

**Entering the
Test Mode
-TEST**

SERVICE

The Service section provides information on the tests available in the DL3000.

The tests are provided to assist in the Setup, Cleaning, and Troubleshooting of the DL3000.

The Test Mode is selected by pressing and holding the TEST button for two seconds. "TEST" will show in the display. The TEST button is then used to select from a number of tests. To select the desired test, the operator must step through the list of tests.

List of tests available for the DL3000.

| Number of Times TEST Pressed | Menu Display | Function |
|---------------------------------|-----------------|---|
| 1 | LABL | Calibration of the Label Detectors |
| 2 | OPTO | Optical Sensor Tests— checks six optical sensors |
| 3 | PICK | Check the Disk Picker Opto Sensor and motor |
| 4 | ROLL | Check the Label Roller Opto Sensor and motor |
| 5 | PUSH | Check the Disk Pusher Sensor and motor |
| 6 | ELV | Check the Disk Elevator Sensor and motor |
| 7 | MTRS | Motor Test – Check the Label Motor or Takeup Motor |
| 8 | P&P | Pick and Park Test |

To return to the Operating Mode, press and hold the ZERO button for two seconds (until the label count returns).

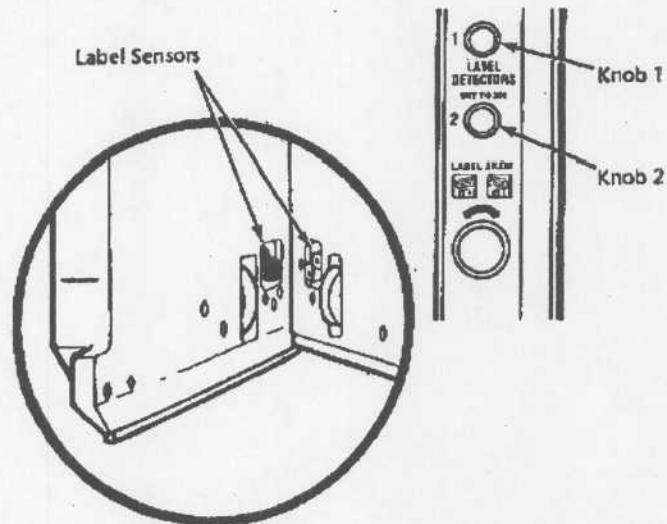
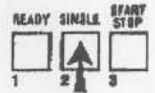
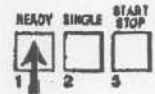
**Label
Detector test
-LABL**

SERVICE

This test is used to calibrate the Label Sensors using the 1 and 2 LABEL DETECTOR controls on the front panel. This test is a set-up procedure and should be performed whenever the label stock is changed to ensure optimum performance. The procedure is given below.

Calibration of the Label Detectors




1. Position the labels so only backing paper (no label) is between the sensors.
2. Select the "LABL" test from the menu. (Press TEST once)
3. Press button 1 to select the number 1 LABEL DETECTOR.
4. "LBL1" will be displayed while the button is pressed.
5. When the button is released, the number 200 will be displayed. If not, adjust the number 1 LABEL DETECTOR knob until the reading is 200.
6. Press button 2 to select the number 2 LABEL DETECTOR.
7. "LBL2" will be displayed while the button is pressed.
8. When the button is released, the number 200 will again be displayed. If not, adjust number 2 LABEL DETECTOR knob until the display is 200.



Optical sensor tests -OPTO











SERVICE

These tests check the operation of six optical sensors on the DL3000. The optos are: Disk Input Bin Empty, Tension Arm 1 and 2, Disk Output Bin Full, Disk Parked, and Disk Lift. Disk Parked and Disk Lift are reflective sensors displayed as numeric values. If the optical sensor beam is not broken, then the character is ON. If the beam is broken, the character is OFF.

Pressing button 1 displays four full display characters (). The character is ON () if the optical sensor beam is not broken and OFF () when it is broken.



