

# MODIFICATION INSTRUCTIONS

for the

## ***KODAK X-Omatic* MULTILOADER 700**

Service Code 3053

### MODIFICATION No. 28

### Type 1 Required

PURPOSE:

To improve the function of the CASSETTE SUCKER BAR and of the FILM POCKET.

**IMPORTANT** : Use qualified service personnel to install this modification !

**SERIAL NUMBERS** : 50 Hz units all serial numbers  
: 60 Hz units all serial numbers

**INSTALLATION TIME** : Approx. 2 hours

**SPECIAL TOOLS** : none

**PARTS REQUIREMENTS** : Modification Kit No.. 28 PN 9185535

**PLEASE NOTE**

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## PARTS LIST

PART NUMBER	DESCRIPTION	QUANTITY
<b>9185535</b>	<b>MODIFICATION KIT No 28 consists of:</b>	
MA 3053-28	MODIFICATION INSTRUCTIONS	1
	<b>The following parts are used for PART 1 of this modification</b>	
	GUIDE ROLLER ASSEMBLY consists of:	
9280281	SHAFT	1
9185561	GUIDE ROLLER	1
4480032	WASHER 4.3mm	1
4853251	NUT M4	1
9280292	BRACKET	1
4719331	PIN	1
4853241	NUT M3	1
	CASSETTE SUCKER BAR PARTS	
4281881	COUNTERSUNK SCREW M5x12	2
4480091	WASHER 8.4mm	2
4853031	NUT M5	2
9285771	SHAFT 1 (black)	1
9285611	SHAFT 2	2
9281612	CASSETTE SUCKER BAR GUIDE PLATE right-hand	1
9281613	CASSETTE SUCKER BAR GUIDE PLATE left-hand	1
9212051	PLASTIC BEARING, slotted	2
9280351	WEDGE PLATE ***	2
9192921	PLASTIC BLOCK ***	2
9282001	CLIP	2
4500451	C-RING	2
	<b>The following part is used for PART 2 of this modification</b>	
9219881	SPRING	1
	<b>The following part is used for PART 3 of this modification</b>	
9282512	CONVEYER END STOP	1

\*\*\* The left- and right-hand WEDGES are pre-assembled.

## **INTRODUCTION**

This modification consists of 3 parts.

### **Part 1**

The adjustment and the function of the CASSETTE SUCKER BAR are improved. There is now an ADJUSTMENT SCREW to allow easier setting of the CASSETTE SUCKER BAR GUIDE ROLLER position. The CASSETTE SUCKER BAR has been made to pivot, this change allows the SUCKERS to automatically match the curvature of the CASSETTE SCREEN. This improves the picking up of the FILM from the CASSETTE.

### **Part 2**

The DETENT SPRING in the FILM POCKET is replaced with a stronger one. This improves the picking up of a fresh FILM from the MAGAZINE.

### **Part 3**

A CONVEYER END STOP is installed. This END STOP eases the re-positioning of the FILM CONVEYOR following it having been removed from the ML700 for any reason.

## **INSTALLATION**

### **PART 1 CASSETTE SUCKER BAR IMPROVEMENT**

1. Switch off the ML700.
2. Separate the ML700 from the TUNNEL.

### **CAUTION**

**Do not break the TRANSPORT BELT to the TUNNEL**

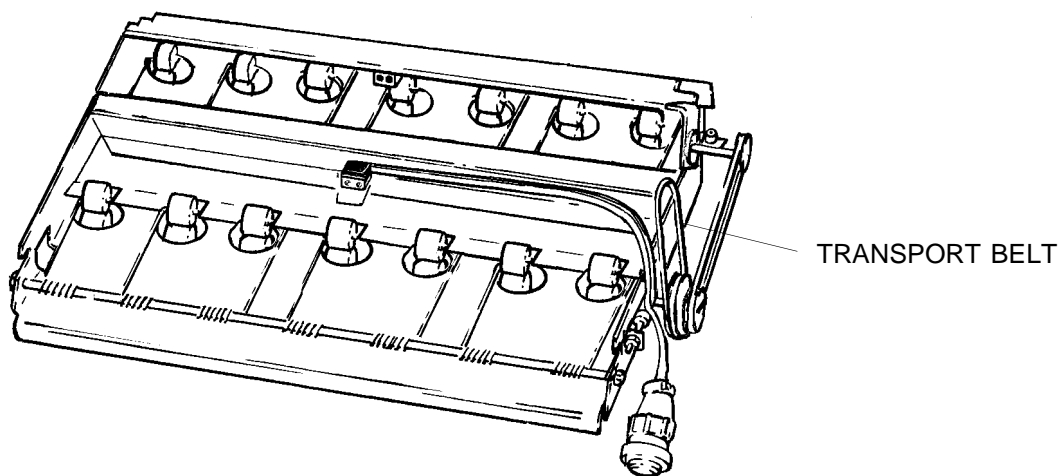


figure 1

3. Take off the TOP COVER and the UPPER REAR PANEL from the ML700.
4. Take off the left SIDE PANEL.
5. Take out both VACUUM PUMPS. To do this take off the PCB A8 first. This gives access to the MOUNTING SCREWS of the VACUUM PUMP MOUNTING BRACKET.

