Kodak

FCO 512-00460A

One-piece load roller

Document number: 719-00889A Rev B
Release date: 20 Nov 2007

Applies to

- Kodak® Magnus™ 400 platesetter
- Kodak Magnus 400E platesetter
- Kodak Magnus 400 Quantum platesetter

Priority: Next failure

Component: One-piece load roller

Description:
This FCO installs the improved one-piece load roller, which eliminates the roller marks that appeared on the plates during the load process.

Time required ½ day

Prerequisite FCOs None

Parts included in FCO

Part Number	Part Name	Quantity
Magnus 400 Lower Rollers Assembly		
500-04985A	Lower one-piece roller (load roller)	1
500-05393A	Piston assembly for lower one-piece roller	1
252-15484A	Flange bearing for lower one-piece roller	2
252-15795A	Arm, lower one-piece roller	1
290A9L204	Detector bracket for lower roller, L400	1
290A2M235	Roller arm pin - L800	1
138A10210	Photo interrupter IR, potted assembly	1
203A10010	Intermediate cable tie 370 mm	4
380A03061	SOC HD CAP STST 6-32×1/2"	1
382A07001	FLAT WASHER STST #6S	1
382J08000	EXT TOOTH L/W STST #6	1

Parts continued

Part Number	Part Name	Quantity
380A05041	SOC HD CAP STST 8-32×3/8"	2
380A05101	SOC HD CAP STST 8-32×3/4"	4
382D11000	SPRING L/W STST #8	4
382A11000	FLAT WASHER STST #8L	4
385U51100	HITCH PIN INT. D=.047" L=19/32"	2
Software		
651-00803A	CD - FCO 512-00460A One piece load roller FCO Updater Utility	1
Printed Documentation		
719-00889A Rev B	Document – FCO 512-00460A One piece load roller	1

FRU after FCO implementation See Parts list above

Tools required

- Hex key set
- Loctite® 242 adhesive
- Scissors

Procedure

This procedure describes how to remove the lower load roller assembly and install the improved one-piece load roller, and includes instructions for:

- Before You Begin
- Removing the Lower Load Roller
- Installing the One-Piece Load Roller

Before You Begin

1. In the Magnus 400 Controller software, verify that **Ready** appears in the status indicator.
2. Move the carriage to position **500** (approximately in the middle of the V block).
3. Open the rear and side doors of the platesetter.
4. Quit the Magnus 400 Controller software.
5. Shut down the Magnus 400 system.
6. Turn off the air pressure.

Removing the Lower Load Roller

Gaining Access to the Lower Load Roller From the Local3 Box

1. On the left side door, remove the two hex screws that secure the Local3 box to the mainframe and open the Local3 box.

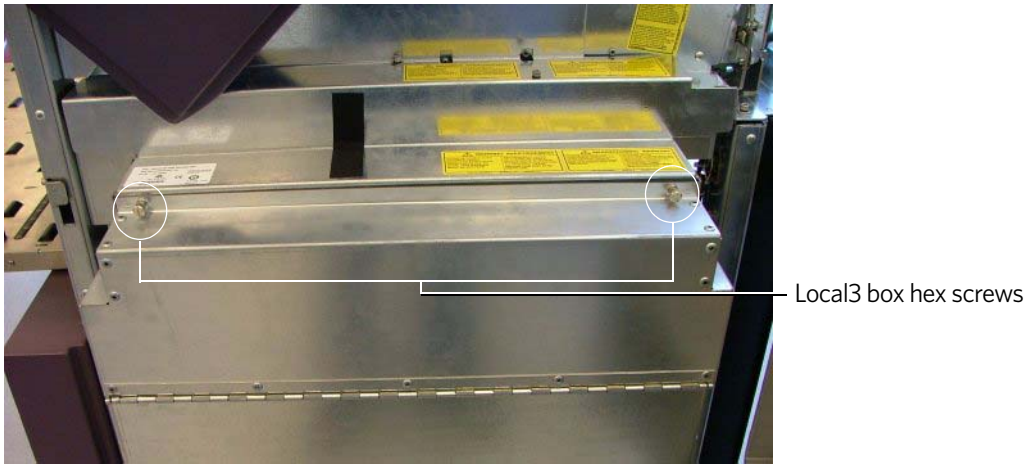


Figure 1: Opening the Local3 box

2. Remove the screws that secure the Local 3 board to the Local3 box.

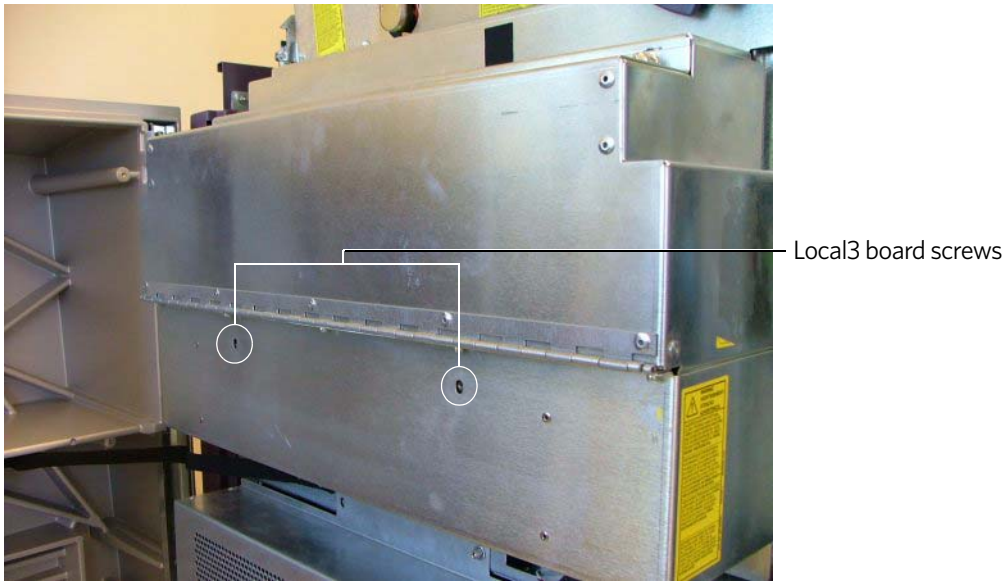


Figure 2: Removing the Local3 board screws

3. With the Local3 box open, lift the Local3 board up and out of the Local3 box and set aside.



Figure 3: Removing the Local3 board

4. To gain access to the lower load roller:
   a. Using a 5/32-in. hex key, loosen the four hex screws that secure the Local3 box to the mainframe (two on each side of the Local3 box).

