Industrial Bar Code Printers

Procedure

Setting Label Threshold

for Label Sensor

M-8400/8 and M-8450 Printers

Setting Label Threshold for Label Sensor

STEP	PROCEDURE
1.	Switch the printer Off.
2.	Press and hold the LINE key while switching on the printer. **Fig. 1**
3.	Release the LINE key after a constant audible tone is heard.
4.	Raise the cabinet lid and load the media.
5.	Unlock the print head and remove at least 2 inches of label from the backing paper/liner. If you are using tag stock with a notch cut, ignore this step and proceed to Step 10.
6.	Set the printer to the Service Mode. (Refer to the Operator's Manual for instructions.)
7.	Press the Enter key twice. Verify display: **Setup Sensor** Press **Enter** Verify display: **Use Sensor No. 4,5** Press **Enter** Verify display: **Use What Sensor** Enter **4**
8.	You are now at **To Set Threshold 1st Input = X.X V** (V= Volts)
9.	Slide Label Stock under Label Sensor to the position of backing paper only. (This is where you removed labels in Step 5.) If you are using notched tag stock, check the position of sensor 4 to make sure that it lines up over the notch cut out in the tag. You may need to position the label sensor to match the position of your feed slots (notches) or I-marks on your labels/tags. Refer to the illustrations showing the relative position of each sensor along the label sensor unit and its range of movement (values based on distance from the inside edge of a tag or backing paper). To position the sensor(s), use the adjustment knob located outside and below the print head assembly area. **Fig. 2 & 3** Check the voltage reading on the display. It should read 0.IV. If it does not, remove your tag stock from under the sensor. With nothing under the sensor, the display should read 0.IV. If it does not, go to Step 10. If you can not adjust to 0.IV, then your sensor is blocked, needs cleaning, is defective, or the main PCB is defective.
10.	To adjust resistors: Remove (2) screws holding the LH cover to the base frame. Gently swing down the cover and observe the connecting cables. Place the cover down on a convenient support being careful not to sever the connections. **Fig. 4**

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STEP	PROCEDURE
11.	Locate the variable resistors on the PCB. For **M-8400/8** you will adjust **VR1.** For **M-8450** you will adjust **VR3.** Adjust the resistors until the display reads between 0.7V to 1.0V and press **Enter**. On some label liners, the opacity (see through) does not allow the lowest level to go as low as required. A rule of thumb: Turn the resistor to the lowest level and then turn to the maximum so that the first input is 0.5V higher than the lowest possible reading for just the liner. Lowest liner reading + 0.5V = 1st input. **Fig. 5**
12.	You are now at **To set threshold 2nd input = X.X V** (V= Volts).
13.	Slide label stock under Label Sensor, to the position of the label and backing paper. The voltage reading on the display must be at least 1.5V higher than the 1st input reading from Steps 9, 10 & 11. If this voltage reading is not at least 1.5V higher, the accuracy of label detection cannot be guaranteed. Call Sato Tech Support if required.
14.	You are now at **Threshold = X.X V is it OK? No.**
15.	Move the arrow key to **Yes** and press **Enter**.
16.	Press the **F1** key twice and turn the printer **Off**.
17.	Turn the printer **On**.
18.	If the display shows **Paper End/Media Error**, perform the factory reset procedure. (The printer may have to be reconfigured.)
19.	If the display still shows **Paper End/Media Error,** try another value for your 1st input, Step 8, and repeat Steps 9 through 17.
20.	If you still get **Paper End/Media Error,** you may have a defective battery on your main PCB. Check the battery voltage (at the connector, leaving it connected to the main PCB, with the printer turned off and the parallel comm cable disconnected). This voltage must be 3.4V to 3.6V.
21.	If the error still displays, make a copy of your settings and do a factory reset. **Page 6-7**

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LABEL SENSOR

#4

1, 2, 3, 6 = Tag Hole/Notch
Sensor
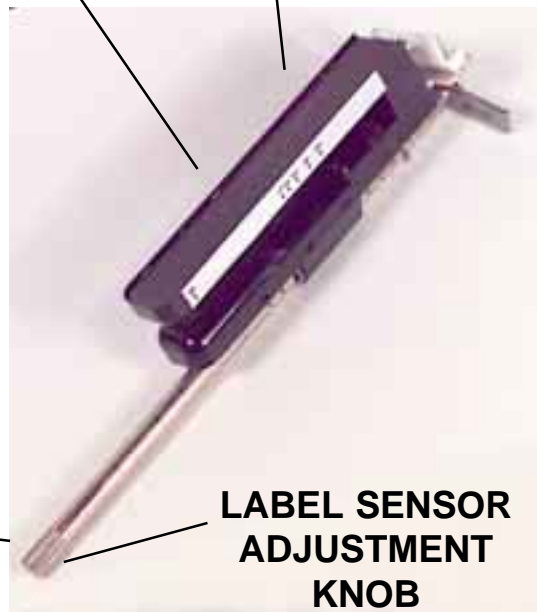4 = Transmissive Sensor
5 = Reflective Sensor

**REMOVE 2 + INCHES
OF LABEL FROM
BACKING PAPER/LINER**

Fig. 2

Turn adjustment knob
CW to move label
sensor towards outside
print edge.