**NOTE**

**Ensure that no CONNECTORS of PCB A8 have come loose.**

6. Unscrew the CASSETTE SUCKER BAR GUIDE ROLLER SHAFT.

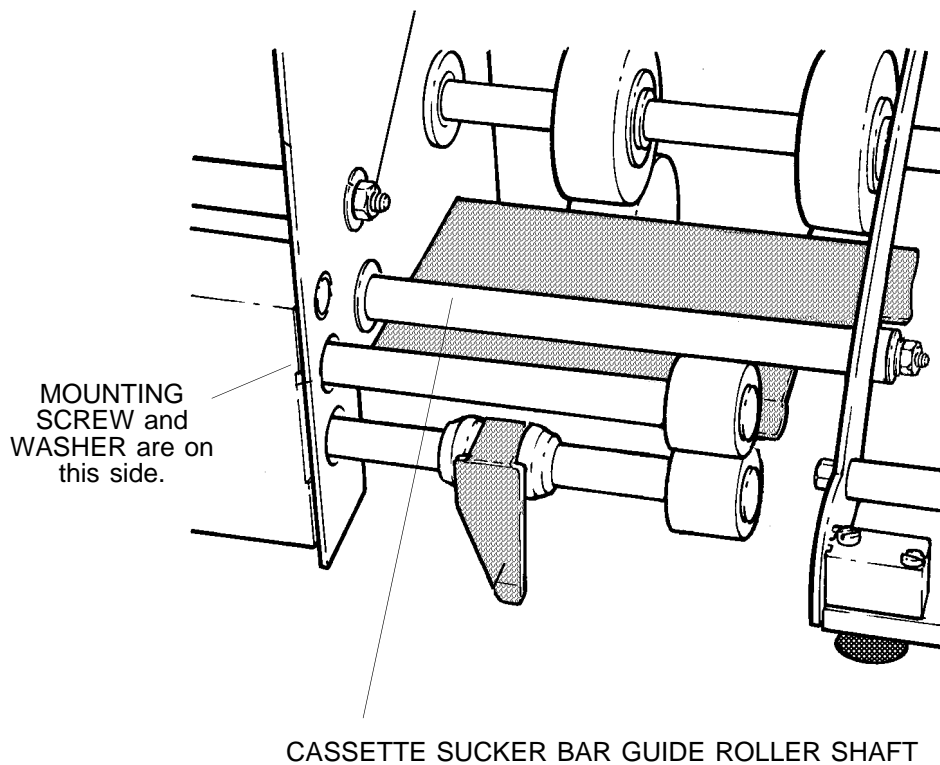


figure 2

7. Keep the MOUNTING SCREW and WASHER. Discard the CASSETTE SUCKER BAR GUIDE ROLLER.

- 8.** Mount the new GUIDE ROLLER ASSEMBLY instead. Use the SCREW and WASHER from step 7.

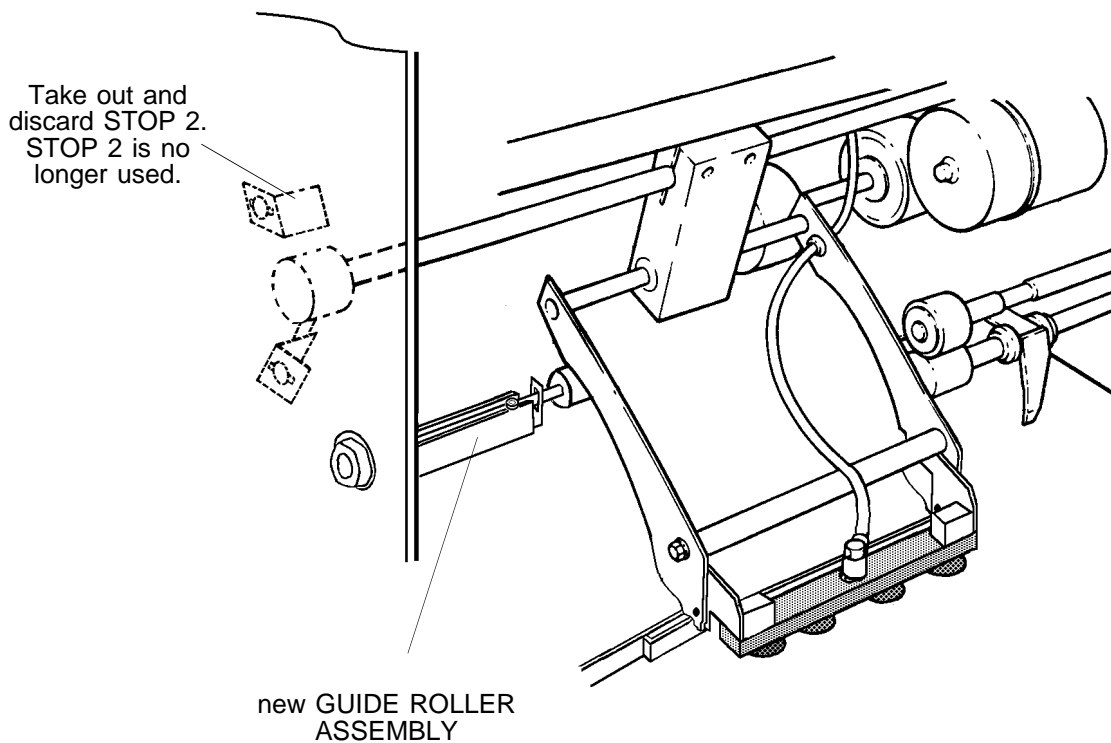


figure 3

- 9.** Take out and discard STOP 2. STOP 2 is no longer used.
- 10.** Manually open the EXIT DOOR.
- 11.** Manually move the CASSETTE SUCKER BAR into the CASSETTE TRANSPORT AREA. This gives better access to the CASSETTE SUCKER BAR.
- 12.** Disconnect both HOSES from the HOSE FITTING. See figure 4 on the next page.
- 13.** Take out the SCREWS from the PLASTIC BLOCKS left/right of the CASSETTE SUCKER BAR. Keep the SCREWS and discard the BLOCKS. See figure 4.
- 14.** Take out SHAFT 1. See figure 4. Discard SHAFT 1 with SCREWS and WASHERS.

- 15.** Take off the NUTS and WASHERS from SHAFT 2. Keep them. Take off both C-RINGS. Keep them and discard SHAFT 2.

