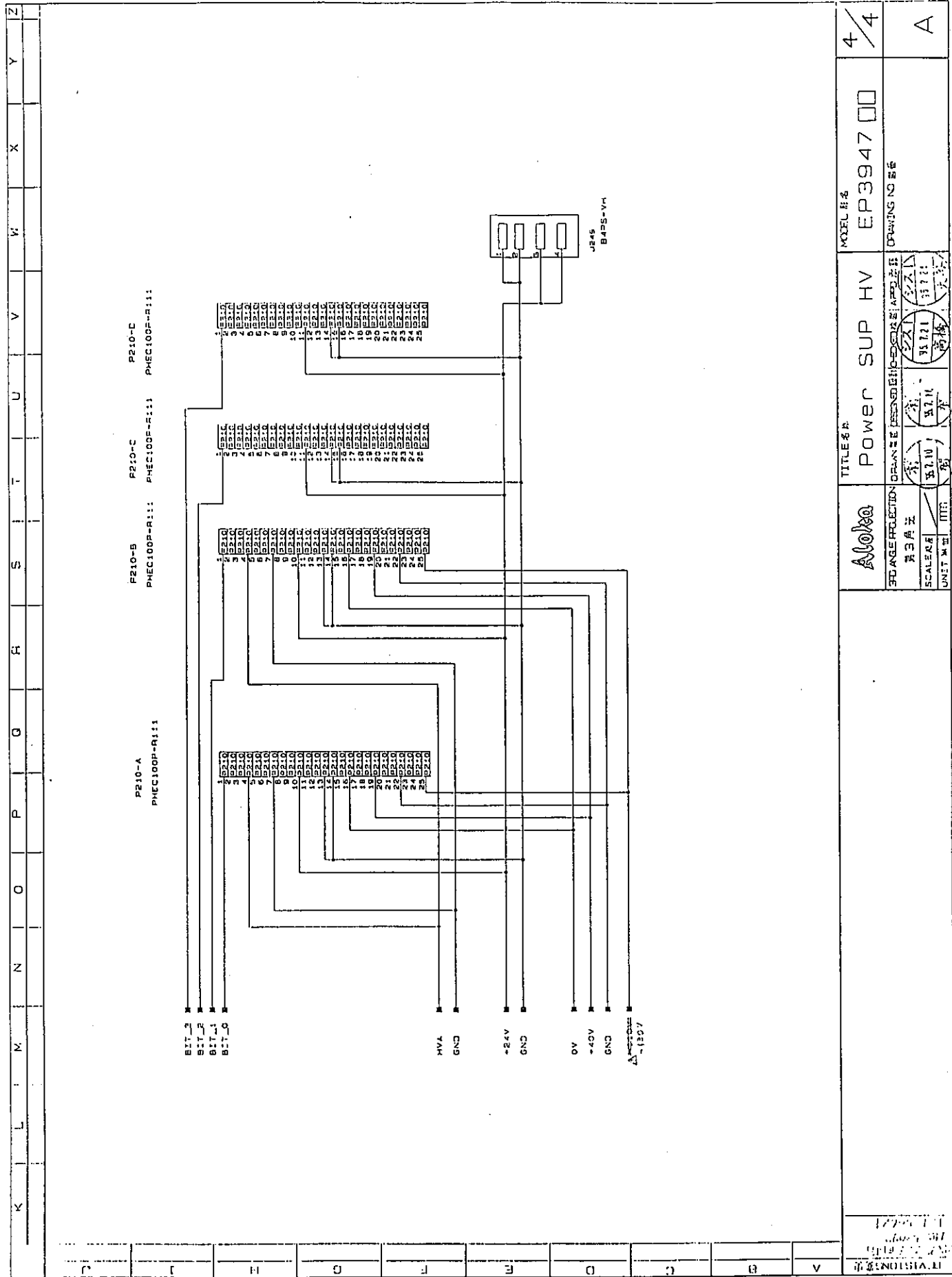


REVISEMENTS		△95-9-27 新增	MW-53078~	FS1-50621	△96-1.18 新增	FS1-51020	△96-2.13 新增	FS1-51126	△96-3.11 新增	FS1-51212	△96-7.18 新增	MW-62558	FS1-60301	△99-1-29 新增	MW-85560	FS1-80902
SCALE		5:10	5:10	5:10	5:10	5:10	5:10	5:10	5:10	5:10	5:10	5:10	5:10	5:10	5:10	5:10
UNIT		MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM
DRAWING NO.		MC331892														
MODEL NO.		EP3947 00														
TITLE		Power SUP HV														
MODEL NO.		3 / 5														

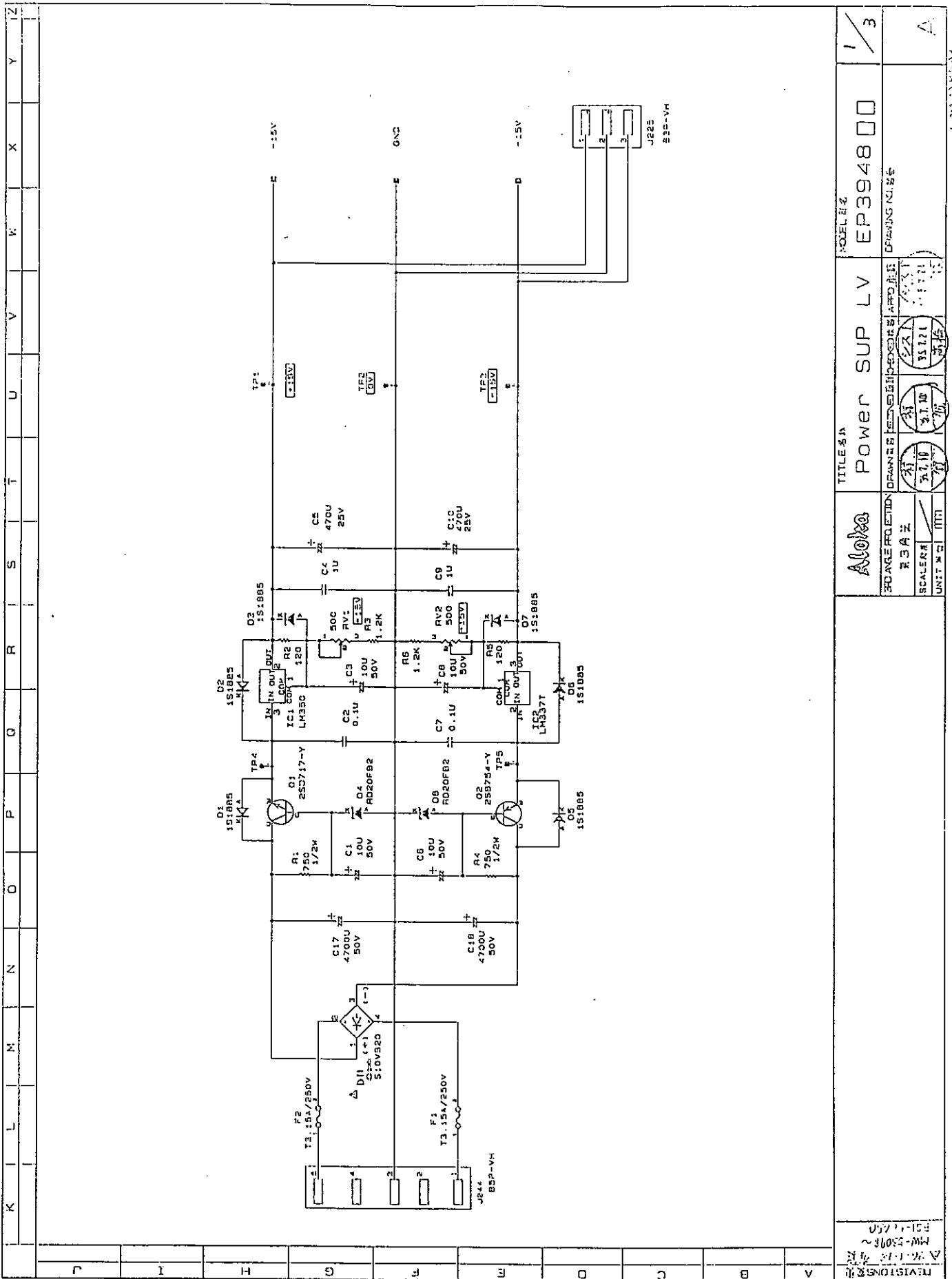


REVISED	DATE	BY	REASON												
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2															
3															
4															
5															
TITLE: Power SUP HV															
MODEL NO: EP394700		DRAWING NO: MC331893													
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DATE	BY	REASON													
3.1.10	高橋	訂正													
3.1.21	高橋	訂正													
3.1.21	高橋	訂正													
SCALE: 1/10		UNIT: mm													
3D IMAGE PROJECTION		DRAWING METHOD: 3D IMAGE PROJECTION													
第3角法		第3角法													
Aloka		Aloka													
L-013-10-87-A3															

MN2-0213  
SECTION 7 SCHEMATICS



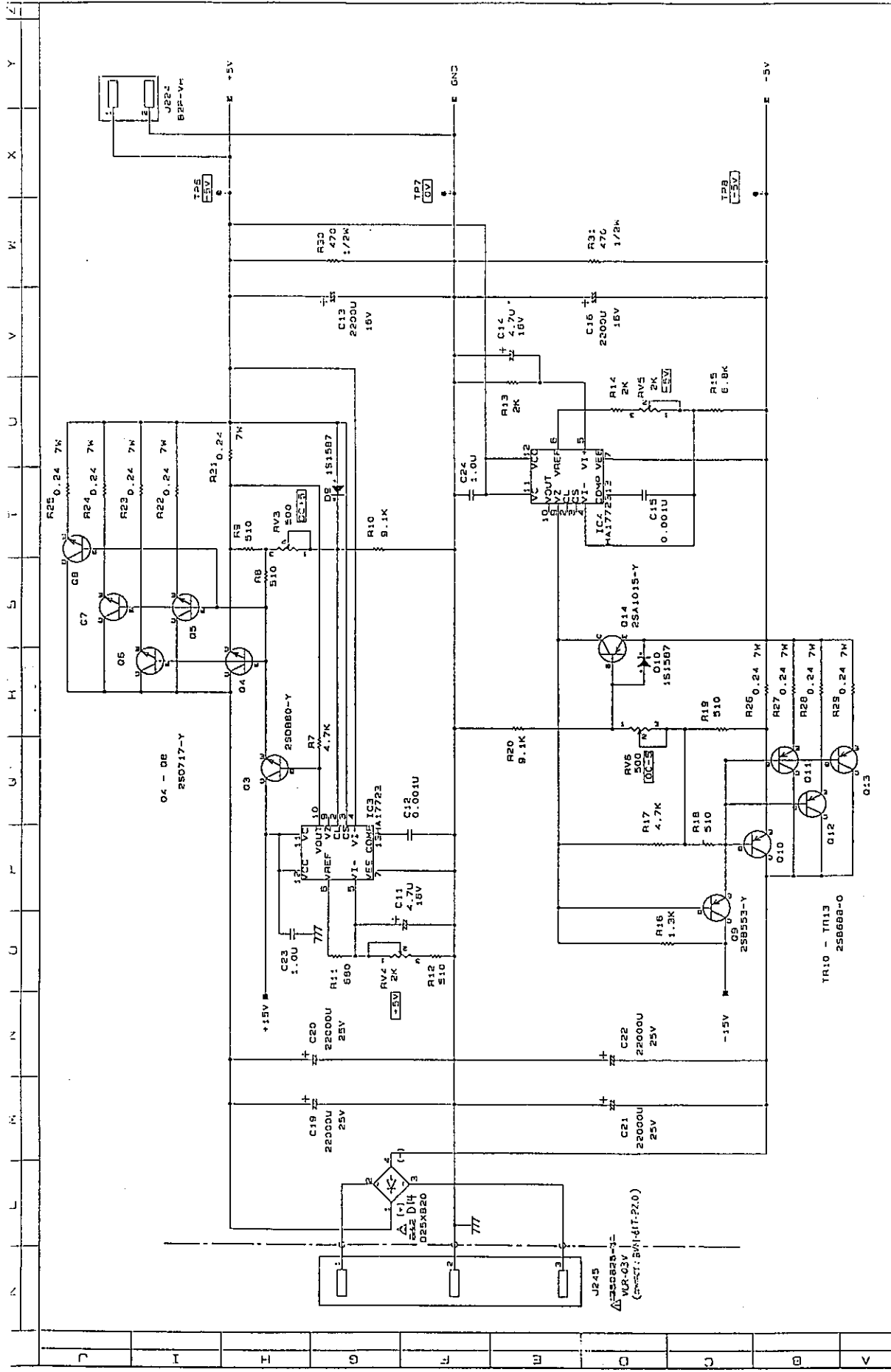
IT VISION 3 30	1/27/77 1/27/77 1/27/77	TITLE: Power SUP HV		MODEL: EP3947 00	4/4
		DRAWING NO. 56		A	
Alokha 30 ANGE PROJECTION 第3角五 SCALE: 1:1 UNIT: mm		30 ANGE PROJECTION 第3角五 SCALE: 1:1 UNIT: mm		DRAWING NO. 56 MODEL: EP3947 00 TITLE: Power SUP HV	



REVISED	DATE	BY	DESCRIPTION
1	11/15/75	MM	POWER SUPPLY
2	11/15/75	MM	POWER SUPPLY
3	11/15/75	MM	POWER SUPPLY

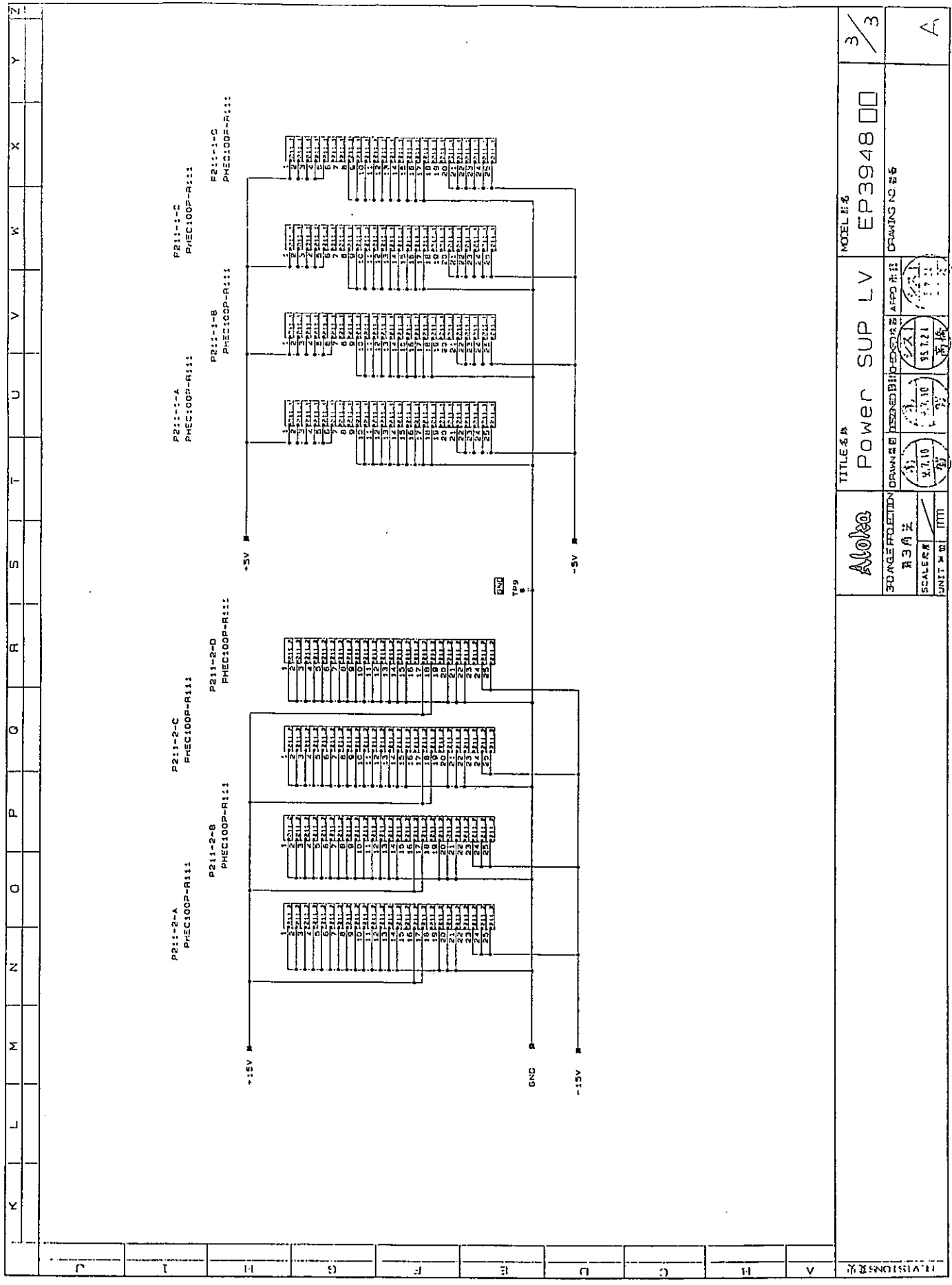
MODEL NO.	EP394800
TITLE	Power SUP LV
DATE	11/15/75
SCALE	1:1
UNIT	MM
DESIGNED BY	MM
CHECKED BY	MM
APPROVED BY	MM
DRAWN BY	MM
DATE	11/15/75
SCALE	1:1
UNIT	MM

MN2-0213  
SECTION 7 SCHEMATICS

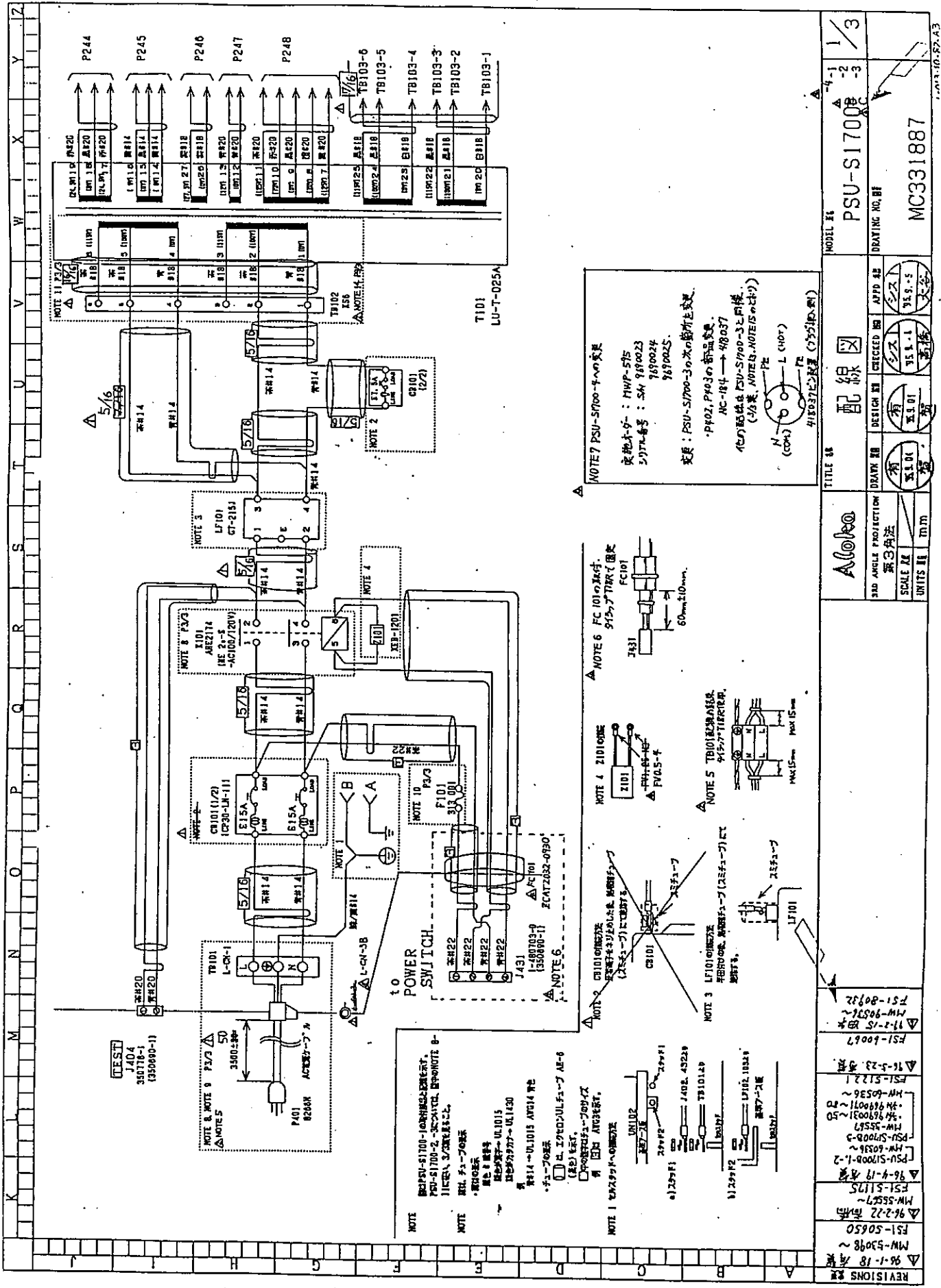


REVISIONS	250717-Y	250880-Y	25A1015-Y	777	250717-Y	250880-Y	25A1015-Y	777
REVISED BY	...	...	...	...	...	...	...	...
DATE	...	...	...	...	...	...	...	...
BY	...	...	...	...	...	...	...	...
CHKD	...	...	...	...	...	...	...	...
APPROVED	...	...	...	...	...	...	...	...
TITLE	Power SUP LV							
MODEL	EP3948							
NO. OF SHEETS	2 / 3							
DRAWING NO.	...							
SCALE	...							
UNIT	MM							





REVISIONS	3 / 3	MODEL # 36	EP3948	DRAWING NO. 56
TITLE & #	Power SUP LV	APPRO. #1	DATE	DATE
30 ANGLE PROJECTION	DRWING #	DESIGNED BY	CHECKED BY	APPRO. #2
SCALE	UNIT	SCALE	UNIT	UNIT
SCALE: 1:10	UNIT: MM	SCALE: 1:10	UNIT: MM	UNIT: MM



NOTE 7 PSU-S1700への変更  
 変換部分: MWP-575  
 シリル番号: SK 9890023  
 9890024  
 9890025.  
 変更: PSU-S1700-3の次の箇所に変更.  
 ・P402, P403の部品変更.  
 MC-184 → 498037  
 他の部品は PSU-S1700-3と同様.  
 (分業, NOTE6, NOTE5の通り)  
 N O L (HOT)  
 (COM) PE  
 HIGOSHITA (分業)

NOTE 6 FC101の取付  
 9分径7分径の固定  
 FC101  
 J431  
 60mm±10mm.

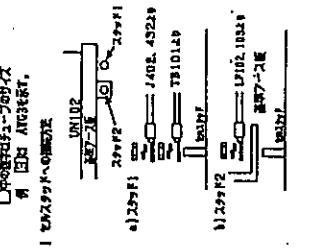
NOTE 4 Z101の取付  
 Z101  
 △ PV0.5-f  
 9分径7分径の固定

NOTE 5 TB101組立順序  
 9分径7分径の固定  
 TB101  
 MAX15mm MAX15mm

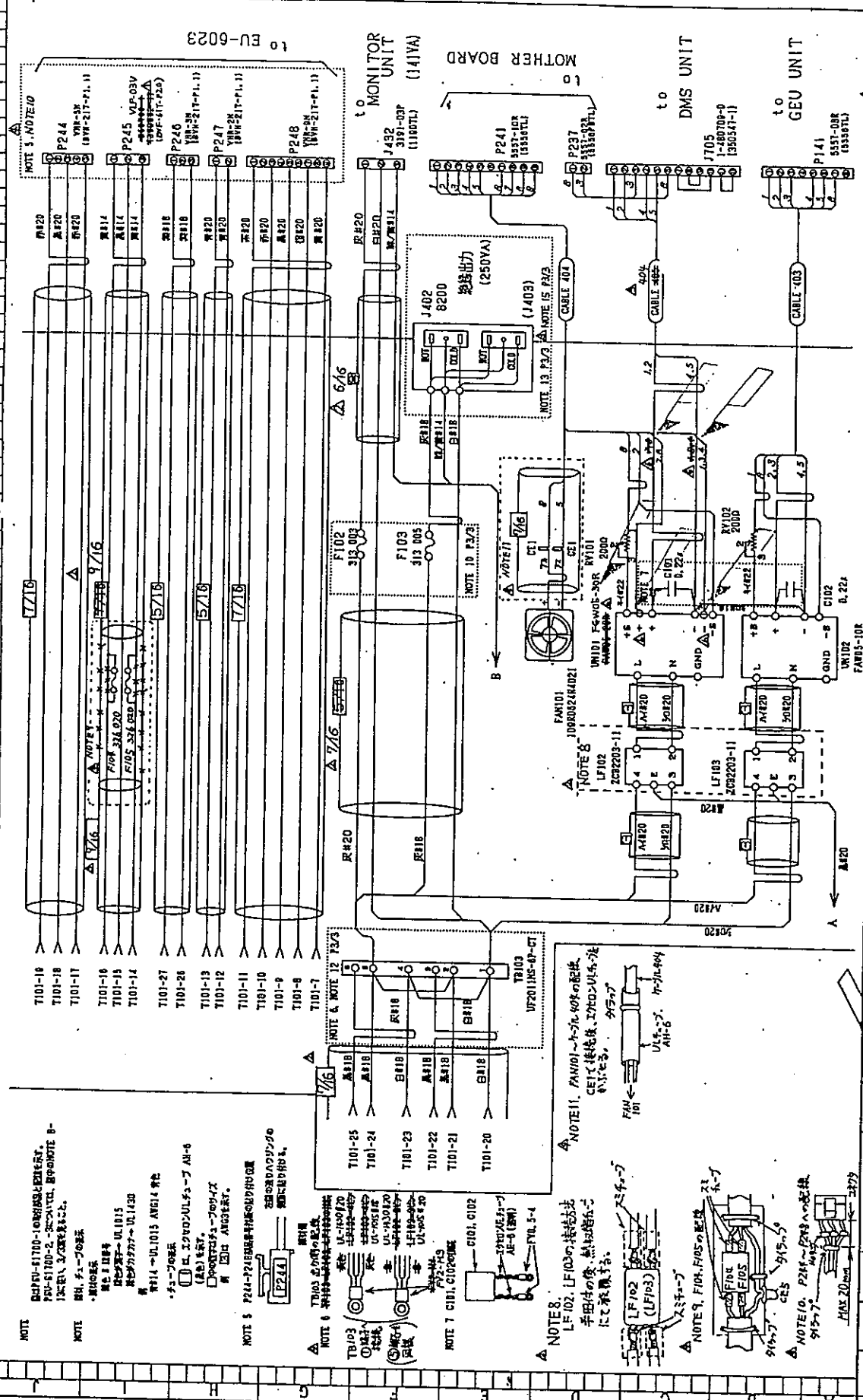
NOTE 2 C101の取付  
 C101  
 △ PV0.5-f  
 9分径7分径の固定

NOTE 3 LF101の取付  
 LF101  
 △ PV0.5-f  
 9分径7分径の固定

NOTE  
 部品PSU-S1700-1000組立用  
 PSU-S1700-2, 3-2000用  
 11個入, 3分径7分径.  
 ・部品名  
 ・部品番号: U11015  
 組立順序: U11015  
 組立順序: U11015  
 R114 → U11015 AMV14 用  
 ・2分径用  
 (E2) 用.  
 ・部品名  
 ・部品番号: U11015  
 組立順序: U11015  
 組立順序: U11015  
 R114 → U11015 AMV14 用  
 ・2分径用  
 (E2) 用.  
 ・部品名  
 ・部品番号: U11015  
 組立順序: U11015  
 組立順序: U11015  
 R114 → U11015 AMV14 用  
 ・2分径用  
 (E2) 用.



REVISEMENTS	△ MW-53098 ~ FS1-50650	△ MW-55527 FS1-51175	△ 76-4-17 1/2 PSU-S1700B-1-2 PSU-S1700B-3 MW-95557 MW-95557 MW-95557 MW-95557 △ 76-5-23 3/4 PS1-60067	△ MW-90536 ~ PS1-80932	PSU-S1700 MODEL 54	MODEL 54 PSU-S1700	1/3
DRATING NO. 88	DRATING NO. 88	DRATING NO. 88	DRATING NO. 88	DRATING NO. 88	DRATING NO. 88	DRATING NO. 88	DRATING NO. 88
DESIGN NO.	DESIGN NO.	DESIGN NO.	DESIGN NO.	DESIGN NO.	DESIGN NO.	DESIGN NO.	DESIGN NO.
CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY
APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY
SCALE 1:1	SCALE 1:1	SCALE 1:1	SCALE 1:1	SCALE 1:1	SCALE 1:1	SCALE 1:1	SCALE 1:1
UNITS IN	UNITS IN	UNITS IN	UNITS IN	UNITS IN	UNITS IN	UNITS IN	UNITS IN
Aloha 配線図							
TITLE 88							
DRAWING NO. 88							
MCC31887							



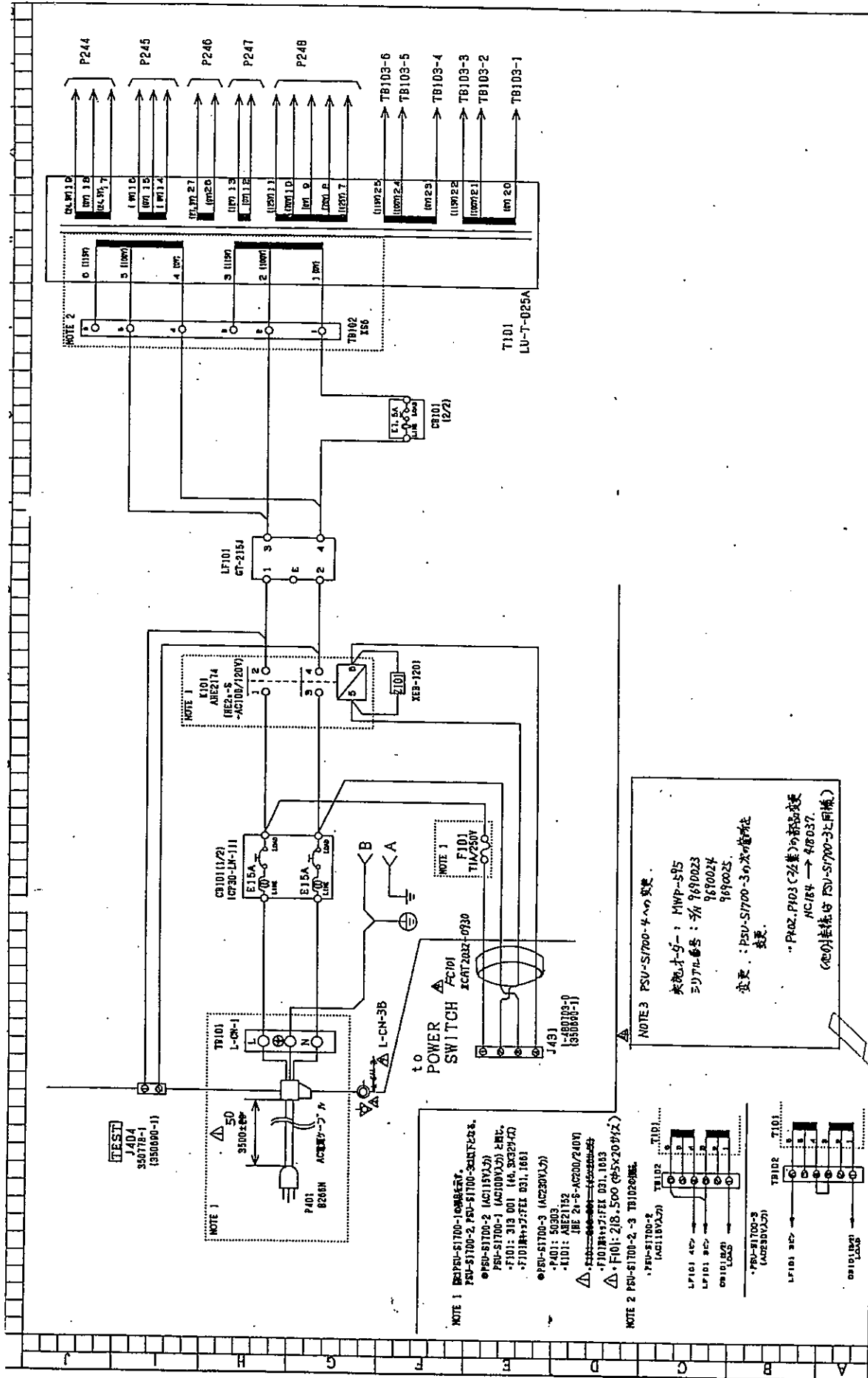
- NOTE 1** 部品P1100-1083H&Lの取付位置。  
**NOTE 2** P1100-2-225-V&Lと、P1100-2-225-V&Lは、それぞれ1/2を差し込み、上向きに配線する。  
**NOTE 3** 各端子の配線位置。  
**NOTE 4** P1100-2-225-V&Lと、P1100-2-225-V&Lは、それぞれ1/2を差し込み、上向きに配線する。  
**NOTE 5** P244-174-1013の取付位置。  
**NOTE 6** P244-174-1013の取付位置。  
**NOTE 7** C101, C102の取付位置。  
**NOTE 8** L.F102, L.F103の接続位置。手回しの部、熱線部品に接続する。  
**NOTE 9** F104, F105の接続位置。  
**NOTE 10** P244-174-1013の取付位置。

REVISED		REVISIONS	
NO.	DESCRIPTION	DATE	BY
1	初版	73.10.17	野田
2	部品変更	74.1.18	野田
3	部品変更	74.5.30	野田

TITLE #	配線図
MODEL #	PSU-S1700
DRAWING NO. 野田	MC331888
DESIGNER	野田
CHECKED	野田
SCALE	1:1
UNITS	mm

△ 73-10-17 部品 NM-53092	△ 74-1-18 部品 NM-55567	△ 74-5-23 部品 F51-5221	△ 74-7-15 部品 NM-51556	△ 74-10-10 部品 F51-50617
△ 74-11-18 部品 NM-53092	△ 74-12-15 部品 F51-50650	△ 74-13-15 部品 F51-5121	△ 74-14-15 部品 NM-55567	△ 74-15-23 部品 F51-50617
△ 74-18 部品 NM-53092	△ 74-19 部品 F51-51175	△ 74-20 部品 NM-53092	△ 74-21 部品 F51-50617	△ 74-22 部品 F51-50617
△ 74-23 部品 F51-50617	△ 74-24 部品 F51-50617	△ 74-25 部品 F51-50617	△ 74-26 部品 F51-50617	△ 74-27 部品 F51-50617
△ 74-28 部品 F51-50617	△ 74-29 部品 F51-50617	△ 74-30 部品 F51-50617	△ 74-31 部品 F51-50617	△ 74-32 部品 F51-50617

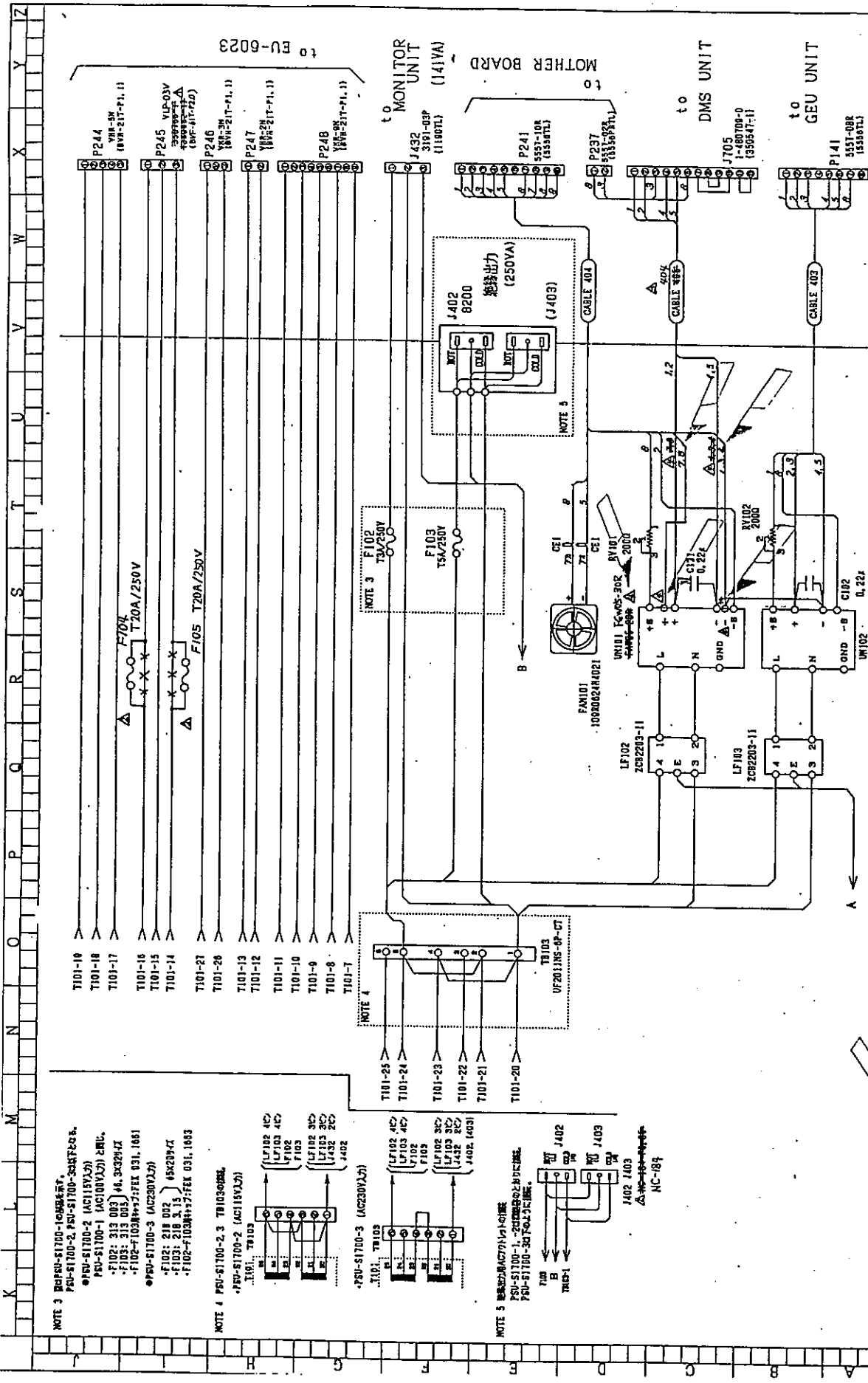




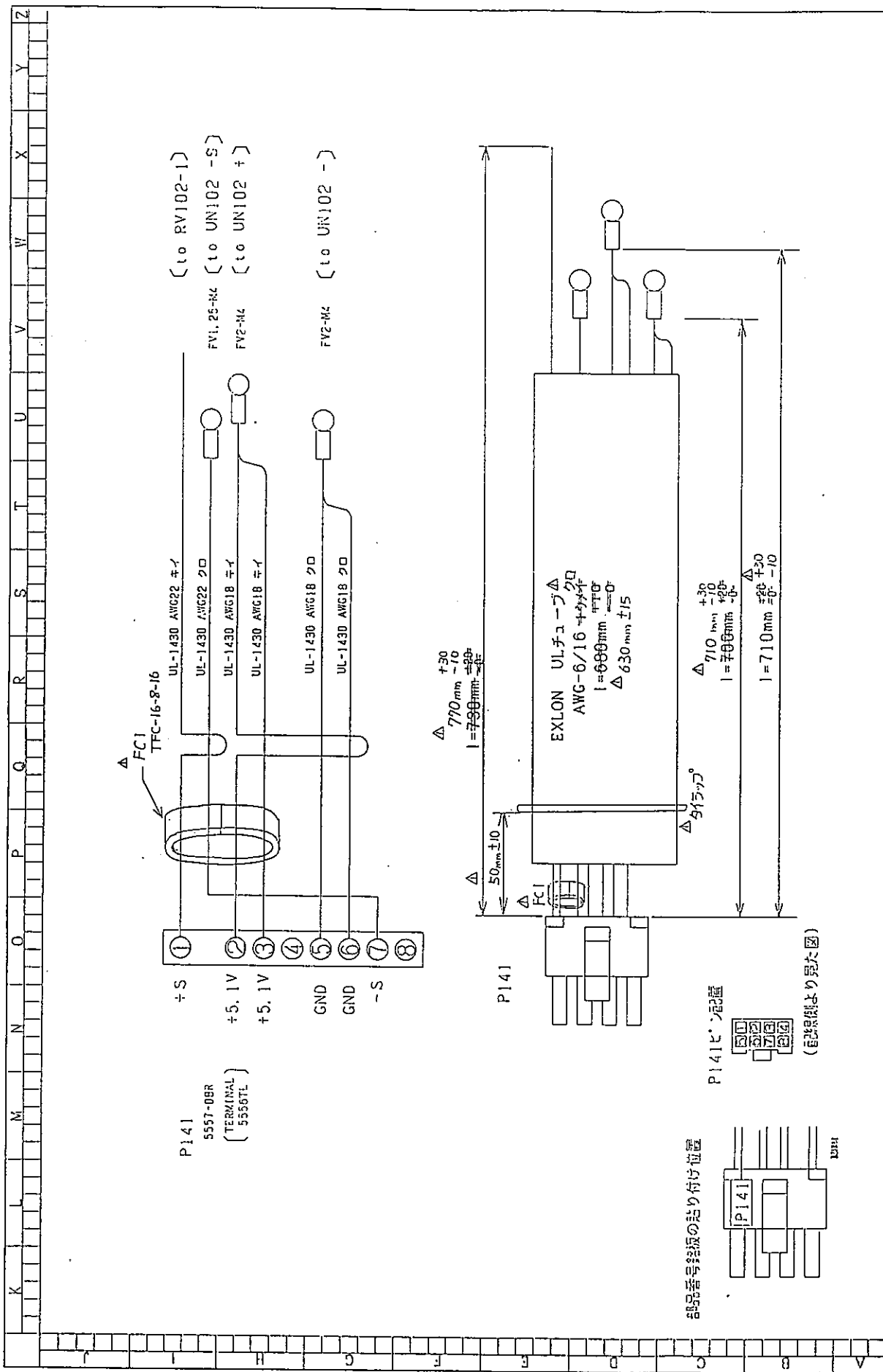
REV. NO.	1/2
MODEL NO.	PSU-S1700
DRAWING NO.	MC331885
DATE	95.9.5
DESIGNER	高橋
CHECKER	高橋
SCALE	mm
UNITS	mm
TITLE	回路図
3RD ANGLE PROJECTION	第3角法
SCALE	mm
UNITS	mm
DATE	95.9.5
DESIGNER	高橋
CHECKER	高橋
SCALE	mm
UNITS	mm

REV. NO.	1/2
MODEL NO.	PSU-S1700
DRAWING NO.	MC331885
DATE	95.9.5
DESIGNER	高橋
CHECKER	高橋
SCALE	mm
UNITS	mm
TITLE	回路図
3RD ANGLE PROJECTION	第3角法
SCALE	mm
UNITS	mm
DATE	95.9.5
DESIGNER	高橋
CHECKER	高橋
SCALE	mm
UNITS	mm

MN2-0213 Rev. 2  
SECTION 7 SCHEMATICS



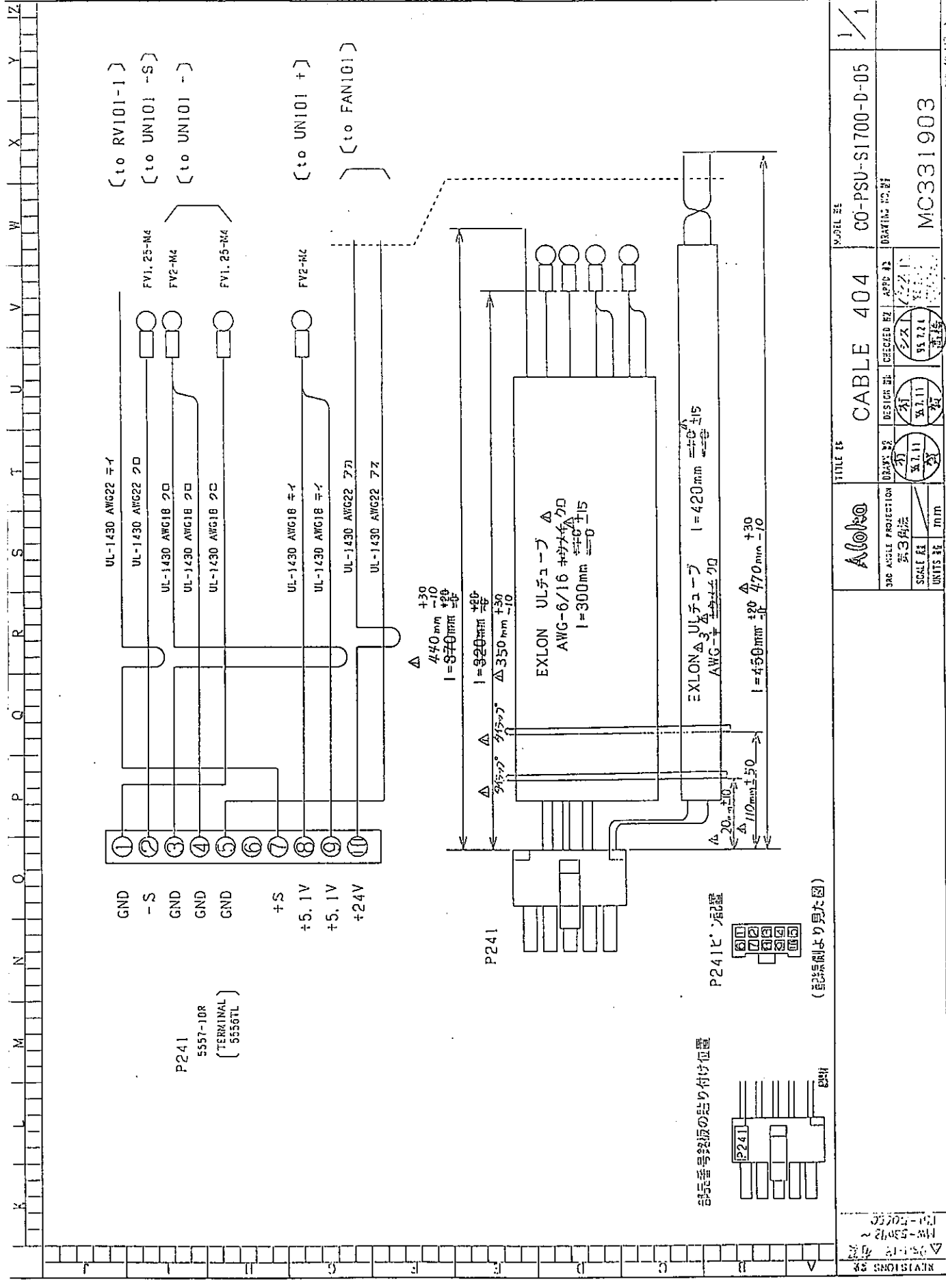
REV 12 1/3	Δ 98-10-17 有	FM-53098	FS1-50704	Δ 76-4-19 有	FM-51008-1-2	FM-53083	FM-53577	Δ 54149011~50	FM-50536	Δ 98-5-23 有	FS1-51221	FS1-6067	Δ 99-2-15 有	FM-90536	FS1-80732
MODEL 88	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3	PSU-S1700-3
TITLE 88	回路図	回路図	回路図	回路図	回路図	回路図	回路図	回路図	回路図	回路図	回路図	回路図	回路図	回路図	回路図
330 ANGLE PROJECTION	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法	第三角法
SCALE 1:1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1	5:1, 0.1
UNITS mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
DESIGNER	有	有	有	有	有	有	有	有	有	有	有	有	有	有	有
CHECKED	有	有	有	有	有	有	有	有	有	有	有	有	有	有	有
APPROVED	有	有	有	有	有	有	有	有	有	有	有	有	有	有	有
DRAWING NO. 88	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886	MC331886
DATE	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2



REVISEMENTS 24	△75-1-18 24	△75-53078 2	FS1-52650
SCALE 1:1	UNITS mm	SCALE 1:1	UNITS mm
3RD ANGLE PROJECTION 第3角法	DESIGN 行	DESIGN 行	DESIGN 行
DATE 8.11	DATE 8.11	DATE 8.11	DATE 8.11
DRIVER 行	DRIVER 行	DRIVER 行	DRIVER 行
CHECKED 行	CHECKED 行	CHECKED 行	CHECKED 行
APPROVED 行	APPROVED 行	APPROVED 行	APPROVED 行
TITLE #	CABLE 403	MODEL #	00-PSU-S1700-C-07
DRAWING NO. 21		DRAWING NO. 21	
MC331902		MC331902	

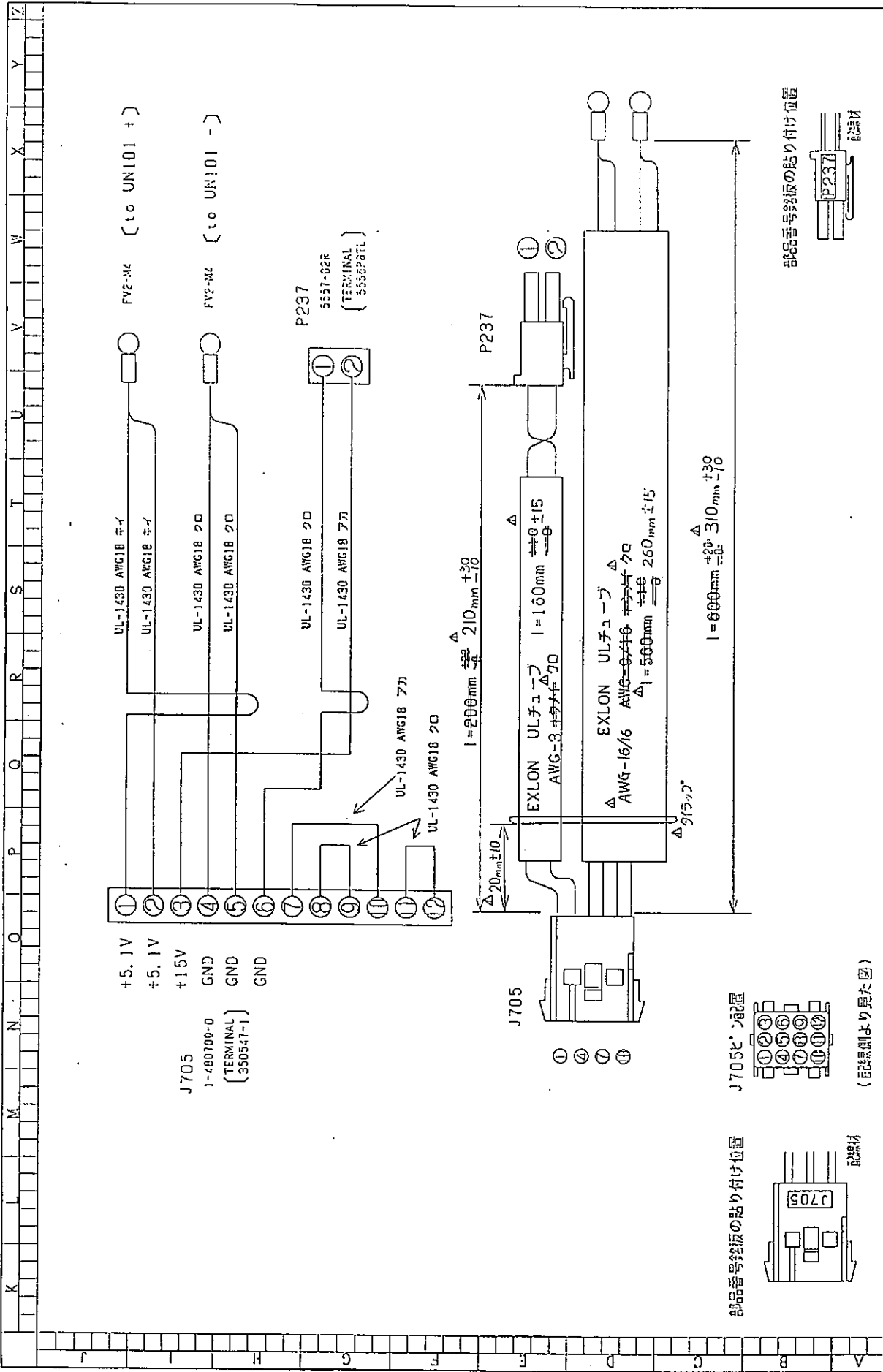
L-014-10-52-A3

MN2-0213  
SECTION 7 SCHEMATICS



REVISIONS 38	△ 5558TL 4x1 FW-53012 FW-50060	TITLE 404			MODEL 404	MODEL 404	C0-PSU-S1700-D-05	
P241		SCALE 1:1	DESIGN 11	CHECKED 11	APPROV 11	ORIGINATOR	DATE	
P241ピン位置		SCALE 1:1	DESIGN 11	CHECKED 11	APPROV 11	ORIGINATOR	DATE	
P241ピン位置		SCALE 1:1	DESIGN 11	CHECKED 11	APPROV 11	ORIGINATOR	DATE	
部品番号銘原の貼り付け位置		MC331903						
(記号別より見た図)		MC331903						





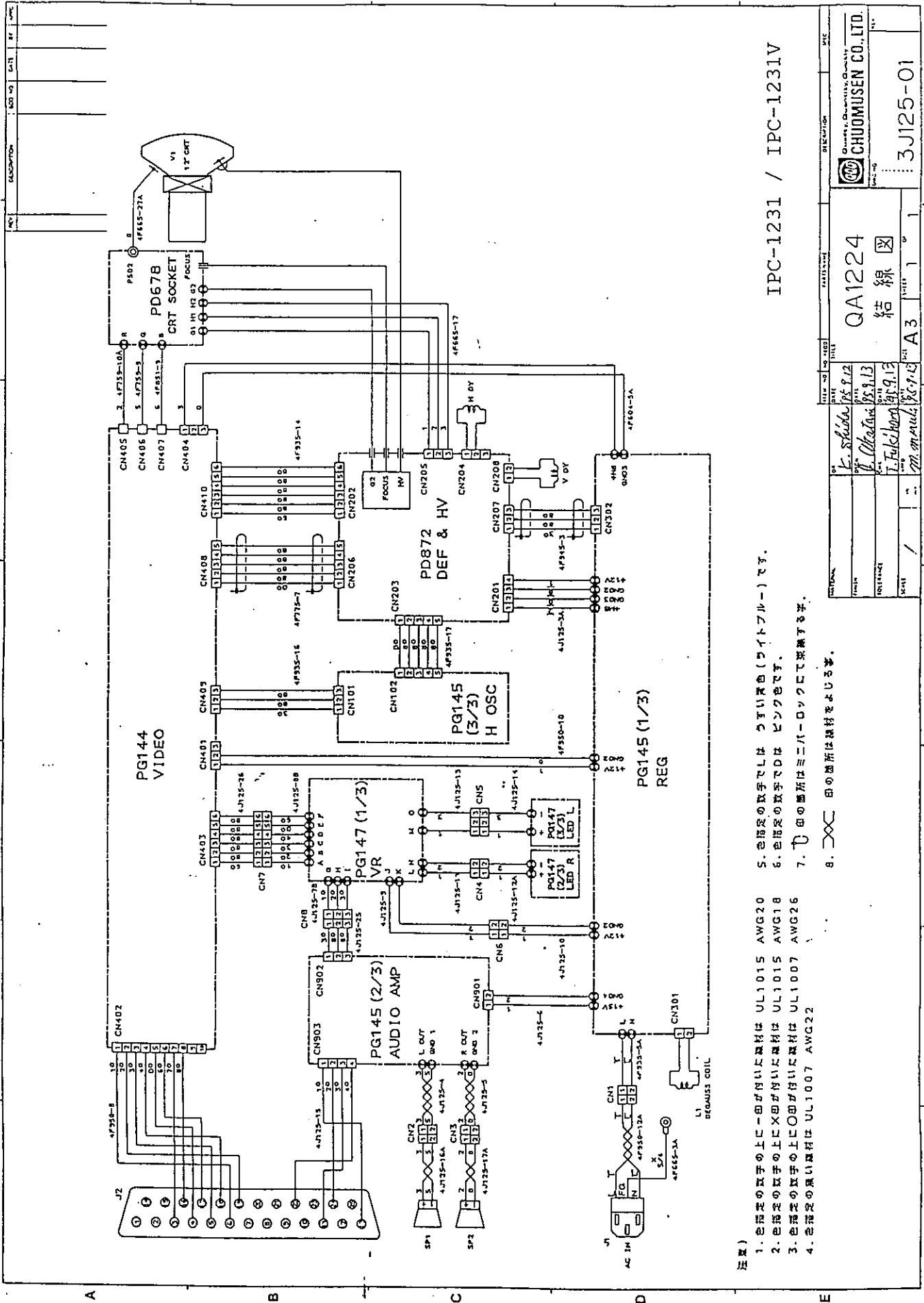
REV. NO.		TITLE NO.		MODEL NO.		DRAWING NO.		SCALE		UNITS	
1/1		CABLE 405		CABLE 405		CABLE 405		1:1		mm	
DRAWN BY		DESIGN BY		CHECKED BY		APPROV BY		DATE		REVISIONS	
S. I. I. I.		S. I. I. I.		S. I. I. I.		S. I. I. I.		1971.10.22		MC331904	
SCALE		UNITS		DATE		REVISIONS		DRAWING NO.		MODEL NO.	
1:1		mm		1971.10.22		S. I. I. I.		CABLE 405		CABLE 405	
1:1		mm		1971.10.22		S. I. I. I.		CABLE 405		CABLE 405	

部品番号銘板の貼り付け位置  

 部品番号銘板の貼り付け位置  


L-013-10-32-3

MN2-0213  
SECTION 7 SCHEMATICS



注意)

1. 色指定の数字の上に印が付いた部品は UL1015 AWG20
2. 色指定の数字の上にX印が付いた部品は UL1015 AWG18
3. 色指定の数字の上にO印が付いた部品は UL1007 AWG26
4. 色指定の黒い部品は UL1007 AWG22
5. 色指定の数字でLは 薄い黄色(ライトブルー)です。
6. 色指定の数字でDは ピンク色です。
7. U印の箇所はミニバロックにて取換する事。
8. X印の箇所は部材をよじる事。

IPC-1231 / IPC-1231V

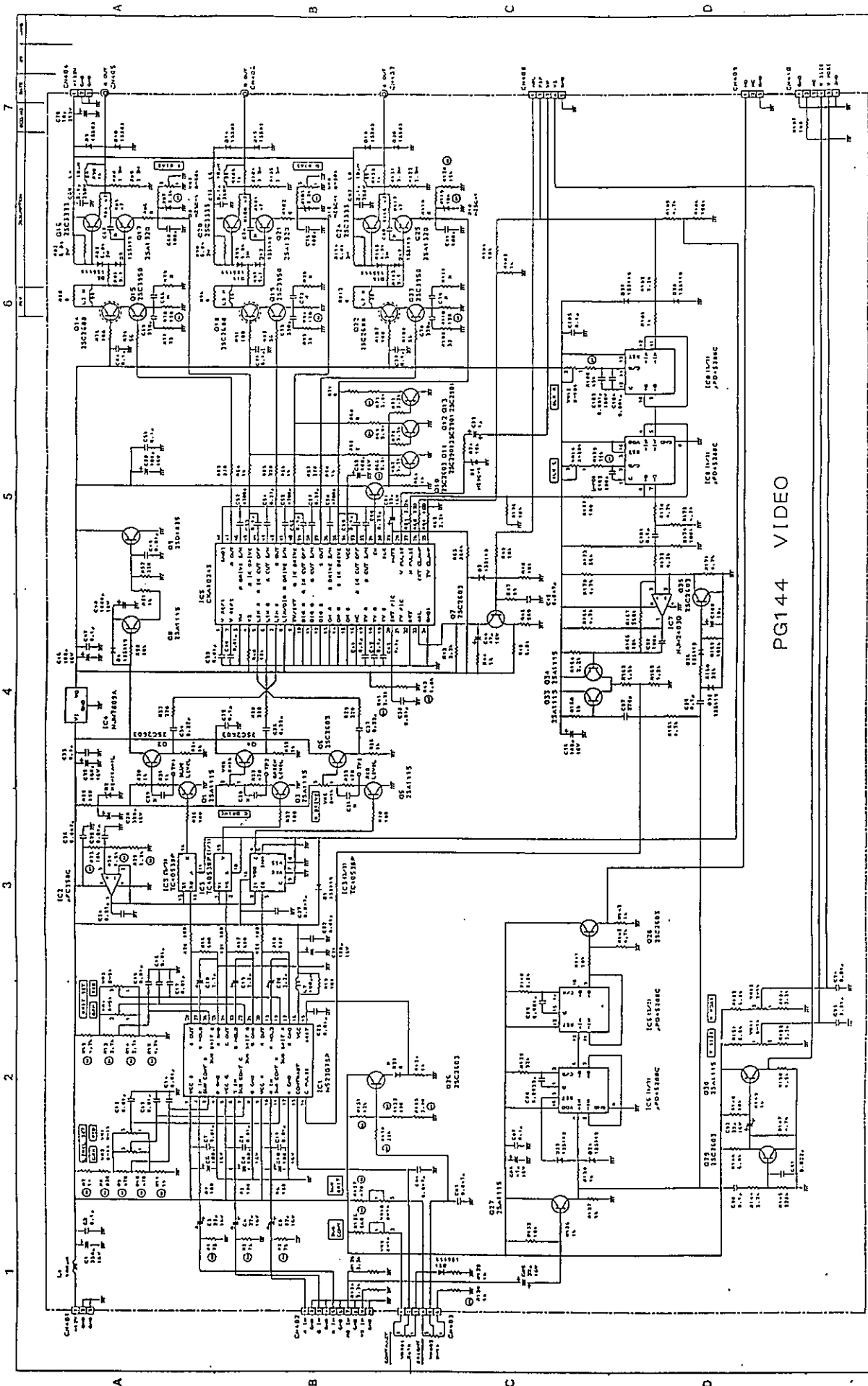
REV. NO.	REV.	DATE	DESCRIPTION
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2	2	9/13	2nd
3	3	9/13	3rd
4	4	9/13	4th
5	5	9/13	5th
6	6	9/13	6th
7	7	9/13	7th
8	8	9/13	8th
9	9	9/13	9th
10	10	9/13	10th
11	11	9/13	11th
12	12	9/13	12th
13	13	9/13	13th
14	14	9/13	14th
15	15	9/13	15th
16	16	9/13	16th
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93	93	9/13	93th
94	94	9/13	94th
95	95	9/13	95th
96	96	9/13	96th
97	97	9/13	97th
98	98	9/13	98th
99	99	9/13	99th
100	100	9/13	100th

CHUOMUSEN CO., LTD.

QA1224  
結線図

A3

3J125-01



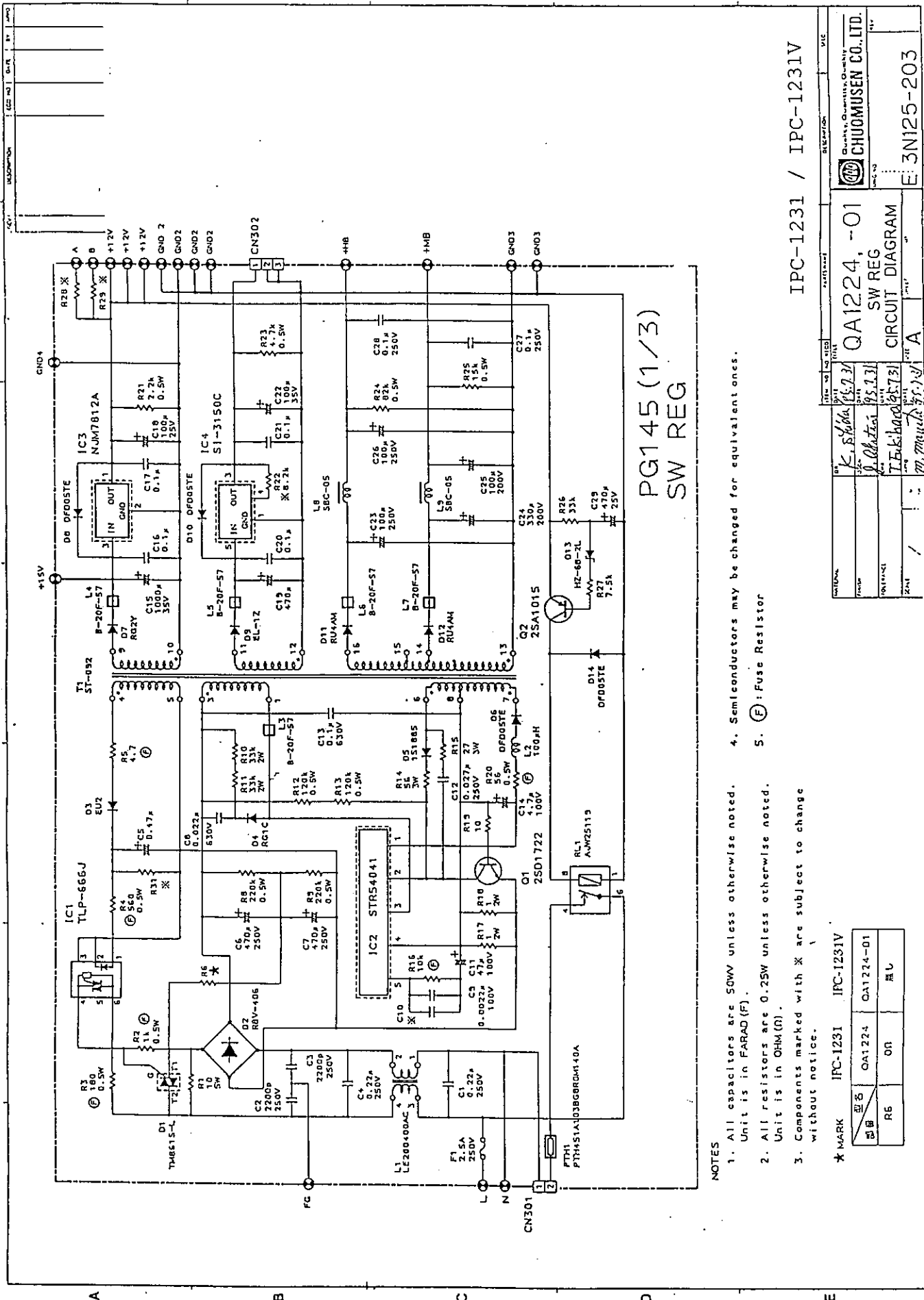
PG144 VIDEO

IPC-1231 / IPC-1231V

DATE	1/27/74	DESIGNED BY	W. J. B. / J. J. J.
REV.	1	CHECKED BY	W. J. B. / J. J. J.
APPROVED BY		DATE	1/27/74
WORKSHEET NO.	A2	PROJECT NO.	2N125-202
CHUOKUEN CO. LTD.			

- NOTES
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
  2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
  3. COMPONENTS SHOULD BE USED WITH THE FOLLOWING TOLERANCES: RESISTORS - 1% UNLESS OTHERWISE SPECIFIED; CAPACITORS - 5% UNLESS OTHERWISE SPECIFIED.
  4. DIMENSIONS ARE TO BE TAKEN TO THE CENTER OF THE COMPONENT UNLESS OTHERWISE SPECIFIED.
  5. ALL DIMENSIONS ARE TO BE TAKEN TO THE CENTER OF THE COMPONENT UNLESS OTHERWISE SPECIFIED.

MN2-0213  
SECTION 7 SCHEMATICS



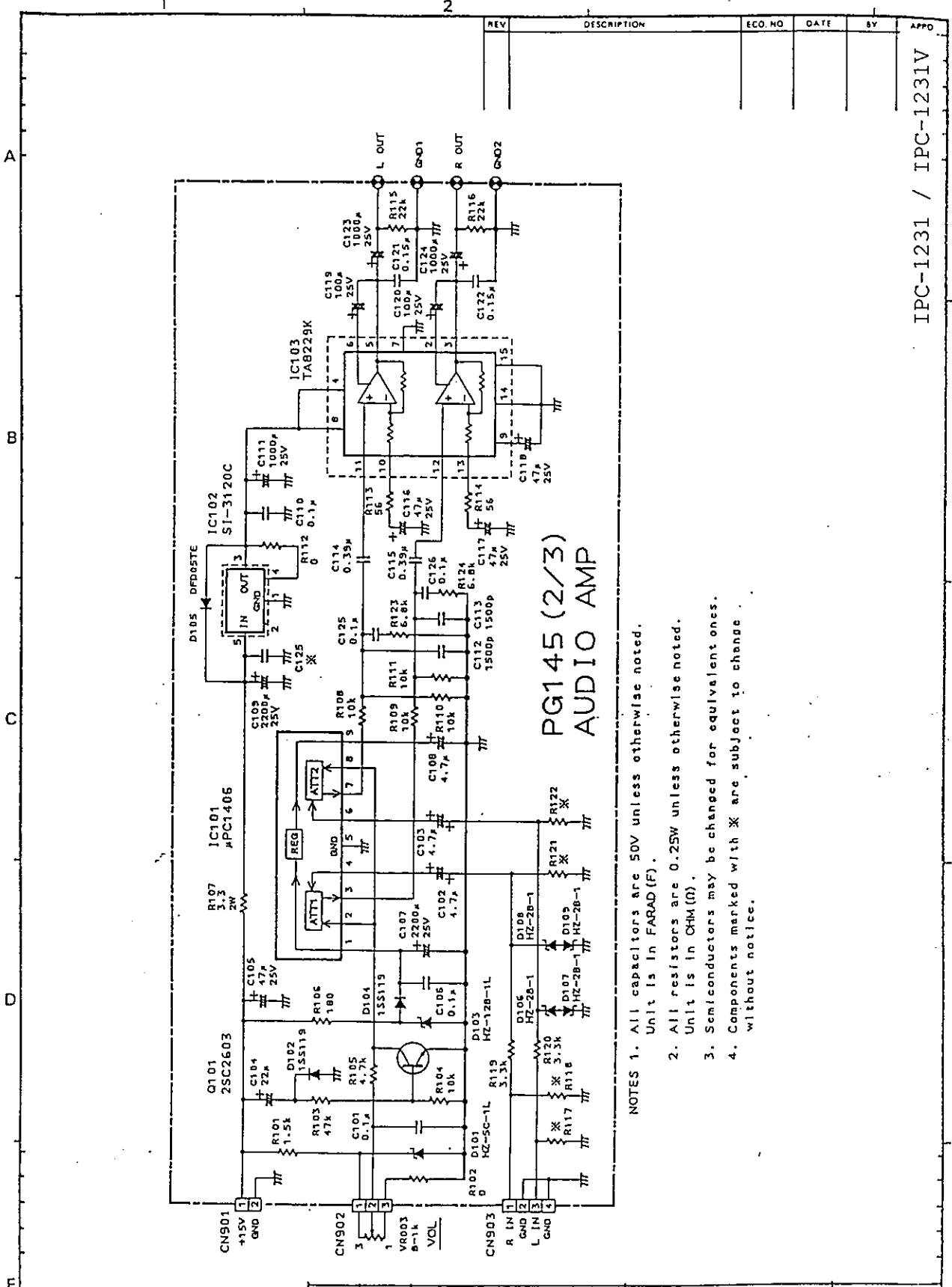
- NOTES**
1. All capacitors are 50WV unless otherwise noted. Unit is in FARAD(F).
  2. All resistors are 0.25W unless otherwise noted. Unit is in OHM(O).
  3. Components marked with \* are subject to change without notice.
  4. Semiconductors may be changed for equivalent ones.
  5. **(F)**: Fuse Resistor

\* MARK IPC-1231 IPC-1251V

品名	QA1224	QA1224-01
部番	00	無し

図名	QA1224, -01 SW REG CIRCUIT DIAGRAM
図番	E: 3N125-203
製図者	K. S. ...
校正者	J. ...
検出者	T. E. ...
承認者	M. ...
DATE	95.1.31
FIG. NO.	01
REV.	01
QUANTITY	Quantity, Quantity, Quantity
MANUFACTURER	CHUOMUSEN CO., LTD.

IPC-1231 / IPC-1251V



PG145 (2/3)  
AUDIO AMP

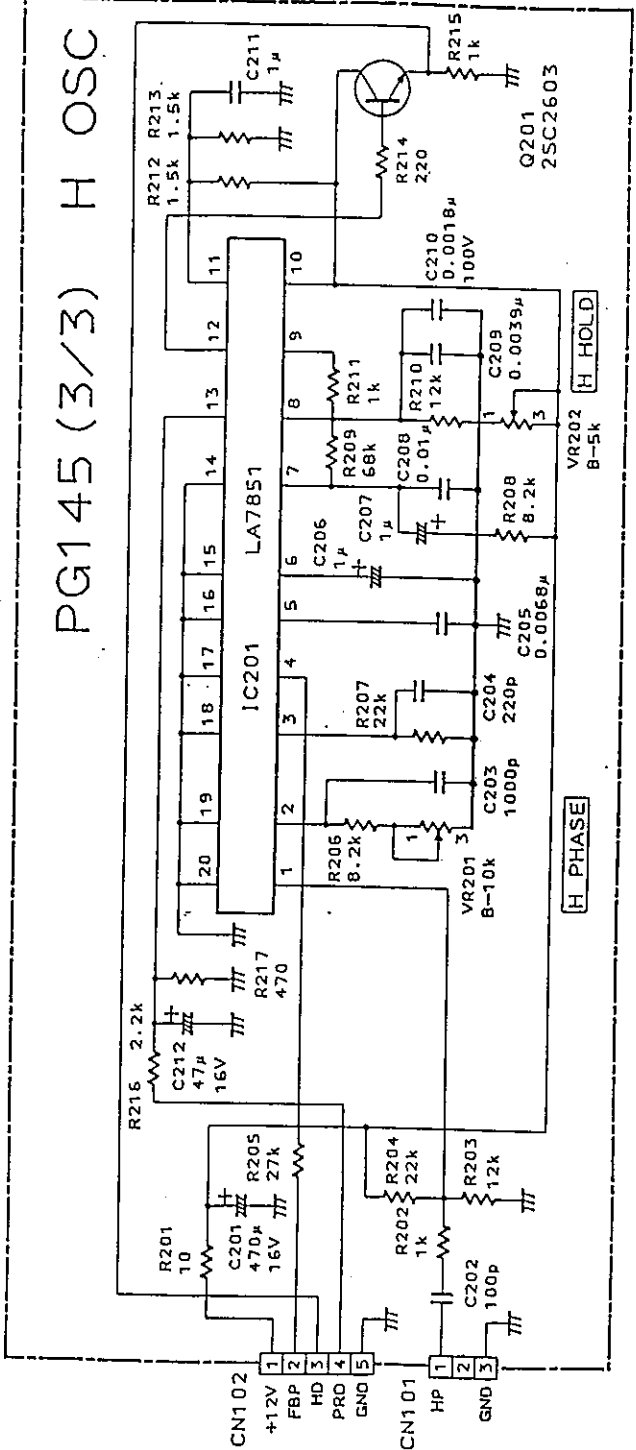
- NOTES 1. All capacitors are 50V unless otherwise noted. Unit is in FARAD (F).  
2. All resistors are 0.25W unless otherwise noted. Unit is in OHM (Ω).  
3. Semiconductors may be changed for equivalent ones.  
4. Components marked with \* are subject to change without notice.

