FCO #512-00207A
Replacing the paper/plate detector

Document number: 719-00207A Rev A

Release date: 23 Nov 2004

Applies to

- Lotem® 800
- Lotem 800 II Family
- Lotem 800 Quantum
- Lotem 400 Family with MCU (small – 6 suction cups)

Priority: Next failure

Component Paper/plate detector

Problem

- Existing paper/plate detector does not detect a wide range of plates.
- Platesetter must be calibrated for each new type of plate.

Solution

Replace the existing paper/plate detector with a wide detector. The wide detector can detect a wide range of plates without having to calibrate the platesetter for each new plate type.

Time required 30 minutes

Prerequisite FCOs FCO #512-01636 Antistatic bar flag assembly

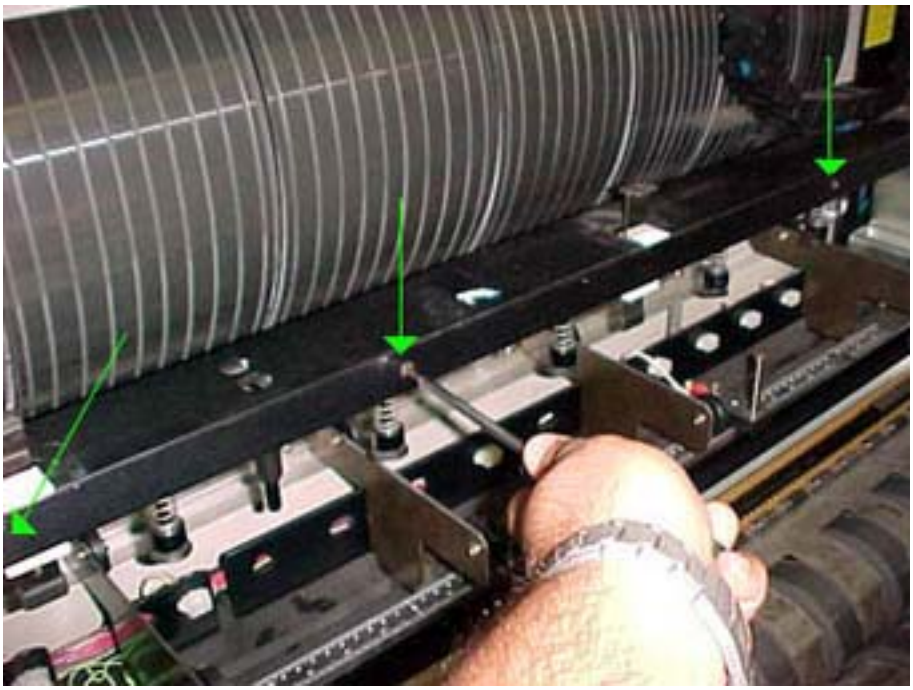
Parts included in FCO

Part Number	Part Name	Quantity
220-00385A	PPDS to local-2 adapter	1
258-00004A	Bag, Shielding 10 x 15 cm	1
391I50010	Nylon air bubl. 100 X 200	1
391A70210	Carton box 125 X 125 X 25	1
503-00036B	PPDS board assembly	1
719-00207A	Paper metal detector type II	1