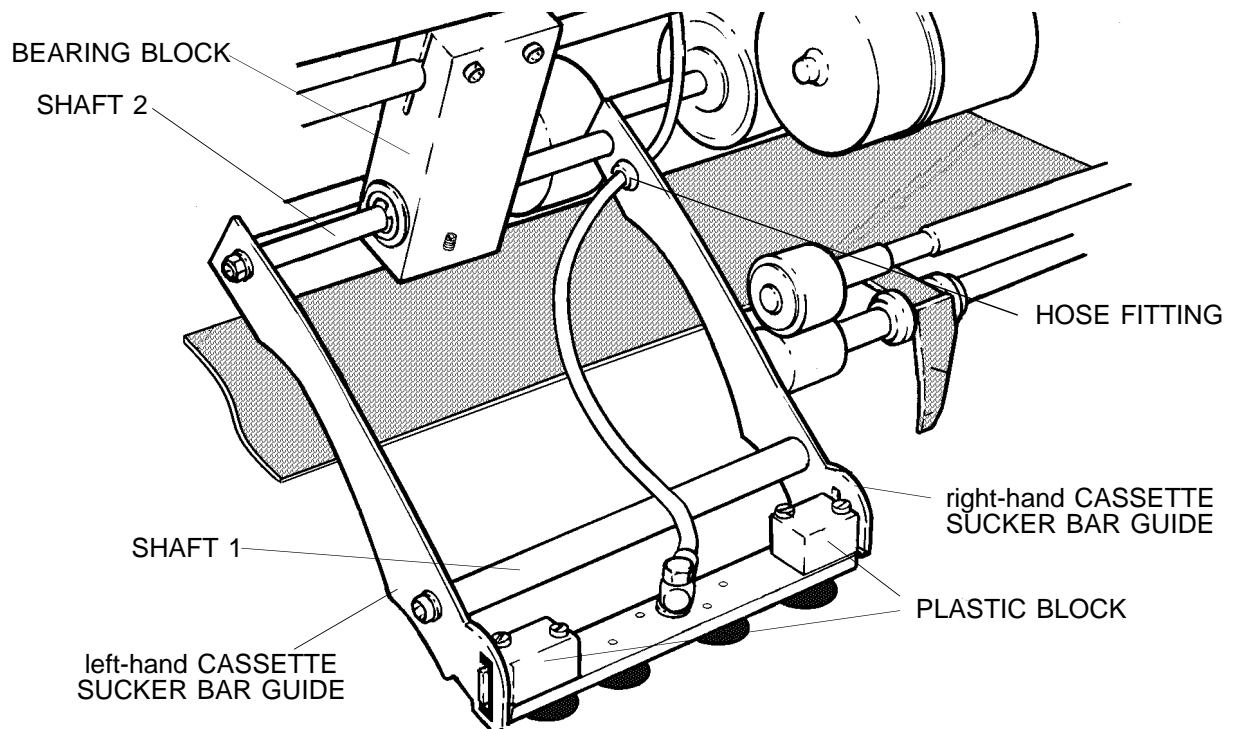


figure 4

- 16.** Take off the HOSE FITTING of the right-hand CASSETTE SUCKER BAR GUIDE and keep it. See figure above.
- 17.** Discard the left- and right-hand CASSETTE SUCKER BAR GUIDES.
- 18.** Mount the left-hand and right-hand WEDGE to the CASSETTE SUCKER BAR. Use the SCREWS from step 13.

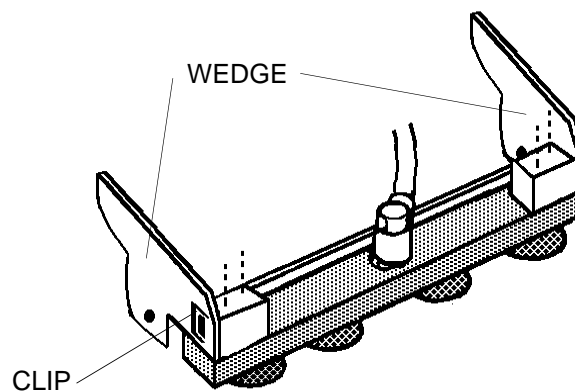


figure 5

19. Mount the FITTING removed in step 16 on to the new right-hand CASSETTE SUCKER BAR GUIDE.
20. Connect the left- and right-hand CASSETTE SUCKER BAR GUIDES with the new SHAFT 1. **Use COUNTERSUNK SCREWS M5x12 and WASHERS 8.4mm from the modification kit. Do not use SCREWS with a different HEAD. There is not enough space.** Do not tighten the SCREWS at this time.
21. Insert SHAFT 2 into the BEARING BLOCK and fix it with 1 C-RING on each side.
22. Engage the CASSETTE SUCKER BAR GUIDES left- and right-hand with SHAFT 2. Fix them with NUTS and WASHERS from step 15. Do not tighten the NUTS.
23. Place the SLOTTED BEARINGS on the BOLTS of the left- and right-hand CASSETTE SUCKER BAR GUIDES.
24. Engage the CASSETTE SUCKER BAR with the GUIDES. The boreholes of the WEDGES fit over the SLOTTED PLASTIC BEARINGS.
25. Fasten the NUTS of SHAFT 1 and the SCREWS of SHAFT 2.
26. Connect both HOSES to the FITTING.
27. Mount the VACUUM PUMPS and PCB A8.

