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# Producer™ IV Perform Diagnostic Tests



R I M A G E®





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# Producer™ IV Perform Diagnostic Tests

This document provides the information needed to access, select, and perform the Producer IV diagnostic tests.

The terms 'Producer IV' and 'autoloader' are used throughout this document to refer to these products.

**Important!** Make sure that the Producer IV is not in an error state before you perform any of the diagnostic tests. For information about Producer III operation and maintenance, refer to the *Producer™ IV User Guide*.

## Access and Select Diagnostic Tests

### Access Diagnostic Mode

1. Power on the **autoloader**.
2. Allow the autoloader to initialize. This may take several minutes.
3. Open the **front door** of the autoloader.
4. Press and hold the **operator button** until [BUTTON DIAGNOSTIC] displays on the operator panel.  
**Note:** Other status messages display on the operator panel while the operator button is being held in. Do not release the button until the operator panel displays [BUTTON DIAGNOSTIC].
5. Release the **operator button**. [CHOOSE DIAGNOSTIC] displays on the operator panel. The autoloader is in diagnostic mode.

### Select a Diagnostic Test

1. Press the **operator button** the same number of times as the test number (indicated in the test title).
2. Hold the **operator button** in on the last press for five seconds to start the selected test.

For example: To start diagnostic test 3 (calibrate diagnostic test), press the **operator button** three times and hold on the third press.

**Tip:** To display each diagnostic test number and name, press the **operator button** at a rate that is slow enough to read the test on the operator panel. If you pass the desired diagnostic test, release the operator button and wait for the autoloader to return to diagnostic mode. The operator panel displays [CHOOSE DIAGNOSTIC].

3. Continue with the desired diagnostic test.

## Exit Diagnostic Mode

1. If a diagnostic test is currently in process, press the **operator button** once to stop the test.  
**Note:** To exit diagnostic test 1 (carousel diagnostic test), press and hold the operator button to stop the test and return to diagnostic mode.
2. When the diagnostic test is stopped, press the **operator button** six times and hold it in on the sixth press. The operator panel displays [EXIT DIAGNOSTIC].
3. Release the **operator button**. The autoloader exits diagnostic mode and the system resets.

## Use a Disc with an Index Mark

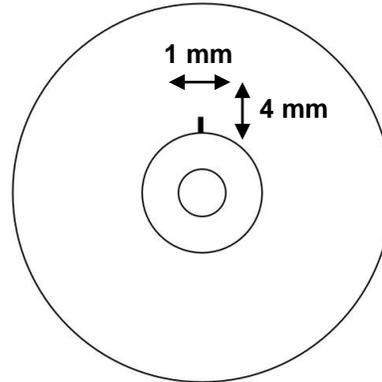
If your Producer IV uses a Prism printer with the Perfect Print function, you can use a disc with an index mark during the diagnostic test cycles that involve the printer. During certain cycles of diagnostic test 2 (cycle diagnostic test), the lift arm rotates to locate the index mark on the disc, if one is present.

If your Producer IV does not use a Prism printer with the Perfect Print function, you do not need to use a disc with an index mark during any of the diagnostic tests.

### Create a Disc with an Index Mark

If you need to create a disc with an index mark for the Prism Perfect Print function, use a black permanent marker to draw a line on a disc near the center, as shown.

**Note:** The mark should be at least 1 mm wide and 4 mm long.



## Perform Diagnostic Tests

### Diagnostic Test 1 – Carousel Diagnostic Test

This test has two modes. The first mode evaluates the position of the carousel. The second mode evaluates the alignment of the lift arm to the carousel.

#### Check the Position of the Carousel

This test verifies that the carousel is positioned correctly in the autoloader.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press and hold the **operator button** until the operator panel displays [01 CAROUSEL CHK DIAGNOSTIC].
3. Release the **operator button**.
4. Press the **operator button** to rotate the carousel from the current bin position to the next bin position.
 

