Lotem 800 - Troubleshooting

Problem: Plate Pickup Failure

Problem Description:

During the first stage of loading, the machine does not pick the plate up from the Cassette.

Error Message:

Vacuum did not grab the plate

Machines Affected:

Lotem™ 800 (S-speed)

Lotem™ 800 (F-speed)

Lotem™ 800 Quantum

Lotem™ 800 Spectrum

Software Products and Versions:

N/A

Operating System:

N/A

Probable Causes:

- Incorrect plate definition
- Inappropriate values entered for specific parameters
- Damaged or defective plate(s)
- Cassette Plate Guides problem
- Machine is not leveled
- Dirty or damaged XY Bar Suction Cups
- Loading Vacuum malfunction
- Loading System out of alignment
- Paper/Metal Detector malfunction

Documentation Key

This document uses two graphic indicators, as follows:

- ✓ The check mark indicates items that need to be checked and/or verified.
  - ⇨ The arrow indicates an action that needs to be taken. Each action pertains to the item directly above it.

Note: If at any point in the troubleshooting procedure you feel that the problem has been resolved, you can either perform plate loading, or continue to the end of the procedure.

Before the Customer calls the Response Center

There are several troubleshooting steps that the customer should complete before calling the Response Center. These steps can prevent extensive down-time and expensive service calls by enabling the customer to solve problems independently. These steps are fully explained in the section titled, "Troubleshooting Procedure". Ideally, the customer will have completed these steps before calling the Response Center, and also, reviewed the following questions and written the answers down. Either way, it is mandatory that you review the following questions with the customer, and verify whether the troubleshooting procedure was properly performed.

1) Keep any damaged plates.
2) Ask the customer the following questions (record the answers):
   - ✓ When was the last time the machine worked properly?
   - ✓ What was done since then? For example,
     - Was the machine moved?
     - Was the machine cleaned?
     - Was a new batch or type of plates used?
   - ✓ Was an error message displayed on screen? If yes, what did it say (include numbers, if any).
   - ✓ What is the software version?
     - ⇨ In the PC Controller, select **Utilities > Machine Info**. The version is displayed.
   - ✓ Does the problem happen all the time (with all plates), or just some of the time? For example,
     - With a particular plate brand, type and/or size?
     - Only when a few plates are left in the Cassette? (If yes, you can suggest that the customer place additional plates in the Cassette, or raise the level of the last few plates by placing several used plates covered by a piece of cardboard under them, as a temporary workaround.)
     - Does the problem seem to be a random occurrence?

- ✓ What are the temperature and humidity levels in the plate storage room? For example,
  - Do they adhere to the plate manufacture's guidelines? If not, in what ways?
  - Does the temperature fluctuate radically?

Troubleshooting Procedure

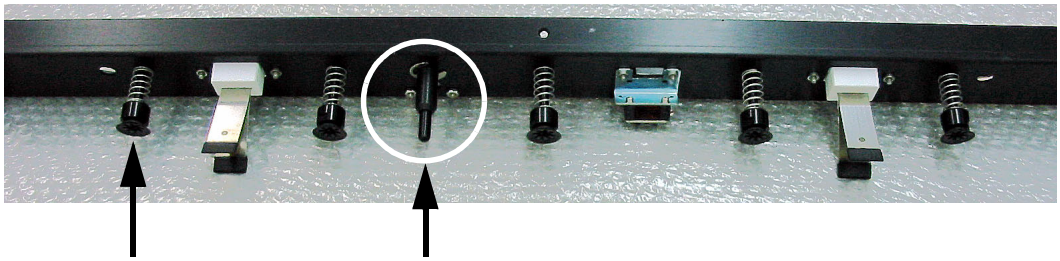
1) Verify that the plate has been correctly defined, as follows:
   - ✓ In the PC Controller, select **Settings > Plate Definitions**, and in the **Media Definition** dialog box, verify that the plates currently being loaded are correctly defined. If they are not correctly defined:
     - ⇨ Have the customer modify the plate definition or create a new plate definition, as described in the user manual, and provide instructions as to the proper procedure. Perform plate loading. If the problem persists, proceed to the next step.
2) Verify that the correct values have been entered for the following plate separation parameters in the Registry:

