

MODIFICATION INSTRUCTIONS

for the

KODAK Multiloader 700

Service Code 3053

MODIFICATION No. 15

Type 2

PURPOSE:

TO PREVENT MARKS ON SO - 177 FILMS

IMPORTANT :	Use qualified service personnel to install this modification !
SERVICE EFFECTS :	The FILM POCKET and the CONVEYOR are modified.
SERIAL NUMBERS :	All 50 Hz Units 60 Hz Units up to 5377
INSTALLATION TIME :	Approximately 2 hours.
SPECIAL TOOLS :	None.
PARTS REQUIREMENTS :	See Parts List.

PLEASE NOTE

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PARTS LIST

PART NO.	DESCRIPTION	QUANTITY
9193405..... MOD KIT NO.15 INCLUDES THE FOLLOWING PARTS:		
9192313	SENSOR MOUNT I	1
9192323	SENSOR MOUNT II	1
9192353	SHAFT ASSY (RIGHT HAND)	1
9192363	SHAFT ASSY (LEFT HAND)	1
9196741	E-PROM I (SOFTWARE VERSION 3.2)	1
9196751	E-PROM II (SOFTWARE VERSION 3.2)	1
9193411	FOAM ROLLER Ø 21 mm	2
9193421	FOAM ROLLER Ø 23.5 mm	2
6081850	WIRE TIE	4
4500241	SPRING WASHER.....	2
9196761	EPROM IV SLAVE (SOFTWARE VERSION 3.2)	1

INSTALLATION OF MODIFIED PARTS

1. Switch off the ML 700.
2. Open the TOP COVER.
3. Open the left - and the right-hand COVER.
4. Remove REAR COVER.
5. Loosen the SCREWS of the PULLEY and the GEAR.

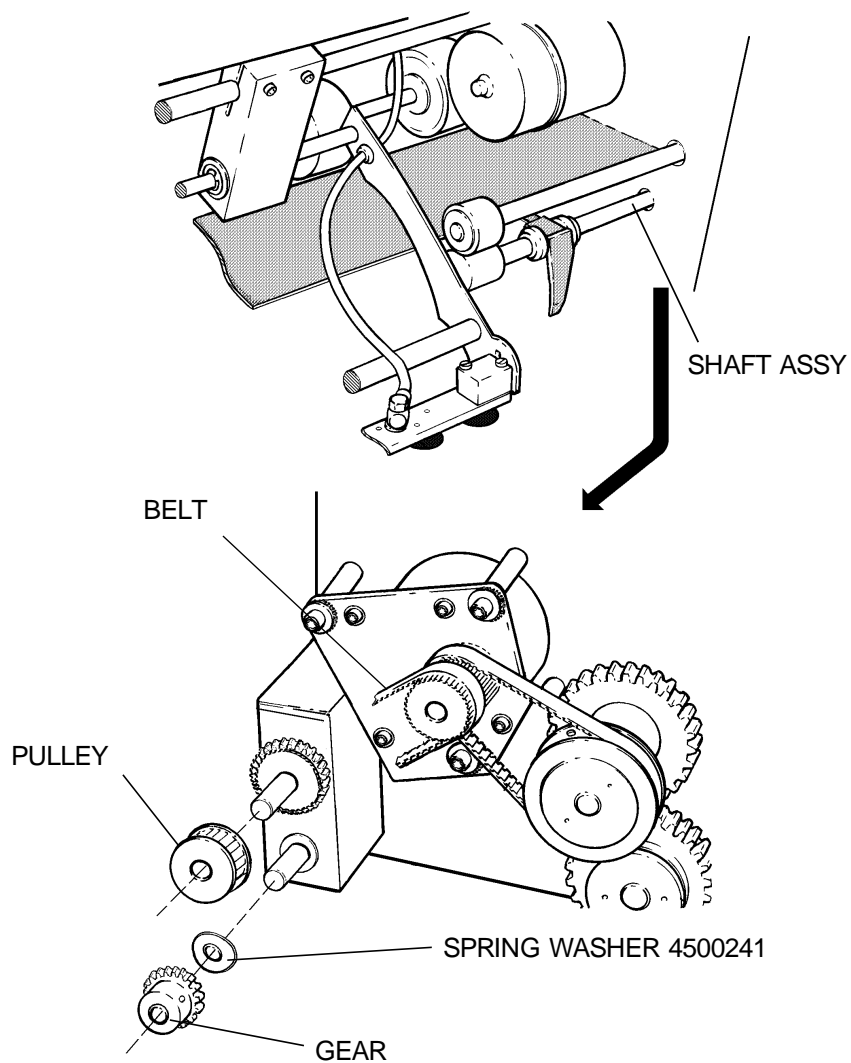


figure 1

6. Remove the PULLEY and the GEAR. Take out the SHAFT ASSY. See figure 1.
7. Install the new SHAFT ASSY 9192353. Use the new SPRING WASHER 4500241. See figure 1 and 2.