**Note:** Each time the carousel rotates, the operator panel displays the actual carousel position and the target carousel position on the operator panel. The actual carousel position number is displayed as [A+00000], and the target carousel position is displayed as [T+00000].
5. Repeat **step 4** for each of the four carousel bins.
 

**Note:** After the carousel rotates clockwise from bin 1 to bin 4, it rotates counterclockwise from bin 4 to bin 1.
6. Press and hold the **operator button** to exit the test and return to diagnostic mode.

#### Check the Alignment of the Lift Arm to the Carousel

This test verifies that the lift arm aligns properly with each carousel bin.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press and hold the **operator button** until the operator panel displays [01 CAROUSEL CHK].
3. Release the **operator button**.

4. Place a disc on the **lift arm**. Press the disc into the gripper while you press the disc release button.
5. Release the **disc release button**. The gripper holds the disc.



6. Press the **operator button** to rotate the carousel to bin 1.
7. Manually move the **lift arm** and **disc** down into bin 1. Make sure that the disc does not interfere with the carousel as it moves into the bin.
 

**Important!** If the disc interferes with the carousel in step 7, the lift arm may be miscalibrated or there may be an issue with the hardware that positions the carousel. Perform diagnostic test 3 on page 8 to calibrate the lift arm and the carousel.
8. Manually move the **lift arm** out of bin 1.
9. Repeat **steps 6 – 8** for bins 2, 3, and 4.
10. Hold on to the disc and press the **disc release button** to release the disc and remove it from the lift arm.
11. Press and hold the **operator button** to exit the test and return to diagnostic mode.
12. Refer to the [Exit Diagnostic Mode](#) section on page 1 to exit diagnostic mode.

## Diagnostic Test 2 – Cycle Diagnostic Test

This test has six modes. The mode selected is determined by the open/closed state of the printer, recorders, and diverter elements, and the placement of discs at the start of the test. The cycle begins when the autoloader detects an open printer tray or recorder tray, or the disc diverter in the down position. The lift arm moves to the location of the disc, if one is present.

**Important!** Before you cycle media, make sure that the printer and recorder(s) are properly aligned.

**Note:** After diagnostic test 2 is selected, the autoloader pauses, allowing you to load media and select the device(s) to use during the test cycle.

### Cycle a Disc between the Carousel Bins

This tests cycles media between the carousel bins.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press the **operator button** two times and hold it in on the second press until the operator panel displays [02 CYCLE MEDIA].
3. Release the **operator button**.
4. Make sure that the recorder and printer trays are closed and the disc diverter is in the home position.
5. Place one or more **discs** in bin 1.

**Important!** Make sure bin 4 is empty before you begin this test.

**Tip:** If you need to rotate the carousel to load media into bin 1, rotate it manually. Pressing the operator button prompts diagnostic test 2 to begin.

6. Press the **operator button**. The autoloader checks all devices. When the test begins, the operator panel displays [02 CYCLE MEDIA CYCLE = 000000].
  - The lift arm picks a disc from bin 1 and releases it into bin 4.
  - The lift arm checks bin 1 for more discs.
  - If no discs are found in bin 1, the lift arm proceeds to the next bin to check for discs.
  - If no discs are found in the next bins, the lift arm picks a disc from bin 4 and releases it into bin 3.
  - Each time a disc is picked and placed in a bin, the cycle count increments by one on the operator panel.
 

**Note:** The cycle continues until you press the operator button to stop the test.
7. Press the **operator button** to stop the test and return to diagnostic mode.
8. Remove the **disc(s)** from the carousel.

### Cycle a Disc between the Carousel Bins and the Output Bin

This test cycles media from carousel bin 1 to the output bin.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press the **operator button** two times and hold it in on the second press until the operator panel displays [02 CYCLE MEDIA].
3. Release the **operator button**.
4. Make sure that the recorder tray(s) and the printer tray are closed.
5. Place one or more **discs** in bin 1.
 

**Important!** Make sure bin 4 is empty before you begin this test.

**Tip:** If you need to rotate the carousel to load media into bin 1, rotate it manually. Pressing the operator button prompts diagnostic test 2 to begin.
6. Move the **disc diverter** down to approximately a 45 degree angle.
 