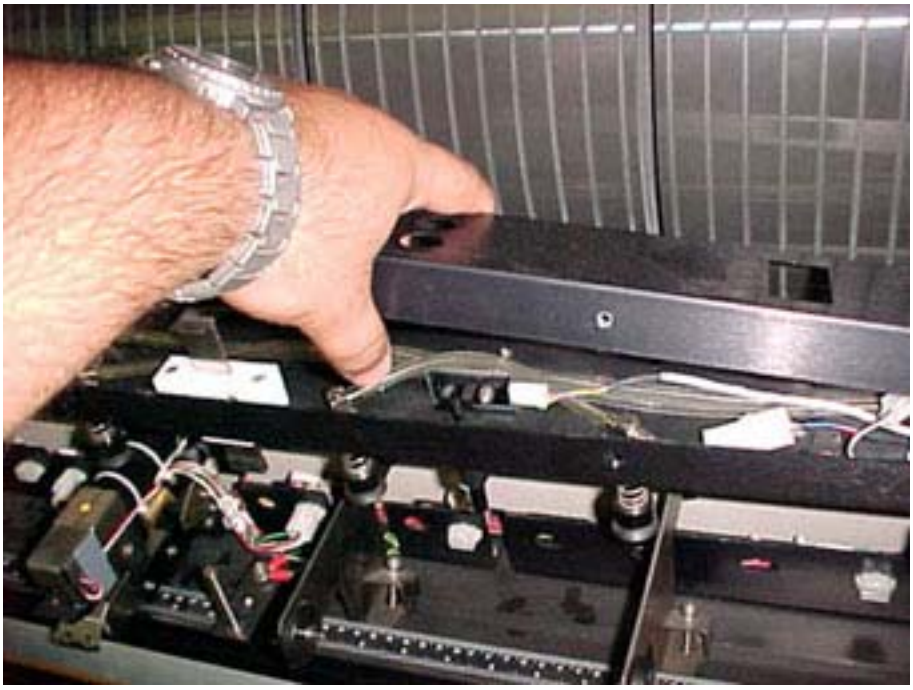
FRU after FCO implementation

Procedure

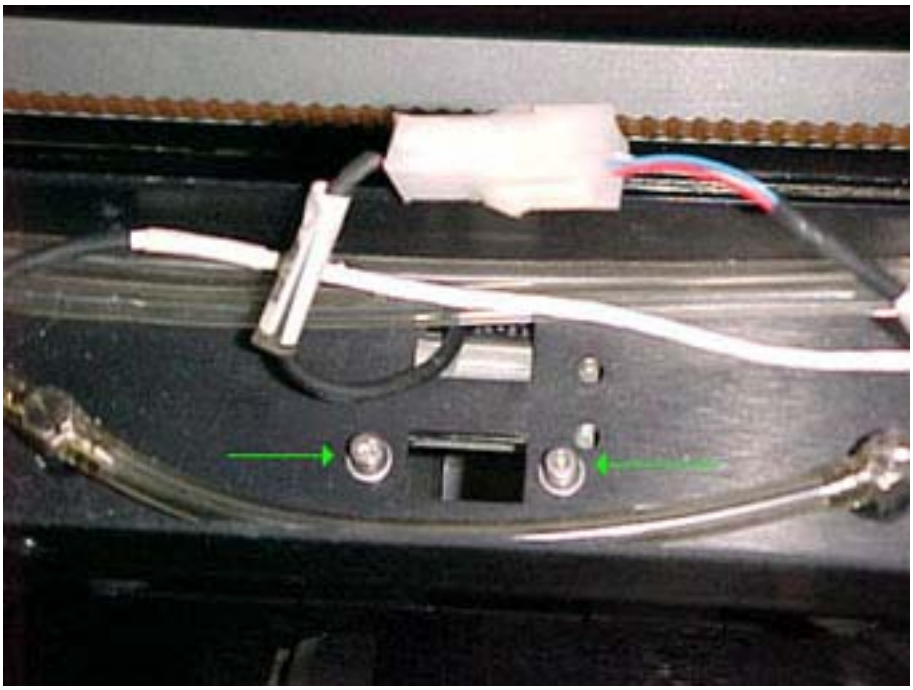
1. Remove the three screws on the suction bar cover:



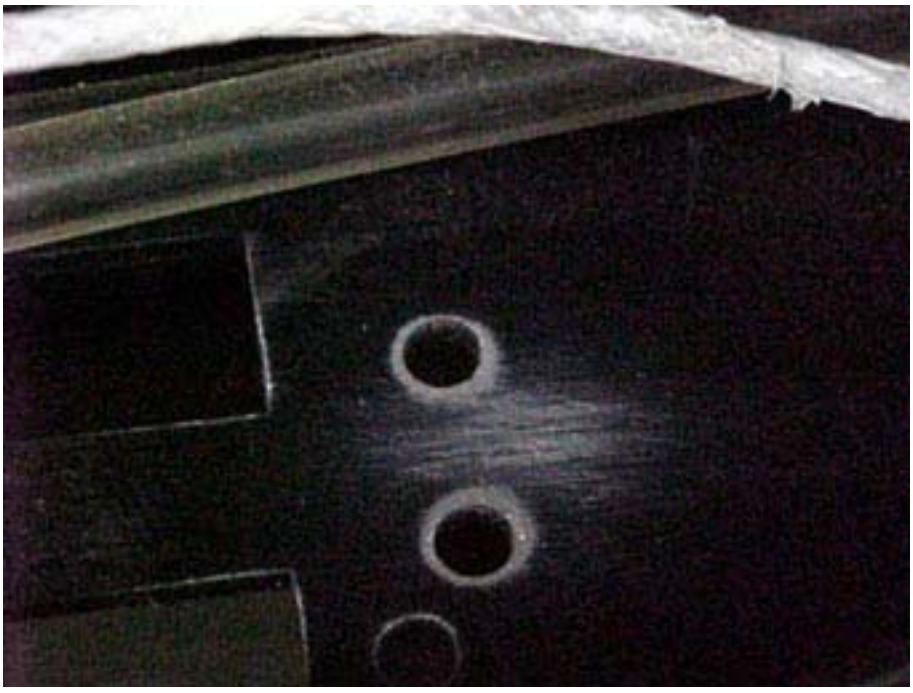
2. Remove the cover from the bar:



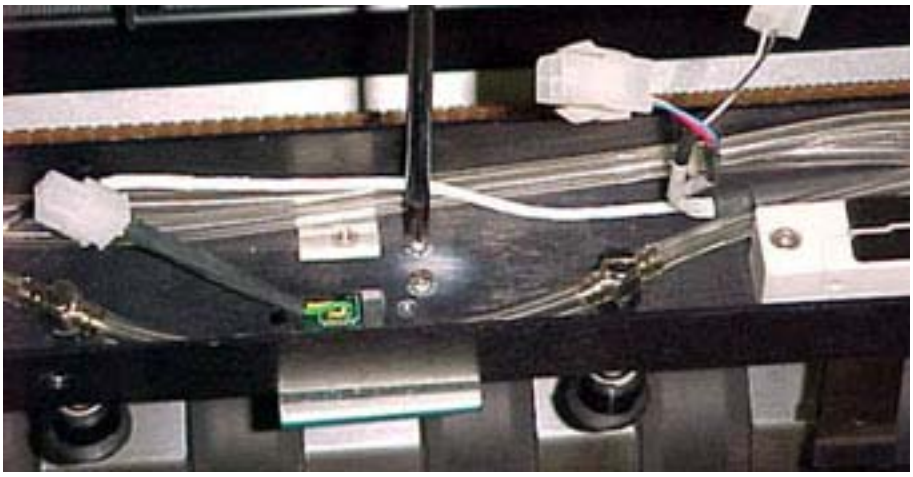
3. Disconnect the existing paper/plate detector bracket and the wiring clamps:



4. Implement FCO #512-01636 Antistatic bar flag assembly.
5. Scratch away the loading bar coating around the area of the screw holes:



6. Connect the wide paper/plate detector with the screw supplied:



7. Wire the detector and connect it to the existing connector.
   Note: Local2 platesetters must use the supplied adapter.

   Important: **For Local2 platesetters only:** If the Det. Active is set to 0, change it to 1; if it is set to 1, change it to **0**.

Upon Completion

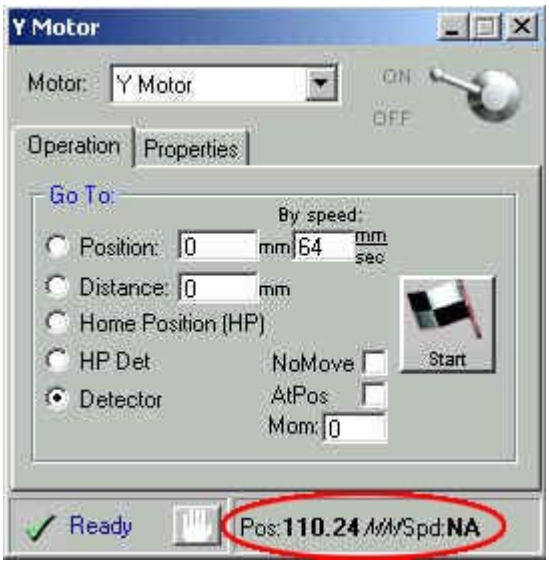
Perform calibration as follows:

1. Place a customer's plate inside the cassette tray. If the customer has a dual-loading cassette, place the plate into the main tray.
2. Open the following windows in Lotem Controller:
   - Bar Flag Detector
   - Paper/Metal Detector
   - Y Motor
   - X Motor
3. Send **Y motor** to position **10**.
4. Send **X motor** to position **360**.
5. Send **Y motor** to **detector**.