MATERIAL	ITEM NO	NO RECD	FABT NAME	DESCRIPTION	SPEC																	
<table border="1"> <tr> <td>DESIGN</td> <td>DATE</td> <td>QA1224, -01</td> </tr> <tr> <td>CHECK</td> <td>DATE</td> <td>AUDIO AMP</td> </tr> <tr> <td>APPD</td> <td>DATE</td> <td>CIRCUIT DIAGRAM</td> </tr> </table>	DESIGN	DATE	QA1224, -01	CHECK	DATE	AUDIO AMP	APPD	DATE	CIRCUIT DIAGRAM	<table border="1"> <tr> <td>DATE</td> <td>95.9.22</td> </tr> <tr> <td>DATE</td> <td>95.9.22</td> </tr> <tr> <td>DATE</td> <td>95.9.25</td> </tr> <tr> <td>DATE</td> <td>95.9.25</td> </tr> </table>	DATE	95.9.22	DATE	95.9.22	DATE	95.9.25	DATE	95.9.25				
DESIGN	DATE	QA1224, -01																				
CHECK	DATE	AUDIO AMP																				
APPD	DATE	CIRCUIT DIAGRAM																				
DATE	95.9.22																					
DATE	95.9.22																					
DATE	95.9.25																					
DATE	95.9.25																					
SCALE	1	IN	SHEET	A4	SHEET 1 OF 1																	
				DWG NO. E:4N125-204																		

IPC-1231 / IPC-1231V

REV	DESCRIPTION	ECO NO	DATE	BY	APPD

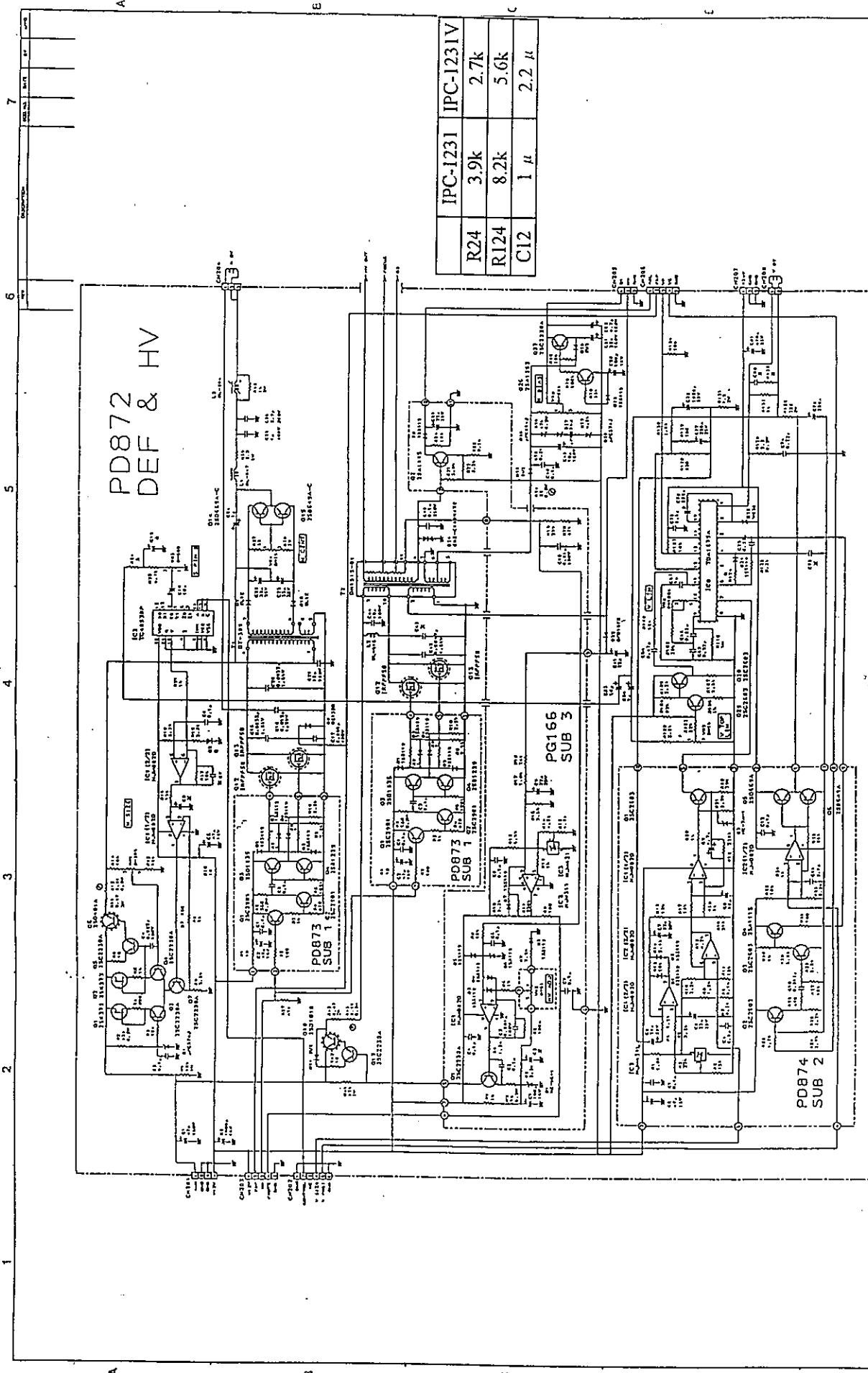
PG145 (3/3) H OSC



- NOTES
- All capacitors are 50WV unless otherwise noted. Unit is in FARAD (F).
  - All resistors are 0.25W unless otherwise noted. Unit is in OHM ( $\Omega$ ).
  - Semiconductors may be changed for equivalent ones.

IPC-1231 / IPC-1231V

MATERIAL	DA	DATE	TITLE	DESCRIPTION	SPEC
FINISH	DSGN	DATE	QA1224, -01	 CHUOMUSEN CO., LTD.	REV
TOLERANCE	CHK	DATE	H OSC		DMG NO.
SCALE	APPD	DATE	CIRCUIT DIAGRAM		E: 4N125-205



IPC-1231	IPC-1231V
R24	3.9k
R124	8.2k
C12	1 μ
	2.7k
	5.6k
	2.2 μ

IPC-1231 / IPC-1231V

QA1224, -01  
DEF  
CIRCUIT DIAGRAM

DATE: 1/27/54  
BY: J. K. JAMES  
CHECKED: J. K. JAMES  
APPROVED: J. K. JAMES

CHUOKAI CO. LTD.

2N125-201

REV.	DATE	DESCRIPTION
1	1/27/54	INITIAL DESIGN
2	1/27/54	REVISED
3	1/27/54	REVISED
4	1/27/54	REVISED

NOTE 1: All components are to be obtained from the manufacturers listed.

NOTE 2: All resistors are 5% tolerance unless otherwise noted.

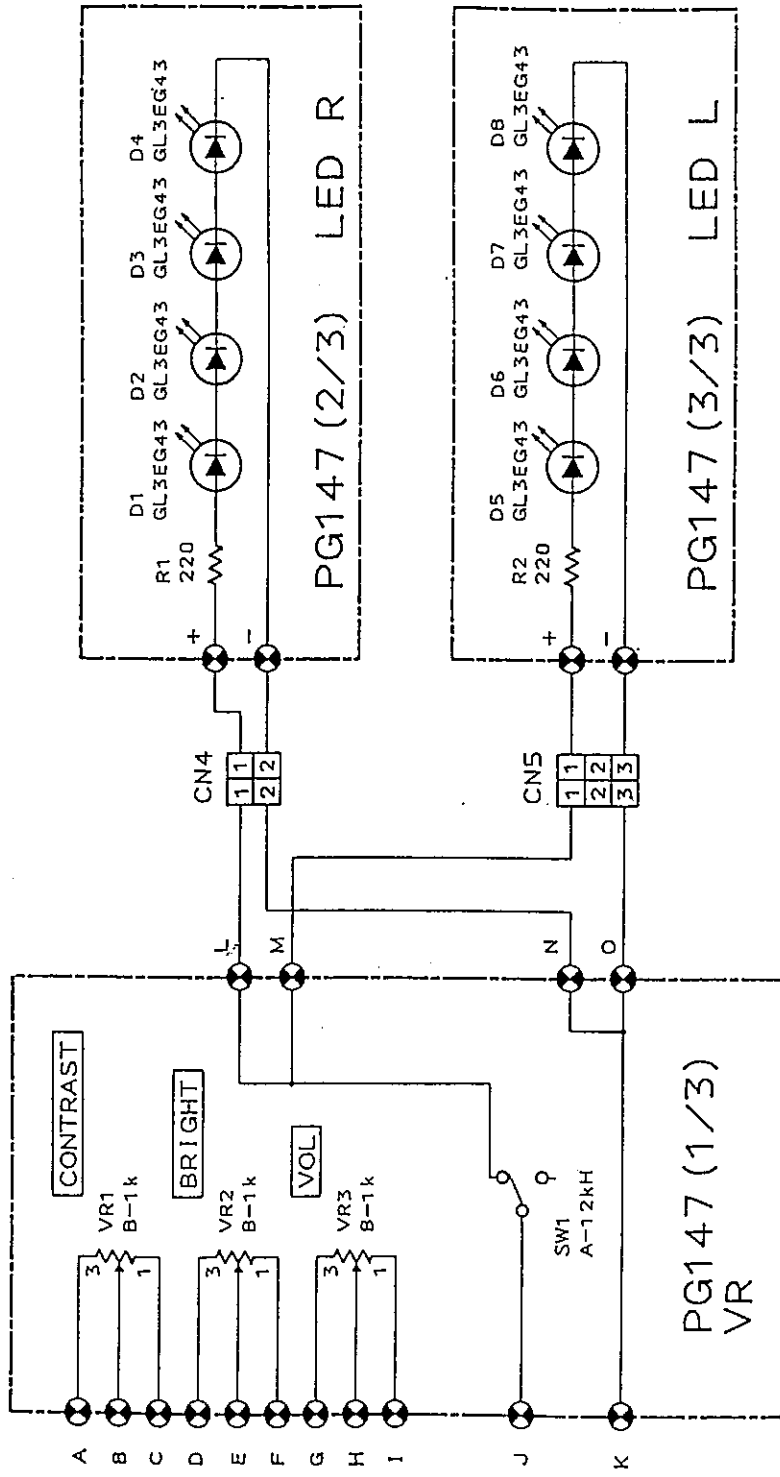
NOTE 3: All capacitors are 50V unless otherwise noted.

NOTE 4: All components are to be obtained from the manufacturers listed.

NOTE 5: All components are to be obtained from the manufacturers listed.

MN2-0213  
SECTION 7 SCHEMATICS

REV	DESCRIPTION	ECO NO	DATE	BY	APPD

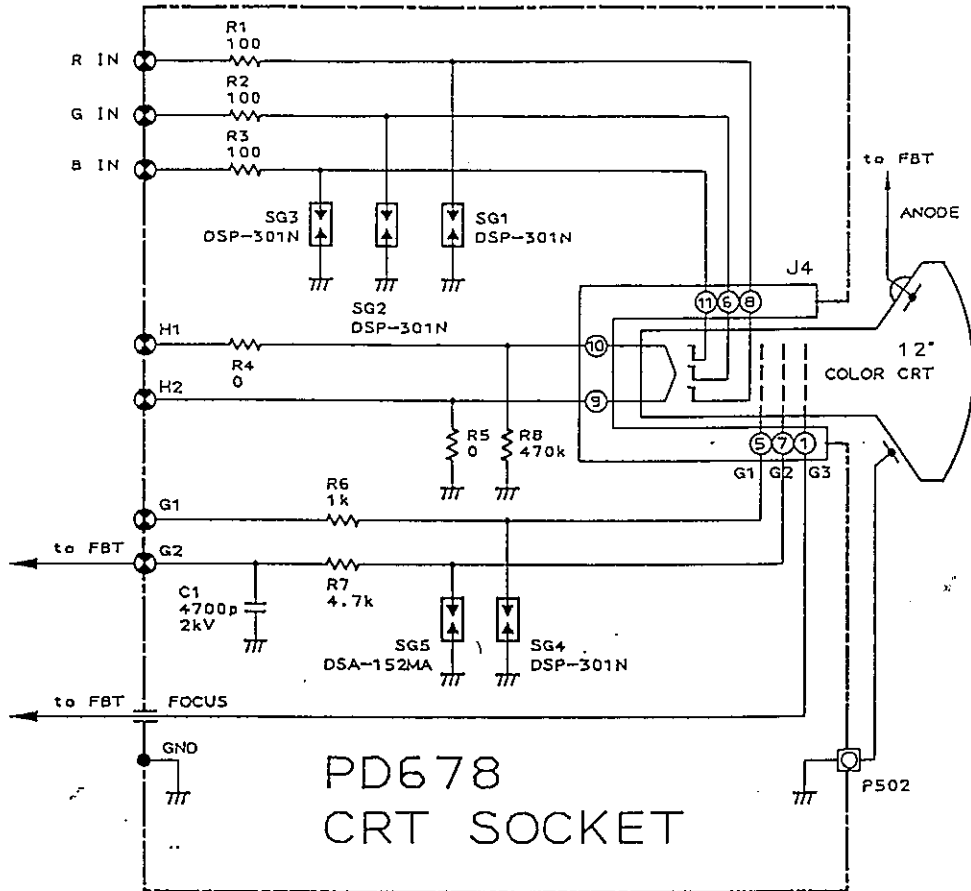


IPC-1231 / IPC-1231V

MATERIAL	DR	DATE	ITEM NO	NO REVD	PART NAME	DESCRIPTION	SPEC
	<i>K. Shida</i>	95.7.31	QA1224, -01		VR, LED	Quality, Quantity, Quickly <b>CHUOMUSEN CO., LTD.</b>	
FINISH	<i>K. Abatani</i>	95.7.31	CIRCUIT DIAGRAM				DWG NO
TOLERANCE	<i>T. Fukuhara</i>	95.7.31				E: 4N125-206	
SCALE	<i>m. maruta</i>	95.7.31					
			SIZE	A4	SHEET	OF	



IPC-1231 / IPC-1231V

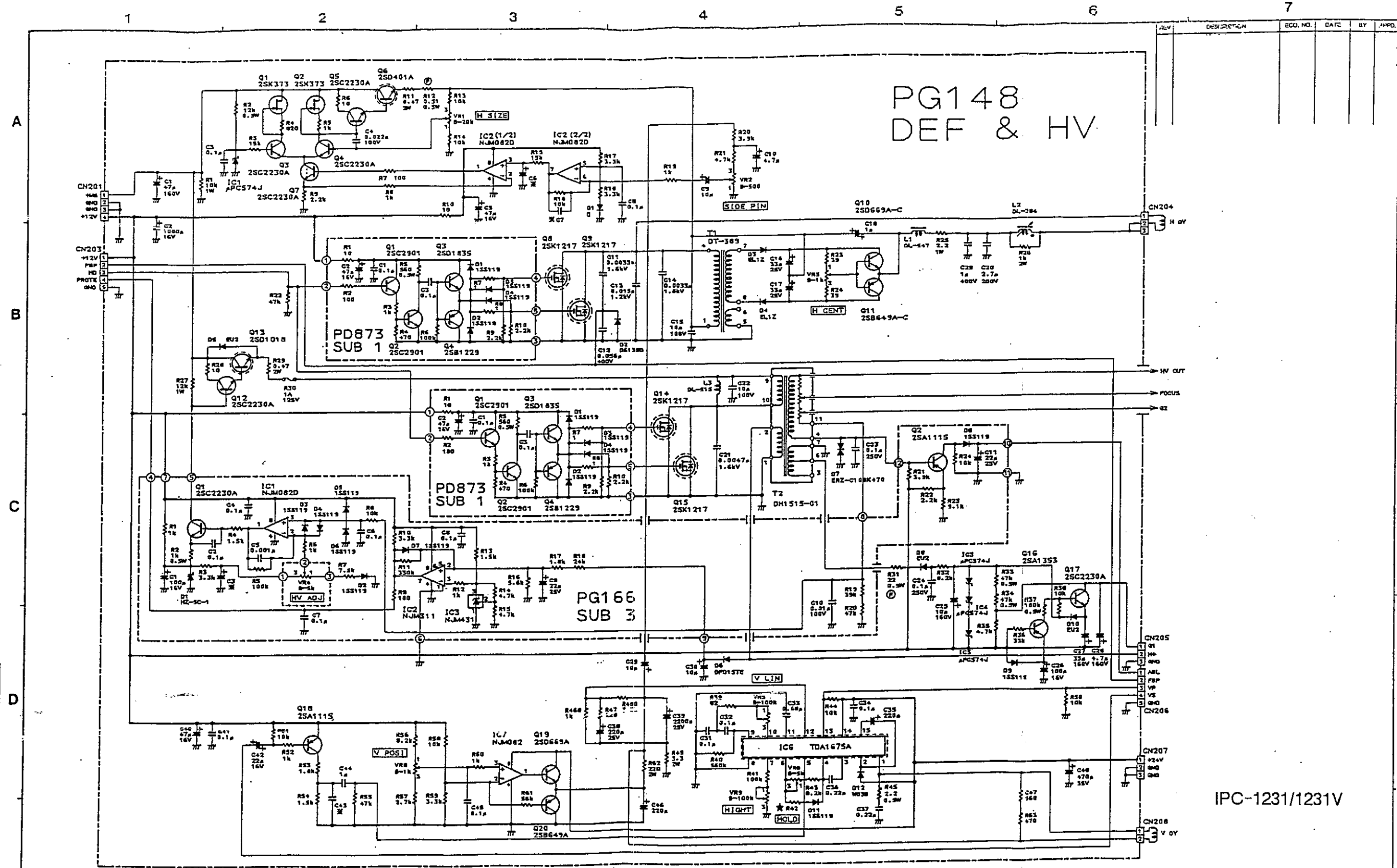


NOTES

1. Capacitors Unit are in FARAD (F).
2. All resistors are 0.5W unless otherwise noted. Unit is in OHM ( $\Omega$ ).

MATERIAL		DR	DATE	ITEM NO	NO	RTOD	PART NAME	DESCRIPTION	SPEC
		<i>K. Ohtake</i>	95.8.17	QA1224, -01			CRT SOCKET	Quality, Quantity, Quickly CHUOMUSEN CO., LTD.	
		<i>S. Aketani</i>	95.8.18	CRT SOCKET					
		<i>T. Fukuhara</i>	95.8.18	CIRCUIT DIAGRAM					
FINISH		<i>m. maeda</i>	95.8.18	SCALE	1		SIZE	A4	SHEET
TOLERANCE					1				UP
SCALE	1								
								DWG NO	E: 4N125-207
								REV	

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PG148  
DEF & HV

- NOTES
1. All capacitors are 50V unless otherwise noted. Unit is in FARAD (F).
  2. All resistors are 0.25W unless otherwise noted. Unit is in OHM (Ω).
  3. Components marked with \* are subject to change without notice.
  4. Semiconductors may be changed for equivalent ones.
  5. (M) Fixed Metal Film Resistor
  6. (F) Fuse Resistor

\* Mark

QA1 224	QA1 224-01
R42	8.2k 2.4k

ITEM NO.	NO. RECD	DATE	TITLE
DR		96.1.31	
DSGN		96.1.31	
CHK		96.1.31	
APPD		96.1.31	

QA1224, -01  
DEF & HV  
CIRCUIT DIAGRAM

Quality, Quensley, Quickly  
**CHUOMUSEN CO., LTD.**

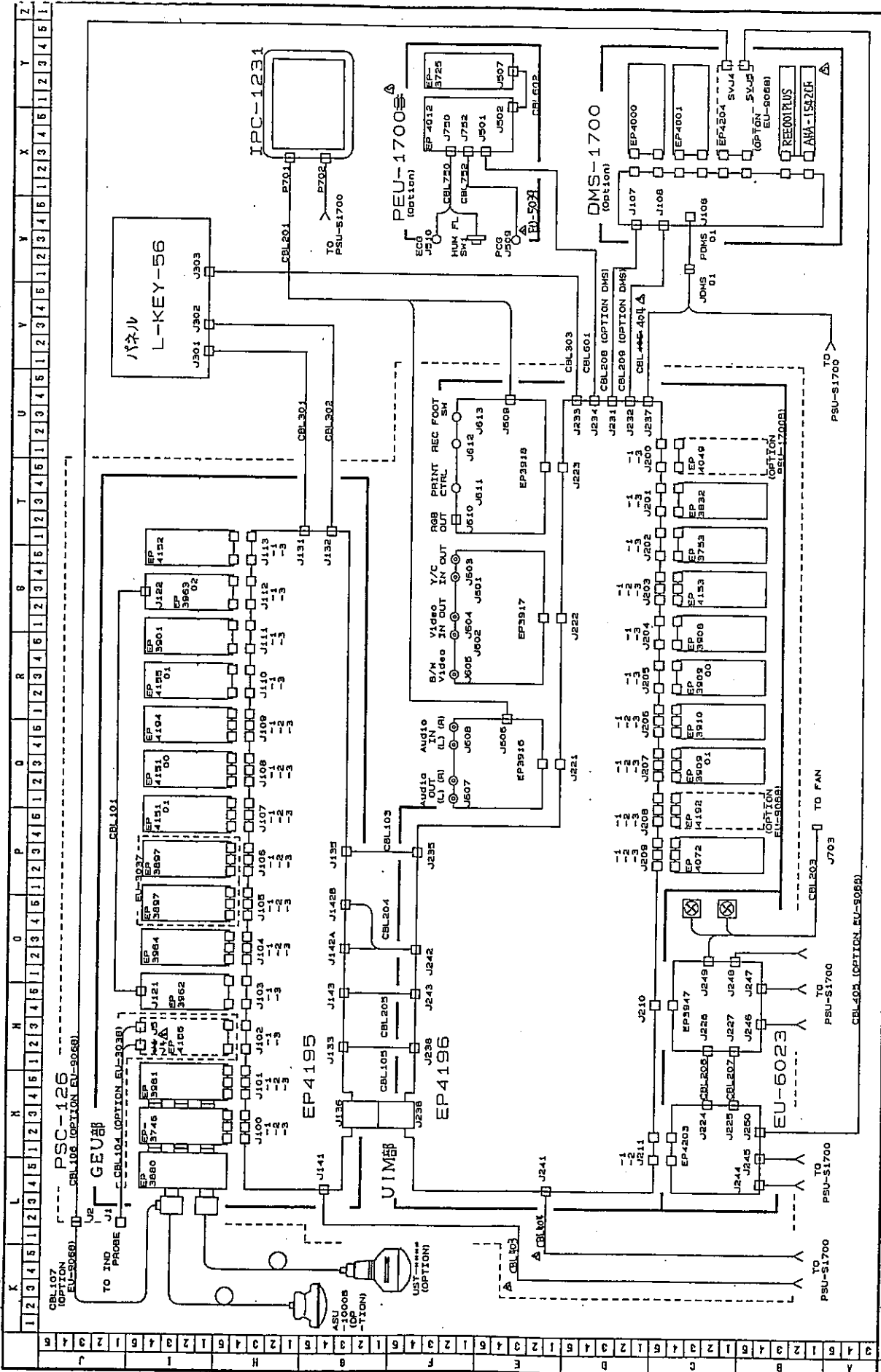
IPC-1231/1231V

3N125-208

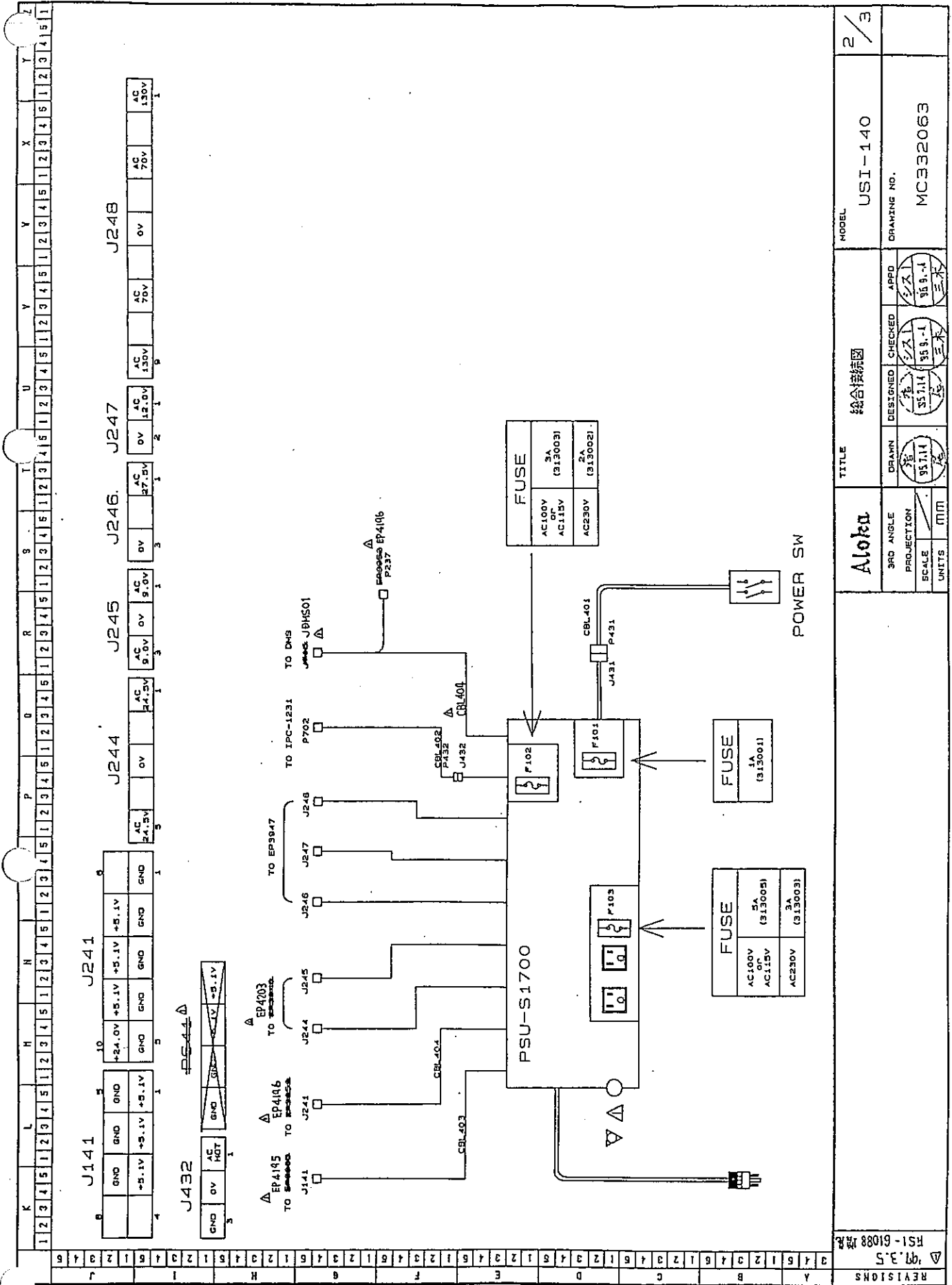
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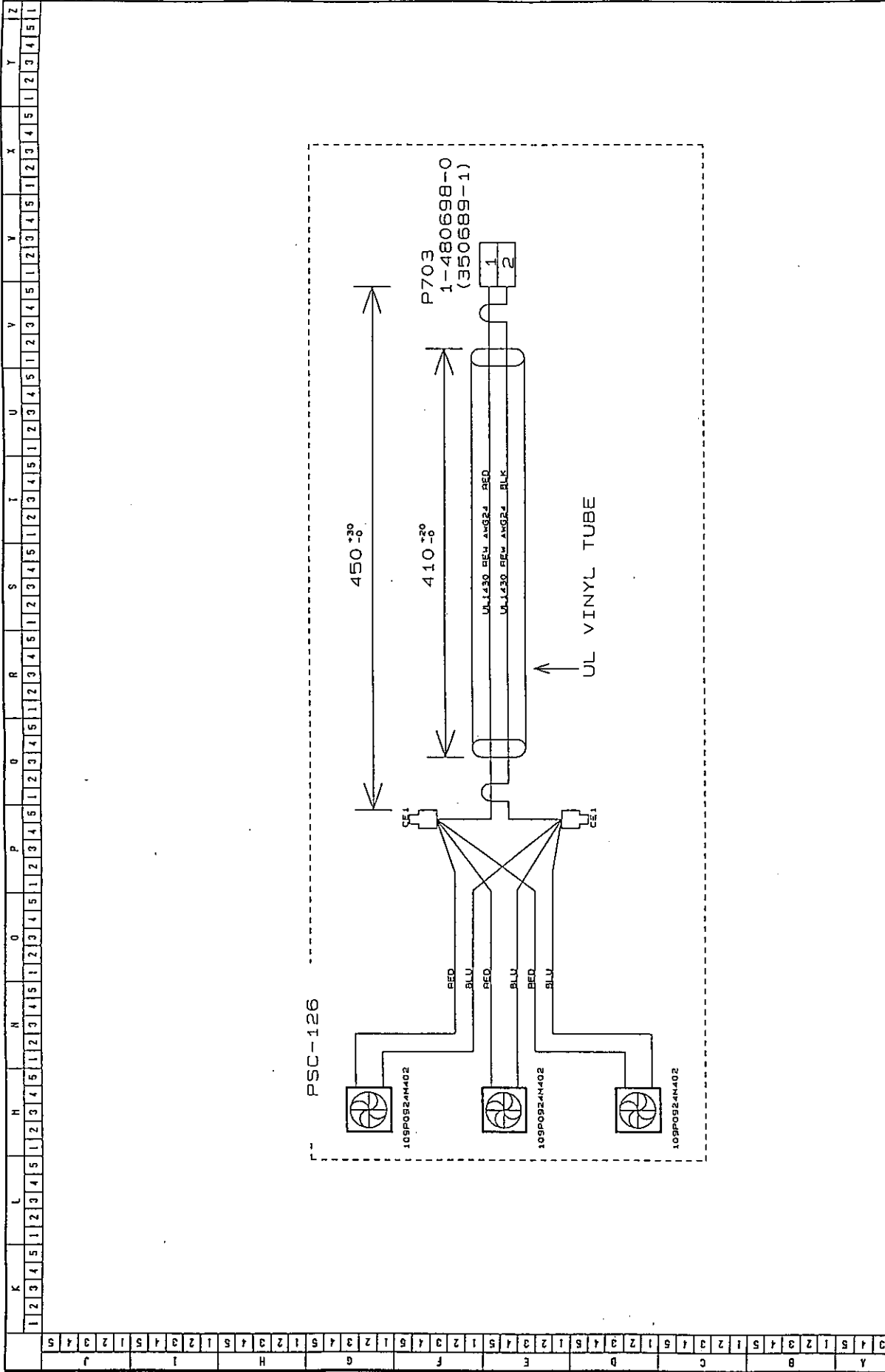
MN2-0213 Rev. 1  
SECTION 7 SCHEMATICS



REVISEMENTS	△% 9.27 増減	△% 12.26 増減	△% 3.5 増減	△% 61088	FSI-60425	FSI-60846	FSI-61088
A	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
B	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
C	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
D	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
E	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
F	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
G	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
H	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
I	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
J	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
K	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
L	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
M	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
N	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
O	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
P	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
Q	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
R	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
S	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
T	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
U	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
V	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
W	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
X	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
Y	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
Z	TO PSU-S1700	TO PSU-S1700	TO PSU-S1700	TO FAN	CBL-401 (OPTION EU-5058)	CBL-203	J703
TITLE		Altek		総合接続図		MODEL	
3RD ANGLE PROJECTION		SCALE 1/100		UNITS mm		USI-140	
DRAWN 3/8 98.9.12		DESIGNED 3/8 98.9.12		CHECKED 3/8 98.9.12		APPROVED 3/8 98.9.12	
REVISIONS		DRAWING NO.		MODEL		DRAWING NO.	
		MC334997		USI-140		1/3	



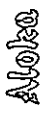
REVISEMENTS	△ 97.3.5	R51-61088 12R
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TITLE		MODEL
Aloka		USI-140
3RD ANGLE PROJECTION		DRAWING NO.
SCALE		MC332063
UNITS		
mm		
DRAWN	DESIGNED	CHECKED
95.7.11	95.7.11	95.9.1
三木	三木	三木
APPD		
95.9.1		
三木		
2/3		



REVISEIONS		TITLE		MODEL		3/3	
A		Alora		USI-140			
B		3RD ANGLE		DRAWING NO.		MC332064	
C		PROJECTION		DESIGNED		CHECKED	
D		SCALE		DRAWN		DESIG	
E		UNITS		35.7.11		35.9.11	
F		MM		35.7.11		35.9.11	
G				35.7.11		35.9.11	
H				35.7.11		35.9.11	
I				35.7.11		35.9.11	
J				35.7.11		35.9.11	
K				35.7.11		35.9.11	
L				35.7.11		35.9.11	
M				35.7.11		35.9.11	
N				35.7.11		35.9.11	
O				35.7.11		35.9.11	
P				35.7.11		35.9.11	
Q				35.7.11		35.9.11	
R				35.7.11		35.9.11	
S				35.7.11		35.9.11	
T				35.7.11		35.9.11	
U				35.7.11		35.9.11	
V				35.7.11		35.9.11	
W				35.7.11		35.9.11	
X				35.7.11		35.9.11	
Y				35.7.11		35.9.11	
Z				35.7.11		35.9.11	



PIN No.	EP3745 CHANGER(RELAY)				EP3961 SELECTOR				EP4155 CMD				EP3962 IX			
	J100-1		J101-1		J102-1		J103-1		J102-3		J103-3		J102-3		J103-3	
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
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2	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
3	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
4	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
5	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
6	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
7	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
8	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
9	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
10	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
11	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
12	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
13	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
14	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
15	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
16	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
17	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
18	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
19	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
20	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
21	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
22	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
23	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
24	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD	CHD
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3rd ANGLE PROJECTION 第3角法		3rd ANGLE PROJECTION 第3角法		3rd ANGLE PROJECTION 第3角法	
UNITS: MM		UNITS: MM		UNITS: MM	
SCALE: 1/9		SCALE: 1/9		SCALE: 1/9	
DRAWN: 3/25		CHECKED: 3/25		APPROVED: 3/25	
DESIGNED: 3/25		DESIGNED: 3/25		DESIGNED: 3/25	
MODEL NO.		MODEL NO.		MODEL NO.	
DRAWING NO.		DRAWING NO.		DRAWING NO.	

MN2-0213 Rev. 1  
SECTION 7 SCHEMATICS

K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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<table border="1"> <tr> <th colspan="5">EP3746 CHANGER(RELAY)</th> <th colspan="5">EP3961 SELECTOR</th> <th colspan="5">EP4155 CMO</th> <th colspan="5">EP3962 IX</th> </tr> <tr> <th colspan="5">CHANGER(RELAY)</th> <th colspan="5">SELECTOR</th> <th colspan="5">CMO</th> <th colspan="5">IX</th> </tr> <tr> <th colspan="5">J100-2</th> <th colspan="5">J101-2</th> <th colspan="5">J102-2</th> <th colspan="5">J103-2</th> </tr> <tr> <th>PIN No.</th><th>A</th><th>B</th><th>C</th><th>D</th> <th>PIN No.</th><th>A</th><th>B</th><th>C</th><th>D</th> <th>PIN No.</th><th>A</th><th>B</th><th>C</th><th>D</th> <th>PIN No.</th><th>A</th><th>B</th><th>C</th><th>D</th> </tr> <tr> <td>1</td><td>F121</td><td>F122</td><td>F123</td><td>F124</td><td>1</td><td>F121</td><td>F122</td><td>F123</td><td>F124</td><td>1</td><td>F121</td><td>F122</td><td>F123</td><td>F124</td><td>1</td><td>F121</td><td>F122</td><td>F123</td><td>F124</td> </tr> <tr> <td>2</td><td>F125</td><td>F126</td><td>F127</td><td>F128</td><td>2</td><td>F125</td><td>F126</td><td>F127</td><td>F128</td><td>2</td><td>F125</td><td>F126</td><td>F127</td><td>F128</td><td>2</td><td>F125</td><td>F126</td><td>F127</td><td>F128</td> </tr> <tr> <td>3</td><td>F129</td><td>F130</td><td>F131</td><td>F132</td><td>3</td><td>F129</td><td>F130</td><td>F131</td><td>F132</td><td>3</td><td>F129</td><td>F130</td><td>F131</td><td>F132</td><td>3</td><td>F129</td><td>F130</td><td>F131</td><td>F132</td> </tr> <tr> <td>4</td><td>F133</td><td>F134</td><td>F135</td><td>F136</td><td>4</td><td>F133</td><td>F134</td><td>F135</td><td>F136</td><td>4</td><td>F133</td><td>F134</td><td>F135</td><td>F136</td><td>4</td><td>F133</td><td>F134</td><td>F135</td><td>F136</td> </tr> <tr> <td>5</td><td>F137</td><td>F138</td><td>F139</td><td>F140</td><td>5</td><td>F137</td><td>F138</td><td>F139</td><td>F140</td><td>5</td><td>F137</td><td>F138</td><td>F139</td><td>F140</td><td>5</td><td>F137</td><td>F138</td><td>F139</td><td>F140</td> </tr> <tr> <td>6</td><td>F141</td><td>F142</td><td>F143</td><td>F144</td><td>6</td><td>F141</td><td>F142</td><td>F143</td><td>F144</td><td>6</td><td>F141</td><td>F142</td><td>F143</td><td>F144</td><td>6</td><td>F141</td><td>F142</td><td>F143</td><td>F144</td> </tr> <tr> <td>7</td><td>F145</td><td>F146</td><td>F147</td><td>F148</td><td>7</td><td>F145</td><td>F146</td><td>F147</td><td>F148</td><td>7</td><td>F145</td><td>F146</td><td>F147</td><td>F148</td><td>7</td><td>F145</td><td>F146</td><td>F147</td><td>F148</td> </tr> <tr> <td>8</td><td>F149</td><td>F150</td><td>F151</td><td>F152</td><td>8</td><td>F149</td><td>F150</td><td>F151</td><td>F152</td><td>8</td><td>F149</td><td>F150</td><td>F151</td><td>F152</td><td>8</td><td>F149</td><td>F150</td><td>F151</td><td>F152</td> </tr> <tr> <td>9</td><td>F153</td><td>F154</td><td>F155</td><td>F156</td><td>9</td><td>F153</td><td>F154</td><td>F155</td><td>F156</td><td>9</td><td>F153</td><td>F154</td><td>F155</td><td>F156</td><td>9</td><td>F153</td><td>F154</td><td>F155</td><td>F156</td> </tr> <tr> <td>10</td><td>F157</td><td>F158</td><td>F159</td><td>F160</td><td>10</td><td>F157</td><td>F158</td><td>F159</td><td>F160</td><td>10</td><td>F157</td><td>F158</td><td>F159</td><td>F160</td><td>10</td><td>F157</td><td>F158</td><td>F159</td><td>F160</td> </tr> <tr> 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<td>14</td><td>F173</td><td>F174</td><td>F175</td><td>F176</td><td>14</td><td>F173</td><td>F174</td><td>F175</td><td>F176</td><td>14</td><td>F173</td><td>F174</td><td>F175</td><td>F176</td><td>14</td><td>F173</td><td>F174</td><td>F175</td><td>F176</td> </tr> <tr> <td>15</td><td>F177</td><td>F178</td><td>F179</td><td>F180</td><td>15</td><td>F177</td><td>F178</td><td>F179</td><td>F180</td><td>15</td><td>F177</td><td>F178</td><td>F179</td><td>F180</td><td>15</td><td>F177</td><td>F178</td><td>F179</td><td>F180</td> </tr> <tr> <td>16</td><td>F181</td><td>F182</td><td>F183</td><td>F184</td><td>16</td><td>F181</td><td>F182</td><td>F183</td><td>F184</td><td>16</td><td>F181</td><td>F182</td><td>F183</td><td>F184</td><td>16</td><td>F181</td><td>F182</td><td>F183</td><td>F184</td> </tr> <tr> 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<td>20</td><td>F197</td><td>F198</td><td>F199</td><td>F200</td><td>20</td><td>F197</td><td>F198</td><td>F199</td><td>F200</td><td>20</td><td>F197</td><td>F198</td><td>F199</td><td>F200</td><td>20</td><td>F197</td><td>F198</td><td>F199</td><td>F200</td> </tr> <tr> <td>21</td><td>F201</td><td>F202</td><td>F203</td><td>F204</td><td>21</td><td>F201</td><td>F202</td><td>F203</td><td>F204</td><td>21</td><td>F201</td><td>F202</td><td>F203</td><td>F204</td><td>21</td><td>F201</td><td>F202</td><td>F203</td><td>F204</td> </tr> <tr> <td>22</td><td>F205</td><td>F206</td><td>F207</td><td>F208</td><td>22</td><td>F205</td><td>F206</td><td>F207</td><td>F208</td><td>22</td><td>F205</td><td>F206</td><td>F207</td><td>F208</td><td>22</td><td>F205</td><td>F206</td><td>F207</td><td>F208</td> </tr> <tr> <td>23</td><td>F209</td><td>F210</td><td>F211</td><td>F212</td><td>23</td><td>F209</td><td>F210</td><td>F211</td><td>F212</td><td>23</td><td>F209</td><td>F210</td><td>F211</td><td>F212</td><td>23</td><td>F209</td><td>F210</td><td>F211</td><td>F212</td> </tr> <tr> <td>24</td><td>F213</td><td>F214</td><td>F215</td><td>F216</td><td>24</td><td>F213</td><td>F214</td><td>F215</td><td>F216</td><td>24</td><td>F213</td><td>F214</td><td>F215</td><td>F216</td><td>24</td><td>F213</td><td>F214</td><td>F215</td><td>F216</td> </tr> <tr> <td>25</td><td>F217</td><td>F218</td><td>F219</td><td>F220</td><td>25</td><td>F217</td><td>F218</td><td>F219</td><td>F220</td><td>25</td><td>F217</td><td>F218</td><td>F219</td><td>F220</td><td>25</td><td>F217</td><td>F218</td><td>F219</td><td>F220</td> </tr> </table>															EP3746 CHANGER(RELAY)					EP3961 SELECTOR					EP4155 CMO					EP3962 IX					CHANGER(RELAY)					SELECTOR					CMO					IX					J100-2					J101-2					J102-2					J103-2					PIN No.	A	B	C	D	PIN No.	A	B	C	D	PIN No.	A	B	C	D	PIN No.	A	B	C	D	1	F121	F122	F123	F124	1	F121	F122	F123	F124	1	F121	F122	F123	F124	1	F121	F122	F123	F124	2	F125	F126	F127	F128	2	F125	F126	F127	F128	2	F125	F126	F127	F128	2	F125	F126	F127	F128	3	F129	F130	F131	F132	3	F129	F130	F131	F132	3	F129	F130	F131	F132	3	F129	F130	F131	F132	4	F133	F134	F135	F136	4	F133	F134	F135	F136	4	F133	F134	F135	F136	4	F133	F134	F135	F136	5	F137	F138	F139	F140	5	F137	F138	F139	F140	5	F137	F138	F139	F140	5	F137	F138	F139	F140	6	F141	F142	F143	F144	6	F141	F142	F143	F144	6	F141	F142	F143	F144	6	F141	F142	F143	F144	7	F145	F146	F147	F148	7	F145	F146	F147	F148	7	F145	F146	F147	F148	7	F145	F146	F147	F148	8	F149	F150	F151	F152	8	F149	F150	F151	F152	8	F149	F150	F151	F152	8	F149	F150	F151	F152	9	F153	F154	F155	F156	9	F153	F154	F155	F156	9	F153	F154	F155	F156	9	F153	F154	F155	F156	10	F157	F158	F159	F160	10	F157	F158	F159	F160	10	F157	F158	F159	F160	10	F157	F158	F159	F160	11	F161	F162	F163	F164	11	F161	F162	F163	F164	11	F161	F162	F163	F164	11	F161	F162	F163	F164	12	F165	F166	F167	F168	12	F165	F166	F167	F168	12	F165	F166	F167	F168	12	F165	F166	F167	F168	13	F169	F170	F171	F172	13	F169	F170	F171	F172	13	F169	F170	F171	F172	13	F169	F170	F171	F172	14	F173	F174	F175	F176	14	F173	F174	F175	F176	14	F173	F174	F175	F176	14	F173	F174	F175	F176	15	F177	F178	F179	F180	15	F177	F178	F179	F180	15	F177	F178	F179	F180	15	F177	F178	F179	F180	16	F181	F182	F183	F184	16	F181	F182	F183	F184	16	F181	F182	F183	F184	16	F181	F182	F183	F184	17	F185	F186	F187	F188	17	F185	F186	F187	F188	17	F185	F186	F187	F188	17	F185	F186	F187	F188	18	F189	F190	F191	F192	18	F189	F190	F191	F192	18	F189	F190	F191	F192	18	F189	F190	F191	F192	19	F193	F194	F195	F196	19	F193	F194	F195	F196	19	F193	F194	F195	F196	19	F193	F194	F195	F196	20	F197	F198	F199	F200	20	F197	F198	F199	F200	20	F197	F198	F199	F200	20	F197	F198	F199	F200	21	F201	F202	F203	F204	21	F201	F202	F203	F204	21	F201	F202	F203	F204	21	F201	F202	F203	F204	22	F205	F206	F207	F208	22	F205	F206	F207	F208	22	F205	F206	F207	F208	22	F205	F206	F207	F208	23	F209	F210	F211	F212	23	F209	F210	F211	F212	23	F209	F210	F211	F212	23	F209	F210	F211	F212	24	F213	F214	F215	F216	24	F213	F214	F215	F216	24	F213	F214	F215	F216	24	F213	F214	F215	F216	25	F217	F218	F219	F220	25	F217	F218	F219	F220	25	F217	F218	F219	F220	25	F217	F218	F219	F220
EP3746 CHANGER(RELAY)					EP3961 SELECTOR					EP4155 CMO					EP3962 IX																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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PIN No.	A	B	C	D	PIN No.	A	B	C	D	PIN No.	A	B	C	D	PIN No.	A	B	C	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
1	F121	F122	F123	F124	1	F121	F122	F123	F124	1	F121	F122	F123	F124	1	F121	F122	F123	F124																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
2	F125	F126	F127	F128	2	F125	F126	F127	F128	2	F125	F126	F127	F128	2	F125	F126	F127	F128																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
3	F129	F130	F131	F132	3	F129	F130	F131	F132	3	F129	F130	F131	F132	3	F129	F130	F131	F132																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
4	F133	F134	F135	F136	4	F133	F134	F135	F136	4	F133	F134	F135	F136	4	F133	F134	F135	F136																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
5	F137	F138	F139	F140	5	F137	F138	F139	F140	5	F137	F138	F139	F140	5	F137	F138	F139	F140																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
6	F141	F142	F143	F144	6	F141	F142	F143	F144	6	F141	F142	F143	F144	6	F141	F142	F143	F144																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
7	F145	F146	F147	F148	7	F145	F146	F147	F148	7	F145	F146	F147	F148	7	F145	F146	F147	F148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
8	F149	F150	F151	F152	8	F149	F150	F151	F152	8	F149	F150	F151	F152	8	F149	F150	F151	F152																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
9	F153	F154	F155	F156	9	F153	F154	F155	F156	9	F153	F154	F155	F156	9	F153	F154	F155	F156																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
10	F157	F158	F159	F160	10	F157	F158	F159	F160	10	F157	F158	F159	F160	10	F157	F158	F159	F160																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
11	F161	F162	F163	F164	11	F161	F162	F163	F164	11	F161	F162	F163	F164	11	F161	F162	F163	F164																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
12	F165	F166	F167	F168	12	F165	F166	F167	F168	12	F165	F166	F167	F168	12	F165	F166	F167	F168																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
13	F169	F170	F171	F172	13	F169	F170	F171	F172	13	F169	F170	F171	F172	13	F169	F170	F171	F172																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
14	F173	F174	F175	F176	14	F173	F174	F175	F176	14	F173	F174	F175	F176	14	F173	F174	F175	F176																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
15	F177	F178	F179	F180	15	F177	F178	F179	F180	15	F177	F178	F179	F180	15	F177	F178	F179	F180																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
16	F181	F182	F183	F184	16	F181	F182	F183	F184	16	F181	F182	F183	F184	16	F181	F182	F183	F184																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
17	F185	F186	F187	F188	17	F185	F186	F187	F188	17	F185	F186	F187	F188	17	F185	F186	F187	F188																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
18	F189	F190	F191	F192	18	F189	F190	F191	F192	18	F189	F190	F191	F192	18	F189	F190	F191	F192																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
19	F193	F194	F195	F196	19	F193	F194	F195	F196	19	F193	F194	F195	F196	19	F193	F194	F195	F196																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
20	F197	F198	F199	F200	20	F197	F198	F199	F200	20	F197	F198	F199	F200	20	F197	F198	F199	F200																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
21	F201	F202	F203	F204	21	F201	F202	F203	F204	21	F201	F202	F203	F204	21	F201	F202	F203	F204																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
22	F205	F206	F207	F208	22	F205	F206	F207	F208	22	F205	F206	F207	F208	22	F205	F206	F207	F208																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
23	F209	F210	F211	F212	23	F209	F210	F211	F212	23	F209	F210	F211	F212	23	F209	F210	F211	F212																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
24	F213	F214	F215	F216	24	F213	F214	F215	F216	24	F213	F214	F215	F216	24	F213	F214	F215	F216																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
25	F217	F218	F219	F220	25	F217	F218	F219	F220	25	F217	F218	F219	F220	25	F217	F218	F219	F220																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

REVIZIONS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	model 原裝	EP419500	2/
																										Little 原裝	GEU Mother	EP419500
Aloka		3rd angle projection 第三角法		Scale 尺規		Units 單位		Scale 尺規		Units 單位		Scale 尺規		Units 單位		Scale 尺規		Units 單位		Scale 尺規		Units 單位		Scale 尺規		Units 單位		

K L M N O P Q R S T U V W X Y  
1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5

EP1984 PNE AMP J104-1					EP3097 SECTOR DELAY J109-1					EP3097 SECTOR DELAY J106-1					EP4151 RX FOCUS J107-1					
PIN NO.		A	B	C	PIN NO.		A	B	C	PIN NO.		A	B	C	PIN NO.		A	B	C	D
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2	QAO	QAO	QAO	QAO	2	QAO	QAO	QAO	QAO	2	QAO	QAO	QAO	QAO	2	QAO	QAO	QAO	QAO	QAO
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4	13F	13F	13F	13F	4	13F	13F	13F	13F	4	13F	13F	13F	13F	4	13F	13F	13F	13F	13F
5	5F	5F	5F	5F	5	5F	5F	5F	5F	5	5F	5F	5F	5F	5	5F	5F	5F	5F	5F
6	5F	5F	5F	5F	6	5F	5F	5F	5F	6	5F	5F	5F	5F	6	5F	5F	5F	5F	5F
7	5F	5F	5F	5F	7	5F	5F	5F	5F	7	5F	5F	5F	5F	7	5F	5F	5F	5F	5F
8	QAO	QAO	QAO	QAO	8	QAO	QAO	QAO	QAO	8	QAO	QAO	QAO	QAO	8	QAO	QAO	QAO	QAO	QAO
9	QAO	QAO	QAO	QAO	9	QAO	QAO	QAO	QAO	9	QAO	QAO	QAO	QAO	9	QAO	QAO	QAO	QAO	QAO
10	QAO	QAO	QAO	QAO	10	QAO	QAO	QAO	QAO	10	QAO	QAO	QAO	QAO	10	QAO	QAO	QAO	QAO	QAO
11	QAO	QAO	QAO	QAO	11	QAO	QAO	QAO	QAO	11	QAO	QAO	QAO	QAO	11	QAO	QAO	QAO	QAO	QAO
12	QAO	QAO	QAO	QAO	12	QAO	QAO	QAO	QAO	12	QAO	QAO	QAO	QAO	12	QAO	QAO	QAO	QAO	QAO
13	QAO	QAO	QAO	QAO	13	QAO	QAO	QAO	QAO	13	QAO	QAO	QAO	QAO	13	QAO	QAO	QAO	QAO	QAO
14	QAO	QAO	QAO	QAO	14	QAO	QAO	QAO	QAO	14	QAO	QAO	QAO	QAO	14	QAO	QAO	QAO	QAO	QAO
15	QAO	QAO	QAO	QAO	15	QAO	QAO	QAO	QAO	15	QAO	QAO	QAO	QAO	15	QAO	QAO	QAO	QAO	QAO
16	QAO	QAO	QAO	QAO	16	QAO	QAO	QAO	QAO	16	QAO	QAO	QAO	QAO	16	QAO	QAO	QAO	QAO	QAO
17	QAO	QAO	QAO	QAO	17	QAO	QAO	QAO	QAO	17	QAO	QAO	QAO	QAO	17	QAO	QAO	QAO	QAO	QAO
18	QAO	QAO	QAO	QAO	18	QAO	QAO	QAO	QAO	18	QAO	QAO	QAO	QAO	18	QAO	QAO	QAO	QAO	QAO
19	PRESIC	PRESIC	PRESIC	PRESIC	19	E14	E14	E14	E14	19	Q11	Q11	Q11	Q11	19	E14	E14	E14	E14	E14
20	QAO	QAO	QAO	QAO	20	E10	E10	E10	E10	20	Q10	Q10	Q10	Q10	20	E10	E10	E10	E10	E10
21	QAO	QAO	QAO	QAO	21	E0A	E0A	E0A	E0A	21	E0A	E0A	E0A	E0A	21	E0A	E0A	E0A	E0A	E0A
22	QAO	QAO	QAO	QAO	22	E18	E18	E18	E18	22	E18	E18	E18	E18	22	E18	E18	E18	E18	E18
23	QAO	QAO	QAO	QAO	23	E19	E19	E19	E19	23	E19	E19	E19	E19	23	E19	E19	E19	E19	E19
24	QAO	QAO	QAO	QAO	24	E1A	E1A	E1A	E1A	24	E1A	E1A	E1A	E1A	24	E1A	E1A	E1A	E1A	E1A
25	QAO	QAO	QAO	QAO	25	E10	E10	E10	E10	25	E10	E10	E10	E10	25	E10	E10	E10	E10	E10

J104-3					J105-3					J106-3					J107-3					
PIN NO.		A	B	C	PIN NO.		A	B	C	PIN NO.		A	B	C	PIN NO.		A	B	C	D
1	REC7	REC4	REC4	REC4	1	REC7	REC4	REC4	REC4	1	REC7	REC4	REC4	REC4	1	REC7	REC4	REC4	REC4	REC4
2	REC4	REC4	REC4	REC4	2	REC7	REC4	REC4	REC4	2	REC7	REC4	REC4	REC4	2	REC7	REC4	REC4	REC4	REC4
3	REC4	REC4	REC4	REC4	3	REC7	REC4	REC4	REC4	3	REC7	REC4	REC4	REC4	3	REC7	REC4	REC4	REC4	REC4
4	REC4	REC4	REC4	REC4	4	REC7	REC4	REC4	REC4	4	REC7	REC4	REC4	REC4	4	REC7	REC4	REC4	REC4	REC4
5	REC7	REC7	REC7	REC7	5	REC7	REC4	REC4	REC4	5	REC7	REC4	REC4	REC4	5	REC7	REC4	REC4	REC4	REC4
6	REC7	REC7	REC7	REC7	6	REC7	REC4	REC4	REC4	6	REC7	REC4	REC4	REC4	6	REC7	REC4	REC4	REC4	REC4
7	REC7	REC7	REC7	REC7	7	REC7	REC4	REC4	REC4	7	REC7	REC4	REC4	REC4	7	REC7	REC4	REC4	REC4	REC4
8	REC7	REC7	REC7	REC7	8	REC7	REC4	REC4	REC4	8	REC7	REC4	REC4	REC4	8	REC7	REC4	REC4	REC4	REC4
9	REC7	REC7	REC7	REC7	9	REC7	REC4	REC4	REC4	9	REC7	REC4	REC4	REC4	9	REC7	REC4	REC4	REC4	REC4
10	REC7	REC7	REC7	REC7	10	REC7	REC4	REC4	REC4	10	REC7	REC4	REC4	REC4	10	REC7	REC4	REC4	REC4	REC4
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13	QAO	QAO	QAO	QAO	13	REC7	REC4	REC4	REC4	13	REC7	REC4	REC4	REC4	13	REC7	REC4	REC4	REC4	REC4
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20	REC7	REC7	REC7	REC7	20	REC7	REC4	REC4	REC4	20	REC7	REC4	REC4	REC4	20	REC7	REC4	REC4	REC4	REC4
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22	REC7	REC7	REC7	REC7	22	REC7	REC4	REC4	REC4	22	REC7	REC4	REC4	REC4	22	REC7	REC4	REC4	REC4	REC4
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25	REC7	REC7	REC7	REC7	25	REC7	REC4	REC4	REC4	25	REC7	REC4	REC4	REC4	25	REC7	REC4	REC4	REC4	REC4

**GEU Mother**

MODEL NO. EP419500

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SCALE 1:25	SCALE 3:1	SCALE 1:2	SCALE 3:1
3月	7月	3月	7月
2月	7月	3月	7月

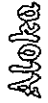
DRAWING NO. 5

DRAWING NO. 11

MN2-0213 Rev. 1  
SECTION 7 SCHEMATICS

K L M N O P Q R S T U V W X Y  
1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5

EP3964 PRE AMP J104-2				EP3897 SECTOR DELAY J105-2				EP3897 SECTOR DELAY J106-2				EP4151 RX FOCUS J107-2			
PIN No.	A	B	C	D	PIN No.	A	B	C	D	PIN No.	A	B	C	D	
1	1R1127	1R1128	1R1129	1R1130	1	5V	5V	5V	5V	1	5V	5V	5V	5V	
2	1R1131	1R1132	1R1133	1R1134	2	5V	5V	5V	5V	2	5V	5V	5V	5V	
3	1R1135	1R1136	1R1137	1R1138	3	5V	5V	5V	5V	3	5V	5V	5V	5V	
4	1R1139	1R1140	1R1141	1R1142	4	5V	5V	5V	5V	4	5V	5V	5V	5V	
5	1R1143	1R1144	1R1145	1R1146	5	5V	5V	5V	5V	5	5V	5V	5V	5V	
6	1R1147	1R1148	1R1149	1R1150	6	5V	5V	5V	5V	6	5V	5V	5V	5V	
7	1R1151	1R1152	1R1153	1R1154	7	5V	5V	5V	5V	7	5V	5V	5V	5V	
8	1R1155	1R1156	1R1157	1R1158	8	5V	5V	5V	5V	8	5V	5V	5V	5V	
9	1R1159	1R1160	1R1161	1R1162	9	5V	5V	5V	5V	9	5V	5V	5V	5V	
10	1R1163	1R1164	1R1165	1R1166	10	5V	5V	5V	5V	10	5V	5V	5V	5V	
11	1R1167	1R1168	1R1169	1R1170	11	5V	5V	5V	5V	11	5V	5V	5V	5V	
12	1R1171	1R1172	1R1173	1R1174	12	5V	5V	5V	5V	12	5V	5V	5V	5V	
13	1R1175	1R1176	1R1177	1R1178	13	5V	5V	5V	5V	13	5V	5V	5V	5V	
14	1R1179	1R1180	1R1181	1R1182	14	5V	5V	5V	5V	14	5V	5V	5V	5V	
15	1R1183	1R1184	1R1185	1R1186	15	5V	5V	5V	5V	15	5V	5V	5V	5V	
16	1R1187	1R1188	1R1189	1R1190	16	5V	5V	5V	5V	16	5V	5V	5V	5V	
17	1R1191	1R1192	1R1193	1R1194	17	5V	5V	5V	5V	17	5V	5V	5V	5V	
18	1R1195	1R1196	1R1197	1R1198	18	5V	5V	5V	5V	18	5V	5V	5V	5V	
19	1R1199	1R1200	1R1201	1R1202	19	5V	5V	5V	5V	19	5V	5V	5V	5V	
20	1R1203	1R1204	1R1205	1R1206	20	5V	5V	5V	5V	20	5V	5V	5V	5V	
21	1R1207	1R1208	1R1209	1R1210	21	5V	5V	5V	5V	21	5V	5V	5V	5V	
22	1R1211	1R1212	1R1213	1R1214	22	5V	5V	5V	5V	22	5V	5V	5V	5V	
23	1R1215	1R1216	1R1217	1R1218	23	5V	5V	5V	5V	23	5V	5V	5V	5V	
24	1R1219	1R1220	1R1221	1R1222	24	5V	5V	5V	5V	24	5V	5V	5V	5V	
25	1R1223	1R1224	1R1225	1R1226	25	5V	5V	5V	5V	25	5V	5V	5V	5V	

		title 名称 GEU Mother		model no. 型号 EP419500	
300 angle projection 第三角法		3000 3000		3000 3000	
scale 尺规 1:1		3000 3000		3000 3000	
units 单位 mm		3000 3000		3000 3000	

Grid containing alphanumeric characters K through Y and 1 through 5, used for schematic reference.

Table of electronic components for the EP4151 RX FOCUS section, including components like D101-D105 and D108-D112.

Table of electronic components for the EP4194 MAIN AMP section, including components like D109-D113 and D114-D118.

Table of electronic components for the EP4156 ASP section, including components like D119-D123 and D124-D128.

Table of electronic components for the EP3901 CSP section, including components like D129-D133 and D134-D138.

Table of electronic components for the J108-3 section, including components like D101-D105 and D108-D112.

Table of electronic components for the J109-3 section, including components like D109-D113 and D114-D118.

Table of electronic components for the J110-3 section, including components like D119-D123 and D124-D128.

Table of electronic components for the J111-3 section, including components like D129-D133 and D134-D138.

Manufacturer information for ALOKA GEU Mother, including contact details, address, and technical specifications.

MN2-0213 Rev. 1  
SECTION 7 SCHEMATICS

K	L	H	N	O	P	Q	R	S	T	U	V	W	X	Y
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5


EP4151 RX FOCUS J10B-2		EP4194 MAIN AMP J109-2		EP4156 ASP J110-2		EP3901 CSP J111-2	
Pin No.	A B C D	Pin No.	A B C D	Pin No.	A B C D	Pin No.	A B C D
1	5V	1	COM	1	COM	1	A
2	5V	2	COM	2	COM	2	B
3	5V	3	COM	3	COM	3	C
4	5V	4	COM	4	COM	4	D
5	5V	5	COM	5	COM	5	
6	5V	6	COM	6	COM	6	
7	5V	7	COM	7	COM	7	
8	5V	8	COM	8	COM	8	
9	5V	9	COM	9	COM	9	
10	5V	10	COM	10	COM	10	
11	5V	11	COM	11	COM	11	
12	5V	12	COM	12	COM	12	
13	5V	13	COM	13	COM	13	
14	5V	14	COM	14	COM	14	
15	5V	15	COM	15	COM	15	
16	5V	16	COM	16	COM	16	
17	5V	17	COM	17	COM	17	
18	5V	18	COM	18	COM	18	
19	5V	19	COM	19	COM	19	
20	5V	20	COM	20	COM	20	
21	5V	21	COM	21	COM	21	
22	5V	22	COM	22	COM	22	
23	5V	23	COM	23	COM	23	
24	5V	24	COM	24	COM	24	
25	5V	25	COM	25	COM	25	

3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R		
Title 名称 GEU Mother		Model 型号 EP419500		Drawing no 图号 A				3rd angle projection 第三角注		Scale 尺规 1:1		Units 单位 mm		Drawn 制图 W.S.T.S.		Checked 校对 W.S.T.S.		Appr. 审核 W.S.T.S.	

K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

EP3963 TX TRIG		EP4152 TIMING & ADDRESS	
J112-1		J113-1	
A	B	A	B
1	DC4D	1	DC4D
2	DC4D	2	DC4D
3	DC4D	3	DC4D
4	3.1F	4	PROGESS
5	3.1F	5	5.1F
6	3C JH1L	6	3C JH1L
7	5.1F	7	5.1F
8	DC4D	8	DC4D
9	DC4D	9	DC4D
10	DC4D	10	DC4D
11	DC4D	11	DC4D
12	DC4D	12	DC4D
13	DC4D	13	DC4D
14	DC4D	14	DC4D
15	DC4D	15	DC4D
16	DC4D	16	DC4D
17	DC4D	17	DC4D
18	DC4D	18	DC4D
19	DC4D	19	DC4D
20	DC4D	20	DC4D
21	DC4D	21	DC4D
22	DC4D	22	DC4D
23	DC4D	23	DC4D
24	DC4D	24	DC4D
25	DC4D	25	DC4D


J112-3		J113-3	
A	B	A	B
1	PCOR1	1	DC4D
2	PCOR2	2	DC4D
3	PCOR3	3	DC4D
4	PCOR4	4	DC4D
5	PCOR5	5	DC4D
6	PCOR6	6	DC4D
7	PCOR7	7	DC4D
8	PCOR8	8	DC4D
9	PCOR9	9	DC4D
10	PCOR10	10	DC4D
11	PCOR11	11	DC4D
12	PCOR12	12	DC4D
13	PCOR13	13	DC4D
14	PCOR14	14	DC4D
15	PCOR15	15	DC4D
16	PCOR16	16	DC4D
17	PCOR17	17	DC4D
18	PCOR18	18	DC4D
19	PCOR19	19	DC4D
20	PCOR20	20	DC4D
21	PCOR21	21	DC4D
22	PCOR22	22	DC4D
23	PCOR23	23	DC4D
24	PCOR24	24	DC4D
25	PCOR25	25	DC4D

		title 名稱 <b>GEU Mother</b>		model 型號 <b>EP419500</b>	
3rd angle projection 第三角法		drawn 圖號 designed 設計 checked 校核 used 用		drawing no. 圖號 <b>7/</b>	
scale 尺碼 1:1		units 單位 mm		drawing no. 圖號 <b>A</b>	

K L M N O P Q R S T U V W X Y  
1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5

EP9963 TX TRIG J112-2		EP4152 TIMING & ADDRESS J113-2	
PIN No.	A B C D	PIN No.	A B C D
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	
16		16	
17		17	
18		18	
19		19	
20		20	
21		21	
22		22	
23		23	
24		24	
25		25	

REVISIONS	DATE	BY	DESCRIPTION
3	4	5	1
2	3	4	2
1	2	3	3
4	5	1	4
5	1	2	5
6	2	3	6
7	3	4	7
8	4	5	8
9	5	1	9
10	1	2	10
11	2	3	11
12	3	4	12
13	4	5	13
14	5	1	14
15	1	2	15
16	2	3	16
17	3	4	17
18	4	5	18
19	5	1	19
20	1	2	20
21	2	3	21
22	3	4	22
23	4	5	23
24	5	1	24
25	1	2	25

		TITLE 番号 <b>GEU Mother</b>		MODEL 番号 <b>EP4195□□</b>	
3rd angle projection 第三角法 SCALE 尺規 UNITS 單位		DRAWN 土 9.25 陸	CHECKED 土 9.25 陸	APPD 土 9.25 陸	DRAWING NO. A
				8/	



K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

J131

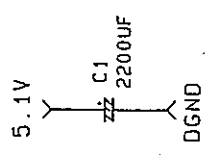
PIN No.	COMMENT	PIN No.	COMMENT
1	231-500ZCS	2	GND
3	STC1	4	STC2
5	STC3	6	STC4
7	STC5	8	STC6
9	STC7	10	STC8
11	B.GAIN	12	M.GAIN
13	B.AGC	14	M.AGC
15	GND	16	GND
17	GND	18	5V
19	GND	20	5V
21	GND	22	15V
23	GND	24	15V
25	GND	26	15V
27	GND	28	15V
29		30	
31		32	
33		34	

J132

PIN No.	COMMENT	PIN No.	COMMENT
1	3440-600ZCS	2	
3		4	
5	PCD101	6	PCD102
7	PCD103	8	PCD104
9	PCD105	10	PCD106
11	PCD107	12	PCD108
13	PCD201	14	PCD202
15	PCD203	16	PCD204
17	PCD205	18	PCD206
19	PCD207	20	PCD208
21	PCD301	22	PCD302
23	PCD303	24	
25	OPT5	26	OPT6
27	OPT7	28	OPT8
29	GNPHT	30	GNDPHT

J136

PIN No.	DIU	PIN No.	DIU	PIN No.	DIU	PIN No.	DIU
1	DISP_CLK	1	GAIN_CLK	1	CEU_MEM	1	CEU_MEM
2	CH_SYNC	2	CH_CLK	2	CH_DATA	2	CH_DATA
3	DISP_RST	3	B_DROP	3	TRIP00	3	PRF_RST
4	IC_SYNC	4	IC_CLK	4	IC_DATA	4	IC_DATA
5	OFF_DATA	5	IC_DATA	5	IC_PROG	5	IC_PROG
6	ADDR0	6	EN	6	CFP_CLK	6	CFP_SYNC
7	ADDR4	7	ADDR3	7	ADDR2	7	ADDR1
8	DATA1	8	DATA0	8	ADDR6	8	ADDR5
9	DATA5	9	DATA4	9	DATA3	9	DATA2
10	CPURST	10	CEU_READ	10	DATA7	10	DATA6
11		11		11		11	
12		12		12		12	
13	CLKR1	13	CLKR0	13	CLKR3	13	CLKR2
14	CLKR5	14	CLKR4	14	CLKR7	14	CLKR6
15		15		15		15	
16	HVC00	16	HVC01	16	HVC02	16	HVC03
17	DISCUBLK	17	EGCPAR	17	EGP	17	BOF
18	Y01	18	Y00	18	DFAREA	18	LINESTART
19	A3	19	A2	19	A1	19	A0
20	A7	20	A6	20	A5	20	A4
21	A8	21	FLOWAREA	21	CEU	21	A8
22		22		22	CEU_JR11	22	HTIEN
23		23		23	IC_JR11	23	PROCESS
24		24		24	CEU_JR10	24	CEU_JR10



PIN No.	IP
1	5046-10A
2	USBLK
3	B_0
4	BCO
5	PRFRST
6	MATCH
7	DCLR
8	LINESTART
9	DFAREA
10	BOF

J133

PIN No.	VOL ABC
1	5046-03A
2	ABCSIG
3	VOLSIG

J135

PIN No.	US_VID
1	5046-02A
2	B_VSIG
2	GND

J141

PIN No.	POWER0
1	5566-08A
2	5.1V
3	5.1V
4	DGND
5	DGND
6	DGND
7	DGND
8	DGND

J142A

PIN No.	POWER1
1	5566-14A
2	GND
3	GND
4	GND
5	15V
6	GND
7	15V
8	5V
9	5V
10	5V
11	5V
12	5V
13	GND
14	GND

J143

PIN No.	HY
1	5566-06A
2	GND
3	GND
4	HVSVMN
5	40V
6	HY

J142B

PIN No.	POWER2
1	5566-04A
2	15V2
3	GND
4	GND

REVISONS 表	Model No. EP419500	9/
Title 表 GEU Mother	Drawing no. 008	A
3rd angle projection 第3角法	Scale 1:1	Units mm
Drawn 製図	Checked 検出	Appr. 承認
Scale 1:1	36.0-3	36.0-3
Units mm		

		K			L			M			N			O			P			Q			R			S			T			U			V			W			X			Y			Z		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
		J200																																															
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		J274																																															
		J275																																															
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		J299																																															
		J300																																															

Aloka		DIU Mother		model no. EP419600	
3rd angle projection 第三角法		drawing no. 圖號		drawing no. 圖號	
UNITS 單位		mm 毫米		mm 毫米	
Aloka		DIU Mother		model no. EP419600	
3rd angle projection 第三角法		drawing no. 圖號		drawing no. 圖號	
UNITS 單位		mm 毫米		mm 毫米	





1 2 3 4 5 | 6 7 8 9 | 10 11 12 13 14 15 | 16 17 18 19 | 20 21 22 23 24 25 | 26 27 28 29 30 | 31 32 33 34 35 | 36 37 38 39 40 | 41 42 43 44 45 | 46 47 48 49 50

EP4192 VOL6ABC J1	
PIN No.	Symbol
1	EMO
2	EMO
3	EMO
4	EMO
5	VEE
6	VEE
7	VEE
8	VEE
9	VEE
10	VEE
11	VEE
12	VEE
13	VEE
14	VEE
15	VEE
16	VEE
17	VEE
18	VEE
19	VEE
20	VEE
21	VEE
22	VEE
23	VEE
24	VEE
25	VEE

EP390901 VAR_CINE J1	
PIN No.	Symbol
1	VAR_CIN_01
2	VAR_CIN_02
3	VAR_CIN_03
4	VAR_CIN_04
5	VAR_CIN_05
6	VAR_CIN_06
7	VAR_CIN_07
8	VAR_CIN_08
9	VAR_CIN_09
10	VAR_CIN_10
11	VAR_CIN_11
12	VAR_CIN_12
13	VAR_CIN_13
14	VAR_CIN_14
15	VAR_CIN_15
16	VAR_CIN_16
17	VAR_CIN_17
18	VAR_CIN_18
19	VAR_CIN_19
20	VAR_CIN_20
21	VAR_CIN_21
22	VAR_CIN_22
23	VAR_CIN_23
24	VAR_CIN_24
25	VAR_CIN_25

EP390901 VAR_CINE J1	
PIN No.	Symbol
1	VAR_CIN_01
2	VAR_CIN_02
3	VAR_CIN_03
4	VAR_CIN_04
5	VAR_CIN_05
6	VAR_CIN_06
7	VAR_CIN_07
8	VAR_CIN_08
9	VAR_CIN_09
10	VAR_CIN_10
11	VAR_CIN_11
12	VAR_CIN_12
13	VAR_CIN_13
14	VAR_CIN_14
15	VAR_CIN_15
16	VAR_CIN_16
17	VAR_CIN_17
18	VAR_CIN_18
19	VAR_CIN_19
20	VAR_CIN_20
21	VAR_CIN_21
22	VAR_CIN_22
23	VAR_CIN_23
24	VAR_CIN_24
25	VAR_CIN_25

EP4192 VOL6ABC J1	
PIN No.	Symbol
1	VEE
2	VEE
3	VEE
4	VEE
5	VEE
6	VEE
7	VEE
8	VEE
9	VEE
10	VEE
11	VEE
12	VEE
13	VEE
14	VEE
15	VEE
16	VEE
17	VEE
18	VEE
19	VEE
20	VEE
21	VEE
22	VEE
23	VEE
24	VEE
25	VEE

EP390901 VAR_CINE J1	
PIN No.	Symbol
1	VAR_CIN_01
2	VAR_CIN_02
3	VAR_CIN_03
4	VAR_CIN_04
5	VAR_CIN_05
6	VAR_CIN_06
7	VAR_CIN_07
8	VAR_CIN_08
9	VAR_CIN_09
10	VAR_CIN_10
11	VAR_CIN_11
12	VAR_CIN_12
13	VAR_CIN_13
14	VAR_CIN_14
15	VAR_CIN_15
16	VAR_CIN_16
17	VAR_CIN_17
18	VAR_CIN_18
19	VAR_CIN_19
20	VAR_CIN_20
21	VAR_CIN_21
22	VAR_CIN_22
23	VAR_CIN_23
24	VAR_CIN_24
25	VAR_CIN_25

EP390901 VAR_CINE J1	
PIN No.	Symbol
1	VAR_CIN_01
2	VAR_CIN_02
3	VAR_CIN_03
4	VAR_CIN_04
5	VAR_CIN_05
6	VAR_CIN_06
7	VAR_CIN_07
8	VAR_CIN_08
9	VAR_CIN_09
10	VAR_CIN_10
11	VAR_CIN_11
12	VAR_CIN_12
13	VAR_CIN_13
14	VAR_CIN_14
15	VAR_CIN_15
16	VAR_CIN_16
17	VAR_CIN_17
18	VAR_CIN_18
19	VAR_CIN_19
20	VAR_CIN_20
21	VAR_CIN_21
22	VAR_CIN_22
23	VAR_CIN_23
24	VAR_CIN_24
25	VAR_CIN_25

A	3rd angle projection 第3角法	Aloko	title 名稱 DIU Mother			4/	scale 1:1	units 單位	
			author 繪圖	checked 檢核	drawing no. 圖號				
B	3rd angle projection 第3角法	Aloko	title 名稱 DIU Mother			EP419600	author 繪圖	checked 檢核	drawing no. 圖號

K J236  
L M N O P Q R S T U V W X Y Z  
1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1

EP4072

VIDEO_IF		J1		C		D	
Pin No.	Signal	Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	BND	BND	BND	BND	BND	BND	BND
2	BND	BND	BND	BND	BND	BND	BND
3							
4							
5	DIU_STMCK	DIU_STMCK	DIU_STMCK				
6	VCC	VCC	VCC				
7	VCC	VCC	VCC				
8	CPU_RST	CPU_RST	CPU_RST				
9	CPU_DATA_0	CPU_DATA_0	CPU_DATA_0				
10	CPU_DATA_1	CPU_DATA_1	CPU_DATA_1				
11	CPU_ADDR_0	CPU_ADDR_0	CPU_ADDR_0				
12	CPU_ADDR_1	CPU_ADDR_1	CPU_ADDR_1				
13	BND	BND	BND				
14	DIU_VDDEN	DIU_VDDEN	DIU_VDDEN				
15	CPU_VDDEN	CPU_VDDEN	CPU_VDDEN				
16	POS_F1SET	POS_F1SET	POS_F1SET				
17	POS_M0D0	POS_M0D0	POS_M0D0				
18	POS_F0V0L	POS_F0V0L	POS_F0V0L				
19	POS_V0D0	POS_V0D0	POS_V0D0				
20	POS_V0D1	POS_V0D1	POS_V0D1				
21	POS_V0D2	POS_V0D2	POS_V0D2				
22	POS_V0D3	POS_V0D3	POS_V0D3				
23	POS_V0D4	POS_V0D4	POS_V0D4				
24	POS_V0D5	POS_V0D5	POS_V0D5				
25	DIU_P0V0L	DIU_P0V0L	DIU_P0V0L				