**Tip:** Do not move the disc diverter all the way down.
7. Press the **operator button**. The autoloader checks all devices and the disc diverter moves up to the home position. When the test begins, the operator panel displays [02 CYCLE MEDIA CYCLE =000000].
  - The lift arm picks a disc from bin 1 and moves past the disc diverter.
 

**Note:** The lift arm starts to pick discs from bin 1. If there is not a disc in bin 1, the lift arm proceeds to the next bin.
  - The disc diverter drops and the lift arm releases the disc on to the disc diverter.
  - The disc moves into the output bin.
  - The cycle count increments by one on the control panel.
 

**Note:** The cycle continues until you press the operator button to stop the test.
8. Press the **operator button** to stop the test and return to diagnostic mode.
9. Remove the **disc(s)** from the carousel.

## Cycle a Disc between the Carousel Bins and the Printer

This test cycles media between the carousel bins and the printer tray.

**Note:** During each cycle, the lift arm locates the index mark on the disc, if one is present. Refer to the [Use a Disc with an Index Mark](#) section on page 2.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press the **operator button** two times and hold it in on the second press until the operator panel displays [02 CYCLE MEDIA].
3. Release the **operator button**.
4. Make sure the recorder tray(s) are closed and the disc diverter is in the home position.
5. Place one or more **discs** in bin 1.

**Important!** Make sure bin 4 is empty before you begin this test.

**Tip:** If you need to rotate the carousel to load media into bin 1, rotate it manually. Pressing the operator button prompts diagnostic test 2 to begin.

6. Press the **printer button** to open the printer tray.
7. Press the **operator button**. The autoloader checks all devices and the printer tray closes. When the test begins, the operator panel displays [02 CYCLE MEDIA CYCLE = 000000].
  - The lift arm lowers to bin 1 and picks up a disc.
 

**Note:** The lift arm starts to pick discs from bin 1. If a disc is not in bin 1, the lift arm proceeds to the next bin.
  - The lift arm moves to its home position above the printer. The printer tray opens.
  - The lift arm rotates the disc to locate the index mark, if one is present.
  - The lift arm releases the disc on to the printer tray.
  - The lift arm picks up the disc from the printer tray and releases it into bin 4.
  - The cycle count increments by one on the control panel.
 

**Note:** The cycle continues until you press the operator button to stop the test.
8. Press the **operator button** to stop the test and return to diagnostic mode.
9. Remove the **disc(s)** from the carousel.

## Cycle a Disc between the Carousel Bins, the Printer, and the Output Bin

This test cycles media between the carousel bins, the printer tray, and the output bin.

**Note:** During each cycle, the lift arm locates the index mark on the disc, if one is present. Refer to the [Use a Disc with an Index Mark](#) section on page 2.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press the **operator button** two times and hold it in on the second press until the operator panel displays [02 CYCLE MEDIA].
3. Release the **operator button**.
4. Make sure the recorder tray(s) are closed.
5. Place one or more **discs** in bin 1.

**Important!** Make sure bin 4 is empty before you begin this test.

**Tip:** If you need to rotate the carousel to load media into bin 1, rotate it manually. Pressing the operator button prompts diagnostic test 2 to begin.

6. Move the **disc diverter** away from the side of the autoloader to approximately a 45 degree angle.
 

**Tip:** Do not move the disc diverter all the way down.
7. Press the **printer button** to open the printer tray.

8. Press the **operator button**. The autoloader checks all devices. The printer tray closes and the disc diverter moves up to the home position. When the test begins, the operator panel displays [02 CYCLE MEDIA CYCLE = 000000].
  - The lift arm moves down to bin 1 and picks up a disc.
 