The LEDs are identified as follows:

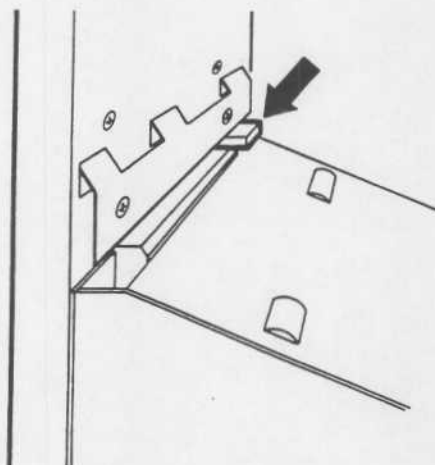
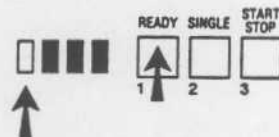
| | |
|----------------------|--|
| Disk Input Bin Empty |  |
| |  |
| Tension Arm Opto 1 |  |
| |  |
| Tension Arm Opto 2 |  |
| |  |
| Disk Output Bin Full |  |
| |  |
| Disk Parked |  |
| Disk Lift |  |

SERVICE

**Disk Input
Bin Empty
test-OPTO**

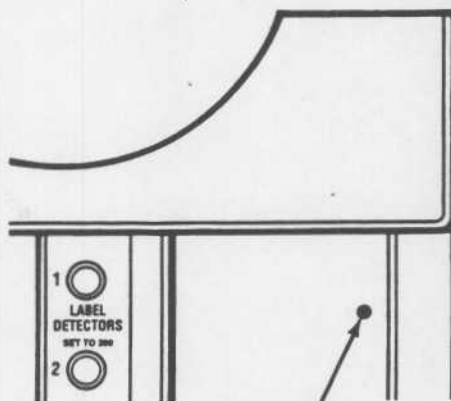
SERVICE

1. Press button 1.
2. Push down on the Disk Bin Empty lever.
3. Check that the left display character turns off.



**Disk Output
Bin Full
test-OPTO**

1. Press button 1.
2. Cover the Disk Output Bin Full Opto.
3. Check that the right display character turns off.

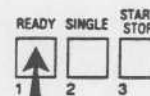


Disk Output Bin Opto

Tension Arm test-OPTO

SERVICE

1. Press button 1. (Disk Input Bin empty, Tension Arm left, Disk Output Bin empty.)



2. Position the Tension Arm to the extreme left.

3. Check that the two characters in the middle are on.



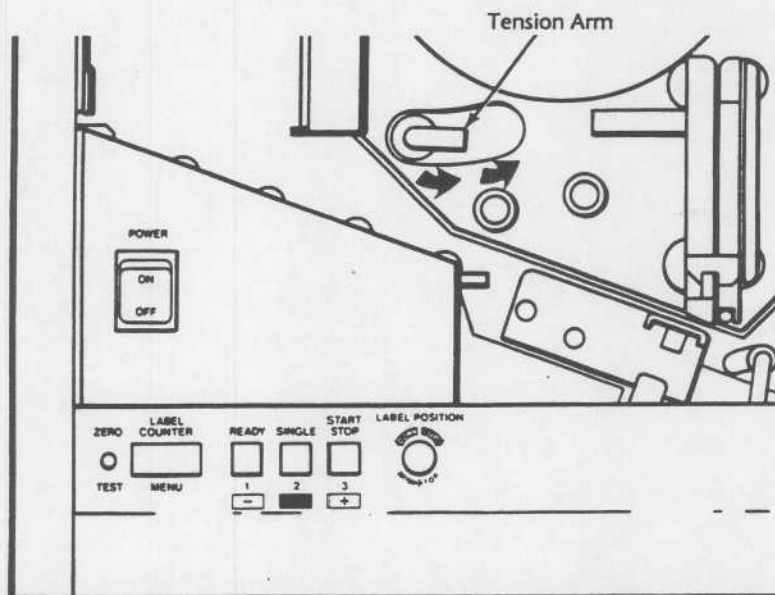
4. Move the Arm to the right and check that the middle right character turns off.



5. Continue to move the Arm right and check that both middle characters turn off.



6. Continue to move the arm right even further and check that the middle right character turns on again and the Takeup Motor rotates counter-clockwise.



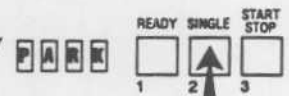
SERVICE

Disk Parked test-OPTO

SERVICE

This test is provided to check the Disk Park opto sensor. This is a reflective opto sensor which is converted to a digital value by an analog to digital converter.