NOTE:

If modification No.13 is installed: Make sure that the SPRINGS on the SHAFT ASSYS are placed between the SPRING and the SHAFT of the SLIDING PLATE !

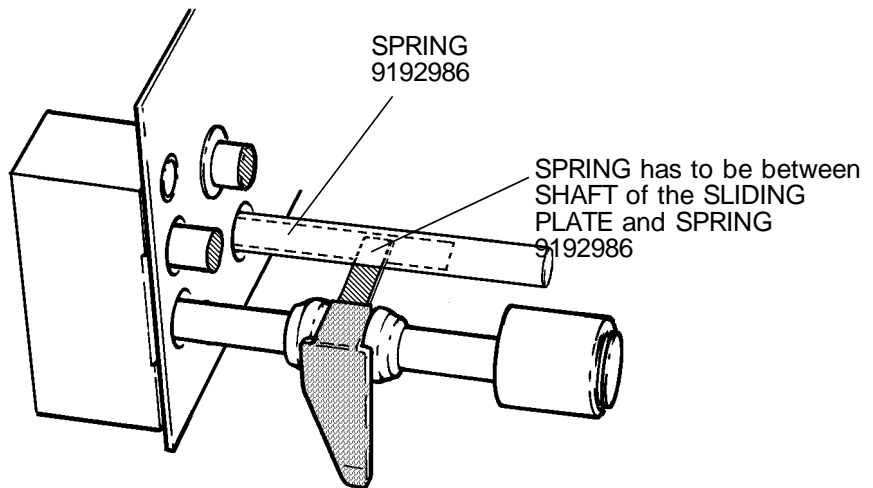


figure 2

8. Remove the NUTS from PCB A8.

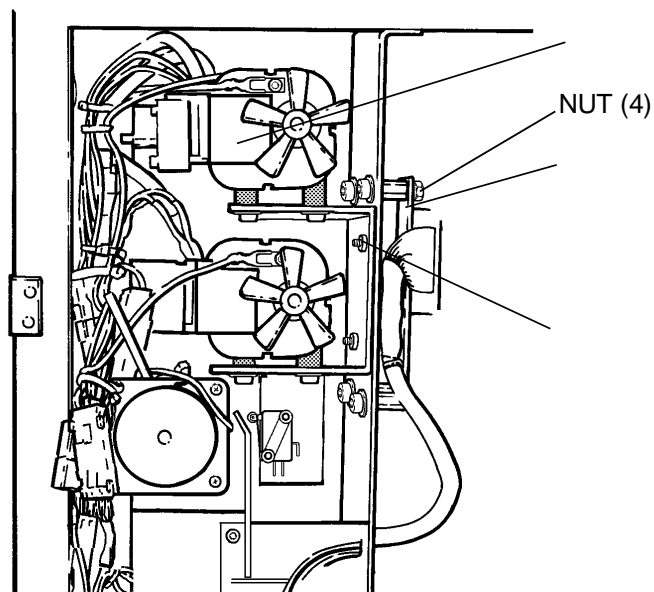


figure 3

9. Remove the SCREWS from the MOUNTING BRACKET of the VACUUM PUMPS.

10. Take out the VACUUM PUMPS.