Turn the knob CCW to
move label sensor
towards inside print
edge.

**LABEL SENSOR
ADJUSTMENT
KNOB**

Fig. 3

**PRESS AND
HOLD LINE KEY**

Fig. 1   **PRINTER
SWITCH**

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Fig. 4

REMOVE (2) SCREWS HOLDING COVER TO FRAME AND SWING DOWN CAREFULLY TO AVOID SEVERING CABLES

SET THE COVER ON A CONVENIENT SUPPORT

ADJUST VARIABLE RESISTORS VR1 (M-8400/8) VR3 (M-8450)
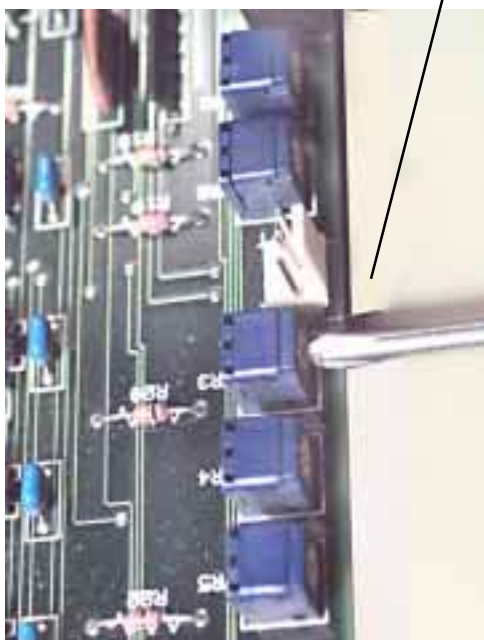

Fig. 5

Factory Reset Procedure for M-8400/8

Important: This procedure will reset all Mode-I and Mode-S settings to Sato default. Make sure you have a copy of your current settings before performing the reset.

STEP	PROCEDURE
1.	Set the printer power switch to the OFF position.
2.	Turn on the power while pressing the **Left** arrow, **Enter** & **Right** keys. Release the keys when an audible sound is heard. Verify display: ***Mode F Options*** / ***Set Machine Type***
3.	Press the **Right** arrow key five (5) times. Verify display: ***Mode F Options*** / ***Clear Counters***
4.	Press the **Enter** key once. Verify display: ***Clear Which Counter*** / ***Head***
5.	Press the **Right** arrow key three (3) times. Verify display: ***Clear Which Counter*** / ***Others***
6.	Press the **Enter** key once. Verify display: ***Are you sure?*** / ***No***
7.	Press the **Right** arrow key once. Verify display: ***Are you sure?*** / ***Yes***
8.	Press the **Enter** key once.
9.	Set the printer power switch to the OFF position.
10.	Set the printer power switch to the ON position.
11.	Reset user configuration via Mode-I and Mode-S if required. (Refer to the Operator's Manual for instructions.)
12.	The printer is now ready to returned to service.

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Factory Reset Procedure for M-8450

Important! This procedure will reset all Mode-I and Mode-S settings to Sato default. Make sure you have a copy of your current settings before performing the reset.

STEP	PROCEDURE	
1.	Record all current dip switch positions, then place all switches in the Off position. Place the printers power switch in the Off position.	
2.	Turn on the power while pressing the **Enter** key and **Left** & **Right** arrow keys. Release when an audible sound is heard. Verify display: Mode F Options	***Mode F Options*** ***Set Machine Type***
3.	Press the **Right** arrow key five (5) times. Verify display:	***Mode F Options*** ***Clear Counters***
4.	Press the **Enter** key once. Verify display:	***Clear Which Counter*** ***Head***
5.	Press the **Right** arrow key three (3) times. Verify display:	***Clear Which Counter*** ***Others***
6.	Press the **Enter** key once. Verify display:	***Are you sure?*** ***No***
7.	Press the **Right** arrow key once. Verify display:	***Are you sure?*** ***Yes***
8.	Press the **Enter** key once.	
9.	Press the **F1** key once.	
10.	Set the printer power switch to the OFF position.	
11.	Set the printer power switch to the ON position.	
12.	Reset user configuration via Mode-I and Mode-S if required. (Refer to the Operator's Manual for instructions.)	
13.	The printer is now ready to be returned to service.	