1. Press and hold button 2. The display will show **PARK** while the button is pressed.

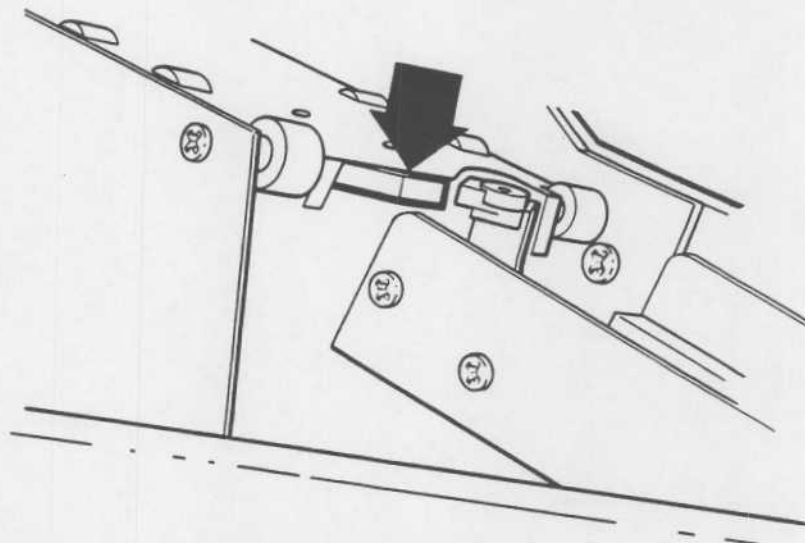


2. Release button 2. A number greater than 200 will be displayed.

200

3. Press and hold the PARK OPTO LEVER. The number will decrease to less than 50.

60



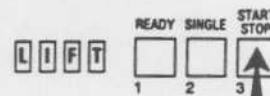
SERVICE

Disk Lift test -OPTO

SERVICE

This test is provided to check the Disk Lift opto sensor. This is a reflective opto sensor which is converted to a digital value by an analog to digital converter.

1. Press and hold 3. The display will show LIFT while the button is pressed.

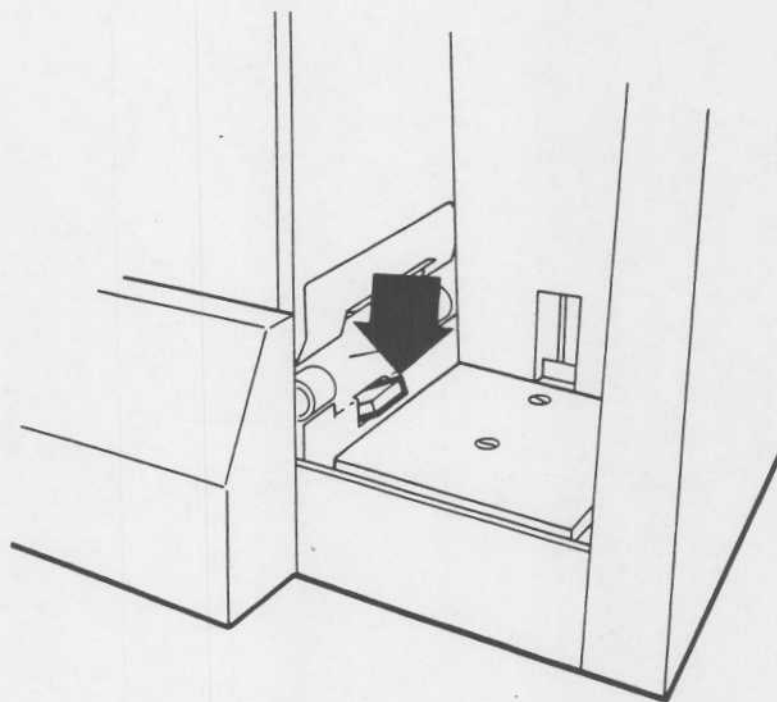


2. Release button 3. A number greater than 200 will be displayed.

200

3. Press and hold the LIFT OPTO LEVER. The number will decrease to less than 50.

50



SERVICE

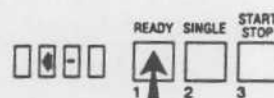
Disk Picker Opto and Motor test -PICK

SERVICE

This test is provided to check the Disk Picker opto and motor.