### NOTE

**Ensure that all A8 CONNECTORS are seated correctly.**

28. Feed in the CASSETTE OPENER GAUGE. Ensure that the CASSETTE SUCKER BAR is parallel to the GAUGE.

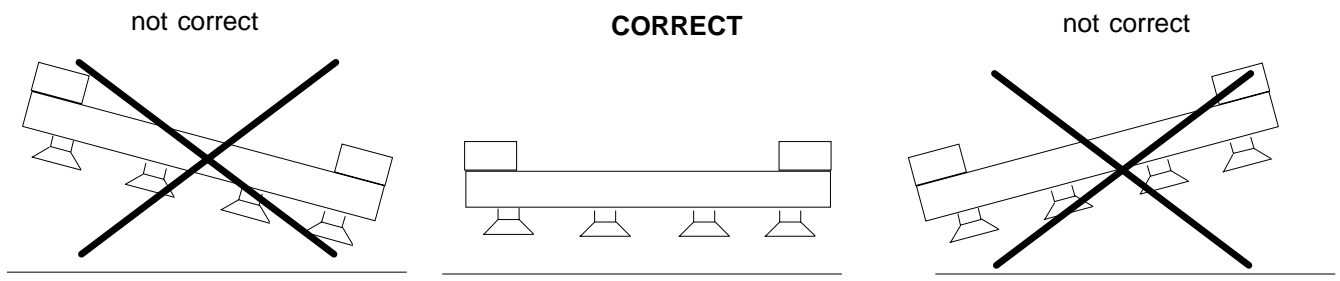


figure 6



- 29.** If the SUCKER BAR is not parallel, loosen