11. Remove the PULLEY and the GEAR.

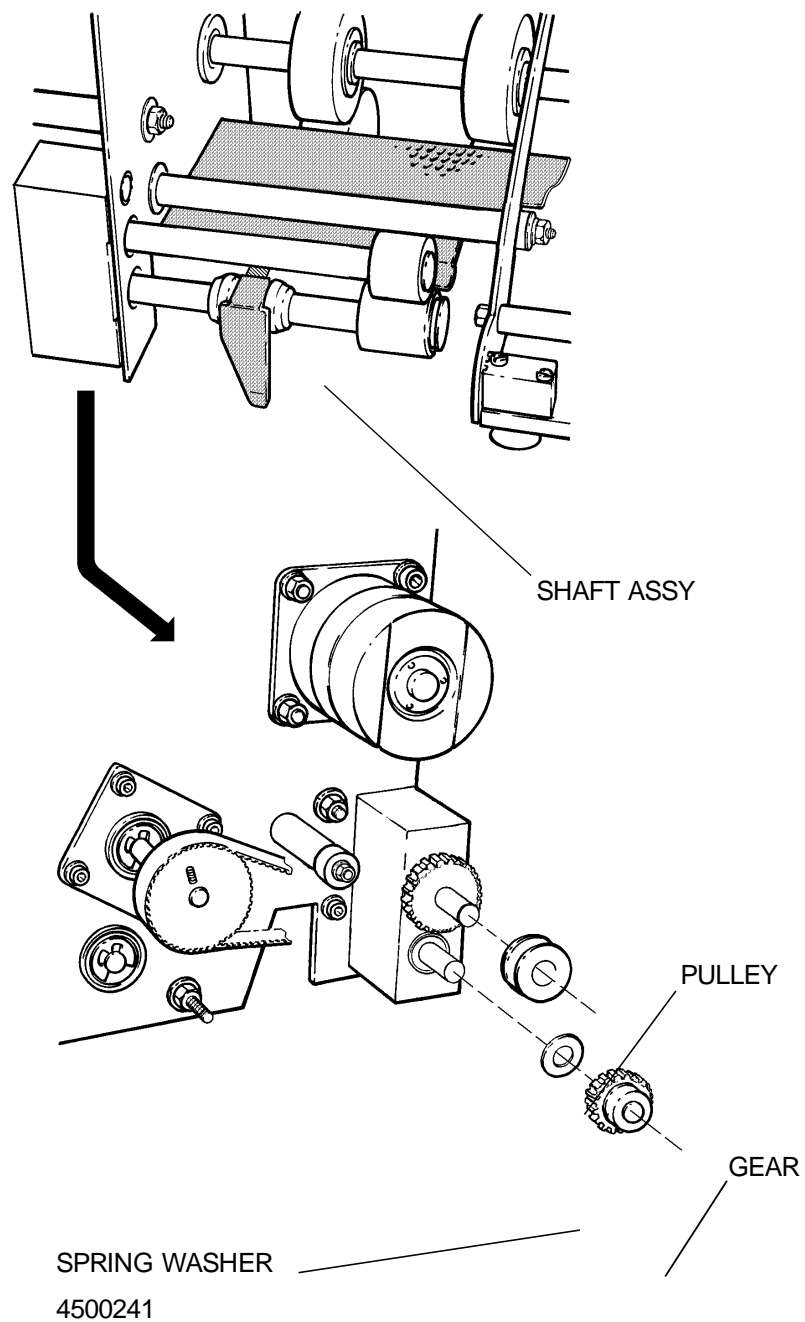


figure 4

12. Take out the SHAFT ASSY. See figure 4.

13. Install the new SHAFT ASSY 9192363. Use new SPRING WASHER 4500241. See Note.

NOTE:

If modification No.13 is installed: Make sure that the SPRINGS on the SHAFT ASSYS are placed between the SPRING and the SHAFT of the SLIDING PLATE ! See figure 2.