   Note: It is recommended to use the default values for these parameters. If it is necessary to change them, do not change them by much.
   - ✓ HKEY_LOCAL_MACHINE\SOFTWARE\Scitex\Projects\Lotem800V\IOOBJECTSY Plate High Up In Cassette (Rel)(mm)+Y Plate Rel Up In Cassette (mm)
   - ✓ HKEY_LOCAL_MACHINE\SOFTWARE\Scitex\Projects\Lotem800V\IOOBJECTSY\Loading System\Load Plate\From Cassette To Punch Entry Stage "X Rel Backward For 03 (mm)
3) Inspect the plate(s). Look for:
   - ✓ Defective or warped plate: May indicate manufacturer's defect, or damage that was caused to the plate either during handling or due to bad storage conditions, such as extreme hot or cold. If defects or damage is found:
     - ⇨ Load new, undamaged plates. If the problem persists, proceed to the next step.

       Note: If the conditions in the plate storage room do not meet product guidelines, consult the plate supplier.
4) Check the Cassette. Verify that:
   - ✓ Plates are properly loaded and positioned in the Cassette and that there are no foreign objects between the plates such as cardboard or other packing material. If they are not properly loaded:

     Note: Remove foreign objects before reloading, as required.
     - ⇨ Have the customer load plates into the Cassette and provide instructions as to the proper procedure.

5) Use a spirit level to verify that the machine is properly leveled. If it is not:
   - ⇨ Have the customer use a spirit level to check machine leveling, and verify whether it is being done correctly. If the machine is not level, perform machine leveling (TechPlanet).
6) Open the Front Door, manually move the Loading System toward the Cassette and raise the XY Bar to its highest position. Inspect the suction cups. Look for:
   - ✓ Damage of any type: Place a finger under each suction cup and:
     - ✓ Inspect the edges for signs of wear, tear and/or cracking.
     - ✓ Gently press upward and look for tears and/or cracks anywhere in the rubber. If found:
       - ⇨ Replace the damaged XY Bar Suction Cup(s) (TechPlanet). Verify that the correct number of washers are installed for each suction cup.
   - ✓ Debris or dirt: This indicates that Preventive Maintenance is not being properly and/or regularly performed.If found:
     - ⇨ Clean the XY Bar suction cups.
7) Inspect the Bar Flag (located in the XY Bar, as shown below). Look for:



   - ✓ Debris or dirt.
   - ✓ Free Movement. Gently tap the tip of the Bar Flag upward with your finger. If it does not move freely:
     - ⇨ Remove the XY Bar cover and inspect the Bar Flag and Bar Flag Detector:
       - ✓ Look for debris, dirt and/or other obstruction. If found:
         - ⇨ Clean the Bar Flag and the inside of the Bar Flag Housing, and remove any debris or obstruction, as required.
         - ⇨ Clean the Bar Flag Detector. Use a Q-Tip to thoroughly clean the detector. Make sure that no pieces of cotton are left on the lens after cleaning. If the problem persists:
           - ⇨ Replace the Bar Flag according to the New Bar Flag and Housing FCO (TechPlanet).

8) Verify that the Bar Flag Detector is functioning properly by performing the following:
   - In the PC Controller, select **Utilities > Hardware**.
   - In the hardware tree, double-click **Loading System > Loading Plate to Drum > Detectors > Bar Flag 1 Detector**. The Bar Flag 1 dialog box is displayed.
   - Press the Bar Flag upward with your finger and verify that:

   ✓ In the Bar Flag 1 dialog box, the status toggles to **ON**. If it does not:

   ✓ Run the Lotem 800 Diagnostic Software and select **Machine > Bar Flag Detector**. If it fails:

   ✓ Remove the XY Bar Upper Cover, visually inspect the Bar Flag Detector wiring, and verify that it is properly attached. If it is not:

   ⇨ Attach, repair and/or replace the wiring, as required, and repeat step 8. If the problem persists:

   ⇨ Replace the Bar Flag Detector (TechPlanet).