J236

Pin No.	Signal	Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	DIP_CLK	1	CPM_M0D0	1	CPM_M0D0	1	CPM_M0D0
2	DIU_STMCK	2	DIU_DATA_0	2	DIU_DATA_0	2	DIU_DATA_0
3	DIP_RST	3	RST00	3	RST00	3	RST00
4	DIU_STMCK	4	DIU_RST	4	DIU_RST	4	DIU_RST
5	CPM_DATA_0	5	CPM_RST	5	CPM_RST	5	CPM_RST
6	CPM_DATA_1	6	CPM_RST	6	CPM_RST	6	CPM_RST
7	CPM_DATA_2	7	CPM_RST	7	CPM_RST	7	CPM_RST
8	CPM_DATA_3	8	CPM_RST	8	CPM_RST	8	CPM_RST
9	CPM_DATA_4	9	CPM_RST	9	CPM_RST	9	CPM_RST
10	CPM_DATA_5	10	CPM_RST	10	CPM_RST	10	CPM_RST
11	CPM_DATA_6	11	CPM_RST	11	CPM_RST	11	CPM_RST
12	CPM_DATA_7	12	CPM_RST	12	CPM_RST	12	CPM_RST
13	CPM_DATA_8	13	CPM_RST	13	CPM_RST	13	CPM_RST
14	CPM_DATA_9	14	CPM_RST	14	CPM_RST	14	CPM_RST
15	CPM_DATA_10	15	CPM_RST	15	CPM_RST	15	CPM_RST
16	CPM_DATA_11	16	CPM_RST	16	CPM_RST	16	CPM_RST
17	CPM_DATA_12	17	CPM_RST	17	CPM_RST	17	CPM_RST
18	CPM_DATA_13	18	CPM_RST	18	CPM_RST	18	CPM_RST
19	CPM_DATA_14	19	CPM_RST	19	CPM_RST	19	CPM_RST
20	CPM_DATA_15	20	CPM_RST	20	CPM_RST	20	CPM_RST
21	CPM_DATA_16	21	CPM_RST	21	CPM_RST	21	CPM_RST
22	CPM_DATA_17	22	CPM_RST	22	CPM_RST	22	CPM_RST
23	CPM_DATA_18	23	CPM_RST	23	CPM_RST	23	CPM_RST
24	CPM_DATA_19	24	CPM_RST	24	CPM_RST	24	CPM_RST

J2

Pin No.	Signal	Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	1	DIU_TEMP0	1	DIU_TEMP0
2	POS_F0V0L	POS_F0V0L	POS_F0V0L	2	POS_F0V0L	2	POS_F0V0L
3	POS_F0V0L	POS_F0V0L	POS_F0V0L	3	POS_F0V0L	3	POS_F0V0L
4	POS_F0V0L	POS_F0V0L	POS_F0V0L	4	POS_F0V0L	4	POS_F0V0L
5	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	5	DIU_TEMP0	5	DIU_TEMP0
6	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	6	DIU_TEMP0	6	DIU_TEMP0
7	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	7	DIU_TEMP0	7	DIU_TEMP0
8	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	8	DIU_TEMP0	8	DIU_TEMP0
9	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	9	DIU_TEMP0	9	DIU_TEMP0
10	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	10	DIU_TEMP0	10	DIU_TEMP0
11	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	11	DIU_TEMP0	11	DIU_TEMP0
12	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	12	DIU_TEMP0	12	DIU_TEMP0
13	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	13	DIU_TEMP0	13	DIU_TEMP0
14	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	14	DIU_TEMP0	14	DIU_TEMP0
15	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	15	DIU_TEMP0	15	DIU_TEMP0
16	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	16	DIU_TEMP0	16	DIU_TEMP0
17	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	17	DIU_TEMP0	17	DIU_TEMP0
18	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	18	DIU_TEMP0	18	DIU_TEMP0
19	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	19	DIU_TEMP0	19	DIU_TEMP0
20	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	20	DIU_TEMP0	20	DIU_TEMP0
21	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	21	DIU_TEMP0	21	DIU_TEMP0
22	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	22	DIU_TEMP0	22	DIU_TEMP0
23	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	23	DIU_TEMP0	23	DIU_TEMP0
24	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	24	DIU_TEMP0	24	DIU_TEMP0
25	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	25	DIU_TEMP0	25	DIU_TEMP0

J3

Pin No.	Signal	Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	1	DIU_TEMP0	1	DIU_TEMP0
2	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	2	DIU_TEMP0	2	DIU_TEMP0
3	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	3	DIU_TEMP0	3	DIU_TEMP0
4	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	4	DIU_TEMP0	4	DIU_TEMP0
5	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	5	DIU_TEMP0	5	DIU_TEMP0
6	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	6	DIU_TEMP0	6	DIU_TEMP0
7	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	7	DIU_TEMP0	7	DIU_TEMP0
8	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	8	DIU_TEMP0	8	DIU_TEMP0
9	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	9	DIU_TEMP0	9	DIU_TEMP0
10	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	10	DIU_TEMP0	10	DIU_TEMP0
11	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	11	DIU_TEMP0	11	DIU_TEMP0
12	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	12	DIU_TEMP0	12	DIU_TEMP0
13	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	13	DIU_TEMP0	13	DIU_TEMP0
14	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	14	DIU_TEMP0	14	DIU_TEMP0
15	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	15	DIU_TEMP0	15	DIU_TEMP0
16	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	16	DIU_TEMP0	16	DIU_TEMP0
17	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	17	DIU_TEMP0	17	DIU_TEMP0
18	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	18	DIU_TEMP0	18	DIU_TEMP0
19	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	19	DIU_TEMP0	19	DIU_TEMP0
20	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	20	DIU_TEMP0	20	DIU_TEMP0
21	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	21	DIU_TEMP0	21	DIU_TEMP0
22	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	22	DIU_TEMP0	22	DIU_TEMP0
23	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	23	DIU_TEMP0	23	DIU_TEMP0
24	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	24	DIU_TEMP0	24	DIU_TEMP0
25	DIU_TEMP0	DIU_TEMP0	DIU_TEMP0	25	DIU_TEMP0	25	DIU_TEMP0

J236

Pin No.	Signal	Pin No.	Signal
1	VOL_ABC	1	VOL_ABC
2	US2_IN_R	2	US2_IN_R
3	US2_IN_L	3	US2_IN_L

**Aloha** DIU Mother

title 名称: DIU Mother  
model 型号: EP419600

3rd angle projection  
第三角法

draw 制图: [Stamp]  
designed 设计: [Stamp]  
checked 检查: [Stamp]  
appd 审批: [Stamp]

scale 尺规: [Stamp]  
units 单位: [Stamp]

5/  
A

SECTION 7 SCHEMATICS

K L M N O P Q R S T U V W X Y Z

J233

PIN No.	PHI
1	7815-6005EC
2	PAL_RECV_A
3	PAL_RECV_B
4	PAL_RECV_C
5	PAL_RECV_D
6	PAL_RECV_E
7	PAL_RECV_F
8	PAL_RECV_G
9	PAL_RECV_H
10	PAL_RECV_I
11	PAL_RECV_J
12	PAL_RECV_K
13	PAL_RECV_L
14	PAL_RECV_M
15	PAL_RECV_N
16	PAL_RECV_O

J234

PIN No.	PHI
1	7815-6005EC
2	PAL_RECV_A
3	PAL_RECV_B
4	PAL_RECV_C
5	PAL_RECV_D
6	PAL_RECV_E
7	PAL_RECV_F
8	PAL_RECV_G
9	PAL_RECV_H
10	PAL_RECV_I
11	PAL_RECV_J
12	PAL_RECV_K
13	PAL_RECV_L
14	PAL_RECV_M
15	PAL_RECV_N
16	PAL_RECV_O

J235

PIN No.	PHI
1	5045-02A
2	VS_IN
3	VS_OUT
4	VS_IN
5	VS_OUT
6	VS_IN
7	VS_OUT
8	VS_IN
9	VS_OUT
10	VS_IN
11	VS_OUT
12	VS_IN
13	VS_OUT
14	VS_IN
15	VS_OUT
16	VS_IN
17	VS_OUT
18	VS_IN
19	VS_OUT
20	VS_IN
21	VS_OUT
22	VS_IN
23	VS_OUT
24	VS_IN
25	VS_OUT
26	VS_IN
27	VS_OUT
28	VS_IN
29	VS_OUT
30	VS_IN
31	VS_OUT
32	VS_IN
33	VS_OUT
34	VS_IN
35	VS_OUT
36	VS_IN
37	VS_OUT
38	VS_IN
39	VS_OUT
40	VS_IN
41	VS_OUT
42	VS_IN
43	VS_OUT
44	VS_IN
45	VS_OUT
46	VS_IN
47	VS_OUT
48	VS_IN
49	VS_OUT
50	VS_IN

J223

PIN No.	PHI
1	RGB_OUT
2	RGB_OUT
3	RGB_OUT
4	RGB_OUT
5	RGB_OUT
6	RGB_OUT
7	RGB_OUT
8	RGB_OUT
9	RGB_OUT
10	RGB_OUT
11	RGB_OUT
12	RGB_OUT
13	RGB_OUT
14	RGB_OUT
15	RGB_OUT
16	RGB_OUT
17	RGB_OUT
18	RGB_OUT
19	RGB_OUT
20	RGB_OUT
21	RGB_OUT
22	RGB_OUT
23	RGB_OUT
24	RGB_OUT
25	RGB_OUT
26	RGB_OUT
27	RGB_OUT
28	RGB_OUT
29	RGB_OUT
30	RGB_OUT
31	RGB_OUT
32	RGB_OUT
33	RGB_OUT
34	RGB_OUT
35	RGB_OUT
36	RGB_OUT
37	RGB_OUT
38	RGB_OUT
39	RGB_OUT
40	RGB_OUT
41	RGB_OUT
42	RGB_OUT
43	RGB_OUT
44	RGB_OUT
45	RGB_OUT
46	RGB_OUT
47	RGB_OUT
48	RGB_OUT
49	RGB_OUT
50	RGB_OUT

J222

PIN No.	PHI
1	VIDEO_I/O
2	VIDEO_I/O
3	VIDEO_I/O
4	VIDEO_I/O
5	VIDEO_I/O
6	VIDEO_I/O
7	VIDEO_I/O
8	VIDEO_I/O
9	VIDEO_I/O
10	VIDEO_I/O
11	VIDEO_I/O
12	VIDEO_I/O
13	VIDEO_I/O
14	VIDEO_I/O
15	VIDEO_I/O
16	VIDEO_I/O
17	VIDEO_I/O
18	VIDEO_I/O
19	VIDEO_I/O
20	VIDEO_I/O
21	VIDEO_I/O
22	VIDEO_I/O
23	VIDEO_I/O
24	VIDEO_I/O
25	VIDEO_I/O
26	VIDEO_I/O
27	VIDEO_I/O
28	VIDEO_I/O
29	VIDEO_I/O
30	VIDEO_I/O
31	VIDEO_I/O
32	VIDEO_I/O
33	VIDEO_I/O
34	VIDEO_I/O
35	VIDEO_I/O
36	VIDEO_I/O
37	VIDEO_I/O
38	VIDEO_I/O
39	VIDEO_I/O
40	VIDEO_I/O
41	VIDEO_I/O
42	VIDEO_I/O
43	VIDEO_I/O
44	VIDEO_I/O
45	VIDEO_I/O
46	VIDEO_I/O
47	VIDEO_I/O
48	VIDEO_I/O
49	VIDEO_I/O
50	VIDEO_I/O

J221

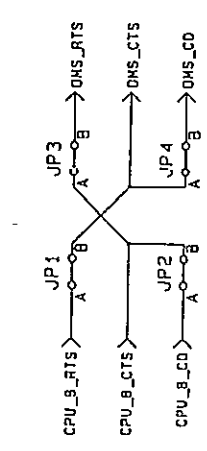
PIN No.	PHI
1	AUDIO_I/O
2	AUDIO_I/O
3	AUDIO_I/O
4	AUDIO_I/O
5	AUDIO_I/O
6	AUDIO_I/O
7	AUDIO_I/O
8	AUDIO_I/O
9	AUDIO_I/O
10	AUDIO_I/O
11	AUDIO_I/O
12	AUDIO_I/O
13	AUDIO_I/O
14	AUDIO_I/O
15	AUDIO_I/O
16	AUDIO_I/O
17	AUDIO_I/O
18	AUDIO_I/O
19	AUDIO_I/O
20	AUDIO_I/O
21	AUDIO_I/O
22	AUDIO_I/O
23	AUDIO_I/O
24	AUDIO_I/O
25	AUDIO_I/O
26	AUDIO_I/O
27	AUDIO_I/O
28	AUDIO_I/O
29	AUDIO_I/O
30	AUDIO_I/O
31	AUDIO_I/O
32	AUDIO_I/O
33	AUDIO_I/O
34	AUDIO_I/O
35	AUDIO_I/O
36	AUDIO_I/O
37	AUDIO_I/O
38	AUDIO_I/O
39	AUDIO_I/O
40	AUDIO_I/O
41	AUDIO_I/O
42	AUDIO_I/O
43	AUDIO_I/O
44	AUDIO_I/O
45	AUDIO_I/O
46	AUDIO_I/O
47	AUDIO_I/O
48	AUDIO_I/O
49	AUDIO_I/O
50	AUDIO_I/O

J220

PIN No.	PHI
1	RGB_OUT
2	RGB_OUT
3	RGB_OUT
4	RGB_OUT
5	RGB_OUT
6	RGB_OUT
7	RGB_OUT
8	RGB_OUT
9	RGB_OUT
10	RGB_OUT
11	RGB_OUT
12	RGB_OUT
13	RGB_OUT
14	RGB_OUT
15	RGB_OUT
16	RGB_OUT
17	RGB_OUT
18	RGB_OUT
19	RGB_OUT
20	RGB_OUT
21	RGB_OUT
22	RGB_OUT
23	RGB_OUT
24	RGB_OUT
25	RGB_OUT
26	RGB_OUT
27	RGB_OUT
28	RGB_OUT
29	RGB_OUT
30	RGB_OUT
31	RGB_OUT
32	RGB_OUT
33	RGB_OUT
34	RGB_OUT
35	RGB_OUT
36	RGB_OUT
37	RGB_OUT
38	RGB_OUT
39	RGB_OUT
40	RGB_OUT
41	RGB_OUT
42	RGB_OUT
43	RGB_OUT
44	RGB_OUT
45	RGB_OUT
46	RGB_OUT
47	RGB_OUT
48	RGB_OUT
49	RGB_OUT
50	RGB_OUT

J231

PIN No.	PHI
1	CPU_B_STS
2	CPU_B_STS
3	CPU_B_STS
4	CPU_B_STS
5	CPU_B_STS
6	CPU_B_STS
7	CPU_B_STS
8	CPU_B_STS
9	CPU_B_STS
10	CPU_B_STS
11	CPU_B_STS
12	CPU_B_STS
13	CPU_B_STS
14	CPU_B_STS
15	CPU_B_STS
16	CPU_B_STS
17	CPU_B_STS
18	CPU_B_STS
19	CPU_B_STS
20	CPU_B_STS
21	CPU_B_STS
22	CPU_B_STS
23	CPU_B_STS
24	CPU_B_STS
25	CPU_B_STS
26	CPU_B_STS
27	CPU_B_STS
28	CPU_B_STS
29	CPU_B_STS
30	CPU_B_STS
31	CPU_B_STS
32	CPU_B_STS
33	CPU_B_STS
34	CPU_B_STS
35	CPU_B_STS
36	CPU_B_STS
37	CPU_B_STS
38	CPU_B_STS
39	CPU_B_STS
40	CPU_B_STS
41	CPU_B_STS
42	CPU_B_STS
43	CPU_B_STS
44	CPU_B_STS
45	CPU_B_STS
46	CPU_B_STS
47	CPU_B_STS
48	CPU_B_STS
49	CPU_B_STS
50	CPU_B_STS



J232

PIN No.	PHI
1	DMS_STS
2	DMS_STS
3	DMS_STS
4	DMS_STS
5	DMS_STS
6	DMS_STS
7	DMS_STS
8	DMS_STS
9	DMS_STS
10	DMS_STS
11	DMS_STS
12	DMS_STS
13	DMS_STS
14	DMS_STS
15	DMS_STS
16	DMS_STS
17	DMS_STS
18	DMS_STS
19	DMS_STS
20	DMS_STS
21	DMS_STS
22	DMS_STS
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25	DMS_STS
26	DMS_STS
27	DMS_STS
28	DMS_STS
29	DMS_STS
30	DMS_STS
31	DMS_STS
32	DMS_STS
33	DMS_STS
34	DMS_STS
35	DMS_STS
36	DMS_STS
37	DMS_STS
38	DMS_STS
39	DMS_STS
40	DMS_STS
41	DMS_STS
42	DMS_STS
43	DMS_STS
44	DMS_STS
45	DMS_STS
46	DMS_STS
47	DMS_STS
48	DMS_STS
49	DMS_STS
50	DMS_STS

Alcoa

DIU Mother

EP419600

6/

A

Scale: 1:1

Units: mm

Revision: 6/

Drawing no. 6/

K	J	I	H	G	F	E	D	C	B	A	0	P	S	T	U	V	X	Y	Z																					
																			J210	J211	J212	J213	J214	J215	J216	J217	J218	J219	J220	J221	J222	J223	J224	J225	J226	J227	J228	J229	J230	
																			J241	J242	J243	J244	J245	J246	J247	J248	J249	J250	J251	J252	J253	J254	J255	J256	J257	J258	J259	J260	J261	J262
																			J263	J264	J265	J266	J267	J268	J269	J270	J271	J272	J273	J274	J275	J276	J277	J278	J279	J280	J281	J282	J283	J284

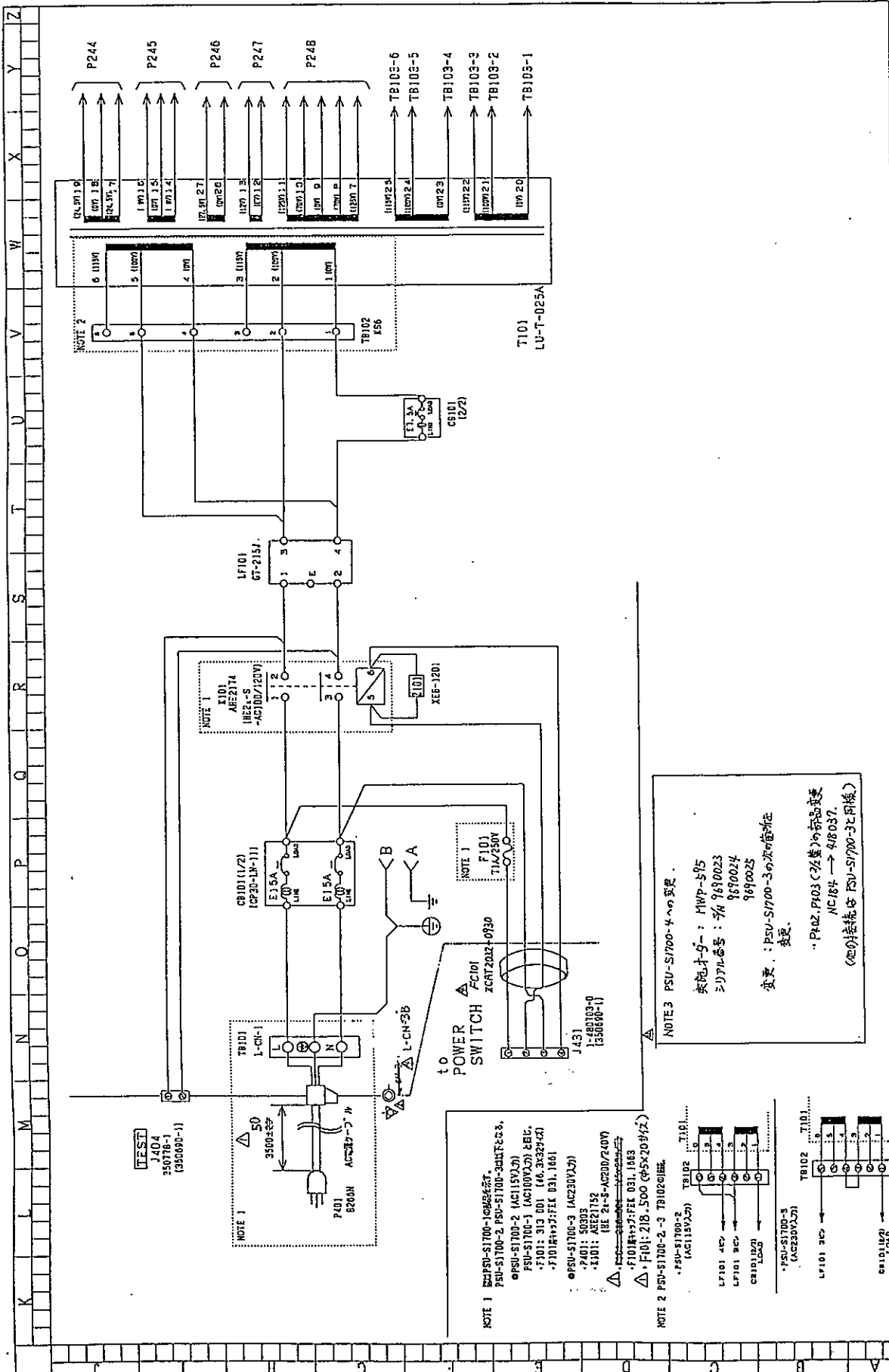
**Aloka** title 母板  
3rd angle projection 第三角法  
SCALE 比例 1:1  
DATE 日期

DIU Mother  
model 母板  
EP4196□□

checked 校核  
drawing no. 圖號  
A

PIN No.	A	B	C	D
1	P0M_5V	P0M_5V	P0M_5V	P0M_5V
2	P0M_5V	P0M_5V	P0M_5V	P0M_5V
3	P0M_5V	P0M_5V	P0M_5V	P0M_5V
4	P0M_5V	P0M_5V	P0M_5V	P0M_5V
5	P0M_5V	P0M_5V	P0M_5V	P0M_5V
6	P0M_5V	P0M_5V	P0M_5V	P0M_5V
7	P0M_5V	P0M_5V	P0M_5V	P0M_5V
8	P0M_5V	P0M_5V	P0M_5V	P0M_5V
9	P0M_5V	P0M_5V	P0M_5V	P0M_5V
10	P0M_5V	P0M_5V	P0M_5V	P0M_5V
11	P0M_5V	P0M_5V	P0M_5V	P0M_5V
12	P0M_5V	P0M_5V	P0M_5V	P0M_5V
13	P0M_5V	P0M_5V	P0M_5V	P0M_5V
14	P0M_5V	P0M_5V	P0M_5V	P0M_5V
15	P0M_5V	P0M_5V	P0M_5V	P0M_5V
16	P0M_5V	P0M_5V	P0M_5V	P0M_5V
17	P0M_5V	P0M_5V	P0M_5V	P0M_5V
18	P0M_5V	P0M_5V	P0M_5V	P0M_5V
19	P0M_5V	P0M_5V	P0M_5V	P0M_5V
20	P0M_5V	P0M_5V	P0M_5V	P0M_5V
21	P0M_5V	P0M_5V	P0M_5V	P0M_5V
22	P0M_5V	P0M_5V	P0M_5V	P0M_5V
23	P0M_5V	P0M_5V	P0M_5V	P0M_5V
24	P0M_5V	P0M_5V	P0M_5V	P0M_5V
25	P0M_5V	P0M_5V	P0M_5V	P0M_5V



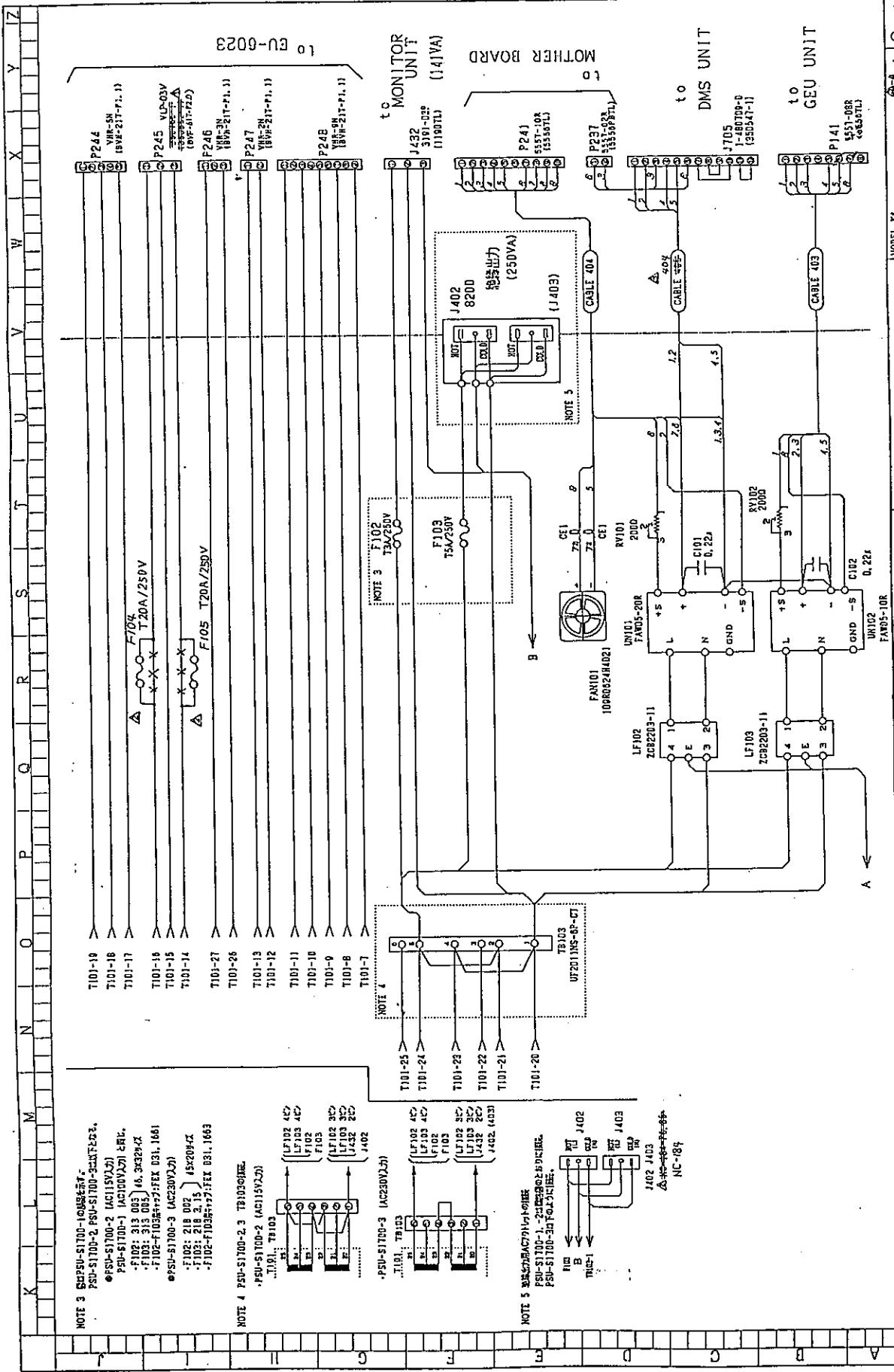


REVISEMENTS	Δ 96-118 MW-53098 FSI-50650 Δ 96-2-22 MW-55567 FSI-51175 Δ 96-4-19 PSU-S1700B-1-2 MW-60536 PSU-S1700B-3 MW-55567 SA 960071-80 MW-60536 FSI-51221 Δ 96-5-23 FSI-60067
TITLE	MODEL 55 PSU-S1700B DRAWING NO. 88 MC331885
3RD ANGLE PROJECTION	3RD ANGLE PROJECTION 第三角法 SCALE 1/1 UNITS 寸 INCH
DESIGN	DESIGN 55.01 55.01 55.01 55.01
CHECKED	CHECKED 55.11 55.11 55.11 55.11
APPROVED	APPD 55.9-5 55.9-5 55.9-5 55.9-5
DATE	DATE 1/2 1/2 1/2 1/2

NOTE 3 PSU-S1700-4への変更。  
 実施方針 - MWP-595  
 シリアル番号 : 9690023  
 9690024  
 9690025  
 変更 : PSU-S1700-3の次の箇所に  
 変更。  
 \* Pr.02, Pr.03 (7%値)の部品変更  
 NC184 → 4R037.  
 (他の接続は PSU-S1700-3と同様)

NOTE 1  
 \* PSU-S1700-1 (AC250V)  
 \* PSU-S1700-2 (AC115V/50)  
 \* PSU-S1700-1 (AC100V/50) ELC.  
 \* F101: 313 001 (46.3x32x42)  
 \* F101R1132FEK 031.1661  
 \* PSU-S1700-3 (AC200V/50)  
 \* F401: 313 001  
 \* F401: 313 001 (46.3x32x42)  
 \* F401: (UE 21-5-AC200/240V)  
 \* F101R1132FEK 031.1663  
 \* F101: Z1B-1500 (95x209x72)  
 Δ \* F101: Z1B-1500 (95x209x72)  
 NOTE 2 PSU-S1700-2, -3 TB10201Eに  
 \* PSU-S1700-2 (AC115V/50) TB102  
 \* PSU-S1700-3 (AC230V/50) TB102

MN2-0213 Rev. 1  
SECTION 7 SCHEMATICS

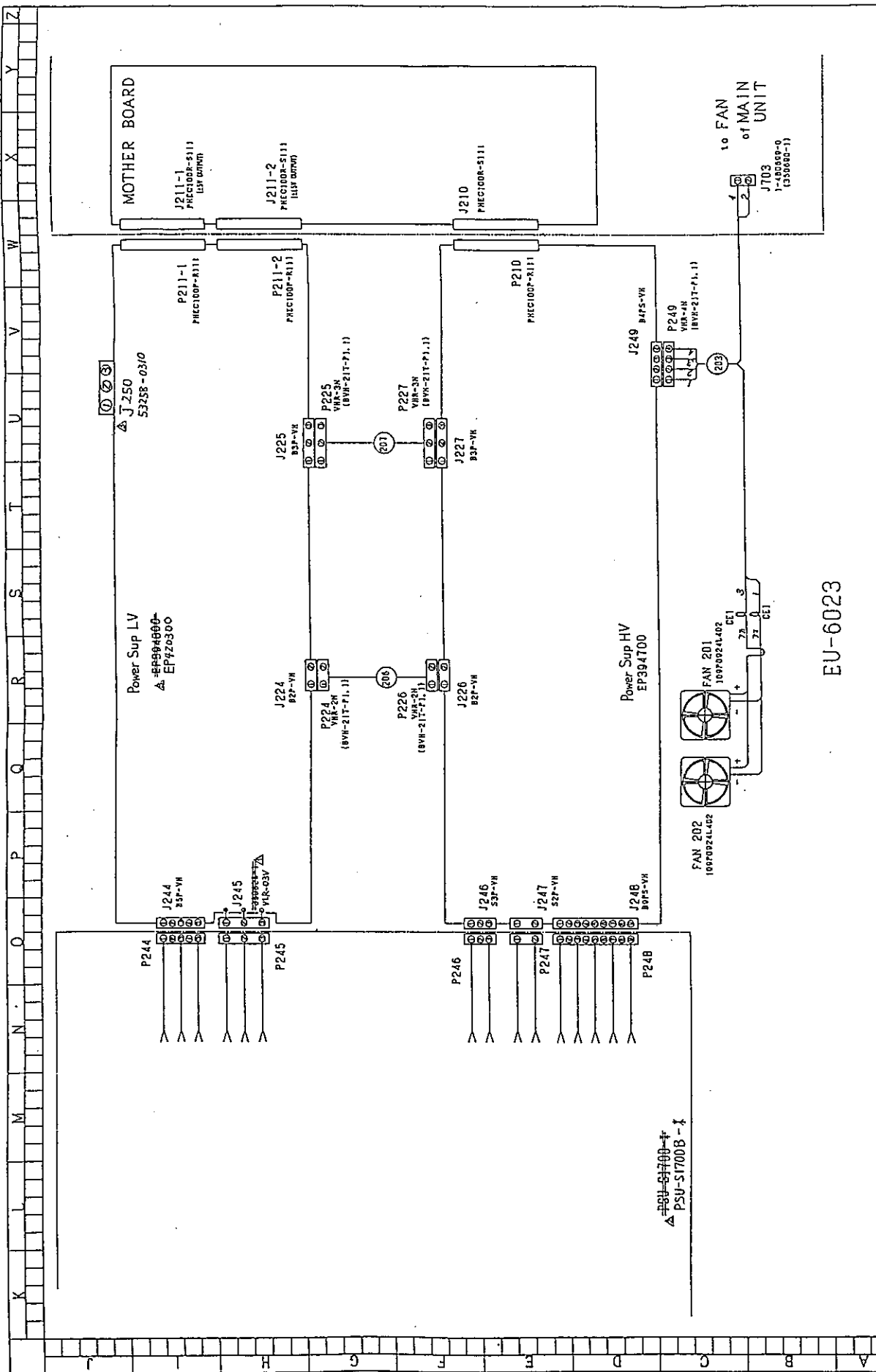


NOTE 3 部品名・仕様書番  
 PSU-S1700-2 PSU-S1700-3共通  
 ●PSU-S1700-2 (AC115V用)  
 ●PSU-S1700-1 (AC100V用) 参照  
 ・F102: 313 085 (46.3x29x4)  
 ・F103: 313 085 (46.3x29x4)  
 ・F102-F103: 100R024H021  
 ●PSU-S1700-3 (AC230V用)  
 ・F102: 218 002 (46.29x4)  
 ・F103: 218 215 (46.29x4)  
 ・F102-F103: 100R024H021

NOTE 4 PSU-S1700-2, 3 共通  
 ●PSU-S1700-2 (AC115V用)  
 T101, T103  
 (LF102 4C)  
 (LF103 4C)  
 F102  
 F103  
 (LF102 3C)  
 (LF103 3C)  
 J432 2C  
 J402

NOTE 5 部品名・仕様書番  
 PSU-S1700-1, 2, 3共通  
 ●PSU-S1700-2 (AC115V用)  
 ●PSU-S1700-3 (AC230V用)  
 J402 J403  
 J402 J403  
 NC-184

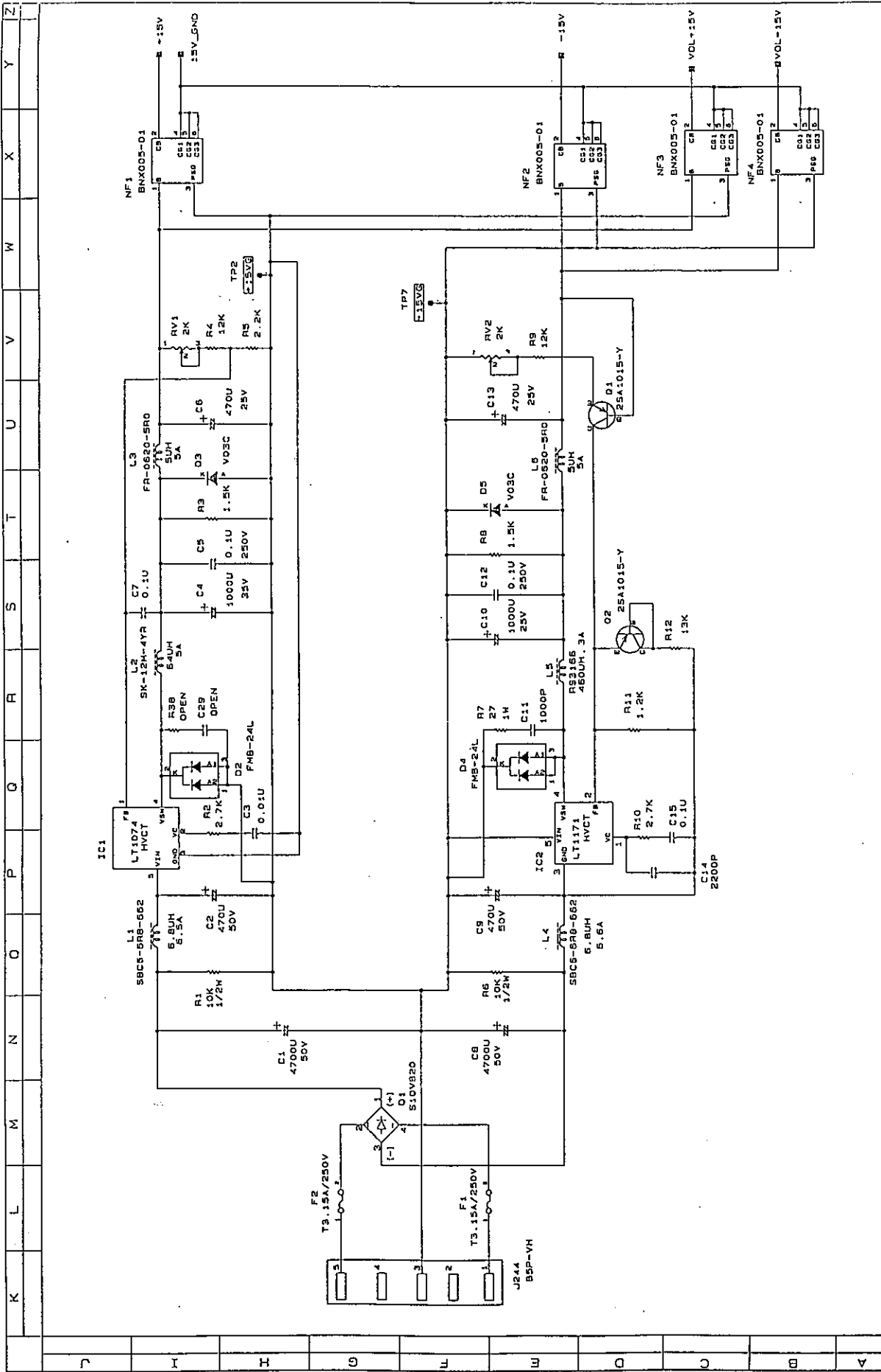
REVISIONS 表	MODEL 名	PSU-S1700B-3	DATE	1/2	
△95-10-17 初版 MW-53098~ FS1-50704	△96-4-19 改訂 PSU-S1700B-1, 2 MW-60536~ PSU-S1700B-3 MW-53547 MW-53547 MW-53547 △9490071~80 FS1-51211 FS1-60617	△96-5-23 改訂 FS1-60617	3RD ANGLE PROJECTION 第一角法 SCALE 尺 1:1 UNITS 単位 mm	DESIGN 設計 有 CHECKED 検閲 有 DRAWN 製図 有 APPROVED 承認 有	DRAWING NO. 図番 MCC31886
回路図					
TITLE 名					



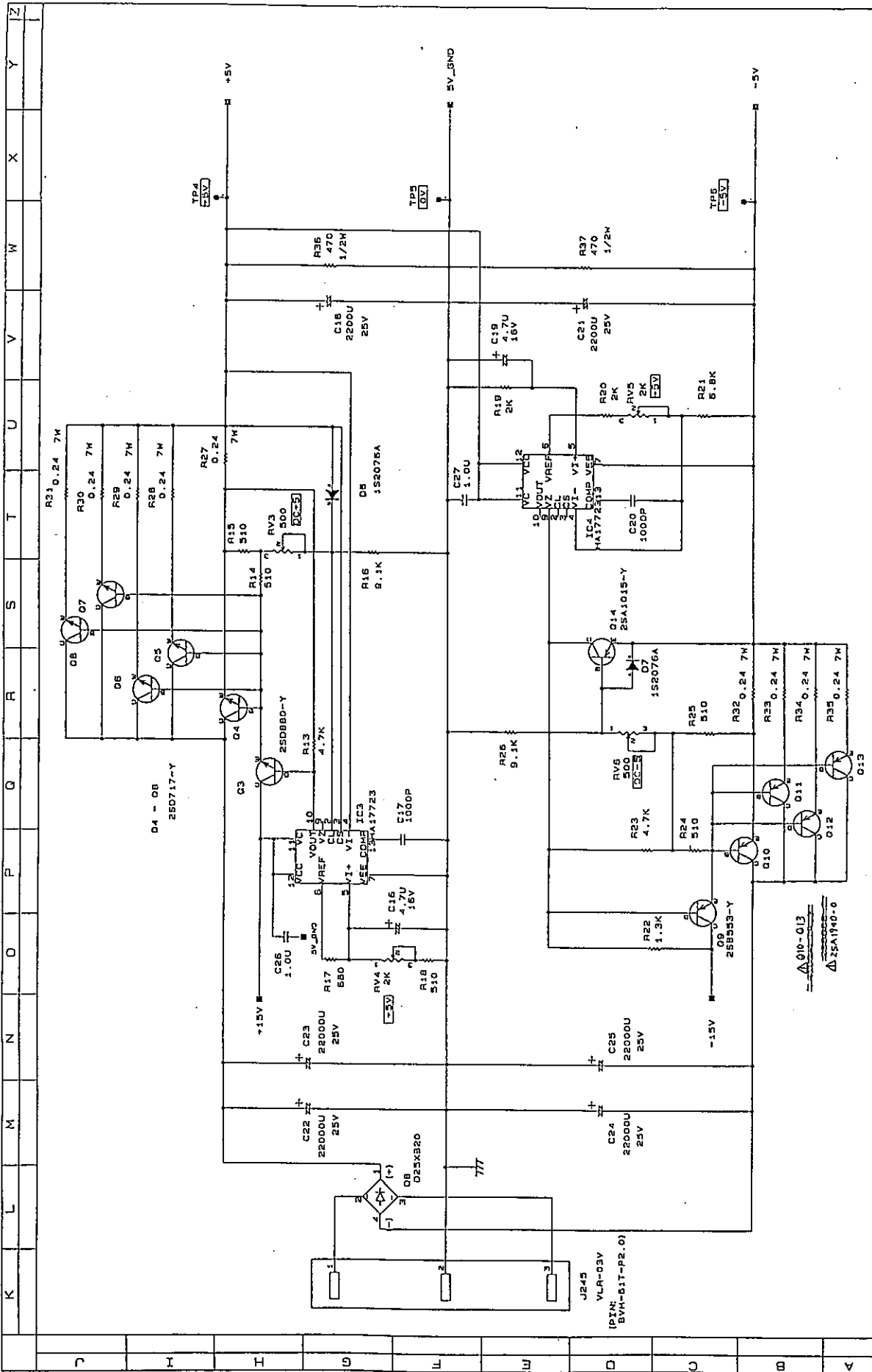
EU-6023

REVISEMENTS	△ 95-10-17 M-W-53092 FSI-50704	△ 96-4-17 M-W-53567 541990031-50 541990071-50 M-W-60536 FSI-51221	△ 96-9-27 M-W-60534 FSI-60425
	MODEL NO. EU-6023 DRAWING NO. MC331889		
	TITLE 安定化電源部 3RD ANGLE PROJECTION 第三角法 SCALE 1:1 UNITS mm		
	DESIGNER 有 CHECKED 有 DRAWN 有 DESIGNED 有 APPROVED 有 DATE 5.1.76 DRAWN NO. 51.10 CHECKED NO. 51.10 APPROVED NO. 51.10		

MN2-0213 Rev. 1  
SECTION 7 SCHEMATICS



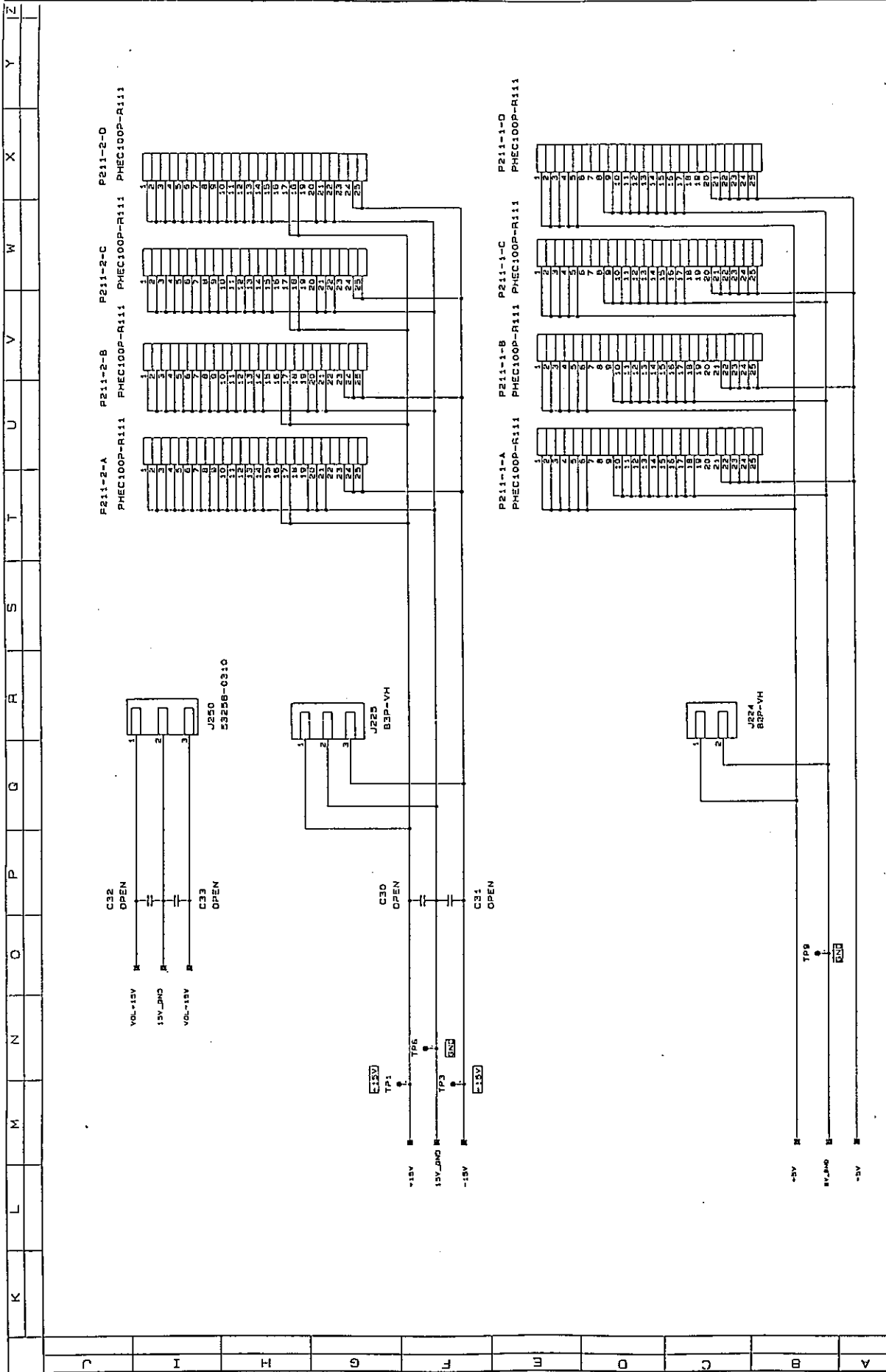
REVISIONS	MODEL N°S		DRAWING NO. B#		L-013-10-02-43	
A	Power SUP LV		EP420300		1/3	
B	TITLE #A		DRAWN BY		CHECKED BY	
C	Aloha		田中		田中	
D	3D ANGLE PROJECTION		SCALE		UNIT	
E	第3角法		1:1		mm	
F	SCALES		1:1		mm	
G	UNIT		mm		mm	
H	SCALE		1:1		mm	
I	UNIT		mm		mm	
J	SCALE		1:1		mm	
K	UNIT		mm		mm	
L	SCALE		1:1		mm	
M	UNIT		mm		mm	
N	SCALE		1:1		mm	
O	UNIT		mm		mm	
P	SCALE		1:1		mm	
Q	UNIT		mm		mm	
R	SCALE		1:1		mm	
S	UNIT		mm		mm	
T	SCALE		1:1		mm	
U	UNIT		mm		mm	
V	SCALE		1:1		mm	
W	UNIT		mm		mm	
X	SCALE		1:1		mm	
Y	UNIT		mm		mm	
Z	SCALE		1:1		mm	



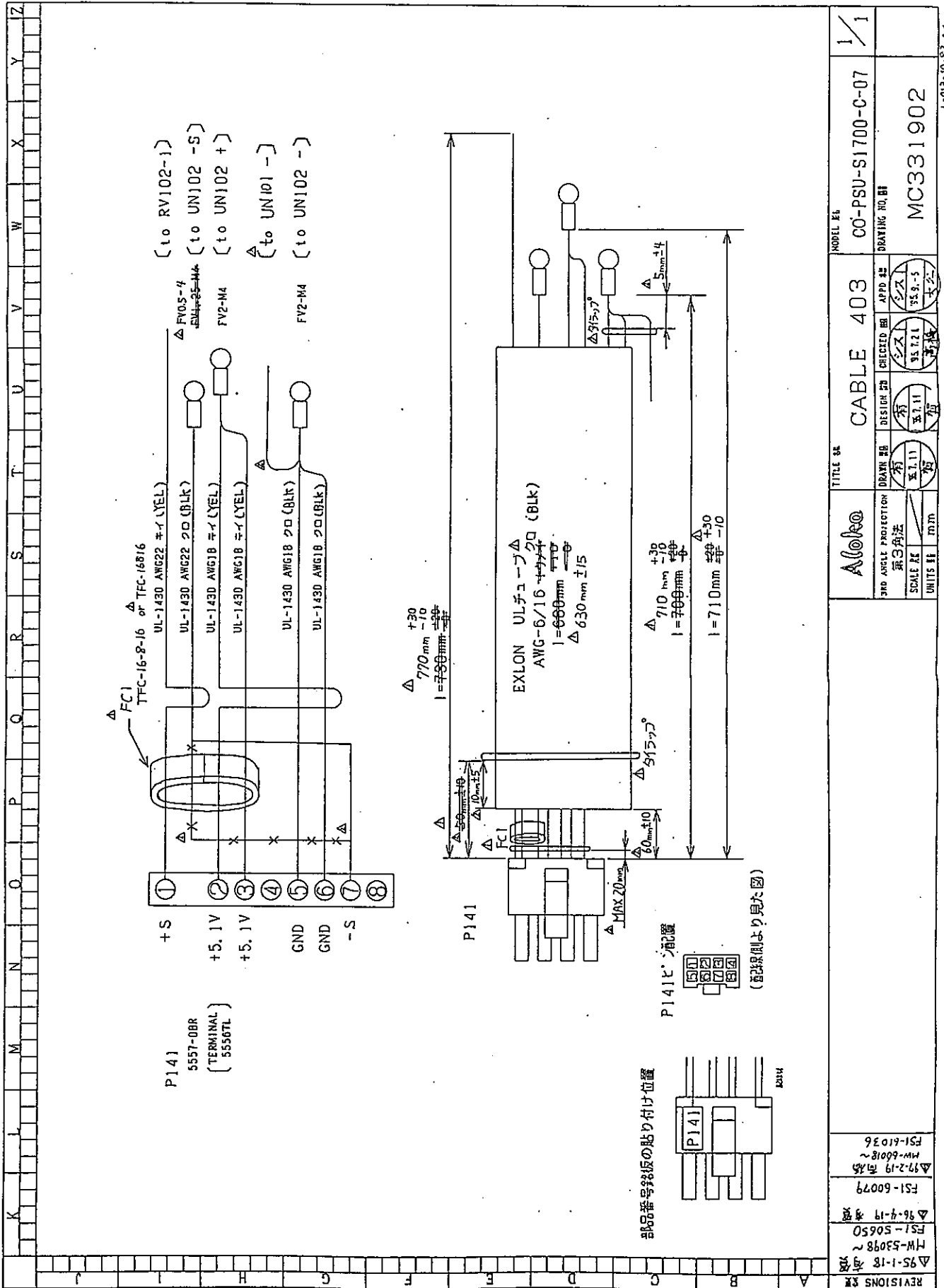
REVISIONS	Δ 97.11.29 高橋	HW: 6018	FST: 60948
SCALE	1/100	UNIT	MM
DATE	第3月 5日	DRAWN BY	高橋
DESIGNED BY	高橋	CHECKED BY	高橋
APPROVED BY	高橋	DATE	97.11.29
TITLE: Power SUP LV		MODEL #:	EP420300
DRAWING NO.:		2/3	

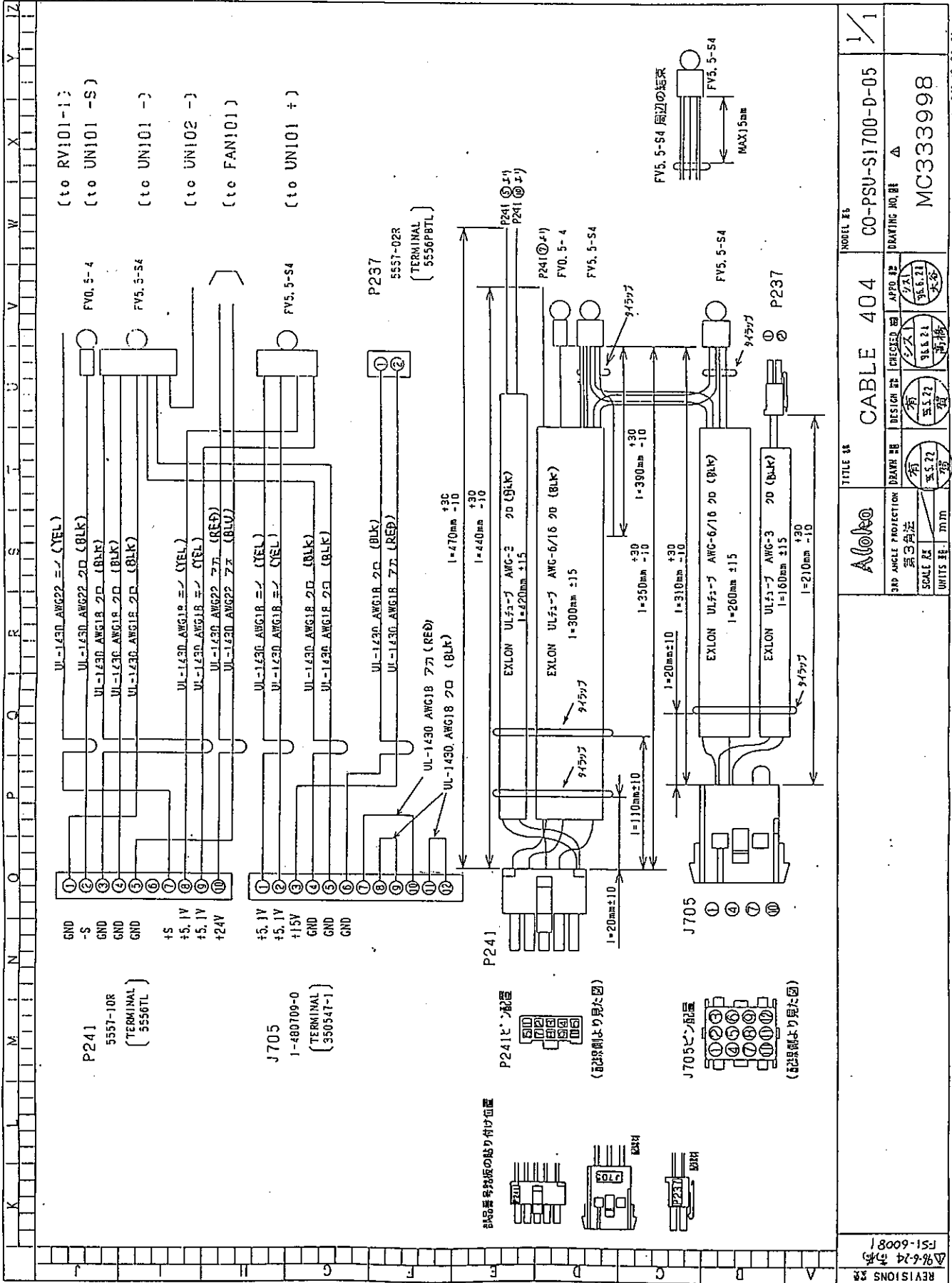
L-013-10-02-A3

MN2-0213 Rev. 1  
SECTION 7 SCHEMATICS



REVISIONS	TITLE 名称		MODEL 型号	3/3
	Power SUP LV		EP4203	
	DRAWN 図面作成		DESIGNED 設計	APPROVED 承認
	3月5日		3月15日	3月15日
	SCALE 比例尺		UNIT 単位	
	MM		高橋	
	DRAWING NO. 図番			A
				L-013-10-02-A3

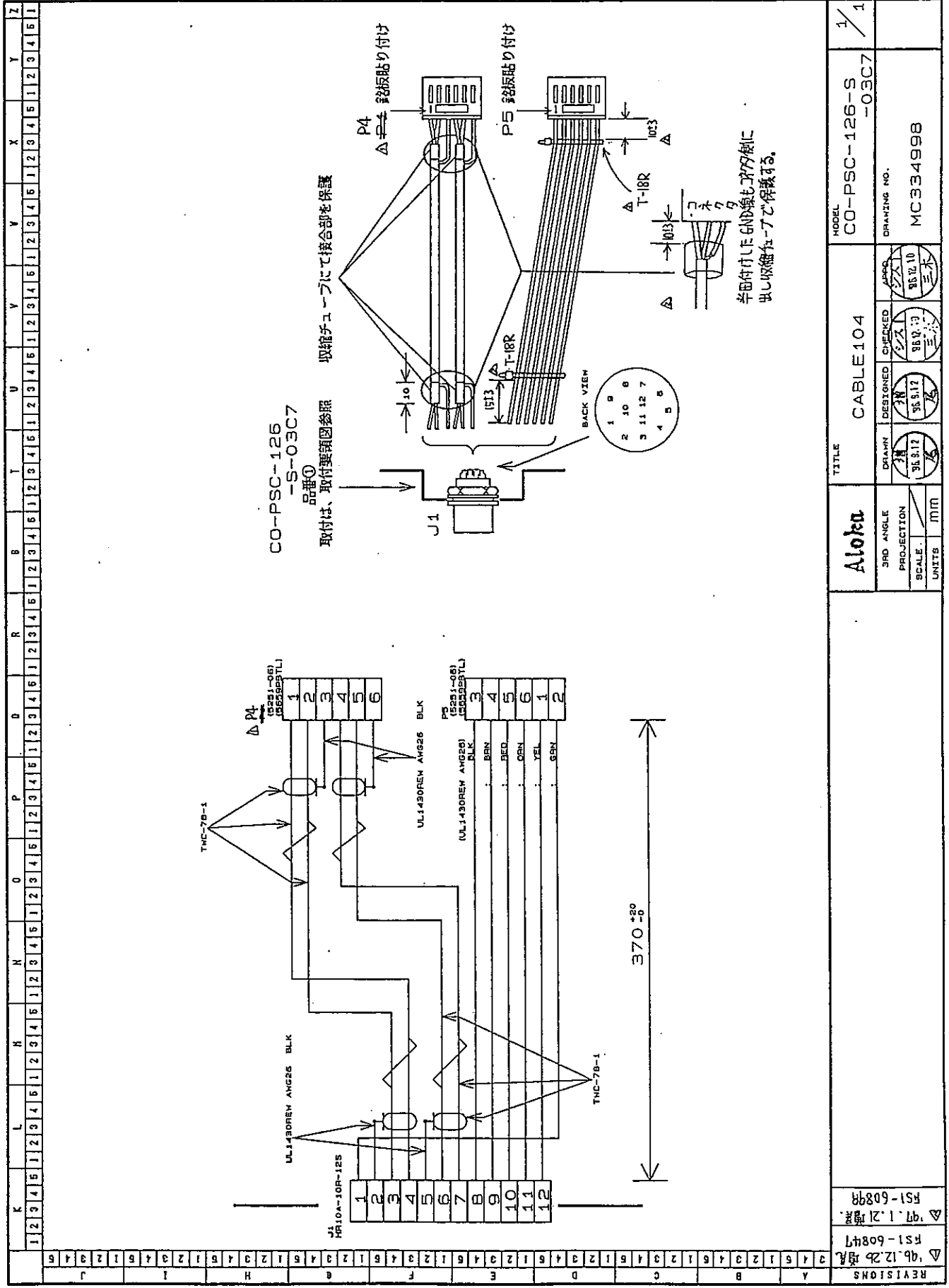




MODEL NO	C0-PSU-S1700-D-05
QUANTITY NO	Δ
MODEL NO	M0333998
TITLE NO CABLE 404	
3RD ANGLE PROJECTION 第3角法	SCALE 1/50
DESIGN NO 有 5.72	CHECKED BY 有 5.72
APPROVED BY 有 5.72	DATE 5.21
UNITS 註	mm

REVISIONS 註	Δ#6-24 5枚 F51-60081
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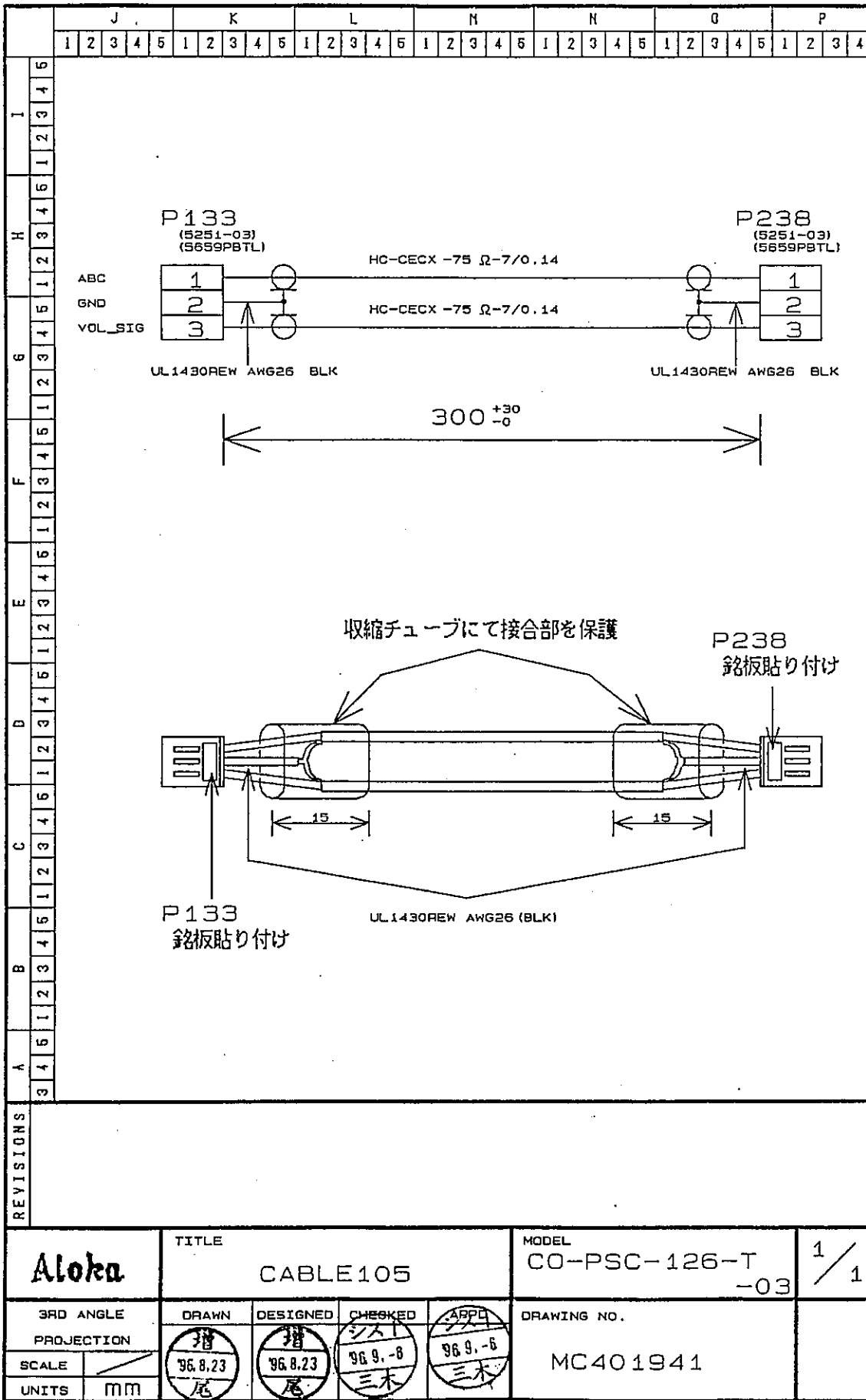


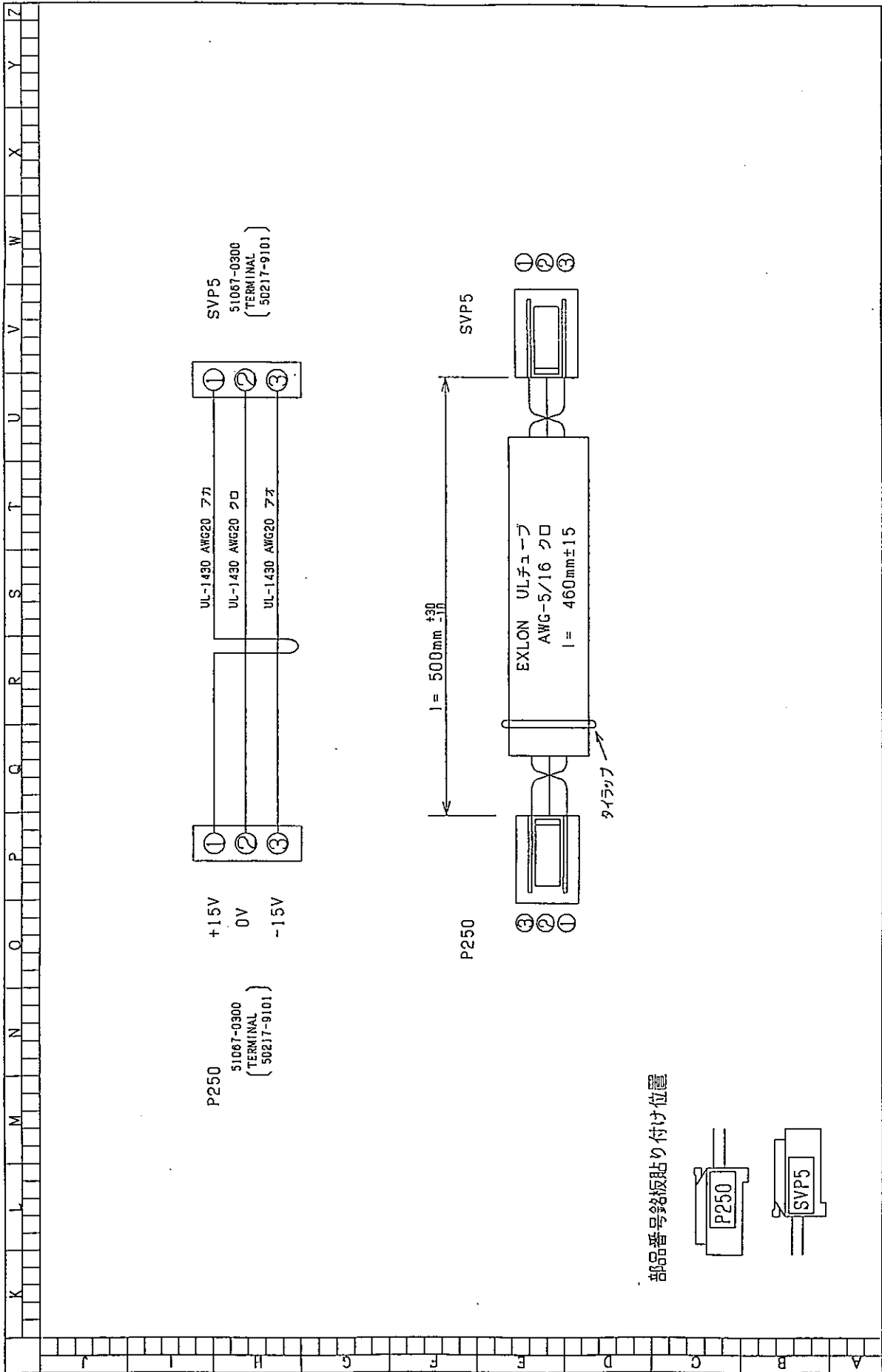
CO-PSC-126  
-S-03C7  
品番①  
取付は、取付要領図参照

取付要領図参照  
取付要領図参照

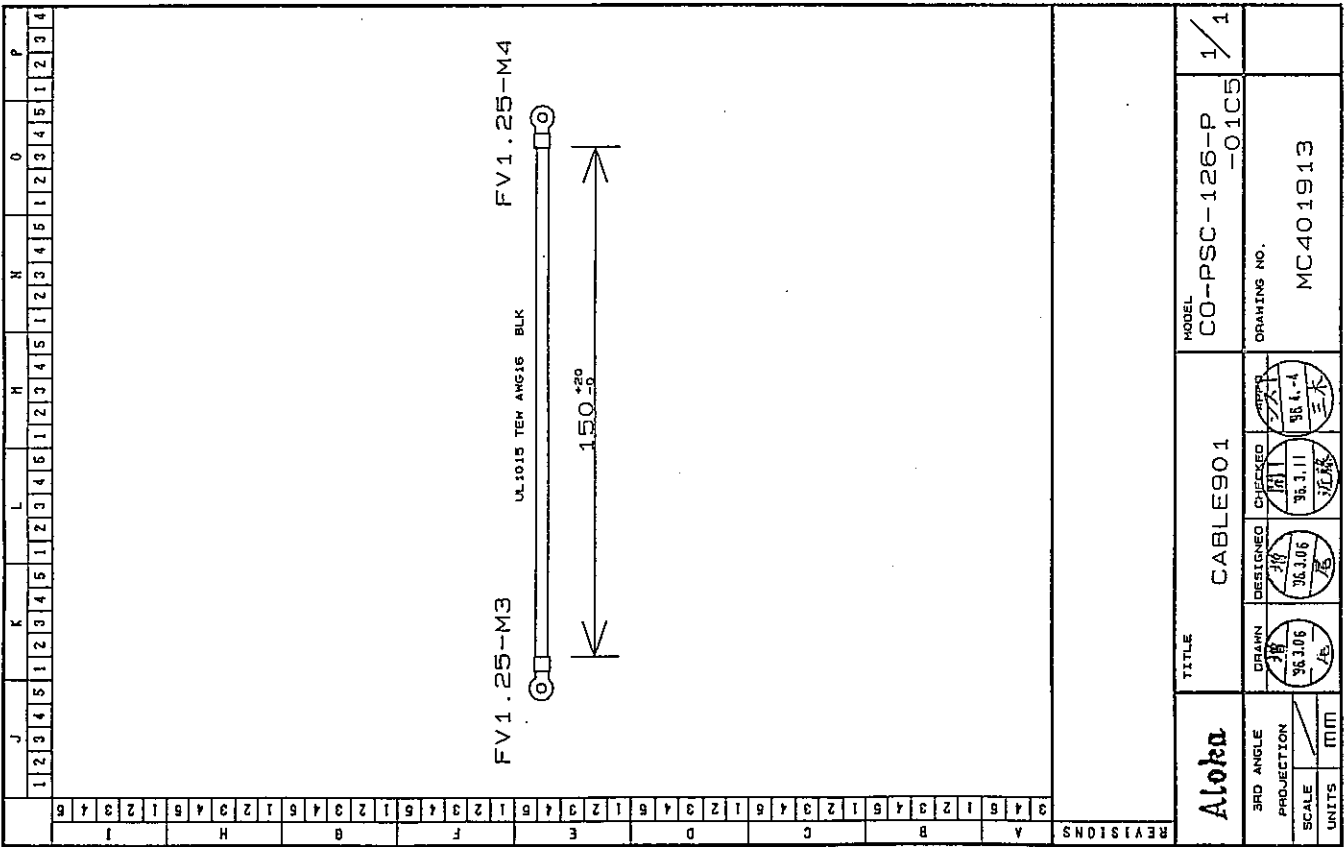
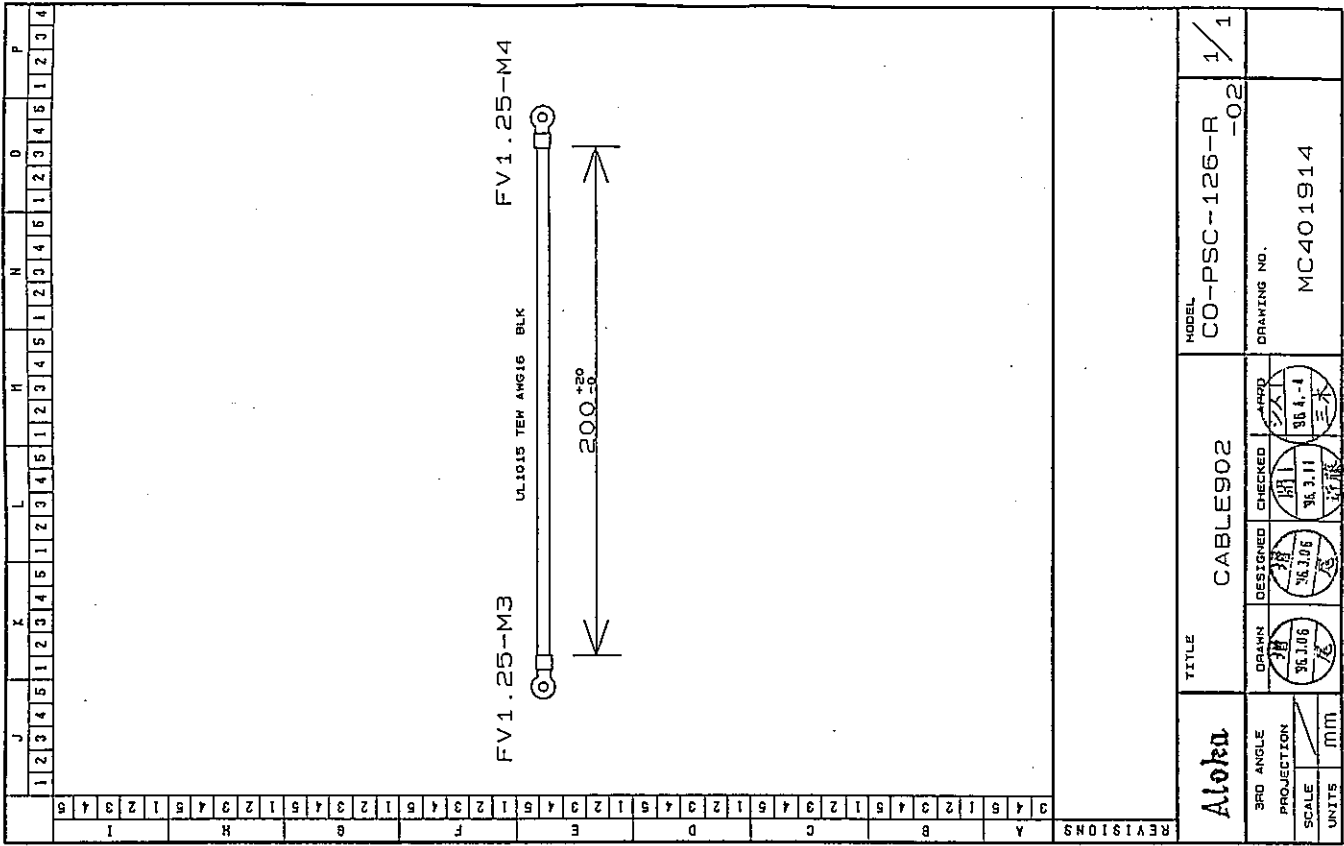
半田付けは GND 線も必ず同時に  
差し込細工にて保護する。

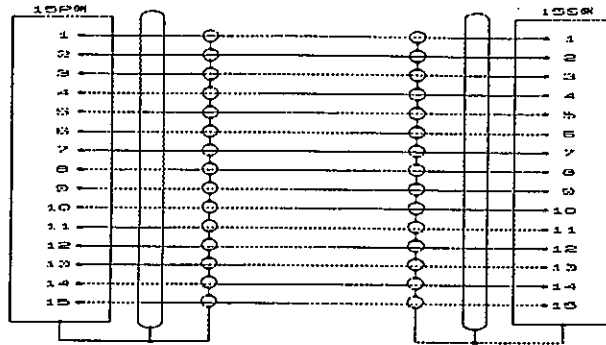
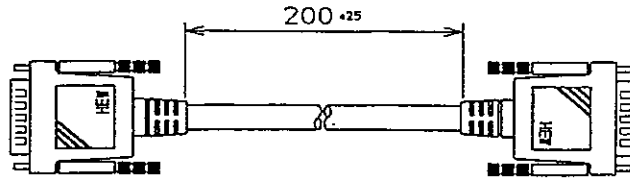
REVISEMENTS	△ 97.12.26 増設 RS1-60847 △ 97.1.21 増設 RS1-60899
A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	
L	
M	
N	
O	
P	
Q	
R	
S	
T	
U	
V	
W	
X	
Y	
Z	
TITLE	
Alpha	
CABLE104	
MODEL	
CO-PSC-126-S-03C7	
DRAWING NO.	
MC334998	
3RD ANGLE	
PROJECTION	
SCALE	
UNITS	
MM	
DESIGN	
36.9.17	
DESTONED	
36.9.17	
CHECKED	
36.9.17	
APPRO	
36.10.10	
1/1	