14. Install the VACUUM PUMPS.

15. Install PCB A8. **Check that all PLUGS are seated correctly.**

16. Fasten the NUTS on PCB A8.

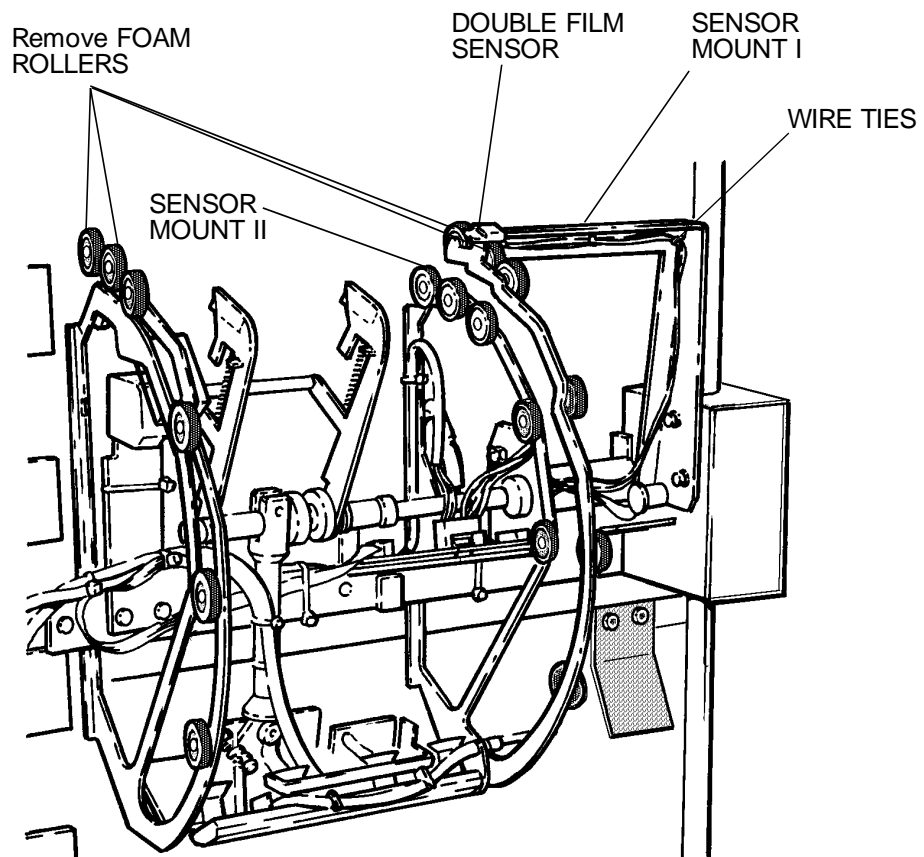


figure 5

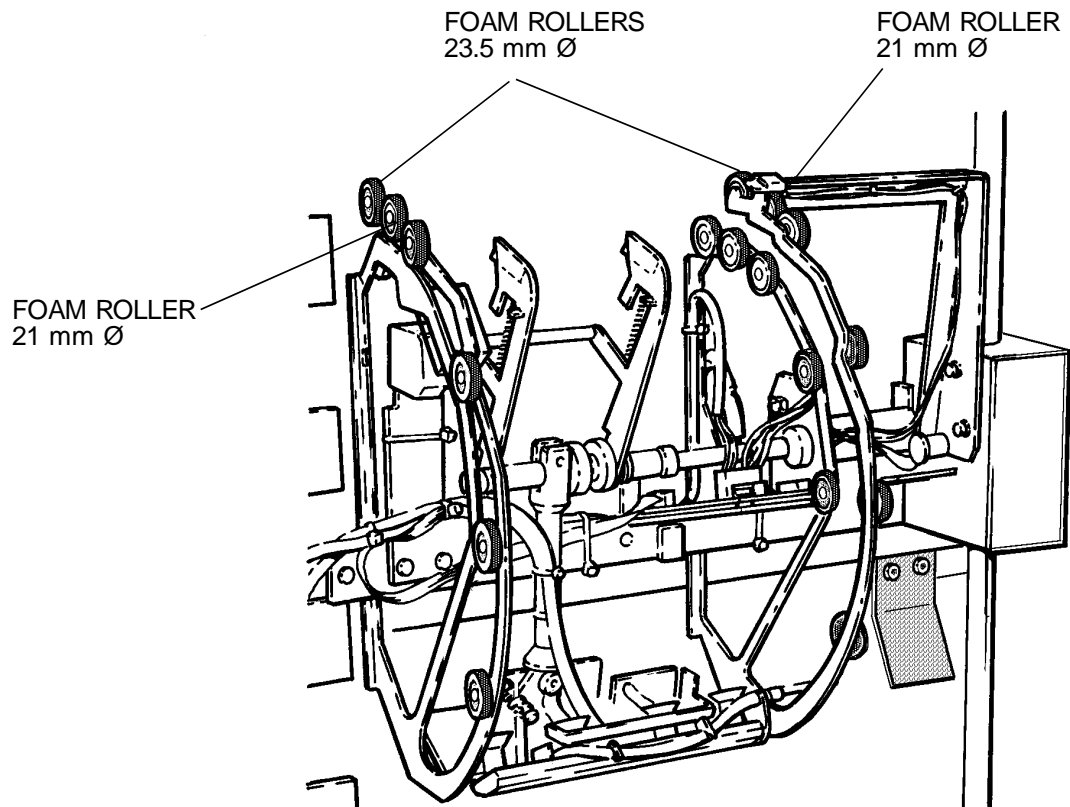
17. Remove the 4 FOAM ROLLERS.

18. Remove and keep all SCREWS from the DOUBLE FILM SENSOR .

19. Remove the WIRE TIES. See figure 5.

20. Remove and discard the SENSOR MOUNT I and SENSOR MOUNT II. Keep the SCREWS.

21. Install the new SENSOR MOUNT I 9192313 and the SENSOR MOUNT II 9192323.



figures 6

22. Install the DOUBLE FILM SENSOR. Do not fasten the SCREWS on the SENSOR.
23. Install the FOAM ROLLERS as shown in figure below.
24. Pull out the DRAWER.
25. Install the new E-PROMS and the new LABEL on U35 on PCB A0 and PCB A2.(See figure 7 and 8)