Remove all disks from the input bin.

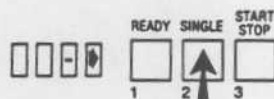
1. Press button 1. A left arrow will be displayed as well as the condition of the opto sensor; on (■) or off (□).



Each time button 1 is pressed the disk picker fingers will move one small step to the left. Press the button several times until the opto condition changes.



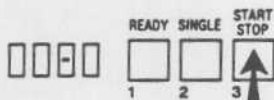
2. Press button 2. A right arrow will be displayed as well as the condition of the opto sensor.



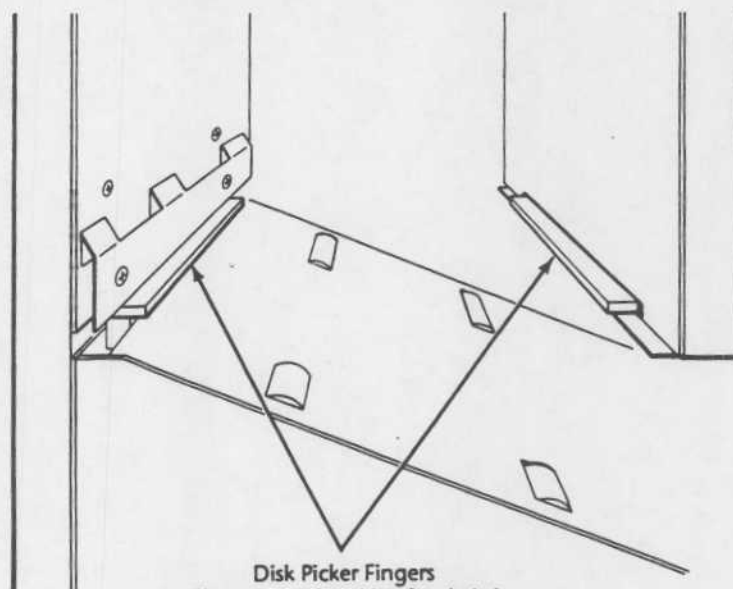
Each time button 2 is pressed the disk picker fingers will move one small step to the right. Press the button several times until the opto condition changes.



3. Press button 3. The Disk Picker will be returned to the Home position, (fingers centered).



The display will show a dash (off) indicating the disk picker flag is centered in the opto.



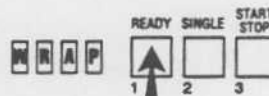
Disk Picker Fingers
(Shown out of position for clarity)

Label Roller Opto and Motor test -ROLL

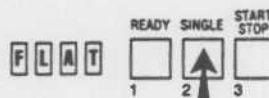
SERVICE

This test is provided to check the Label Roller opto and motor.

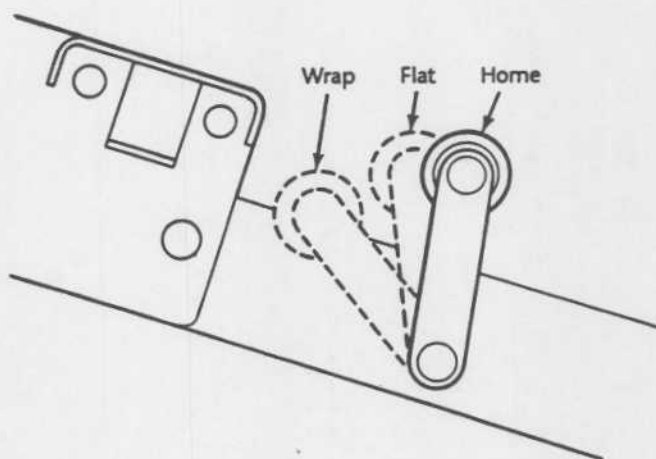
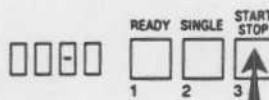
1. Press button 1. The Label Roller will move to the wrap position and the display will show WRAP.