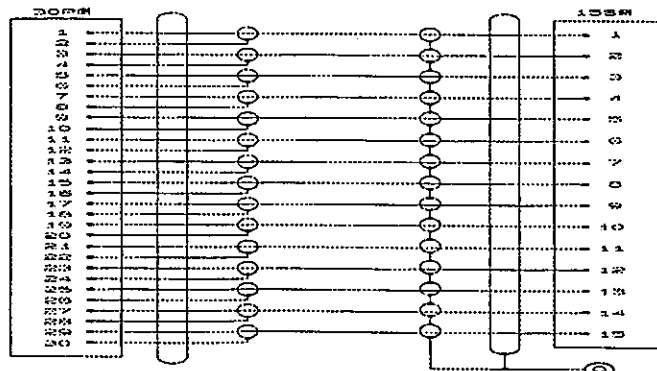
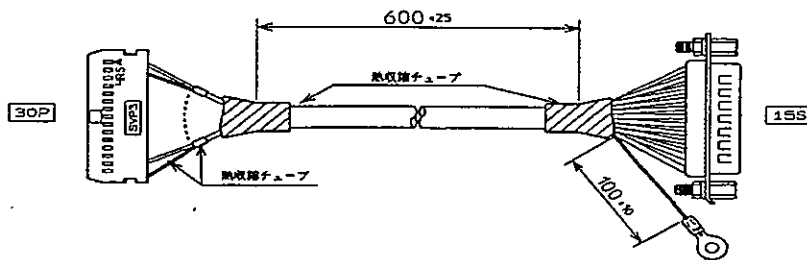


REVISEMENTS 変	TITLE 名		MODEL 号		DRAWING NO. 図
	CABLE405		CO-PSU-S1700-E-05		
3RD ANGLE PROJECTION 第3角法	DRAWN 図 有	CHECKED 図 有	APPROVED 印 有	DRAWING NO. 図	
SCALE 尺	8.9.25 預	8.9.25 預	8.9.10-1 近藤	MC33499	
UNITS 単	mm		DRAWING NO. 図		

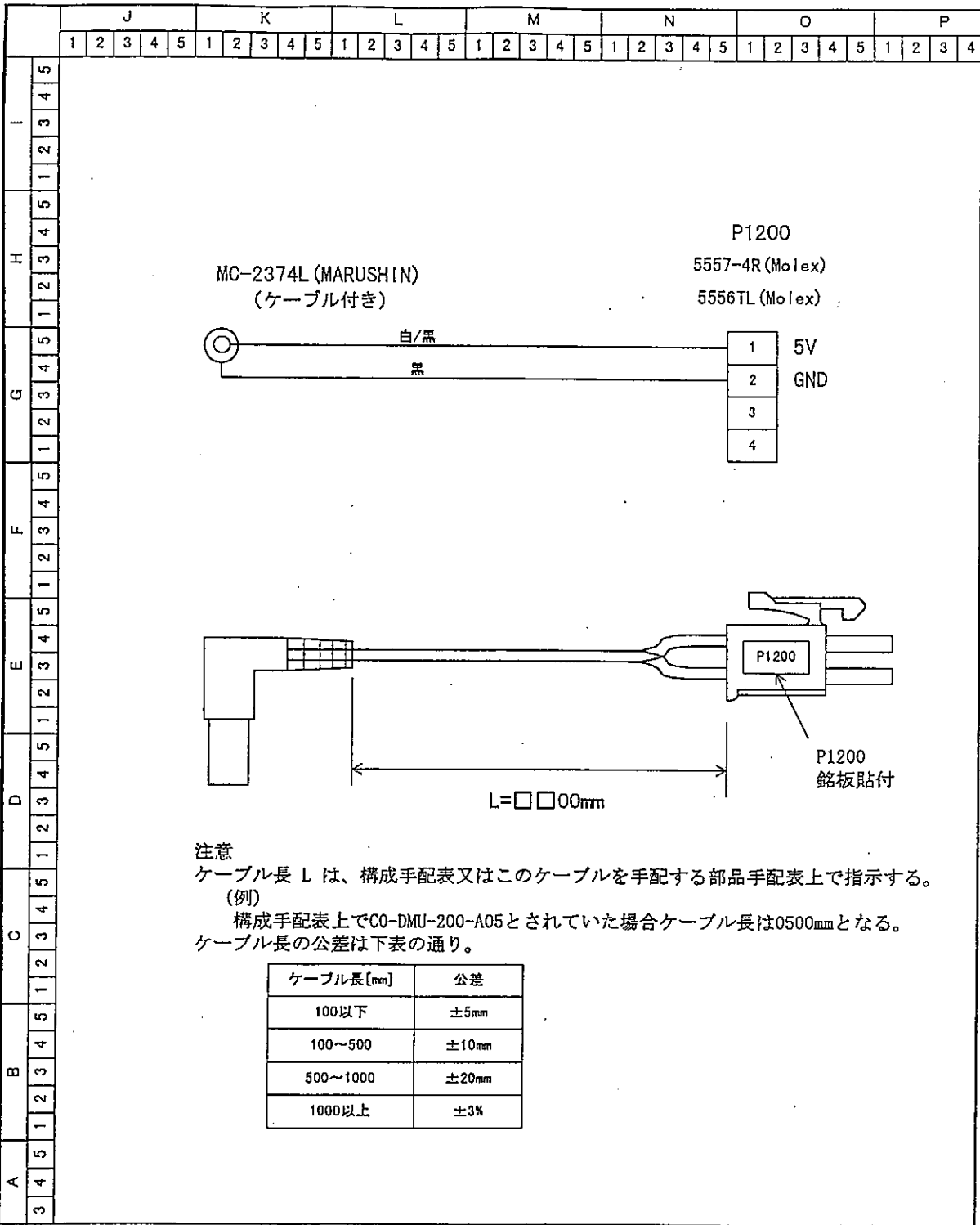




TITLE 名称	MODEL 形名	
<b>CBL107</b>	<b>L-CABLE-584</b>	1/1



TITLE 名称	MODEL 形名	
<b>CBL106</b>	<b>L-CABLE-585</b>	1/1

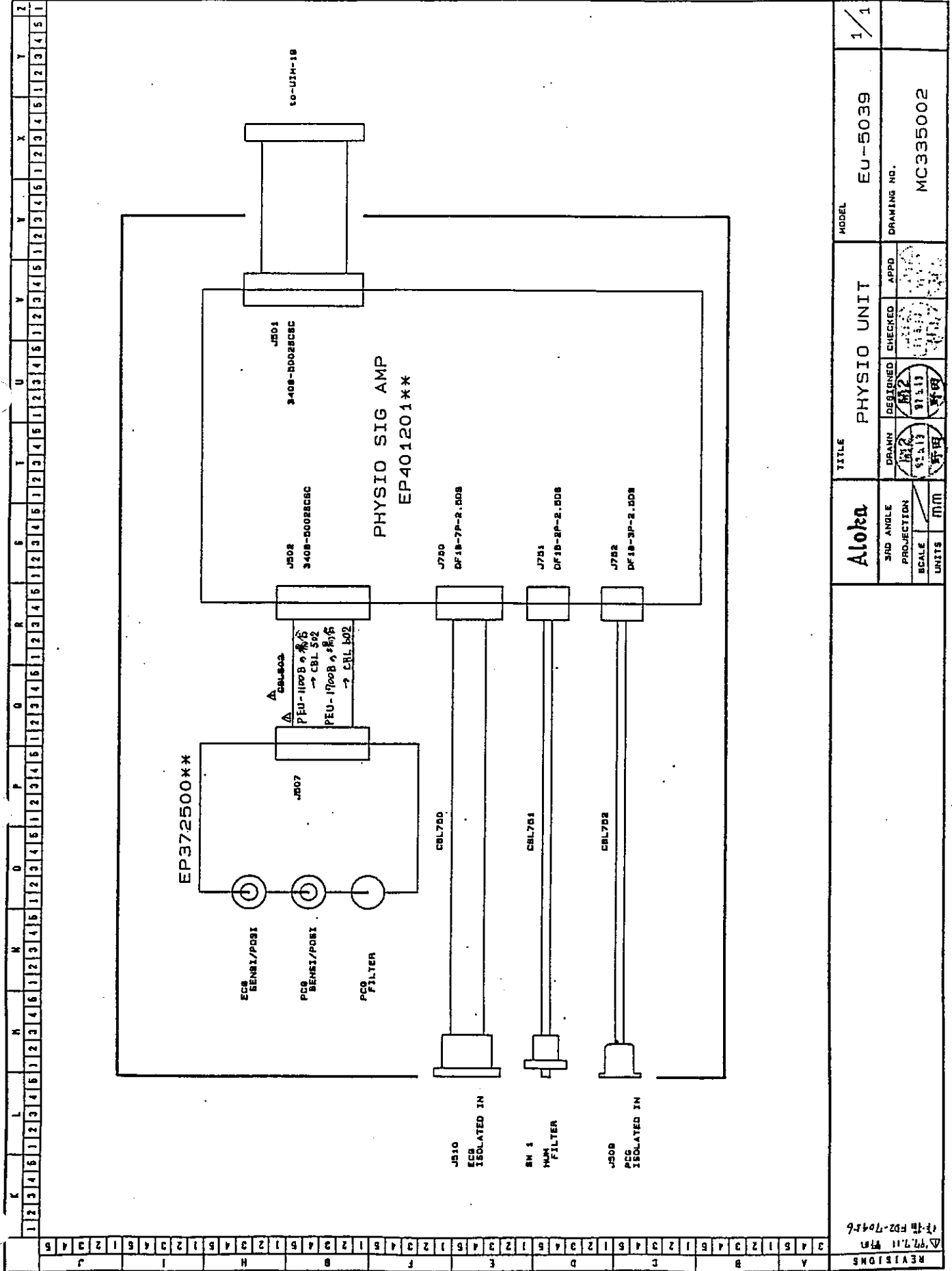


注意  
 ケーブル長 L は、構成手配表又はこのケーブルを手配する部品手配表上で指示する。  
 (例)  
 構成手配表上でCO-DMU-200-A05とされていた場合ケーブル長は0500mmとなる。  
 ケーブル長の公差は下表の通り。

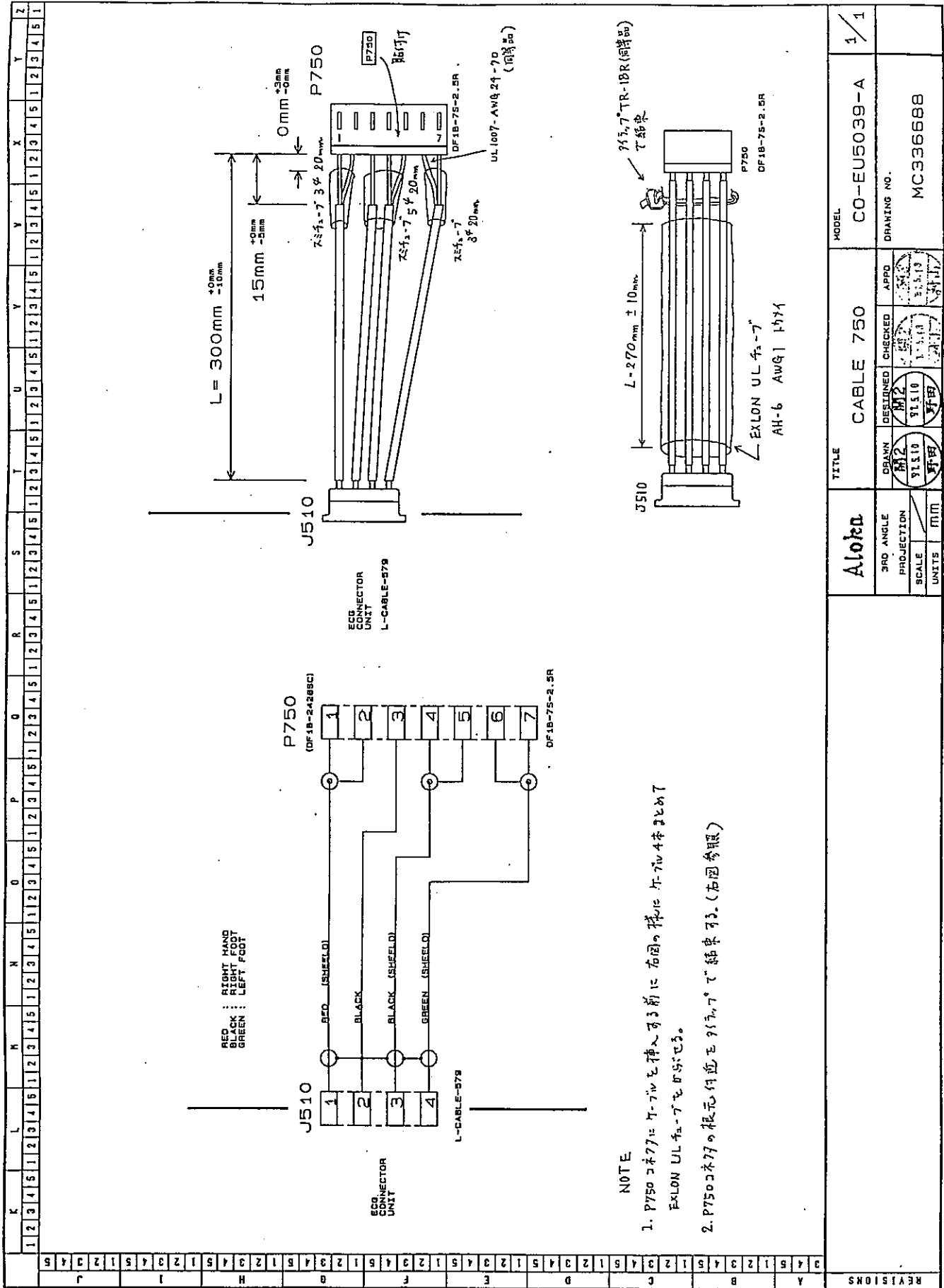
ケーブル長[mm]	公差
100以下	±5mm
100~500	±10mm
500~1000	±20mm
1000以上	±3%

REVISIONS 変更					
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<b>Aloka</b>	TITLE 名称 MOD用電源ケーブル				MODEL 形名 CO-DMU-200-A□□	1 / 1
	3RD ANGLE PROJECTION 第3角法	DRAWN 製図 開 96.8.23 伊藤(安)	DESIGNED 設計 開 96.8.23 伊藤(安)	CHECKED 検図 開 96.8.27 近藤	APPD 承認 シス 96.8.27 三木	DRAWING NO. 図番 MC401942
SCALE 尺度						
UNITS 単位	mm					



REVISONS		TITLE		MODEL		1/1	
3	4	Aloka		PHYSIO UNIT		EU-5039	
4	5	3RD ANGLE		DRAWN		CHECKED	
5	6	PROJECTION		DESIGNED		APPRO	
6	7	SCALE		BY		DATE	
7	8	UNITS		BY		DATE	
8	9	MM		BY		DATE	
9	10			DRAWING NO.		MC335002	

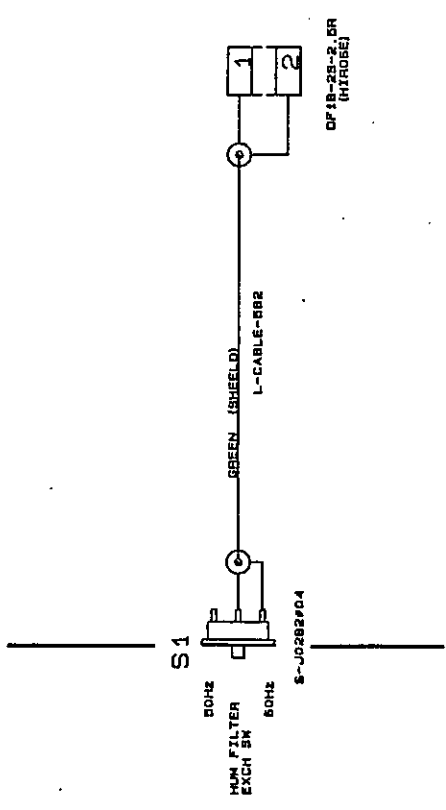
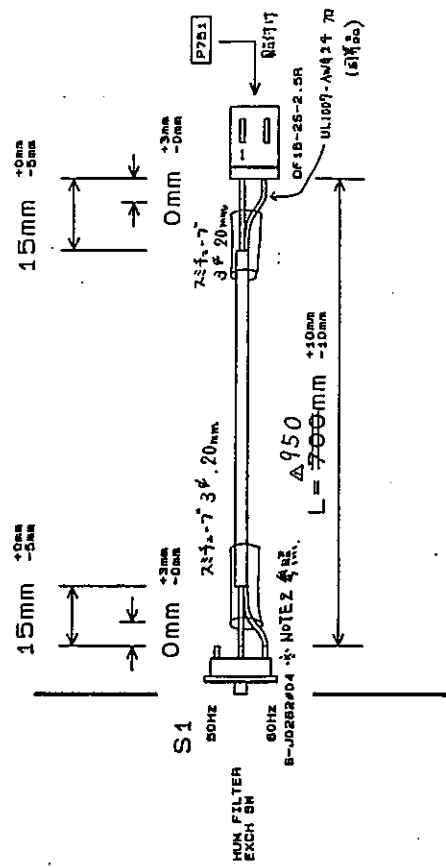


REVISONS		TITLE		MODEL		DRAWING NO.	
		Alpha		CABLE 750		CO-EU5039-A	
3RD ANGLE		DRAWN		DESIGNED		CHECKED	
PROJECTION		91510		91510		91510	
SCALE		1/1		1/1		1/1	
UNITS		MM		MM		MM	
						MC336688	
						1/1	

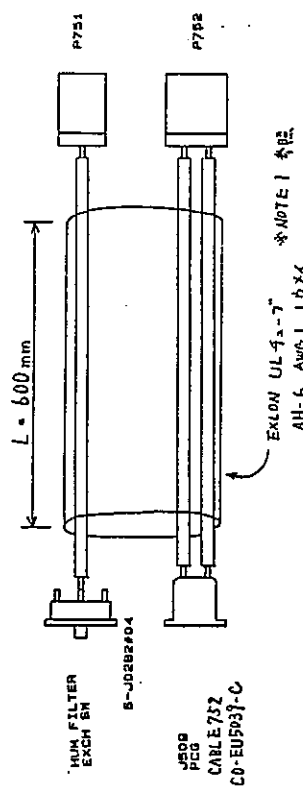
L-013-10-82-A3



K 1 2 3 4 5 J 2 3 4 5 L 1 2 3 4 5 M 1 2 3 4 5 N 1 2 3 4 5 O 1 2 3 4 5 P 1 2 3 4 5 Q 1 2 3 4 5 R 1 2 3 4 5 S 1 2 3 4 5 T 1 2 3 4 5 U 1 2 3 4 5 V 1 2 3 4 5 W 1 2 3 4 5 X 1 2 3 4 5 Y 1 2 3 4 5 Z 1 2 3 4 5

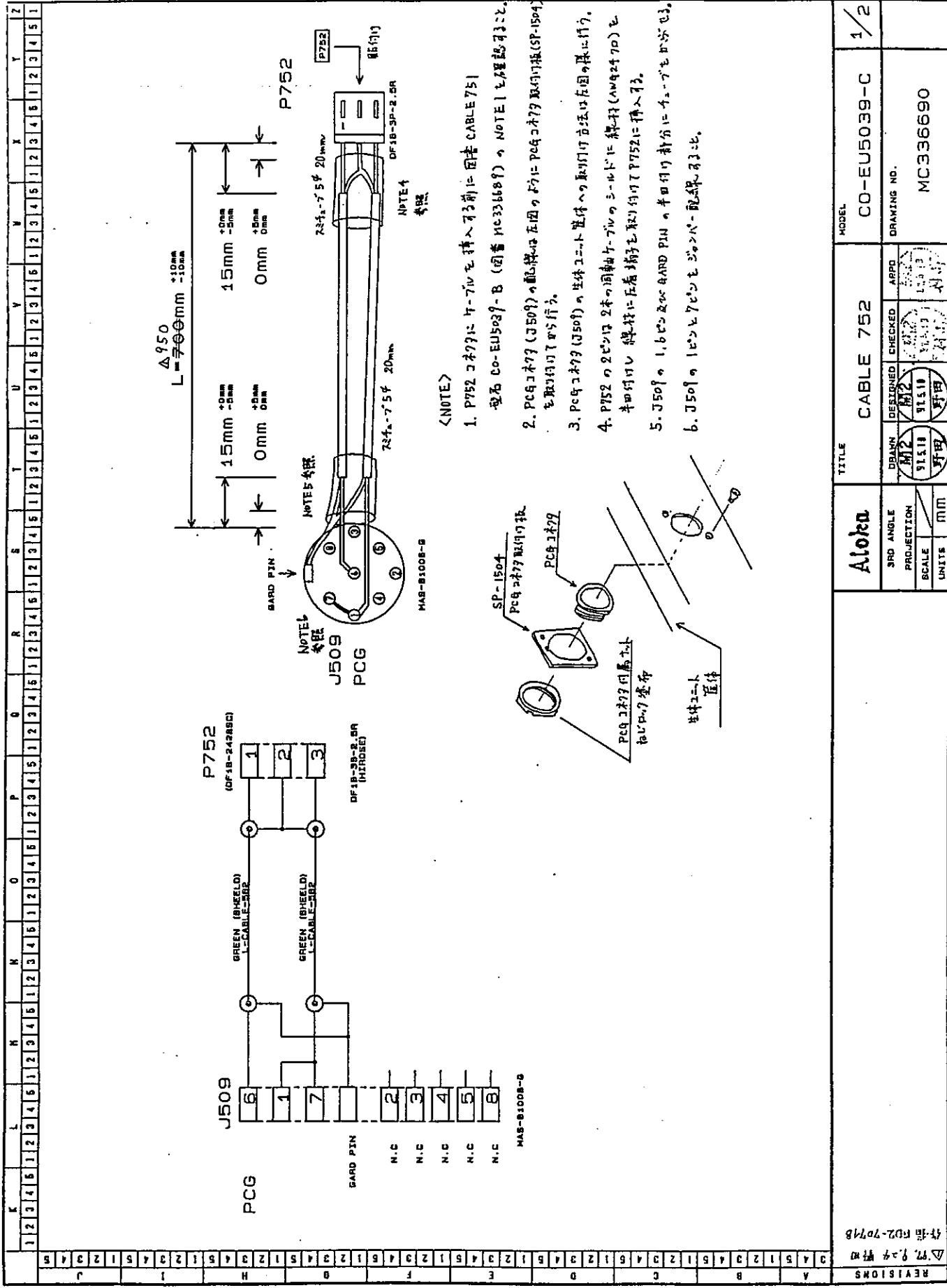


<NOTE>  
 1. P751 コネクターは、ケーブルを挿入する前に右の方向にケーブルを曲げ、ケーブルを挿入する。  
 \* CABLE 751, 752 は、ケーブルは EXLON UL 4-7 のケーブルを使用する。  
 挿入する。  
 2. HUM FILTER SW S1 の本体は、ケーブルを挿入する前に右の方向に曲げ、ケーブルを挿入する。



REVISIONS		TITLE		MODEL		DRAWING NO.	
3	4	5	1	CABLE 751	CO-EU5039-B	1/1	
4	5	1	2	3RD ANGLE PROJECTION			
5	1	2	3	SCALE			
1	2	3	4	UNITS	MM		
DRAWN: 91.5.13				CHECKED: 91.5.13			
DESIGNED: 91.5.13				APPROVED: 91.5.13			
PROJECT: 91.5.13				DATE: 91.5.13			
SCALE: 1/1				DRAWING NO.: MC336689			

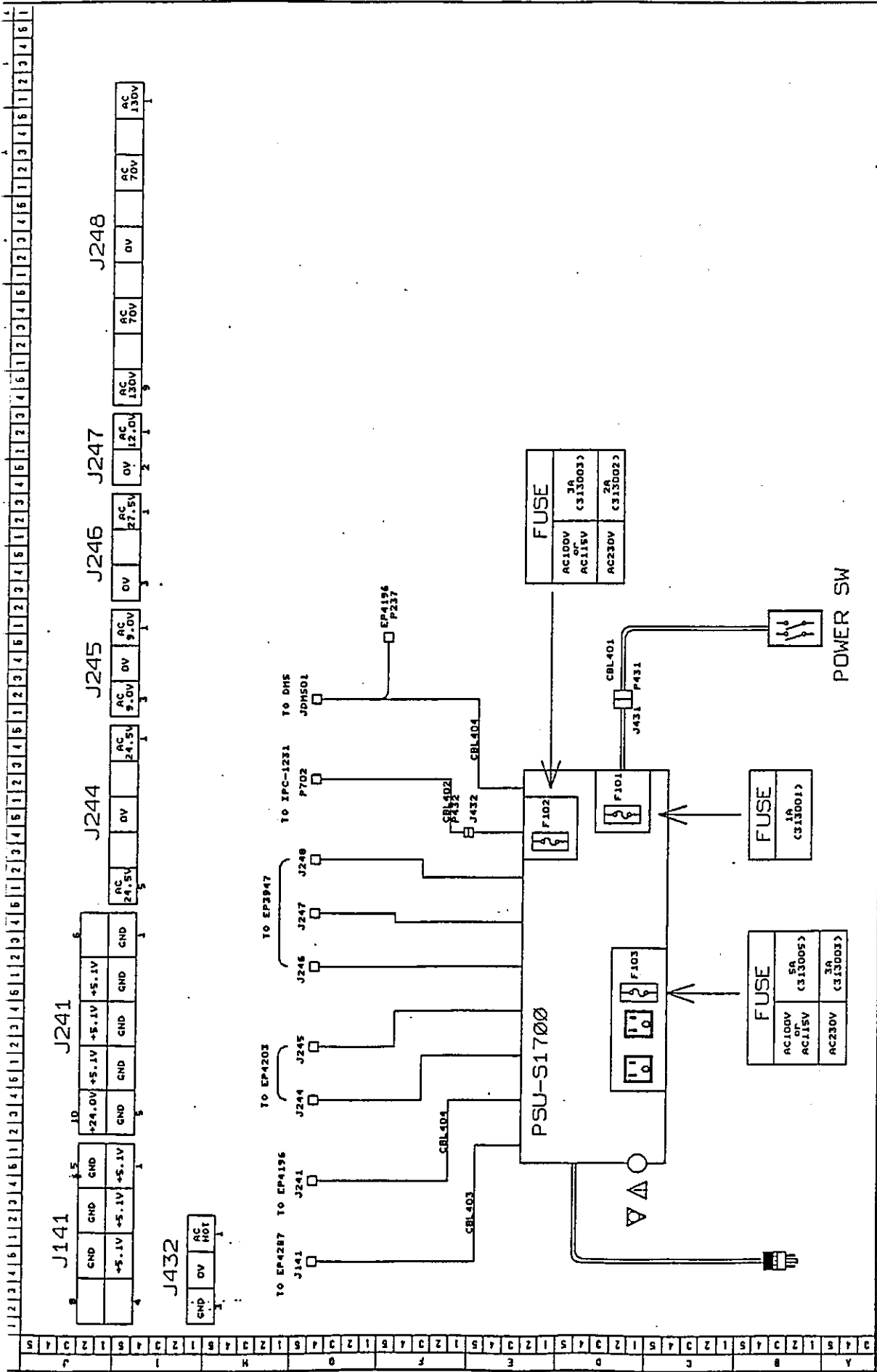
作指 402-70748  
 77.9.24 野田



REVISONS		TITLE		MODEL	
A		Alteka		CABLE 752	
B		SRD ANGLE		CO-EU5039-C	
C		PROJECTION		DRAWING NO.	
D		SCALE		MC336690	
E		UNITS		1/2	
F		MM			
G		DESIGNED		APPRO	
H		CHECKED		DATE	
I		DATE		DATE	
J		DATE		DATE	
K		DATE		DATE	
L		DATE		DATE	
M		DATE		DATE	
N		DATE		DATE	
O		DATE		DATE	
P		DATE		DATE	
Q		DATE		DATE	
R		DATE		DATE	
S		DATE		DATE	
T		DATE		DATE	
U		DATE		DATE	
V		DATE		DATE	
W		DATE		DATE	
X		DATE		DATE	
Y		DATE		DATE	
Z		DATE		DATE	

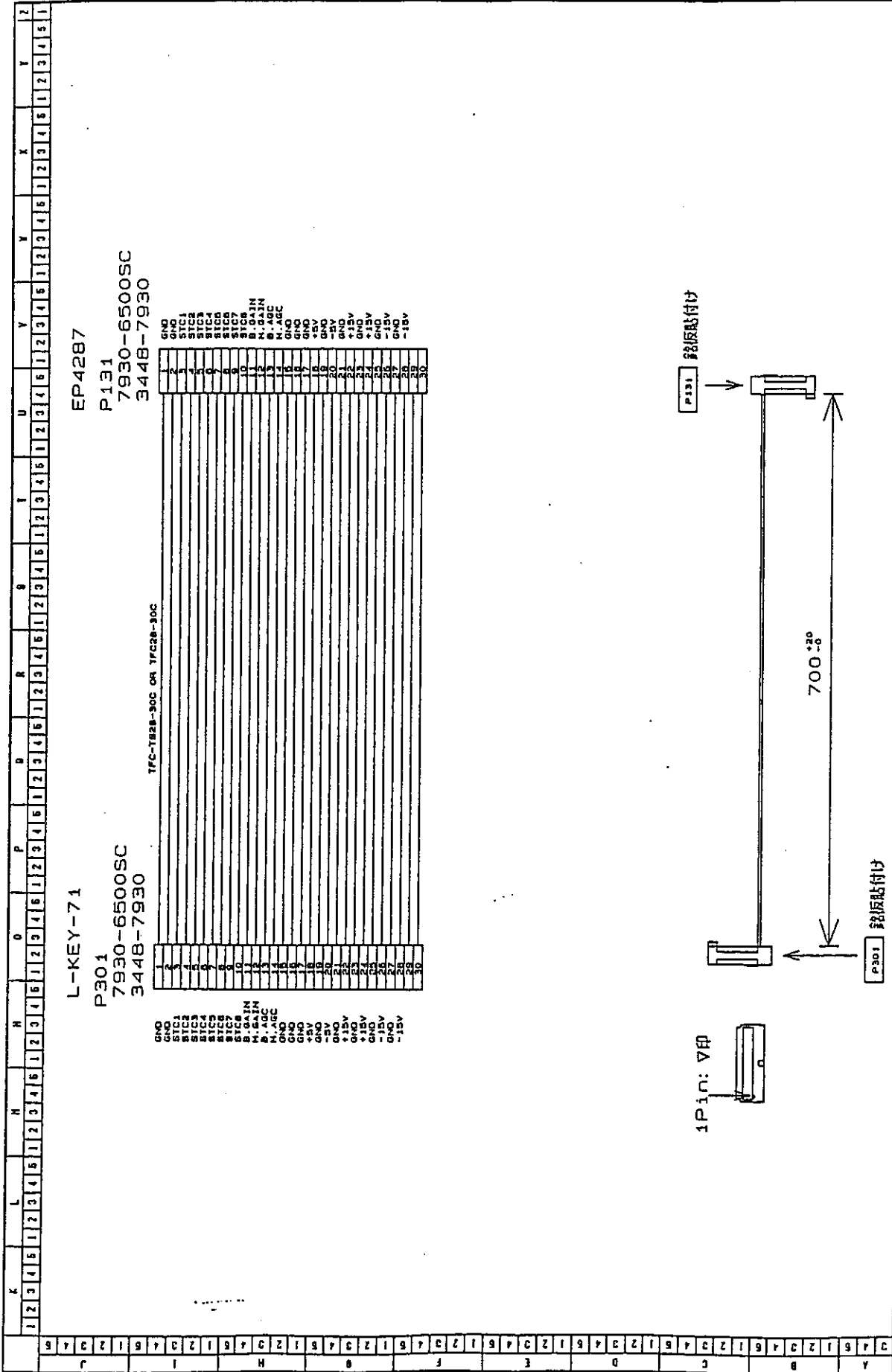
△ 72.9.24 野田  
 仕様 R02-70718  
 L-013-10-82-A3





REVISEIONS 98.1.8 RS-70980 増尾		TITLE 総合接続図		MODEL USI-140B		2/3	
3RD ANGLE PROJECTION		DRAWN 98.1.08 吉野		DESIGNED 98.1.21 寺島		CHECKED 98.2.2 三木	
SCALE UNIT: mm		APPRO 98.2.2 三木		DRAWING NO. MC338236			





REVISEMENTS ① 7/12/11 46		TITLE <b>Aloka</b>		PSC-126 CABLE304		MODEL CO-PSC-126-U		1/1	
3RD ANGLE PROJECTION SCALE UNITS		DRAWN 3/11/28		DESIGNED 3/11/28		CHECKED 3/11/28		APPD 3/12/11	
								DRAWING NO. MC337696	

L-KEY-71  
P301  
7930-6500SC  
3448-7930

EP4287  
P131  
7930-6500SC  
3448-7930

TFC-T828-30C OR TFC28-30C

- 1 GND
- 2 GND
- 3 STC1
- 4 STC2
- 5 STC3
- 6 STC4
- 7 STC5
- 8 STC6
- 9 STC7
- 10 STC8
- 11 B. GAIN
- 12 M. AGC
- 13 M. AGC
- 14 GND
- 15 GND
- 16 +5V
- 17 +5V
- 18 GND
- 19 GND
- 20 +15V
- 21 +15V
- 22 GND
- 23 +15V
- 24 +15V
- 25 GND
- 26 -15V
- 27 -15V
- 28 GND
- 29 GND
- 30 GND

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EP4287

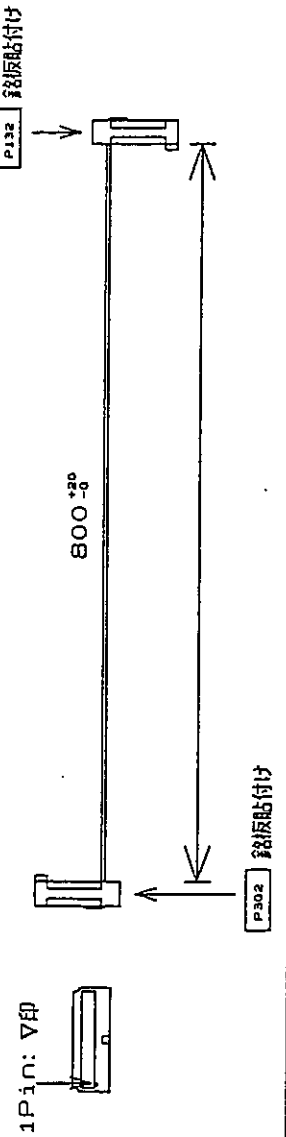
P132  
7934-6500SC  
344B-7934

L-KEY-71

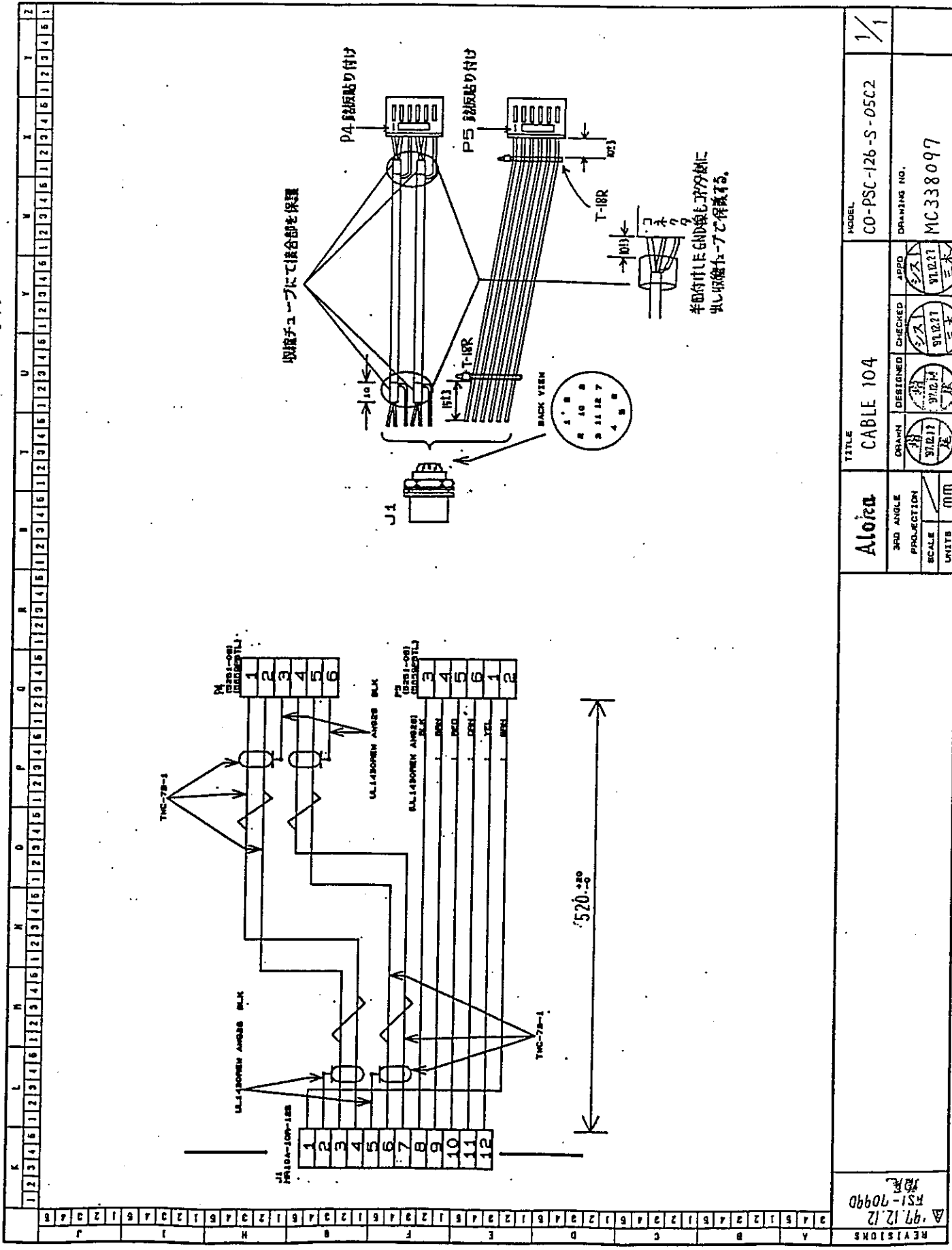
P302  
7934-6500SC  
344B-7934

TFC-182B-34C OR TFC2B-34C

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2	PCD312	2	PCD312
3	PCD313	3	PCD313
4	PCD314	4	PCD314
5	PCD101	5	PCD101
6	PCD102	6	PCD102
7	PCD103	7	PCD103
8	PCD104	8	PCD104
9	PCD105	9	PCD105
10	PCD106	10	PCD106
11	PCD107	11	PCD107
12	PCD108	12	PCD108
13	PCD201	13	PCD201
14	PCD202	14	PCD202
15	PCD203	15	PCD203
16	PCD204	16	PCD204
17	PCD205	17	PCD205
18	PCD206	18	PCD206
19	PCD207	19	PCD207
20	PCD208	20	PCD208
21	PCD301	21	PCD301
22	PCD302	22	PCD302
23	PCD303	23	PCD303
24	OPT 4	24	OPT 4
25	OPT 5	25	OPT 5
26	OPT 6	26	OPT 6
27	OPT 7	27	OPT 7
28	GNOPHT	28	GNOPHT
29	GNOPHT	29	GNOPHT
30	PCD315	30	PCD315
31	PCD316	31	PCD316
32	PCD317	32	PCD317
33	PCD318	33	PCD318
34	PCD319	34	PCD319
35	PCD319	35	PCD319
36	PCD319	36	PCD319



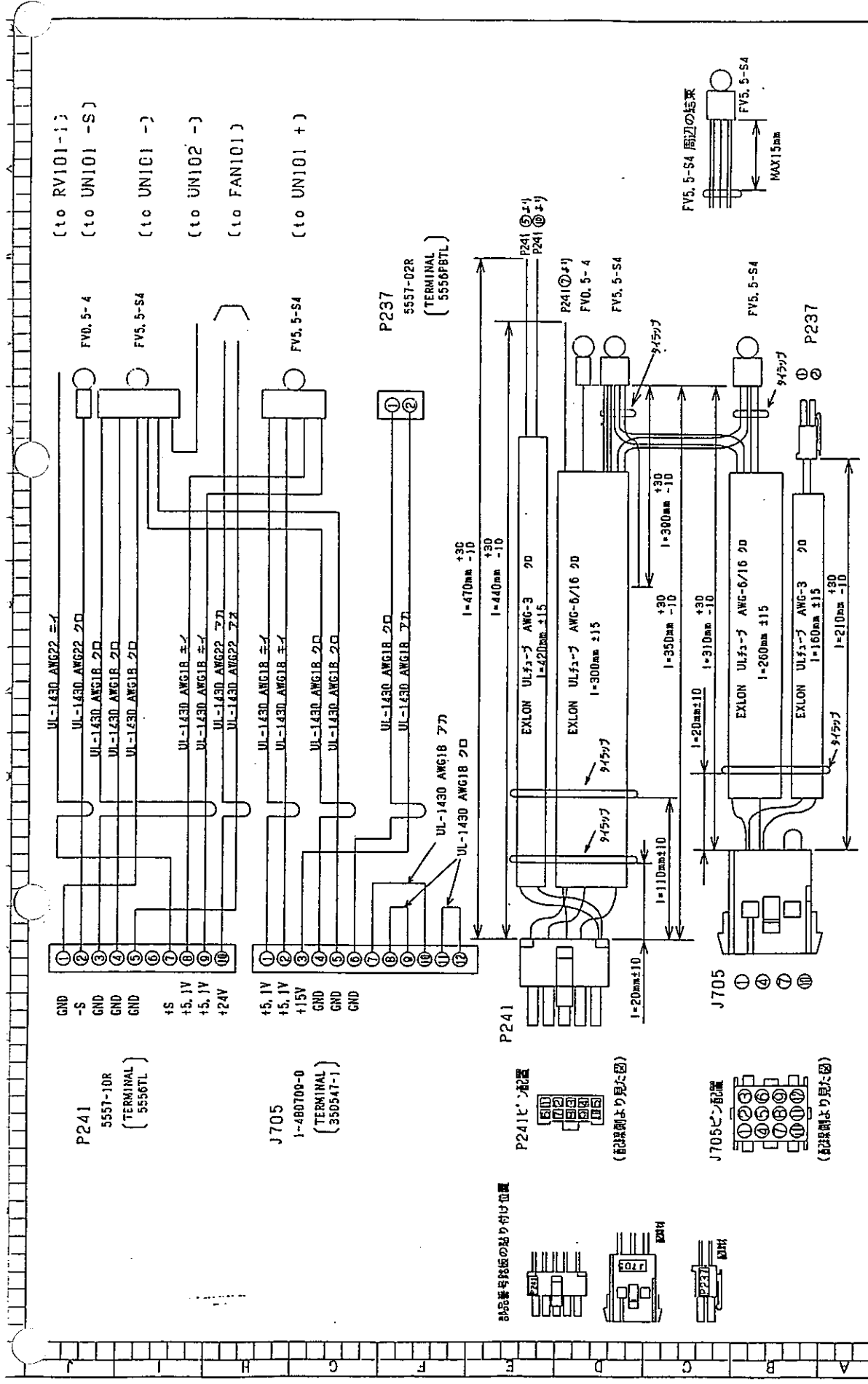
REVISEMENTS	TITLE		MODEL	1/1
3	PSC-186		CO-PSC-126-V	-06
4	CABLE305		DRAWING NO.	MC337697
5	Alto			
6	3RD ANGLE	DESIGNED	CHECKED	DATE
7	PROJECTION	97/11/28	97/12/11	三木
8	SCALE	UNITS		
9		MM		



REVISEMENTS		TITLE		MODEL	
3	4	CABLE 104		CO-PSC-126-S-05C2	
2	5	Aloia		DRAWING NO.	
1	6	3RD ANGLE PROJECTION		MC338097	
	7	SCALE		91.12.21	
	8	UNITS		91.12.21	
	9	M/M		三本	
	10			三本	
	11			三本	
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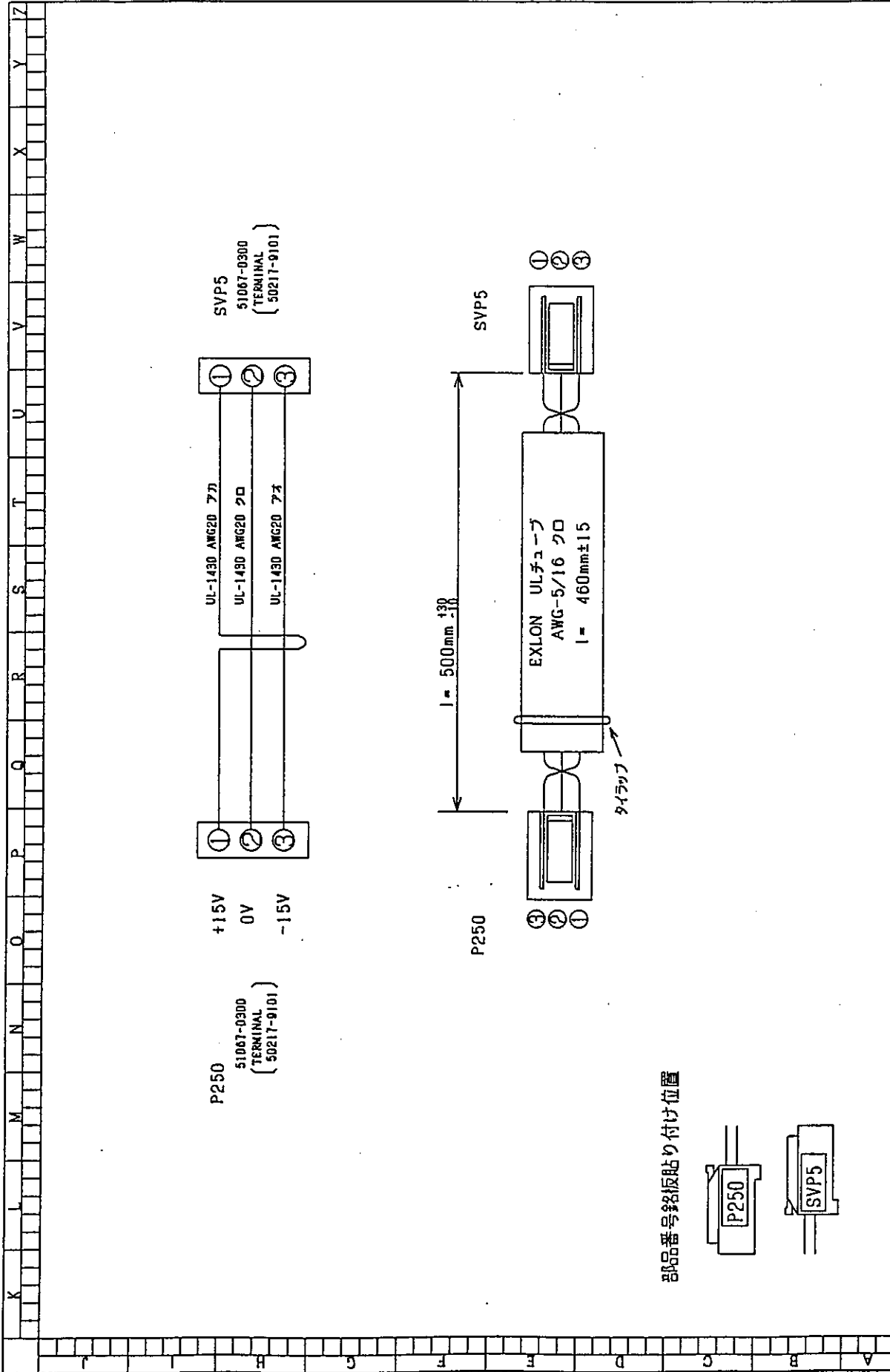
REVISIONS  
 97.12.12  
 RSI-70990  
 RSI





REVISEMENTS 表	TITLE 表		MODEL 表	1/1	
△%6-24 50 FS1-60081	Alotaka	CABLE 404	CO-PSU-S1700-D-05	MC333998	
3RD ANGLE PROJECTION 第三角法	DRAWN 者	DESIGNER 有	CHECKED 者	APPRO 者	DRAWING NO. 表
SCALE 尺	SCALE 尺	SCALE 尺	SCALE 尺	SCALE 尺	SCALE 尺
UNITS 単 位	UNITS 単 位	UNITS 単 位	UNITS 単 位	UNITS 単 位	UNITS 単 位

L-013-10-82-A3



REVISEMENTS	TITLE #		MODEL #		1/1
	CABLE 405		CO-PSU-S1700-E-05		
3RD ANGLE PROJECTION 第3角法	DRAWER 名	DESIGNER 利	CHECKER 田中	APPROV. 近藤	DRAWING NO. # MC33499
	SCALE 3:1	DATE 7/78	REVISION 1	UNIT mm	

K		L		M		N		O		P		Q		R		S		T		U		V		W		X		Y		Z													
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5									
PIN NO.		EP4256 CHANGER (RELAY)		EP4256 SELECTOR		EP4155 CNO		EP3962 TX																																			
PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.											
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3	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219	C	1219				
4	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220	D	1220		
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26	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242	Z	1242		

revision 1/8  
A  
A

add'l MS  
EP4287□

drawing no. 00  
MC337395

title 68  
GEU Mother

3rd angle projection  
第三角法

scale 1:1  
比例 1:1

units mm  
单位 毫米

drawn 02/11/02  
01.1.02

checked 02/11/02  
01.1.22

approved 02/11/02  
01.1.22

PIN No.	EP3984 P&E AMP J104-1				EP3987 SECTOR DELAY J103-1				EP3987 SECTOR DELAY J105-1				EP4151 RX FOCUS J107-1			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
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2	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
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16	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
17	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
18	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
19	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
20	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
21	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
22	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
23	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
24	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC
25	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC	PHSTC

Aloka		GEU Mother		model 155		EP428700	
3rd angle projection		drawing		drawing no.		MC337396	
第3角法		主视图		9A.122		9A.122	
比例 1:1		日期 9.1.82		设计 9.1.82		审核 9.1.82	
制图 9.1.82		校对 9.1.82		审核 9.1.82		批准 9.1.82	

SECTION 7 SCHEMATICS

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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<table border="1"> <thead> <tr> <th rowspan="2">PIN No.</th><th colspan="5">EP3964 PRE AMP J104-2</th><th colspan="5">EP3997 SECTOR DELAY J105-2</th><th colspan="5">EP3997 SECTOR DELAY J106-2</th><th colspan="5">EP4151 RX FOCUS J107-2</th></tr> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>PIN No.</th><th>A</th><th>B</th><th>C</th><th>D</th><th>PIN No.</th><th>A</th><th>B</th><th>C</th><th>D</th><th>PIN No.</th><th>A</th><th>B</th><th>C</th><th>D</th><th>PIN No.</th><th>A</th><th>B</th><th>C</th><th>D</th><th>PIN No.</th> </tr> </thead> <tbody> <tr><td>1</td><td>TRK27</td><td>TRK28</td><td>TRK29</td><td>TRK30</td><td>1</td><td>SV</td><td>SV</td><td>SV</td><td>SV</td><td>1</td><td>SV</td><td>SV</td><td>SV</td><td>SV</td><td>1</td><td>SV</td><td>SV</td><td>SV</td><td>SV</td><td>1</td><td>SV</td><td>SV</td><td>SV</td><td>SV</td><td>1</td><td>SV</td><td>SV</td></tr> 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<tr><td>22</td><td>TRK7</td><td>TRK8</td><td>TRK9</td><td>TRK10</td><td>22</td><td>REC12</td><td>REC13</td><td>REC14</td><td>REC15</td><td>22</td><td>REC12</td><td>REC13</td><td>REC14</td><td>REC15</td><td>22</td><td>REC12</td><td>REC13</td><td>REC14</td><td>REC15</td><td>22</td><td>REC12</td><td>REC13</td><td>REC14</td><td>REC15</td><td>22</td><td>REC12</td><td>SND</td></tr> <tr><td>23</td><td>TRK5</td><td>TRK6</td><td>TRK7</td><td>TRK8</td><td>23</td><td>REC11</td><td>REC12</td><td>REC13</td><td>REC14</td><td>23</td><td>REC11</td><td>REC12</td><td>REC13</td><td>REC14</td><td>23</td><td>REC11</td><td>REC12</td><td>REC13</td><td>REC14</td><td>23</td><td>REC11</td><td>REC12</td><td>REC13</td><td>REC14</td><td>23</td><td>REC11</td><td>SND</td></tr> <tr><td>24</td><td>TRK4</td><td>TRK5</td><td>TRK6</td><td>TRK7</td><td>24</td><td>REC10</td><td>REC11</td><td>REC12</td><td>REC13</td><td>24</td><td>REC10</td><td>REC11</td><td>REC12</td><td>REC13</td><td>24</td><td>REC10</td><td>REC11</td><td>REC12</td><td>REC13</td><td>24</td><td>REC10</td><td>REC11</td><td>REC12</td><td>REC13</td><td>24</td><td>REC10</td><td>SND</td></tr> <tr><td>25</td><td>TRK1</td><td>TRK2</td><td>TRK3</td><td>TRK4</td><td>25</td><td>REC9</td><td>REC10</td><td>REC11</td><td>REC12</td><td>25</td><td>REC9</td><td>REC10</td><td>REC11</td><td>REC12</td><td>25</td><td>REC9</td><td>REC10</td><td>REC11</td><td>REC12</td><td>25</td><td>REC9</td><td>REC10</td><td>REC11</td><td>REC12</td><td>25</td><td>REC9</td><td>SND</td></tr> </tbody> </table>																												PIN No.	EP3964 PRE AMP J104-2					EP3997 SECTOR DELAY J105-2					EP3997 SECTOR DELAY J106-2					EP4151 RX FOCUS J107-2					A	B	C	D	PIN No.	A	B	C	D	PIN No.	A	B	C	D	PIN No.	A	B	C	D	PIN No.	A	B	C	D	PIN 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		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																															
																									EP4151 RX FOCUS J108-1																									EP4194 MAIN AMP J109-1																									EP4155 ASP J110-1																									EP3901 CSP J111-1																																
PIN No.	A	B	C	D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	A	B	C	D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	A	B	C	D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	A	B	C	D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25																
	AEC18	AEC19	AEC20	AEC21	AEC22	AEC23	AEC24	AEC25	AEC26	AEC27	AEC28	AEC29	AEC30	AEC31	AEC32	AEC33	AEC34	AEC35	AEC36	AEC37	AEC38	AEC39	AEC40	AEC41	AEC42	AEC43	AEC44	AEC45	AEC46	AEC47	AEC48	AEC49	AEC50	AEC51	AEC52	AEC53	AEC54	AEC55	AEC56	AEC57	AEC58	AEC59	AEC60	AEC61	AEC62	AEC63	AEC64	AEC65	AEC66	AEC67	AEC68	AEC69	AEC70	AEC71	AEC72	AEC73	AEC74	AEC75	AEC76	AEC77	AEC78	AEC79	AEC80	AEC81	AEC82	AEC83	AEC84	AEC85	AEC86	AEC87	AEC88	AEC89	AEC90	AEC91	AEC92	AEC93	AEC94	AEC95	AEC96	AEC97	AEC98	AEC99	AEC100																																																	

4/8

Alcoa

3rd ANSIS inspection 第3次検査

3rd ANSIS projection 第3次検査

GEU Mother

serial no. 母番 EP428700

drawing no. 図番 MC337398

unit 部品

revision 版

K		L		M		N		O		P		Q		R		S		T		U		V		W		X		Y		Z	
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	
PIN No.		EP4151 RX FOCUS J10B-2		EP4194 MAIN AMP J109-2		EP4155 ASP J110-2		EP3901 CSP J111-2		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.		PIN No.	
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6	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
7	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
8	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
9	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
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11	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
12	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
13	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
14	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
15	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
16	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
17	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
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19	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
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21	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
22	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
23	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
24	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
25	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	

**Alto**  
3rd angle projection  
第3角法  
scale 尺規  
units 單位

drawn 製圖 98.122  
checked 校對 98.122  
designer 設計 98.122  
checked 校對 98.122

title 名義 GEU Mother  
model nos. EP4287□□

drawing no. 圖號 MC337399

5/8  
A

K 1 2 3 4 5 L M N O P Q R S T U V W X Y Z

EP3983 TX TRIG		EP4152 TIMING & ADDRESS	
J112-1		J113-1	
PIN NO.	A B C D	PIN NO.	A B C D
1	DN0	1	DN0
2	DN0	2	DN0
3	DN0	3	DN0
4	DN0	4	DN0
5	9.1V	5	9.1V
6	9.1V	6	9.1V
7	9.1V	7	9.1V
8	DN0	8	DN0
9	DATA	9	DATA
10	DATA	10	DATA
11	ADDR	11	ADDR
12	ADDR	12	ADDR
13	DATA	13	DATA
14	DATA	14	DATA
15	DATA	15	DATA
16	DATA	16	DATA
17	DATA	17	DATA
18	DATA	18	DATA
19	DATA	19	DATA
20	DATA	20	DATA
21	DATA	21	DATA
22	DATA	22	DATA
23	DATA	23	DATA
24	DATA	24	DATA
25	DATA	25	DATA

J112-3		J113-3	
PIN NO.	A B C D	PIN NO.	A B C D
1	PC001	1	DN0
2	PC002	2	DN0
3	PC003	3	DN0
4	PC004	4	DN0
5	PC005	5	DN0
6	PC006	6	DN0
7	PC007	7	DN0
8	PC008	8	DN0
9	PC009	9	DN0
10	PC010	10	DN0
11	PC011	11	DN0
12	PC012	12	DN0
13	PC013	13	DN0
14	PC014	14	DN0
15	PC015	15	DN0
16	PC016	16	DN0
17	PC017	17	DN0
18	PC018	18	DN0
19	PC019	19	DN0
20	PC020	20	DN0
21	PC021	21	DN0
22	PC022	22	DN0
23	PC023	23	DN0
24	PC024	24	DN0
25	PC025	25	DN0

**Aloha** 3/8 angle projection  
第三角法  
unit: mm

title 名稱: GEU Mother  
drawn 製圖: 劉國強  
checked 查圖: 劉國強  
date 日期: 98.12.22

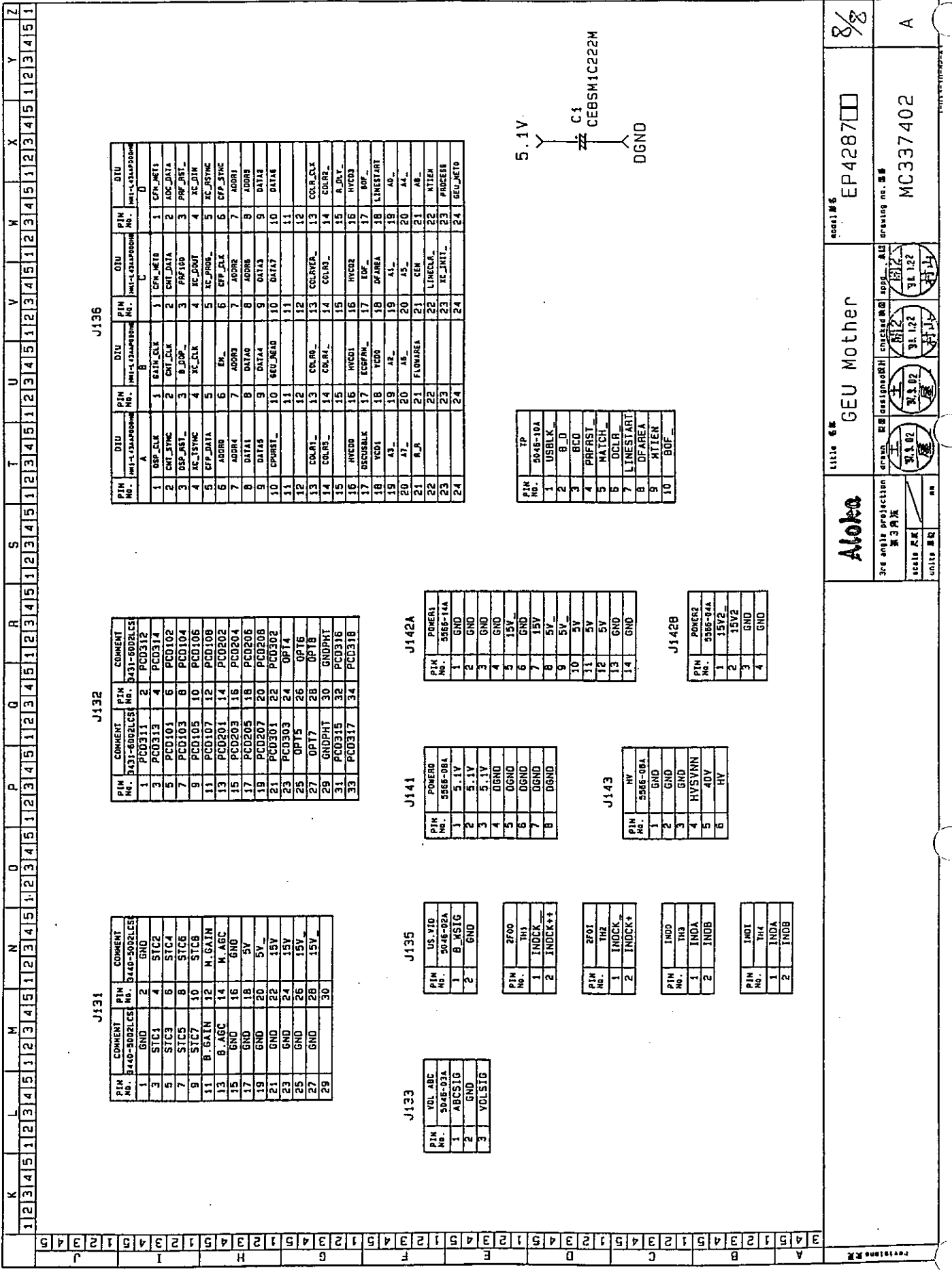
author 原稿: EP4287□□  
drawing no. 圖號: MC337400

scale 比例: 1:1  
sheet 頁數: 8/8



K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z																																		
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
PIN No.		EP3963 TX TRIG J112-2		EP4182 TIMING & ADDRESS J113-2		PIN No.																																											
A		B		C		D																																											
1		2		3		4																																											
5		6		7		8																																											
9		10		11		12																																											
13		14		15		16																																											
17		18		19		20																																											
21		22		23		24																																											
25																																																	

<b>Alcoa</b>	GEU Mother	part no. EP4287□□	7/8
title 名稱		drawing no. 圖號	A
3rd angle projection 第三角法	drawn 製圖 checked 校核 approved 核准	date 日期	drawing no. 圖號
scale 比例	unit 單位	no.	MC337401



J136

Pin No.	Symbol	Label	Function
1	DIR	DIR	DIR
2	DIR	DIR	DIR
3	DIR	DIR	DIR
4	DIR	DIR	DIR
5	DIR	DIR	DIR
6	DIR	DIR	DIR
7	DIR	DIR	DIR
8	DIR	DIR	DIR
9	DIR	DIR	DIR
10	DIR	DIR	DIR
11	DIR	DIR	DIR
12	DIR	DIR	DIR
13	DIR	DIR	DIR
14	DIR	DIR	DIR
15	DIR	DIR	DIR
16	DIR	DIR	DIR
17	DIR	DIR	DIR
18	DIR	DIR	DIR
19	DIR	DIR	DIR
20	DIR	DIR	DIR
21	DIR	DIR	DIR
22	DIR	DIR	DIR
23	DIR	DIR	DIR
24	DIR	DIR	DIR

J132

Pin No.	Symbol	Label	Function
1	PCD311	PCD311	PCD311
2	PCD312	PCD312	PCD312
3	PCD313	PCD313	PCD313
4	PCD314	PCD314	PCD314
5	PCD101	PCD101	PCD101
6	PCD102	PCD102	PCD102
7	PCD103	PCD103	PCD103
8	PCD104	PCD104	PCD104
9	PCD105	PCD105	PCD105
10	PCD106	PCD106	PCD106
11	PCD107	PCD107	PCD107
12	PCD108	PCD108	PCD108
13	PCD201	PCD201	PCD201
14	PCD202	PCD202	PCD202
15	PCD203	PCD203	PCD203
16	PCD204	PCD204	PCD204
17	PCD205	PCD205	PCD205
18	PCD206	PCD206	PCD206
19	PCD207	PCD207	PCD207
20	PCD208	PCD208	PCD208
21	PCD301	PCD301	PCD301
22	PCD302	PCD302	PCD302
23	PCD303	PCD303	PCD303
24	OPT4	OPT4	OPT4
25	OPT5	OPT5	OPT5
26	OPT6	OPT6	OPT6
27	OPT7	OPT7	OPT7
28	OPT8	OPT8	OPT8
29	GNUPHT	GNUPHT	GNUPHT
30	GNUPHT	GNUPHT	GNUPHT
31	PCD315	PCD315	PCD315
32	PCD316	PCD316	PCD316
33	PCD317	PCD317	PCD317
34	PCD318	PCD318	PCD318

J131

Pin No.	Symbol	Label	Function
1	GND	GND	GND
2	GND	GND	GND
3	STC1	STC1	STC1
4	STC2	STC2	STC2
5	STC3	STC3	STC3
6	STC4	STC4	STC4
7	STC5	STC5	STC5
8	STC6	STC6	STC6
9	STC7	STC7	STC7
10	STC8	STC8	STC8
11	B.GAIN	B.GAIN	B.GAIN
12	M.GAIN	M.GAIN	M.GAIN
13	B.AGC	B.AGC	B.AGC
14	M.AGC	M.AGC	M.AGC
15	GND	GND	GND
16	GND	GND	GND
17	GND	GND	GND
18	5V	5V	5V
19	GND	GND	GND
20	5V	5V	5V
21	GND	GND	GND
22	15V	15V	15V
23	GND	GND	GND
24	15V	15V	15V
25	GND	GND	GND
26	15V	15V	15V
27	GND	GND	GND
28	15V	15V	15V
29	GND	GND	GND
30	15V	15V	15V

J133

Pin No.	Symbol	Label	Function
1	VOL ABC	VOL ABC	VOL ABC
2	ABCSIG	ABCSIG	ABCSIG
3	VOL SIG	VOL SIG	VOL SIG

J135

Pin No.	Symbol	Label	Function
1	US_VID	US_VID	US_VID
2	US_SIG	US_SIG	US_SIG
3	B_VSIG	B_VSIG	B_VSIG
4	GND	GND	GND

J141

Pin No.	Symbol	Label	Function
1	POWER0	POWER0	POWER0
2	5.1V	5.1V	5.1V
3	5.1V	5.1V	5.1V
4	DGND	DGND	DGND
5	DGND	DGND	DGND
6	DGND	DGND	DGND
7	DGND	DGND	DGND
8	DGND	DGND	DGND

J142A

Pin No.	Symbol	Label	Function
1	POWER1	POWER1	POWER1
2	556-11A	556-11A	556-11A
3	GND	GND	GND
4	GND	GND	GND
5	15V	15V	15V
6	GND	GND	GND
7	15V	15V	15V
8	5V	5V	5V
9	5V	5V	5V
10	5V	5V	5V
11	5V	5V	5V
12	5V	5V	5V
13	GND	GND	GND
14	GND	GND	GND

J142B

Pin No.	Symbol	Label	Function
1	POWER2	POWER2	POWER2
2	556-84A	556-84A	556-84A
3	GND	GND	GND
4	GND	GND	GND
5	15V2	15V2	15V2
6	GND	GND	GND
7	15V2	15V2	15V2
8	GND	GND	GND
9	GND	GND	GND

J143

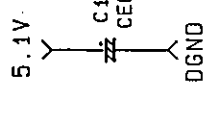
Pin No.	Symbol	Label	Function
1	HY	HY	HY
2	556-08A	556-08A	556-08A
3	GND	GND	GND
4	GND	GND	GND
5	HYSYNN	HYSYNN	HYSYNN
6	HY	HY	HY

J143

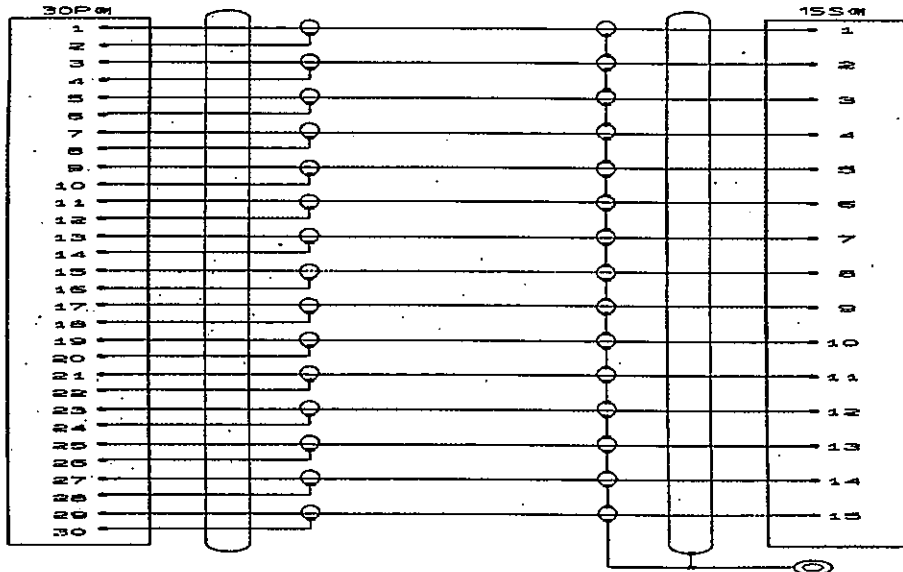
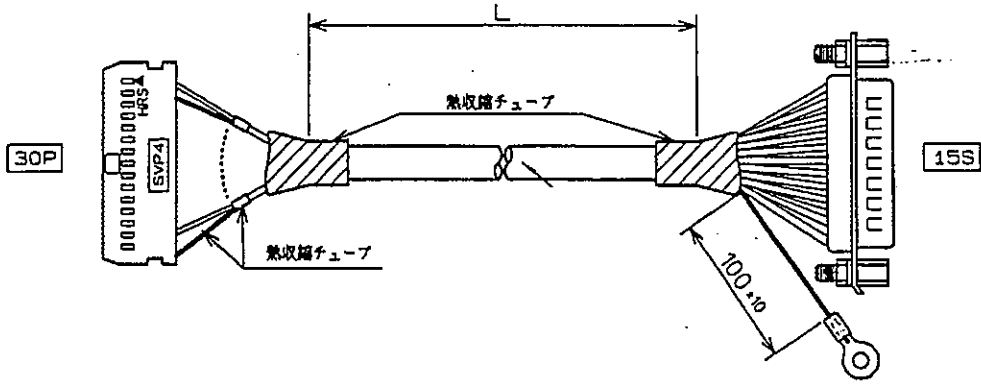
Pin No.	Symbol	Label	Function
1	IND0	IND0	IND0
2	IND1	IND1	IND1
3	IND2	IND2	IND2
4	IND3	IND3	IND3
5	IND4	IND4	IND4
6	IND5	IND5	IND5
7	IND6	IND6	IND6
8	IND7	IND7	IND7
9	IND8	IND8	IND8
10	IND9	IND9	IND9
11	INDA	INDA	INDA
12	INDB	INDB	INDB

J143

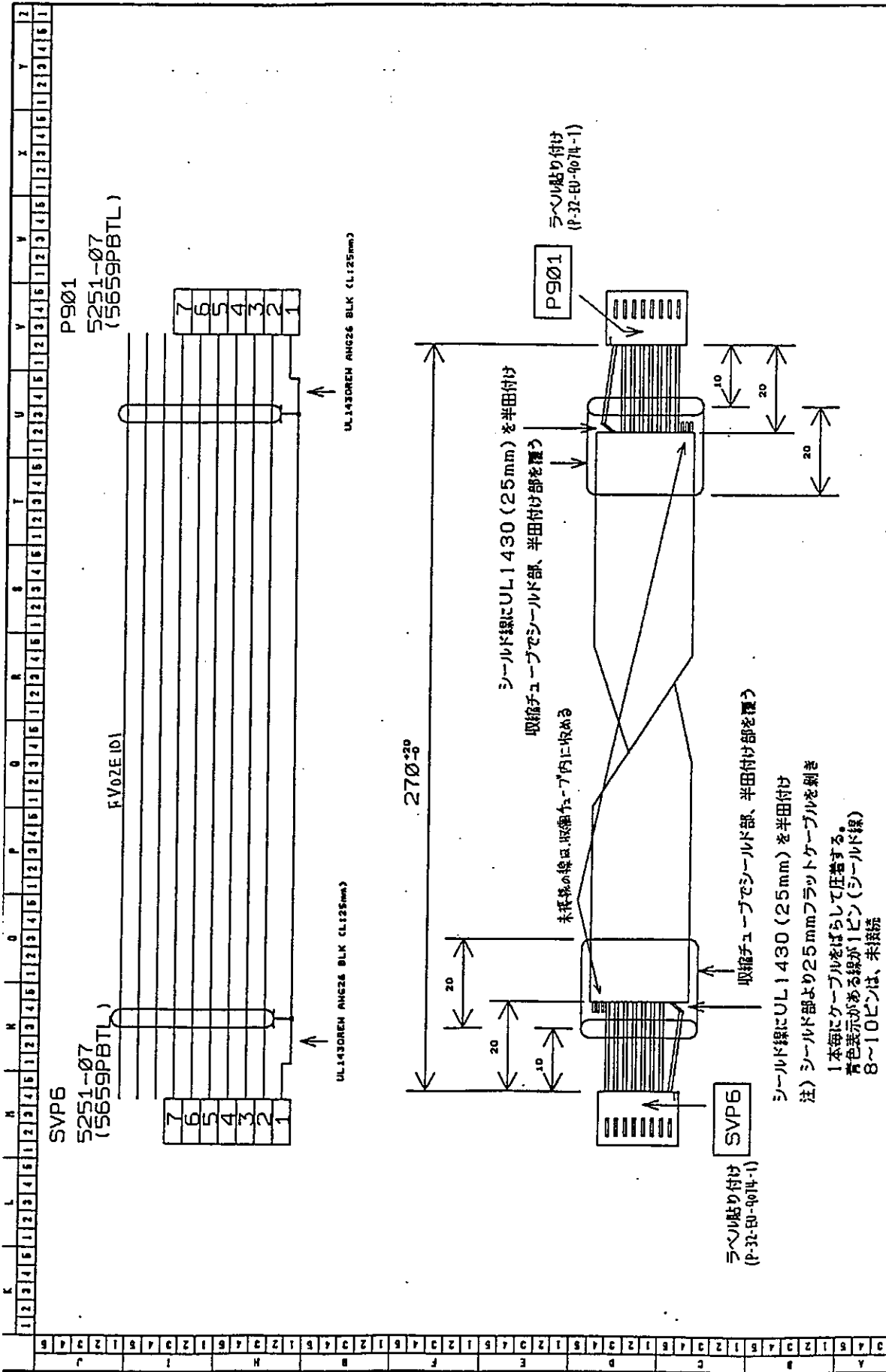
Pin No.	Symbol	Label	Function
1	IND0	IND0	IND0
2	IND1	IND1	IND1
3	IND2	IND2	IND2
4	IND3	IND3	IND3
5	IND4	IND4	IND4
6	IND5	IND5	IND5
7	IND6	IND6	IND6
8	IND7	IND7	IND7
9	IND8	IND8	IND8
10	IND9	IND9	IND9
11	INDA	INDA	INDA
12	INDB	INDB	INDB



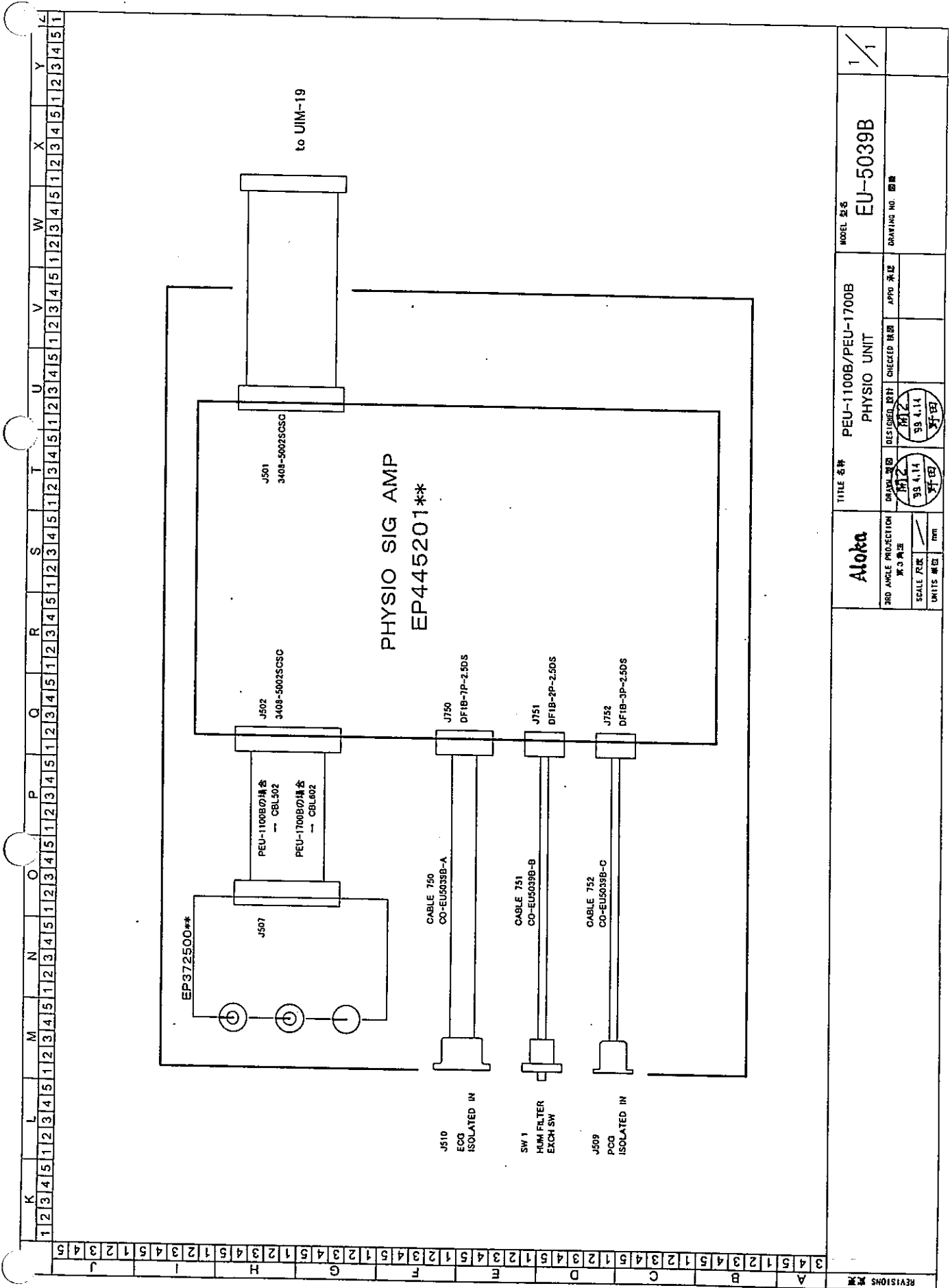
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	<p>3rd angle projection 第三角法 scala 1:1 units mm</p>		drawing no. 番号 MC337402
<p>王 3月 02 王 3月 12 王 3月 12 王 3月 12</p>			
<p>8/8</p>		<p>A</p>	

