Thermal 2 Head on Lotem® 800 II Family

Installation Guide English

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Kodak

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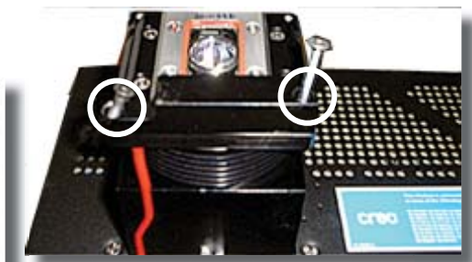
Installation Steps	
1	Prepare the head and carriage.
2	Assemble the Z-stage.
3	Reattach the pneumatic cylinder.
4	Connect the cables and hoses.
5	Prepare to zero the head.
6	Zero the head: U–block was not moved.
7	Zero the head: U–block was moved.

Before you start, check that you have the correct parts.
Ensure that the head is on a clean work surface and that you have clear access to the rear of the device.

1 Install one mounting bracket on each side of the head by placing two washers on each screw and inserting the screws in the holes as shown below.
Tighten the screws securely.



2 Carefully rotate the head so the window is facing up.
Inspect and clean the window.
Install the debris removal nozzle.



New style nozzle: Place both pieces over the window and tighten the four screws (two in the guide, two in the back of the nozzle).

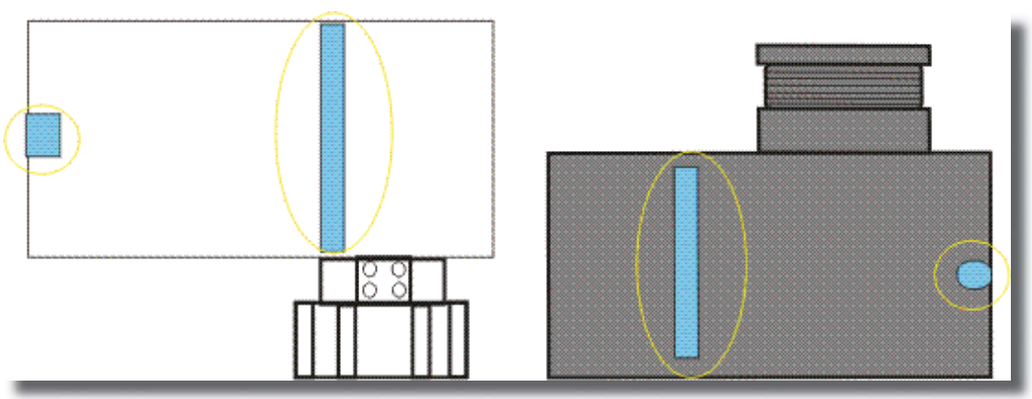
3 Open the rear access panels.



Old style nozzle: Place the nozzle over the window and tighten the three screws.



4 Position the carriage at 500 mm (not necessary for a new installation).



5 Grease the rod and fifth point on the carriage (left, below) and head (right, below).

6 Place the head on the carriage and attach the four bracket springs from the head brackets to the carriage.

CAUTION: Be careful when lifting the head. Do not hit the head on the open rear panel.





1 Remove the pneumatic cylinder from the Z–stage block.
Note: Be careful not to drop the two screws in the device.



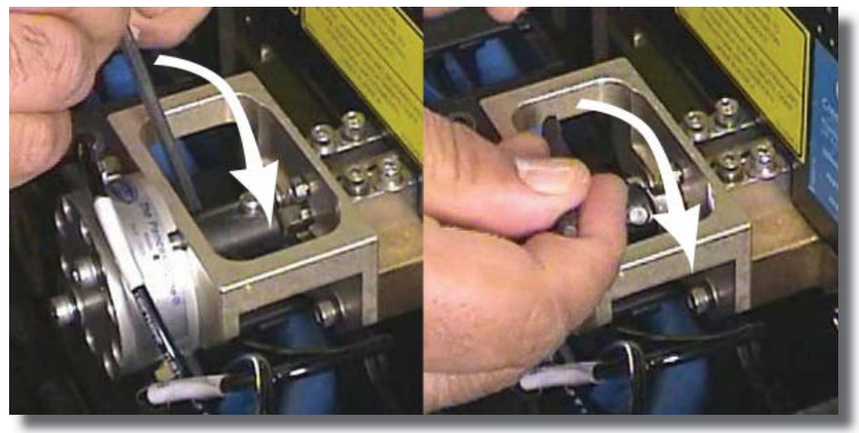
2 Note the size of the spacer (count the number of lines machined on the side).
Place the spacer on the end of the Z–stage shaft and insert the shaft through the block, spacer-end first.