**Note:** The lift arm starts to pick discs from bin 1. If a disc is not in bin 1, the lift arm proceeds to the next bin.
  - The lift arm moves to the home position and the printer tray opens.
  - The lift arm rotates the disc to locate the index mark, if one is present.
  - The lift arm releases the disc on to the printer tray.
  - The lift arm picks up the disc from the printer tray.
  - The disc diverter drops and the lift arm releases the disc on to the disc diverter.
  - The disc moves into the output bin.
  - The cycle count increments by one on the control panel.
 

**Note:** The cycle continues until you press the operator button to stop the test.
9. Press the **operator button** to stop the test and return to diagnostic mode.
10. Remove the **disc(s)** from the carousel.

## Cycle a Disc between a Recorder and the Printer

This test cycles media between a recorder tray and the printer tray.

**Note:** During each cycle, the lift arm locates the index mark on the disc, if one is present. Refer to the [Use a Disc with an Index Mark](#) section on page 2.

**Important!** Before you cycle media between a recorder and the printer, make sure that the printer and recorder(s) are properly aligned.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press the **operator button** two times and hold it in on the second press until the operator panel displays [02 CYCLE MEDIA].
3. Release the **operator button**.
4. Open one **recorder tray**.
5. Place one **disc** on the open recorder tray.
 

**Important!** Do not close the recorder tray.
6. Open the **printer tray**.
7. Press the **operator button**. The autoloader checks all devices and the printer tray closes. When the test begins, the operator panel displays [02 CYCLE MEDIA CYCLE = 000000].
  - The lift arm picks up the disc from the recorder tray and rotates the disc to locate the index mark, if one is present.
  - The lift arm moves to the home position.
  - The printer tray opens and the lift arm places the disc on the printer tray.
  - The printer tray clamps and unclamps the disc.
  - The lift arm picks up the disc from the printer tray and the printer tray closes.
  - The lift arm places the disc on the recorder tray.
  - The cycle count increments by one on the operator panel.
 

**Note:** The cycle continues until you press the operator button to stop the test.
8. Press the **operator button** to stop the test and return to diagnostic mode.
9. Remove the **disc** from the recorder tray.

10. Close the **recorder tray**.
11. **7100/7100N/7200N and 8100/8100N/8200N**  
Repeat **steps 1 – 10** for each recorder tray.

### Cycle at a Recorder

**Important!** Before you cycle media, make sure that the printer and recorder(s) are properly aligned.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press the **operator button** two times and hold it in on the second press until the operator panel displays [02 CYCLE MEDIA].
3. Release the **operator button**.
4. Make sure that the **printer tray** is closed.
5. Open one **recorder tray**.
6. Place one **disc** on the recorder tray.  
**Important!** Do not close the recorder tray.
7. Press the **operator button**. The autoloader checks all devices. When the test begins, the operator panel displays [02 CYCLE MEDIA CYCLE = 000000].
  - The lift arm picks up the disc from the recorder tray and places the disc back down on the recorder tray.
  - Each time that the disc is picked up and placed on the recorder tray, the cycle count increments by one on the operator panel.  
**Note:** The cycle continues until you press the operator button to stop the test.
8. Press the **operator button** to stop the test and return to diagnostic mode.
9. Remove the **disc** from the recorder tray.
10. Close the **recorder tray**.
11. **7100/7100N/7200N and 8100/8100N/8200N**  
Repeat **steps 1 – 10** for each recorder tray.

### Cycle the Lift Arm and the Printer

**Important!** Before you cycle media, make sure that the printer and recorder(s) are properly aligned.

1. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press the **operator button** two times and hold it in on the second press until the operator panel displays [02 CYCLE MEDIA].
3. Release the **operator button**.
4. Make sure the **recorder tray(s)** are closed.
5. Open the **printer tray**.
6. Place a **disc** on the printer tray.  
**Important!** Do not close the printer tray.

7. Press the **operator button**. The autoloader checks all devices. When the test begins, the operator panel displays [02 CYCLE MEDIA CYCLE = 000000].
  - The lift arm picks up the disc from the printer tray and rotates the disc to locate the index mark, if one is present.
  - The lift arm places the disc back on the printer tray.
  - Each time that the disc is picked up and placed on the printer tray, the cycle count increments by one on the operator panel.