2. Press button 2. The Label Roller will move to the flat position and the display will show FLAT.



3. Press button 3. The Label Roller will be returned to the Home position. The display will show a dash (off) indicating the roller flag is in the opto sensor.



SERVICE

Disk Pusher Opto and Motor test -PUSH

SERVICE

This test is provided to check the Disk Pusher opto and motor.

1. Press button 1. A left arrow will be displayed as well as the condition of the opto sensor; on (■) or off (□).



Each time button 1 is pressed the disk pusher arm will move one small step to the left.

2. Press button 2. A right arrow will be displayed as well as the condition of the opto sensor.

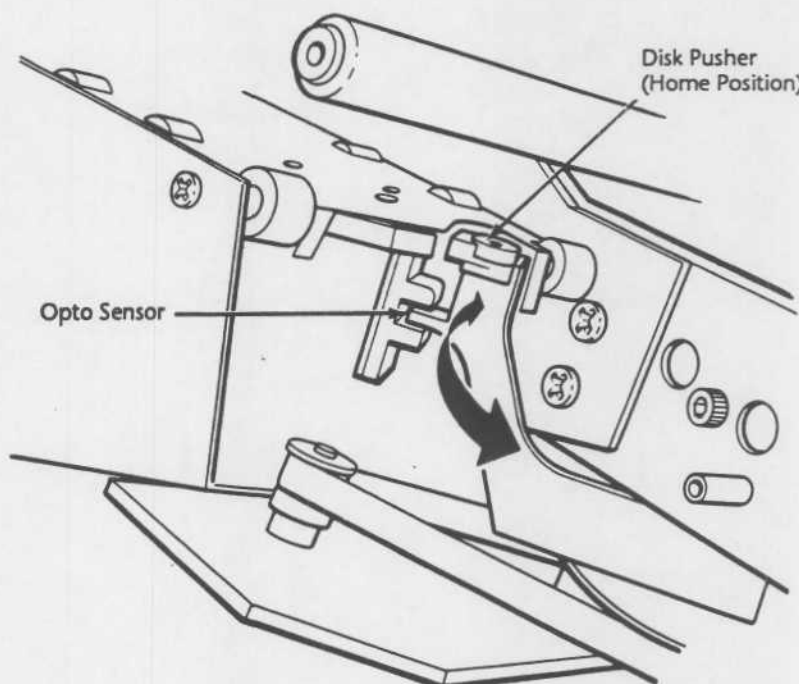
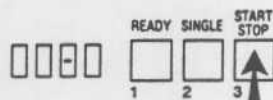


Each time button 2 is pressed the disk pusher arm will move one small step to the right. Press the button several times until the opto condition changes.



3. If buttons 1 or 2 are held down the pusher arm will move continuously.

4. Press button 3. The Disk Pusher will be returned to the Home position. The display will show a dash (off) indicating the disk pusher flag is in the opto sensor.



SERVICE

Disk Elevator Opto and Motor-ELV

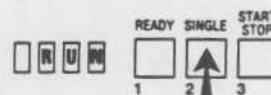
SERVICE

This test is provided to check the Disk Elevator opto and motor.

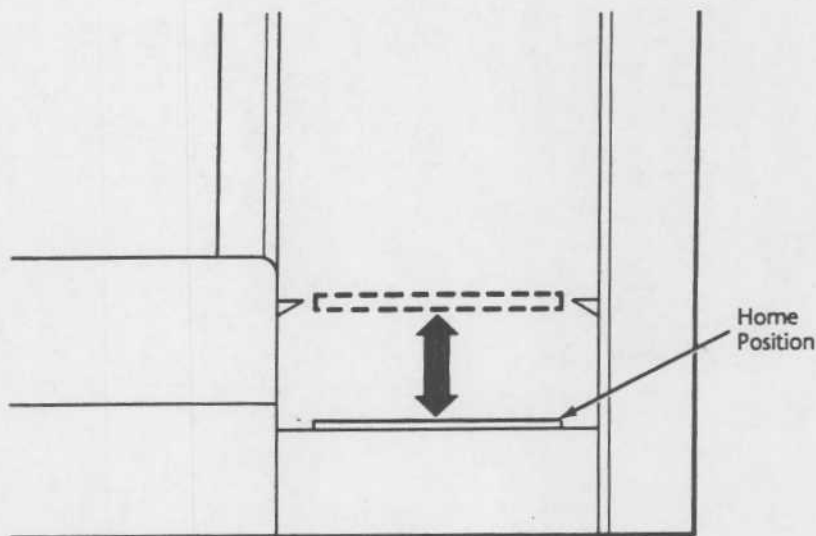
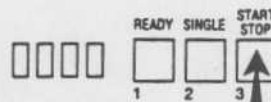
1. Press button 1. The Elevator will make a complete cycle and the display will show CYCL.