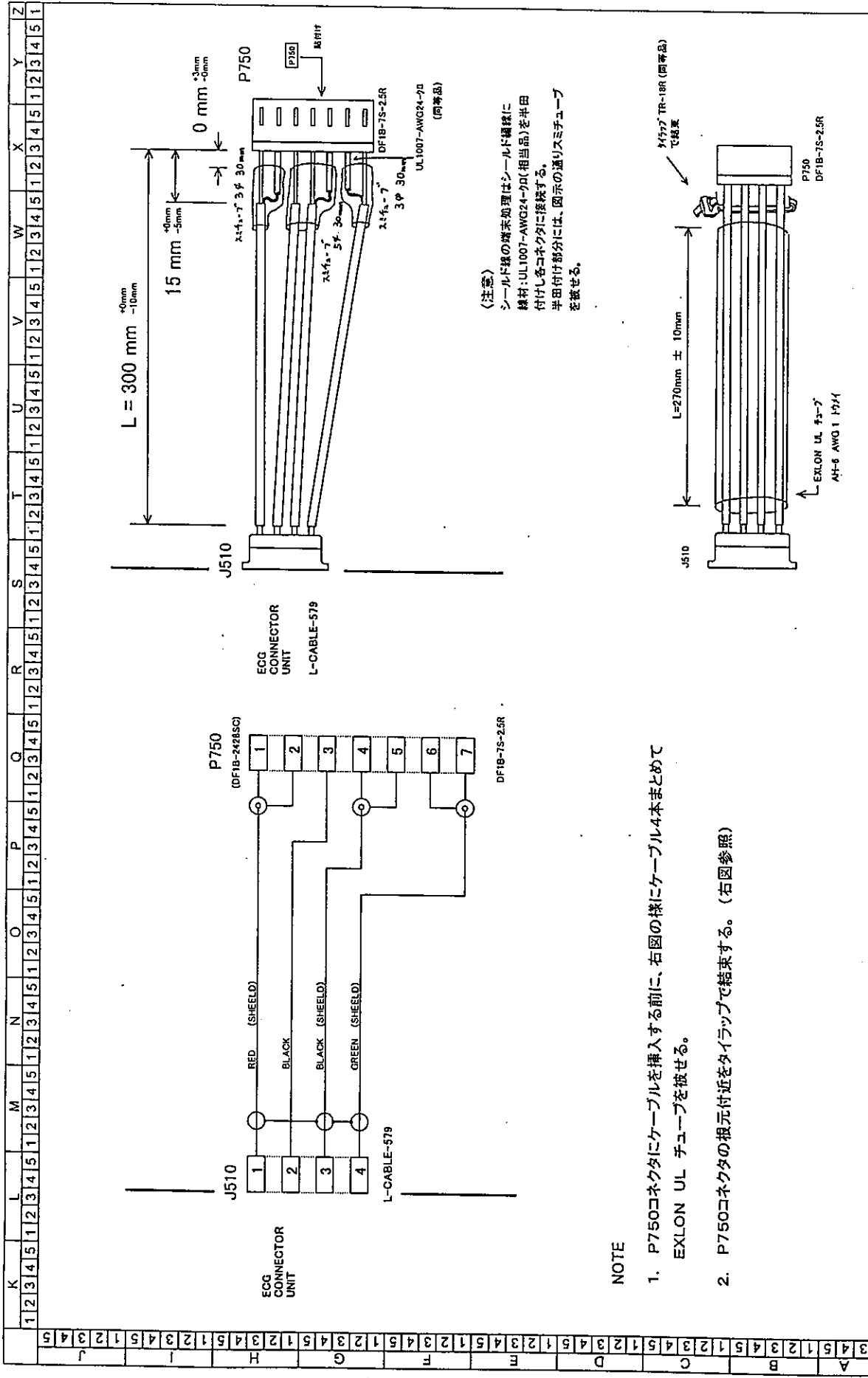


TITLE 名称	MODEL 形名	
<b>CBL 106</b>	<b>L-CABLE-585</b>	<b>1/1</b>



REVISONS	Aloka				TITLE				MODEL																		
	3RD ANGLE				DRAWN				DESIGNED				CHECKED				APPRO.										
PROJECTION				SCALE				UNITS				MM				CABLE108				CO-EU-9074-A				1/1			
																				DRAWING NO.				MC338574			





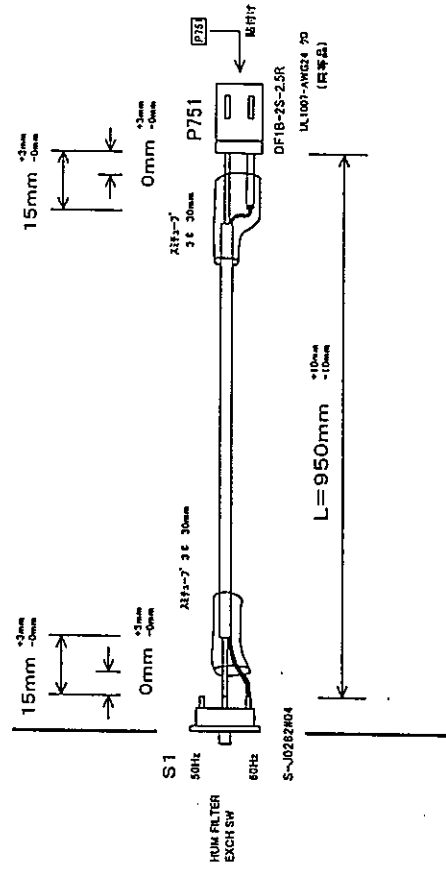
(注意)  
シールド線の端部処理はシールド線に  
線材:UL1007-AWG24-70(相当品)を半田  
付けし各コネクタに接続する。  
半田付け部分には、図示の通りスミチューブ  
を被せる。

NOTE

1. P750コネクタにケーブルを挿入する前に、右図の様にケーブル4本まとめて EXLON UL ケーブルを被せる。
2. P750コネクタの根元付近をタイラップで結束する。(右図参照)

REVIEWS 変更		Aloka		TITLE 名称 PEU-11006/17008用EU-5039B		MODEL 型号 CO-EU5037B-A		DRAWING NO. 図番	
3RD ANGLE PROJECTION 第三角法		SCALE 尺比 1:1		UNITS 単位 mm		DESIGNED 設計 野田		CHECKED 検閲 野田	
DRAWN 図面 野田		APPROVED 承認 野田		DATE 98.1.14		DRAWING NO. 図番		MODEL 型号	

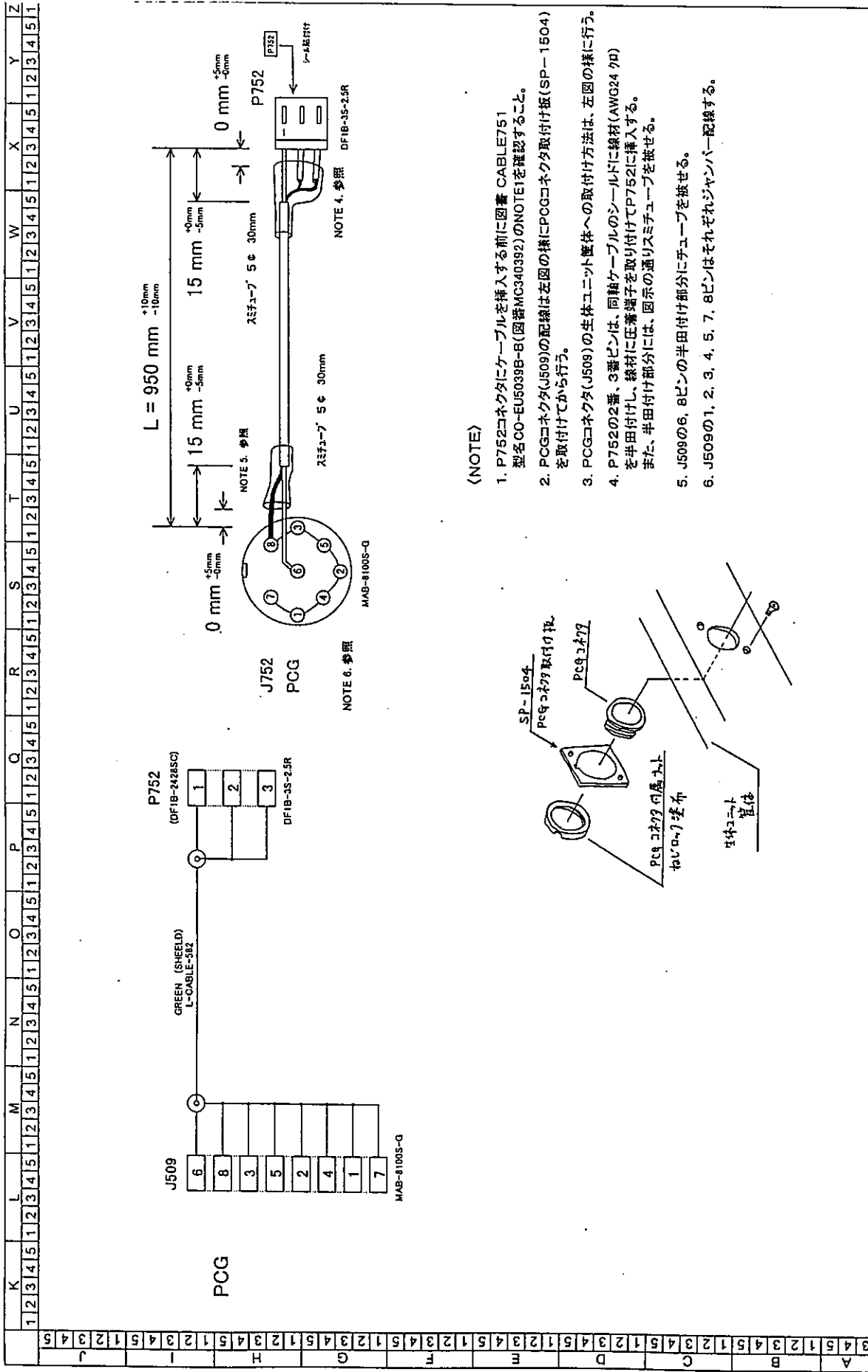
K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z																								
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J	I	H	G	F	E	D	C	B	A																														



(NOTE)

1. P751コネクタにケーブルを挿入する前に、右の下図の様に CABLE752 (CO-EU5039B-C)と CABLE751 とを兼ねて EXLON UL チューブを被せる。  
※CABLE 751, 752 共にケーブルに EXLON UL チューブを被せてからP751, 752コネクタにケーブルを挿入すること。
2. HUM FILTER SW S1 の半田付け部分に、チューブを被せること。

REVIEWS		Alok		TITLE 名称		MODEL 型号	
3	4	5	1	2	3	4	5
3RD ANGLE PROJECTION		SCALE RATIO		DESIGNED 設計		CHECKED 検閲	
第3角法		9S 4.14		野田		野田	
UNITS 単位		mm		DRAWING NO. 図番		CO-EU5039B-B	
				PEU-1100B/1700B用EU-5039B		CABLE 751	
				APPRO 承認		1/1	



(NOTE)

1. P752コネクタにケーブルを挿入する前に図書 CABLE751 型名OO-EU5039B-B(図番MC340392)のNOTE1を確認すること。
2. PCGコネクタ(J509)の配線は左図の様にPCGコネクタ取付け板(SP-1504)を取付けてから行う。
3. PCGコネクタ(J509)の生体ユニット筐体への取付け方法は、左図の様にを行う。
4. P752の2番, 3番ピンは、同軸ケーブルのシールドに線材(AWG24 7P)を半田付けし、線材に圧着端子を取り付けてP752に挿入する。また、半田付け部分には、図示の通りスミチューブを被せる。
5. J509の6, 8ピンの半田付け部分にチューブを被せる。
6. J509の1, 2, 3, 4, 5, 7, 8ピンはそれぞれジャンパー配線する。

REVIEWS 変更		TITLE 名称		MODEL 型名	
3	4	1	2	CO-EU5039B-C	1/2
3RD ANGLE PROJECTION 第3角法		DESIGNED 設計 野田	APPRO 承認	DRAWING NO. 図番	
SCALE 尺規 1:1		DESIGNED 設計 野田	APPRO 承認		
UNITS 単位 mm		DESIGNED 設計 野田	APPRO 承認		
Aloka		PEU-1100B/1700B用EU-5039B CABLE 752			



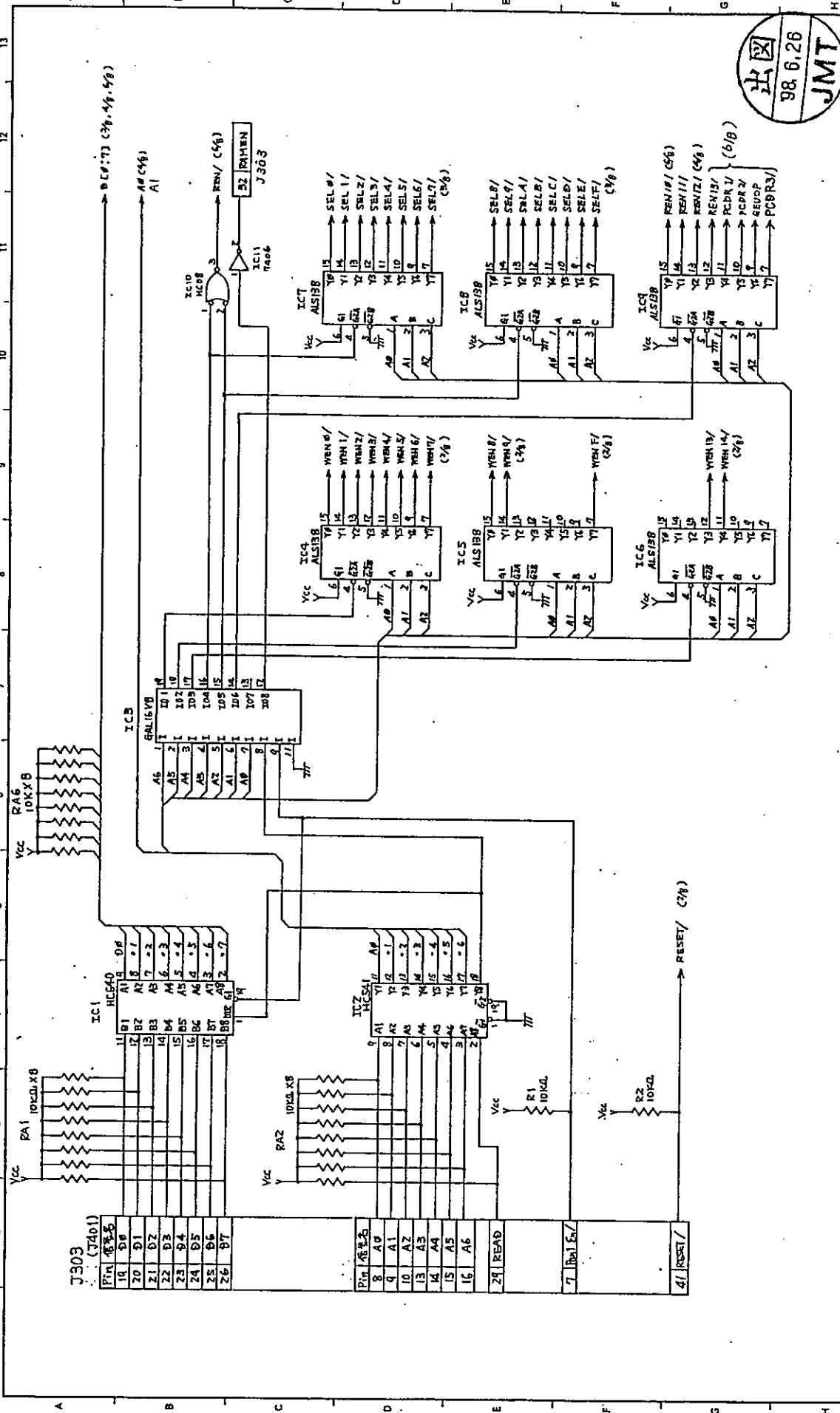
出区  
98.6.26  
JMT

1-KEI-7/3/E  
1998.7.

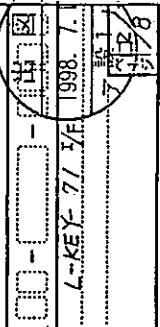
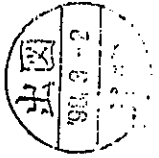
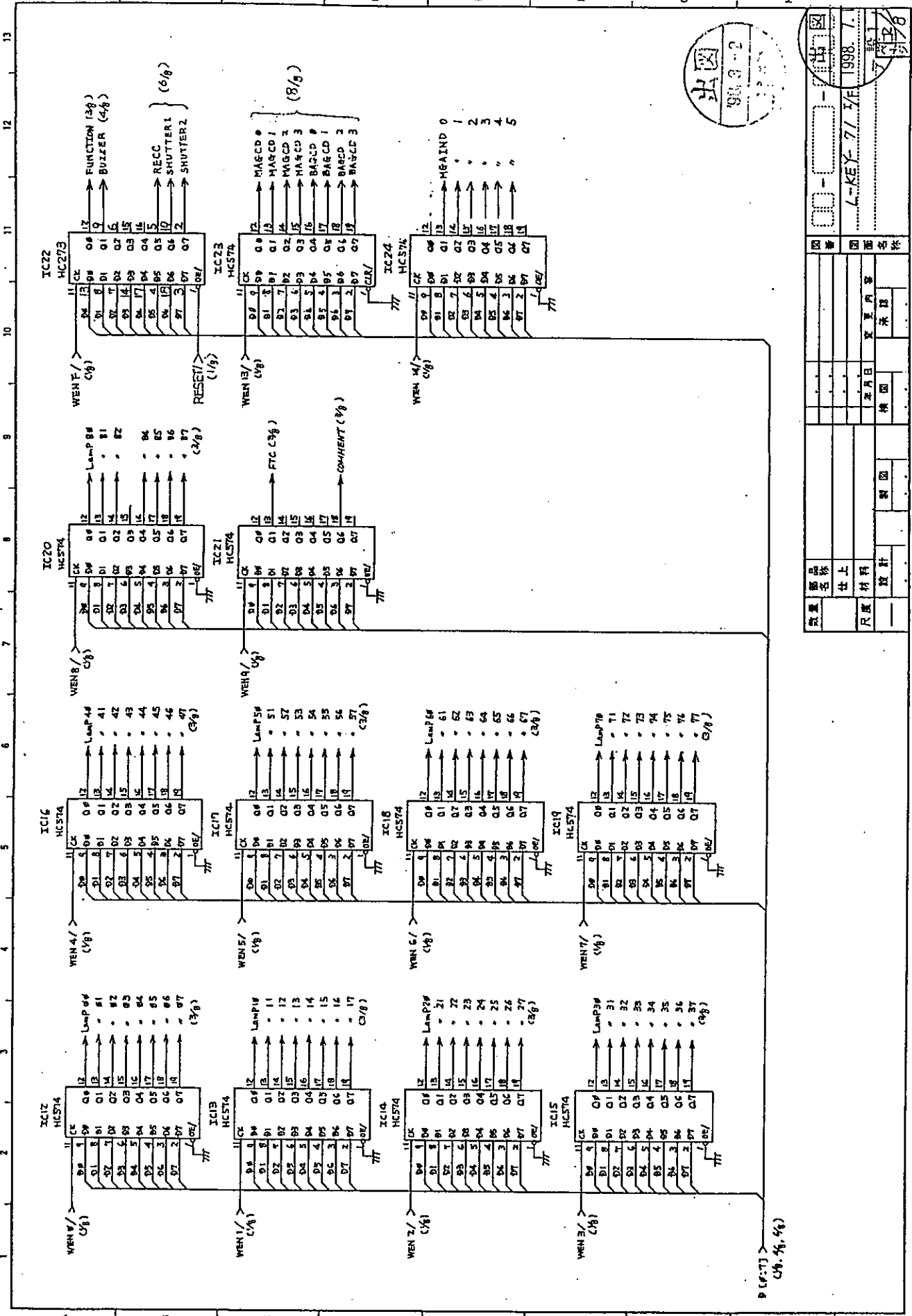
株式会社 ジェイエムティ

図番	00-00-00
図名	1-KEI-7/3/E
製図者	
製図日	
承認者	
承認日	
検閲者	
検閲日	
製図部	
製図員	
設計	
材料	
仕上	
部品名	
品名	

三角法 単位mm



SECTION 7 SCHEMATICS

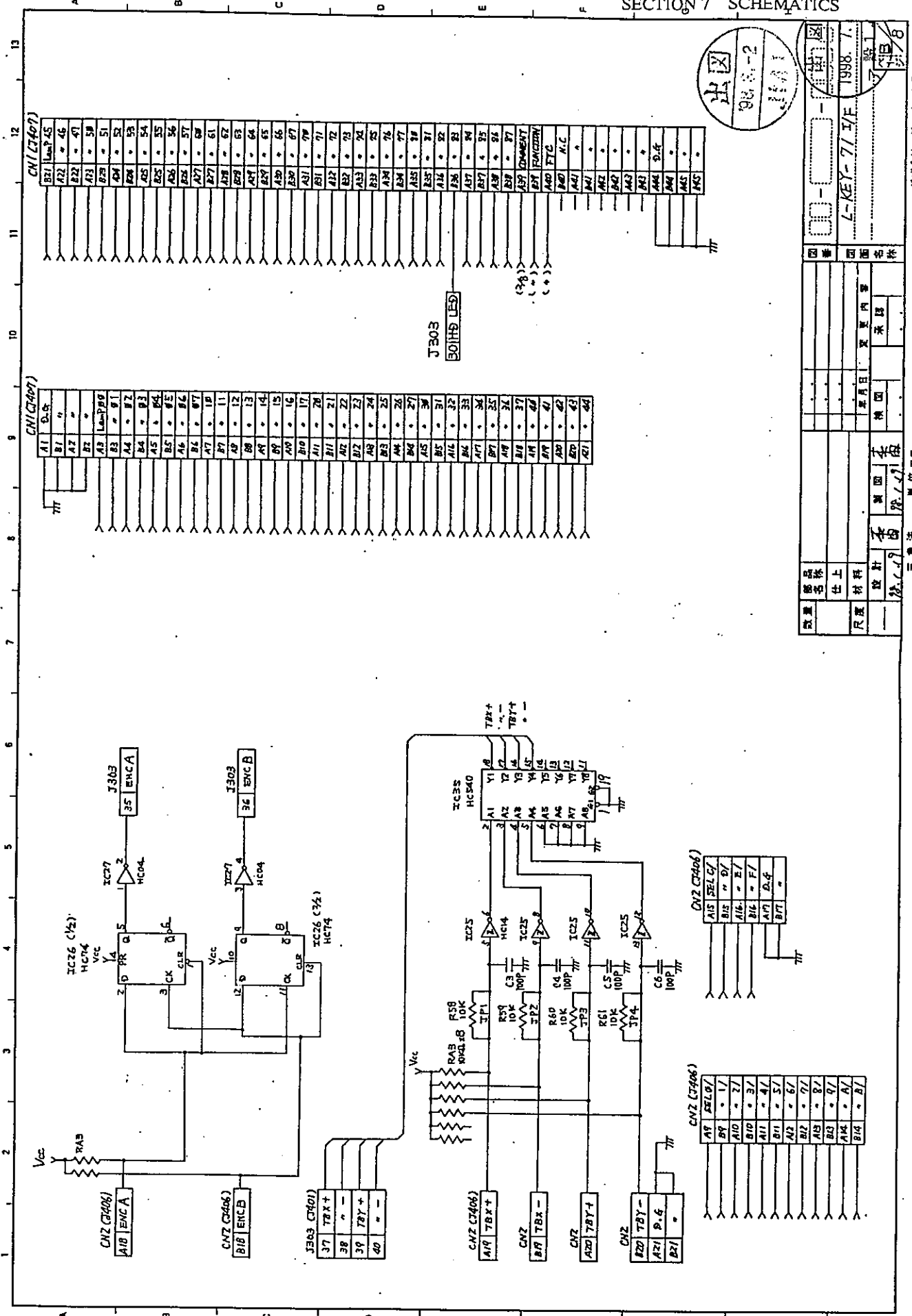


数量	部品名称	仕上	年月日	検査者
		設計	検図	

株式会社 ヲエイエムチ

三角波 単位 mm

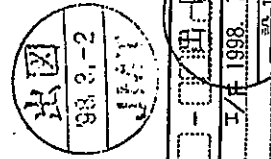
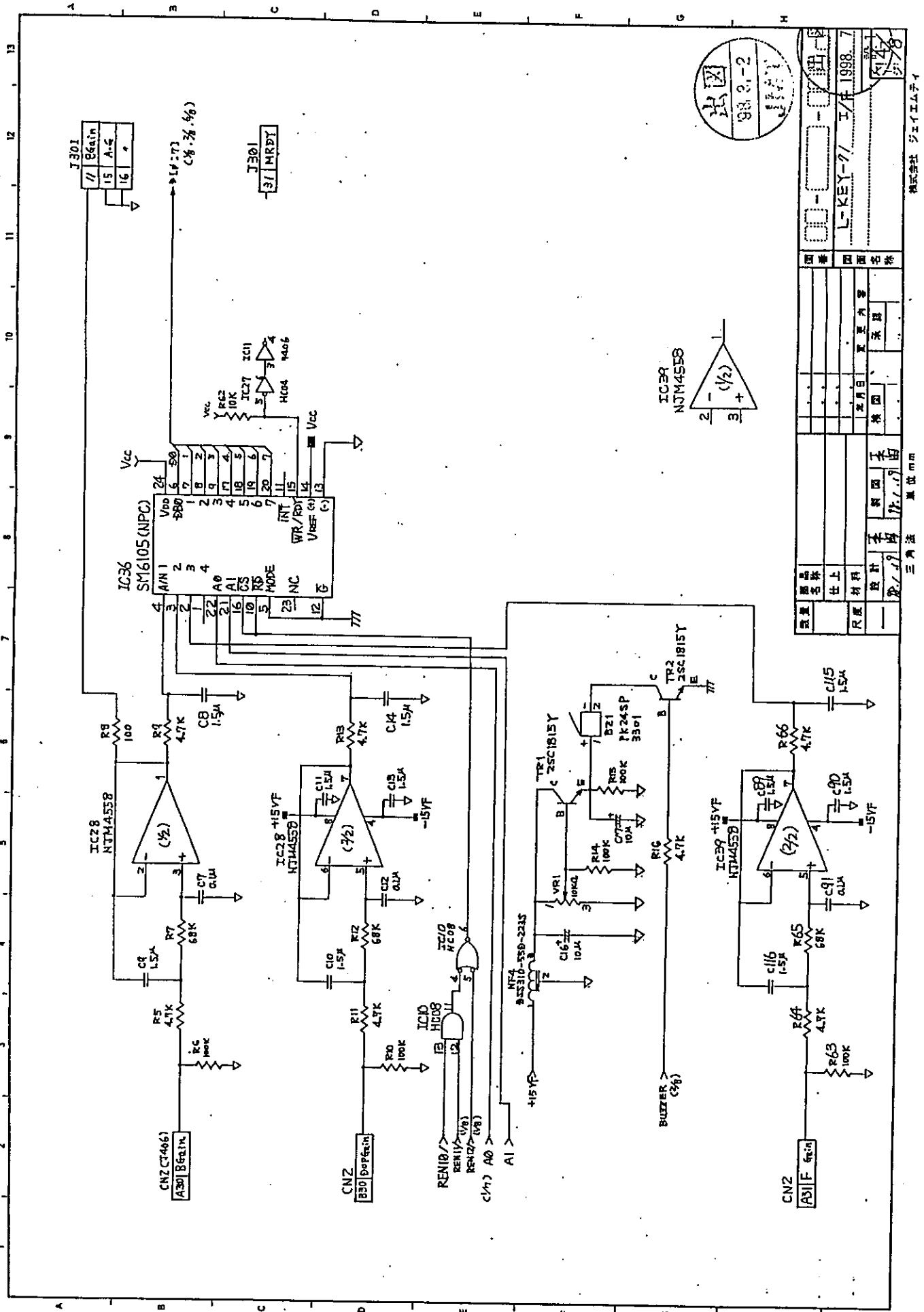
SECTION 7 SCHEMATICS



数量	1	部品名	キーボード	図番	MN2-0213-7
仕上		材料		作成日	1998.7.7
設計		製図		承認	
		検査		変更内容	
		部品		部品名	

出図  
98.6.2  
11/11

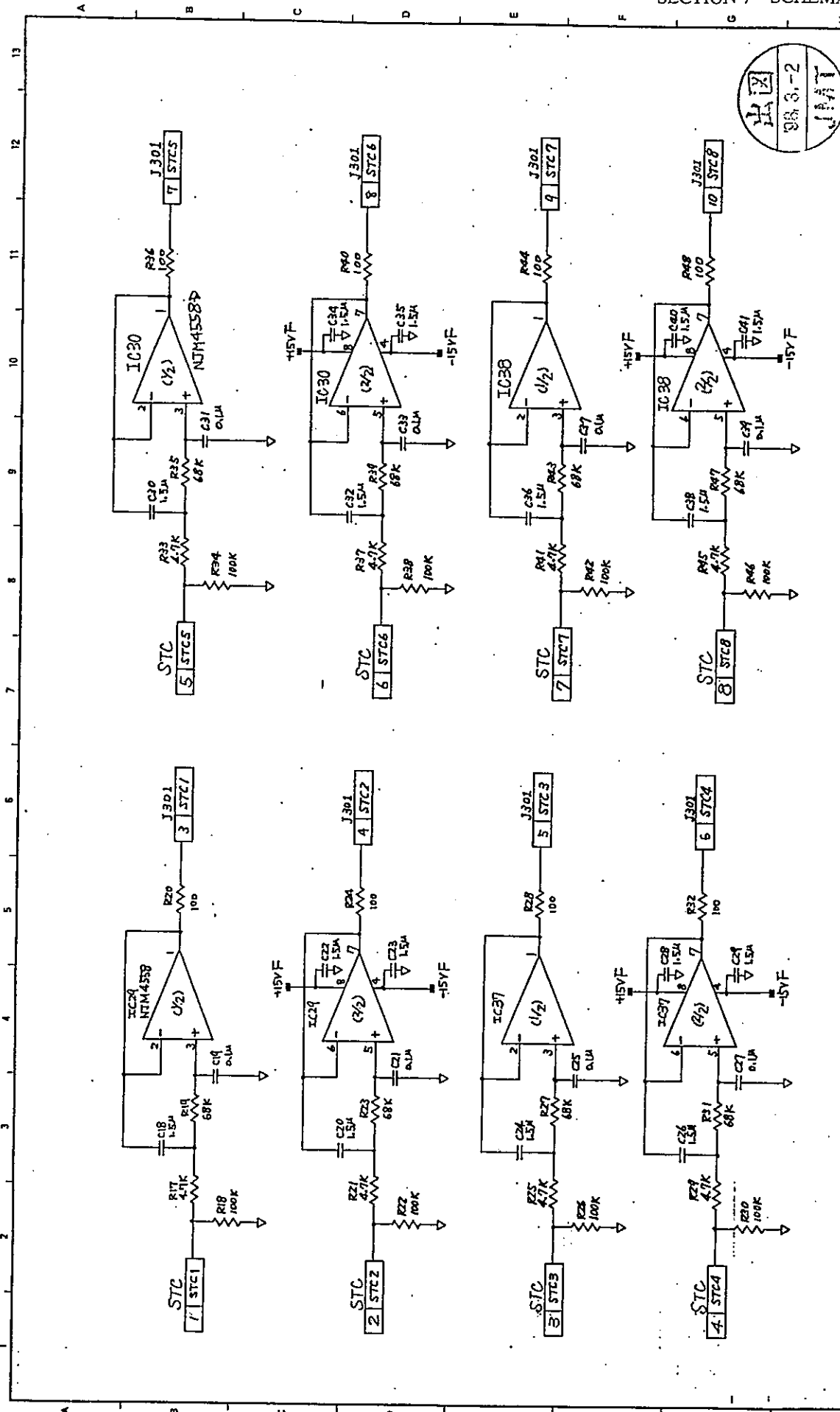
株式会社 ジェイエムティ



図番		図名	
品名	数量	単位	備考
部品名			
出上			
尺底			
設計			
校閲			
承認			
発注			
発行			
年月日			
林園			
変更内容			

株式会社 ジェイエレクト  
単位 mm

MN2-0213 Rev. 2  
SECTION 7 SCHEMATICS

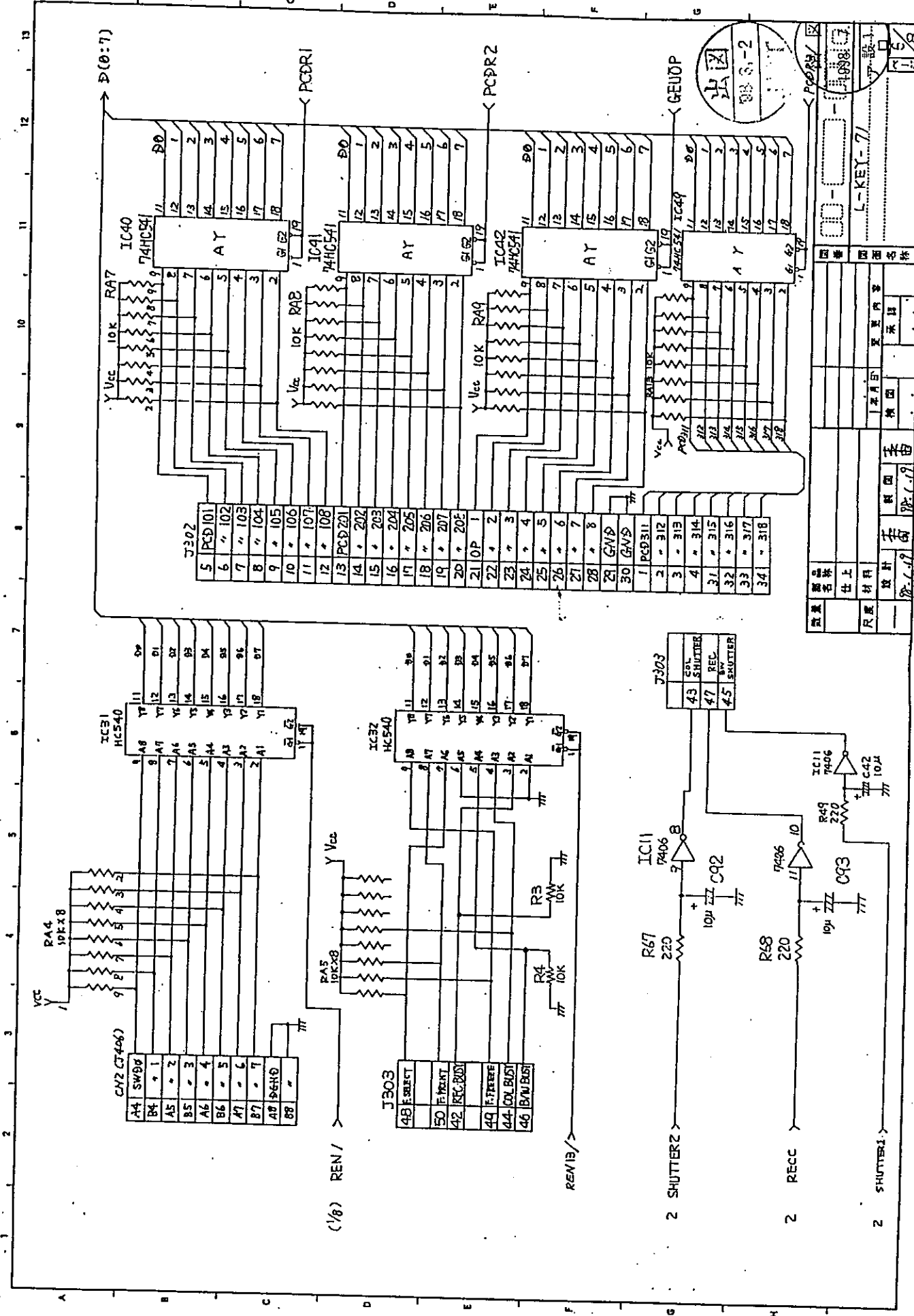


1/ 出  
2/ 出  
3/ 出  
4/ 出  
5/ 出  
6/ 出  
7/ 出  
8/ 出  
9/ 出  
10/ 出  
11/ 出  
12/ 出  
13/ 出

数量	品名	仕上	材料	設計	年月	製図	寸法	変更内容	承認	製図名	図番
	品名	仕上	材料	設計	年月	製図	寸法	変更内容	承認	製図名	図番
	品名	仕上	材料	設計	年月	製図	寸法	変更内容	承認	製図名	図番
	品名	仕上	材料	設計	年月	製図	寸法	変更内容	承認	製図名	図番
	品名	仕上	材料	設計	年月	製図	寸法	変更内容	承認	製図名	図番
	品名	仕上	材料	設計	年月	製図	寸法	変更内容	承認	製図名	図番
	品名	仕上	材料	設計	年月	製図	寸法	変更内容	承認	製図名	図番
	品名	仕上	材料	設計	年月	製図	寸法	変更内容	承認	製図名	図番

三島 製図 単位 mm  
98.1.17  
98.1.17  
L-KEY-7

株式会社 ジェイコム

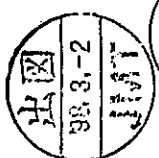
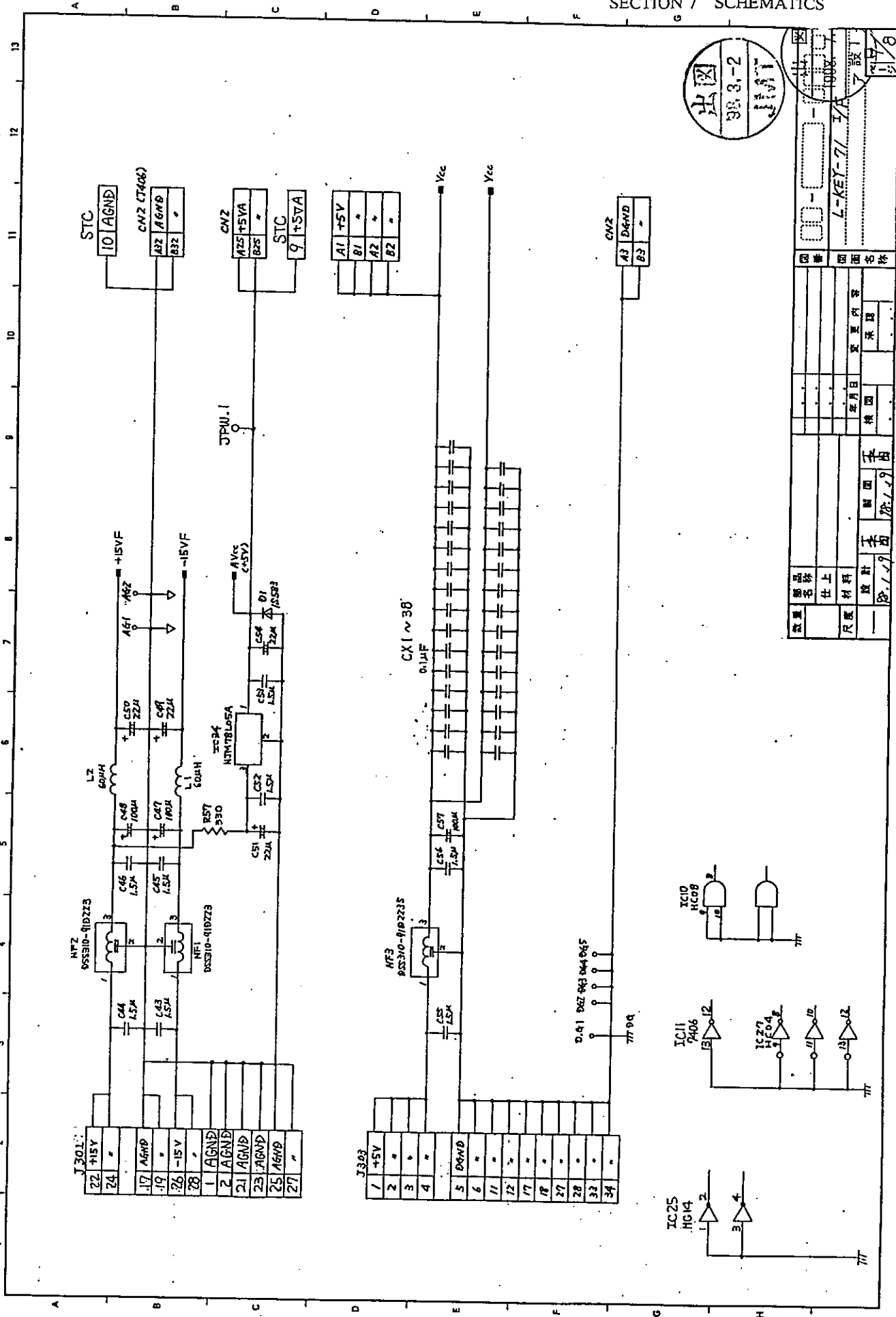


出図 88.3-2

図番	00-00-000807
図名	L-KEY-71
設計	李海
校核	李海
製版	李海
検査	李海
承認	李海
日期	88.3.2
頁数	1/1

三井電機 單位:mm

SECTION 7 SCHEMATICS



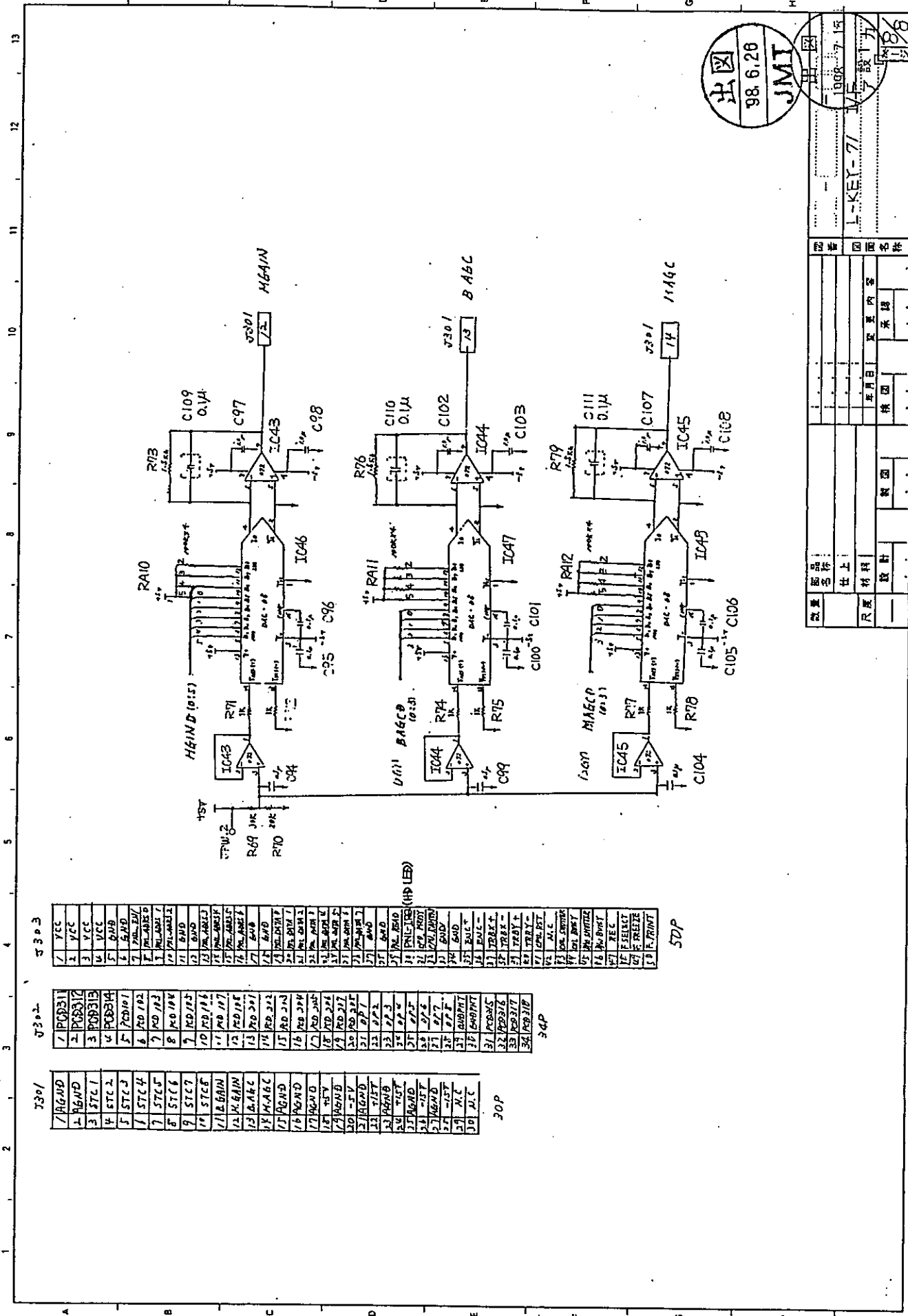
図番	00-00-000
図名	L-KEY-71 2/A
発行	7/97
図名	1008
図番	7

品名	部品	数量	単位
仕様	仕上		
材料	材料		
設計	設計		
製図	製図		
承認	承認		
年月日	年月日		
機回	機回		
内容	内容		
承認	承認		

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MN2-0213 Rev. 2  
SECTION 7 SCHEMATICS



出図  
98.6.26  
JMI

1988.7.15  
L-KEY-77  
設計

30P

1	VCC
2	VCC
3	VCC
4	VCC
5	PNP
6	PNP
7	PNP
8	PNP
9	PNP
10	PNP
11	PNP
12	PNP
13	PNP
14	PNP
15	PNP
16	PNP
17	PNP
18	PNP
19	PNP
20	PNP
21	PNP
22	PNP
23	PNP
24	PNP
25	PNP
26	PNP
27	PNP
28	PNP
29	PNP
30	PNP

34P

1	PCB311
2	PCB312
3	PCB313
4	PCB314
5	PCB315
6	PCB316
7	PCB317
8	PCB318
9	PCB319
10	PCB320
11	PCB321
12	PCB322
13	PCB323
14	PCB324
15	PCB325
16	PCB326
17	PCB327
18	PCB328
19	PCB329
20	PCB330
21	PCB331
22	PCB332
23	PCB333
24	PCB334
25	PCB335
26	PCB336
27	PCB337
28	PCB338
29	PCB339
30	PCB340

30P

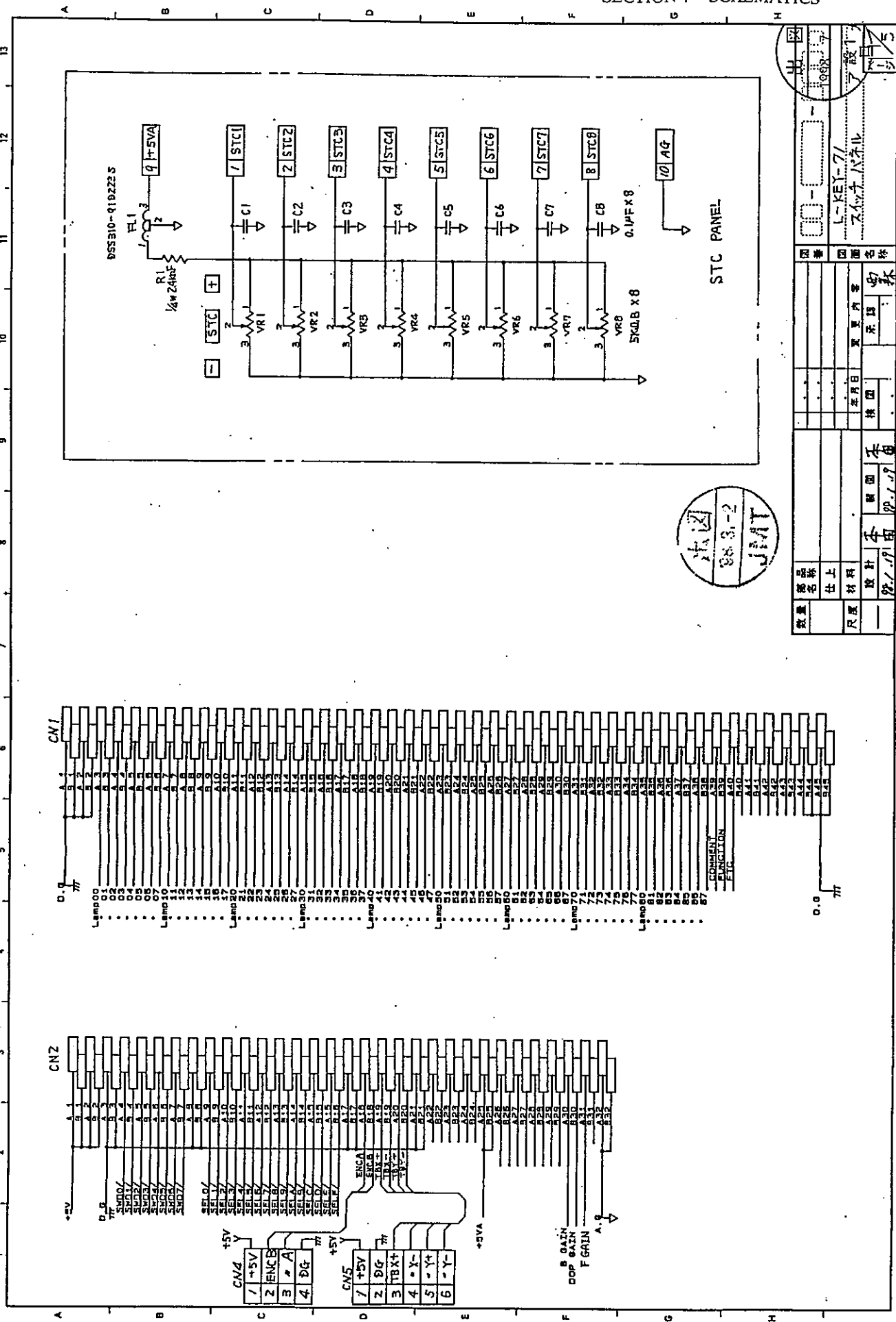
1	AGND
2	AGND
3	STC1
4	STC2
5	STC3
6	STC4
7	STC5
8	STC6
9	STC7
10	STC8
11	STC9
12	STC10
13	STC11
14	STC12
15	STC13
16	STC14
17	STC15
18	STC16
19	STC17
20	STC18
21	STC19
22	STC20
23	STC21
24	STC22
25	STC23
26	STC24
27	STC25
28	STC26
29	STC27
30	STC28

50P

製	品	名	稱	製	作	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所
尺	寸	材	料	計	算	日	製	作	場	所

三 角 法 單 位 mm

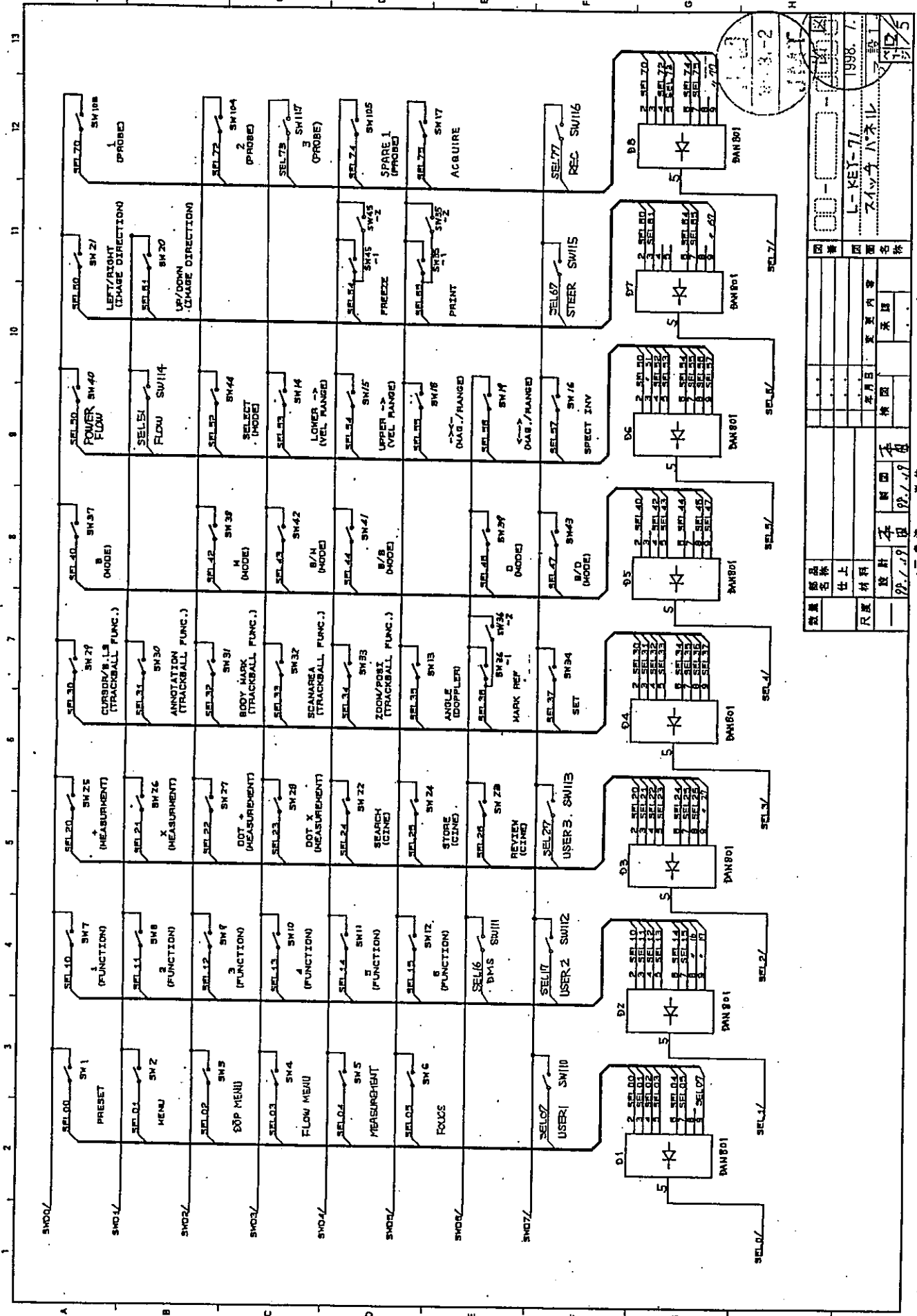




求図  
88.3.2  
JMAT

数量	规格名称	社上	材料	设计	日期	制图	审核	批准
尺寸	材料	社上	材料	设计	日期	制图	审核	批准
数量	规格名称	社上	材料	设计	日期	制图	审核	批准

SECTION 7 SCHEMATICS

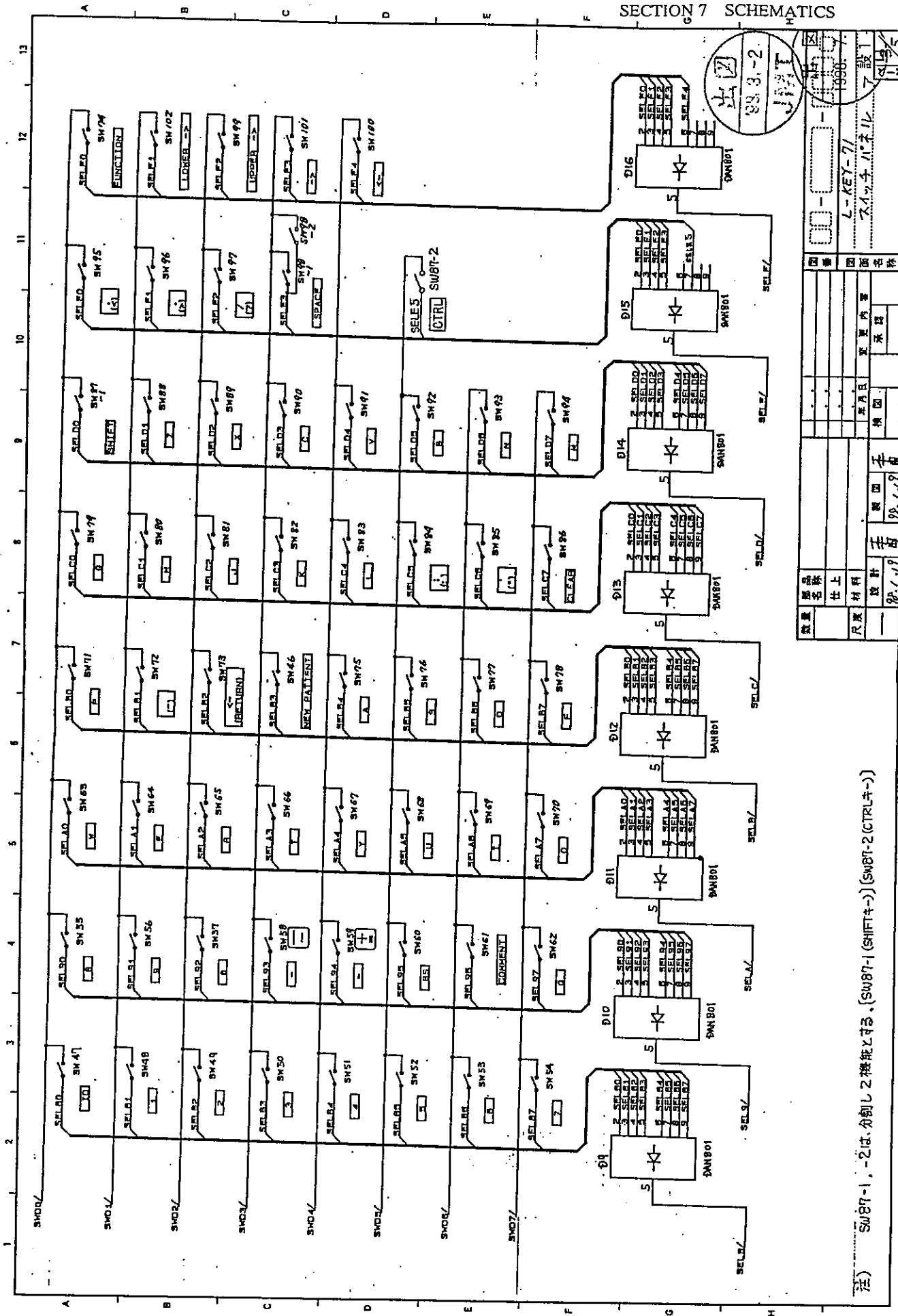


品名	00- L-KEY-71
仕様	スイッチパネル
寸法	197.77
数量	1
単位	mm
設計	1997.11.19
校核	1997.11.19
承認	1997.11.19
製図	1997.11.19
組立	1997.11.19
検査	1997.11.19
出荷	1997.11.19
年月日	1998. 7
社内	東芝
部門	東芝
名称	東芝

株式会社 ジエイエー

3-2  
11/15

SECTION 7 SCHEMATICS



出  
83.3.2  
JPT

数量	1	単位	mm
品名	L-KEY-71		
材料	ステンレス		
設計	1971.12.19	校核	
尺度	三角法		
図番	00-00-0000	図名	KEY-71
西番		西名	KEY-71
年月日		製内番	
株		承認	
製		単位	

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注) SWBT-1, -2は、分割し2機能とする。(SWBT-1 (SHIFTキー) (SWBT-2 (CTRLキー))

SECTION 7 SCHEMATICS

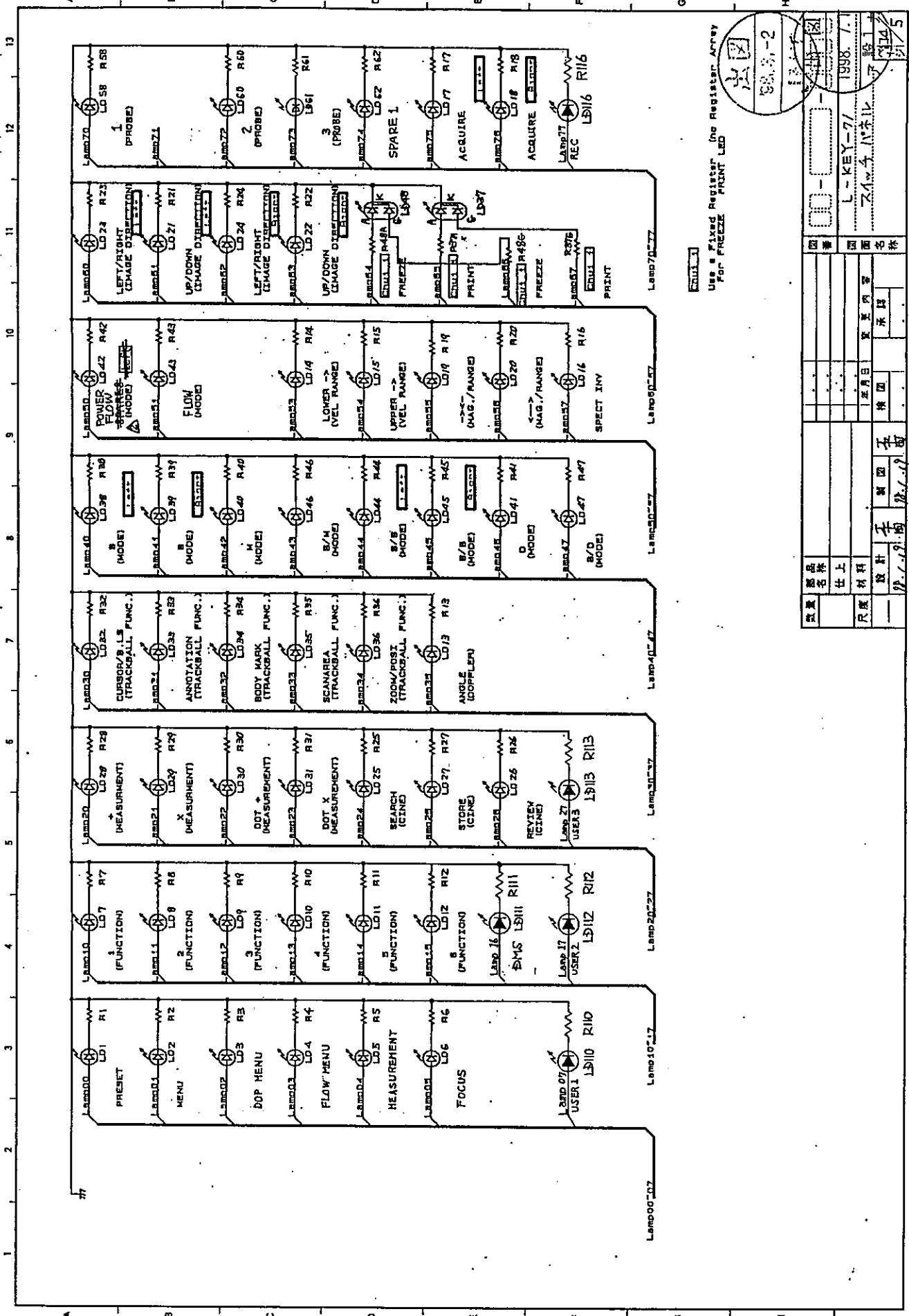
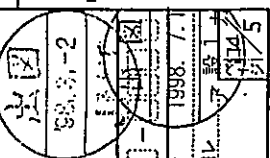


FIGURE 1

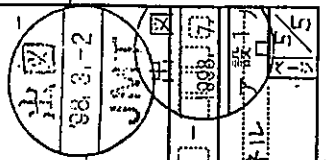
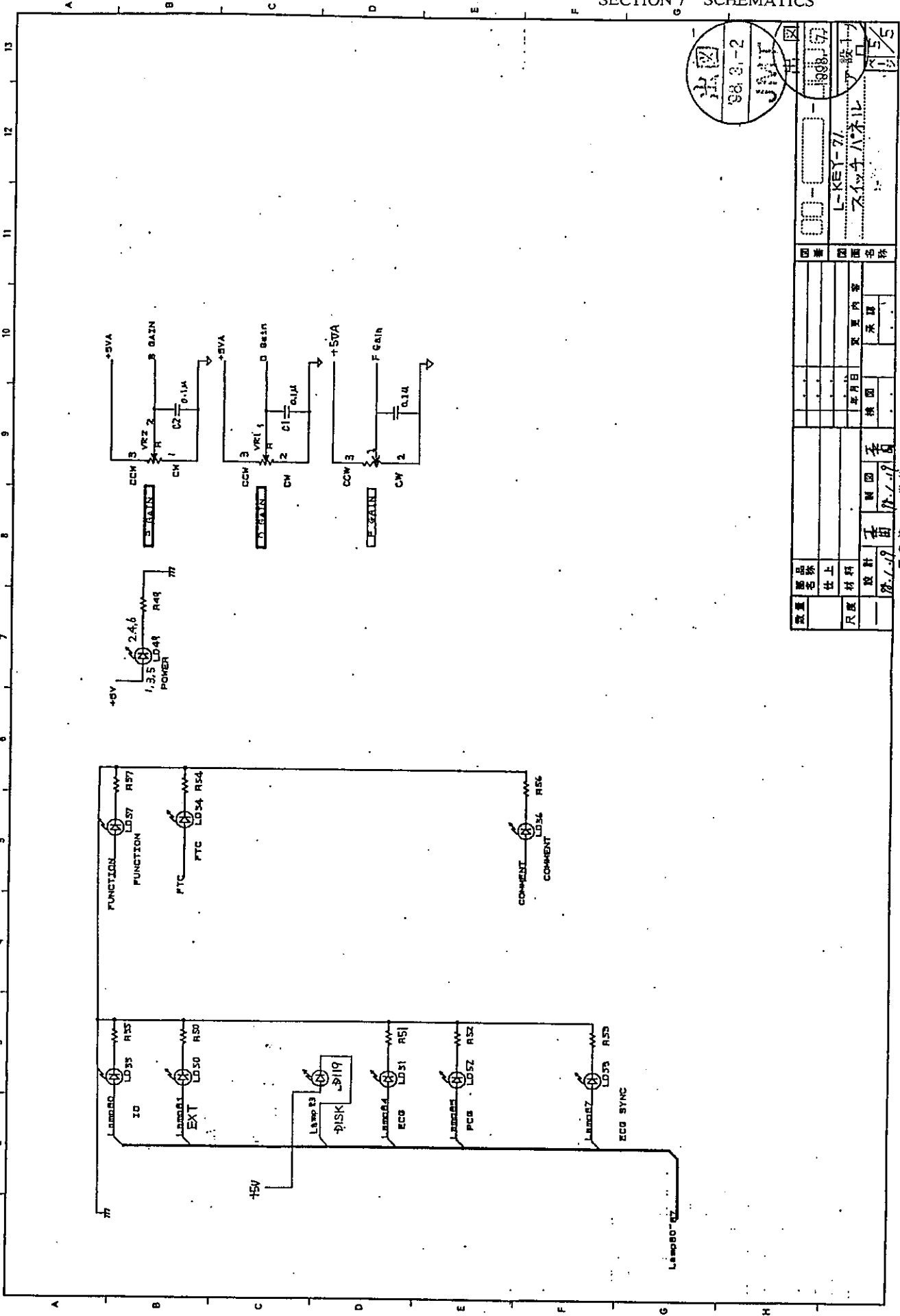
Use a Fixed Register (no Register Array) For FREEZE PRINT LED



品名	仕上	1998.1.15	1998.1.15
数量			
尺度	設計	新四	承認
	19.1.15	19.1.15	19.1.15

株式会社 ジエイエム

三角法 単位mm



圖號	00-0-199B.17
圖面名稱	L-KEY-77 アキバケイ77
製圖	李國
校核	李國
設計	李國
材料	
出廠	
品名	
數量	

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**SECTION 8**

**TROUBLE SHOOTING**

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8-1 Introduction


This trouble shooting makes integral part of the Service Manual. And it has been prepared for the persistent purpose of providing for repairing guidelines. What has been described herein, moreover, is subject to the prerequisite for a repair to be made by replacing a PCB.

8-2 Precautions

To prevent a new problem (secondary disaster) from taking place in the process of trouble shooting as described herein, every engineer concerned should duly take the following precautions:

- (1) Never remove any part from the electric system, including PCB, probe, cable, etc., before powering off the equipment.

●Caution●



If the TX board is removed from the equipment, the high voltage (HV) capacitor for transmission, is in a charged state and the charge has not been completely discharged. Do not touch the part surface or any soldered portion with bare hands until the high voltage discharges naturally (approximately 30 seconds).

- (2) Do not proceed to a disassembly of equipment without observing the established disassembly procedure. Be careful enough for wrongly disassembling the equipment would damage or break it down.
- (3) To make certain of a voltage and/or a signal waveform, it is necessary to thoroughly know the specification and handling procedure relating to a measuring instrument employed.
- (4) To ground a measuring instrument probe or the like, it is naturally necessary to know where a signal to determine is grounded. Before using the instrument, moreover, make certain for which the grounding terminal is intended, analog, digital, alternating current, direct current, high voltage or low voltage.

●Caution●

Failure to ground properly might result in an incapability of observing an accurate voltage or waveform or in a probability of burning out the measuring instrument or ultrasound diagnostic equipment or both.

●Caution● To determine an especially high voltage, it might rupture a circuit in the ultrasound diagnostic equipment. Besides, it might endanger a engineer or engineers concerned.

- (6) To replace or repair a PCB, make certain of its compatibility, etc, in accordance with the "History of SSD-1700".  
If a wrong ROM should be mounted on a PCB, employ the ROM originally employed in the user's equipment or select an appropriate one in accordance with the History.

●Caution● If an incompatible PCB should be inserted into the equipment, there are possibilities that the equipment may be burnt out. If such incompatible PCB should remain inserted in the equipment after completion of a repair, moreover, it should be fully noted that another problem may take place newly.

- (7) Without definitively knowing that failure has taken place, do not unnecessarily change any controls and/or switches on a PCB from their original settings.  
To determine whether or not a problem is the failure, see Section 10 "Performance Check."  
If a readjustment is required, see Section 9 "Adjustment Procedure."

●Caution● An unnecessary change of controls' or switches' settings might bring about a new problem, probably making the equipment unrepairable.

- (8) While you are shooting trouble in accordance with the present procedure, it may be necessary to consult with Technical Support. In such a case, provide at least the following information:
- i) Equipment model number,
  - ii) Equipment serial number,
  - iii) History of equipment (repairs and/or modifications so far made), and software version, and
  - iv) Specific problem situations (Send a photo or photos.)

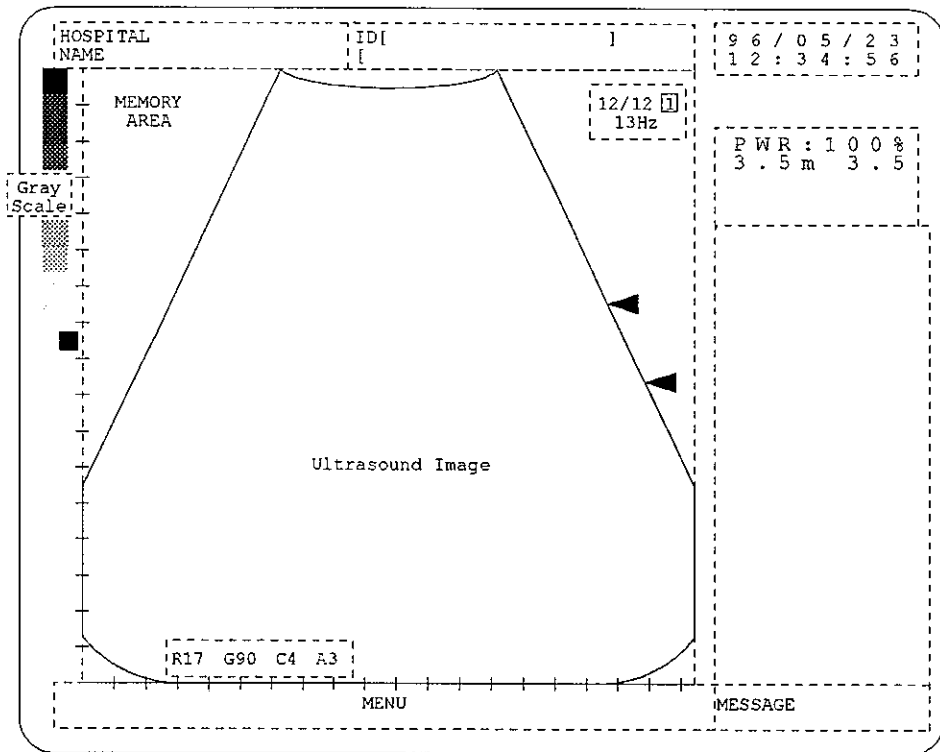


Fig.8-1 The Configuration On Display

To give an explanation about the situations of a problem, it is necessary to clarify to which it relates out of the elements composing the scene, while referring to the illustration given above. Related component elements may be roughly classified as follows:

- Ultrasound Image : An ultrasound tomographic image; its contour varies with an image mode, a probe, etc.
- Memory Area : A full size of memory required to display an ultrasound image.
- Gray Scale : An indicator of image gradients; its pattern varies with a setting of enhancement, gamma or the like.
- Character : A component of the text relating to a hospital name, ID, automatic display, etc.
- Graphic : A component of scale marks, active marks, body marks, etc.

8-3 Tools and Measuring Instruments Required

The tools and measuring instruments which are required for a repair on a standard basis are as follows:

1. Oscilloscope

Sensitivity : 5mV/div.  
Frequency band : DC~50MHz  
Maximum input voltage : 400V or more

2. Multi Meter

Class : 0.5 class  
Range : ACV, DCV, DCA,  $\Omega$

3. Extension Card

: EP404700AA

4. Test Piece:

Made by RMI (Radiation Measurements, INC.)  
RMI-412

5. Probe

Convex : UST-979-3.5

6. ECG (EKG) Simulator

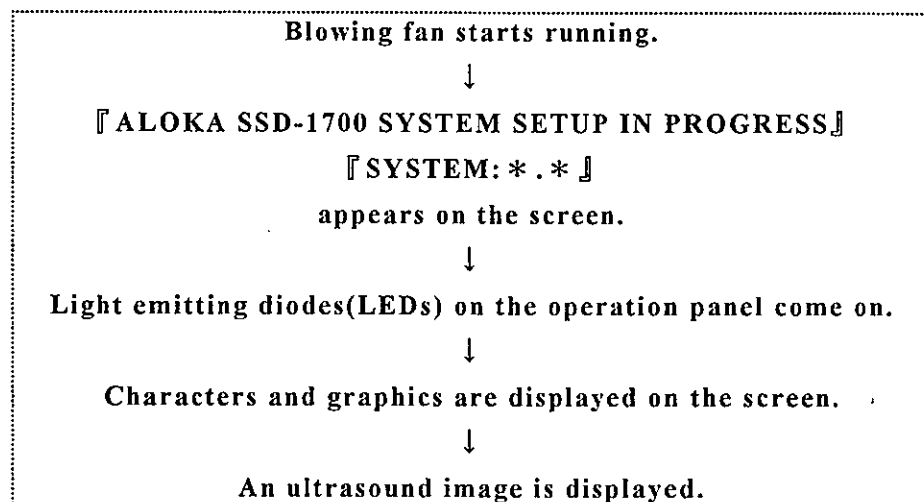
EKG-101 (made by Fukuda Electronics)

## 8-4 Information

A variety of functions are to be set in a central processing unit (CPU). Some settings may be externally entered by the user while others cannot be established by anyone other than an authorized service personnel. Various settings and their changing methods are described herein so that the user may not mistake a performance-associated problem for failure while making a repair.

