

FLU110D Heater replacement

1. Start by removing the bezel on the top Plexiglas frame.
2. Leave the top sleeve on and use a piece of packing or duct tape and put it across the sleeve, this will hold the medium in the tank and keep the sleeve from bulging out when you turn it the unit over.
3. Place a piece of cardboard on the ground and flip the unit upside down on the cardboard to where the wheels are up.
4. Tap the legs one way and then the other and slide the legs (with wheels) off of the post.
5. Use a box cutter and go around the entire bottom board slicing the silicone that is sealing the unit.
6. There are 6-8 screws with washers holding the board to the unit, remove those.
7. Finish cutting the silicone to make sure the board will come out.
8. Use a pipe or a large tool that will fit in the post.
9. Pry the board one direction or the other to cause the board to pop out.
10. Move the base to the side, there is a ground cable attached.
11. Here is where you will find the heater.
12. Clean any excess silicone from the board and the frame.
13. Vacuum the distributor grate and any particulate inside the area.
14. Remove the three top screws from the heater shield and slip off the snap disc from the under screw, move out of the way.
15. Remove the other three screws from the bottom of the heater.
16. Squeeze the flanges that were unscrewed and push the heater and shroud thru the slotted hole.
17. Now you can slide the heater out. Using a nut driver, remove the nuts and wires from the old heater. Don't worry about polarity of the red wires they can be installed on either terminal.
18. Continue to vacuum out any debris from the cavity.
19. Install the new heater in the flange and make sure the connections do not touch the shroud (it will short out). There should be a rivet in the shroud that keeps the heater from moving around. If not use a 1/2 screw.
20. Squeeze the edges together so you can insert the shroud with heater back thru the slotted hole.
21. Use a pair of channel locks or pliers to squeeze the edge up against the wood and put in the two screws on the outer edge of the shroud.
22. Do the same for the lower edge of the shroud, it's a strange angle so don't worry about the angle of the screws. You may have to use some

- force to hold down the edge of the shroud and compress it to the wood.
23. Insert the lower middle screw and leave it loose a little bit, install the snap disc frame.
 24. Line up the snap disc and insert the upper middle screw.
 25. Tighten them all down, except the lower middle screw.
 26. Attach the red wires to the heater and make sure nothing is shorted (tight fit area)
 27. If possible, use an ohm meter and measure the red wires on the connector (disconnected) to the circuit board to make sure you are reading ~15 ohms.
 28. Place the undercarriage board back on the unit and use a mallet to put in place (make sure the fiberglass backing on the board is over the motor chamber.
 29. Use the screws and washers (new washers if needed and cant dig out of the old silicone) and screw down the board.
 30. Use a tube of clear silicone (GE works best and dries fastest) and put a liberal bead around the base, make sure it is pushed in to any cracks or gaps, use a putty knife to smear it around and use some around the screws as well. This can have NO leaks as it can tamper with the temperature stability of the unit.
 31. Let the unit sit and dry for 24 hrs. Tick Tock.....
 32. After the silicone has dried, attach the wheel leg and tip back up on the wheels.
 33. Remove the tape and attach the bezel back on the unit.
 34. You can now run the unit and do a temperature and fluidization test.
 35. Safety test the unit and put back in service.
 36. Any questions, please call tech support at ERS biomedical
727-807-7928