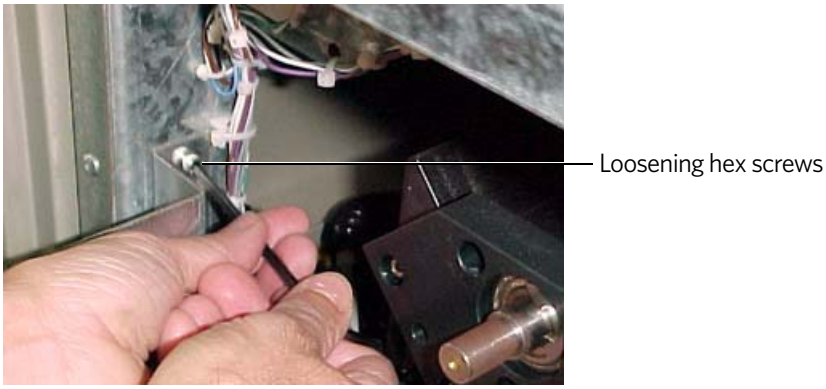
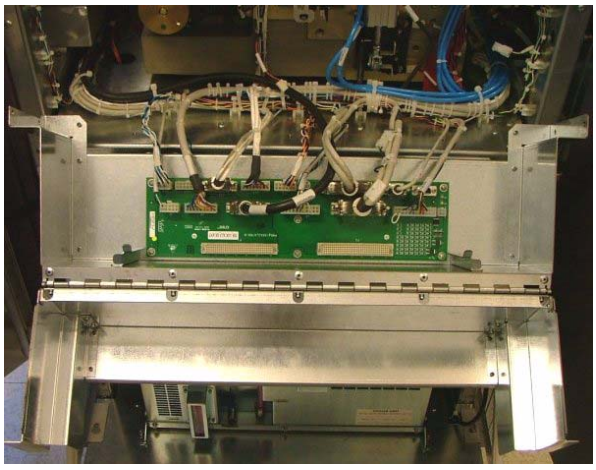


Figure 4: Loosening hex screws

b. Slide the Local3 box down so that it does not block access to the lower load roller.



Top view



Side view

Figure 5: Sliding the Local3 box

5. Mark the position of the load roller bracket on the optomechanic chassis before you remove it (see Figure 6).
6. Disconnect the Home Position (HP) load roller connector from the HP detector bracket.

Note: Do not discard the HP detector bracket, you will need to install it on the one-piece load roller.

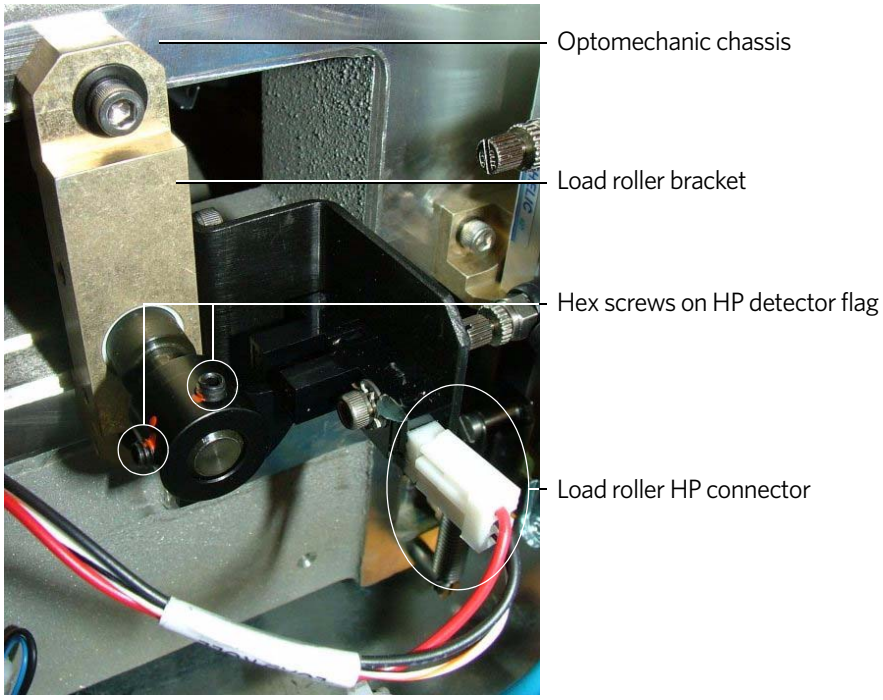


Figure 6: Disconnecting the HP load roller connector

7. Using a 5/63-in. hex key, loosen the two set screws on the HP detector flag and remove the flag.

   Note: Do not discard the HP detector flag, you will need to install it on the one-piece load roller.