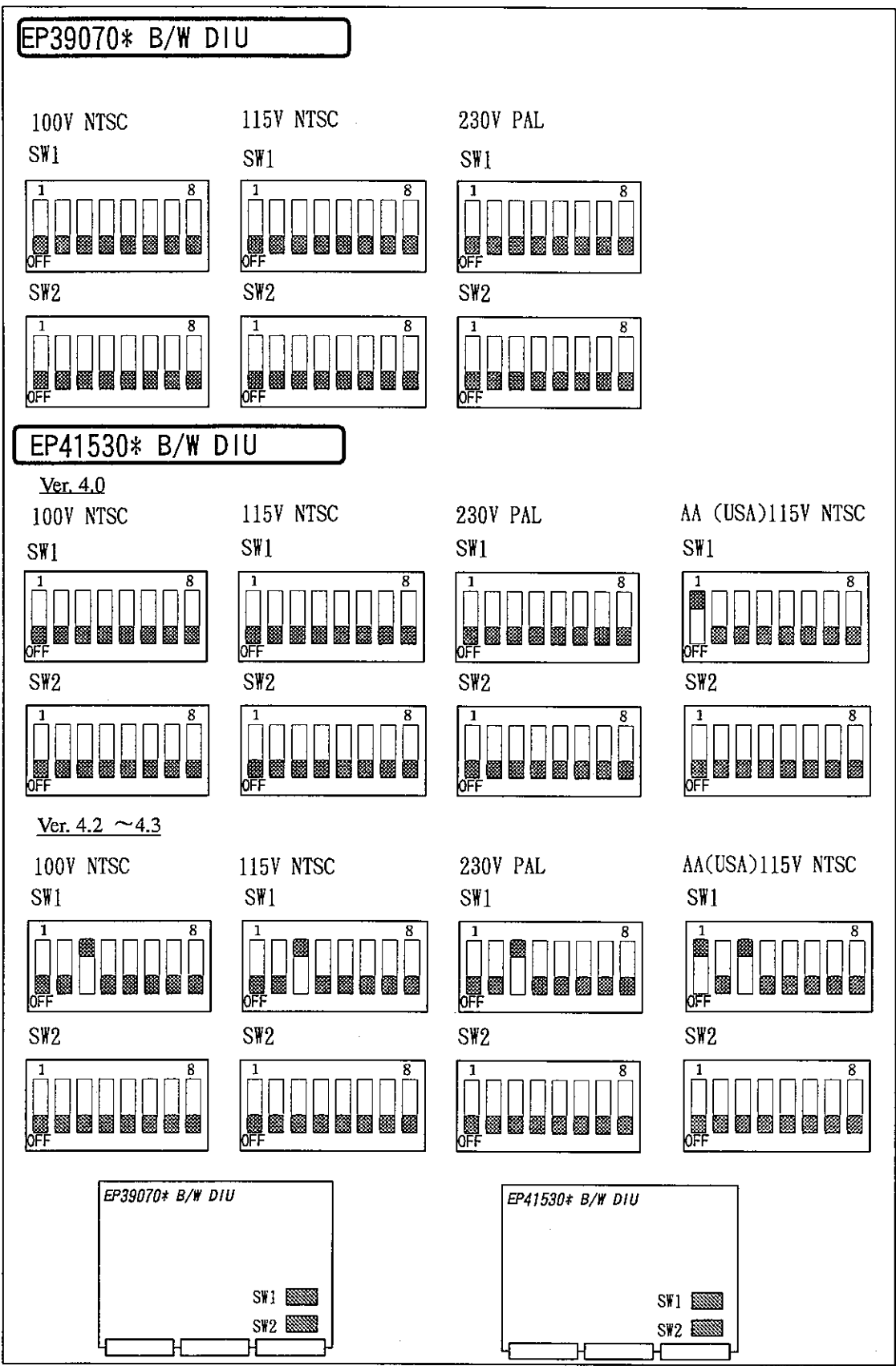
### 8-4-1 Automatically Setting after Powering On

At the same time when the system is powered on, the CPU enters into the INITIAL SET mode. To prepare and display an image by sending an ultrasound from that mode, the system executes the following steps from an appearance point of view:



### 8-4-2 Setting Switches on the PCB

The PCB is provided with the switches to initialize the equipment and to make it applicable to a diversity of specifications. Unless any of the switches is set as specified, the equipment will not only malfunction but also may invite a new problem. Should any of the settings have been inevitably changed, carry out setting the switches all over again with reference to the figure given on the next page.



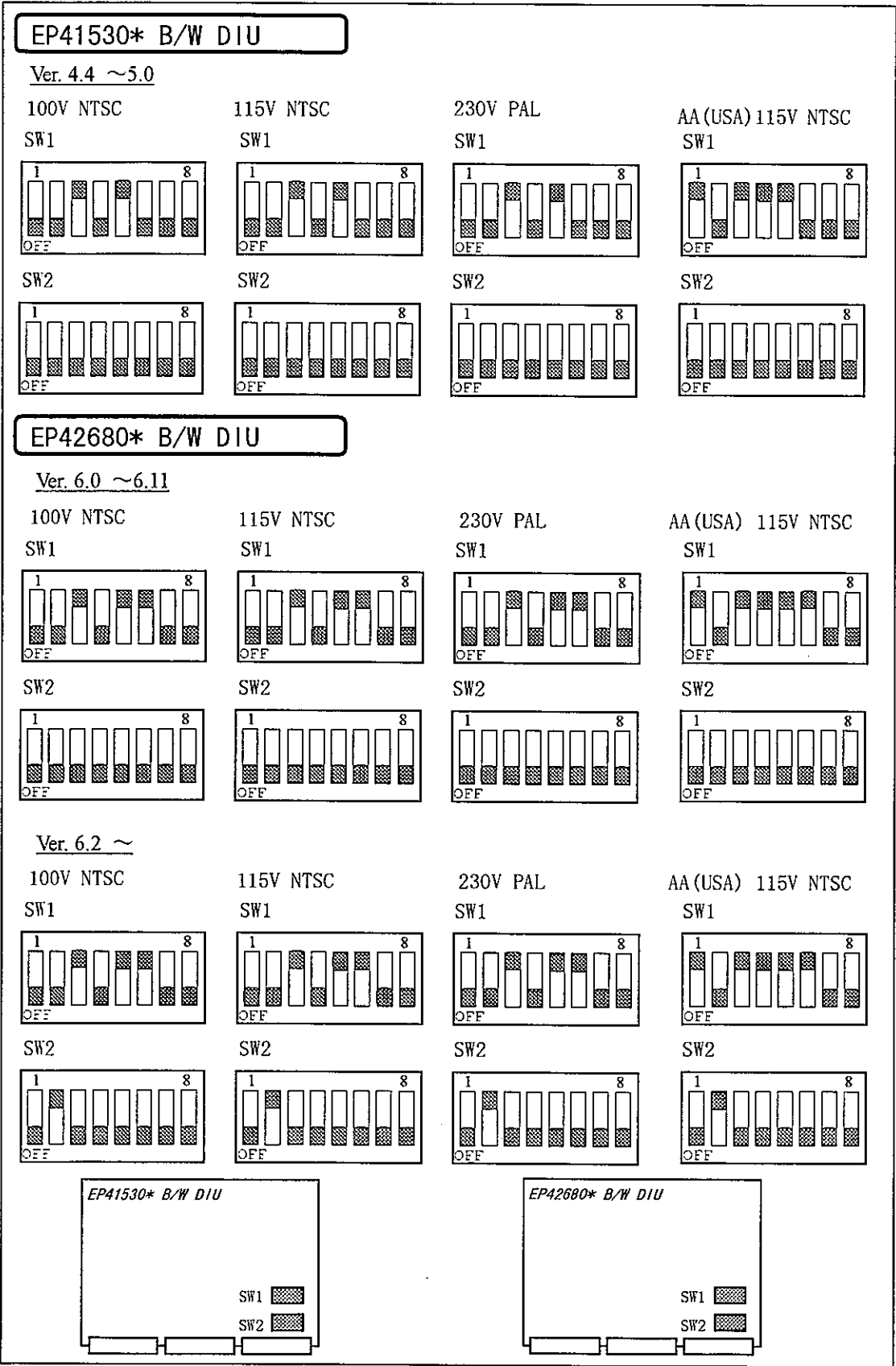


Fig. 8-2-1 DIP SWITCHES SETTING

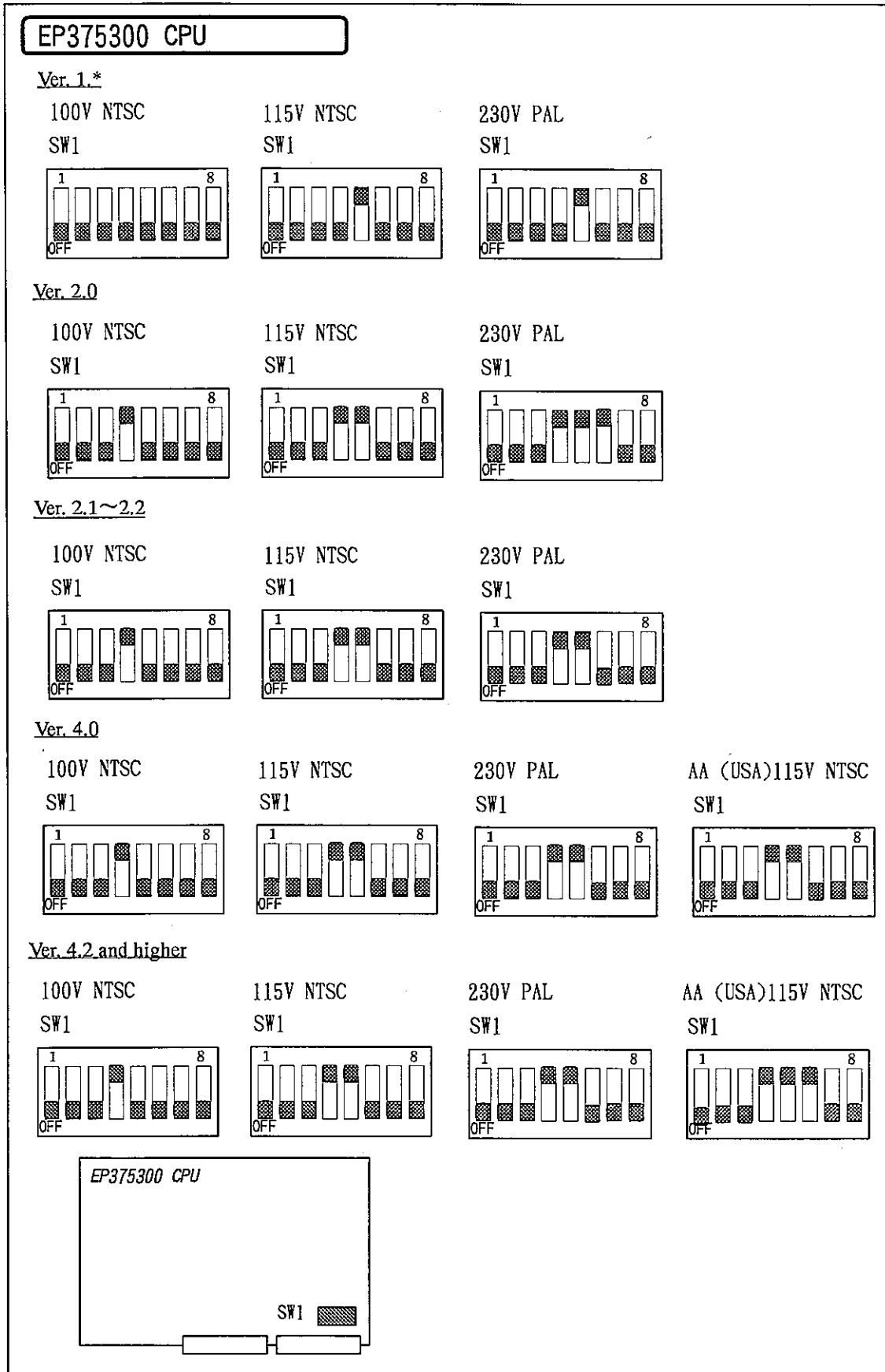


Fig. 8-2-2 DIP SWITCHES SETTING



### 8-4-3 Usage of the Functions to be Set by the User

Those functions which the user may set as enumerated below are stored in internal memory (random access memory : RAM) as backed up with a battery. In normal use, the memory data so backed up will never disappear. Nevertheless, there are possibilities that the information in memory may be erased as a result of repairing and/or modification. Whenever such repairing or modification may be expected, it is necessary to write down the backup information in the form of memorandum and to set it all over again after completion of such repair or modification.

How to set each backup function is described below for your reference. For details relating to the method, see the operation manual attached to the equipment.

○Reference○ The backup RAM is mounted in the EP375300 CPU.  
The battery, moreover, is also mounted on the same PCB.

① How to set a hospital name:

- 1 Press the **MENU** switch.
- 2 Press the **Next** to shift the page. Then, select the **Hosp Name**.
- 3 Enter a hospital name through the keyboard.
- 4 Press a function switch covering the **Set** feature.

② How to set a date and time:

- 1 Press the **MENU** switch.
- 2 Press the **Next** to shift the page. then, select the **Date & Time**.
- 3 To set a time, select the **Time**. To set a date, select the **Date & Time**.
- 4 Enter a correct time or date through the keyboard.
- 5 Press a function switch covering the **Set** feature.

Selecting the **Format** will allow you to alter the form in which a date is displayed.

③ How to preset:

- 1 Press **PRESET** switch.
- 2 Select the **SET-UP** in the **PRESET OPENING MENU**.
- 3 Select one of **PRESET NUMBER**, and register the setting of each **PRESET** parameter.
- 4 Press a function switch corresponding to **SET** and register **PRESET** name.
- 5 Press a function switch corresponding to **EXIT**.

8-4-4 Attention of connecting optional units

In the case of connecting the optional units, some optional units require other PCB something like an interface between the main body and optional unit, therefore, refer to the following table about the construction of optional units in advance.

Tbl.8-1 Construction of the UNIT and PCB in Optional units

OPTIONAL UNITS	CONSTRUCTION (Only Unit and PCBs are described)
EU-3037 (For verion 1.* and 2.*) PHASED ARRAY SECTOR UNIT	SECTOR DELAY : EP389700 ( x 2)
EU-3037/EU-3037B (For version 4 and higher) PHASED ARRAY SECTOR UNIT	SECTOR DELAY : EP389701 EP389702
PEU-1700 (EU-5034) PHYSIOLOGICAL SIGNAL DISPLAY UNIT	PHYSIO.AMP : EP372400 PHYSIO.PANEL1 : EP372500 PHYSIO PANEL2 : EP-3726 PHYSIO.MEMORY : EP404900
PEU-1700B (EU-5039/EU-5039B) (Applied to the CE Marking) PHYSIOLOGICAL SIGNAL DISPLAY UNIT	PHYSIO.AMP : EP401200 / EP445201 PHYSIO.PANEL1 : EP372500 PHYSIO.MEMORY : EP404900
PRINTER	SSZ-307, SSZ-307E, SSZ-705, UP-1850MD, UP-1850EPM
VCR	SVO-9500MD, SVO-9500MDP
DMS-1700 DATA MANAGEMENT SUBSYSTEM	DMU-200
CAS-1700 (USA only) COMPUTOR AIDED SUBSYSTEM	DMU-100
EU-9068 VOLUME MODE UNIT	VOL : EP419200 MOTOR CONTROL /DRIVE : EP420400
EU-9074/EU-9074B NEW VOLUME MODE UNIT	VOL/SERVO/ABC : EP422300
EU-3038/EU-3038B CW DOPPLER UNIT	CWD : EP415600

#### 8-4-5 Resetting the Backup Memory (RAM):

A backup feature is available to normally store the user's settings. In normal use, it will not be necessary to erase all the information so stored. It is necessary, however, to reset the backup memory with reference to the Fig.8-4-6 given below in any of the following events:

●Caution● Resetting the backup memory will erase presettings, hospital name and so on.  
To set them all over again after resetting the memory, it is necessary to record the set information by the use of a printer, such as "Echo Copier" or the like, or to copy the set information in the "Preset Record Sheet" described in 8-4-12.  
Do not use customer's printer, meanwhile, before obtaining consent to do so.

- 1) When the software has been altered for an upgrade or for any other reason,
- 2) When an unnecessary (abnormal) character or characters or code or codes is displayed in the data which have been set by the user.
- 3) When the system fails to start up even if the equipment is powered on.

Under such a circumstance, resetting the backup memory is a mere provisional action consistently. To make a substantial repair, refer to 8-4-9 and 10. In such a situation, moreover, it is impossible to store the set information, such as presettings, etc.

●Warning● Never use the RAM resetting method effective on our conventional equipment. In other words, never short circuit the RAM power supply pin with the grounding pin to reset the backup RAM. If so, the backup battery will break down.

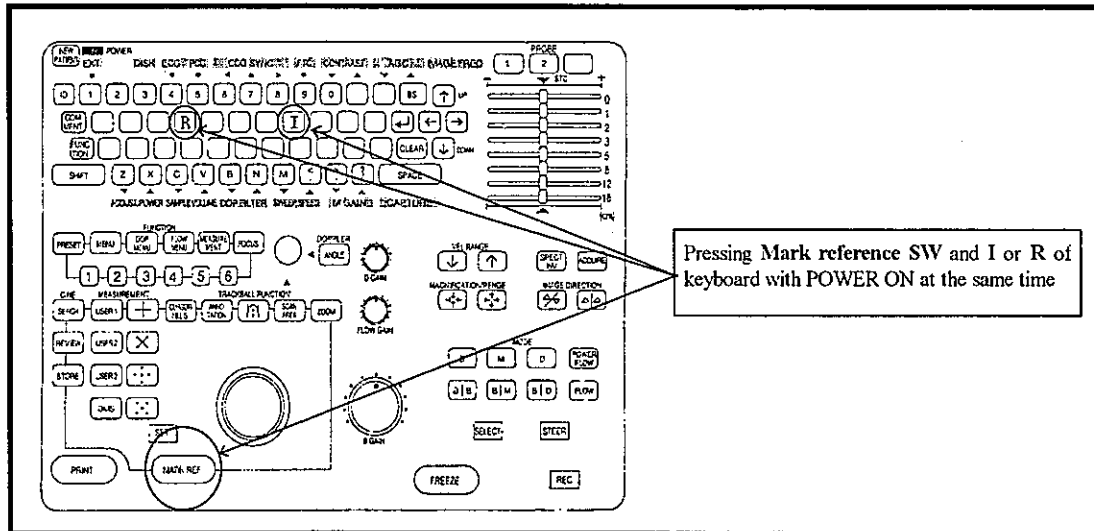
#### 8-4-6 How to reset Backup RAM

Pressing Mark reference SW and " I or R " on full keyboard with POWER SW ON at the same time.

○REFERENCE○ Resetting of backed-up RAM data is different depend on the selected letter. The condition of resetting data is as follows,  
R : Clear all preset data.  
I : Clear all preset data without setting of OB program.

There is method for reset back up memory.

Fig. 8-3 Method of reset with panel operation



### 8-4-7 Location of PCBs

The location of PCBs are shown in Fig. 8-4 and 8-5. Please refer for repair or modification.

Fig.8-4 Location of PCB

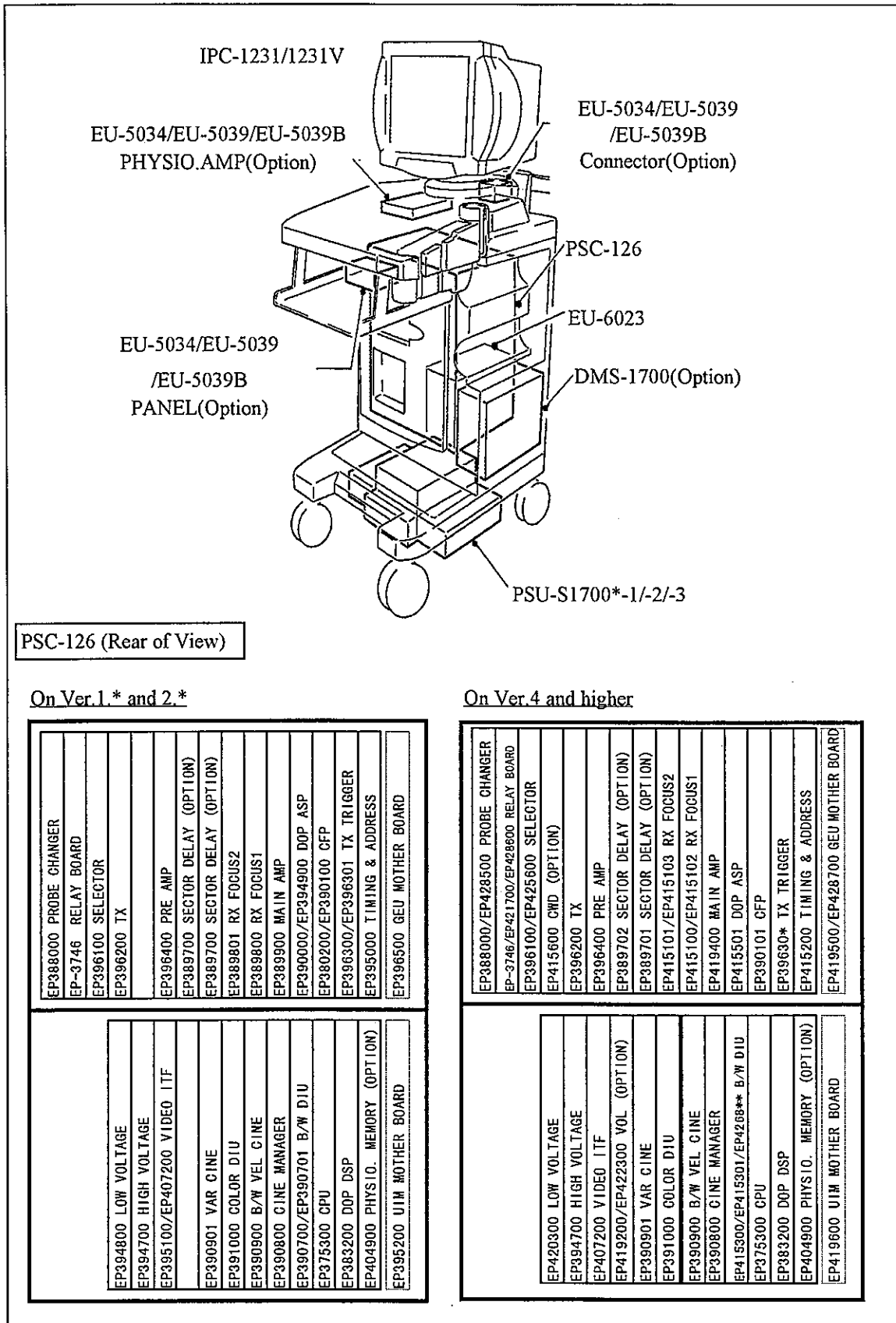
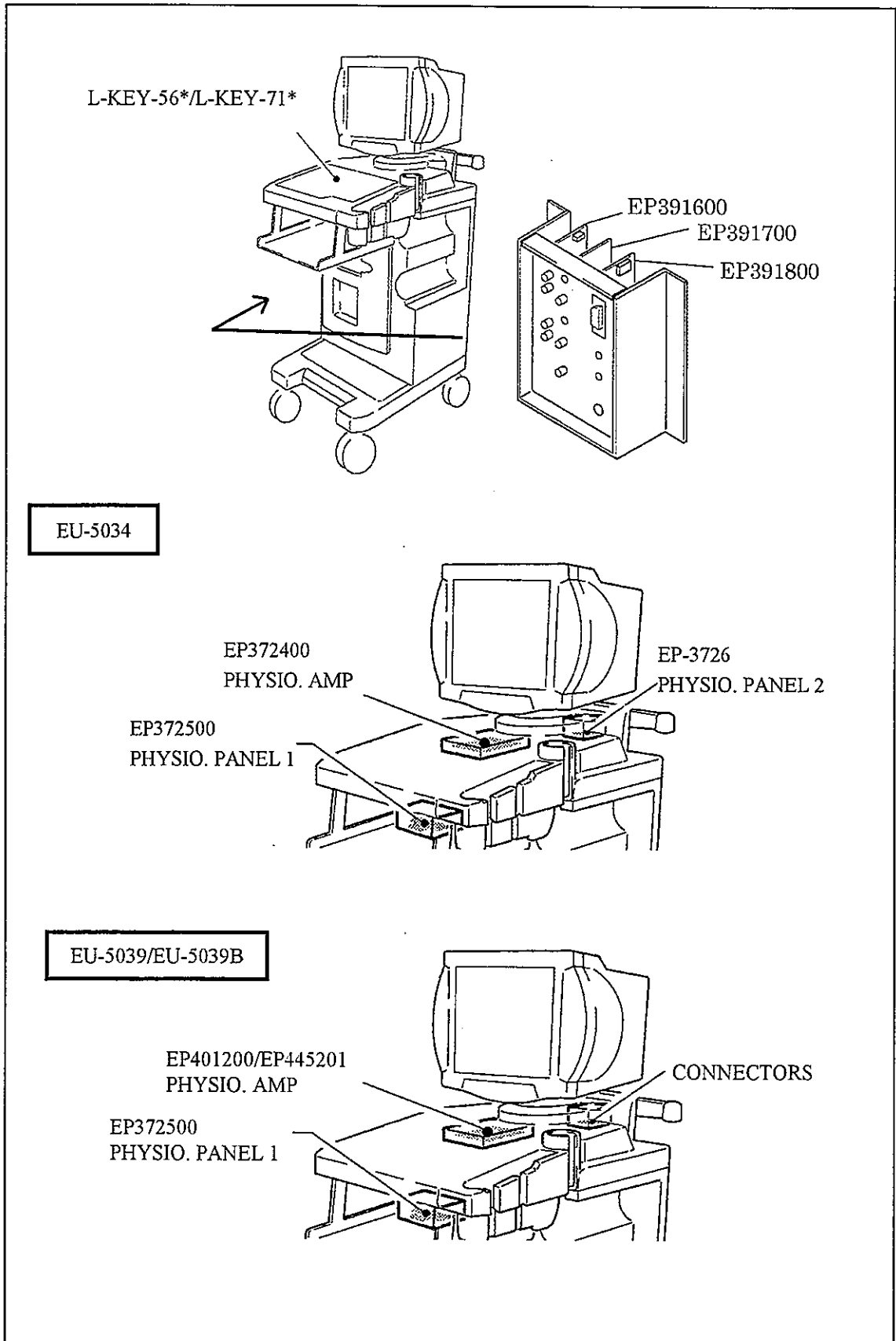


Fig.8-5 Location of PCB



8-4-8 Location of ROMs

The location of ROMs is shown following figures. Please refer for replacing the ROMs on modification and troubleshooting. (refer Fig. 8-6~15)

Fig. 8-6 Location of ROMs

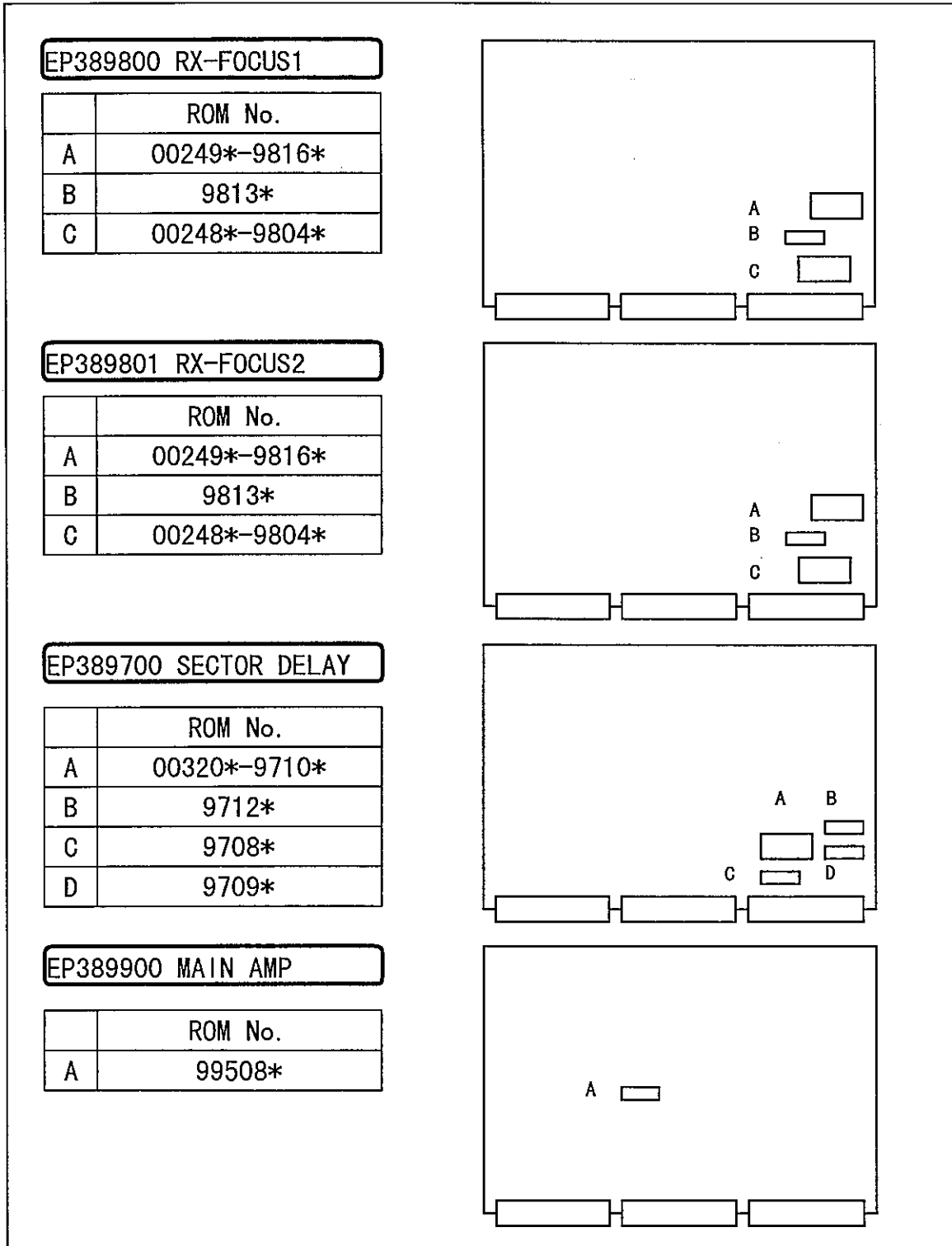




Fig. 8-7 Location of ROMs

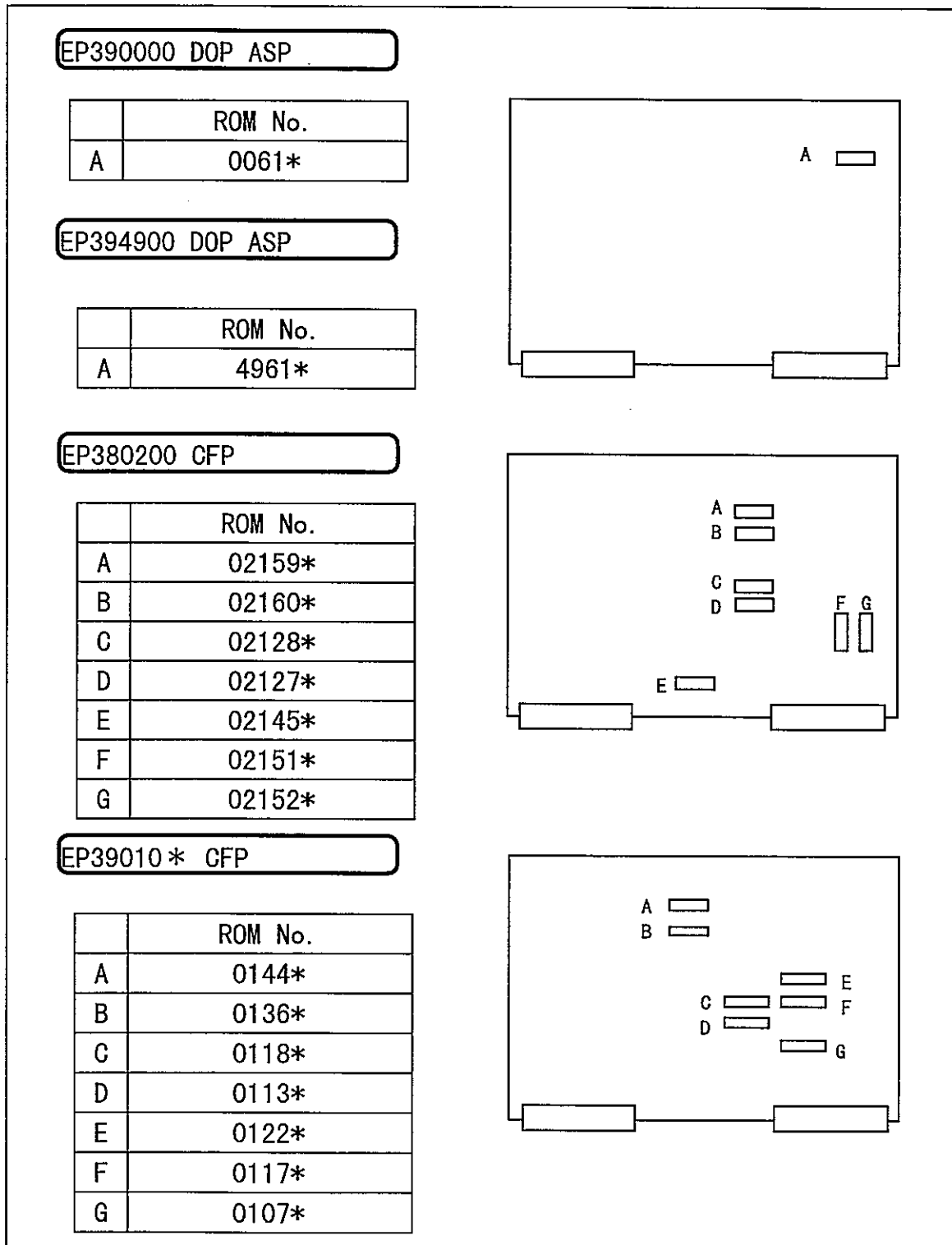
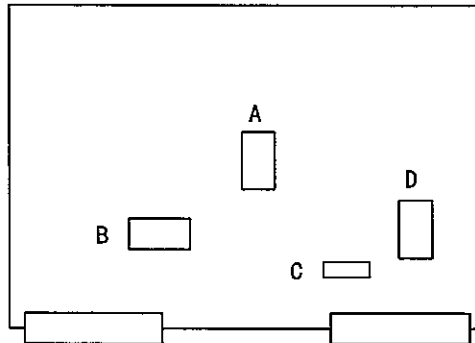


Fig. 8-8 Location of ROMs

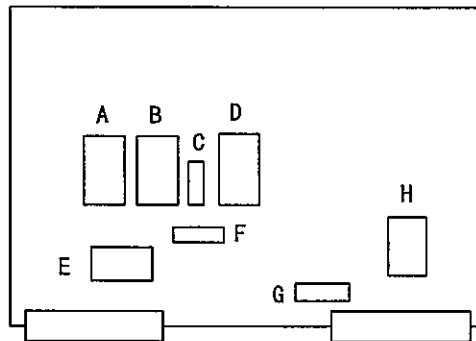
**EP396300 (Ver. 1) TX TRIGGER**

	ROM No.
A	00253*-6358*
B	00254*-6325*
C	6302*
D	00252*-6328*



**EP396301 (Ver. 2)  
EP366302 (Ver. 4) TX TRIGGER**

	ROM No.
A	00317*-6361*
B	00316*-6360*
C	6359*
D	00253*-6358*
E	00254*-6325*
F	6337*
G	6302*
H	00252*-6328*



**EP395000 TIMING&ADDRESS**

	ROM No.
A	00257*-50196*
B	5053*
C	5025*

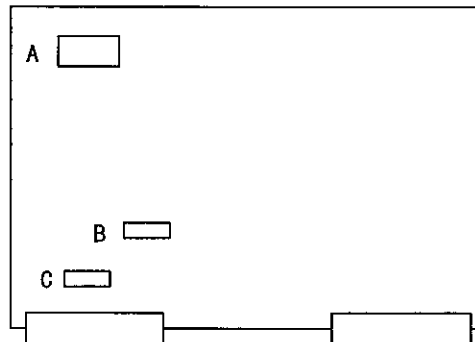


Fig. 8-9 Location of ROMs

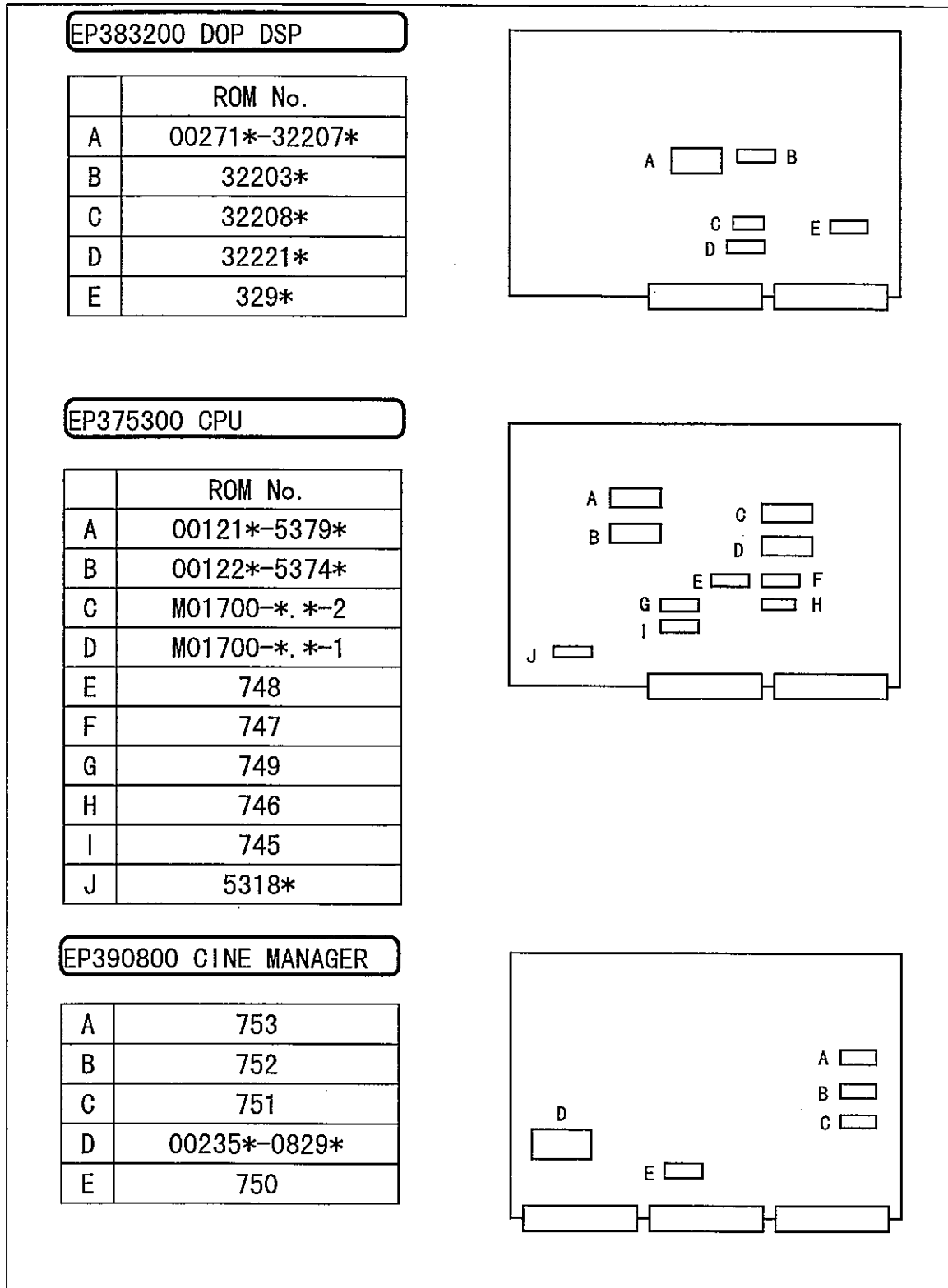


Fig. 8-10 Location of ROMs

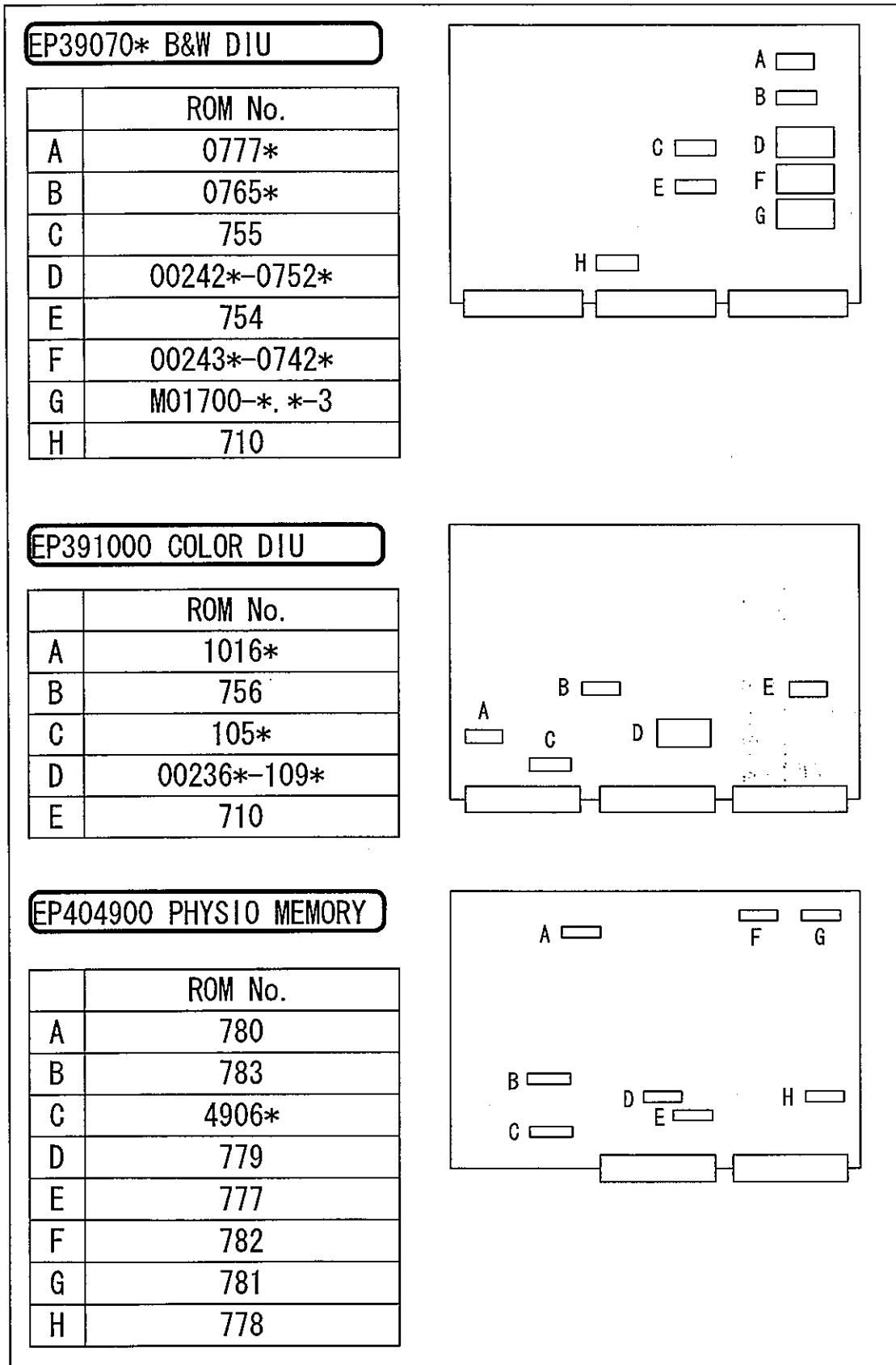
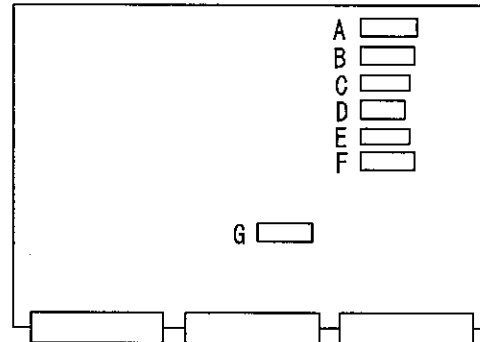


Fig. 8-11 Location of ROMs

**EP395100 VIDEO ITF**

	ROM No.
A	760
B	762
C	759
D	758
E	757
F	761
G	5116*



**EP407200 VIDEO ITF**

	ROM No.
A	760*
B	762
C	759
D	758
E	757
F	761*
G	785*
H	7243*

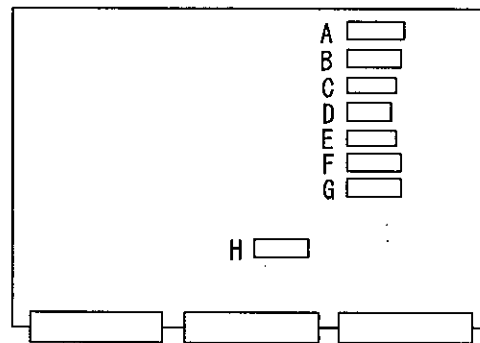


Fig. 8-12 Location of ROMs

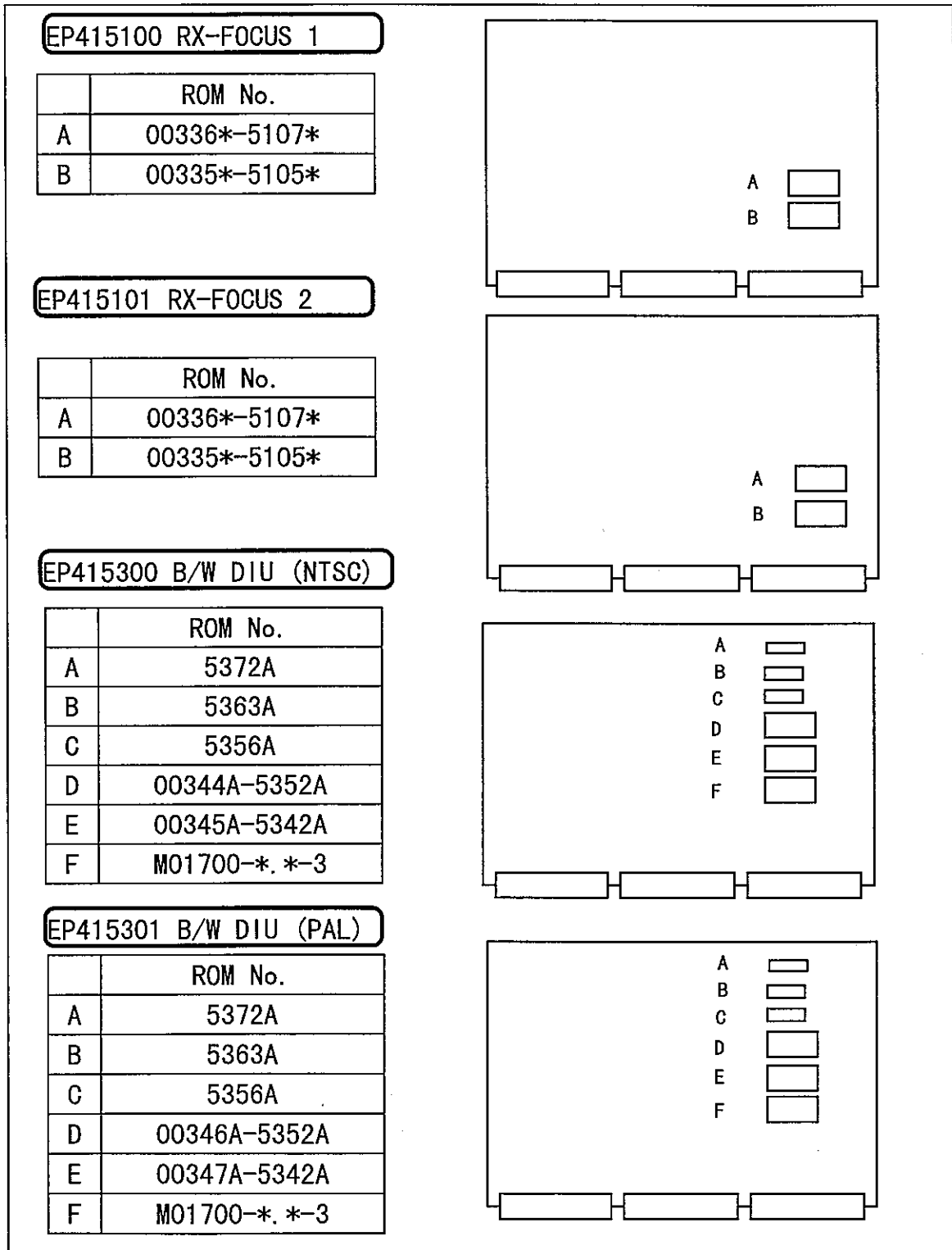


Fig. 8-13 Location of ROM

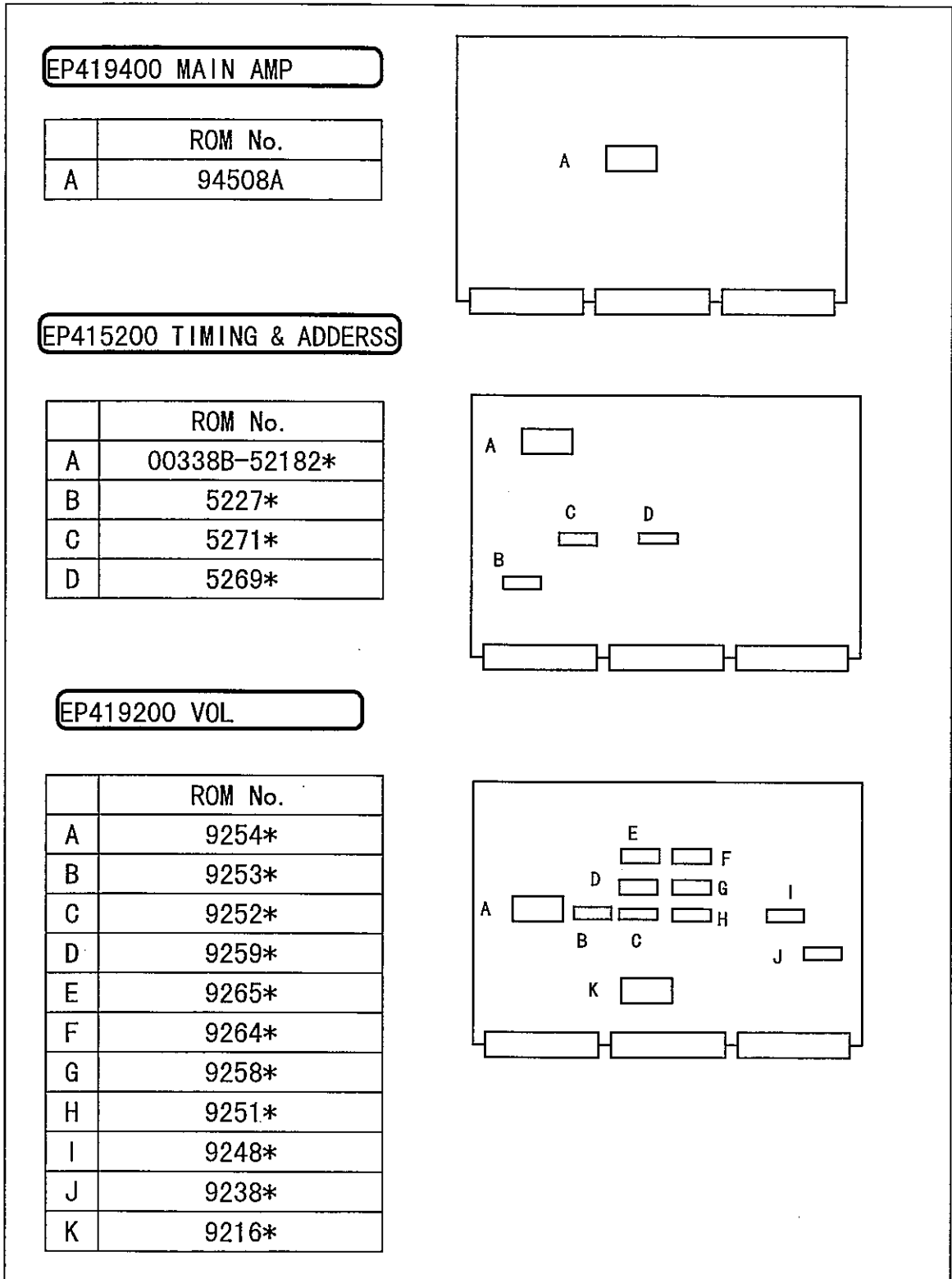


Fig.8-14 Location of ROMs

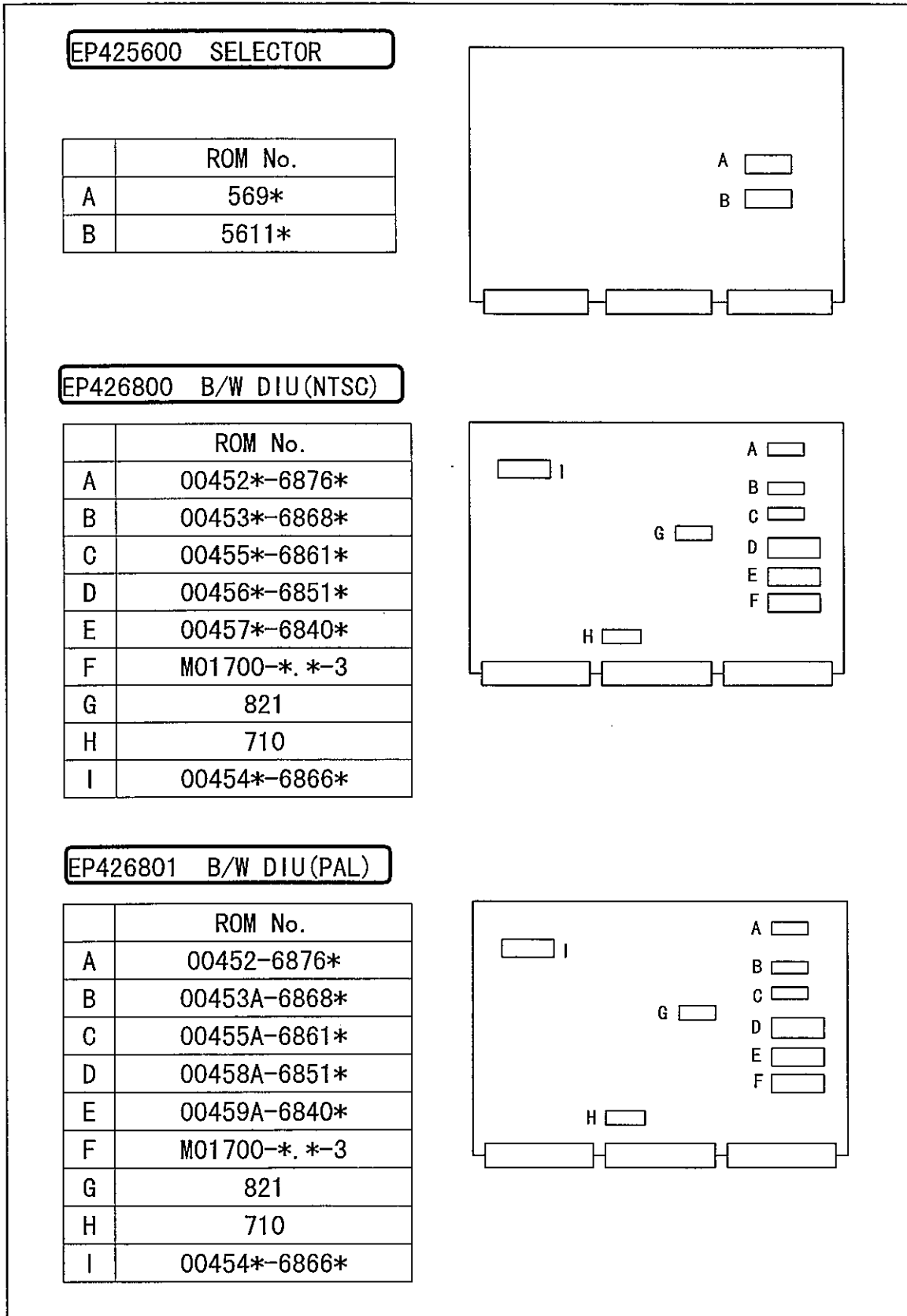
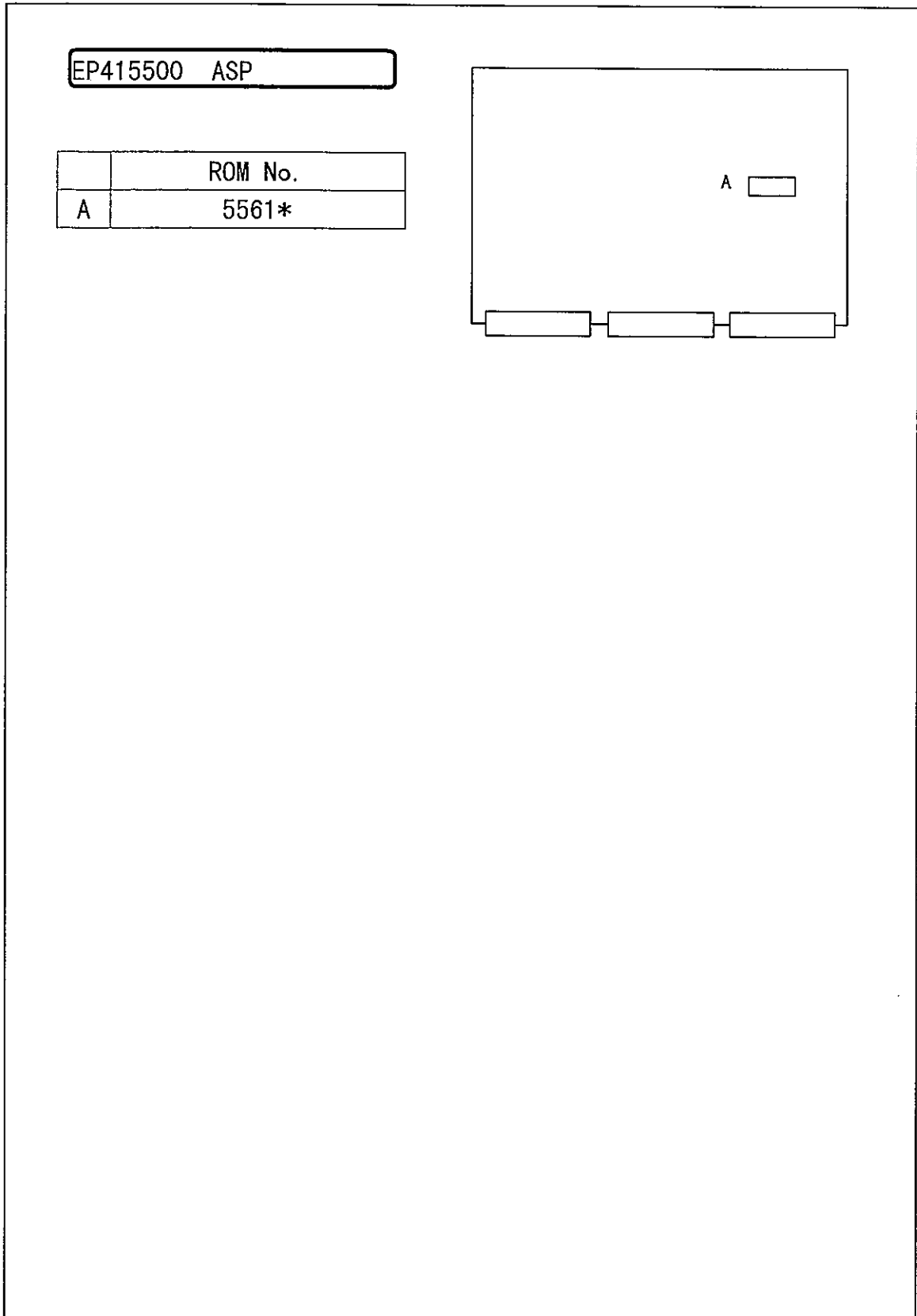




Fig. 8-15 Location of ROMs



8-4-9 Correction for fail to start or locking up

If the system does not stand to operate or locks up suddenly, following procedures to repair are specially adopted.

(1) First, check the output voltage from the power supply unit.

Whole of system is controlled by MPUs (Micro Processing Unit), If these MPUs should not be supplied with +5V power from the power supply unit or should have an abnormal voltage, it will bring about a problem affecting the entirety of the system.

Even if the power supply unit has a normal output, cabling may be disconnected on the way or a problem may have taken place in distributing the power in PCB to be powered.

The following PCBs are equiped with a CPU.

EP375300	CPU
EP390800	CINE MANAGER

(2) Trouble of BUS signal

If Bus signal seems abnormal, it is difficult to find defective point. In the case of locking up of the system, please try to repair it referring the following table ( Tbl. 8-2 ).

And we advise you to contact to technical support as soon as possible.

The names of signals used in the table are described below.

CPU ADRS : Address bus for MPU which controls the system of DSC

CPU DATA : Data bus for MPU which controls the system of DSC

GEU ADRS : Address bus for controlling the Tx/Rx system

GEU DATA : Data bus for controlling the Tx/Rx system

PNL ADRS : Address bus for controlling the PANEL

PNL DATA : Data bus for controlling the PANEL

DMS ADRS : Address bus for controlling the DMS

DMS DATA : Data bus for controlling the DMS

Tbl.8-2 Input and output of every Bus line

MODEL	NAME	CPU ADRS	CPU DATA	GEU ADRS	GEU DATA	PNL ADRS	PNL DATA	DMS ADRS	DMS DATA
L-KEY-56*/L-KEY-71*	OPERATION PANEL					↔	↔		
EP-3746*/EP4217/EP4286	RELAY BOARD								
EP396100	SELECTOR								
EP396200	TX								
EP39640*	PRE AMP								
EP389800 / 01 EP415100 / 01 / 02 / 03	RX FOCUS				←				
EP38970*	SECTOR DELAY				←				
EP389900 / EP419400	MAIN AMP				←				
EP390000 / EP394900 EP41550*	DOP ASP								
EP380200 / EP39010*	CFP								
EP396300 / 01	TX TRIGGER			←	←				
EP395000 / EP415200	TIMING & ADDRESS			←	←				
EP383200	DOP DSP	←	↔	→	→	↔	↔		
EP375300	CPU	↔	↔						
EP390700 / 01 EP415300 / 01 EP426800 / 01	B/W DIU	←	↔						
EP390800	CINE MANAGER	←	↔						
EP390900	B/W & VEL CINE	←							
EP390901	VAR CINE	←							
EP391000	COLOR DIU	←	↔						
EP395100 / EP407200	VIDEO ITF	←	↔						
EP404900	PHYSIO MEMORY	←	↔						
EP415600	CWD								
EP419200	VOL	↔	↔						
EP422300	VOL/SEVO/ABC	↔	↔						
DMS-1700	DATA MANAGEMENT SUBSYSTEM							↔	↔
CAS-1700	COMPUTER AIDED SUBSYSTEM							↔	↔

→ : Bus signal is outputted on related PCB.

← : Bus signal is inputted on related PCB.

↔ : Bus signal is inputted and outputted on the related PCB.

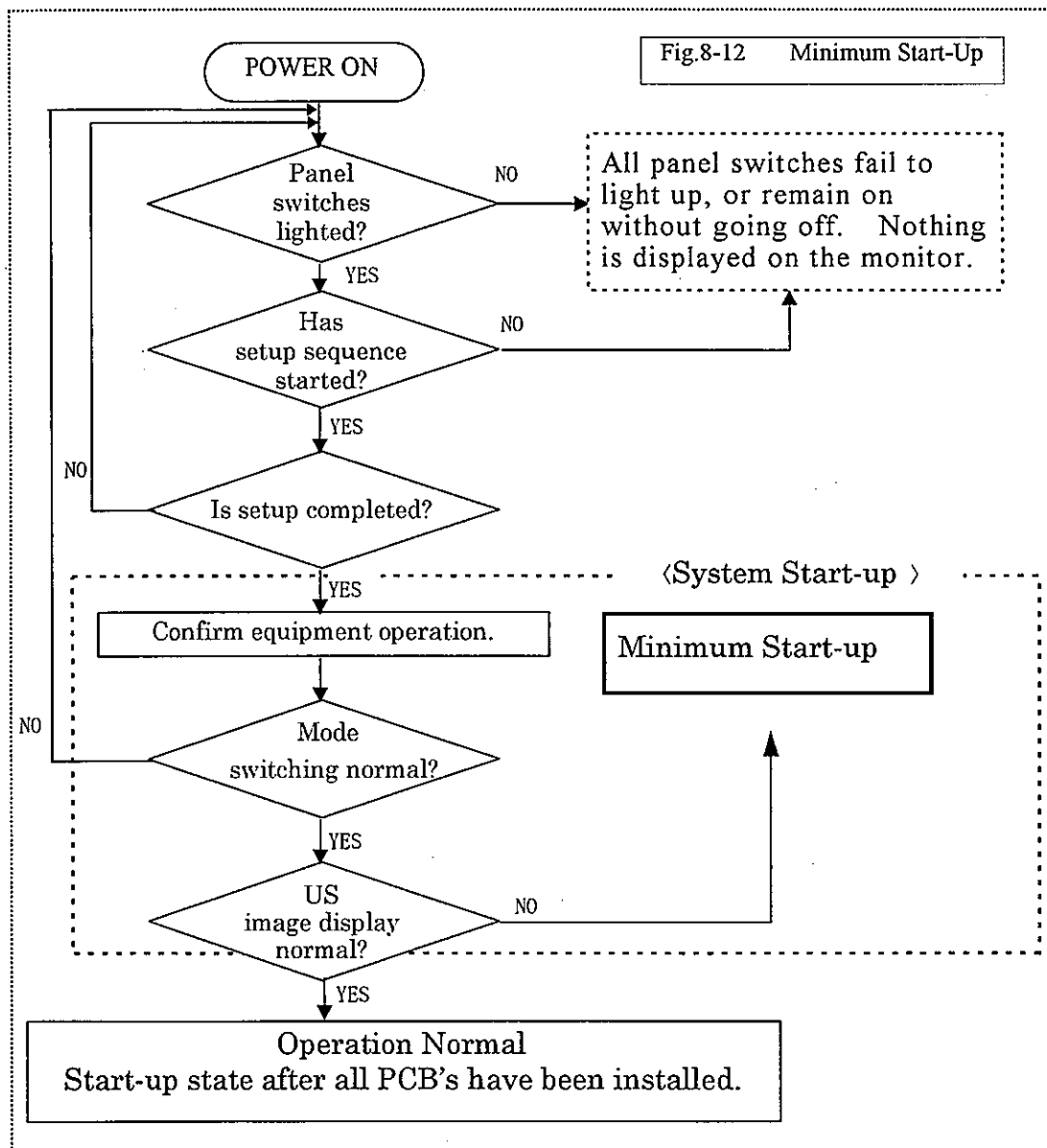
8-4-10 Minimum Start-up

In this section, we will explain concerning the minimum start-up as information necessary for repairs (starting up the system with the minimum PCB configuration).

(1) Definition of Minimum Start-up

The minimum start-up is defined to be the system's start-up state when the equipment's power is switched on and the system started, then stabilizing in that state (with nothing displayed in the US image area at that time). If the set-up operation is started a second time by pressing a mode or other switch after the system has started up, then that is also considered to be the minimum start-up state.


The following flow chart shows the minimum start-up definition.



(2) Combination that Enables Minimum Start-up

The PCBs necessary for starting the equipment in this system are shown in the minimum units below.

- **CAUTION** ● The power supply unit (PSU-S1700\*-1 /-2 /-3, Stabilized power supply unit (EU-6023), Motherboards (GEU:EP396500/EP419500/EP428700, DIU:EP395200/EP419600), Operation Panel (L-KEY-56/L-KEY-71\*) and observation monitor are all correctly connected and operating.
- **CAUTION** ● When removing any PCB from the equipment, begin work only after confirming that the power is OFF. A secondary breakdown is possible if this is not done (particularly with the PCB related to transmission).
- **CAUTION** ● If the TX board is removed from the equipment, the high voltage (HV) capacitor for transmission, is in a charged state and the charge has not been completely discharged. Do not touch the part surface or any soldered portion with bare hands until the high voltage discharges naturally (approximately 30 seconds).



1. DOP DSP	EP383200
2. CPU	EP375300
3. B/W DIU	EP390700/EP390701 (~Ver.4) EP415300/EP415301 (Ver. 4~Ver.5) EP426800/EP426801 (Ver. 6~)
4. CINE MANAGER	EP390800
5. COLOR DIU	EP391000
6. VIDEO ITF	EP395100/EP407200
7. TIMING&ADDRESS	EP395000 (~Ver.4) EP415200 (Ver.4~)

The equipment will start up if these seven boards are installed. The equipment will even start up normally if the 7th board is not present, but if a specific PANEL switch is pressed, the screen and the PANEL LEDs will go off and the setup operation will start again.

(3) Equipment reaction and phenomena when one PCB is removed and the power is switched ON.

- DOP DSP

All the LEDs on the PANEL will remain lighted.

The observation monitor's screen will alternate between white and black reverse video.

"SYSTEM SETUP IN PROGRESS" will not be displayed.

- CPU

All the LEDs on the PANEL will remain lighted. The observation monitor's screen will show white. "SYSTEM SETUP IN PROGRESS" will not be displayed.

- B/W DIU

All the LEDs on the PANEL will light up and then go off after 5 seconds. Nothing will be displayed on the observation monitor. "SYSTEM SETUP IN PROGRESS" will not be displayed.

- CINE MANAGER

The normal setup sequence (after the power is switched on, the PANEL LEDs light up one at a time, while "SYSTEM SETUP IN PROGRESS" is displayed on the monitor) begins, then when it is completed, the screen goes blank and the PANEL LEDs go off. Then setup sequence begins again. This process is repeated over and over.

- B/W & VEL CINE

The setup sequence is executed and start-up is normal, but all the US image area has only white displayed. PANEL switches response are normal.

- VAR CINE

The system begins start-up normally, but the VARIANCE data is not displayed during selection of B+FLOW and M+FLOW.

- COLOR DIU

The setup sequence is just repeated again and again.

- TIMING & ADDRESS

The system starts up normally. The US image and US image area are not displayed, but Character & Graphic (Bodymark, Focal Point, Gray Scale Bar, etc.) are displayed normally.

However, if any of the PANEL switches is selected, the setup sequence begins again. MODE (B/M, M, FLOW, PW, B/PW), CURSOR, SCAN AREA, PROBE1&2

- TX TRIGGER

The system starts up normally. Noise only is displayed in the US image area. Other operations are normal.

- VIDEO ITF

"SYSTEM SETUP IN PROGRESS" is not displayed. The PANEL LED scanning sequence is repeated only. Nothing starts up.

- CFP

The system starts up normally, but there is no color (Velocity & Variance) information.

- DOP ASP

The system starts up normally, but there is no color (Velocity & Variance) or Doppler information.

- MAIN AMP

The system starts up normally, but there is no B-mode image and M-mode image information.

- RX FOCUS

EP389800/EP415100/EP415102

The system starts up normally, but B, M, Flow and Doppler are not displayed at all.

EP389801/EP415101/EP415103

The system starts up normally, but B, M and Flow are eliminated the echo of the even numbered stages.

- PRE AMP

The system starts up normally, but only noise is displayed in the US image area.

- TX

- Caution ●



If the TX board is removed from the equipment, the high voltage (HV) capacitor for transmission, is in a charged state and the charge has not been completely discharged. Do not touch the part surface or any soldered portion with bare hands until the high voltage discharges naturally (approximately 30 seconds).

The system starts up normally, but only noise is displayed in the US image area.

- PROBE CHANGER, RELAY BOARD, SELECTOR

(These three boards are removed as a single set.)

The system starts up normally, but the US image area is not displayed and the message "NO PROBE" is displayed in the MESSAGE AREA. PANEL switches are not functional.

- L-KEY-56\*/L-KEY-71\* (If one of the three connectors at a time is disconnected)

J301 The B, M, D and Flow GAINS are not functional. In the B and M mode, the state is the same as when AGC is functioning.

- J302 The system starts up normally, but the US image area is not displayed and the message "NO PROBE" is displayed in the MESSAGE AREA. PANEL switches are not functional.
- J303 PANEL LEDs remain half lighted, the setup sequence is executed and the system starts up, but there is no US image area, and none of the PANEL switches are functional. The other CHARACTER & GRAPHIC displays are normal.



#### 8-4-11 Test Mode Function

This ultrasound diagnostic equipment (SSD-1700) provides a test mode function in its function. The following descriptions explain concerning a test mode function.

##### (1) Entering the Test Mode

It is not possible simply to select the "Test" item in the menu while the equipment is in the ordinary use state.

The procedure for entering the Test Mode is as shown below.

1. Start the equipment and make sure its operation starts normally.
2. Press the **Mark-Ref.** switch and **T** (in the Full Keyboard) at the same time.
3. Select the "Test" item in the Menu.
4. The Test Mode item is displayed in the Menu display area.

(Steps 2 and 3 above can be reversed and the selection will still be effective.)

Once the Test Mode is entered, the Test Mode can be entered repeatedly simply by repeating Step 3, without repeating Step 2, until the power is switched OFF.

##### (2) Explanation of Functions

This Test Mode is configured from the following items.

1. P CODE
2. PTN
3. INF
4. LAMP
5. ENCODE
6. B LVL
7. SRG V

Each of these items is explained below.

##### 1. P CODE

The probe code of the probe currently connected to the probe connector is displayed on the screen. The binary 8-bit assigned the probe code is divided into the 4-bit higher significant and the 4-bit lower significant respectively, and they are displayed in hexadecimal number.

2. PTN (Test Pattern)

If this PTN is selected, the test pattern is displayed in the US image area. Every mode ( B, M, D, Flow, Powerflow ) has 5 kinds of test patterns in its own mode, with the test pattern changing each time PTN is selected. The PRE-PROCESS IC in the B/W DIU adds this Test Pattern.(Refer to Photo.8-1 and 8-2).

— In case of standard convex sector probe connected —

⟨B Mode⟩

- ① The pattern displayed in the US image area moves from bottom to top.
- ② The same pattern as in ① is displayed, but it does not move.
- ③ A radial pattern is displayed in the US image area and scanning is performed.
- ④ The same pattern as in ③ is displayed, but it does not move.
- ⑤ A pattern nearly the same as in ① is displayed, and moves from bottom to top.

⟨Flow Mode⟩

- ① A pattern displayed in the US image area moves from bottom to top.
- ② The same pattern as in ① is displayed, but it does not move.
- ③ A radial pattern is displayed in the US image area and scanning is performed.
- ④ The same pattern as in ③ is displayed, but it does not move.
- ⑤ A pattern nearly the same as in ① is displayed. A color pattern only moves from bottom to top.

⟨M and D Modes⟩

- ① A horizontal striped pattern scrolls from right to left.
- ② A horizontal striped pattern with wider stripes than in ① scrolls from right to left.
- ③ A vertical striped pattern scrolls from right to left.
- ④ A vertical striped pattern with wider stripes than in ③ scrolls from right to left.
- ⑤ A slanted stripe pattern scrolls from right to left.

3. INF (Information)

A portion of the setting values used for operation in the current system is displayed.  
The contents are as follows.

System V Range	Doppler V Range	Flow V Range
System PRF	Doppler PRF	Flow PRF
System NTB	Doppler NTB	Flow NTB
Doppler PRF/Turbo	Flow PRF/Turbo	
SAMPLE DEPTH		

4. LAMP

Lights up all the LEDs on the operation panel (except the DISK). However, there is no change in operation.

5. ENCODE

A color pattern is output from the encoder output of VIDEO ITF. This makes it possible for a color pattern to be displayed by the resulting external outputs, Y/C (S-OUT) and COMPOSITE (VCR OUT). Refer to Photo 8-2.

6. B LVL

To adjusting the black and white image noise level, a post process is set to a proper condition. the condition is as follows.

AGC : 0  
FTC : OFF  
RELIEF : OFF  
CONTRAST : 1  
FOCUS : MANUAL(F8)  
RANGE : 21cm  
Post Process : SLOPE 2  
HIGH : 8  
LOW : 7

7. SRG V

To adjusting the surge voltage, a proper setting image which can be seen the surge's state appears the most prominent without relation of actual probe connection. The condition is as follows.