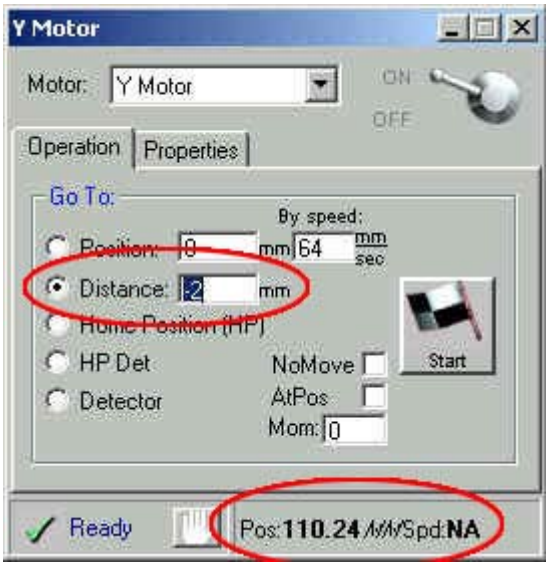
6. When the loading bar is down inside the cassette (at the detector level), make sure that the status of the detectors is as follows:
   - Bar Flag Detector: **ON**
   - Paper/Metal Detector: **ON**

   Write down the value of the **Y motor position** at this state,

   for example **A = 127**:

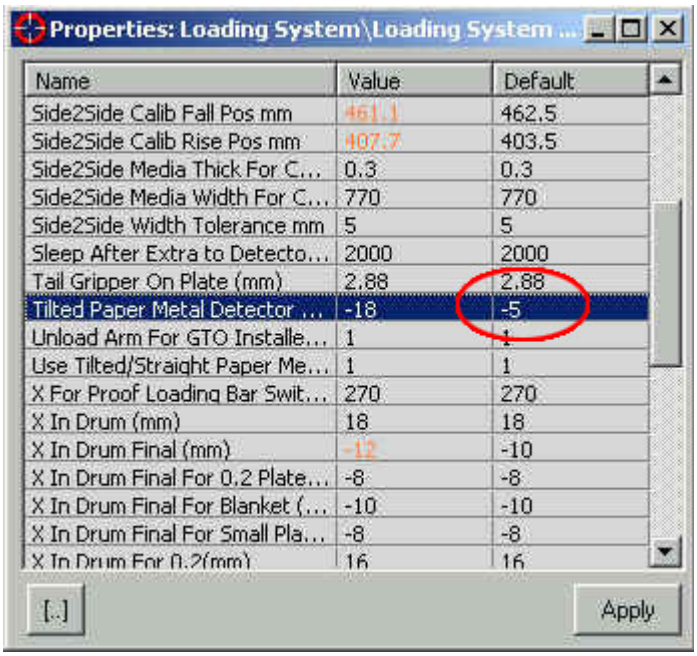


7. In the Y Motor dialog box, send the Y motor upwards by entering **-2** in the Distance field. Continue to send the Y motor upwards until the status of the Paper Metal Detector is **OFF**.
   Write down the value of **Y motor position** when it is in this state,
   for example: **B = 91**:



8. Calculate the value of **Z**, by using the following formula:
   (A-B)/2 = Z
   for example **(127-91)/2 = 18**

9. Navigate to the **Loading System Setup\Tilted Paper Metal Detector\Relative Position** parameter, and change the default value of the parameter to the number representing **-Z**.
Important: Make sure that you enter value Z as a negative number!



10. Perform loading system initialization. Place paper inside the main cassette.
11. Send the loading system to **X =360**
12. Send the Y motor to *detector*.
13. In the Y Motor dialog box, send the Y motor upwards by entering **-10** in the Distance field. Continue to send the Y motor upwards until the Y motor encoder displays is at **50**. At this point, make sure that the Paper Metal Detector's status remains **OFF**.
14. Verify the plate/paper identification on the upper tray of the DLC by performing two loading sequences.