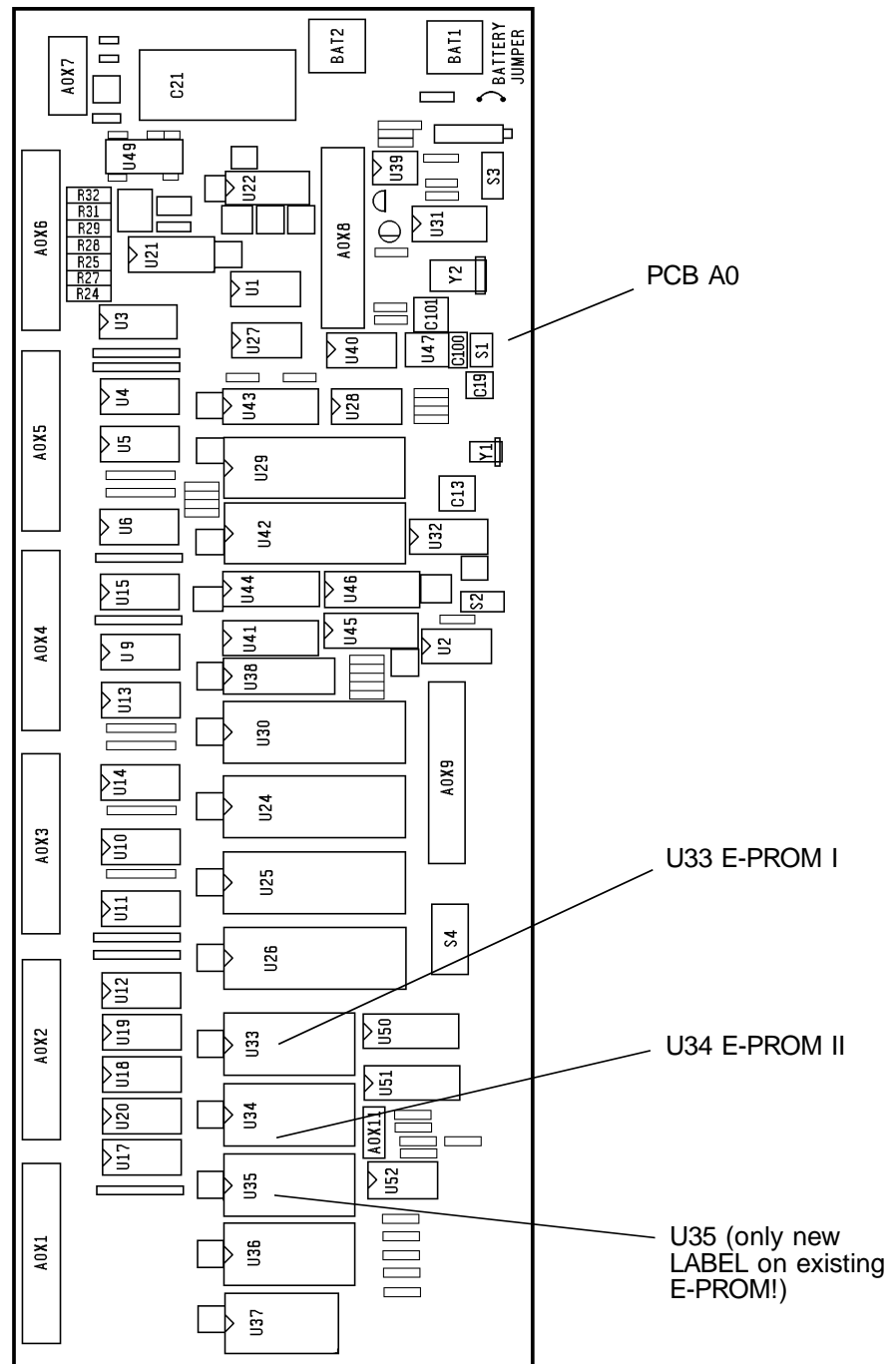


figure 7

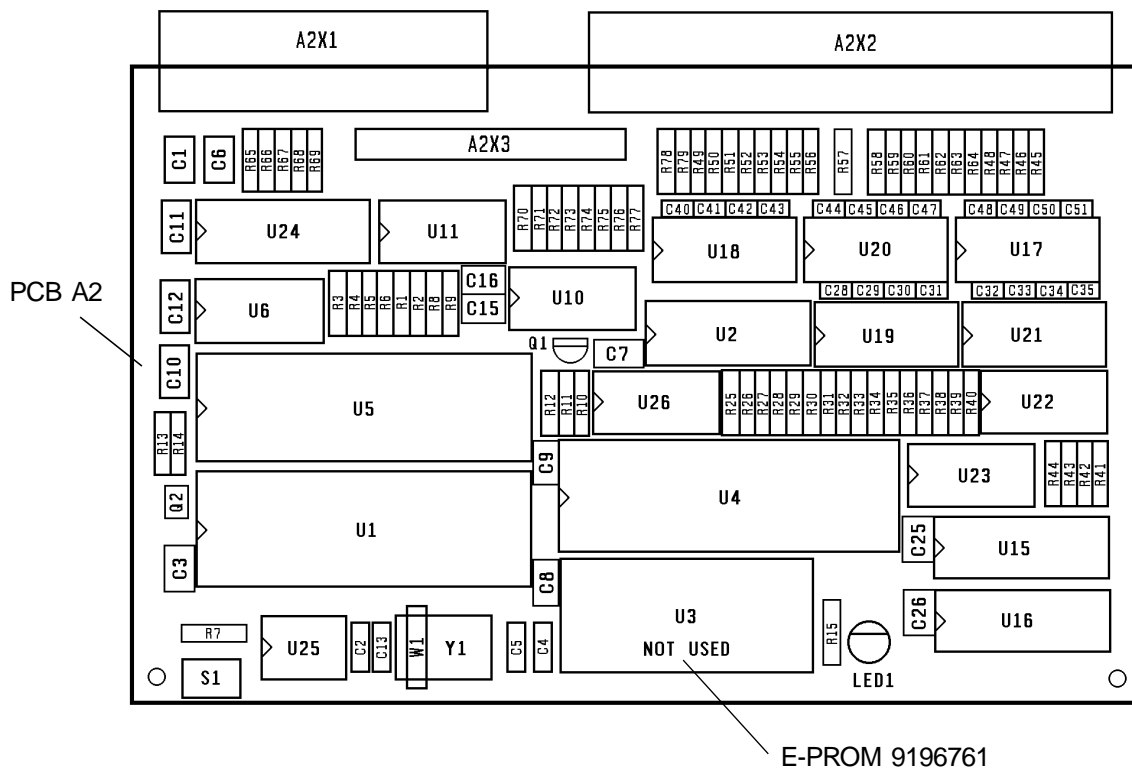


figure 8

CAUTION:

Take ESD safety precautions!

26. Close the DRAWER.

27. Switch on the ML700.

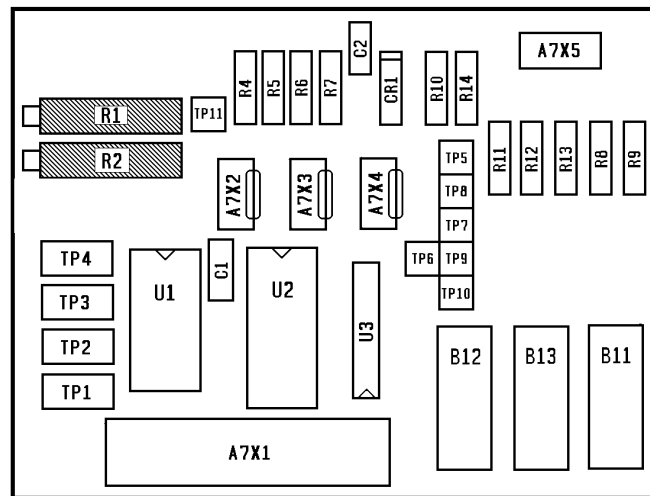
ADJUSTMENT OF THE DOUBLE FILM SENSOR

28. Select Option 7.8.2. Switch on VACUUM PUMPS.

29. Select Option 7.8.4.4 (Magnetic VALVES MAGAZINE).

30. Place the FILTER 9191223 on the MAGAZINE SUCKERS.