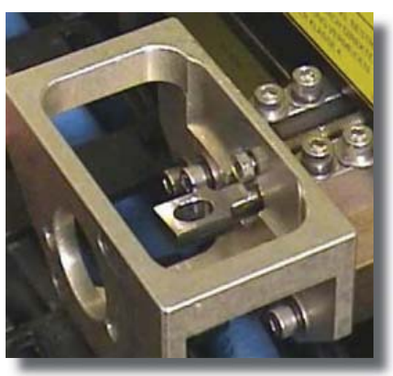


Spacer PN (ends in)	Number of lines	Application
206A	1	plates 0.2–0.3 mm thick
207A	2	plates 0.15–0.4 mm thick
208A	3	Spectrum devices

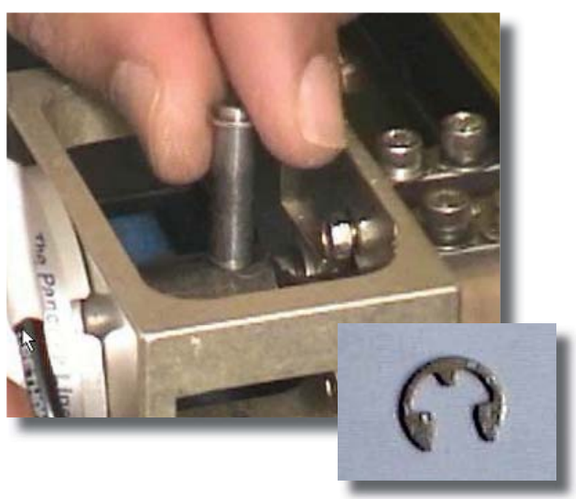
3 Screw the shaft clockwise into the guiding rod, until it is almost competely tight.



4 Align the shaft so that the hole in the end is facing up.



5 Insert one of the circlips into the top of the pin.



6 Connect the pneumatic cylinder to the Z–stage block by inserting the pin through the shaft, as shown below.



Press the Z–stage valve a few times—this will open and close the valve, making it easier to insert the pin.

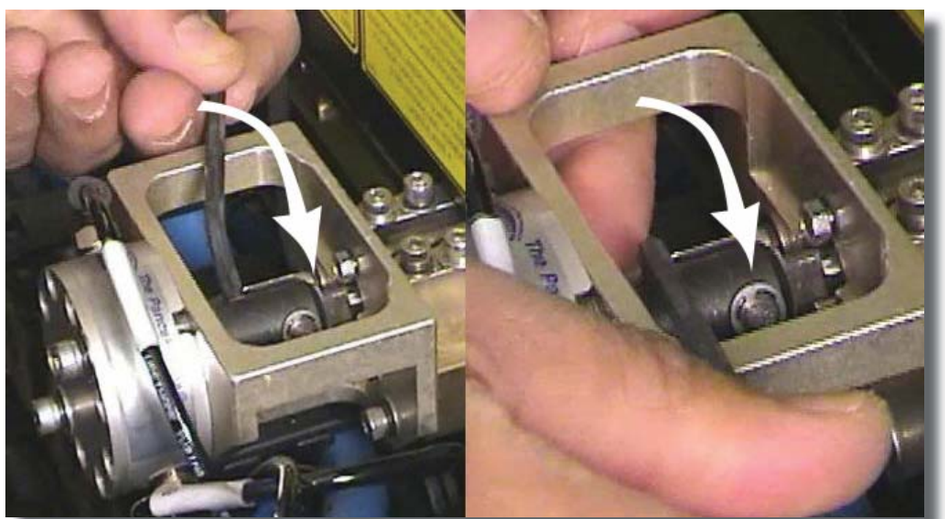
1 Insert the two screws into the pneumatic cylinder and tighten them.
Note: Do not drop the screws in the device.