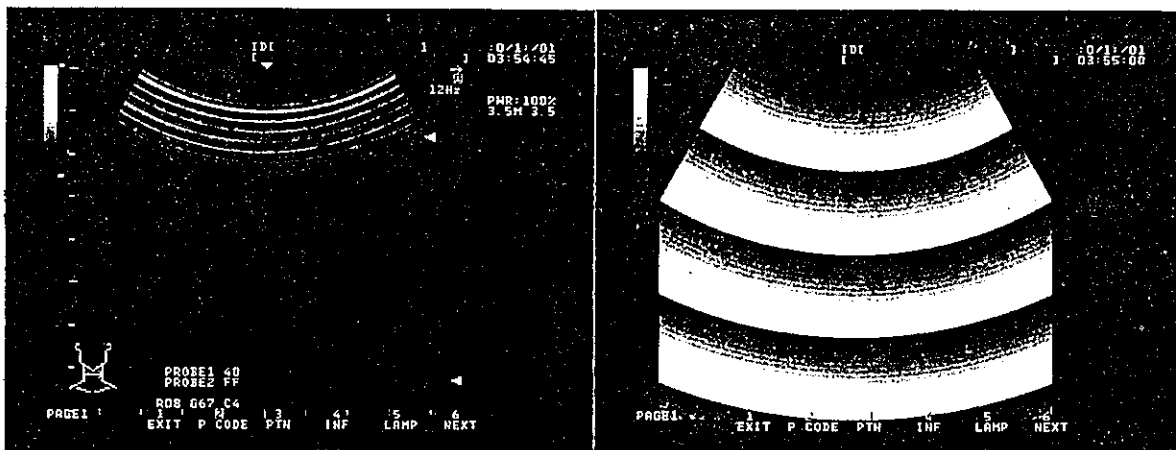
Display format : Same as UST-5524-7.5

Display range : 5 cm

Photo 8-1

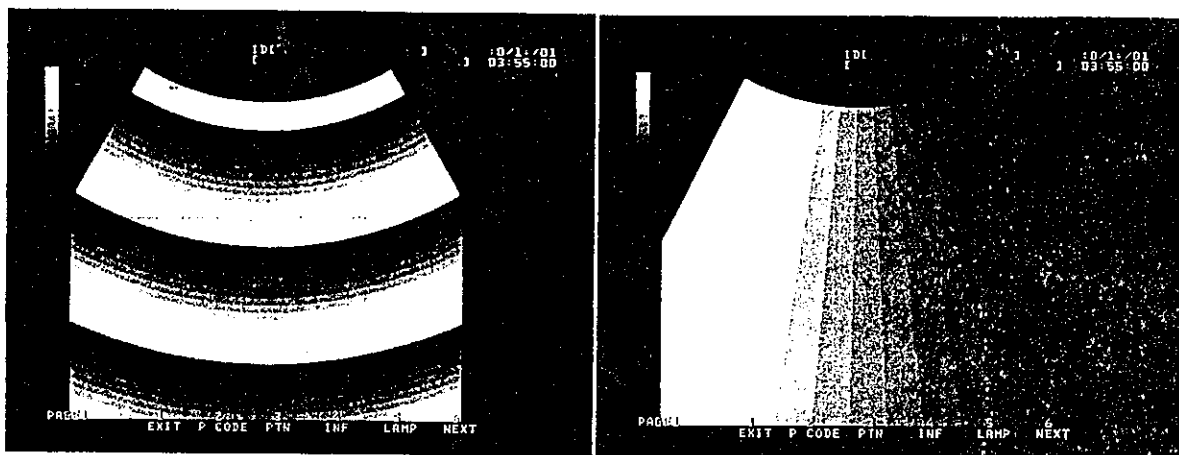
B mode

①



②

③



④

⑤

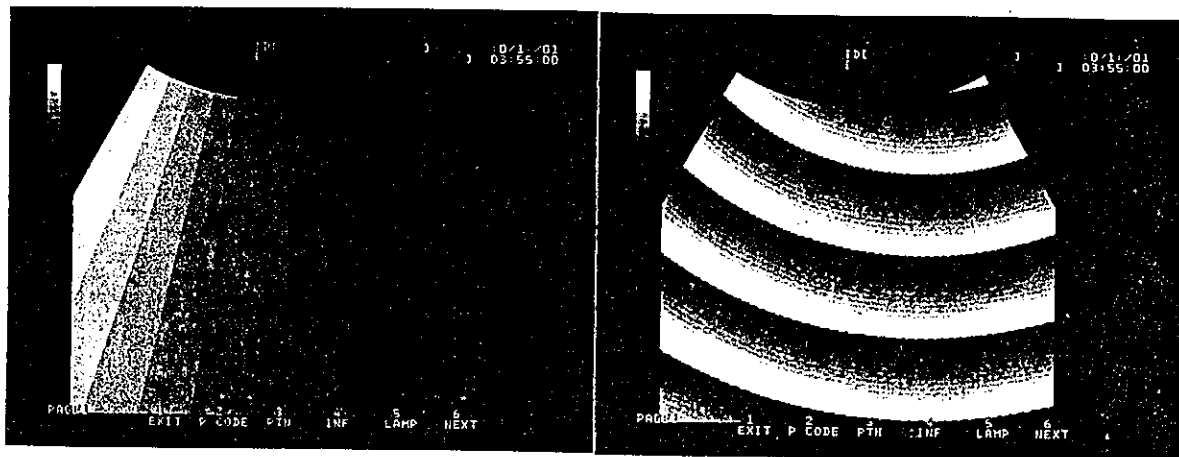
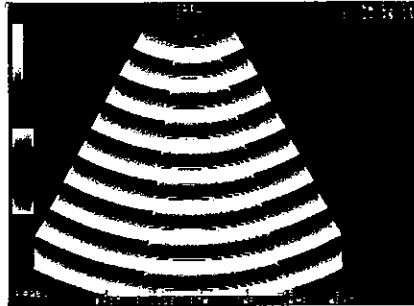


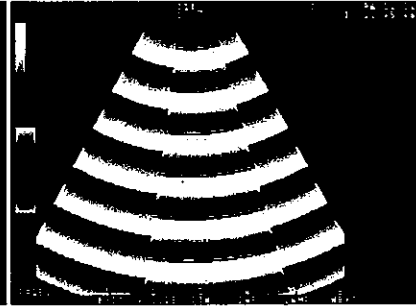
Photo 8-2

B+Flow

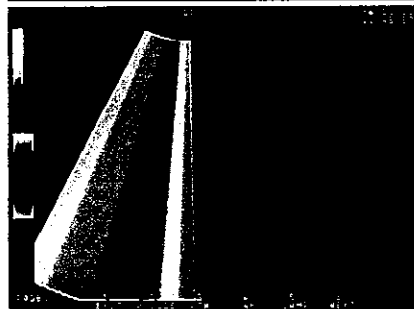
①



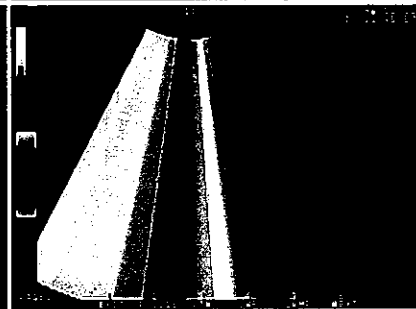
②



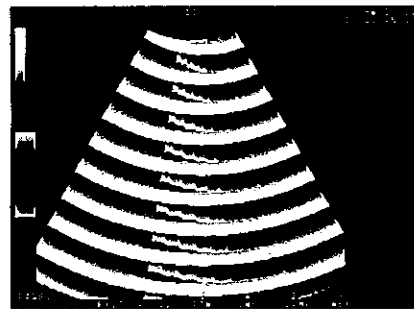
③



④

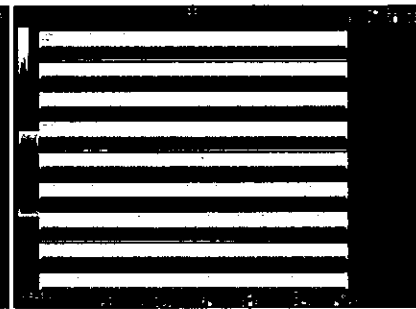


⑤

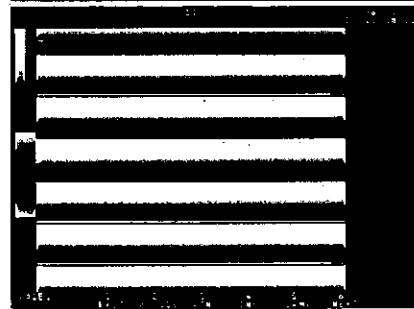


M+Flow

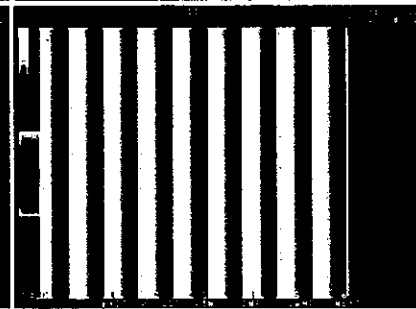
①



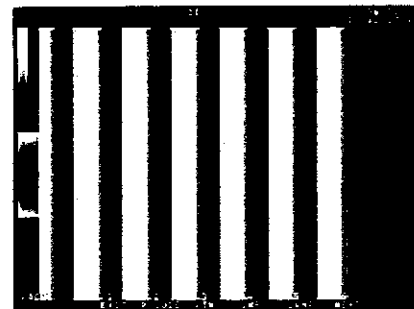
②



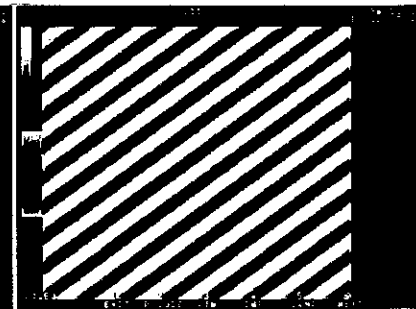
③



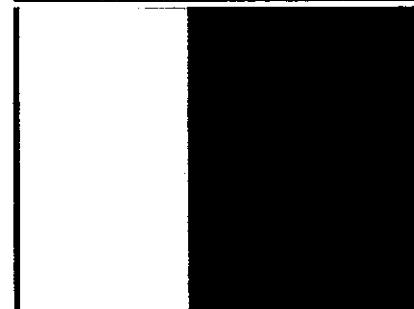
④



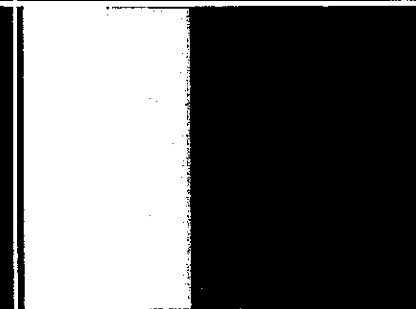
⑤



Encode on (Y/C)



Encoder on (Composite)





(Blank page)





8-4-12 PRESET DATA SHEET

Exchanging CPU PCB or resetting the backed-up RAM data to solve software locking up problem will erase presettings, hospital name and so on.

To set them all over again after replacing PCB or after resetting the memory, it is necessary to record the set information by the use of a printer, such as "Echo Copier" or the like.

If printer is not available, to copy the set information in the "Preset Record Sheet" described. However, "Preset Format" is changed according to software version.

"Preset Record Sheet" is compiled in this section for your convenience.

MN2-0213  
SECTION 8 TROUBLESHOOTING

PRESET OPENING MENU

PRESET LIST

No.1 [ABDOM]	No.2 [OB/GYN]	No.3 [CARDIO]	No.4 [PV ]	No.5 [OTHER ]
No.6 [ABDOM]	No.7 [ABDOM]	No.8 [ABDOM]	No.9 [ABDOM]	No.10 [ABDOM]
No.11 [ABDOM]	No.12 [ABDOM]	No.13 [ABDOM]	No.14 [ABDOM]	No.15 [ABDOM]

CONFIRM . . . SET KEY

COMMON PRESET [SET UP]

PRESET SET-UP MENU

PRESET NUMBER [No.1] [No.2] [No.3] [No.4] [No.5]  
[No.6] [No.7] [No.8] [No.9] [No.10]  
[No.11] [No.12] [No.13] [No.14] [No.15]

PRESET NAME [ABDOM]

APPLICATION [ABDOM] [OB/GYN] [CARDIO] [PV] [OTHER]

PROBE [ ]  
[ ]  
[ ]  
[ ]  
[ ]

REGISTRATION [INITIALIZE ALL DATA]  
[AUTO DATA ENTRY]

COMMON PRESET [PROGRAM] [INITIALIZE]

CHARACTER DISPLAY [OFF] [ON]

PANEL BEEP [OFF] [ON]

PRINTER/FILM TYPE SSZ-108 : [LINEAR : 35mm]  
SSZ-307 : [SSZ-307]  
SSZ-203 : [LINEAR : 35mm]  
SSZ-705 : [SSZ-705]  
AUTO : [SSZ-307+SSZ705]

RESUME [OFF] [ON]  
STORE MEMORY [OFF] [ON]  
TIMER FREEZE [OFF] [ON]

TRACKBALL SPEED [STANDARD] [SLOW]  
VCR MEMORY [FIELD] [FRAME]  
VCR SIGNAL [COMPOSITE] [S(Y/C)]

OB REPORT [YES] [NO]

\* IN CASE "OB REPORT" SETTING HAS BEEN CHANGED,  
PLEASE TURN OFF AND ON THE POWER SWITCH AGAIN.

DISPLAY CONTROL [PROGRAM]	PRESET No.1 [INITIALIZE]	
BODY MARK DISPLAY	{OFF}	{ON}{ABDOM : "AB-1"}
CALIPER AUTO OFF	{OFF}	{ON}
CALIPER SIZE	{NORMAL}	{SMALL}
ECG SYNC	{OFF}	{ON}[0.00] (0-2.55) SEC.
ECHO ERASE	{0}	(0-19) STEPS
KEYBOARD PRIORITY	{KEY ↔ COMMENT}	{STANDARD}
PHYSIO SIG DISPLAY	ECG : {ON} {OFF}	PCG : {ON} {OFF}
PROBE SELECT	{OFF}	{ON}
PUNCTURE GUIDE LINE	{OFF}	{ON}
TRACKBALL PRIORITY	{BODY MARK}	{SEARCH} {STANDARD}
UNIT SELECT	{cm, cm/s}	{mm, mm/s}
ZOOM METHOD	{CENTER}	{BOX}

MODE CONTROL [PROGRAM]	PRESET No.1 : [INITIALIZE]	
AREA LOCK	{OFF}	{ON}
B* FORMAT	{L}	{R}
CURSOR DISPLAY	{ERASE}	{REMAIN} {PW-SOUND ON}
DISPLAYED COLOR	{GRAY}	{A} {B} {C} {D}
DISPLAY MODE	{B} {B:B} {B/M} {M}	{B/D} {D} {FLOW}
FLOW AREA	WIDTH B (F) : [ 50]%	B (F)* : [ 40]%
	HEIGHT : [ 50]%	
	FLOW AREA MODE : {F. AREA}	{VEL. RANGE}
IMAGE DIRECTION	{△} {▽}	{↔} {↔}
RANGE	[17]cm	
SCAN AREA	B : [100]%	B (F) : [ 95]%
STEERED BEAM	{LEFT}	{CENTER} {RIGHT}
SWEEP SPEED	{2} {3}	{4} {6} {8}
TRIPLEX MODE	{B-REAL}	{TRIPLEX} {D-REAL}
VIEW GAMMA	{STD}	{A} {B}
WIDE FORMAT	{OFF}	{ON}

IMAGE CONTROL [PROGRAM]	PRESET No.1 : [INITIALIZE]	
ACOUSTIC POWER	B&W : [100]	OTHER [ 79] (0-100%)
AGC, FTC	AGC : B : {OFF} (OFF-7)	M : {OFF} (OFF-7)
	FTC : {OFF}	{ON}
CONTRAST	B : [4] (1-8)	M : [6] (1-8) D : [8] (1-8)
FOCUS B	{AUTO1}	{AUTO2A} {AUTO2B} {AUTO3}
	{BROAD}	{MANUAL : 1 2 3 4 5 6 7 8}
M	{AUTO}	{BROAD} {MANUAL : 1 2 3 4 5 6 7 8}
FLOW	{AUTO}	{BROAD} {MANUAL : 1 2 3 4 5 6 7 8}
FRAME CORRELATION	{OFF}	{LOW} {MED} {HIGH} {AUTO}
LINE DENSITY	{LOW}	{HIGH} {AUTO}
M-GAIN	[ 0]dB	
POST PROCESS	{LINEAR}	
	{SLOPE1},	LOW : [ 0] (0-63), HIGH : [63] (0-63)
	{SLOPE2},	LOW : [ 0] (0-63), HIGH : [63] (0-63)
	{SLOPE3},	LOW : [ 0] (0-63), HIGH : [63] (0-63)
	{REJECT},	LOW : [ 0] (0-63)
RELIEF	{OFF}	{LOW} {MED} {HIGH}
HORIZONTAL SMOOTH	{OFF}	{ON}

MN2-0213  
SECTION 8 TROUBLESHOOTING

DOPPLER CONTROL [PROGRAM]		PRESET No.1 : [INITIALIZE]
DOP FILTER	[ 2 ] (1~12)	
DOP REJECT	[ 15 ] (1~15)	
DOP SMOOTH	[OFF] [LOW] [HIGH]	
DOP VEL RANGE	[ 28]cm/s	
IMAGE POLARITY	[POS] [NEGA]	
SAMPLE VOLUME	[1] [2] [3] [5] [10]	
SPECTRUM INVERT	[NORMAL] [INVERT] INVERT AXIS [CENTER LINE] [BASE LINE]	
VELOCITY UNIT	[m/s] [cm/s] [KHz]	

FLOW CONTROL [PROGRAM]		PRESET No.1 : [INITIALIZE]
CAPTURE TIME	[1sec] [2sec] [3sec] [CONT]	
COLOR AVERAGE	[LOW] [MED1] [MED2] [HIGH] [VOL-AVG]	
COLOR CODING	[ABDOMEN] [A] [B] [C] [D] [E]	
COLOR LINE DENSITY	[LOW] [MED] [HIGH]	
COLOR POLARITY	[NORMAL] [INVERT]	
COLOR REJECT	[ 0 ] (0~14)	
COLOR SMOOTH	[OFF] [LOW] [MED] [HIGH]	
COLOR VELOCITY	[ 13]cm/s BASELINE SHIFT : [ 0 ] (-31--+31)	
DISPLAY PRIORITY	B&W : [35]COLOR : [ 0 ] [BOTH] [COLOR]	
FLOW FILTER	[LOW] [MED1] [MED2] [HIGH]	
FLOW CONDITION	[ABDOM] [CARDIO/PV]	
FRAME CORRELATION	[OFF] [LOW] [MED] [HIGH]	
FRAME RATE ACCEL	[OFF] [ON]	
POWER FLOW CODING	[POWER] [A] [B] [C] [D] [E]	
P. F. DISP. PRIORITY	B&W : [35]COLOR : [ 8 ] [BOTH] [COLOR]	

MEASUREMENT CONTROL [PROGRAM]		PRESET No.1 : [INITIALIZE]
B MODE MENU	DIST , AREA-E , AREA-T , HIP-J , %STENO, RATIO , LV-AL , VOLUME , HIST , PSVol , CGW/ED , GS , CRL , BPD , FL , LV , GEST. 6 , FETL-W , OB-PRO , GRAPH ,	
PRIORITY	[DIST]	
PAGE-1	DIST , [AREA-E] [AREA-T] [VOLUME]	
PAGE-2	[RATIO] [ HIST ] [ ] [ ]	
PAGE-3	[ ] [ ] [ ] [ ]	
PAGE-4	[ ] [ ] [ ] [ ]	
PAGE-5	[ ] [ ] [ ] [ ]	
M MODE MENU	VEL , H-RATE , POMBO , TEICH , %STENO, [ VEL ]	
PRIORITY	VEL , [H-RATE] [ ] [ ]	
PAGE-1		
D MODE MENU	D-VEL , F-VOL , P. I. , P-GRAD , R. I. , AVERG , ACCEL , RATIO , SV/CO ,	
PRIORITY	[D-VEL]	
PAGE-1	D-VEL , [AVERG] [ACCEL] [RATIO]	
PAGE-2	[ P. I. ] [ R. I. ] [ F-VOL ] [ ]	
OPERANDS FOR %STENO	A : [ ] [ + ] [ × ] [ ÷ ] [ ] B : [ ] [ + ] [ × ] [ ÷ ] [ ] N : [ ] [ + ] [ × ] [ ÷ ] [ ] D : [ ] [ + ] [ × ] [ ÷ ] [ ]	
OPERANDS FOR RATIO		
HIST BOX SIZE	[ 10 ] (01~99)mm	

COMMON CONTROL OB REPORT : NO

MEASUREMENT2 CONTROL [PROGRAM]		PRESET No.1: [INITIALIZE]		
USER SW	B MODE	1: [AREA-E]	2: [AREA-T]	3: [VOLUME]
	M MODE	1: [H-RATE]	2: [ ]	3: [ ]
	D MODE	1: [ P.L ]	2: [ R.L ]	3: [F-VOL ]
DOP AUTO TRACE	[OFF] [ON]			
TRACE POSITION	[PEAK] [MEAN]	LEVEL: [-18]dB		
SAMPLE RATE	[1/1] [1/2] [1/3]	SMOOTH: [OFF] [ON]		
FETAL-W CALCULATION	RESULT AUTOMATICAL DISPLAY			
	[OFF] [ON] ( [OSAKA U.]			
	[SHEPARD]			
	[HADLOCK-1]			
	[HADLOCK-2]			
	[HADLOCK-3]			
	[TOKYO U.] )			
CGW/EDC DATA DISPLAY FOR FETAL-W CALCULATION OF OSAKA U.				
	[OFF] [ON]			

COMMON CONTROL OB REPORT : YES

MEASUREMENT2 CONTROL [PROGRAM]		PRESET No.1: [INITIALIZE]		
USER SW	B MODE	1: [AREA-E]	2: [AREA-T]	3: [VOLUME]
	M MODE	1: [H-RATE]	2: [ ]	3: [ ]
	D MODE	1: [ P.L ]	2: [ R.L ]	3: [F-VOL ]
DOP AUTO TRACE	[OFF] [ON]			
TRACE POSITION	[PEAK] [MEAN]	LEVEL: [-18]dB		
SAMPLE RATE	[1/1] [1/2] [1/3]	SMOOTH: [OFF] [ON]		

ANNOTATION CONTROL [PROGRAM]		PRESET No.1: [INITIALIZE]		
MENU	PAGE-1	[AORTA]	[ARTERY]	[C. B. D.] [CYST ] [G. B. ]
	PAGE-2	[G. S. ] [H. V. ] [IVC ]	[KIDNEY]	[LIVER ]
	PAGE-3	[PANC.] [P. V. ] [SPLEEN]	[STOM. ]	[TUMOR ]
WORD	[ ]			
LIBRARY	[ABDOM] [OB/GYN] [CARDIO] [PV/HEAD]			
	[SMALL PART] [OTHER] [SYMBOL]			
ANEUR.	AORTA	APPEN.	ARTERY	ASCIT. C. B. D. COLON CYST
DECUB.	DUOD.	EFFUS.	G. B.	G. S. H. V. INF. INTES.
IVC	KIDNEY.	LAO	LAT.	LEFT LIVER LOBE LUNG
MASS	MED	ML	OBL.	PANC. POLYP PRONE P. V.
RAO	RIGHT	SAGIT.	SPLEEN	STOM. STONE SUP. SUPINE
TRANS.	TUMOR	VEIN		

MN2-0213  
SECTION 8 TROUBLESHOOTING

```

OB PROGRAM

GESTATIONAL TABLE          DIMENSION
1  GS (TOKYO U.)           HC  :{CIR-E}
2  CRL (TOKYO U.)          AC  :{CIR-E}
3  BPD (TOKYO U.)          FTA :{ARE-E}
4  FL  (TOKYO U.)
5  LV  (TOKYO U.)
6  ( )

TOTAL PREGNANCY WEEKS
{40}

OB      1  2  3  4  5  6
PROGRAM EXIT          SET
  
```

```

TABLE NO. : 6
PARAMETER : {AA }
DIMENSION : {DIST }
INPUT FORM : {week ± day }
BASED ON : [ ]
w ±d cm w ±d cm
1 22
2 23
3 24
4 25
5 26
6 27
7 28
8 29
9 30
10 31
11 32
12 33
13 34
14 35
15 36
16 37
17 38
18 39
19 40
20 41
21 42

OB      1  2  3  4  5  6
PROGRAM RETURN          SET
  
```

```

ID [ ] 96/01/10
[ ] 14:01:59

<GA TABLE>
GS (TOKYO U.)
CRL (TOKYO U.)
BPD (TOKYO U.)
FL (TOKYO U.)
LV (TOKYO U.)

<FETAL-W>
OSAKA U.

GA-GRAPH 1 2 3 4 5 6
DISPLAY EXIT          SET
  
```

```

                                OB REPORT PROGRAM

    GESTATIONAL TABLE          DIMENSION

    1 BPD (HADLOCK)            HC  :{CIR-E }
    2 HC  (HADLOCK)            AC  :{CIR-E }
    3 AC  (HADLOCK)            FTA :{ARE-T }
    4 FL  (HADLOCK)            USR1 :{DIST }
    5      [      ]            USR2 :{DIST }
    6      [      ]

    RATIOS                      ESTIMATED F. WEIGHT

    1 N/D                      1 (SHEPARD)
      N : [      ]              2 (HADLOCK1)
      D : [      ]

    2 N/D
      N : [      ]
      D : [      ]

    OB-REPORT PROGRAM 1 2 3 4 5 6
                       EXIT SET
  
```

```

                                1 2 3 4 5 AVG
    BPD _____ mm
    OFD _____ mm
    HC   _____ mm
    TTD _____ mm
    APTD _____ mm
    AC   _____ mm
    FL   _____ mm

    DATA 1 2 3 4 5 6
    EDIT  EXIT REPORT MEASUR EDIT GRAPH SET
  
```

```

    REFERRING MD. :
    SONOGRAPHER   :
    REASON FOR STUDY :

    PATIENT INFORMATION
    ID :
    NAME :
    LMP: / / BBT : / / / EDB : / /
    EGA: w d on : / /

    _____ LMP _____ EDB
    BPD (HADLOCK) mm w d ± d | | | |
    HC (HADLOCK) mm w d ± d | | | |
    AC (HADLOCK) mm w d ± d | | | |
    FL (HADLOCK) mm w d ± d | | | |
    ( )
    OFD : mm
    TTD : mm
    APTD : mm

    _____
    LMP-GA : w d US-GA : w d
    LMP-EDB : / / US-EDB : / /

    CI :
    HC/AC:
    COMMENTS:
    EFW(SHEPARD):
    EFW(HADLOCK1):

    REPORT 1 2 3 4 5 6
           EXIT MEASUR EDIT GRAPH SET
  
```

MN2-0213  
SECTION 8 TROUBLESHOOTING

Additional contents from VER.2.0

DISPLAY CONTROL [PROGRAM]	PRESET No.1 [INITIALIZE]	
BODY MARK DISPLAY	[OFF]	[ON](ABDOM : *AB-1)
CALIPER AUTO OFF	[OFF]	[ON]
CALIPER SIZE	[NORMAL]	[SMALL]
COLOR SELECT	[A] [B] [C] [D] [E]	
ECG SYNC	[OFF]	[ON](0.00) (0~2.55) SEC.
ECHO ERASE	[0] (0~19) STEPS	
KEYBOARD PRIORITY	[KEY ↔ COMMENT]	[STANDARD]
PHYSIO SIG DISPLAY	ECG : [ON] [OFF]	PCG : [ON] [OFF]
PROBE SELECT	[OFF]	[ON]
PUNCTURE GUIDE LINE	[OFF]	[ON]
TRACKBALL PRIORITY	[BODY MARK] [SEARCH]	[STANDARD]
UNIT SELECT	[cm, cm/s]	[mm, mm/s]
ZOOM METHOD	[CENTER]	[BOX]

IMAGE CONTROL [PROGRAM]	PRESET No.1 : [INITIALIZE]	
ACOUSTIC POWER	B&W : [100]	OTHER [ 79] (0~100%)
AGC, FTC	AGC : B : [OFF] (OFF~7) M : [OFF] (OFF~7)	
CONTRAST	FTC : [OFF] [ON]	
FOCUS B	B : [4] (1~8) M : [6] (1~8) D : [8] (1~8)	
	[AUTO1] [AUTO2A] [AUTO2B] [AUTO3]	
	[BROAD] [MANUAL : 1 2 3 4 5 6 7 8]	
M	[AUTO] [BROAD] [MANUAL : 1 2 3 4 5 6 7 8]	
FLOW	[AUTO] [BROAD] [MANUAL : 1 2 3 4 5 6 7 8]	
FRAME CORRELATION	[OFF] [LOW] [MED] [HIGH] [AUTO]	
LINE DENSITY	[LOW] [HIGH] [AUTO]	
M-GAIN	[ 0]dB	
POST PROCESS	[LINEAR]	
	[SLOPE1], LOW : [ 0] (0~63), HIGH : [63] (0~63)	
	[SLOPE2], LOW : [ 0] (0~63), HIGH : [63] (0~63)	
	[SLOPE3], LOW : [ 0] (0~63), HIGH : [63] (0~63)	
	[REJECT], LOW : [ 0] (0~63)	
RELIEF	[OFF] [LOW] [MED] [HIGH]	
HORIZONTAL SMOOTH	[OFF] [ON]	
THERMAL INDEX	[TIS] [TIB] [TIC]	

DOPPLER CONTROL [PROGRAM]	PRESET No.1 : [INITIALIZE]	
DOP FILTER	[ 2] (1~12)	
DOP IMAGE POLARITY	[POS] [NEGA]	
DOP PRECOMP	[LOW] [HIGH]	
DOP REJECT	[ 15] (1~15)	
DOP RESOLUTION	[TIME] [FREQ]	
DOP SMOOTH	[OFF] [LOW] [HIGH]	
DOP VEL RANGE	[ 28]cm/s	
IMAGE POLARITY	[POS] [NEGA]	
SAMPLE VOLUME	[1] [2] [3] [5] [10]	
SPECTRUM INVERT	[NORMAL] [INVERT]	
	INVERT AXIS [CENTER LINE] [BASE LINE]	
VELOCITY UNIT	[m/s] [cm/s] [KHz]	



**Additional contents from Ver.4**

```

PRESET OPENING MENU

PRESET LIST

No.1      No.2      No.3      No.4      No.5
[ABDOM]   [OB/GYN]   [CARDIO]  [PV ]    [OTHER ]

No.6      No.7      No.8      No.9      No.10
[TDI ]    [ABDOM]   [ABDOM]   [ABDOM]   [ABDOM]

No.11     No.12     No.13     No.14     No.15
[ABDOM]   [ABDOM]   [ABDOM]   [ABDOM]   [ABDOM]

CONFIRM . . . SET KEY

COMMON PRESET  [SET UP]
    
```

```

PRESET SET-UP MENU

PRESET NUMBER  [No.1] [No.2] [No.3] [No.4] [No.5]
                [No.6] [No.7] [No.8] [No.9] [No.10]
                [No.11] [No.12] [No.13] [No.14] [No.15]

PRESET NAME    [ABDOM ]

APPLICATION    [ABDOM] [OB/GYN] [CARDIO] [PV] [OTHER]

PROBE          [
                [
                [
                [
                [
                [
                ]

REGISTRATION   [INITIALIZE ALL DATA]
                [AUTO DATA ENTRY]
    
```

```

COMMON PRESET
  [PROGRAM]                                [INITIALIZE]

CHARACTER DISPLAY [OFF] [ON]
PANEL BEEP        [OFF] [ON]
PRINTER/FILM TYPE SSZ-108 : [LINEAR : 35mm]
                  SSZ-307 : [SSZ-307]
                  SSZ-203 : [LINEAR : 35mm]
                  SSZ-705 : [SSZ-705]
                  AUTO   : [SSZ-307+SSZ705]

DMS PRINTER       [OFF] [ON]
RESUME            [OFF] [ON]
STORE MEMORY      [OFF] [ON]
TIMER FREEZE      [OFF] [ON]
TRACKBALL SPEED   [STANDARD] [SLOW]
VCR MEMORY / SIGNAL [FIELD] [FRAME] [COMPOSITE] [S(Y/C)]
FOOT SW           L : [PRINT] C : [FREEZE] R : [SELECT]

OB REPORT         [YES] [NO]
* IN CASE "OB REPORT" SETTING HAS BEEN CHANGED.
  PLEASE TURN OFF AND ON THE POWER SWITCH AGAIN.
    
```

MN2-0213 Rev. 1  
SECTION 8 TROUBLESHOOTING

DISPLAY CONTROL [PROGRAM]	PRESET No.1 [INITIALIZE]	
BODY MARK DISPLAY	[OFF]	[ON](ABDOM : "AB-1")
CALIPER AUTO OFF	[OFF]	[ON]
CALIPER SIZE	[NORMAL]	[SMALL]
COLOR SELECT	[A]	[B] [C] [D] [E]
DMS LINK	[OFF]	[ON]
DMS MEDIA	[DISK]	[NET] [MEMORY]
ECG SYNC	[OFF]	[ON][0.00] (0-2.55) SEC.
ECHO ERASE	[0]	(0-19) STEPS
KEYBOARD PRIORITY	[KEY ↔ COMMENT]	[STANDARD]
PHYSIO SIG DISPLAY	ECG : [ON] [OFF]	PCG : [ON] [OFF]
PROBE SELECT	[OFF]	[ON]
PUNCTURE GUIDE LINE	[OFF]	[ON]
TRACKBALL PRIORITY	[BODY MARK]	[SEARCH] [STANDARD]
UNIT SELECT	[cm, cm/s]	[mm, mm/s]
ZOOM METHOD	[CENTER]	[BOX]

MODE CONTROL [PROGRAM]	PRESET No.1 : [INITIALIZE]	
AREA LOCK	[OFF]	[ON]
CURSOR DISPLAY	[ERASE] [REMAIN]	[PW-SOUND ON]
DISPLAYED COLOR(B)	[GRAY] [A] [B] [C] [D]	VOL: [A] [B] [C]
DISPLAY MODE	[B] [B:B] [B/M] [M] [B/D] [D] [FLOW]	
FLOW AREA	WIDTH B (F) : [ 50%]	B (F)^ : [ 40%]
	HEIGHT : [ 50%]	
	FLOW AREA MODE : [F. AREA]	[VEL RANGE]
IMAGE DIRECTION	[△] [▽] [↔] [←]	
RANGE	[17]cm	
SCAN AREA	B : [100%]	B (F) : [ 95%] B (F)^ : [ 75%]
STEERED BEAM	[LEFT]	[CENTER] [RIGHT]
SWEEP SPEED	[2] [3] [4] [6] [8]	
TRIPLEX MODE	[B-REAL]	[TRIPLEX] [D-REAL]
VIEW GAMMA	[STD]	[A] [B]
WIDE FORMAT	[OFF]	[ON]

IMAGE CONTROL [PROGRAM]	PRESET No.1 : [INITIALIZE]	
ACOUSTIC POWER	B,B/M,M [100]	OTHER [ 79] (0-100%)
AGC, FTC	AGC : B : [OFF] [OFF-7]	M : [OFF] [OFF-7]
	FTC : [OFF] [ON]	
CONTRAST	B : [4] (1-8)	M : [6] (1-8) D : [8] (1-8)
FOCUS B	[AUTO1] [AUTO2A] [AUTO2B] [AUTO3]	
	[BROAD] [MANUAL : 1 2 3 4 5 6 7 8]	
M	[AUTO] [BROAD] [MANUAL : 1 2 3 4 5 6 7 8]	
FLOW	[AUTO] [BROAD] [MANUAL : 1 2 3 4 5 6 7 8]	
FRAME CORRELATION	[OFF] [LOW] [MED]	[HIGH] [AUTO]
LINE DENSITY	[LOW]	[HIGH] [AUTO]
M-GAIN	[ 0]dB	
POST PROCESS	[LINEAR]	
	[SLOPE1], LOW : [ 0] (0-63), HIGH : [63] (0-63)	
	[SLOPE2], LOW : [ 0] (0-63), HIGH : [63] (0-63)	
	[SLOPE3], LOW : [ 0] (0-63), HIGH : [63] (0-63)	
	[REJECT], LOW : [ 0] (0-63)	
RELIEF	[OFF] [LOW] [MED]	[HIGH]
SMOOTH	[OFF] [A] [B] [C]	
THERMAL INDEX	[T1S] [T1B] [T1C]	

DOPPLER CONTROL [PROGRAM]		PRESET No.1 : [INITIALIZE]	
DISPLAYED COLOR (D)	[GRAY] [A] [B] [C] [D]		
DOP FILTER	[2] (1-12)		
DOP IMAGE POLARITY	[POS] [NEGA]		
DOP PRECOMP	[LOW] [HIGH]		
DOP REJECT	[11] (1-15)		
DOP RESOLUTION	[TIME] [FREQ]		
DOP SMOOTH	[OFF] [LOW] [HIGH]		
DOP VEL RANGE	[28]cm/s		
SAMPLE VOLUME	[1] [2] [3] [5] [10]		
SPECTRUM INVERT	[NORMAL] [INVERT]		
	INVERT AXIS [CENTER LINE] [BASE LINE]		
STEER LINK	[OFF] [ON]		
VELOCITY UNIT	[m/s] [cm/s] [KHz]		

FLOW CONTROL [PROGRAM]		PRESET No.1 : [INITIALIZE]	
CAPTURE TIME	[1sec] [2sec] [3sec] [CONT]		
COLOR AVERAGE	[LOW] [MED1] [MED2] [HIGH] [VOL-AVG]		
COLOR CODING	[ABDOMEN] [A] [B] [C] [D] [E]		
COLOR LINE DENSITY	[LOW] [MED] [HIGH] [HIGH FR]		
COLOR POLARITY	[NORMAL] [INVERT] INV-LINK: [OFF] [ON]		
COLOR REJECT	[0] (0-14)		
COLOR SMOOTH	[OFF] [LOW] [MED] [HIGH]		
COLOR VELOCITY	[13]cm/s BASELINE SHIFT: [0] (-31-+31)		
DISPLAY PRIORITY	B&W: [35] COLOR: [0] [BOTH] [COLOR]		
FLOW FILTER	[LOW] [MED1] [MED2] [HIGH]		
FLOW CONDITION	[ABDOM] [CARDIO/PV] [TD]		
FRAME CORRELATION	[OFF] [LOW] [MED] [HIGH] [AUTO]		
FRAME RATE ACCEL	[OFF] [ON]		

POWER FLOW CONTROL [PROGRAM]		PRESET No.1 : [INITIALIZE]	
CAPTURE TIME	[1sec] [2sec] [3sec] [CONT]		
COLOR AVERAGE	[LOW] [MED1] [MED2] [HIGH] [VOL-AVG]		
COLOR CODING	[POWER] [A] [B] [C] [D] [E]		
COLOR LINE DENSITY	[LOW] [MED] [HIGH] [HIGH FR]		
COLOR REJECT	[0] (0-15)		
COLOR SMOOTH	[OFF] [LOW] [MED] [HIGH]		
COLOR VELOCITY	[13]cm/s		
DISPLAY PRIORITY	B&W: [35] COLOR: [0] [BOTH] [COLOR]		
FLOW FILTER	[LOW] [MED1] [MED2] [HIGH]		
FLOW CONDITION	[ABDOM] [CARDIO/PV] [TD]		
FRAME CORRELATION	[OFF] [LOW] [MED] [HIGH] [AUTO]		
FRAME RATE ACCEL	[OFF] [ON]		
PF DISPLAY	[TYPE A] [TYPE B]		

MN2-0213 Rev. 1  
SECTION 8 TROUBLESHOOTING

VOL MODE CONTROL [PROGRAM]		PRESET No. 1:	<u>INITIALIZE</u>
BRIGHTNESS	[ 8]	(1~16)	
OPACITY	[ 8]	(1~8)	
PRE GAMMA	[ 7]	(1~16)	
ABC	[OFF]	[ON]	

**Additional contents from Ver.6**

PRESET SET-UP MENU					
PRESET NUMBER	[No.1 [No.8 [No.11]	[No.2 [No.7 [No.12]	[No.3 [No.8 [No.13]	[No.4 [No.9 [No.14]	[No.5 [No.10 [No.15]
PRESET NAME	[ABDOM]				
APPLICATION	[ABDOM]	[OB/GYN]	[F.HART]	[PV]	[S.PART]
PROBE	[CARDIO]				
	[				]
	[				]
	[				]
	[				]
REGISTRATION	[INITIALIZE ALL DATA]				
	[AUTO DATA ENTRY]				

COMMON PRESET [PROGRAM]	[INITIALIZE]				
CHARACTER DISPLAY	[OFF]	[ON]			
PANEL BEEP	[OFF]	[ON]			
PRINTER/FILM TYPE	SSZ-108 : [LINEAR : 35mm] SSZ-307 : [SSZ-307] SSZ-203 : [LINEAR : 35mm] SSZ-705 : [SSZ-705] AUTO : [SSZ-307+SSZ705]				
DMS PRINTER	[OFF]	[ON]			
RESUME	[OFF]	[ON]			
STORE MEMORY	[OFF]	[ON]			
TIMER FREEZE	[OFF]	[ON]			
TRACKBALL SPEED	[STANDARD]	[SLOW]			
VCR MEMORY	[FIELD]	[FRAME]	[AUTO]	[B&W]	[COLOR]
VCR SIGNAL	COMPOSITE) [S(Y/C)]				
FOOT SW	L : [ ]	C : [ ]	R : [ ]		
OB REPORT	[YES]	[NO]			
	* IN CASE "OB REPORT" SETTING HAS BEEN CHANGED. PLEASE TURN OFF AND ON THE POWER SWITCH AGAIN.				

MODE CONTROL [PROGRAM]	PRESET No.1 : [INITIALIZE]						
AREA LOCK	[OFF]	[ON]					
CURSOR DISPLAY	[ERASE]	[REMAIN]	[PW-SOUND ON]				
DISPLAYED COLOR	[GRAY]	[A]	[B]	[C]	[D]		
DISPLAY MODE	[B]	[B:B]	[B/M]	[M]	[B/D]	[D]	[FLOW]
FLOW AREA	WIDTH B (F) : [ 50]% B (F)* : [ 40]% HEIGHT : [ 50]%						
	FLOW AREA MODE : [F. AREA] [VEL. RANGE]						
IMAGE DIRECTION	[ Δ ] [ ∇ ], [ → ] [ ← ]						
RANGE	[17]cm						
SCAN AREA	B : [100]%	B (F) : [ 95]%	B (F)* : [ 75]%				
STEERED BEAM	[LEFT]	[CENTER]	[RIGHT]				
SWEEP SPEED	[2]	[3]	[4]	[5]	[6]		
TRIPLEX MODE	[B-REAL]	[TRIPLEX]	[D-REAL]				
VIEW GAMMA	[SID]	[A]	[B]				
WIDE FORMAT	[OFF]	[ON]					

MN2-0213 Rev. 2  
SECTION 8 TROUBLESHOOTING

VOL MODE CONTROL [PROGRAM]	PRESET No. 1 : [INITIALIZE]
B/VOL MODE	[B-REAL] [SIMUL]
FOCUS	[AUTO] [BROAD] [MANUAL:1 2 3 4 5 6 7 8]
GRAPHIC ERASE	[OFF] [ON]
IMAGE INVERT	[OFF] [ON]
IMAGE ROTATE	[0, 45, 90, 135, 180, 225, 270, 315] deg
OPACITY	[ ](1~16) GUIDE LINE:[OFF] [ON]
ROI SHAPE	UPPER:[ ](1~7) LOWER:[ ](1~7)
ROI SIZE	WIDTH:[ ]% HEIGHT:[ ]%
SCAN ANGLE	[100] [75] [60] %
SCAN SPEED	[AUTO] [8sec] [4sec] [2sec] ...
SIMUL PRIORITY	[F.RATE] [F.DENS]
VOL BRIGHT	[ ](1~16)
VOL GAMMA	[ ](1~16)
ABC	[OFF] [ON]

MEASUREMENT CONTROL [PROGRAM]	PRESET No. 1 : [INITIALIZE]
B MODE MENU	DIST , AREA-E , AREA-T , HIP-J , %STENO, RATIO , LV-AL , VOLUME , HIST , PSVol , VOL-SL , CGW/ED , GEST.1 , GEST.2 , GEST.3 , GEST4 , GEST5 , GEST6 , FETL-W , OB-PRO , GRAPH
PRIORITY	[ ] [ ] [ ] [ ] [ ]
PAGE-1	[ ] [ ] [ ] [ ] [ ]
PAGE-2	[ ] [ ] [ ] [ ] [ ]
PAGE-3	[ ] [ ] [ ] [ ] [ ]
PAGE-4	[ ] [ ] [ ] [ ] [ ]
PAGE-5	[ ] [ ] [ ] [ ] [ ]
M MODE MENU	VEL , H-RATE , POMBO , TEICH , %STENO, [ ] [ ] [ ] [ ] [ ]
PRIORITY	[ ] [ ] [ ] [ ] [ ]
PAGE-1	[ ] [ ] [ ] [ ] [ ]
D MODE MENU	D-VEL , F-VOL , P.I. , P-GRAD , R.I. , AVERG , ACCEL , RATIO , SV/CO , H-RATE , [D-VEL ] [ ] [ ] [ ] [ ]
PRIORITY	[ ] [ ] [ ] [ ] [ ]
PAGE-1	[ ] [ ] [ ] [ ] [ ]
PAGE-2	[ ] [ ] [ ] [ ] [ ]
OPERANDS FOR %STENO	A : [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] B : [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] N : [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] D : [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
OPERANDS FOR RATIO	
HIST BOX SIZE	[ ] (01-99)mm

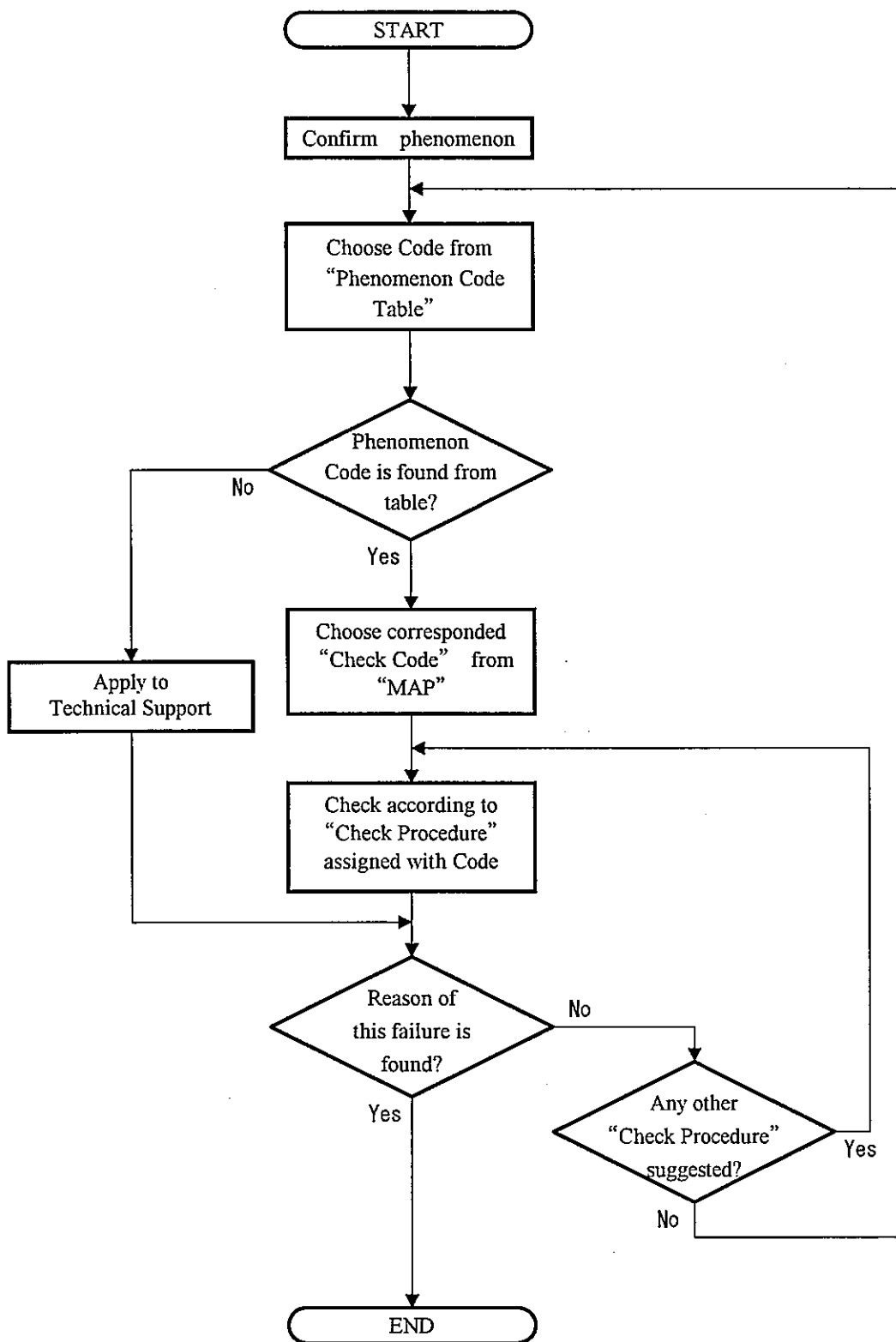
## 8-5 Check List Map

This "Check List Map" provides you with the data, based on which you may assume a PCB or unit considered to have caused the equipment failure. It comprises the following information:

- Phenomenon Code Table : General failure phenomena have been classified into codes. A failure is related with the "MAP" through each of codes.
- MAP : This is a table showing the relations of a "Code" given in the "Phenomenon Code Table", that is, a failure phenomenon, with the PCB or unit assumed to cause that failure.
- Check Procedure : These steps show the norms on which you may determine a failure concerning the PCBs and/or units entered on the "MAP" .

### 8-5-1 Flow chart for the usage of Check List Map

The method of cross reference for three parts, "Phenomenon Code Table", "MAP" and "Check Procedure", in "Check List Map" on the next page with the flow chart.





8-5-2 Phenomenon Code Table

The general failure phenomena envisaged herein are roughly classified as described below while being code with two alphabetical characters and gives the "Phenomenon Code" to refer the "MAP" :

Phenomenon	Code
Failure on the ultrasound image with any display mode	<b>US</b>
Failure on the display of characters or graphics	<b>CG</b>
Failure about the timing synchronization or observational monitor	<b>TM</b>
Failure on the general operation or function	<b>FU</b>
Failure on the power supply, recording or panel control knobs	<b>PM</b>
Failure on the physiological signal display	<b>PH</b>
Failure on the spectral Doppler	<b>DP</b>
Failure on the color flow Doppler or color image display	<b>CD</b>

The "Phenomenon Code Tables" are used to provide the "Check Procedure" in order to judge whether the trouble cause is existing or not according to the "MAP".

The "Phenomenon Code Tables" are shown based on the classification with above codes, from next page,

US Failure of the ultrasound image

(UltraSound)

Code		Apl	Problems
item	div		
US-1	1	○	Ultrasound image is not all displayed.
	2	○	Ultrasound image is not all displayed in a particular MODE.
	3	○	Ultrasound image is not all displayed only for LINEAR (or CONVEX ).
	4		Ultrasound image is not all displayed only for MECHANICAL SCANNER.
	5	○	Ultrasound image is not all displayed only for PHASED ARRAY.
	6	○	Ultrasound image is not all displayed only for CONVEX SECTOR SCANNER (For VOL.).
	7	○	Only particular Ultrasound image is not displayed in multiples Ultrasound image displays.
US-2	1	○	Display of Ultrasound image area become white.
US-3	1	○	Unnecessary dots or lines are displayed in Ultrasound image area.
	2	○	Regular horizontal or vertical stripes are displayed in Ultrasound image area .
US-4	1	○	Lacks of ECHO are displayed in LINEAR ( or CONVEX ).
	2		Lacks of ECHO are displayed in MECHANICAL SCANNER.
	3	○	Lacks of ECHO are displayed in PHASED ARRAY.
	4	○	Lacks of ECHO are displayed in CONVEX SECTOR SCANNER (For VOL.).
US-5	1	○	Noises are seen on the Ultrasound image in LINEAR ( or CONVEX ).
	2		Noises are seen on the Ultrasound image in MECHANICAL SCANNER.
	3	○	Noises are seen on the Ultrasound image in PHASED ARRAY.
	4	○	Noises are seen on the Ultrasound image in CONVEX SECTOR SCANNER (For VOL.).
	5	○	Noises are seen on the Ultrasound image in all Ultrasound images.
US-6	1	○	Sensitivity of Ultrasound image is low in LINEAR ( or CONVEX ).
	2		Sensitivity of Ultrasound image is low in MECHANICAL SCANNER.
	3	○	Sensitivity of Ultrasound image is low in PHASED ARRAY.
	4	○	Sensitivity of Ultrasound image is low in CONVEX SECTOR SCANNER (For VOL.).
	5	○	Sensitivity of Ultrasound image is low in all Ultrasound images.
US-7	1	○	Same as depth band is difference brightness in Ultrasound image.
US-8	1	○	Image varies as if enhanced, without gradation.
	2	○	Ultrasound image becomes moire in MECHANICAL SCANNER, PHASED ARRAY, CONVEX.
US-9	1	○	Form of Ultrasound image is abnormally displayed.
US-10	1	○	Unnecessary multiples of Ultrasound image are displayed in LINEAR ( or CONVEX ).
	2		Unnecessary multiples of Ultrasound image are displayed in MECHANICAL SCANNER.
	3	○	Unnecessary multiples of Ultrasound image are displayed in PHASED ARRAY.
	4	○	Unnecessary multiples of Ultrasound image are displayed in CONVEX SECTOR SCANNER (For VOL.).
	5	○	Unnecessary multiples of Ultrasound image are displayed in all Ultrasound images.

○:Marked items are effective on this system.

US Failure of the ultrasound image

(UltraSound)

Code		Apply	Problems
item	div.		
US-10	1	<input type="radio"/>	Unnecessary multiples of Ultrasound image are displayed in LINEAR ( or CONVEX ).
	2		Unnecessary multiples of Ultrasound image are displayed in MECHANICAL SCANNER.
	3	<input type="radio"/>	Unnecessary multiples of Ultrasound image are displayed in PHASED ARRAY.
	4	<input type="radio"/>	Unnecessary multiples of Ultrasound image are displayed in all Ultrasound images.

:Marked items are effective on this system.

**CG** Failure on the characters or graphics

(Characters & Graphics)

Code		Aply	Problems
item	div.		
CG-1	1	<input type="radio"/>	Characters are displayed in the entire screen.
CG-2	1	<input type="radio"/>	Only Caliper, Graphic are not displayed.
	2	<input type="radio"/>	Only Caliper, Graphic are abnormally displayed.
CG-3	1	<input type="radio"/>	The entire screen become white.
	2	<input type="radio"/>	Unnecessary dots or stripes are displayed in all or parts of image.
CG-4	1	<input type="radio"/>	TIME and DATE are abnormally displayed.
CG-5	1	<input type="radio"/>	Characters are not displayed, key in cannot be made.
	2	<input type="radio"/>	Characters are abnormally displayed.
CG-6	1	<input type="radio"/>	Measured value is not correct.

○:Marked items are effective on this system.

TM Failure about the timing or monitor

(Timing & Monitor)

Code		Aply	Problems
item	div.		
TM-1	1	<input type="radio"/>	All images are not displayed in any Monitor.
	2	<input type="radio"/>	Image is not displayed in a particular Monitor.
TM-2	1	<input type="radio"/>	All Images are not synchronized in any Monitor.
	2	<input type="radio"/>	Image is not synchronized in a particular Monitor.
TM-3	1	<input type="radio"/>	Entire image shake. Abnormality is seen when brightness varies in any Monitor.
	2	<input type="radio"/>	Entire image shake in a particular Monitor. Abnormality is seen.

:Marked items are effective on this system.

**FU** Failure on the general operation or function

(FUnctions)

Code		Aply	Problems
item	div.		
FU-1	1	<input type="radio"/>	System locks up, or panel information is not accepted.
	2	<input type="radio"/>	The ERROR messages are shown on the monitor.

:Marked items are effective on this system.

**PM** Failure on power supply, recording, switch & controls (Power supply & Memory)

Code		Aply	Problems
item	div		
PM-1	1	<input type="radio"/>	Power output is not present, or abnormally outputted.
PM-2	1	<input type="radio"/>	Switches and/or Controls are inoperative.
	2	<input type="radio"/>	Switches and/or Controls are abnormally operated.
	3	<input type="radio"/>	Camera shutter (or printing) is inoperative.
PM-3	1	<input type="radio"/>	Photographed picture is not normal (Monitor is normal).
	2	<input type="radio"/>	Played back image is abnormally displayed (usual image is normal).
PM-4	1		All images are not recorded in Recorder ( Recorder is normal ).
	2		All images are not recorded in Recorder ( Recorder is abnormal ).
	3		Image is abnormally recorded in Recorder ( Recorder is normal ).
	4		Image is abnormally recorded in Recorder ( Recorder is abnormal ).

:Marked items are effective on this system.

**PH** Failure on the physiological signal display

(PHysiological Signal)

Code		Aply	Problems
item	div.		
PH-1	1	<input type="radio"/>	ECG (EKG) waveform is not displayed.
	2	<input type="radio"/>	ECG (EKG) waveform is abnormally displayed or sensitivity is low.
	3	<input type="radio"/>	ECG (EKG) waveform is abnormally displayed in a particular Mode, or not displayed.
	4	<input type="radio"/>	ECG (EKG) Synchronization is not correctly operated.
PH-2	1		PULSE waveform is not displayed.
	2		PULSE waveform is abnormally displayed, or sensitivity is low.
PH-3	1	<input type="radio"/>	PCG waveform is not displayed.
	2	<input type="radio"/>	PCG waveform is abnormally displayed, or sensitivity is low.

:Marked items are effective on this system.



DP Failure on the spectral Doppler

(DoPpler)

Code		Aply	Problems
item	div.		
DP-1	1	<input type="radio"/>	Doppler image is not displayed.
	2	<input type="radio"/>	Doppler image is not displayed in a particular Mode.
	3	<input type="radio"/>	Doppler image is not displayed in a particular Probe.
	4	<input type="radio"/>	Doppler image is not displayed either PW or CW.
DP-2	1	<input type="radio"/>	Doppler image is abnormally displayed.
	2	<input type="radio"/>	Doppler image is abnormally displayed in a particular Mode.
	3	<input type="radio"/>	Doppler image is abnormally displayed in a particular Probe.
	4	<input type="radio"/>	Doppler image is abnormally displayed either PW or CW.
DP-3	1	<input type="radio"/>	Mirror or Side band noise appear on image or a large amount of noise.
	2	<input type="radio"/>	Mirror or Side band noise appear in a particular Mode, or a large amount of noise.
	3	<input type="radio"/>	Mirror or Side band noise appear in a particular Probe, or a large amount of noise.
	4	<input type="radio"/>	Mirror or Side band noise appear either PW or CW.
DP-4	1	<input type="radio"/>	Sensitivity of Doppler image is low.
	2	<input type="radio"/>	Sensitivity of Doppler image is low in a particular Mode.
	3	<input type="radio"/>	Sensitivity of Doppler image is low in a particular Probe.
	4	<input type="radio"/>	Sensitivity of Doppler image is low either PW or CW.
DP-5	1	<input type="radio"/>	Doppler sound is low or not outputted.
DP-6	1	<input type="radio"/>	Doppler PPM is not displayed.
	2	<input type="radio"/>	Doppler PPM is abnormally displayed.

○:Marked items are effective on this system.

**CD** Failure on the color flow or color display

(Color Display)

Code		Aply	Problems
item	div.		
CD-1	1	<input type="radio"/>	Color is not displayed in Ultrasound image area.
	2	<input type="radio"/>	Color is not displayed in Ultrasound image area in a particular Mode.
	3	<input type="radio"/>	Color is not displayed in Ultrasound image area in a particular Probe.
CD-2	1	<input type="radio"/>	Color noises are seen in Ultrasound image area, or a large amount of noises are seen.
	2	<input type="radio"/>	Noises are seen in Ultrasound image in a particular Mode.
	3	<input type="radio"/>	Noises are seen in Ultrasound image in a particular Probe.
CD-3	1	<input type="radio"/>	Color is abnormally displayed in Ultrasound image area.
	2	<input type="radio"/>	Color is abnormally displayed in Ultrasound image area in a particular Mode.
	3	<input type="radio"/>	Color is abnormally displayed in Ultrasound image area in a particular Probe.
CD-4	1	<input type="radio"/>	Color is abnormally displayed in Playback mode.
CD-5	1	<input type="radio"/>	Color is not displayed entire image, or abnormally displayed.

:Marked items are effective on this system.

8-5-3 MAP

Concerning the typical failure phenomena identified by "Phenomenon Codes", those PCBs or units which may be deemed to have caused such phenomena are shown below.

This MAP has phenomena classified by "Problem Code". A PCB or unit assumed to be causative of the related phenomenon is marked with a "Check List Code" for your referring to the "Check Procedure".

MN2-0213 Rev. 2  
SECTION 8 TROUBLESHOOTING

Check List	Problem Code	US-1							US1	US-3		US-4				US-5					
		Code	1	2	3	4	5	6	7	-2	1	2	1	2	3	4	1	2	3	4	5
Operation	A1	●	●	●			●	●													
External Noise	A2															●		●	●	●	
Power Supply (PSU-S1700*-1/-2/-3, EU-6023)	A3	●		●												●		●	●	●	
Probe/Scanner	A4	●	●	●			●					●			●	●		●	●	●	
TV monitor (IPC-1231/IPC-1231V)	A5	●																			
L-KEY-56*/L-KEY-71* OPERATION PANEL	B1	●	●	●			●	●													●
EP388000/EP421600/EP428500 PROBE CHANGER	C1	●											●			●					
EP-3746*/4217*/4286* RELAY BOARD	C2	●											●			●					●
EP396100/EP4256 SELECTOR	C3	●											●			●					●
EP396200 TX	C4	●											●			●					●
EP396400 PRE AMP	C5	●											●			●					●
EP38980*/EP41510* RX FOCUS	C6	●	●	●		●		●					●	●		●		●			●
EP389900/EP419400 MAIN AMP	C7	●	●					●	●							●			●		●
EP390000/EP394900/EP41550* DOP ASP	C8		●					●													●
EP380200/EP39010* CFP	C9		●																		●
EP39630* TX TRIGGER	C10	●	●	●		●							●			●					●
EP395000/EP415200 TIMING & ADDRESS	C11	●	●	●		●		●													●
EP383200 DOP DSP	D1	●	●					●													●
EP375300 CPU	D2	●																			
EP39070*/EP41530*/EP42680* B/W DIU	D3	●	●					●	●	●	●										●
EP390800 CINE MANAGER	D4	●						●	●	●	●										●
EP390900 B/W & VEL CINE	D5		●					●	●	●	●										●
EP391000 COLOR DIU	D6	●	●							●	●										●
EP390901 VAR CINE	D7		●							●	●										
EP395100/EP407200 VIDEO ITF	D8	●							●	●	●										
EP391600/EP391700/EP391800 AV ITF	D9	●																			
PEU-1700* Physiological Signal Unit	E1																				
EU-3037 Phased Array Sector Unit	E2					●									●				●		
DMS-1700 Data Management Sub-System	E3																				
CAS-1700 Computer Aided Sub-system	E4																				
EU-9068 Volume mode Unit	E5		●					●													●
EU-9074/EU-9074B New Volume mode Unit EP422300 VOL/SERVO/ABC	E6		●					●													●
EU-3038/EU-3038B CW Doppler Unit	E7																				
VIDEO CASSETTE RECORDER	F1																				
VIDEO PRINTER	F2																				
COLOR PRINTER	F3																				

Check List	Problem Code	US-6					US-7	US-8		US-9	US-10					
		Code	1	2	3	4	5	1	1	2	1	1	2	3	4	5
Operation	A1					●	●									
External Noise	A2															
Power Supply (PSU-S1700*-1/-2/-3, EU-6023)	A3	●			●	●										
Probe/Scanner	A4	●			●	●										
TV monitor (IPC-1231/IPC-1231V)	A5															
L-KEY-56*/L-KEY-71* OPERATION PANEL	B1					●	●									
EP388000/EP421600/EP428500 PROBE CHANGER	C1															
EP-3746*/4217*/4286* RELAY BOARD	C2					●										
EP396100/EP4256 SELECTOR	C3					●			●	●						
EP396200 TX	C4					●										
EP396400 PRE AMP	C5					●	●									
EP38980*/EP41510* RX FOCUS	C6	●	●	●	●	●	●		●	●	●					
EP389900/EP419400 MAIN AMP	C7					●	●									
EP390000/EP394900/EP41550* DOP ASP	C8					●										
EP380200/EP39010* CFP	C9					●										
EP39630* TX TRIGGER	C10	●	●	●	●	●	●		●	●	●	●	●	●	●	●
EP395000/EP415200 TIMING & ADDRESS	C11					●	●		●	●	●	●	●	●	●	●
EP383200 DOP DSP	D1								●	●						
EP375300 CPU	D2															
EP39070*/EP41530*/EP42680* B/W DIU	D3							●	●	●	●	●	●	●	●	●
EP390800 CINE MANAGER	D4															
EP390900 B/W & VEL CINE	D5															
EP391000 COLOR DIU	D6							●								
EP390901 VAR CINE	D7															
EP395100/EP407200 VIDEO ITF	D8							●								
EP391600/EP391700/EP391800 AV ITF	D9															
PEU-1700* Physiological Signal Unit	E1															
EU-3037 Phased Array Sector Unit	E2		●										●			
DMS-1700 Data Management Sub-System	E3															
CAS-1700 Computer Aided Sub-system	E4															
EU-9068 Volume mode Unit	E5				●											
EU-9074/EU-9074B New Volume mode Unit	E6				●											
EP422300 VOL/SERVO/ABC	E7															
EU-3038/EU-3038B CW Doppler Unit	E7															
VIDEO CASSETTE RECORDER	F1															
VIDEO PRINTER	F2															
COLOR PRINTER	F3															

MN2-0213 Rev. 2  
SECTION 8 TROUBLESHOOTING

Check List	Problem Code	CG-1	CG-2		CG-3		CG-4		CG-5		CG-6
Item	Code	1	1	2	1	2	1	1	2	1	
Operation	A1										
External Noise	A2										
Power Supply (PSU-S1700*-1/-2/-3, EU-6023)	A3										
Probe/Scanner	A4										
TV monitor (IPC-1231/IPC-1231V)	A5										
L-KEY-56*/L-KEY-71* OPERATION PANEL	B1							●			
EP388000/EP421600/EP428500 PROBE CHANGER	C1										
EP-3746*/4217*/4286* RELAY BOARD	C2										
EP396100/EP4256 SELECTOR	C3										
EP396200 TX	C4										
EP396400 PRE AMP	C5										
EP38980*/EP41510* RX FOCUS	C6										
EP389900/EP419400 MAIN AMP	C7										
EP390000/EP394900/EP41550* DOP ASP	C8										
EP380200/EP39010* CFP	C9										
EP39630* TX TRIGGER	C10										
EP395000/EP415200 TIMING & ADDRESS	C11										
EP383200 DOP DSP	D1				●	●			●		
EP375300 CPU	D2	●	●	●	●	●	●	●	●	●	●
EP39070*/EP41530*/EP42680* B/W DIU	D3				●	●					
EP390800 CINE MANAGER	D4					●					
EP390900 B/W & VEL CINE	D5					●					
EP391000 COLOR DIU	D6					●					
EP390901 VAR CINE	D7										
EP395100/EP407200 VIDEO ITF	D8	●	●	●	●	●			●		
EP391600/EP391700/EP391800 AV ITF	D9										
PEU-1700* Physiological Signal Unit	E1										
EU-3037 Phased Array Sector Unit	E2										
DMS-1700 Data Management Sub-System	E3										
CAS-1700 Computer Aided Sub-system	E4										
EU-9068 Volume mode Unit	E5										
EU-9074/EU-9074B New Volume mode Unit EP422300 VOL/SERVO/ABC	E6										
EU-3038/EU-3038B CW Doppler Unit	E7										
VIDEO CASSETTE RECORDER	F1										
VIDEO PRINTER	F2										
COLOR PRINTER	F3										

Check List	Problem Code	TM-1		TM-2		TM-3		FU-1		PM-1	PM-2		
		Item	Code	1	2	1	2	1	2	1	2	3	
Operation	A1							●		●			
External Noise	A2												
Power Supply (PSU-S1700*-1/-2/-3, EU-6023)	A3	●	●					●		●			
Probe/Scanner	A4												
TV monitor (IPC-1231/IPC-1231V)	A5	●	●		●		●						
L-KEY-56*/L-KEY-71* OPERATION PANEL	B1							●			●	●	●
EP388000/EP421600/EP428500 PROBE CHANGER	C1												
EP-3746*/4217*/4286* RELAY BOARD	C2												
EP396100/EP4256 SELECTOR	C3												
EP396200 TX	C4												
EP396400 PRE AMP	C5												
EP38980*/EP41510* RX FOCUS	C6												
EP389900/EP419400 MAIN AMP	C7												
EP390000/EP394900/EP41550* DOP ASP	C8												
EP380200/EP39010* CFP	C9												
EP39630* TX TRIGGER	C10												
EP395000/EP415200 TIMING & ADDRESS	C11												
EP383200 DOP DSP	D1							●			●	●	●
EP375300 CPU	D2			●	●			●	●		●	●	●
EP39070*/EP41530*/EP42680* B/W DIU	D3							●					
EP390800 CINE MANAGER	D4							●					
EP390900 B/W & VEL CINE	D5												
EP391000 COLOR DIU	D6							●					
EP390901 VAR CINE	D7												
EP395100/EP407200 VIDEO ITF	D8	●	●	●	●	●	●	●					
EP391600/EP391700/EP391800 AV ITF	D9	●	●	●	●	●	●						●
PEU-1700* Physiological Signal Unit	E1												
EU-3037 Phased Array Sector Unit	E2												
DMS-1700 Data Management Sub-System	E3							●					
CAS-1700 Computer Aided Sub-system	E4							●					
EU-9068 Volume mode Unit	E5												
EU-9074/EU-9074B New Volume mode Unit	E6												
EP422300 VOL/SERVO/ABC													
EU-3038/EU-3038B CW Doppler Unit	E7												
VIDEO CASSETTE RECORDER	F1												
VIDEO PRINTER	F2												
COLOR PRINTER	F3												

MN2-0213 Rev. 2  
SECTION 8 TROUBLESHOOTING

Check List	Problem Code	PM-3		PM-4				PH-1				PH-2		PH-3		
		Item	Code	1	2	1	2	3	4	1	2	3	4	1	2	1
Operation	A1								●	●		●			●	●
External Noise	A2															
Power Supply (PSU-S1700*-1/-2/-3, EU-6023)	A3															
Probe/Scanner	A4															
TV monitor (IPC-1231/IPC-1231V)	A5															
L-KEY-56*/L-KEY-71* OPERATION PANEL	B1								●			●				
EP388000/EP421600/EP428500 PROBE CHANGER	C1															
EP-3746*/4217*/4286* RELAY BOARD	C2															
EP396100/EP4256 SELECTOR	C3															
EP396200 TX	C4															
EP396400 PRE AMP	C5															
EP38980*/EP41510* RX FOCUS	C6															
EP389900/EP419400 MAIN AMP	C7															
EP390000/EP394900/EP41550* DOP ASP	C8															
EP380200/EP39010* CFP	C9															
EP39630* TX TRIGGER	C10															
EP395000/EP415200 TIMING & ADDRESS	C11											●				
EP383200 DOP DSP	D1															
EP375300 CPU	D2															
EP39070*/EP41530*/EP42680* B/W DIU	D3										●				●	●
EP390800 CINE MANAGER	D4															
EP390900 B/W & VEL CINE	D5															
EP391000 COLOR DIU	D6															
EP390901 VAR CINE	D7															
EP395100/EP407200 VIDEO ITF	D8	●	●								●				●	●
EP391600/EP391700/EP391800 AV ITF	D9	●	●													
PEU-1700* Physiological Signal Unit	E1								●	●	●	●			●	●
EU-3037 Phased Array Sector Unit	E2															
DMS-1700 Data Management Sub-System	E3															
CAS-1700 Computer Aided Sub-system	E4															
EU-9068 Volume mode Unit	E5															
EU-9074/EU-9074B New Volume mode Unit	E6															
EP422300 VOL/SERVO/ABC																
EU-3038/EU-3038B CW Doppler Unit	E7															
VIDEO CASSETTE RECORDER	F1															
VIDEO PRINTER	F2															
COLOR PRINTER	F3															



Check List	Problem Code	DP-1				DP-2				DP-3				DP-4				
		Item	Code	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
Operation	A1	●	●	●	●										●	●	●	●
External Noise	A2									●	●	●	●					
Power Supply (PSU-S1700*-1/-2/-3, EU-6023)	A3									●			●	●				
Probe/Scanner	A4	●		●	●	●	●	●			●	●			●			●
TV monitor (IPC-1231/IPC-1231V)	A5																	
L-KEY-56*/L-KEY-71* OPERATION PANEL	B1	●			●			●							●	●	●	●
EP388000/EP421600/EP428500 PROBE CHANGER	C1																	
EP-3746*/4217*/4286* RELAY BOARD	C2			●				●							●	●	●	●
EP396100/EP4256 SELECTOR	C3														●	●		●
EP396200 TX	C4														●	●		●
EP396400 PRE AMP	C5														●	●		●
EP38980*/EP41510* RX FOCUS	C6	●			●	●	●								●	●		●
EP389900/EP419400 MAIN AMP	C7																	
EP390000/EP394900/EP41550* DOP ASP	C8	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
EP380200/EP39010* CFP	C9																	
EP39630* TX TRIGGER	C10	●			●	●	●		●	●		●	●		●	●		●
EP395000/EP415200 TIMING & ADDRESS	C11	●	●		●	●	●		●	●		●	●		●	●		●
EP383200 DOP DSP	D1	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
EP375300 CPU	D2																	
EP39070*/EP41530*/EP42680* B/W DIU	D3	●	●		●	●	●		●									
EP390800 CINE MANAGER	D4																	
EP390900 B/W & VEL CINE	D5					●	●		●									
EP391000 COLOR DIU	D6																	
EP390901 VAR CINE	D7																	
EP395100/EP407200 VIDEO ITF	D8																	
EP391600/EP391700/EP391800 AV ITF	D9																	
PEU-1700* Physiological Signal Unit	E1																	
EU-3037 Phased Array Sector Unit	E2																	
DMS-1700 Data Management Sub-System	E3																	
CAS-1700 Computer Aided Sub-system	E4																	
EU-9068 Volume mode Unit	E5																	
EU-9074/EU-9074B New Volume mode Unit	E6																	
EP422300 VOL/SERVO/ABC																		
EU-3038/EU-3038B CW Doppler Unit	E7		●	●	●			●	●	●					●	●	●	
VIDEO CASSETTE RECORDER	F1																	
VIDEO PRINTER	F2																	
COLOR PRINTER	F3																	

MN2-0213 Rev. 2  
SECTION 8 TROUBLESHOOTING

Check List	Problem Code	Code	DP-5			DP-6			CD-1			CD-2			CD-3			CD-4	CD-5
			1	1	2	1	2	3	1	2	3	1	2	3	1	1			
Operation	A1					●	●	●	●						●	●			
External Noise	A2								●	●	●								
Power Supply (PSU-S1700*-1/-2/-3, EU-6023)	A3																		
Probe/Scanner	A4							●	●		●				●				
TV monitor (IPC-1231/IPC-1231V)	A5	●															●		
L-KEY-56*/L-KEY-71* OPERATION PANEL	B1					●									●				
EP388000/EP421600/EP428500 PROBE CHANGER	C1																		
EP-3746*/4217*/4286* RELAY BOARD	C2								●		●								
EP396100/EP4256 SELECTOR	C3								●										
EP396200 TX	C4								●										
EP396400 PRE AMP	C5								●										
EP38980*/EP41510* RX FOCUS	C6					●			●										
EP389900/EP419400 MAIN AMP	C7																		
EP390000/EP394900/EP41550* DOP ASP	C8	●				●	●	●	●	●	●	●	●						
EP380200/EP39010* CFP	C9					●	●	●	●	●	●	●							
EP39630* TX TRIGGER	C10					●	●	●	●	●	●		●	●					
EP395000/EP415200 TIMING & ADDRESS	C11					●	●	●	●	●	●	●		●			●		
EP383200 DOP DSP	D1	●				●	●	●	●	●	●	●		●			●		
EP375300 CPU	D2					●			●			●							
EP39070*/EP41530*/EP42680* B/W DIU	D3								●			●					●		
EP390800 CINE MANAGER	D4					●			●			●					●		
EP390900 B/W & VEL CINE	D5								●			●					●		
EP391000 COLOR DIU	D6					●	●		●	●		●	●				●		
EP390901 VAR CINE	D7								●			●					●		
EP395100/EP407200 VIDEO ITF	D8					●			●			●			●		●		
EP391600/EP391700/EP391800 AV ITF	D9	●															●		
PEU-1700* Physiological Signal Unit	E1																		
EU-3037 Phased Array Sector Unit	E2																		
DMS-1700 Data Management Sub-System	E3																		
CAS-1700 Computer Aided Sub-system	E4																		
EU-9068 Volume mode Unit	E5																		
EU-9074/EU-9074B New Volume mode Unit	E6																		
EP422300 VOL/SERVO/ABC																			
EU-3038/EU-3038B CW Doppler Unit	E7	●																	
VIDEO CASSETTE RECORDER	F1														●				
VIDEO PRINTER	F2																		
COLOR PRINTER	F3																		

8-5-4 PCB Check Procedure

This "PCB check Procedure" is divided by "Problem Code".