2. Press and hold button 2. The Elevator will run until the button is released. The display will show RUN while the button is held and STOP when it is released.



3. Press button 3. The Elevator will be returned to the Home position. The display will show a dash (off) indicating the elevator flag is in the opto sensor.



SERVICE

Motor Test -MTRS

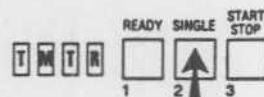
SERVICE

The purpose of the Motor Test is to turn on the individual motors to check their performance and to aid in cleaning. The motors are turned on as follows:

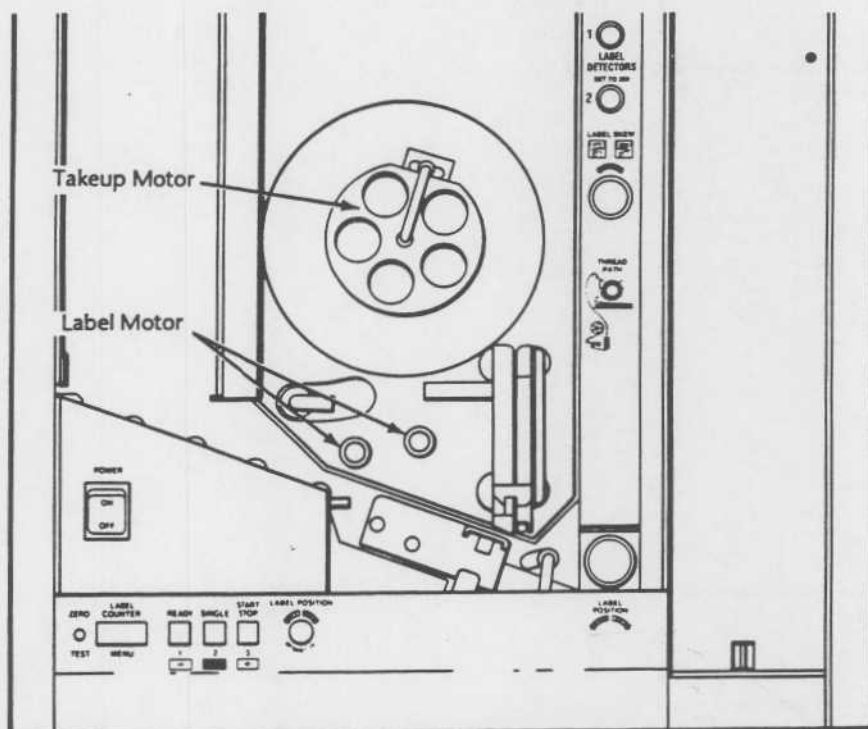
1. Press button 1 to turn on the Label Motor.
LMTR is displayed in the MENU.



2. Press button 2 to turn on the Takeup Motor.
TMTR is displayed in the MENU.



NOTE: If a motor is on, pressing the button a second time turns the motor off.