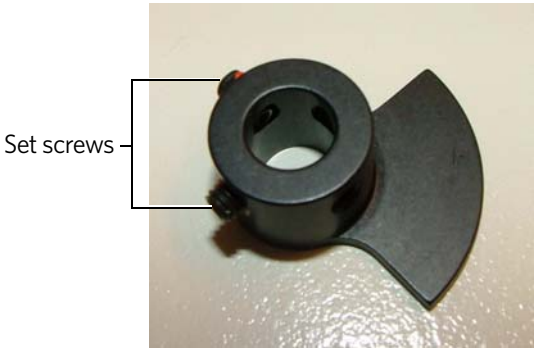


Figure 7: HP detector flag

8. Using a 9/64-in. hex key, loosen the two hex screws that secure the bracket to the load roller shaft and optomechanic chassis, and remove the bracket and set it aside.
9. Remove the HP bracket from the load roller shaft and set aside.

   Note: Do not discard the HP bracket, you will need to install it on the new load roller shaft.

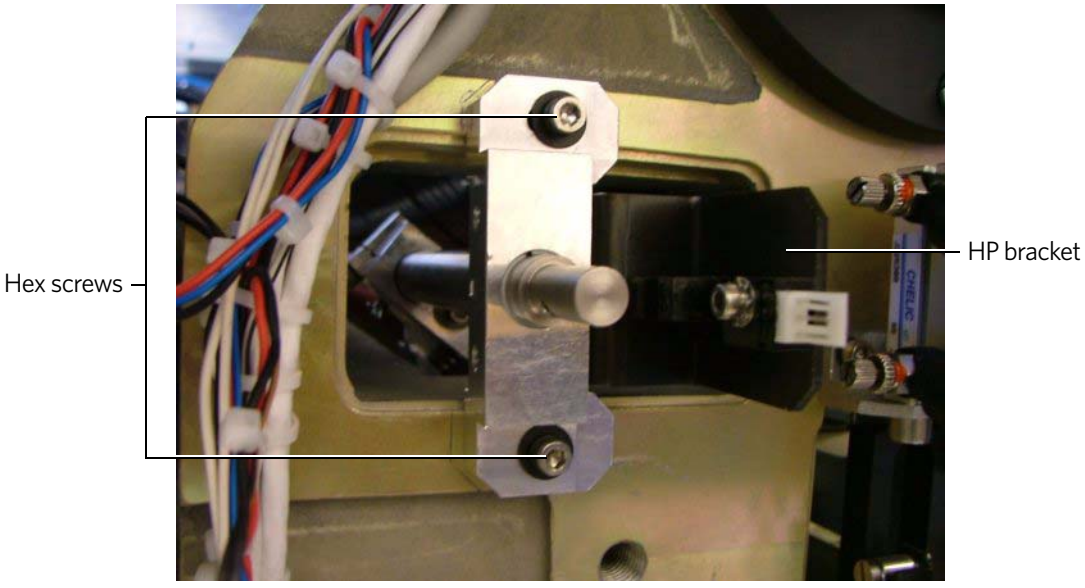


Figure 8: Removing the HP bracket

Gaining Access to the Lower Load Roller from the Manifold

1. On the right side cover, release the two hex screws that secure the manifold box to the mainframe and open the cover.

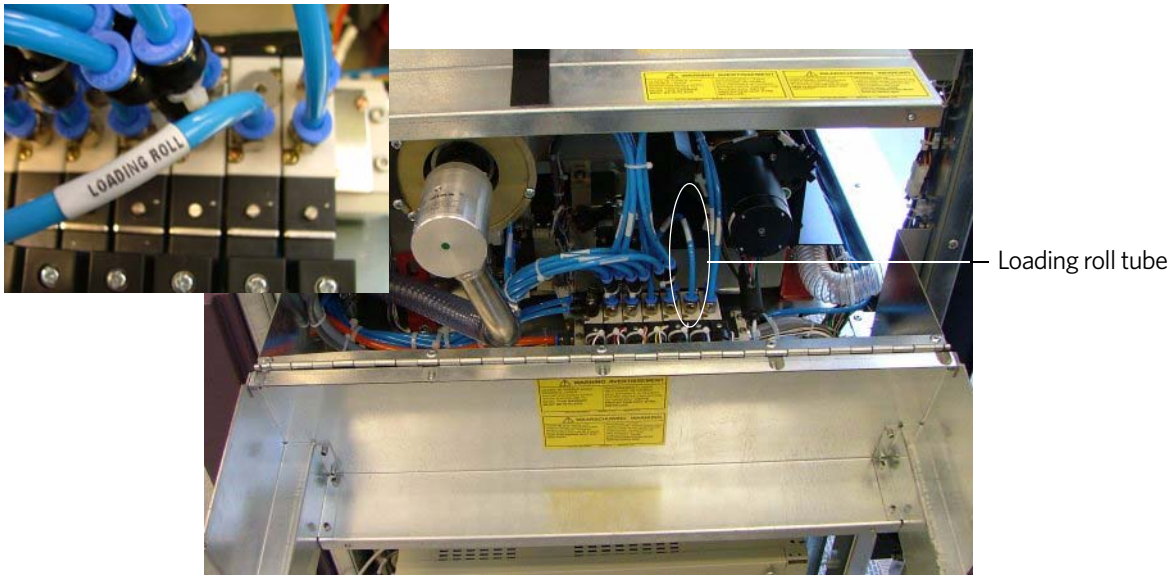


Figure 9: Opening the manifold box

2. Optional: For easier access to the load roller assembly, disconnect all the loading roll tubes from the manifold.

   Note: Before you disconnect any of the tubes from the manifold, write down the location and name of each of the manifold tube connections.

3. Optional: For easier access to the load roller assembly, remove the two screws that secure the manifold to the mainframe (one on each side) and remove the manifold.

