

# OptiMelt/EzMelt Camera board replacement procedure

## Tools Required

- Phillips head screw driver
- Short Phillips head screw driver (shorter than 3 inches in length).
- **For OptiMelt Only:** MeltView Software installed on a Windows computer.
- 3 capillary tubes filled with approximately 6 mm of a white powder.

## Procedure

The interior of the unit has sharp metal edges. Work slowly and carefully to avoid injury to yourself and damage to the instrument. Do not remove the new camera board from the static control bag until you are ready to install it in the instrument (step 11).

1. **For OptiMelt Only:** Verify that the MeltView software is installed to a Windows computer and that MeltView communicates with and controls the OptiMelt.
2. Switch the unit off and unplug the power cord.
3. Remove the 4 screws on the sides of the front half of the instrument.
4. Carefully and slowly slide out the front half.
5. Locate the camera board mounted on the middle plate of the instrument.
6. Disconnect the 2 LED power connectors from the camera board.
7. Disconnect the 50 pin ribbon cable connector from the camera board. Use the latches on the header to lever the connector off.
8. Remove the 4 corner screws from the camera board and the 2 screws from the camera lens holder. Remove the old camera board.
9. The new camera board has a lens attached; you must remove the old lens holder. Loosen the 2 knurled screws holding the heater assembly to allow access to the 2 screws securing the old lens holder to the middle plate. Remove the lens holder screws and the old lens holder.
10. Add 4 standoffs (3/8") to lengthen the original standoffs on the middle plate.
11. Install the new camera board using 4 new screws and lock washers. Leave the screws loose until the next step.
12. Push the camera board upward while tightening the 4 screws.
13. Reconnect the 2 LED power connectors.
14. Reconnect 50 pin ribbon cable connector. Push it in all the way until the latches have closed fully.
15. Clean up the inside of unit, making sure no loose pieces are on any of the printed circuit boards. They could damage the instrument when it is turned on
16. Close the instrument and replace the 4 screws holding the front half of the chassis. If the front half of the chassis will not close, try removing the ceramic capillary guide and turning the unit upside down. If it still won't close, remove the four standoffs in step 10.
17. **For EzMelt Only:** Rotate the lens focusing barrel clockwise all the way in toward the camera board. Rotate counterclockwise  $2\frac{3}{4}$  turns to get the lens in focus. If the standoffs

are removed in step 16, then rotate the lens focusing barrel counterclockwise additional  $\frac{1}{2}$  turn.

18. Install the power cord and switch the unit on.
19. **For EzMelt Only:** Perform the camera alignment procedure described in the user manual (Insert three capillaries and press the Left and Center buttons).
20. **For OptiMelt Only:** Connect the USB cable between the OptiMelt and the computer.
21. **For OptiMelt Only:** Run the MeltView Software. You should see an image, but it might not be centered in the window. If needed, adjust the focus by twisting the lens holder barrel. Make small adjustments and wait about 3 seconds (as there is a time delay in the image) to see the effect before moving it again. With the 3/8" standoffs installed, best results should be found near the center of the 6 turn lens adjustment range.
22. **For OptiMelt Only:** Go to the MeltView menu Camera / Auto align. Follow the instruction on the menu box (insert three capillaries) and click on the Auto align button. If the auto alignment was successful, the capillaries will just fill the image. If the auto alignment fails, try it again. If it still fails, then repeat the replacement procedure steps 2 through 10 and 12 and above with particular attention to step 12.