the NUTS and SCREWS from step 25 and realign the SUCKER BAR. Tighten NUTS and SCREWS.
- 30.** Actuate the INTERLOCK OVERRIDE and switch on the ML700.

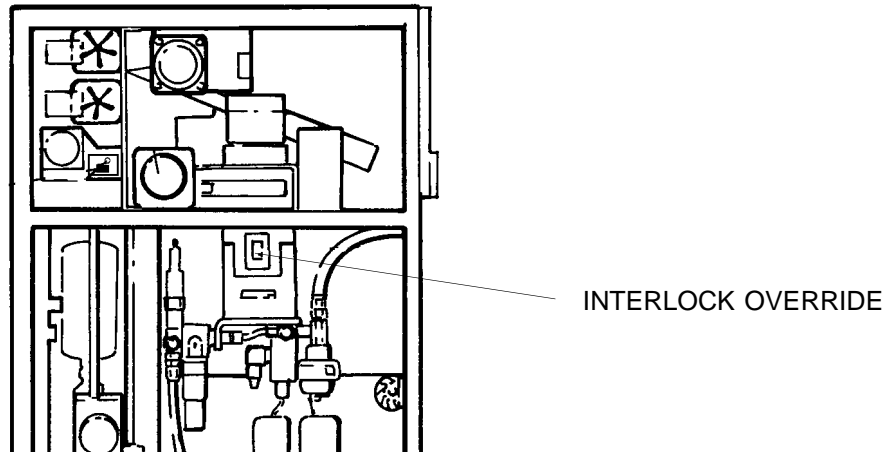
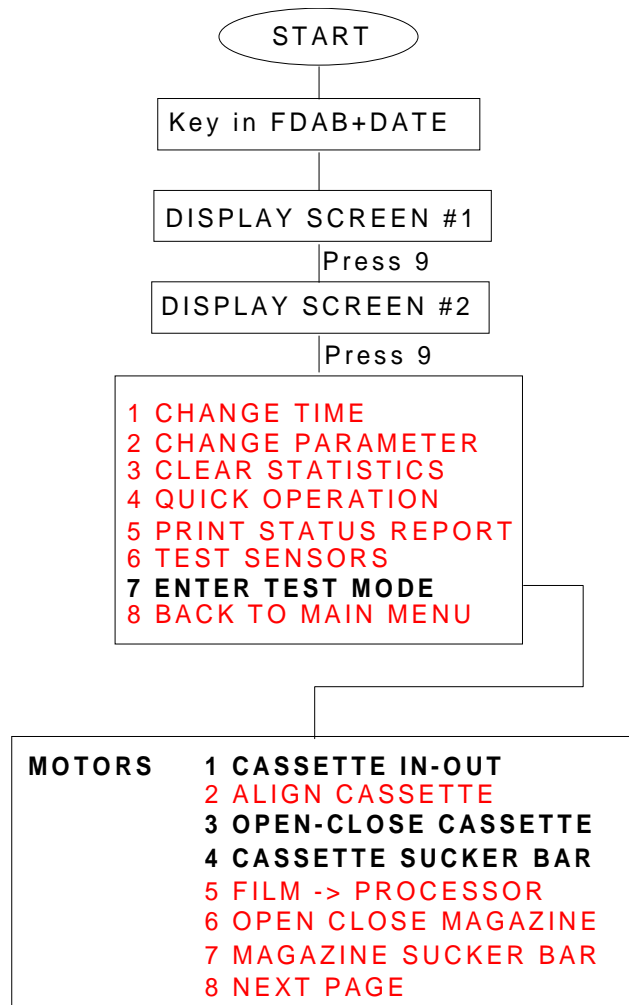
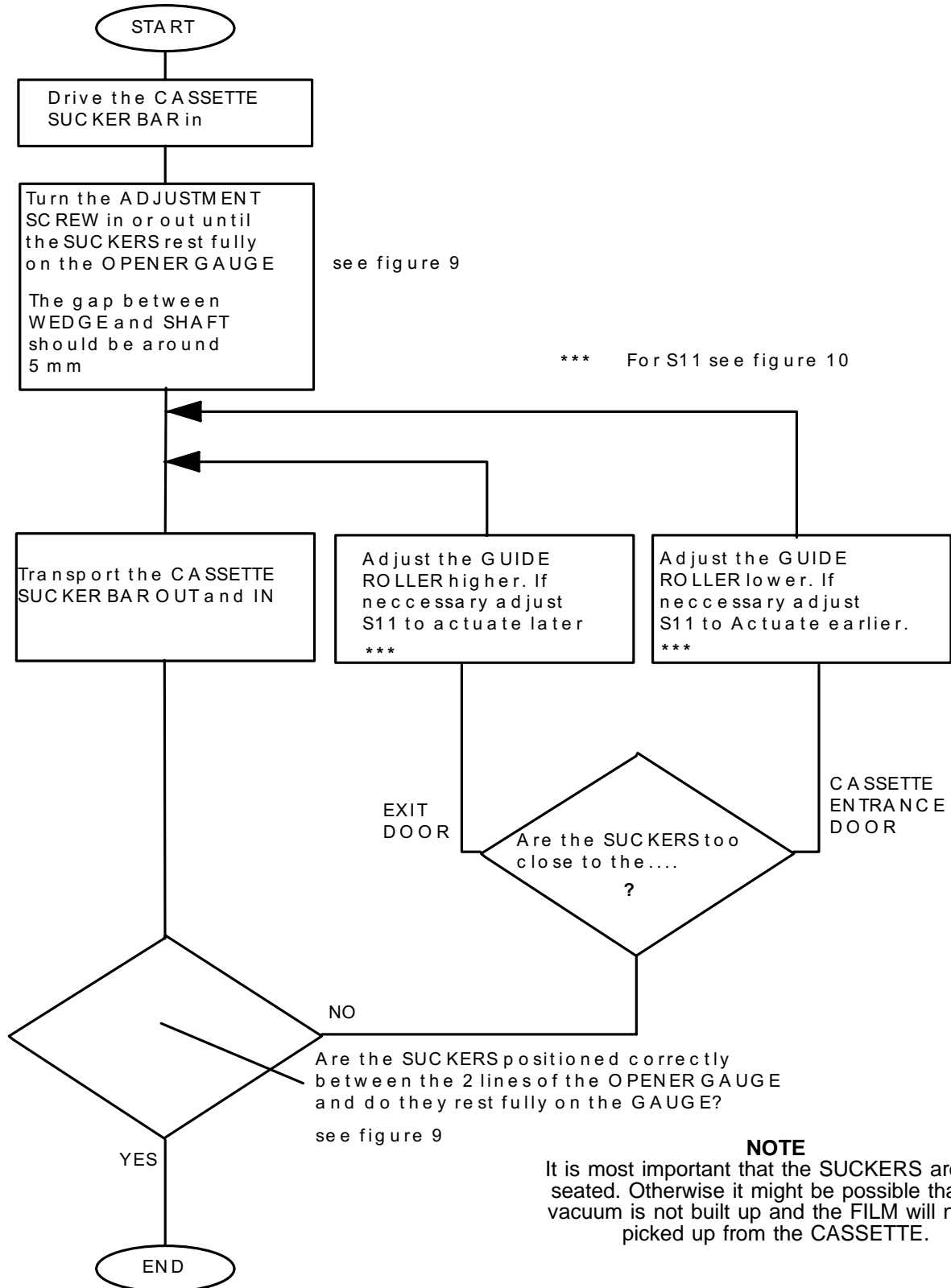