**Note:** The cycle continues until you press the operator button to stop the test.
8. Press the **operator button** to stop the test and return to diagnostic mode.
9. Remove the **disc** from the printer tray.
10. Close the **printer tray**.
11. Refer to the [Exit Diagnostic Mode](#) section on page 1 to exit diagnostic mode.

### Diagnostic Test 3 – Calibrate Diagnostic Test

**Important!** Do not perform this test unless recommended to do so by a Rimage technician. Performing this test could negatively impact system performance.

This test calibrates the lift arm, the carousel, and the disc diverter.

#### Access the Calibration Menu

1. **Remove all discs** from the carousel bins.
2. Make sure that the autoloader is in diagnostic mode. Refer to the [Access and Select Diagnostic Tests](#) section on page.
3. Press the **operator button** three times and **hold on the third press** until the operator panel displays [03 CALIBRATE].
4. Release the **operator button**. The operator panel displays [STARTING TEST HOMING] and the autoloader beings a series of measurements to determine the type of system.

When the measurements are complete, the operator panel displays

[PRESS/REL to RUN]

[ HOLD to EXIT ]

[LFT CAR OUT]

[Y N N]

5. Start the calibration.
  1. To calibrate the lift arm only, proceed to the Calibrate the Lift Arm section.
  2. To calibrate the carousel only, proceed to the Calibrate the Carousel section.
  3. To calibrate the disc diverter, proceed to the Calibrate the Disc Diverter section.
  4. To calibrate all three, proceed to the Calibrate the Lift Arm, Carousel, and Disc Diverter section.

#### Calibrate the Lift Arm

This test calibrates the lift arm to accurately detect the number of discs in the carousel bins.

1. The operator panel displays [LFT CAR OUT]. Press the **operator button**.
 

[ Y N N ]

2. Place one disc in **bin 1**.

**Important!** Place only one disc in bin 1.

**Tip:** If you need to rotate the carousel to load media into bin 1, rotate it manually. Pressing the operator button prompts diagnostic test 3 to begin.

3. Press the **operator button**.

- The lift arm moves down into bin 1.
- The lift arm picks up and releases the disc.
- The lift arm moves up to its home position.
- The lift arm moves back down into bin 1, picks up the disc, and releases the disc into bin 4.
- The carousel rotates back to bin 1.
- The autoloader exits diagnostic test 3 and the system restarts.

**Note:** Diagnostic test 3 causes the autoloader to exit diagnostic mode. To continue with the diagnostic tests, refer to the *Access and Select Diagnostic Tests* section on page.

### Calibrate the Carousel

This test measures the position of the carousel, as well as the gear-train backlash of the carousel.

1. Manually raise the **lift arm** to the top. Place one disc on the **lift arm**.

The operator panel displays [LFT CAR OUT].  
[ N Y N ]

2. Press the **operator button**. The carousel rotates and the lift arm lowers to bin 1.

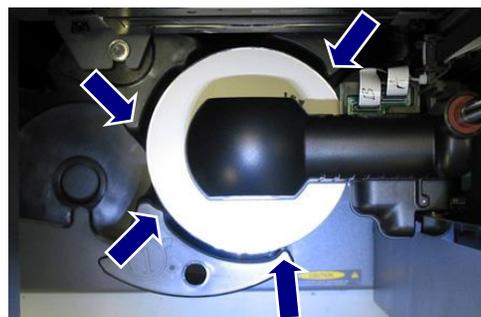
3. Manually, slowly lower the **lift arm** and the **disc** into the bin. The autoloader will not allow the disc to move below about 0.25 inches from the top of the carousel.

**Note:** The autoloader measures the position of the carousel, and the operator panel displays [CAL CAROUSEL POS O+00000 N+00000], where O+00000 is the old offset value and N+00000 is the new offset value based on the current position of the carousel.



4. Manually, slightly rotate the **carousel** so that the distance between the edges of the carousel and the edge of the disc is equal on all four points, as shown.