Before use this procedure, find "Problem Code" corresponding to the symptom using "Problem Code Table" and "MAP".

This procedure shows the judgment for the trouble which appears independently. So, there is no confirmation of control signal which effects to some unit or PCBs.

Followings show the meaning of each indication.

- Proceed to (3). : There is a description to confirm in other item (3).  
Please refer it and check a relative item.
- Refer to "C8". : If there is other confirmation, please jump to the Problem code "C8"  
which is shown at head of phrase.
- Replace this PCB. : After some confirmation, it has been judged that the corresponded  
PCB is defective.
- Return to "MAP". : After some confirmation, if it cannot be judged that this PCB  
defective, please return to "MAP" and find "Problem Code" again.

Other cause can be thought.

- : It has been judged that this PCB or Unit is defective.  
However, other cause can be thought. So you should check the other  
symptoms occur or not.

## A1 Operation

It is important that you understand the operation and specification.

At first, you should be check that the symptom is caused by the operation or its specification, according to "SECTION 10 PERFORMANCE CHECK".

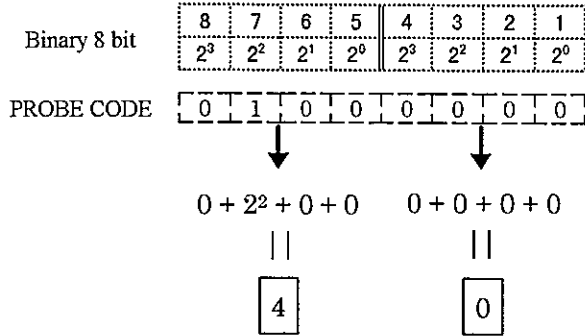
However, if you cannot judge, you should inquire of Technical Support.

●CAUTION● Do not change or readjust the switches and variable resistors which are located inside of the equipment thoughtlessly. It may make the other big problem.

○REFERENCE○ The operation and specification may be changed by software or its level. Please refer "SECTION 12 HISTORY OF IMPROVEMENT" and "Technical Bulletin".

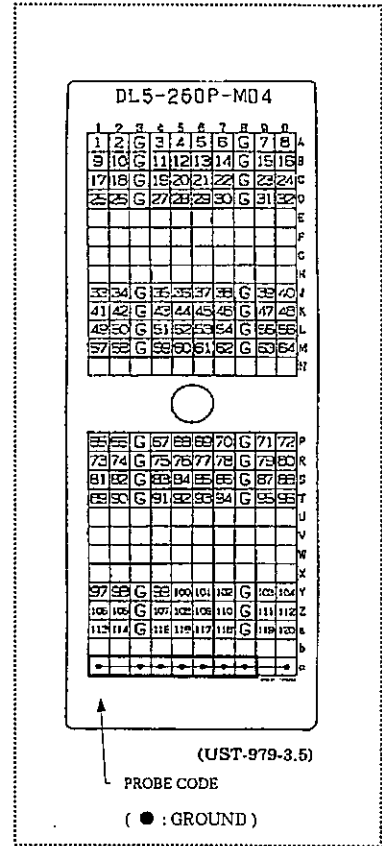
Fig. 8-14 Location of probe code

OPEN : 1      GROUND : 0



Reference

Model	MSB	LSB	CODE
UST-979-3.5	0 1 0 0	0 0 0 0	40
	$0+2^2+0+0$	$0+0+0+0$	
UST-990-5	0 1 0 1	0 1 1 1	57
	$0+2^2+0+2^0$	$0+2^2+2^1+2^0$	
UST-5266-3.5	1 0 0 1	0 1 1 1	97
	$2^3+0+0+2^0$	$0+2^2+2^1+2^0$	
UST-5524-7.5	0 0 0 1	0 0 0 0	10
	$0+0+0+2^0$	$0+0+0+0$	



## A5 Monitor

If the faulty symptom is peculiar to that monitor and if it is impossible to replace the monitor, repair it according to "SECTION 7 SCHEMATICS".

Check the following items

- Check whether normally images are printed out by Color printer or not.
- Check the contrast and brightness potentiometers for proper setting.
- Check voltage for Monitor according to "A3".
- When you connect a external monitor with Y/C output or Composite output, check whether normally image is displayed or not.

○REFERENCE○ An impression of an ultrasound image depends largely on setting of contrast and brightness. Users complaints about insufficient sensitiveness or resolving power may be sometimes solved by adjustments of contrast and brightness potentiometers.  
Remember the fact that excessively high setting of those potentiometers would cause characters and graphics to flicker.

## B1 L-KEY-56\*/L-KEY-71\* OPERATION PANEL

See the Section 7 schematics.

Phenomeon which may occur by a failure of this unit.

- Only one switch does not act normally.  
Check the switch itself for normal function.
- Only an LED (light emitting diode) does not act normally.  
Check the LED itself for normal function.
- Two or more switches or LEDs do not act normally. Refer to (1).
- STC (Sensitivity time control) potentiometer does not act normally. Refer to (2).
- A Gain potentiometer dose not act normally.
- The trackball or rotary encorder dose not act normally. Refer to (3).
- Unable to read out probe code normally. Refer to "C2".

Related items

- (1) Check the following signals at connector J303 on PANEL I/F of L-KEY-56/71.  
PNL EN/  
PNL READ  
PNL DATA 0/~7/  
PNL ADRS 0/~6/
- (2) Check the following signals at connector J301 on PANEL I/F of L-KEY-56/71.  
STC 1~8
- (3) Check the following signals at connector J303 on PANEL I/F of L-KEY-56/71.  
TBX+, TBX-, TBY+, TBY-, ENC+, ENC-

**C1 EP388000 / EP421600 / EP428500 PROBE CHANGER**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6.

Phenomenon which may occur by a failure of this PCB.

1. Echo Gap(s)

Switch the probe connector of a probe affected to another one and confirm whether echo gap(s) exits in the same-place.

If phenomenon doesn't exist, check connector pin of both sides of the main body and probe for any breaks, bends, rust, corrosion and so on. Check if the probe is functioning normally according to Performance Check in Section 10.

Related items C2 C3

2. Probe not accepted when it is connected to the equipment

Check probe code according to the test mode function in SECTION 8.

Related items C2 D3



**C2 EP-3746\* / EP412700 / EP428600 RELAY BOARD**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Unable to readout probe code normally

In case of failing to obtain a normal value after checking the probe code according to the test mode in Section 8, try replacing this PCB. In this case, the phenomenon may also be caused by a failure of in operation panel (B1).

2. Probe select switch is not functional.

- If EP-3746\* or EP421700 is installed.

Check Signal: PRB1\_2

- If EP428600 is installed.

Check Signal: PRB\_2, PRB\_3

Related items B1 C6

3. Perform echo gaps at the same spot with which connectors of PROBE1 & 2 (& 3) (two lines with equal interval)

4. Perform echo gap (single) when it is connected to either connector

Related items A4 C1

**C3 EP396100 / EP425600 SELECTOR**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Overlapping of ultrasound image against scanning direction of probe
2. Single wide echo gap exists (in this case echo gap of four units of transducer)
3. No display of reception echo (in this case only noise in US area)

Check power supply voltage  $V_{nn}$  and  $V_{pp}$

Related item A3 Power supply

4. Echo gaps with equal intervals

Try replacing this PCB. Also refer to the following items.

Related items C4 C5 C6 C10

**C4 EP396200 Tx**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Displaying only noise on the ultrasound image

Check voltage : HVA (after check panel setting)

Related item A3

2. Two or three lines of echo gaps with equal interval on the ultrasound image

Related items C3 C6 C10

**C5 EP396400**

**PRE AMP**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Two or three lines of echo gap with equal interval

Related items C3 C4 C6 C10

2. Poor sensitivity of the ultrasound image.

Check signal : PRESTC

Related items A3 A4 C6 C7 C10 C11

**C6 EP389800 / EP389801 / EP415100 / EP415101 RX FOCUS 1 / 2  
EP415102 / EP415103**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Two or three lines of echo gap with equal interval

Related items C3 C4 C5 C10

2. Existing equal interval display of depth direction on the ultrasound image or a failure of sensitivity

(in case of a failure of receiving dynamic focus is considered the cause)

At this time, if the Doppler spectrum pattern is not displayed or is displayed abnormally, there is a high possibility it is the RX FOCUS 2 (01). If the Doppler spectrum pattern is displayed normally, there is a high possibility it is the RX FOCUS 1 (00).

Related items C7 C10

The reception signal is output from two PCBs alternately. The place in control of the ultrasound image, on the right side of the PCB looking from behind the equipment, is an odd numbered stage with the shortest distance stage for the ultrasound image set as "1". On the left side the PCB is an even numbered stage. See Minimum Start-up in SECTION 8.

3. Two or three lines of echo gaps.

Related items C3 C4 C5 C10

4. Poor resolution of ultrasound image.

Check signals: END ADRS 0-4 FOCUS ADRS 0-6

Related item C10

5. Geometric pattern is displayed on each reception focus stage of the ultrasound image.

Check signals: END ADRS 0-4 FOCUS ADRS 0-6

Related item C10

6. Sensitivity drop is felt on B, M image (in case the probe is not considered to be defected).

Check signal : fo CONT

Related items A3 C7 C10

**C7 EP389900 / EP419400 MAIN AMP**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Poor sensitivity of B and M mode images and insufficient on gain setting.

(1) No abnormality on Doppler or color images

Check signal : RFOUT

Related item C6

(2) Abnormality on all of the modes of the ultrasound images

Check acoustic power setting on panel.

Related items A3 C4 C5 C6

2. Impediment on individual image adjustment of ultrasound images in panel operation

Check signals: B GAIN B AGC M GAIN M AGC  
STC 0-8 GAIN CONT STC CONT

Related item B1

3. Faults on sensitivity and resolution

(1) Check signal: Fo CONT

Related item C5

(2) Check signal: PRESTC

Related items C10 C11 C5

**C8 EP390000 / EP394900 / EP415500/ EP415501 DOP ASP**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Fault image in Doppler mode

Check signal : ADC DATA

Related items C6 D1 D3

2. Fault image in Doppler and flow modes

Check signals : RXDOPA, RXDOPB, RXDOPA\_F, RXDOPB\_F, RXDOPA\_P, RXDOPB\_P and fo CONT.

Related items C6 C7 D1

**C9 EP380200 / EP390100 / EP390101 CFP**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Impediment of color flow display on monitor

(1) Check if color bar is displayed normally on monitor.

Related item 1-(2) D8

(2) Display color test pattern (see test mode of this section) to check if it is normal.

Related items 1-(3) D3

(3) Check signals : COS SIN

Related items C8 D1



**C10 EP396300 / EP396301 / EP396302 / EP396303 TX TRIGGER**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Two or three lines of echo gaps with equal interval

Related items C3 C4 C5 C6

2. Impediment of images on each receiving dynamic focus stage

- (1) Check signal : ECHO CHANGE

Related items (2) C11

- (2) Check signals : RX ECH0 RX ECH0/ RX ECH1 RX ECH1/

Related item C6

3. Sensitivity gap between near field and far field of ultrasound image.

In case of abnormality is found on correcting of near field and far field sensitivity gap (PRESTC, Fo CONT related)

4. No display of ultrasound image (on all modes)

In case of power supply is normal

Check signal : USGT

Related item C10

5. Impediment of each image adjustment of ultrasound image in panel operation

Check signals: PCOR0-3 CONT0-3 RELIEF0-3 FTC ON/

**C11 EP395000 / EP415200 TIMING & ADDRESS**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

Transmission related impediment on each mode

1. Non transmitting in one of the B, M, DOPPLER, FLOW modes or non transmitting on either DOPPLER or FLOW mode
2. Non transmitting in any of the modes
3. A sensitivity gap, gain gap or a failure of display on individual receiving dynamic focus stage.
4. Physiological signal is not displayed or impediment on displaying of ECG SYNC.

**D1 EP383200 DOP DSP**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. FLOW mode display is normal and only DOPPLER mode does not display or is abnormal.
2. Both FLOW and DOPPLER modes do not display or are abnormal.
3. No DOPPLER sound comes from the speakers or seems abnormal. (in case of volume setting level of speaker which is located on blind panel of monitor is set properly)
4. Operation panel is not functional or panel lamp has trouble turning on.
5. System of the equipment does not start or panel locks during its use (become unable to use).

(1) Check signal: ADC DATA  
Related item C8

(2) Check signal: FFT\_SPCID0-5  
Related item D3

(3) Check signals: DAC\_DATA, DAC\_SYNC, DAC\_SEL, DAC\_CLK  
Related item D9

(4) Check signals: PNL\_EN\_, PNL\_CPUA1-6, PNL\_CPUD0-7, PNL\_READ,  
ENCO+, ENCO-, TBX+, TBY+, TBX-, TBY-  
Related item B1

**D2 EP375300 CPU**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. MPU does not operate
2. Abnormality on character and graphic

Check signals: CPU CVD 0-1 CPU GVD 0-3  
Related item D8

3. Impediments on result of different measurements

In case the measurement result is different from a formula, there is possibility that the PCB is broken. However, a software program error could also cause the problem, therefore consult with technical support before replacing the PCB.

4. Panel locks suddenly while it has been used.

Enforce Minimum Start up. (See Minimum Start up in this section)

5. System does not start even when the power supply is activated.

Enforce Minimum Start up. (See Minimum Start up in this section)

**D3 EP390700 / EP390701 / EP415300 / EP415301 / EP426800 / EP426801**

**B/W DIU**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Ultrasound image is abnormal. Test pattern (see test mode in this section) is displayed but B/W image is not displayed or has abnormality. (while gray scale bar, character and graphic are displayed normally)
2. Images of VEL & VAR (velocity and variance) are displayed abnormally or not displayed. Color information of test pattern is displayed normally. (while Doppler mode, color bar, character and graphic are displayed normally)
3. Ultrasound image is not displayed in one of the B, M, Flow and Doppler modes. (in case the image format of ultrasound image is displayed)
4. Ultrasound image is abnormal and even the test pattern is displayed abnormal.
5. Differs from the image format of the connected probe. (in case of in P CODE of test mode, probe code is normal)
6. Ultrasound image is abnormal. (prior to image freezing)
7. ECG signal on M mode image is displayed abnormally or not displayed.
8. System does not start up when power switch is turned on.
9. Panel is locked while it has been used.
10. Displayed image is not synchronized. (both vertical and horizontal directions)

- |                    |                        |
|--------------------|------------------------|
| (1) Check signal:  | US VIDEO               |
| Related item       | C6                     |
| (2) Check signals: | GEU PROCOD, GEU SCNMOD |
| Related item       | C6                     |
| (3) Check signals: | GEU BOF/, GEU EOF/     |
| Related items      | A4 C2 C3               |

**D4 EP390800**

**CINE MANAGER**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. There are operation problem in search and store functions.
2. Displayed ultrasound image is abnormal. (especially after freezing)
3. Displayed number of heart rate and frame rate are shown difficulty.
4. System does not start up when power switch is turned on.
5. Sudden hang up occurs during its use.

D5

EP390900

B/W & VEL CINE

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. There is a failure of B/W (black and white) image information.
2. There is a failure of VEL (velocity) information.
3. There is a failure on ultrasound image display of Plane mode (B, B+FLOW)(before and after freezing)
4. There is a failure on ultrasound image display for the Sweep mode (M, M+Flow, Doppler)(after freeze)
5. US image area is displayed in white (Sweep mode is in green) and ultrasound image is not displayed (in case of no abnormality in other functions)

**D6 EP391000 COLOR DIU**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. There is abnormality on display of VEL & VAR (velocity & variance) information (while color bar is displayed normally.)
2. There is abnormality only on VEL & VAR information in M+FLOW(before freezing)
3. Test pattern (see test mode in this section) is displayed and only display of VEL & VAR information is abnormal. (before freezing)
4. System does not start when the power switch is turned on.
5. Sudden hang up occur during its use.



D7

EP390901

VAR CINE

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. VAR (variance) image information is not displayed on Flow mode image or abnormal.

**D8 EP395100/EP407200 VIDEO ITF**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this PCB.

1. Nothing is displayed on the monitor. (At the same time, nothing is printed on the printed out data which is output by color printer.)
2. On the video recording at the COMPOSITE signal or Y/C signal, recording is not done and cannot replay recorded data by connecting external monitor with VCR.
3. On replaying video by COMPOSITE signal or Y/C signal, replay images do not appear on the monitor of ultrasound diagnostic equipment.
4. System does not start up when the power switch is turned on.
5. Sudden hang up occurs during its use.

(1) Check signals: Y\_OUT C\_OUT

(2) Check signals: TV\_R TV\_G TV\_B TV\_SYNC

(3) Check signals: COMPST\_OUT

Related items A5 D9 F1

**D9 AV ITF**

**AUDIO I/O : EP391600**

**VIDEO I/O : EP391700**

**RGB OUT : EP391800**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

1. There is a failure of video output signal (R.G.B., Y/C or COMPOSITE)

Check signals: Y out, C out, TV-R, TV-G, TV-B, TV SYNC, COMPOSITE out

Related items A5 D8

2. No Doppler sound comes from the speakers or seems abnormal (in case of volume setting level of speaker which is located on blind panel of monitor is set properly.)

Check signals: DAC\_DATA, DAC\_SYNC, DAC\_SEL, DAC\_CLK

Relate item D1

In this case, the above phenomena may also be caused by a break of wire(s) and/or poor contact of each connector.

**E1 PEU-1700\* PHYSIOLOGICAL SIGNAL DISPLAY UNIT**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this unit.

1. ECG & PCG signals are not displayed or displayed abnormally.
2. Time marker is not displayed.
3. Any physiological signal is not displayed in each B mode and M mode.
4. Heart rate shows abnormal values.
5. SENSITIVITY & POSITION are not functional.
6. Panel locks suddenly during use.
7. System does not start up when the power switch is turned on.

E2

EU-3037

**PHASED ARRAY SECTOR UNIT**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6 and "Waveform diagram for troubleshooting" in this section.

Phenomenon which may occur by a failure of this unit.

1. There are a failure of sensitivity defect and display abnormalities on the individual stage of receiving dynamic focus.
2. Angle gain is not functional.
3. The ultrasound image is abnormal. (Delay time is not set correctly.)
4. Displayed ultrasound image is abnormal. (Does not become a sector probe format.)

**E3            DMS-1700                            DATA MANAGEMENT SUBSYSTEM**

The checking performance should be done by referring to the DMU-200 Service Manual..

**E4**

**CAS-1700**

**COMPUTER AIDED SUBSYSTEM**

The checking performance should be done by referring to the DMU-100 Service Manual..

**E5 EU-9068 VOLUME MODE UNIT**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6.

Phenomenon which may occur by a failure of this unit.

1. B mode display is normal and only VOLUME mode does not display or is abnormal.

Check signals: VOL\_IMAGD [0:5]

2. ASU-1000B-3.5 does not work, or transducer in the probe will become stop at the corner.

Related items A4



**E6      EU-9074                      NEW VOLUME MODE UNIT  
(EP422300 VOL/SERVO/ABC)**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT/OUTPUT SIGNAL LIST" in SECTION 4.

Phenomenon which may occur by a failure of this PCB.

1. The ultrasound image on volume mode image is not displayed, or an abnormal image is displayed.

Does the convex sector scanner work normally?

Yes → Replace this PCB.

No → Proceed "2"

2. ASU-1000C-3.5 does not work, a scan speed of the transducer in a probe is abnormally, or the transducer in a probe will become stop at the corner.

Related items    A4

3. ABC (Auto B-gain Control) function does not work or it works abnormally.

The equipment works normally when ABC is OFF. And it does not work normally when ABC is on.

In this case, replace this PCB.

Related item      C7

**E7 EU-3038 / EU-3038B CW DOPPLER UNIT**

The following checking performance should be done by referring to the both "PCB Block Diagram" and "INPUT / OUTPUT SIGNAL LIST" in SECTION 6.

Phenomenon which may occur by a failure of this unit.

1. PW Doppler mode display is normal and only CW mode does not display or is abnormal.

Check signals: CW+ CW- INDA INDB

Related items A4 D1 C8

**F1 VIDEO CASSETTE RECORDER**

Refer to the Instruction Manual for the recorder attached.

- Check for proper cable connection to SSD-1700.
- Make sure that the output connector and input connector are not being mixed up with each other.
- Check to see which is faulty printer or SSD-1700 by using another known video signal.

Check signals: RGB signal, Y/C signal, COMPOSITE signal

Related items D8 D9

**F2 VIDEO PRINTER (SSZ-305(E) /SSZ-307(E))**

Refer to the Instruction Manual for the printer attached.

- If nothing is printed on the paper - Check video signal at the BNC joint plug connected. Also, check that the BNC plug is connected securely.
- If printing is not made even when the camera switch on the panel is pressed, check output from the plug for remote control.
- If vertical white lines appear on the paper (SSZ-305(E) or SSZ-307(E)), check the head according to their instruction Manual.
- If white lines still remain even after cleaning, replace the thermal head

Related items D8 D9

**F3 COLOR PRINTER**

Refer to the Instruction Manual for the printer attached.

- Check for proper cable connection to SSD-1700.
- Make sure that the output connector and input connector are not being mixed up with each other.
- Also, check to see which is faulty VCR or SSD-1700 by using another known video signal.

Check signals: RGB signal, Y/C signal, COMPOSITE signal

Related items D8 D9

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## 8-6 Waveform for Troubleshooting

It describes the waveforms from next page for the reference to judgment of defective PCB on the troubleshooting.

However, the specified waveforms have been selected to be signified to show with the consideration of specification of measuring equipment and characteristic of signals.

The waveforms are taken in the following condition, if it is not specified in each waveform.

● CAUTION ● Since the connector pin numbers are dependent on each PCBs, the pin numbers are shown for each signal should be changed to those suited to each PCB by making reference with "Section 6 PCB BLOCK DIAGRAM". The specified waveforms have been recorded with the Logic Analyzer and its printer. Because, the same waveform cannot be always taken with your measuring equipment, please pay attention.

[SETTING]

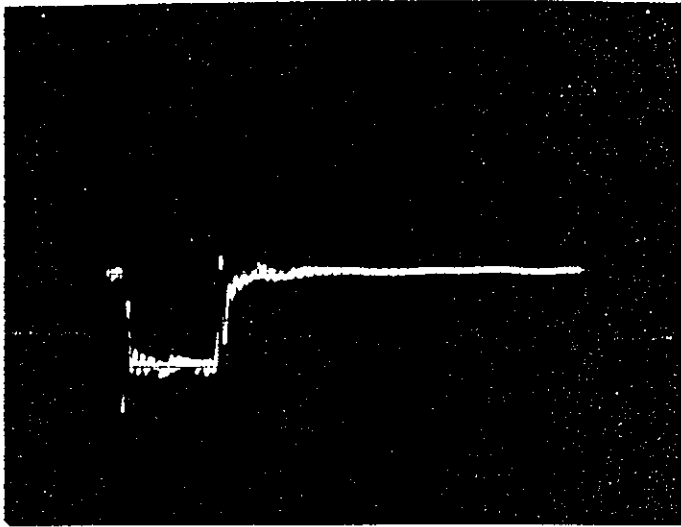
PROBE : UST-979-3.5

PRESET : Initial setting in the application "ABODOM"

EP396200 TX

MODE : B  
Frequency (TX) : 2.5 MHz

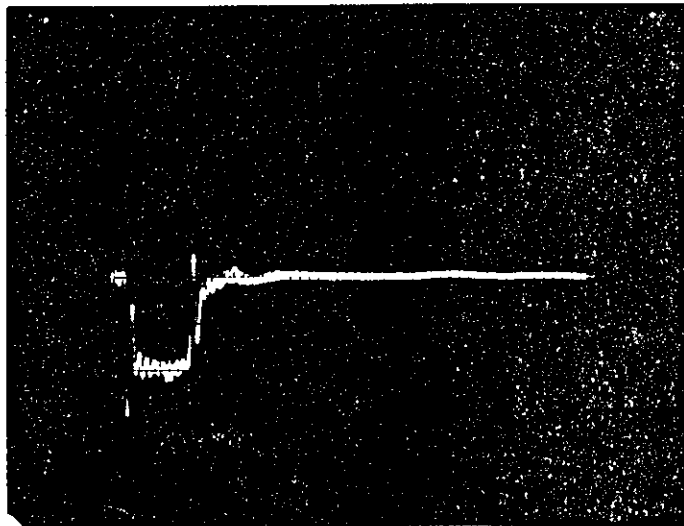
50V / DIV  
200 ns / DIV



J2B12 TXRX25

MODE : B  
Frequency (TX) : 3.5 MHz

50V / DIV  
200 ns / DIV



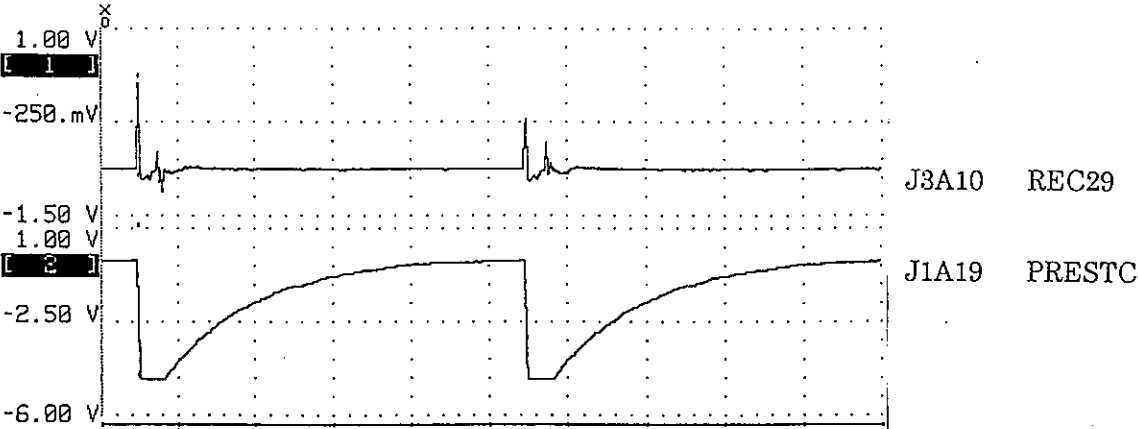
J2B12 TXRX25



EP396400 PRE AMP

MODE	: B
RANGE	: 17 cm
FOCUS	: 2.5 MHz

50 $\mu$ s / DIV
------------------

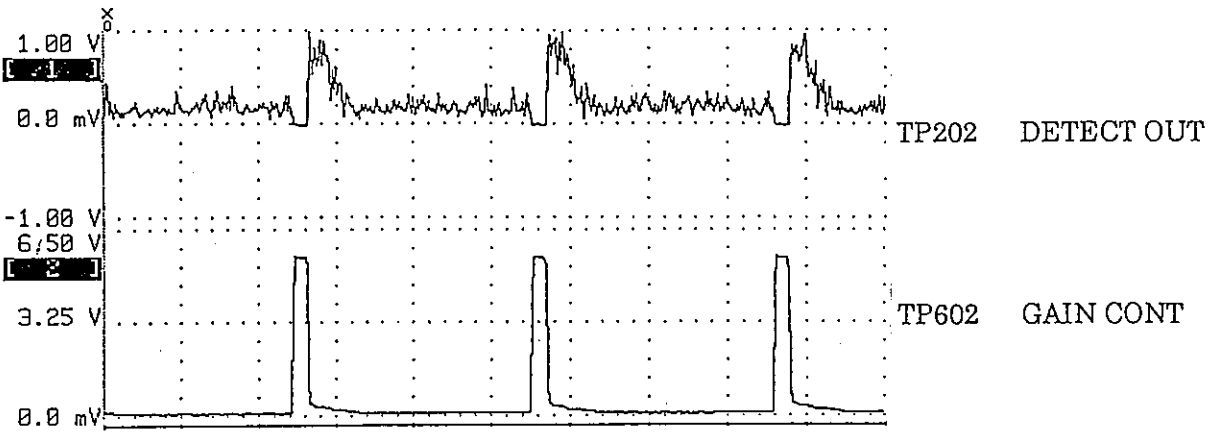


SECTION 8 TROUBLESHOOTING

EP389900 MAIN AMP

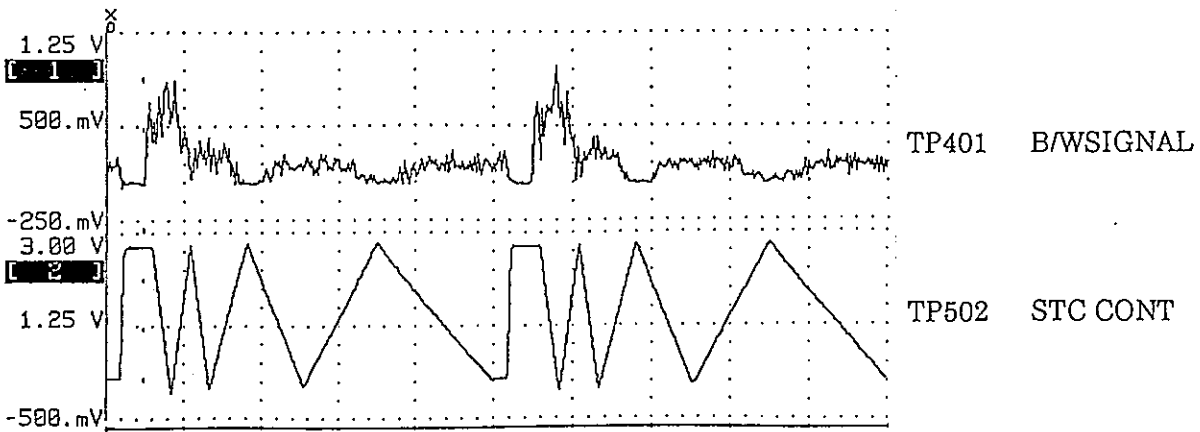
MODE	: B
RANGE	: 17 cm
GAIN	: 90
CONTRAST	: 4
STC	: CENTER

50  $\mu$ s / DIV



MODE	: B	STC	
RANGE	: 17 cm	minimum	: 0, 2, 5, 12 cm
GAIN	: 90	maximum	: 1, 3, 8, 18 cm
CONTRAST	: 4		

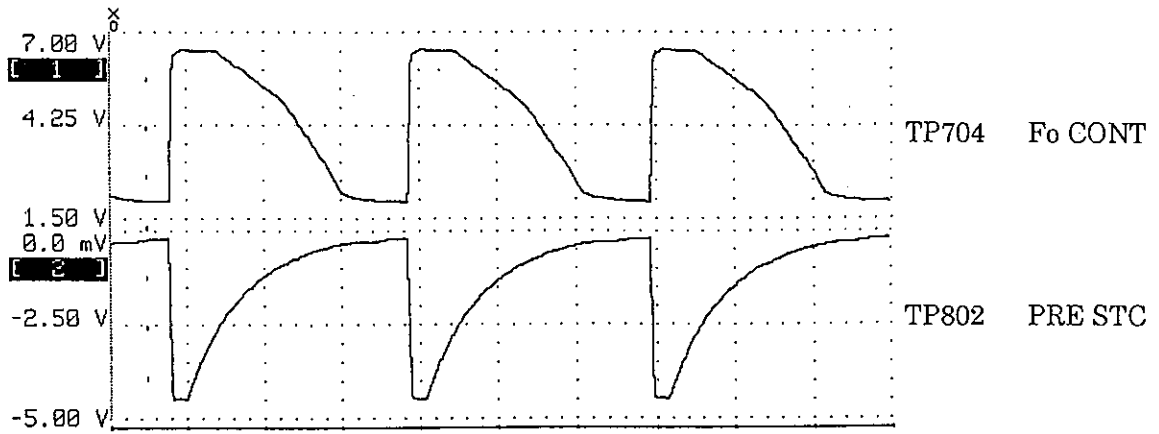
50  $\mu$ s / DIV



EP-389900 MAIN AMP

MODE : B  
Frequency (Tx) : 3.5 MHz

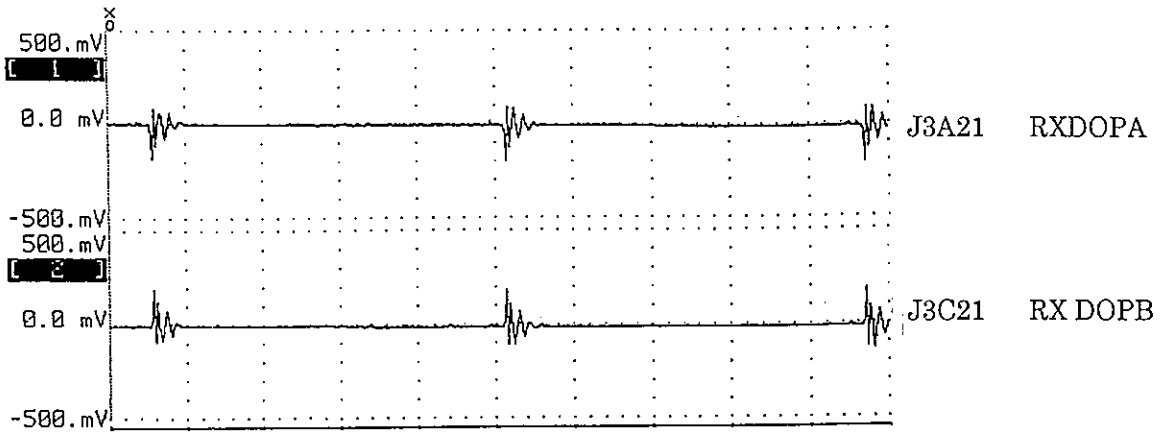
100  $\mu$ s / DIV



EP390000 / EP394900 DOP ASP

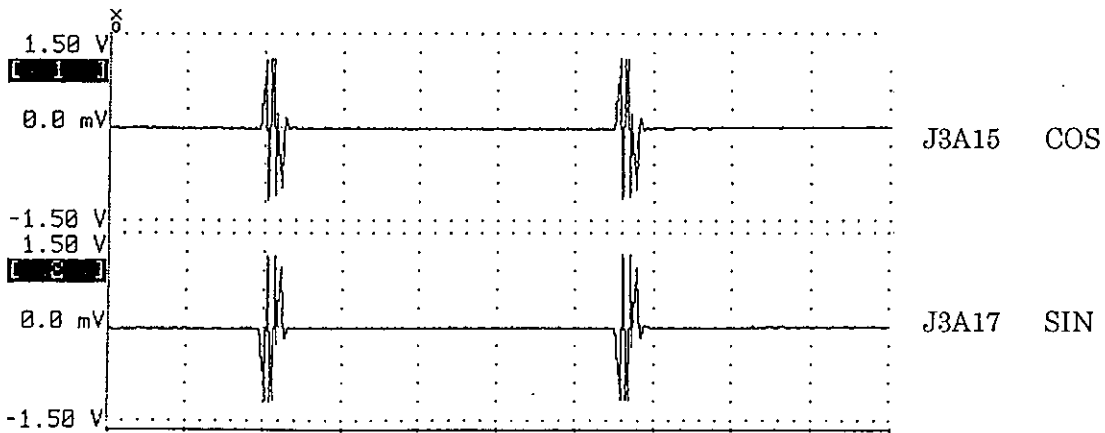
MODE : PW  
Acoustic Power : 78 %

100  $\mu$ s / DIV



MODE : PW  
Acoustic Power : 78 %

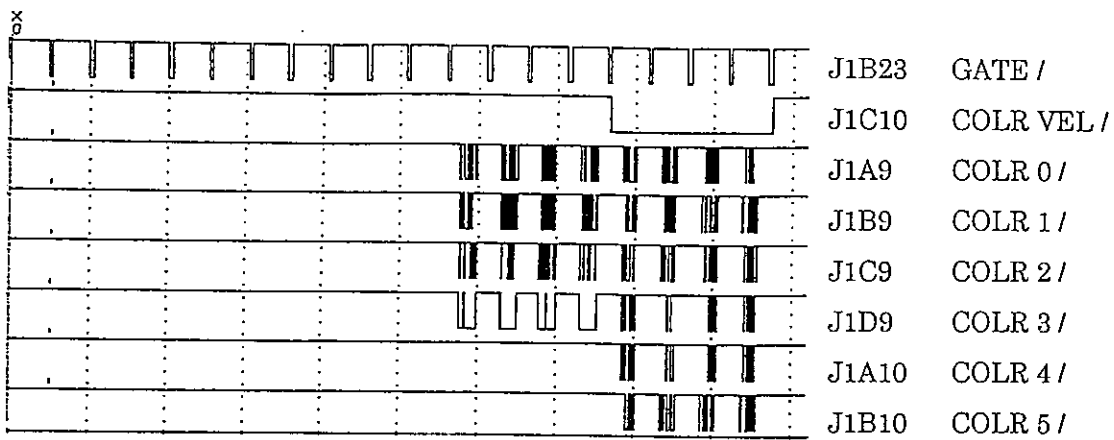
100  $\mu$ s / DIV



EP380200 / EP390100 CFP

MODE	: PW
RANGE	: 17 cm
FRAME RATE	: 8 Hz

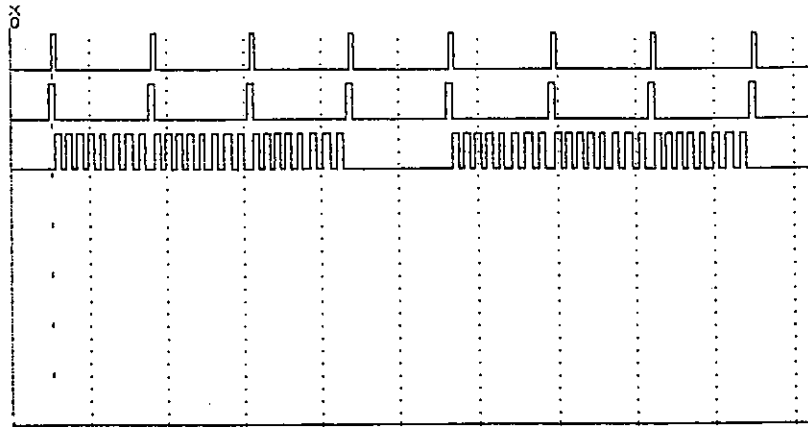
500 $\mu$ s / DIV
-------------------



EP39630 \* TX TRIGGER

MODE	: B PW
RANGE	: 17 cm
FRAME RATE	: 19 Hz

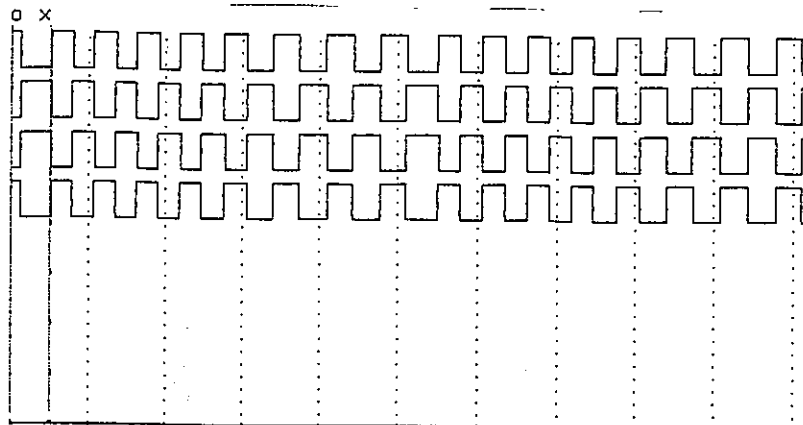
200  $\mu$ s / DIV



TP1 USGT  
TP3 US BLK  
TP4 ECHOCHG

MODE	: B
RANGE	: 17 cm
FRAME RATE	: 13 Hz

50  $\mu$ s / DIV

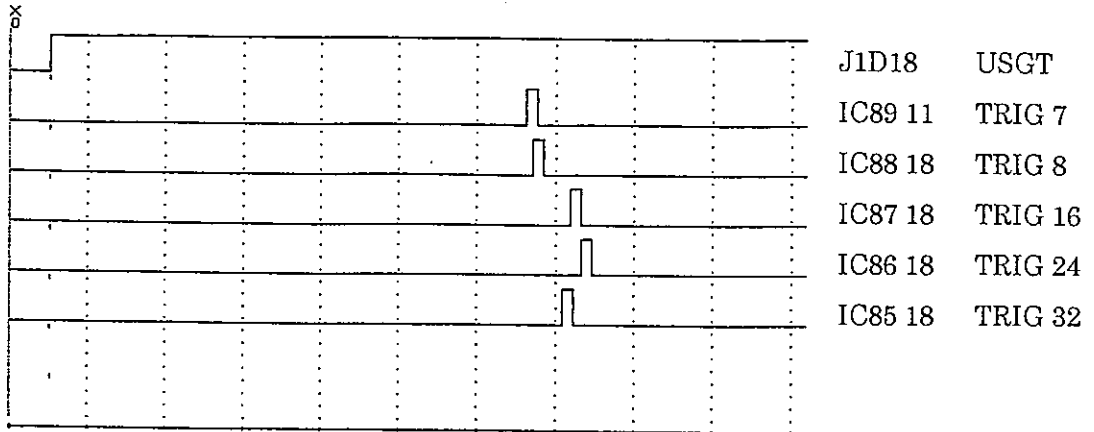


J3A10 RXECH 0  
J3C10 RXECH 0 /  
J3A9 RXECH 1  
J3C9 RXECH 1 /

EP39630\* TX TRIGGER

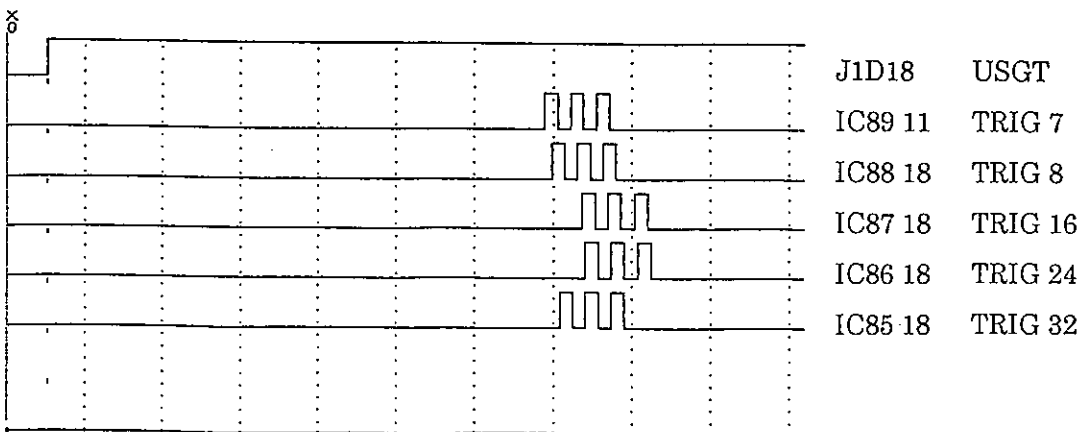
MODE : B  
FOCUS : 8

1.0  $\mu$ s / DIV



MODE : B Flow  
RANGE : 21 cm

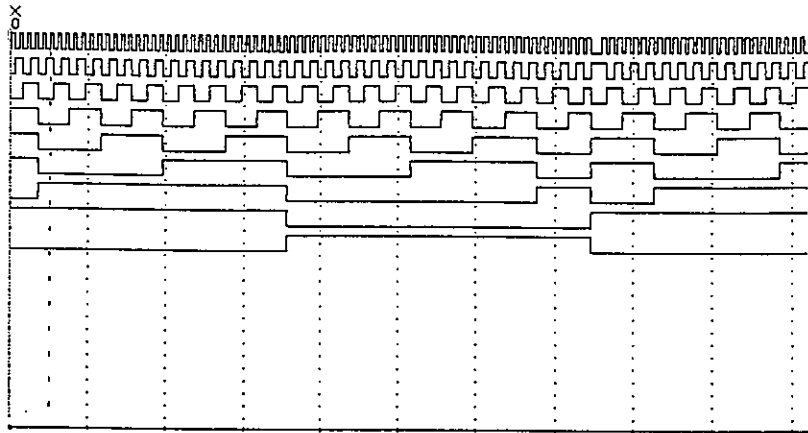
1.0  $\mu$ s / DIV



EP395000 TIMING & ADDRESS

MODE	: B
FOCUS	: 8

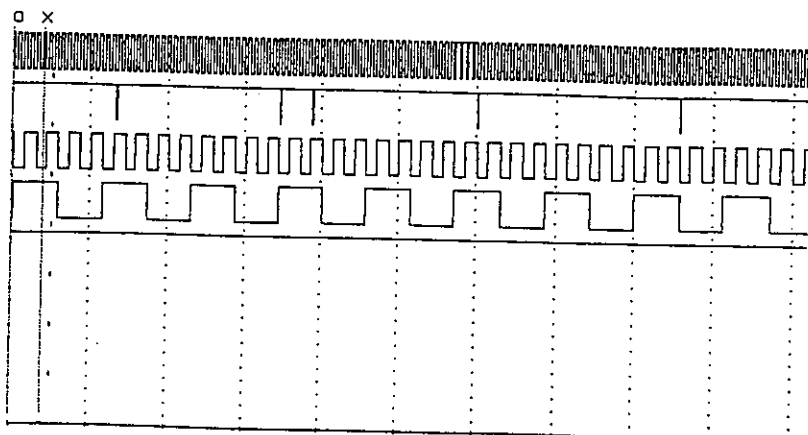
1.0 $\mu$ s / DIV
-------------------



J3A12	MADRS 0
J3B12	MADRS 1
J3C12	MADRS 2
J3D12	MADRS 3
J3A13	MADRS 4
J3B13	MADRS 5
J3C13	MADRS 6
J3D13	MADRS 7
J3A14	MADRS 8

MODE	: B FLOW PW
VEL RANGE	: $\pm 0.12$ m/s
Frequency (TX)	: 3.0 MHz

50.0 ms / DIV
---------------



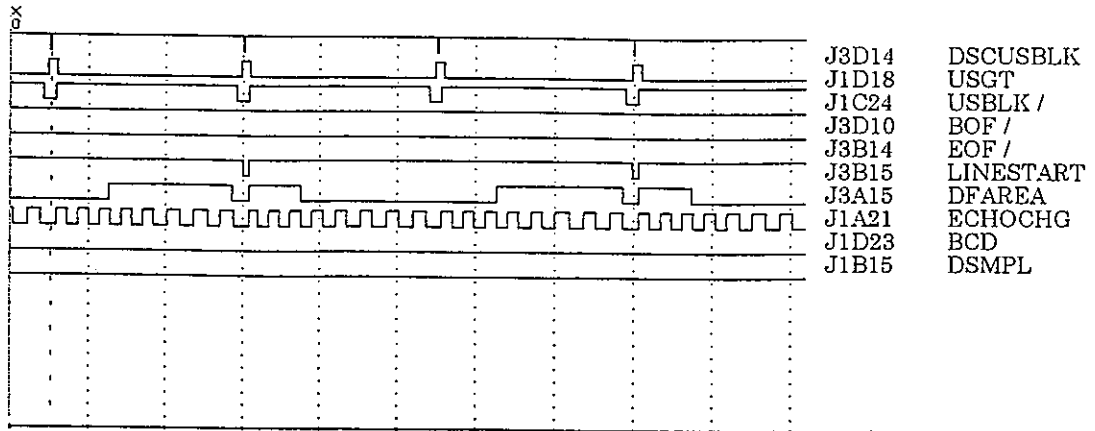
J1C3	PRF100
J1D3	PRF_RST /
J1C20	CLK 4Fo
J1D20	CLK Fo
J1B3	DSP_RST /



EP395000 TIMING & ADDRESS

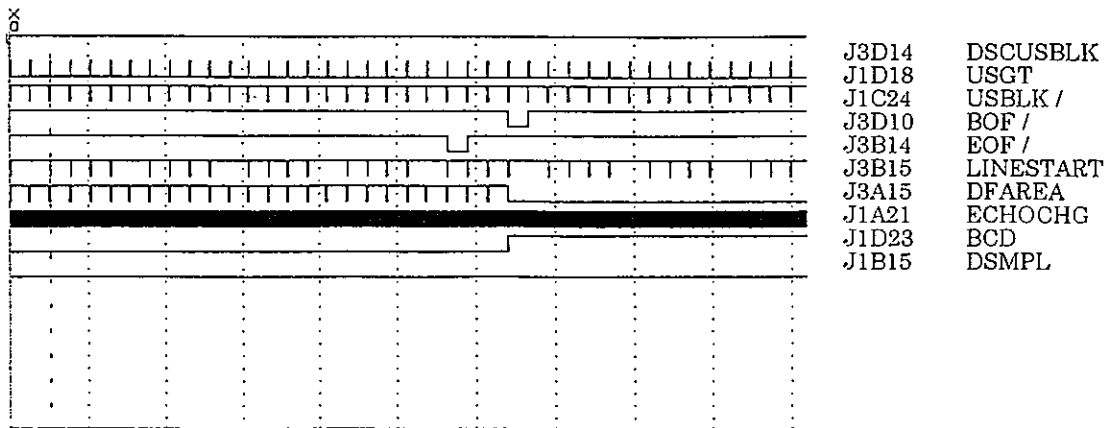
MODE	: B
RANGE	: 17 cm
FRAME RATE	: 13 Hz
FOCUS	: 3, 6
Frequency (TX)	: 3.5MHz

100  $\mu$ s / DIV



MODE	: B FLOW
RANGE	: 17 cm
Frequency (TX)	: 3.0MHz

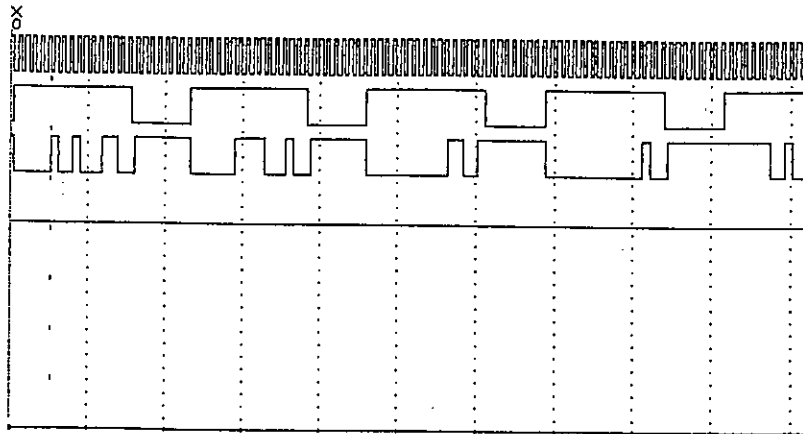
1.0,ms / DIV



EP383200 DOP DSP

MODE	: PW
VEL RANGE	: $\pm 0.28$ m/s

50 $\mu$ s / DIV
------------------

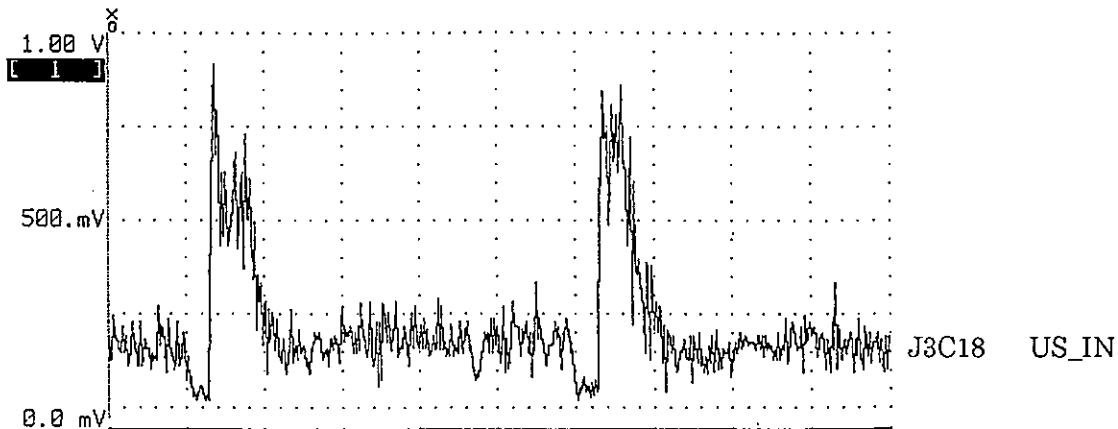


J2C4	DAC_CLK
J2A4	DAC_SYNC
J2B4	DAC_DATA
J2D4	DAC_SEL

EP3907\*\* B/W DIU

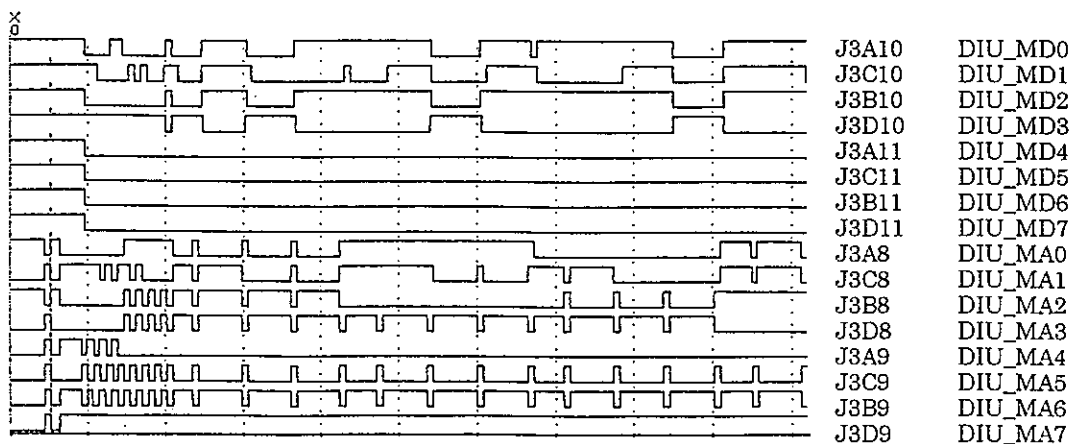
MODE : B  
 RANGE : 17 cm  
 GAIN : 90

50  $\mu$  s / DIV



MODE : B

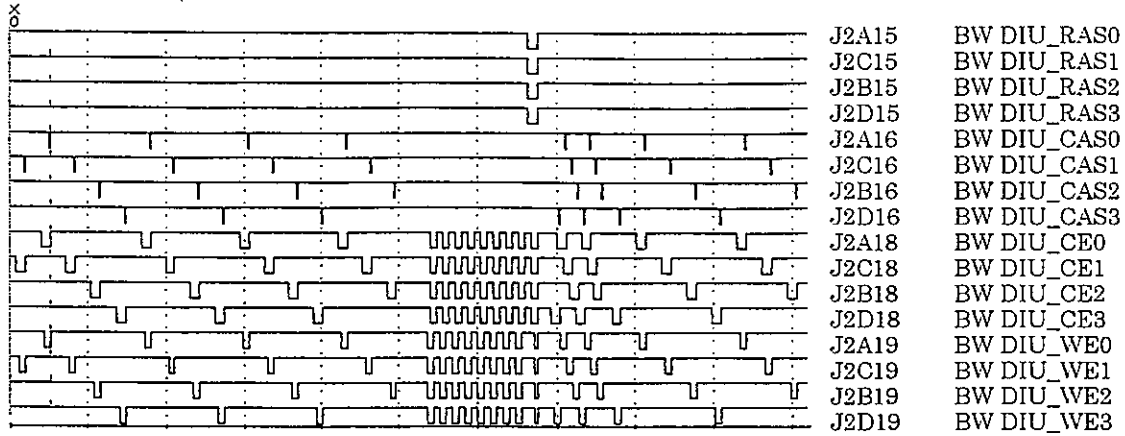
1.0  $\mu$  s / DIV



EP39070\* B/W DIU

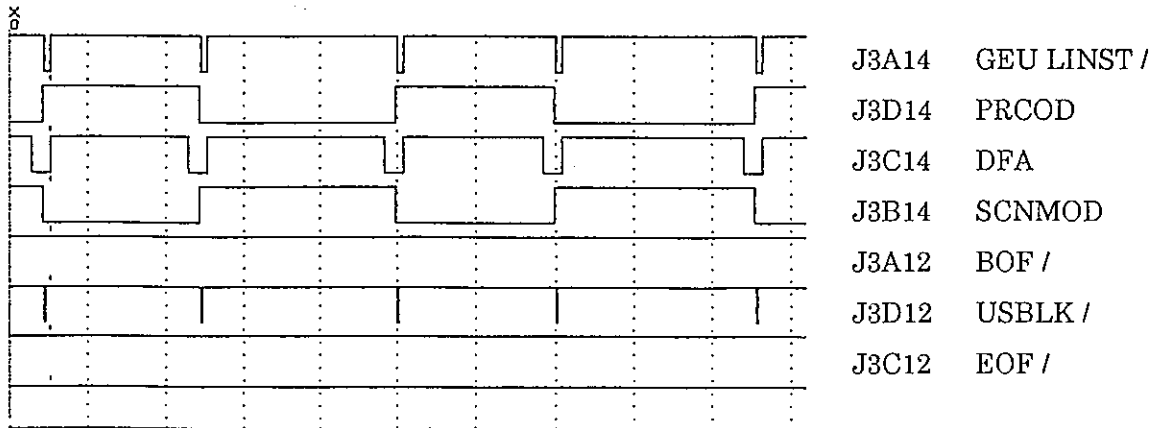
MODE : B

2.0  $\mu$ s / DIV



MODE : B PW

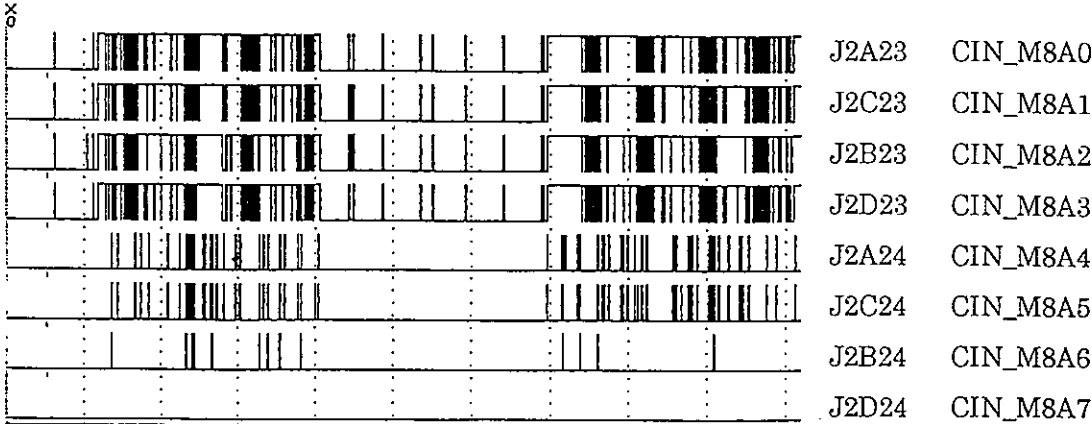
100  $\mu$ s / DIV



EP390800 CINE MANAGER

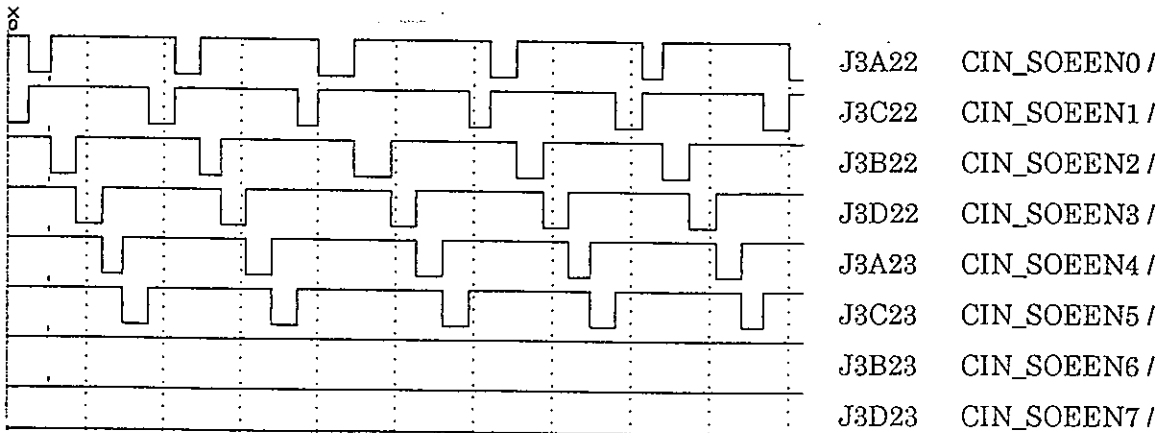
MODE : B

500ms / DIV



MODE : B

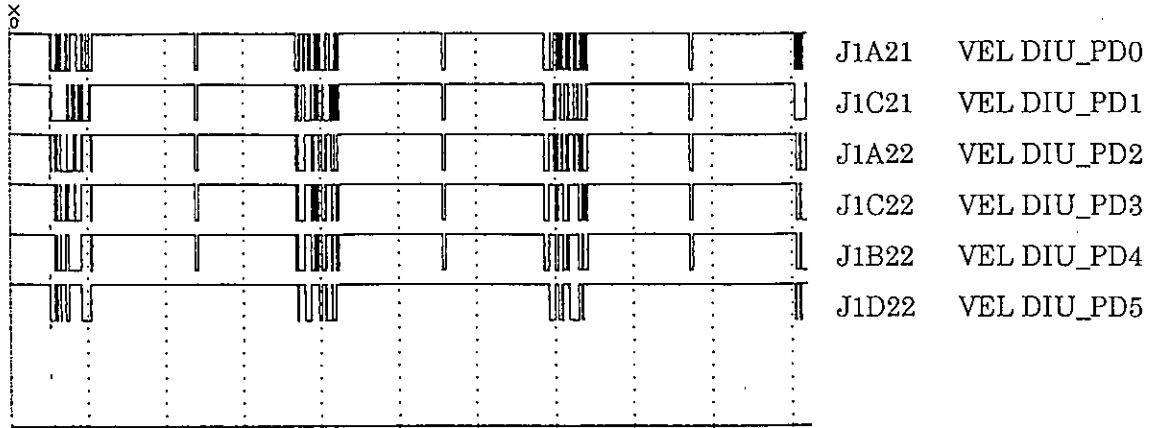
500ms / DIV



EP391000 COLOR DIU

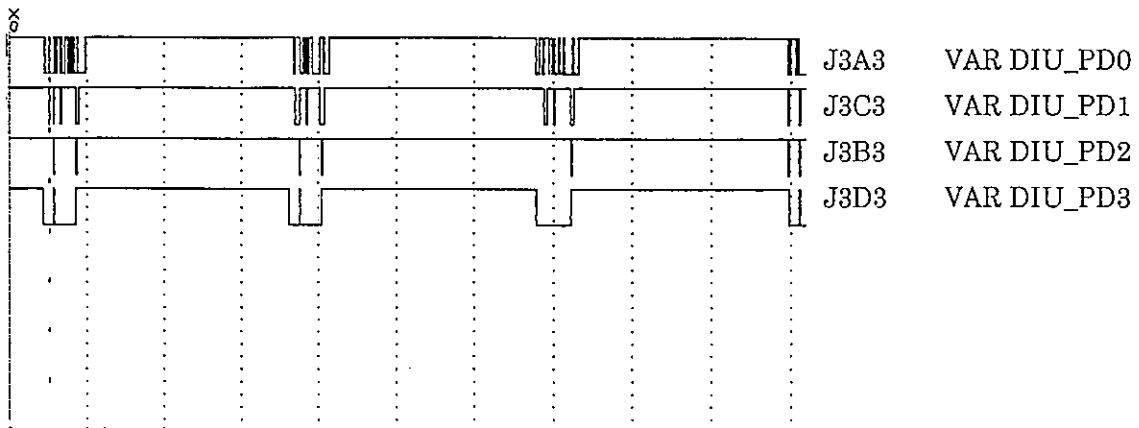
MODE : B FLOW

20  $\mu$  s / DIV



MODE : B FLOW

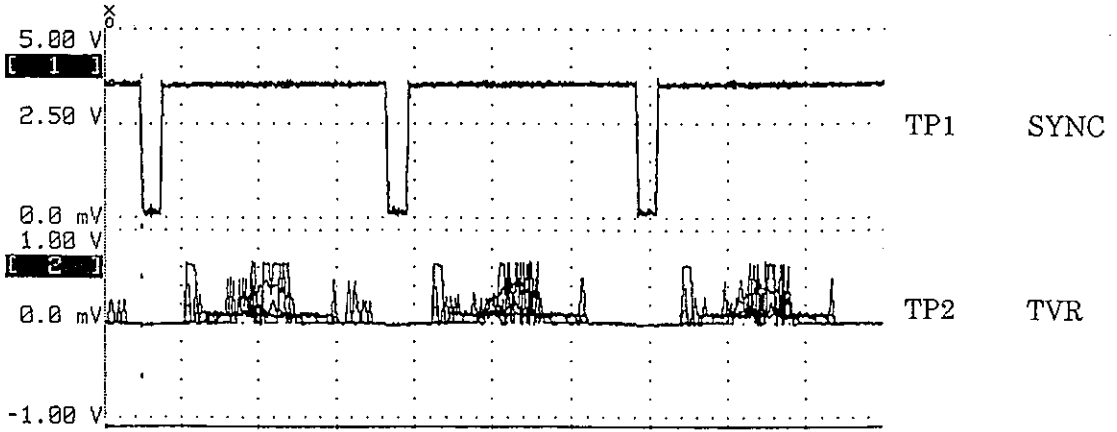
20  $\mu$  s / DIV



EP395100 / EP407200 VIDEO ITF

MODE : B FLOW

20  $\mu$  s / DIV



MODE : B FLOW

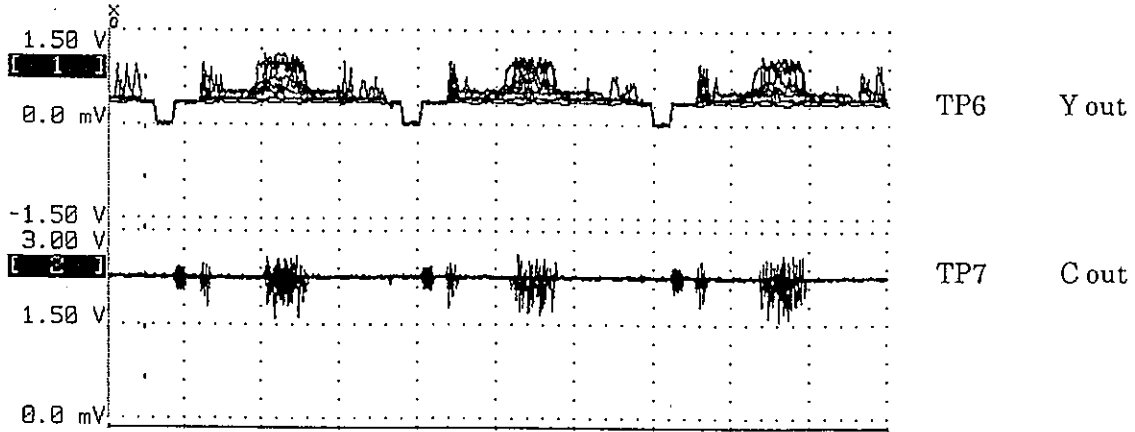
20  $\mu$  s / DIV



EP395100 / EP407200 VIDEO ITF

MODE : B FLOW

20  $\mu$  s / DIV



MODE : B FLOW

20  $\mu$  s / DIV

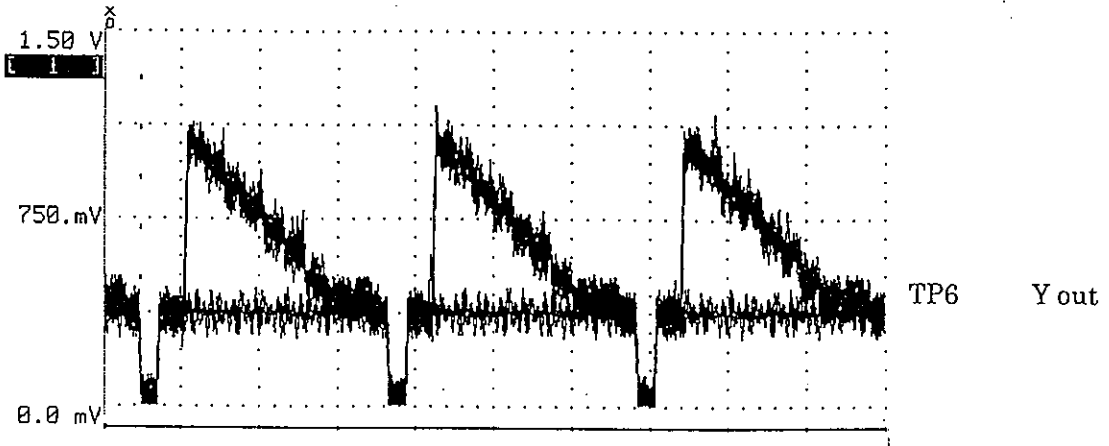




EP395100 / EP407200 VIDEO ITF

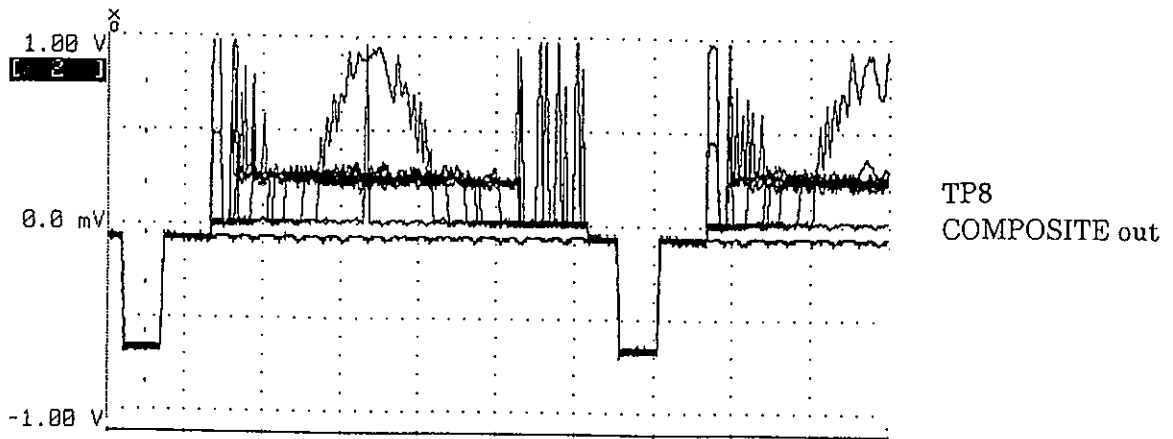
TEST MODE : ON  
ENCODE : ON

20  $\mu$ s / DIV



MODE : B  
75  $\Omega$  TERMINAL : ON

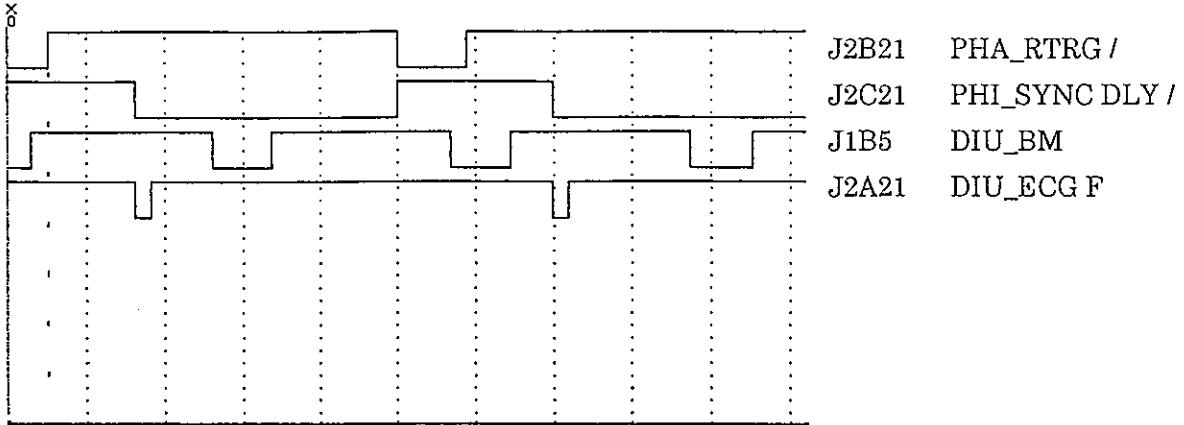
10  $\mu$ s / DIV



EP404900 PHYSIO.MEMORY

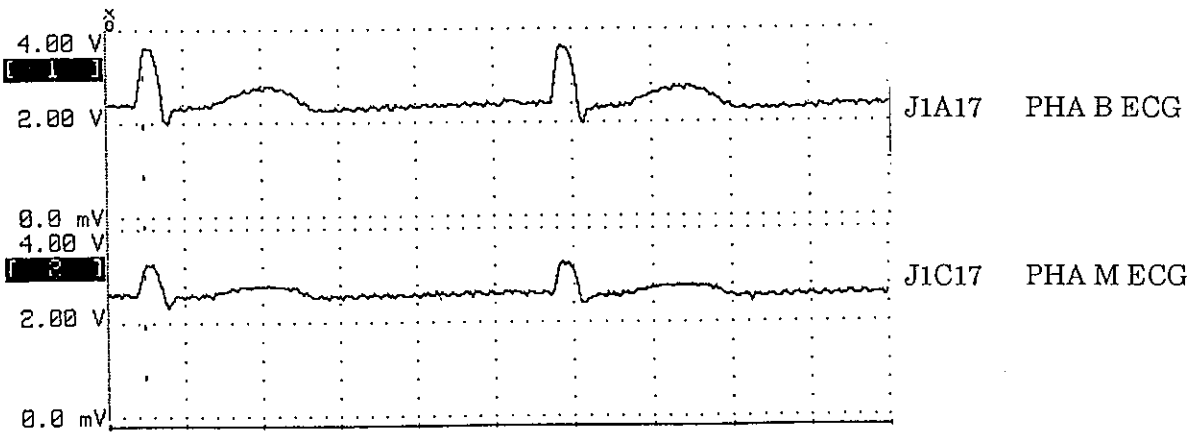
MODE	: B M
ECG	: ON
SYNC	: ON (+0.4s)

200ms / DIV
-------------



ECG	: ON
SESITIVITY	: MAX

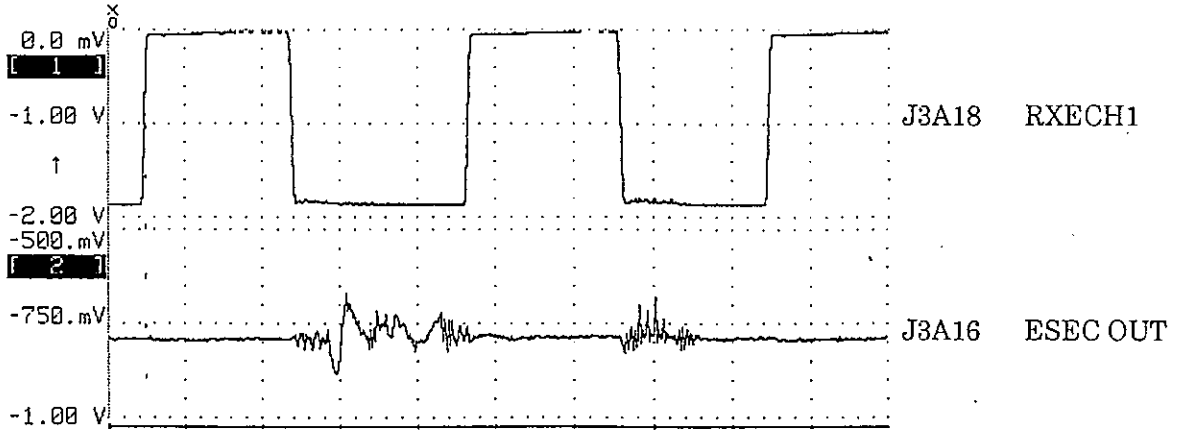
200ms / DIV
-------------



EP389700 SECTOR DELAY

MODE : B  
GAIN : 90

10  $\mu$  s / DIV



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**SSD-1700 SERVICE MANUAL**

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**ALOKA CO., LTD.**

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