figure 7

- 31.** Enter the TEST MODE (use the SERVICE KEY PAD).



32. Feed in OPENER GAUGE PN 9193386 (TL 4804) into the ML700 PLUS and open the EXIT DOOR. Use OPTIONS CASSETTE IN-OUT and OPEN EXIT DOOR.
33. Do the CASSETTE SUCKER BAR adjustment. **If possible use TEST FILMS to avoid fogging of CUSTOMER FILMS.**



- 34.** Tighten the LOCK NUT of the ADJUSTMENT SCREW. If this LOCK NUT is not tight, the setting of the ADJUSTMENT SCREW might change due to vibrations.

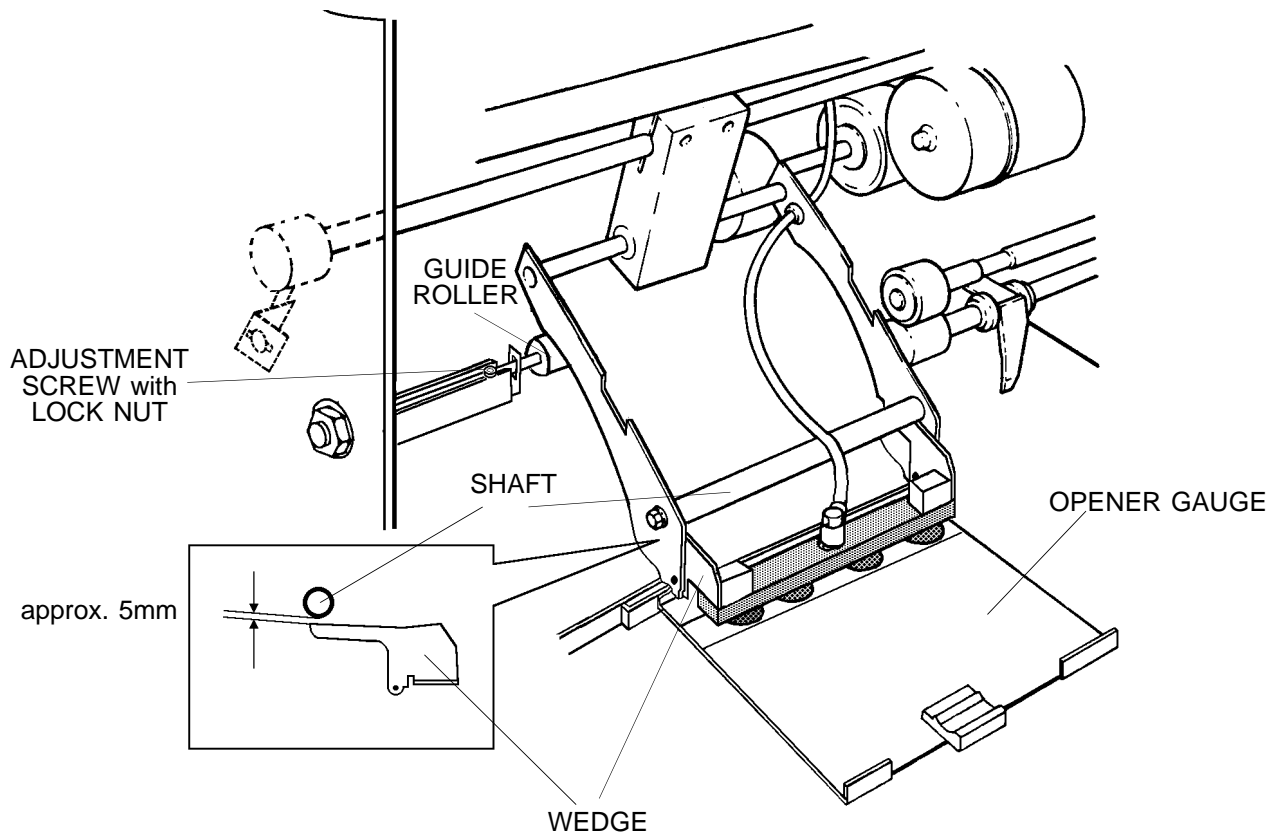


figure 8

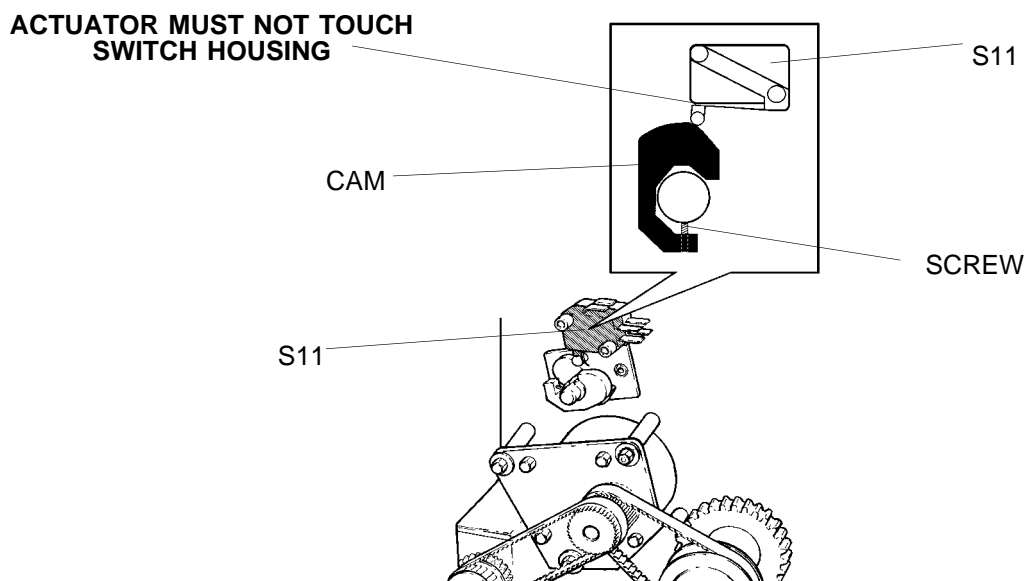


figure 9

- 35.** Transport the CASSETTE SUCKER BAR out and back in again. Adjust STOP 1 for the DRIVE SHAFT of the CASSETTE SUCKER BAR to a clearance of approx. 1 mm to the STOP SCREW on the DRIVE SHAFT.