Troubleshooting:
Lotem 800 II Fam
Lotem 800
Lotem 800 Quant.

Troubleshooting: Lotem 800 II Family, Lotem 800, Lotem 800 Quantum	
Problem	**Solution**
LED is not lighting	1. Check the paper/plate detector connection. 2. Check power is on. 3. Check the surfaces of paper/plate detector. Use air pressure to remove any dust that may have accumulated on the LED or sensors - do not use a cloth!
Plate is not detected	Calibrate the platesetter: 1. Place plate into the cassette. 2. Bring the XY bar into the cassette (x ~367) (y~30) Move the loading system in the following three steps: X= 350; Y= 70; X= 365 3. Open following dialog boxes: Bar flag detector Paper/metal detector Y motor 4. Activate the Y motor to detector. 5. XY bar will go down to **bar flag detector = ON**. **Paper/metal detector** will change to **ON**. 6. Write down the value of Y motor encoder **A** - the value appears in the dialog box, for example = 120 7. Raise the loading system bar by entering in the Y motor dialog, Distance = (**-2**) until paper/plate detector will change to **OFF**. Write down the value of the Y motor encoder **B** - the value appears in the dialog box, for example = 90 8. Calculate **Z= (B-A) /2** = -15. Enter the Z value in **Loading system setup\Tilted paper metal detector relative position** field. 9. Place relevant paper and repeat steps 4 and 5. Check that the paper/plate detector is **OFF** all the way. 10. For DLC Configuration the steps above must be performed on upper and main trays.

Troubleshooting: Lotem 400 Family with MCU

Troubleshooting: Lotem 400 Family with MCU	
Problem	**Solution**
LED is not lighting	1. Check the paper/plate detector connection. 2. Check power is on. 3. Check the surfaces of paper/plate detector. Use air pressure to remove any dust that may have accumulated on the LED or sensors - do not use a cloth!
Plate is not detected	Calibrate the platesetter: 1. Open the front and back top covers of the platesetter. 2. Make sure that there is a plate in cassette #1. If required, remove any paper that may be covering the uppermost plate. 3. Bring the XY bar into the cassette: a. Open the X Motor dialog box: From the Hardware tree, select **Loading System > Loading Plate to Drum > X System** and then double-click **X Motor**. b. Repeat step a for the Y motor. c. In the X Motor dialog box, in the Position field, type **335** and press **Start**. The XY bar moves toward Cassette #1. d. In the Y Motor dialog box, in the Position field, type **30** and press **Start**. The XY bar descends toward the plate. 4. Open the following dialog boxes: Bar flag 1 detector Paper/metal optic detector Y motor 5. In the Y Motor dialog box, select **Detector** and click **Start**. • The XY bar descends to the bar flag. • The bar flag 1 detector status changes to **ON**. • The paper/metal optic detector status changes to **ON**. 6. Write down the position value of the Y motor value, that appears in the lower right corner of the Y Motor dialog box, for example, 205. 7. Raise the loading system bar: In the Y motor dialog box, in the Distance field, type **-5** and click **Start**. Continue to click Start until the Paper/Metal Optic Detector status changes to **OFF**. 8. Write down the position value of the Y motor, for example, 160. 9. Calculate Z = (value in step 8 - value in step 6) /2 = -22.5 (-22). **Note:** The default value is -15. 10. In the registry, in **Loading System Setup > Y Rel to Read Paper Metal Det [mm]**, type the Z value (**-22**).

FCO #512-00207A

Logistics:

Approved quantities:

CSC	Quantity
CAM	10
CEU	15
CAP	15
CJP	5

Schedule supplies for first lots:

	CSC			
Schedule	**CAM**	**CAP**	**CJP**	**CEU**
23 Nov 03	0	0	0	15
14 Dec 03	10	15	5	25
18 Jan 04	0	0	0	25
15 Feb 04	0	0	0	25

Lead time: Allow 3 months fro extra quantities.

Material disposition	Either save the old detector in your tool box, or alternatively, scrap it.
See also	FCO #512-01636 Antistatic bar flag assembly
Technical contact	Moshe Arviv
Date submitted	23 Nov 04
Last updated	23 Nov 04