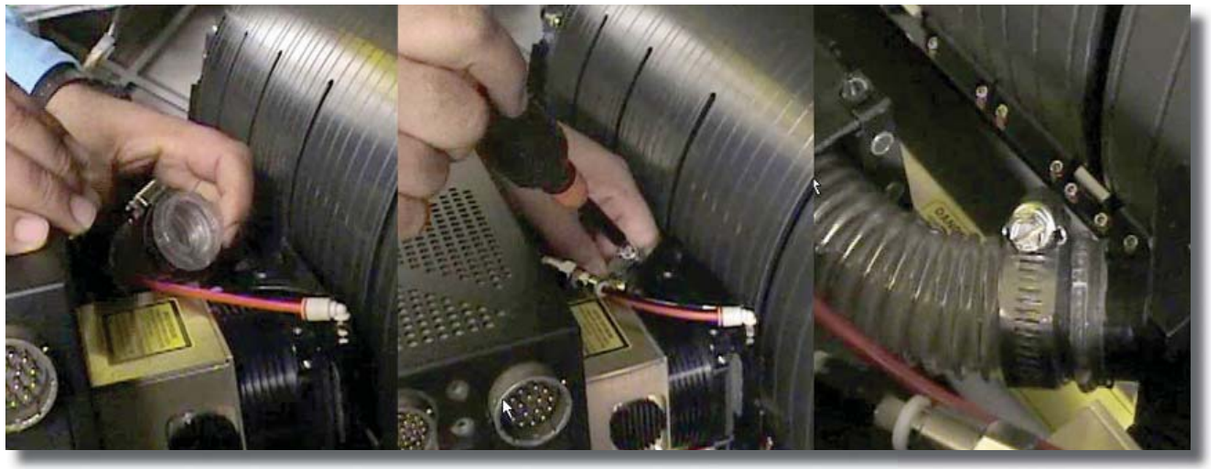
2 Using a hex key, rotate the shaft clockwise so that you can see the other end of the pin.
Insert the second circlip into this end of the pin.



3 Using a hex key, rotate the Z–stage shaft clockwise until it is securely tightened.



1 Connect the debris removal vacuum hose. Make sure you tighten the screw on the clamp.



2 Connect the hotlink cable and the Nafion® air line.





3 Connect the two coolant lines.



4 Connect the two military connectors.

Note: Make sure you line up the pins correctly.



5 Add the coolant (new installations only).

CAUTION: Do not operate the Lotem without coolant.

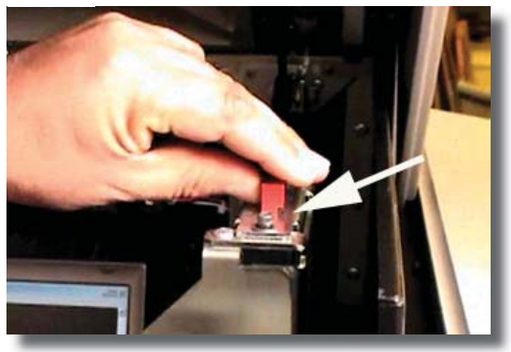
1. With the device turned off, add at least 1 gallon of coolant to the reservoir.
2. With the reservoir cap off, turn on the device.
3. With the pump operating, fill the reservoir up to the maximum level line.
4. Close the cap securely.

1 Load a 305-micron plate and move the carriage in front of the plate (to approximately 500 mm).



2 Disable the focus laser interlock by installing the two interlock defeaters.

WARNING: For the device to be safe for you to work on, you must install both defeaters.

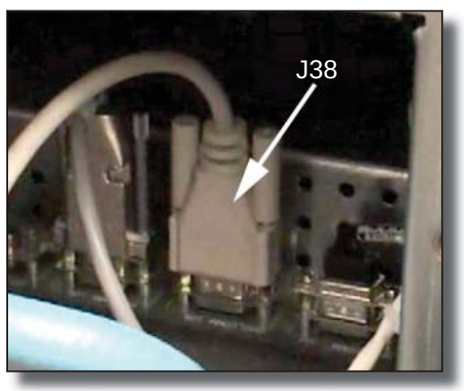


Located near the top right of the carriage



Located near the bottom right of the carriage

3 Using the workstation or your laptop, establish communication with the head.



For a laptop:
Remove the diagnostic cable from port J38 on the MCE board.
Connect the serial cable of your laptop to port J38.

Note: This applies to a new installation or to a head that is being reinstalled after servicing.

1 At the `QUANTUM>` prompt, type `head install on` then type `zstage forward`



2 Using the following steps, adjust the error and sum.

a Check that the error value is correct for the spacer you're using.
For a Lotem® Quantum Spectrum device only:
- –50 microns for a 305-micron plate
- +50 for a 205-micron plate

b Once you have confirmed the error, at the `QUANTUM>` prompt, type `zstage back`

c Check that:
- The error value is correct for the spacer you're using.
- The sum is approximately 1300.
- The state is within range.

d Once you have confirmed these values, at the `QUANTUM>` prompt, type `head install off`

e Remove the defeaters, reinstall the loading tray, and close the rear service access panels.