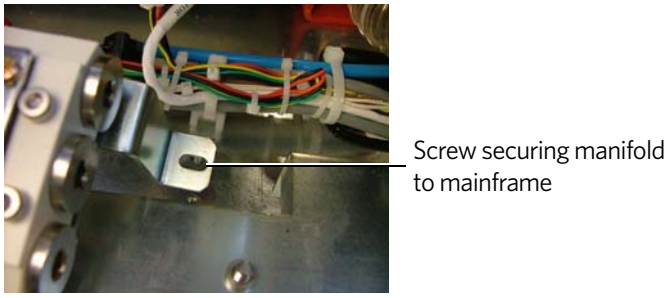


Figure 10: Manifold screw

4. Disconnect the other end of the loading roll tube from the load roller piston arm.

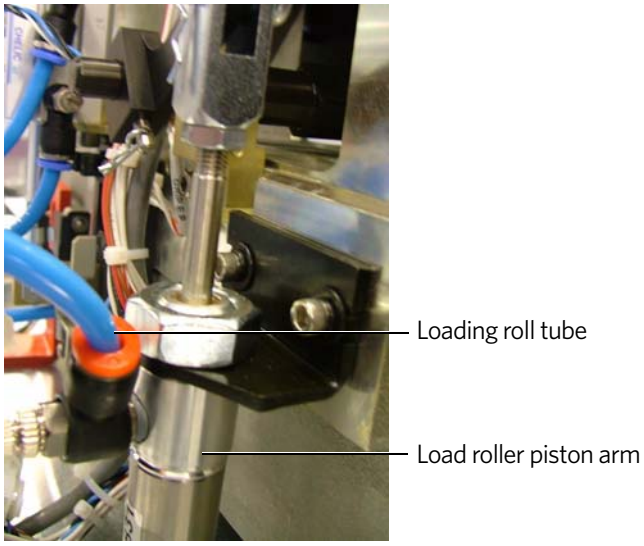


Figure 11: Loading roll tube

5. Using pliers, remove the **large split pin** from the locking pin that secures the piston arm to the load roller shaft piston assembly (see Figure 12), and then remove the locking pin. Set both pins aside.

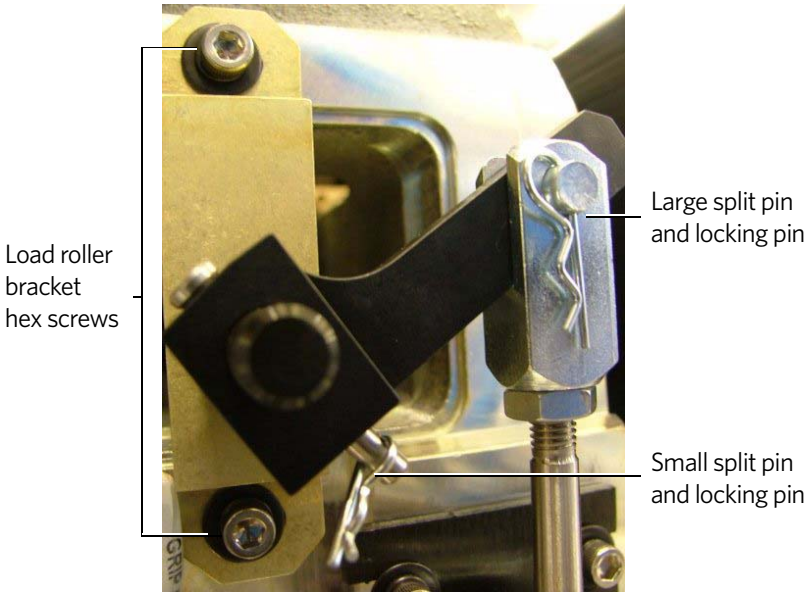


Figure 12: Removing split pins

6. Remove the **small split pin** from the locking pin that secures the piston arm to the load roller assembly (see Figure 12), and then remove the locking pin. Set both pins aside.
7. Remove the **two hex screws** that secure the bracket to the chassis and remove the bracket (see Figure 12).
8. Remove the hex screws that secure the piston to the chassis.

9. From the right side door (Local3 box), carefully remove the lower load roller assembly with all rollers intact and verify that the drum area does not contain any parts that might have broken off the assembly while removing it.

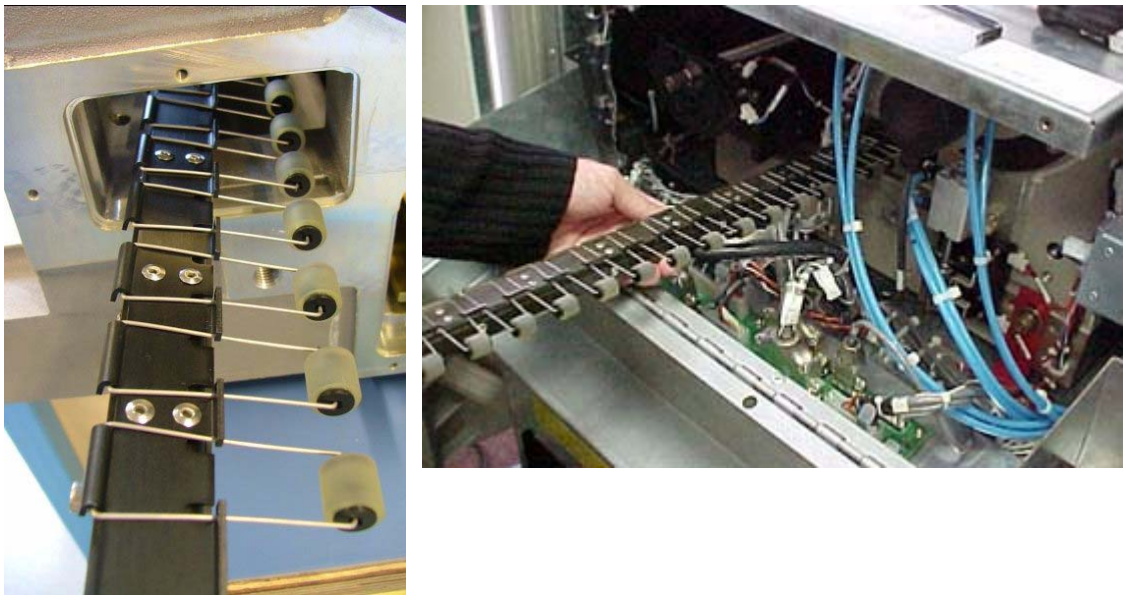


Figure 13: Removing the lower load roller assembly

Installing a One-Piece (Lower) Load Roller

The one-piece load roller is supplied factory-assembled. To install the one-piece load roller, you must first remove the piston arm assembly and the load roller brackets (one on each side) from the load roller.