**Note:** The edge of the disc should not touch any part of the carousel. If you cannot center the carousel in this step, the lift arm may need to be readjusted.



5. Press the **operator button**.

- The lift arm lowers and pins the disc into the bottom of bin 1 to measure the gear-train backlash of the carousel.

**Note:** The operator panel displays [BACKLASH O+00000 N+00000], where O+00000 is the old offset value and N+00000 is the new offset value based on the current position of the carousel adjusted for backlash.

- The lift arm releases the disc into bin 1.
- The autoloader exits diagnostic test 3 and the system restarts.

**Note:** Diagnostic test 3 causes the autoloader to exit diagnostic mode. To continue with the diagnostic tests, refer to the *Access and Select Diagnostic Tests* section on page 1.

## Calibrate the Disc Diverter

This test measures the position of the disc diverter.

1. Move the **disc diverter** down so it is not blocking its sensor and block the **output bin sensor** with your finger.  
The operator panel displays [LFT CAR OUT]  
[ N N Y ]
2. With the **output bin sensor** blocked, press the **operator button**.
  - The operator panel displays [CALIBRATE SLIDE / PUT DISC ON GRPR / PRESS TO CONT]
3. Place one disc on the **lift arm**.
4. Press the **operator button**.
  - The disc diverter lowers.
  - The operator panel displays [ARRANGE GRIPPER AND SLIDE / PRESS TO CONT]



5. Position the **disc diverter** to the horizontal position.
6. Position the **disc diverter** 1 – 3 steps above horizontal. The disc diverter should have an angle of about 5 degrees above horizontal
7. Press the **operator button**.
  - The lift arm raises with the disc.
  - The disc diverter raises, and then lowers.
  - The lift arm lowers and releases the disc to the disc diverter.
  - The disc diverter raises and unloads the disc to the output bin.
  - The autoloader exits diagnostic test 3 and the system restarts.

**Note:** Diagnostic test 3 causes the autoloader to exit diagnostic mode. To continue with the diagnostic tests, refer to the *Access and Select Diagnostic Tests* section on page.

## Calibrate the Lift Arm, Carousel, and Disc Diverter

This test calibrates the lift arm to accurately detect the number of discs in the carousel bins, measures the position of the carousel, as well as the gear-train backlash of the carousel, and measures the position of the disc diverter.

1. Raise the **lift arm** to the top and move the **disc diverter** down so it is not blocking its sensor.
  - The operator panel displays [LFT CAR OUT]  
[ Y Y Y ]
2. Press the **operator button**.
  - Place one disc in **bin 1**.

3. Press the **operator button**.
  - The lift arm moves down into bin 1.
  - The lift arm picks up and releases the disc.
  - The lift arm moves up to its home position.
  - The lift arm moves back down into bin 1, picks up the disc, and releases the disc into bin 2.
  - The carousel rotates back to bin 1.
4. Place one **disc** on the lift arm.

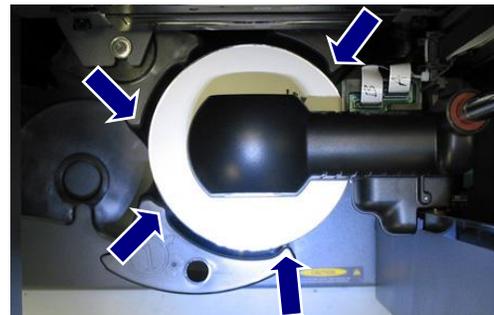
5. Manually, slowly lower the **lift arm** and the **disc** into the bin. The autoloader will not allow the disc to move below about 0.25 inches from the top of the carousel.

**Note:** The autoloader measures the position of the carousel, and the operator panel displays [CAL CAROUSEL POS O+00000 N+00000], where O+00000 is the old offset value and N+00000 is the new offset value based on the current position of the carousel.



6. Manually, slightly rotate the **carousel** so that the distance between the edges of the carousel and the edge of the disc is equal on all four points, as shown.