9) Verify that the XY Bar does not hit the Cassette Plate Guides during loading, by performing the following:

   ✓ Manually move the Loading System toward the Cassette until it is positioned at the front frame of the machine, as required.

   ✓ Manually lower the XY Bar until it clears the front frame.

   ✓ Manually move the Loading System toward the Cassette until it is over the plate.

   ✓ Manually move the XY Bar down into the Cassette as far as it will go and verify that it does not touch the Cassette Plate Guides. If it does:

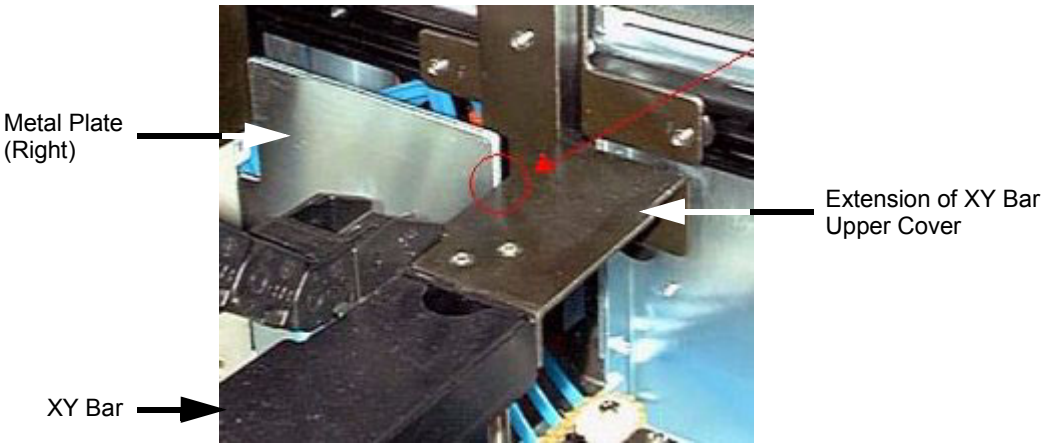
   ⇨ Ask the customer if they tried raising the level of the plates in the Cassette by placing several used plates covered by a piece of cardboard in the bottom of the Cassette, and then placing the plates on top of the cardboard. If they did not, have them do so, and instruct them as to the proper procedure and then, perform plate loading. If the problem persists, or if this is good only as a temporary solution:

   ⇨ Install GTO Plate Guides and instruct the customer regarding when and how to use them. Ensure that the XY Bar Suction Cups do not hit the GTO Plate Guides during loading.

10) Check XY Parallelism by performing the following:
   - Manually lower the XY Bar to its lowest position.
   - Manually move the Loading System toward the Drum as far as it will go. Verify that:

   ✓ The extension of the XY Bar Upper Cover touches the metal plates on both the right and left of the machine simultaneously.

The picture below shows the extension of the XY Bar Upper Cover touching the metal plate on the right side of the machine.

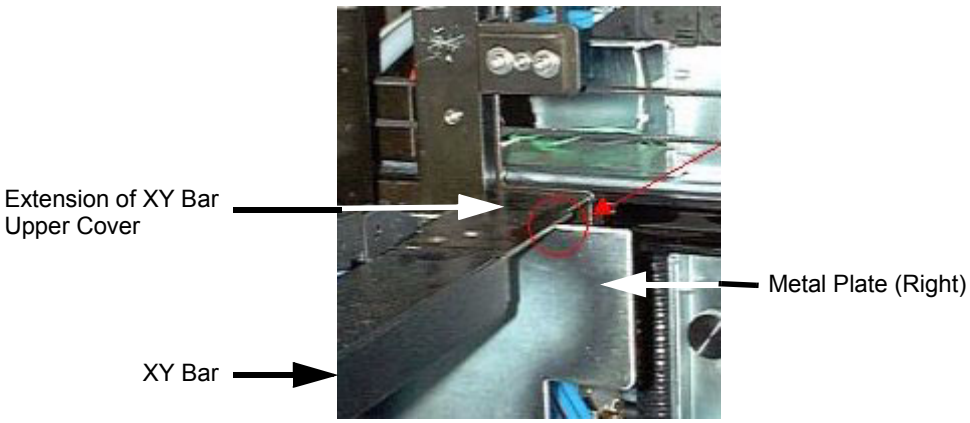


If it does not:

✓ Verify that the XY Bar is level by performing the following:

- Manually raise the XY Bar until the bottom clears the metal plates on the right and left.
- Push the XY Bar toward the Drum.
- Then, lower the XY Bar until it rests on the metal plates. Verify that:

✓ The extension of the XY Bar Upper Cover touches the metal plates on both the right and left of the machine simultaneously. The picture below shows the extension of the XY Bar Upper Cover resting on the plate on the right side of the machine.



If it does not:

⇨ Align the Loading System (TechPlanet).

11) Close all doors and perform plate loading using undamaged plates (inspect the plates before loading them into the Cassette). Also, verify that they are not too cold to use due to poor storage conditions. Verify that:

- ✓ The loading sequence is smooth and correct, and that the plate does not hit, and is not hit by, any machine parts as it progresses. If this happens:
  - ⇨ Adjust the values for the following parameters, as required:
    - ⇨ ...\Loading System\Loading System Setup "X Position In Cassette (mm)
    - ⇨ ...\Loading System\Loading System SEtup "Prepare Y to catch Plate (mm)
    - ⇨ ...\Loading System] "X Prepare to Catch Plate (mm)
- ✓ Verify that the plate is properly secured by all the XY Bar Suction Cups when being lifted from the Cassette. When the plate is lifted by the XY Bar, stop the machine and gently tap the plate next to each suction cup. If one or more of the suction cups do not fully secure the plate:
  - ✓ Remove the XY Bar Cover and verify that the correct number of spacers (washers that are placed on the inside of the XY Bar, through which each XY Bar Suction Cup Vacuum Tube runs) are present for each suction cup, as follows:
    - ✓ Two washers for each of the two suction cups on the right of the XY Bar.
    - ✓ No washers for each of the three suction cups in the center of the XY Bar.
    - ✓ Two washers for each of the two suction cups on the left of the XY Bar.

    If the correct number of spacers is not present for each suction cup:
    - ⇨ Install the spacers, as described above. Then:
  - ✓ Inspect the XY Bar Suction Cup vacuum tubes for kinks or damage. If found:
    - ⇨ Straighten kinked tubes, and/or replace damaged tubes, as required. If the problem persists:
  - ✓ Verify that the XY Suction Cup vacuum level is correct by using a vacuum gauge to check the vacuum level (TechPlanet).

12) Verify that the Paper/Metal Detector is functioning properly. If it is not:

- ⇨ Adjust the Paper/Metal Detector, as required (TechPlanet).

  Note: Use the new TechPlanet procedure only.

Before You Leave

Before leaving the customer's site, complete the following:

1) Expose several plates of different sizes (at least three), and verify that the problem is resolved.

   Note: This is a very important cost-saving step that can prevent you from having to make additional service visits to take care of the same problem.

2) Verify whether the customer is responsible for performing Preventive Maintenance procedures on the machine, or Creo is responsible.

   ✓ If the customer is responsible:

   ⇨ Verify that Preventive Maintenance is being performed properly and regularly. Remind the customer of the importance of performing the Preventive Maintenance procedures properly and regularly, and provide instructions, as required.

   ✓ If Creo is responsible:

   ⇨ Verify the service record, and either:

   - Perform Preventive Maintenance procedures, as required, or
   - Schedule a field service call, or
   - Alert the service department so that they can contact the customer and schedule the service call.

   Note: Inform the customer as to the action taken.

See Also

Lotem 800 Plate Loading Sequence

Suggested Keywords

Vacuum

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