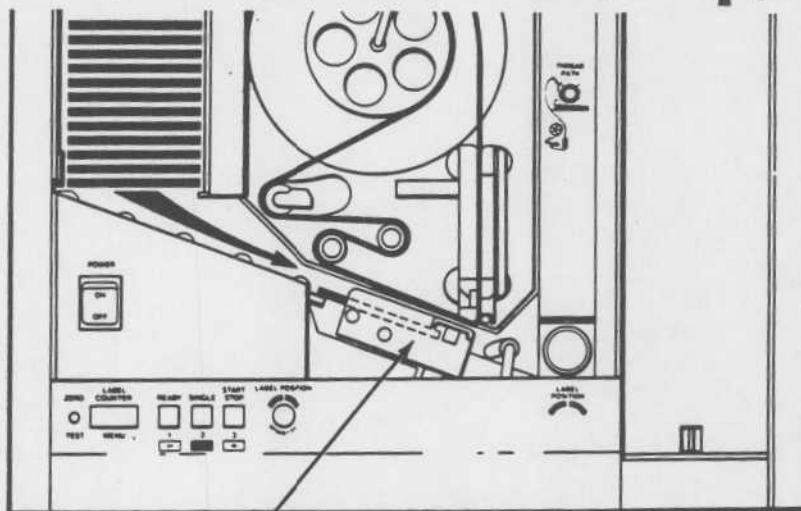
SERVICE

Pick and Park test -P & P

SERVICE

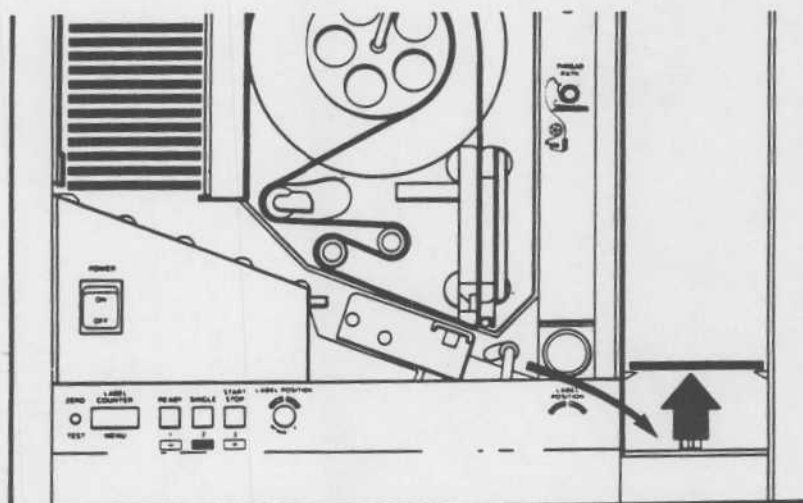
The Pick and Park test puts a disk through the Labeler without placing a label on it. The procedure for this test is:

1. Press button 1 and a disk is picked from the Input Bin and positioned in the Label Roller Assembly.



Label Roller Assembly

2. Press button 1 a second time and the disk is pushed through the Label Roller Assembly, onto the elevator, and lifted into the Disk Output Bin.



SERVICE

Cleaning the Peel Plate

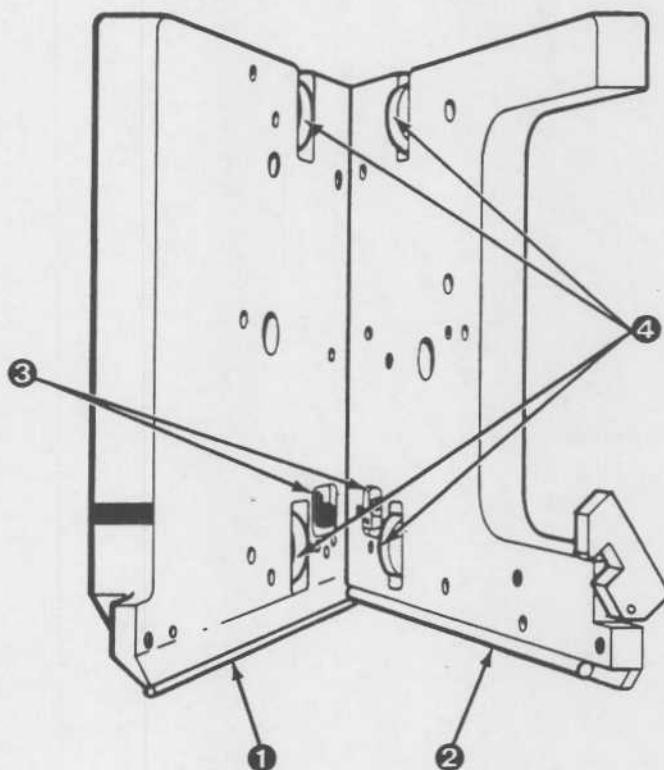
CLEANING

CLEANING

The Cleaning Section provides information on the routine cleaning procedures needed to keep the Labeler in optimum operating condition. There is a considerable amount of paper dust generated while operating the Labeler. This dust can cause errors and generate fault conditions. An occasional cleaning is suggested to keep this to a minimum.