**Note:** The edge of the disc should not touch any part of the carousel. If you cannot center the carousel in this step, the lift arm may need to be readjusted.



7. Press the **operator button**.
  - The lift arm lowers and pins the disc into the bottom of bin 1 to measure the gear-train backlash of the carousel.

**Note:** The operator panel displays [BACKLASH O+00000 N+00000], where O+00000 is the old offset value and N+00000 is the new offset value based on the current position of the carousel adjusted for backlash.

  - The lift arm releases the disc into bin 1.
8. The operator panel displays [CALIBRATE SLIDE / PUT DISC ON GRPR / PRESS TO CONT]
9. Place one **disc** on the lift arm.

10. Press the **operator button**.
  - The disc diverter lowers.
  - The operator panel displays [ARRANGE GRIPPER AND SLIDE / PRESS TO CONT]



11. Position the **disc diverter** to the horizontal position.
12. Position the **disc diverter** 1 – 3 steps above horizontal. The disc diverter should have an angle of about 5 degrees above horizontal.
13. Press the **operator button**.
  - The lift arm raises with the disc.
  - The disc diverter raises, and then lowers.
  - The lift arm lowers and releases the disc to the disc diverter.
  - The disc diverter raises and unloads the disc to the output bin.
  - The autoloader exits diagnostic test 3 and the system restarts.

**Note:** Diagnostic test 3 causes the autoloader to exit diagnostic mode. To continue with the diagnostic tests, refer to the *Access and Select Diagnostic Tests* section on page.

## Diagnostic Test 4 – Sensors Diagnostic Test

This test verifies that the various sensors used in the autoloader function correctly.

**Note:** A beep sounds each time the status of a sensor changes.

### Access and Start the Sensors Diagnostic Tests

1. Make sure that the autoloader is in diagnostic mode. Follow the instructions in the *Access and Select Diagnostic Tests* section on page 1.
2. Press the **operator button** four times and hold on the fourth press until the operator panel displays [04 SENSOR DIAGNOSTIC].
3. Release the **operator button**.

### Door Sensor

This test verifies that the door sensor located on the front of the frame functions correctly.

1. Close the **door**. The sensor beeps and the operator panel displays [0] to show the change in status.
2. Open the **door**. The sensor beeps and the operator panel displays [1].
3. To exit the test now and return to diagnostic mode, press the **operator button**.

To continue with the next sensor test, follow the *Lift Home Sensor* instructions.

### Carousel Home Sensor

This test verifies that the carousel home sensor functions correctly. The carousel home sensor detects the bin position of the carousel, as well as whether the carousel is installed.

1. Install the **carousel** in the correct position. The top support bearing is inserted in the bearing guide.
2. Manually, slowly rotate the **carousel** counterclockwise. When the carousel home sensor detects the **home position**, the sensor beeps and the operator panel displays [0] to show the change in status.

**Tip:** You can rotate the carousel in either direction. The sensor must detect the gap in the metal carousel base once per revolution.

**Note:** The home position is a gap in the metal carousel base.

3. Rotate the **carousel** clockwise, away from the carousel home position. The sensor beeps and the operator panel displays [1].
4. To exit the test now and return to diagnostic mode, press the **operator button**.

To continue with the next sensor test, follow the *Media Sensor* instructions.

### Media Sensor

This test verifies that the gripper media sensor that is located in the lift arm functions correctly.

1. With the tip of your finger, press and hold the **disc plunger**. The sensor beeps and the operator panel displays [1] to show the change in status.

2. Release the **disc plunger**. The sensor beeps and the operator panel displays [0].
3. To exit the test now and return to diagnostic mode, press the **operator button**.  
To continue with the next sensor test, follow the *Tray Detect Sensor* instructions.

## Tray Detect Sensor

This test verifies that the tray detect sensor that is located in the lift arm functions correctly.