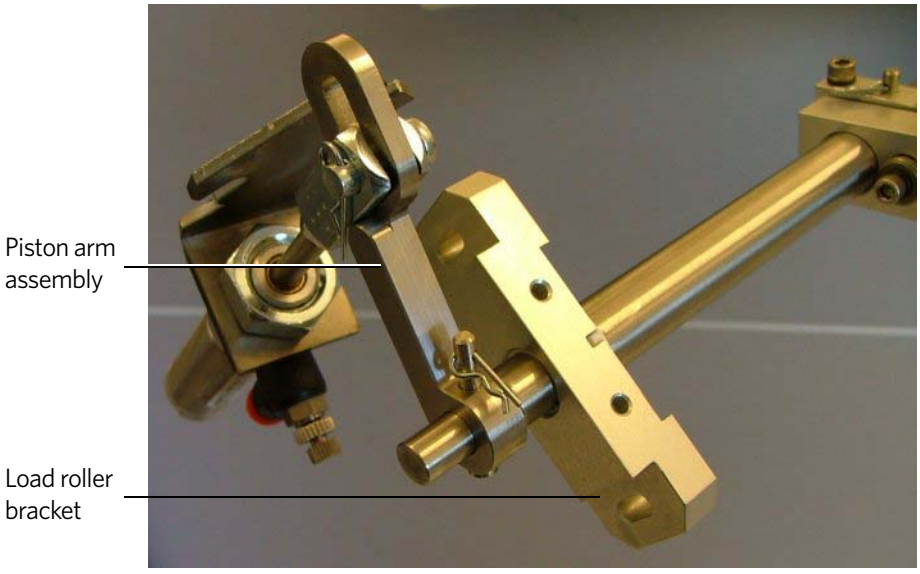


Figure 14: One-piece load roller with piston attached

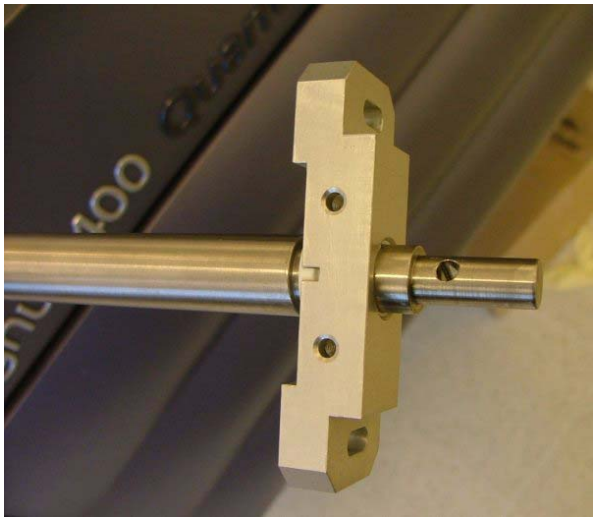


Figure 15: Load roller bracket (one on each side of the load roller)

Tip: Before you install the one-piece load roller, remove the unloading tray.

1. On the one-piece load roller assembly, secure the two springs (one at each end) with cable ties.

   Note: Inserting the load roller is not easy. The cable ties secure the springs so that the load roller will be easier to insert into the platesetter.

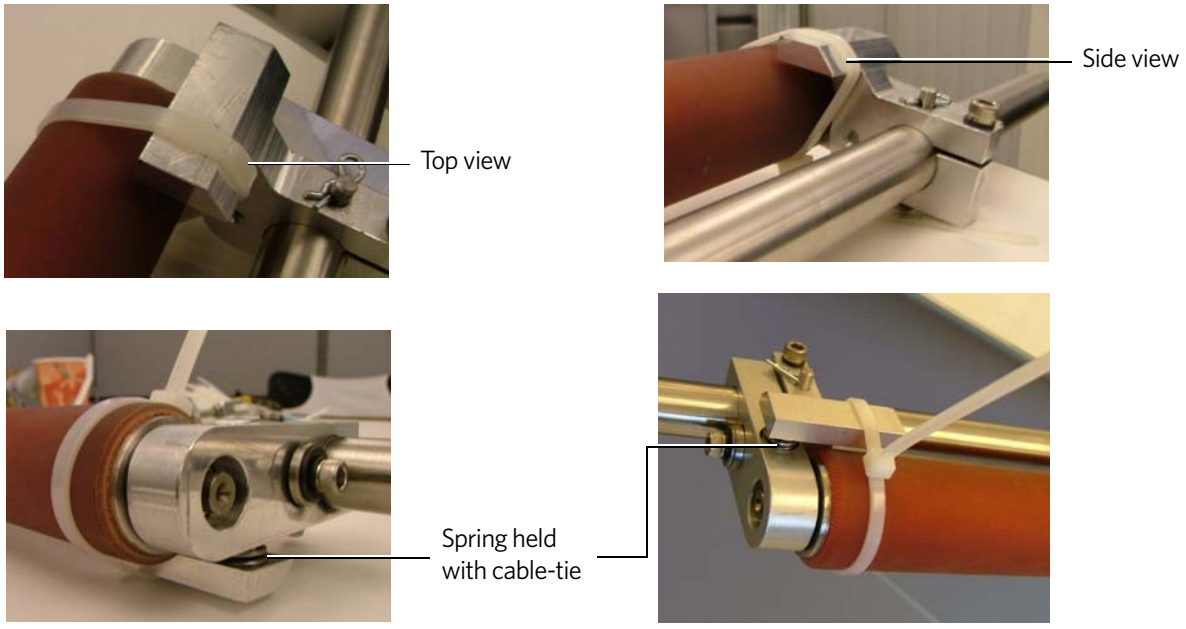


Figure 16: Securing springs

2. Inserting the load roller in the correct orientation is very important. Make sure to orient the load roller as shown in Figure 17, Figure 18, and Figure 19 on page 12. In addition, when you insert the load roller into the platesetter, take special precautions not to scratch or damage it.

   a. Facing the rear (unload direction) of the platesetter, at the right side door (Local3 box), with the red roller facing the drum, carefully insert the one-piece load roller into the platesetter.