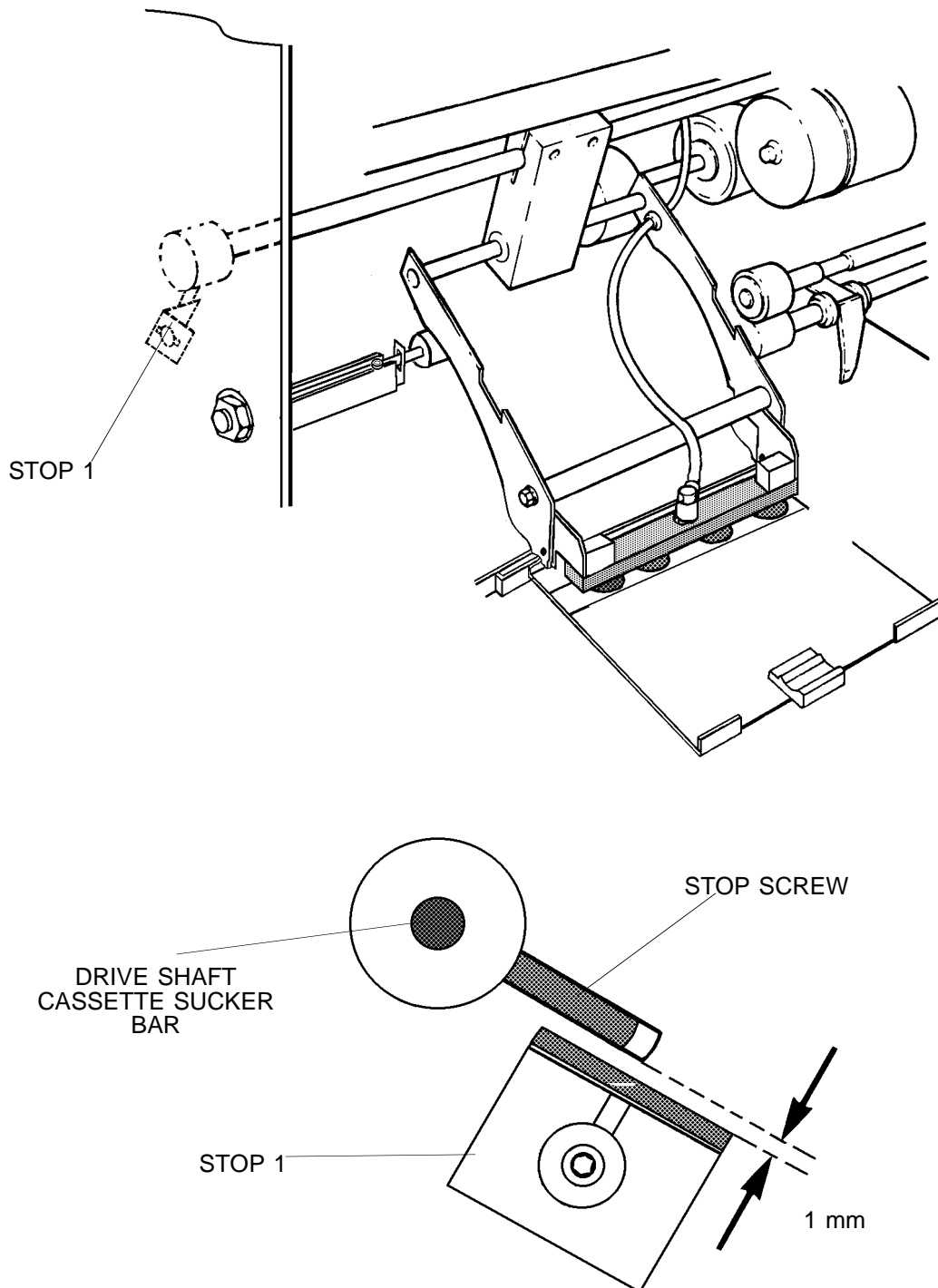


figure 10

- 36.** Move the CASSETTE SUCKER BAR out manually to a clearance of 1 mm between SUCKER BAR CAM and the DRIVE SHAFT of the SUCKER BAR.

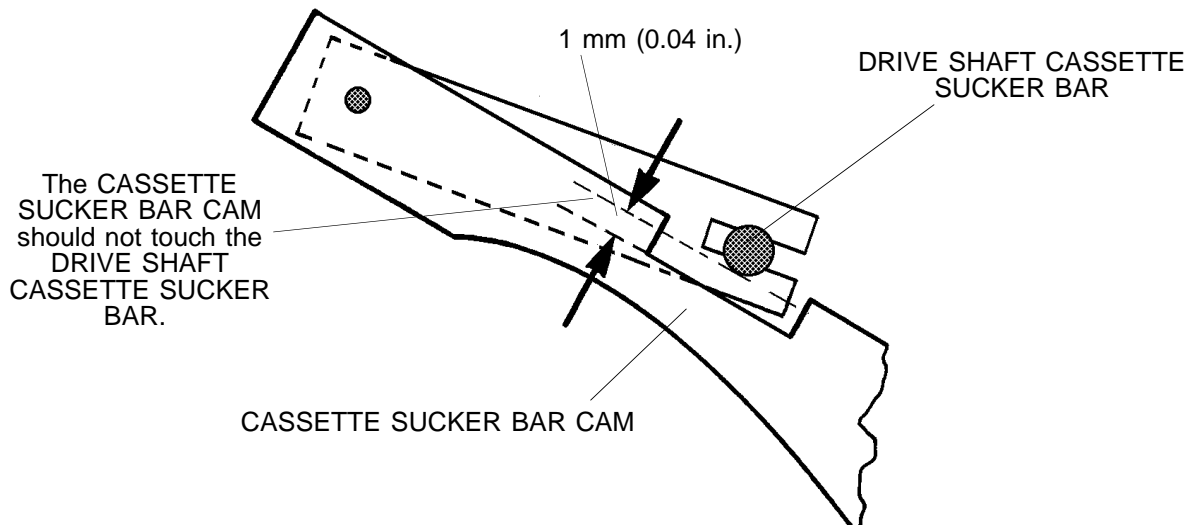


figure 11

- 37.** Adjust S12 to actuate.