31. Press KEY 2 on the KEYPAD (MAGAZINE SUCKING ON). Check that FILTER 9191223 is held properly by the MAGAZINE SUCKERS.
32. Move the MAGAZINE SUCKER BAR so that FILTER 9191223 is placed properly between the DOUBLE FILM SENSOR.



PCB A7 up to Serial Number 1022

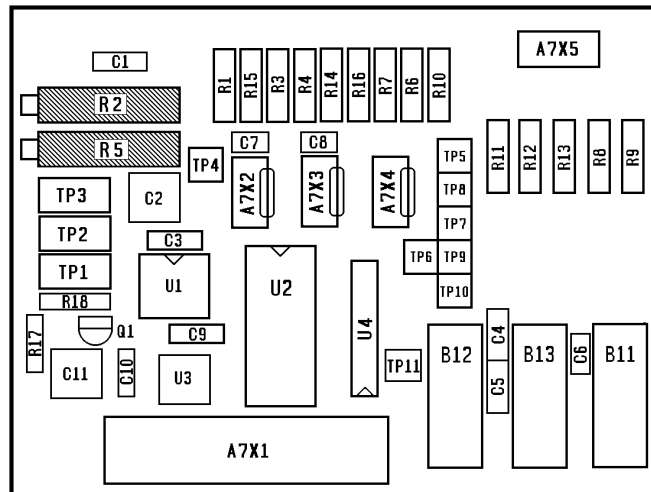
figure 9

NOTE:

The following Adjustment procedure is valid only for MULTILOADER 700 with Serial Numbers up to 1022! For all MULTILOADER 700 with Serial numbers 1023 and above and all 60 Hz MULTILOADER 700 use the procedure beginning with step 42.