Note: There are different sizes of spacers for different plate thicknesses. The size of the spacer determines the error value.
For details, see the Lotem 800 II calibration procedure "*Z-stage unit fix spacer*" (http://techplanet.creo.com/output/computer_to_plate/lotem800_th/content/Procedures/Calib/l8qm_zstage_fix_spcr.htm).

Tips

- **New installation**: the error should be the same as it was when the head was zeroed during integration.
- **Reinstallation**: the error should be the same as it was before the head was removed.

If any of the values are incorrect (error, sum, or state), you must remove the pneumatic cylinder and reinstall the head.

Note: This applies to a head replacement or after the position of the U-shaped block was changed.

1 For this procedure you need:

- A 9/64-inch hex key
- An open 1/4-inch wrench
- Media-specific tech note

Using the hex key, unscrew the four screws on top of the U-block.



2 Using the wrench, turn the head positioning screw one turn counterclockwise.

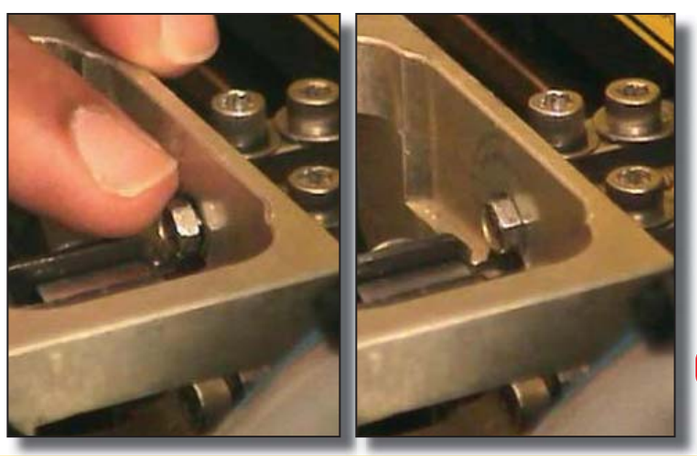


3 At the `QUANTUM>` prompt, type `zstage forward`
Check that the U-block moves towards the drum.
Check that the head positioning screw is clear of the Z–stage frame.



4 Tighten the four screws until they are almost completely tight.

5 Tighten the head positioning screw clockwise until it touches the frame.



6 Verify the values of sr and rcvrgain using the following steps:

a Note the media index number (#).

b For head firmware 1.01 or earlier, at the `QUANTUM>` prompt, type `set hdm # sr`
For head firmware version 1.02 or later, perform one of the following steps:

- At the `TH2>` prompt, type `set med [#-1] sr`
- At the `QUANTUM>` prompt, type `th2 "eng"` and then type `th2 "set med [#-1] sr"`

c Confirm that the sr values matches the value in the media tech note. Change if needed.

d At the `QUANTUM>` prompt, type `media #` and confirm the values.

7 At the `QUANTUM>` prompt, type `head install on` and then type `zstage forward`

8 Slowly turn the head positioning screw clockwise approximately 6 times, until the state is within range and the error is approximately –160.



Note: There are different sizes of spacers for different plate thicknesses. The size of the spacer determines the error value.
For details, see the Lotem 800 II calibration procedure "*Z-stage unit fix spacer*" (http://techplanet.creo.com/output/computer_to_plate/lotem800_th/content/Procedures/Calib/l8qm_zstage_fix_spcr.htm)

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a) Continue to turn the screw very slowly until the error approaches the correct value for the spacer you're using (+50 for Spectrum; –50 for Spectrum with 200-micron plates).
b) Type `QUANTUM>> head install off`
c) Type `TH2>> foc cal reflect`. Record the sr value.
d) Type `set med # sr [value]`.

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Verify the following:
- State = within range
- Sum = approximately 1200
- Error = correct value for the spacer you're using (+50 for Spectrum; –50 for Spectrum with 200-micron plates)

Note: If the sum is not close, adjust it by changing the sr value.

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Completely tighten the four screws.



12

Type `>> head install on`. Check the screen output and re-verify that the state is within range and the error value is correct for the spacer you're using.

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At the `QUANTUM>` prompt, type `zstage back`
Once the command is complete, confirm the following:
- State = within range
- Error = correct value for the spacer you're using (–50 for Spectrum; +50 for Spectrum with 200-micron plates)

At the `QUANTUM>` prompt, type `head install off`

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Remove the defeaters, reinstall the loading tray, and close the rear service access panels.

Note:
Make sure that the edge detection is correct, and that there isn't any subscan shift.

If edge detection has failed, run the edge groove script and follow the procedure on the Thermal 2 Procedures page (Finding the Correct Drum Position for Edge Detection (Lotem Quantum)).

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