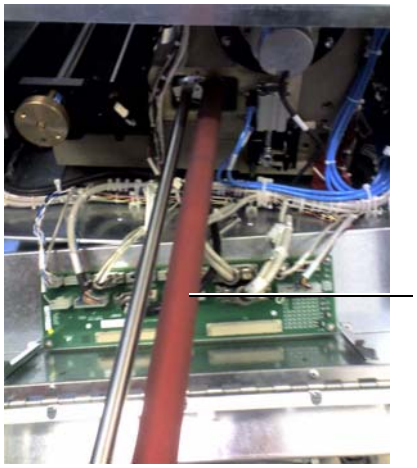


Figure 17: Inserting the load roller

   b. Make sure the spring is facing down

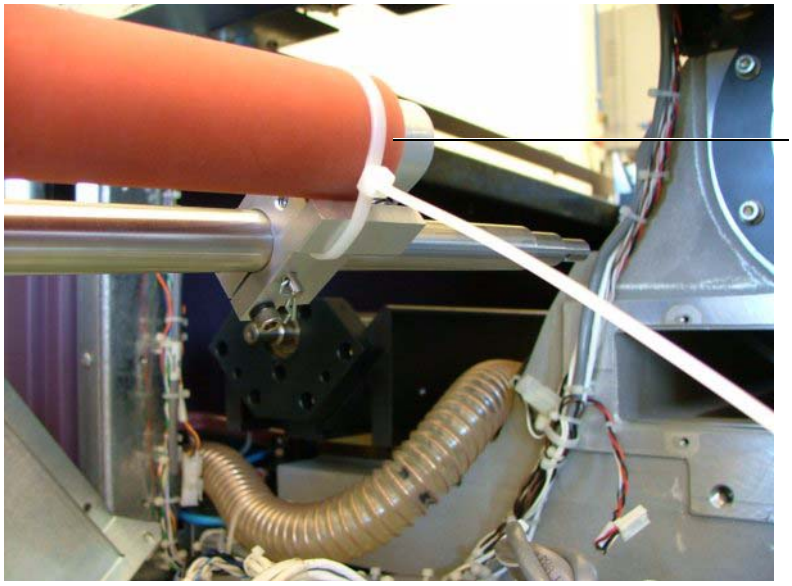


Figure 18: Orienting the load roller toward the drum

c. Make sure the roller is facing the drum (and not facing the V block side of the platesetter)

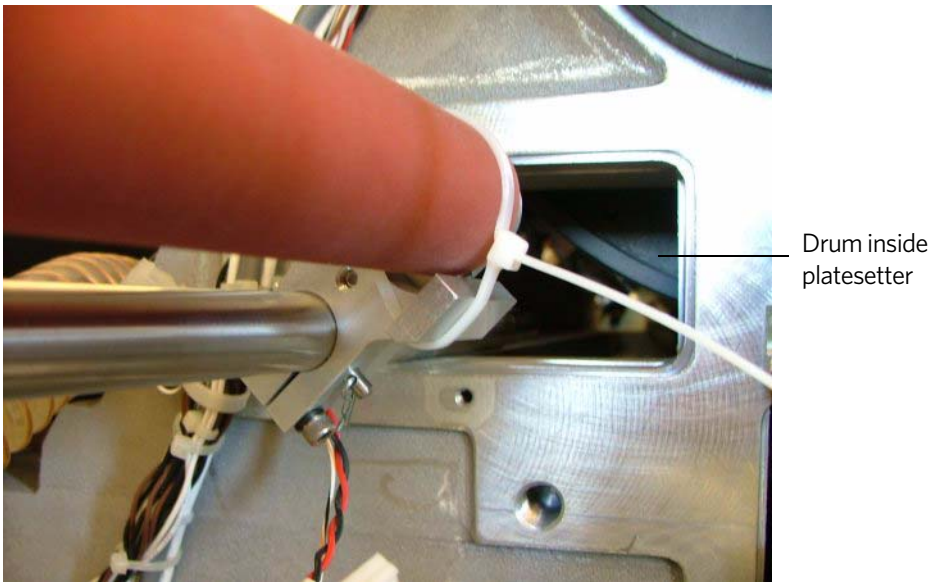


Figure 19: One-piece load roller orientation

3. Reinstall the HP bracket (that you removed in step 9 in *Gaining Access to the Lower Load Roller from the Manifold* on page 7) on the new load roller shaft.
4. Insert the white spacer into the detector bracket housing and slide the housing onto the roller.

Note: Make sure the spacer tab is locked in the bracket housing groove.