Adhesive and paper dust will build up on the Peel Plate, the Backing Bars, the Label Capstans and the Disk Capstans. These surfaces should be cleaned once a week using a typewriter cleaning solvent, (available at most office supply stores).

- 1 Open the Peel Plate and clean the Peel Bar (small round rod) along the lower hand edge of the left Peel Plate.
- 2 Clean the Backing Bar (large round rod) along the lower edge of the right plate.
- 3 Clean the Label Sensor Windows on both plates.
- 4 Clean the roller surface of the Ball Bearings on both Peel Plates.

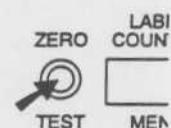


Cleaning the Label Capstans

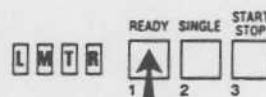
CLEANING

1. Put the Labeler in the "TEST" mode and select the "MTRS" test.

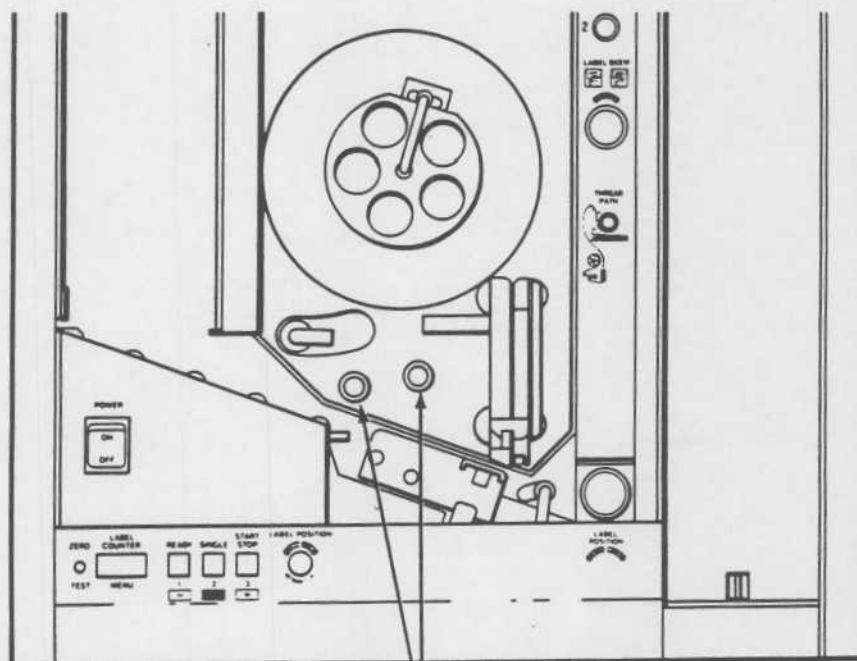
Press and hold the TEST button for two seconds. When TEST shows in the display, press the TEST button three times to select the MTRS test.



2. Press button 1. "LMTR" will be displayed and the Label Capstans will rotate.



3. Put the cleaning solvent on a clean cloth and hold it against the capstans as they rotate. *Be sure to clean the capstans all of the way to the back wall.*



Label Capstans

CLEANING



Cleaning the Label Roller Assembly

CLEANING

Dust and adhesive will collect on the two label rollers located in the Label Roller Assembly.

This assembly is easily removed for cleaning. Turn off the power. Open the Control Panel door and remove the Label Roller Assembly.

1. Loosen the thumb screw.
2. Retract and lower the bracket.
3. Pull the Label Roller Assembly straight out to remove it.
4. Clean the two rubber rollers.
5. Clean the two side rails.
6. Replace the Label Roller Assembly. Be sure the two hex socket head capscrews on the back plate seat into the locating holes on the Label Roller Assembly and the roller arm fits through the back plate. To easily align the locating holes with the hex socket head capscrews, rest the rear side rail on the guide posts.
7. Lift the bracket onto the retainer pin and tighten the thumb screw.

