



## **ThermoFlo Handpiece Assembly**

(for PACE ThermoFlo systems)

**P/N 6010-0093-P1 (115 Volt Systems)**

**P/N 6010-0094-P1 (230 Volt Systems)**

### **Installation Instructions**

**Manual Number 5050-0432**

**Rev. A**

To replace the Handpiece Assembly, perform the following procedure step by step, in sequence using the accompanying illustrations as a guide.

#### **CAUTION**

**POTENTIAL SHOCK HAZARD** - Disassembly of the ThermoFlo power source exposes line voltage parts. Replacement of the Handpiece Assembly must be performed by qualified service personnel only. Service personnel must insure that the AC power cord is disconnected prior to disassembly. Contact the PACE Service Department for assistance at tel. 1-888-535-PACE, FAX 1-301-483-7030.

1. Place the unit on a suitable work surface with the front of the power source facing forward.
2. Disconnect the AC power cable from the unit (if present).

#### **NOTE**

Use all ESD control precautions when servicing the ThermoFlo system. The power source contains assemblies utilizing static sensitive components.

(over)

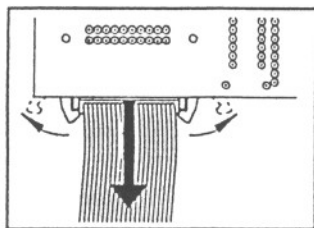
For any questions regarding these instructions, contact your local authorized PACE dealer or contact PACE directly at: Telephone (301) 490-9860, Fax (301) 604-8782

**PACE Incorporated**  
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3. Remove the 10 Front Panel mounting screws.

4. Pull the Front Panel forward.

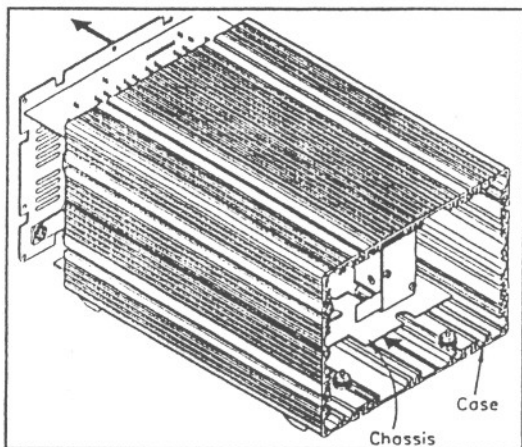
5. Disconnect the ribbon cable from the Front Panel by pulling the 2 plastic locking tabs away from the ribbon cable (see illustration) then pulling the ribbon cable out of the Front Panel connector. Set the Front Panel aside.



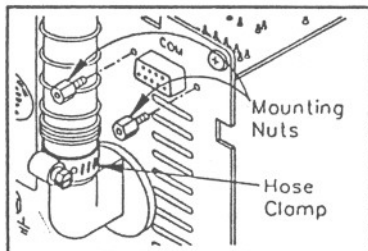
6. Reposition the unit with the rear of the power source facing forward.

7. Remove the 8 Rear Panel mounting screws.

8. Gently pull the Rear Panel away from the power source. Attached to the Rear Panel are the Main PCB and the Chassis. Pull these parts completely out of the power source Case. Set the power source Case aside.

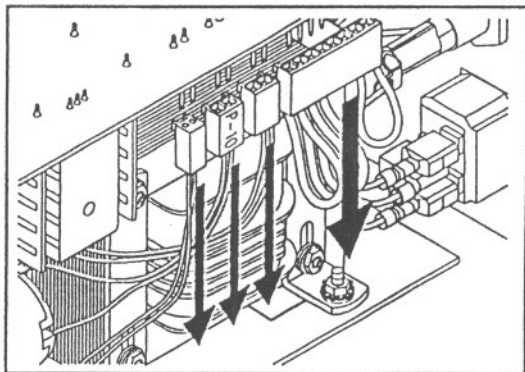


9. The COM Port is located on the upper right portion of the Rear Panel. Remove the two (2) Mounting Nuts located on either side of the COM Port.



10. Position the Chassis as shown with the Blower Assembly facing forward.

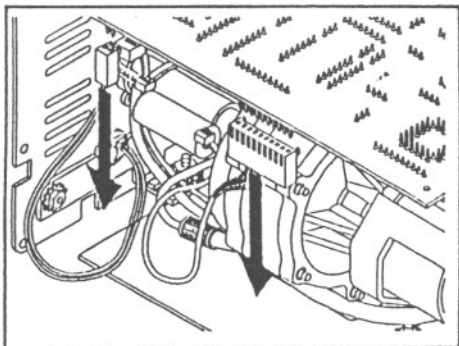
11. Disconnect the four (4) connectors shown from the Main PCB. Make note of the location of each connector (Flo Pump harness plug marked "P10").