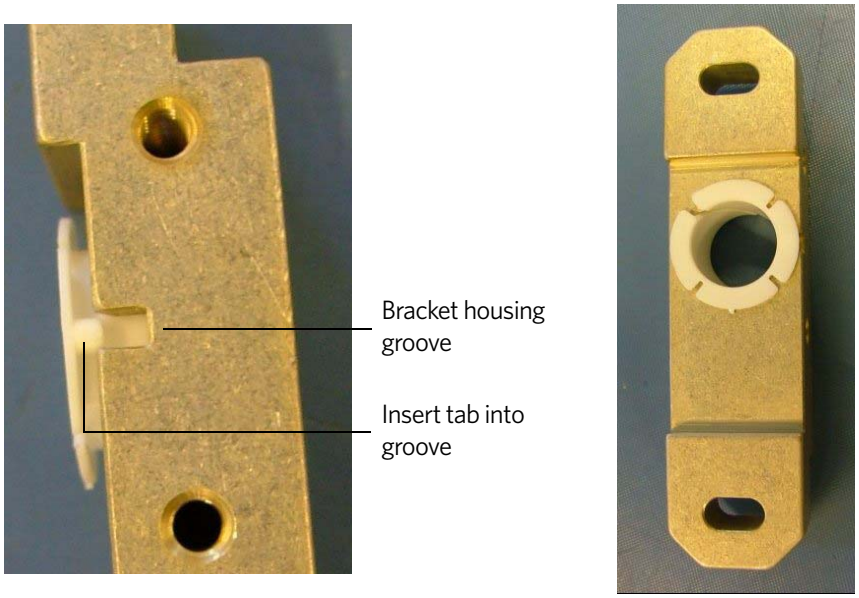


Figure 20: Locking the spacer tab in the bracket housing groove

5. Insert the two hex screws (that you removed earlier) into the load roller bracket that secures load roller shaft to the optomechanic assembly and slightly tighten.

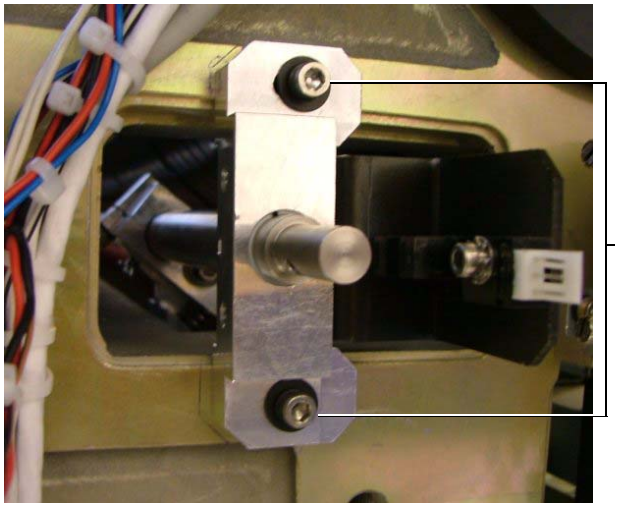


Figure 21: Inserting hex screws into the load roller bracket

6. When the one-piece load roller is correctly positioned *inside* the platesetter, cut the cable ties with a box cutter or scissors.

Note: If the thermal imaging head is blocking access to the cable ties, manually move it to the middle of the platesetter.

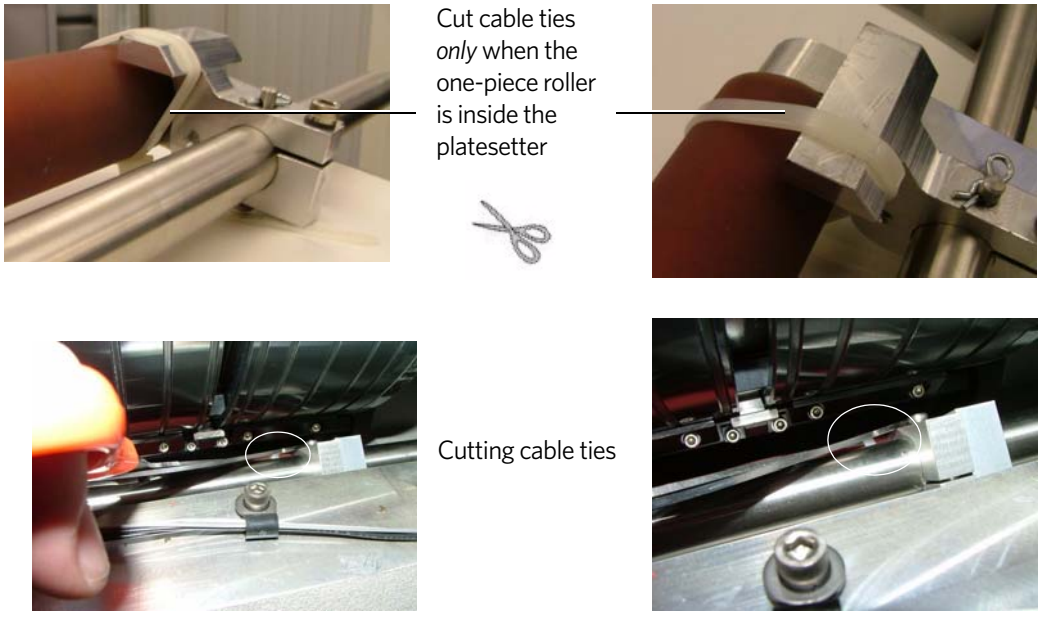


Figure 22: Cutting cable ties

7. From the left side door (manifold side) of the platesetter, insert the two hex screws (that you removed earlier) into the load roller bracket that secures load roller shaft to the optomechanic assembly. Push both the load roller bracket and load roller assembly as close as possible to the left edge of the bracket, and then tighten the screws. See Figure 23.

   Important: Because the holes in the load roller bracket are oval-shaped, there is some play with the load roller assembly. After you insert the two screws that secure the load roller bracket to the optomechanic assembly (and slightly tighten), you must push the load roller assembly until the screws are as close as possible to the left edge of the bracket.

8. Slide the piston arm onto the load roller shaft and secure it to the load roller assembly with the **small split pin** and **long locking pin**.