33. Connect the negative lead of DVM to TP1 on PCB A7. See figure below.
34. Connect the positive lead of DVM to TP3 on PCB A7.
35. Adjust R2 to 3V + /- 60 mV.

36. Connect the positive lead of the DVM to TP2 on PCB A7.
37. Slightly loosen the SCREWS on the DOUBLE FILM SENSOR.
38. Check that the FILTER 9191223 ist between the DOUBLE FILM SENSOR.
39. Move the upper and the lower part of the DOUBLE FILM SENSOR until the DVM shows the highest reading.
40. Fasten the SCREWS on the DOUBLE FILM SENSOR. Check that the DVM reading does not change.



PCB A7 from Serial Number 1023

figure 10

41. Adjust R1 to $3.6\text{ V} + 72\text{ mV}$. Continue with step No. 51.

Adjustment procedure for Serial Numbers above 1022 and all 60 Hz UNITS:

42. Connect the negative lead of DVM to TP1 of PCB A7.
43. Connect the positive lead of DVM to TP2 on PCB A7.
44. Adjust R5 on PCB A7 to $7.5\text{ V} + /- 0.075\text{ V}$.

45. Connect the positive lead of the DVM to TP3 on PCB A7.
46. Insert FILTER PN 9191223 into the DOUBLE FILM SENSOR.
47. Adjust R2 on PCB A7 to 5 V.
48. Move the upper and the lower part of the DOUBLE FILM SENSOR until the DVM shows the highest reading.
49. Fasten the SCREWS on the DOUBLE FILM SENSOR. Check that the reading on the DVM does not change.
50. Adjust R2 on PCB A7 to 7.7 V + /- 0.1 V.
51. Remove all MAGAZINES.
52. Insert a MAGAZINE containing TEST FILMS.
53. Set the PARAMETER STEP BY STEP MODE to 1.
54. Insert a CASSETTE.
55. Check that the FILM does not touch the modified ROLLERS in the CONVEYOR. See figure 12.

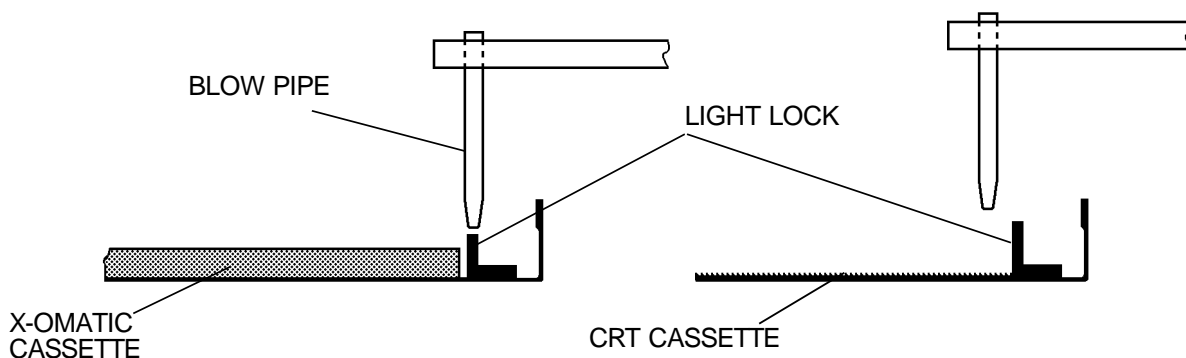
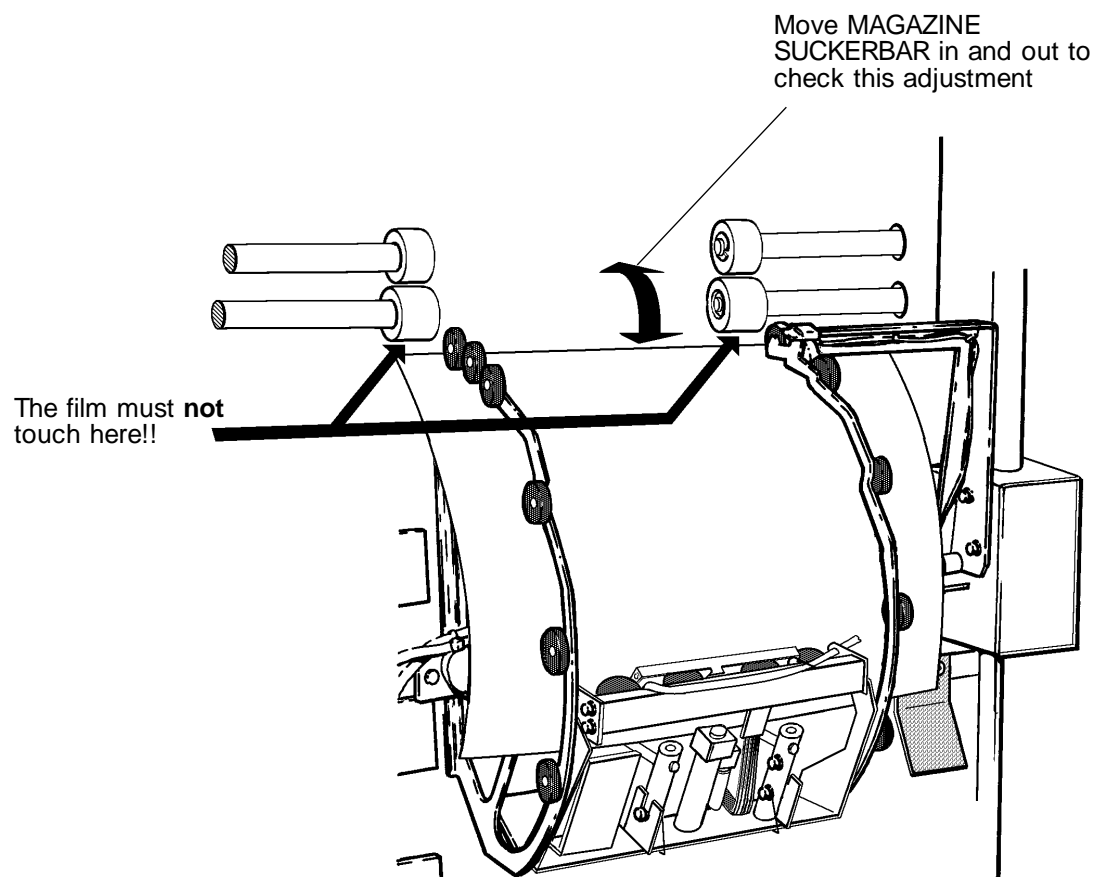