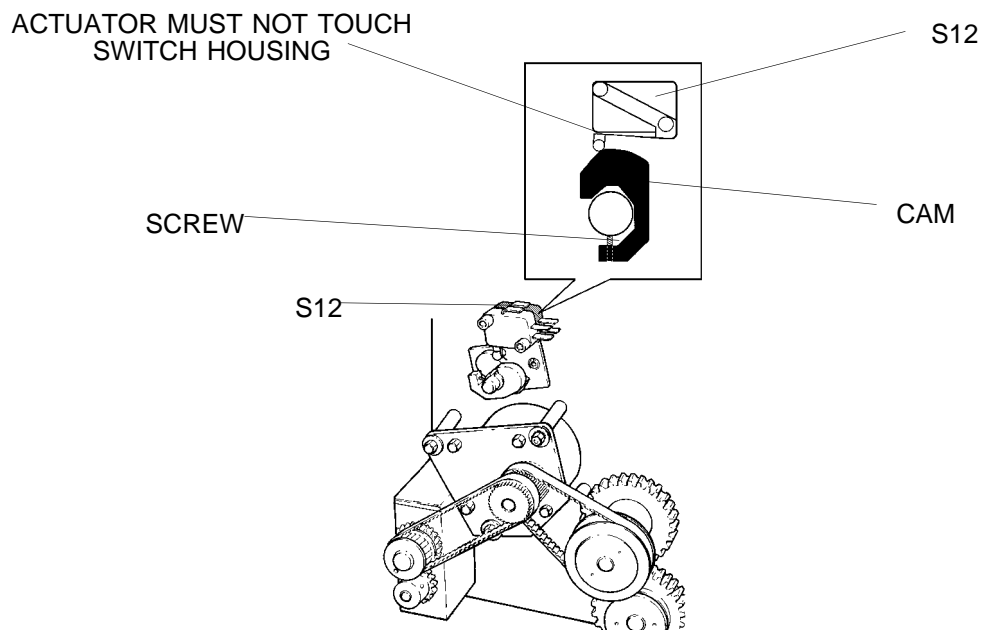


figure 12

**38.** Take out the OPENER GAUGE

*Press 2 (BACK) until the CASSETTE SUCKER BAR is fully withdrawn*

*Press 8*

*Press 3 (OPEN \_ CLOSE CASS.)*

*Press 2 (CLOSE)*

*Press 8*

*Press 1 (CASSETTE IN-OUT)*

*Press 4 (FEED OUT UNSWITCHED) and take the OPENER GAUGE out of the ML700*

*Press 8 3 times*

*Press 2 (CHANGE PARAMETERS)*

*Press 8 twice*

*Press 7 (ENABLE OPERATION)*

*Press 1*

*Press 8 twice*

**39.** Switch off the ML700.

## PART 2 REPLACEMENT OF THE FILM POCKET DETENT SPRING

1. Take off the ML700 REAR PANEL.
2. Take out the DETENT SPRING and discard it.

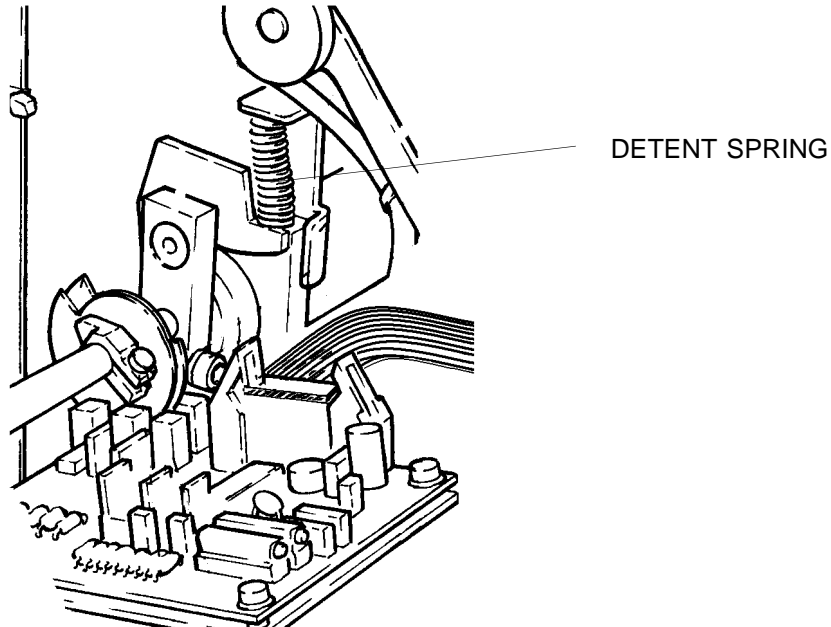


figure 13

3. Insert the new (stronger) DETENT SPRING.

## PART 3 CONVEYER END STOP

1. Take out the MOUNTING SCREW of the HUMIDITY SENSOR.

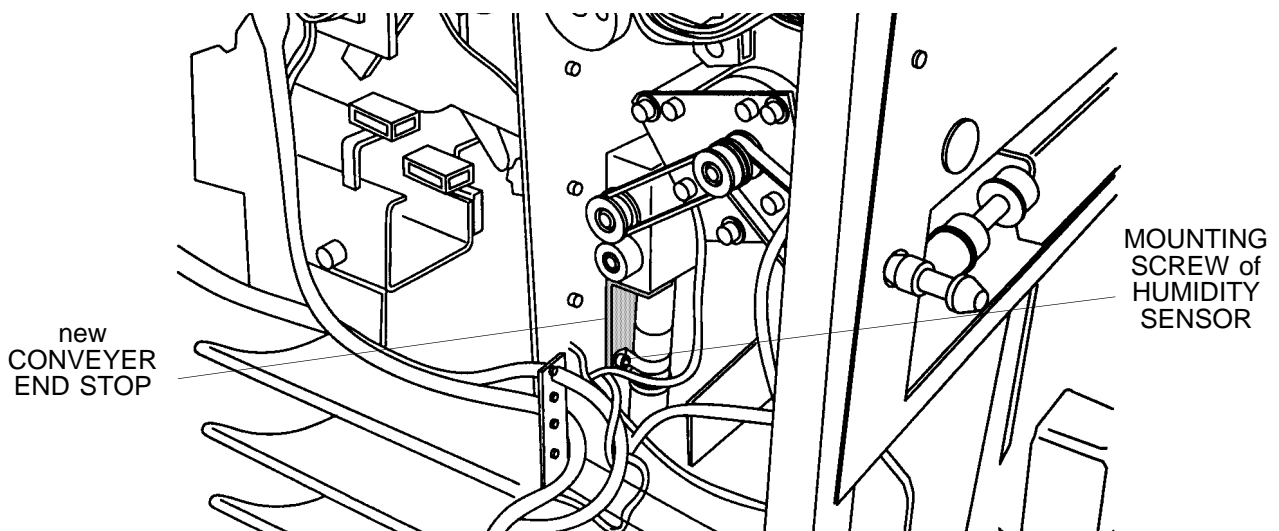


figure 14

2. Mount the CONVEYER END STOP. Ensure that the HOLDING CLAMP of the HUMIDITY SENSOR is on the END STOP.
3. Move the END STOP fully up until it touches the CONVEYER and fasten the MOUNTING SCREW.

## **FINAL TEST**

### **NOTE**

**If possible use TEST FILMS for the FINAL TEST to avoid fogging of CUSTOMER FILMS. The PANELS are still off.**

1. Switch on the ML700.
2. Run several cycles (unload/load) with various cassette sizes.
3. Observe that the FILMS are picked up correctly from the MAGAZINE. If necessary adjust the position of the FILM POCKET TIMING DISKS.
4. Observe that the FILMS are picked up correctly from the CASSETTE. If necessary repeat the CASSETTE SUCKER BAR adjustment.
5. Take out the KEY from the INTERLOCK OVERRIDE and mount all PANELS.
6. Connect the ML700 to the TUNNEL and mount the TRANSPORT BELT to the TUNNEL.
7. Run a few more cycles with various cassette sizes.
8. If TEST FILMS have been used, replace them with CUSTOMER FILMS now.
9. Circle No 28 on the MODIFICATION LABEL.

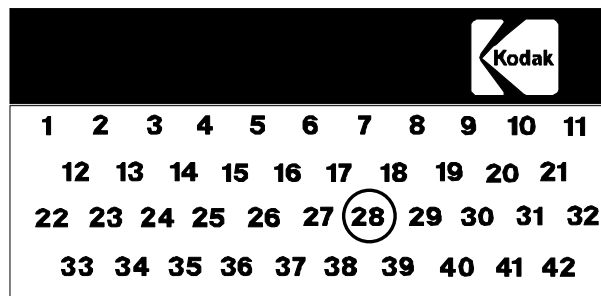


figure 15





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