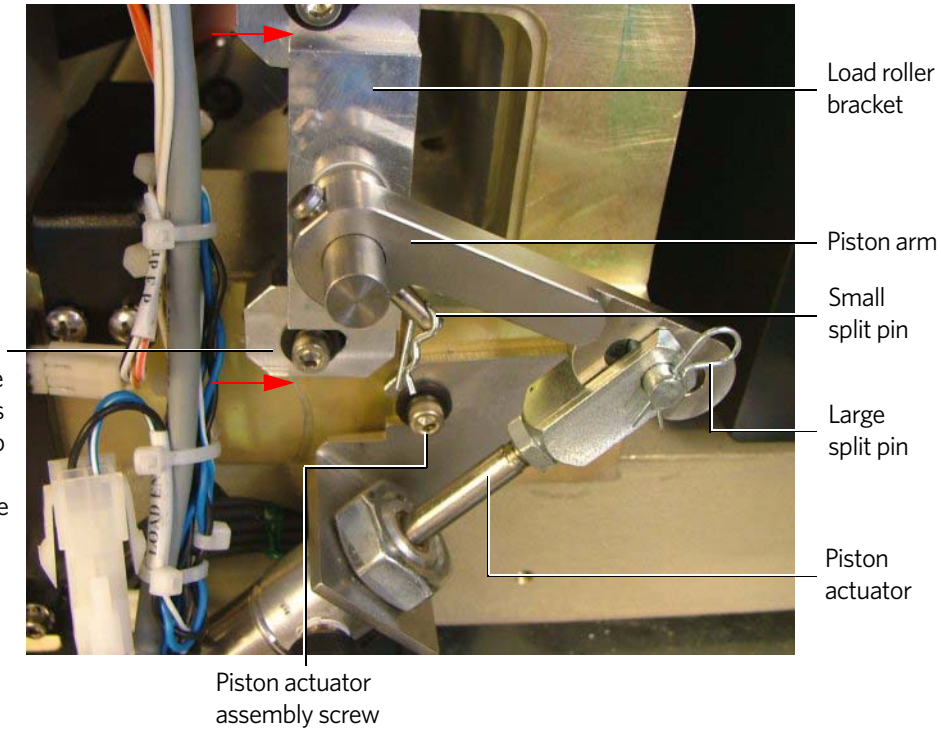


Figure 23: Assembling the piston arm and actuator assembly

9. Insert the two piston actuator assembly (piston and bracket) screws that secure the piston actuator assembly to the optomechanic assembly, and tighten.
10. Insert the **short locking pin** that secures the piston actuator to the piston arm and secure with the **large split pin**.
11. Optional: If you performed one of the optional steps in *Gaining Access to the Lower Load Roller from the Manifold* on page 7, insert the two hex screws that secure the manifold to the chassis.

12. Connect the load roller tube (on the manifold) to the piston actuator.

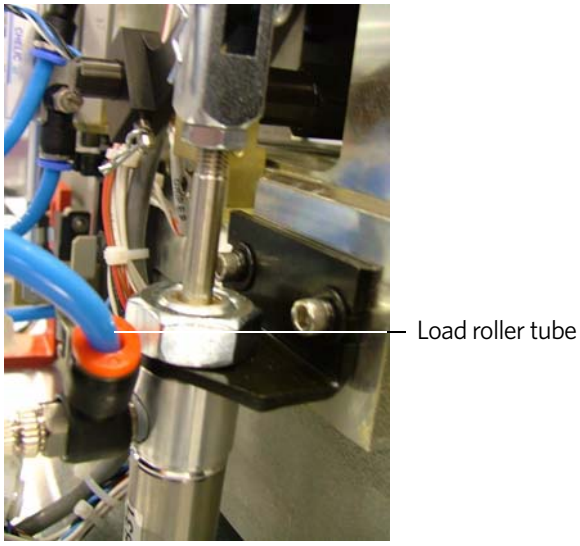


Figure 24: Connecting the load roller tube

13. On each side of the one-piece load roller, verify that the screws that secure the load roller brackets to the load roller are securely tightened, and then close the manifold box.
14. Using a 5/63-in. hex key, install the HP flag on the load roller shaft and tighten the two set screws on the HP detector flag.
15. Connect the HP load roller connector to the HP detector bracket.
16. Using a 5/32-in hex key, insert the four screws (two in each side) that secure the Local3 box to the mainframe.
17. Reinstall the Local3 board in the Local3 box.
18. Close the Local3 box and secure it with the two screws that you removed earlier.
19. Reinstall the unloading tray.
20. Connect all wires and tubes, and turn on the air pressure.

Note: Make sure the air pressure is set at 6 bar.

Testing the One-Piece Roller Functionality

Note: Verify that no tools have been left in the platesetter before you test the one-piece roller functionality.

1. Turn on the platesetter.
2. On the desktop, start the Magnus 400 Controller software.
3. Activate the piston actuator assembly and visually verify that it is working properly
4. In Magnus Controller, go to **Utilities > Hardware > Drum System > Roller System > Load Roller** and double-click **Load Roller HP Detector** and **Load Roller Valve**.
5. In the Load Roller Valve dialog box, click **Start**. The Load Roller HP Detector status should change to **OFF**.

   Important: When the load roller is at home position and the detector status is ON, the load roller is not attached to the drum.

   After you click Start in the Load Roller Valve dialog box and the detector status changes to OFF, the load roller is attached to the drum. If the detector status is ON, you must adjust the flag on the side of the platesetter where the Local3 box is located.
6. Load a plate and verify that it attaches to the drum.
7. Unload the plate and close all doors.
8. In Magnus Controller, expose a file and verify that the plate is processed without problems.

Install FCO Tracker	Insert the diskette and double-click the reg file, or download the file from TechPlanet's FCO Updater / FCO Tracker page.
Upon completion	Not applicable
Material disposition	Dispose the lower load roller assembly.
See also	Not applicable
Technical contact	Alon Davidor
Date submitted	07 Nov 2007
Last updated	27 Nov 2007