1. Manually move the **lift arm** above the recorder(s).
2. Open one **recorder tray**.
3. Manually move the **lift arm** toward the open recorder tray. When the lift arm detects the open recorder tray, the sensor beeps and the operator panel displays [1] to show the change in status.  
**Note:** If you move the lift arm down too far, the operator panel displays [0].
4. Move the **lift arm** away from the open recorder tray. The sensor beeps and the operator panel displays [0].
5. Close the **recorder tray**.
6. **7100/7100N/7200N and 8100/8100N/8200N**  
Repeat **steps 1 – 5** for each recorder.
7. To exit the test now and return to diagnostic mode, press the **operator button**.  
To continue with the next sensor test, follow the *Rotate Home Sensor* test instructions.

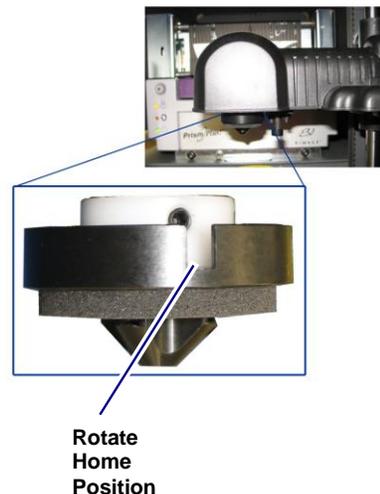
## Rotator Home Sensor

This test verifies that the rotate home sensor on the gripper assembly functions correctly.

1. Manually rotate the **gripper hub** counterclockwise.
  - When the rotate home sensor detects the rotate home position, the sensor beeps and the operator panel displays [1] to show the change in status.
  - When the rotate home sensor does not detect the rotate home position, the operator panel displays [0].
2. To exit the test now and return to diagnostic mode, press the **operator button**.

**Note:** The rotate home position is a gap in the ring of the gripper hub. There are two gaps in the ring of the gripper hub. The rotate home position is detected two times each revolution.

To continue with the next sensor test, follow the *Output Bin Sensor* instructions.



## Output Bin Sensor

This test verifies that the dispenser full sensor located on the outside of the output bin functions correctly.

1. Place a disc in front of the **sensor window**. The sensor beeps and the operator panel displays [0] to show the change in status.
2. Move the disc away from the **sensor window**. The sensor beeps and the operator panel displays [1].
3. To exit the test now and return to diagnostic mode, press the **operator button**.  
To continue with the next sensor test, follow the *Disc Diverter Home Position Sensor* test instructions.

## Disc Diverter Home Position Sensor

This test verifies that the disc diverter home position sensor functions correctly. The disc diverter home position sensor detects when the disc diverter reaches the home position.

1. Start with the disc diverter in the home position.
2. Move the **disc diverter** down. The sensor beeps and the operator panel displays [0] to show the change in status.
3. Move the **disc diverter** up. The sensor beeps and the operator panel displays [1].
4. To exit the test now and return to diagnostic mode, press the **operator button**.
5. Refer to the [Exit Diagnostic Mode](#) section on page 1 to exit diagnostic mode.

## Diagnostic Test 5 – Solenoid Diagnostic Test

This test powers on and off the gripper solenoid, which moves the gripper fingers. It is used to verify proper mechanical alignment of the solenoid.

1. Make sure that the autoloader is in diagnostic mode. Follow the instructions in the [Access and Select Diagnostic Tests](#) section on page 1.
2. Press the **operator button** five times and hold it in on the fifth press until the operator panel displays [05 SOLENOID DIAGNOSTIC].
3. Release the **operator button**. The gripping mechanism opens and closes. Each time the mechanism opens and closes, the cycle count increments by one on the operator panel.
4. Press the **operator button** to stop the test.

## Exit Diagnostic Mode

When the diagnostic test is stopped, press the **operator button** six times and hold it in on the sixth press until the operator panel displays [EXIT DIAGNOSTIC]. The autoloader exits diagnostic mode and the system resets.

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#### When you contact Rimage Services, please provide:

- System serial number and software version
- Functional and technical description of the problem
- Exact error message received

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