figure 11



BRACKET, CASSETTE
REFERENCE

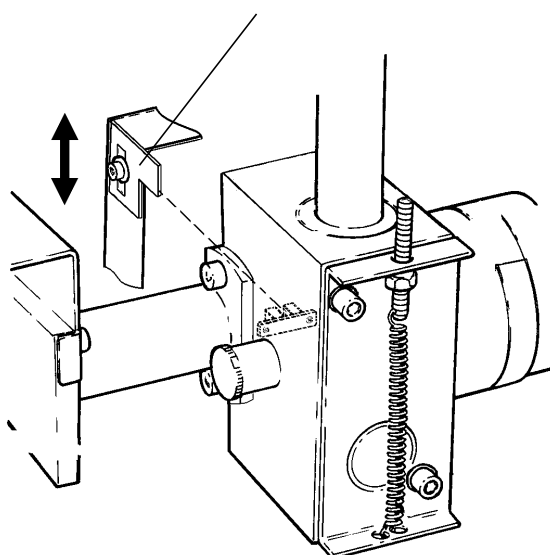
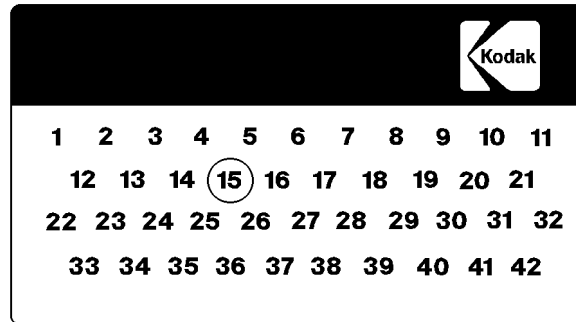


figure 12

- 56.** If the FILM touches the ROLLERS adjust the BRACKET for the CASSETTE REFERENCE POSITION. See figure 12.
- 57.** The BLOW PIPES of the FILM POCKET must not touch the LIGHT LOCK of the CASSETTE when tilting into the CASSETTE. See figure 11.



NOTE:

The most critical CASSETTES for this adjustment are CRT CASSETTES(VIDEO FILMHOLDERS). On CRT CASSETTES the LIGHT LOCK is higher compared to other types of CASSETTES!

- 58.** If the adjustment of the BRACKET for the CASSETTE REFERENCE POSITION has been altered: Do a SCAN RUN to calculate the new REFERENCE values and check the PARAMETER LOWER POCKET.
- 59.** Set the PARAMETER STEP BY STEP MODE back to 0.
- 60.** Circle No. 15 on the MODIFICATION LABEL.
- 61.** Reinstall all COVERS.
- 62.** Key in 3585 to bring all MOTORS back to HOME POSITION.
- 63.** Run TEST CYCLES.



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