12. Disconnect two (2) connectors shown from the Main PCB.

### CAUTION

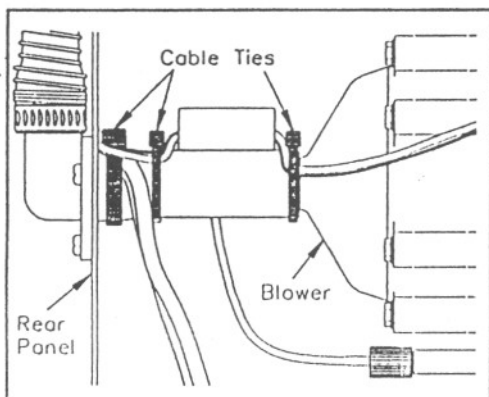
The larger of these two connectors has very fine wires attached. To prevent any damage to these wires, handle this connector with care.



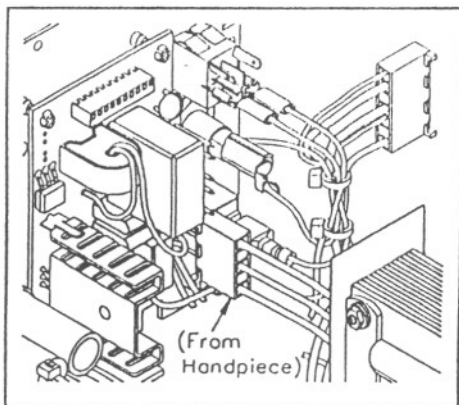
13. Pull the Main PCB forward to release pins on PCB plug from the connector on the HV Board Assembly. Set PCB aside.

14. Disconnect the small, Black Vacuum Hose from the plastic fitting connecting it to the larger, translucent vacuum hose which connects to the Flo Pump Assembly.

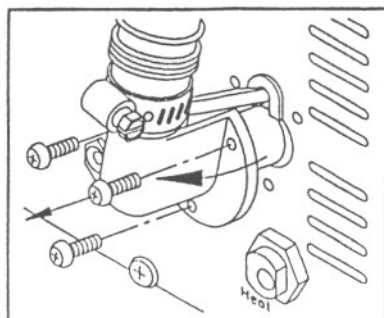
15. Cut the two (2) plastic tie wraps that secure the handpiece wires at the Rear Panel and a third tie wrap located at the Blower Air Hose connection to the Blower Assembly.



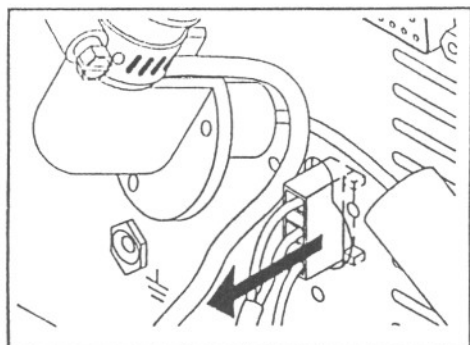
16. Disconnect the top large White connector from the HV Board Assembly. Move the connector away from the HV Board Assembly. Refer to the illustration.
17. Disconnect the second (lower) large White connector from the HV Board Assembly. Pull this connector and attached wiring back under the Blower Air Hose and out the Blower Assembly side of the chassis.



18. Pull the end of the large Blower Air Hose off the end of the Blower Assembly.
19. Gently pull the opposite end of the Blower Air Hose off of the Air Blower Fitting.
20. Remove the three (3) Fitting Mounting Screws.
21. Gently pull the Air Blower Fitting up at an angle and just free of the Rear Panel.



22. Remove the U shaped rubber Grommet from the Rear Panel.
23. Pull the wire harness with the White connector out through the hole in the rear panel.
24. Pull the wire harness with the Red connector & large cylinder out through the hole in the rear panel.
25. Pull the Blower Air Hose out through the hole in the Rear Panel.



Install the replacement Handpiece Assembly in the following manner.

26. Feed the replacement Handpiece Assembly wires with the White connector through the hole in the Rear Panel. Refer to illustration, steps 23 & 24.
27. Gently feed the replacement Handpiece Assembly wires with the Red connector through the hole in the Rear Panel. There is a large cylinder tied onto these wires. Gently feed this cylinder through the hole while feeding the wires through the slot. Refer to illustration, steps 23 & 24.

#### NOTE

These wires are small and can be easily damaged. Take extra care when handling these wires.

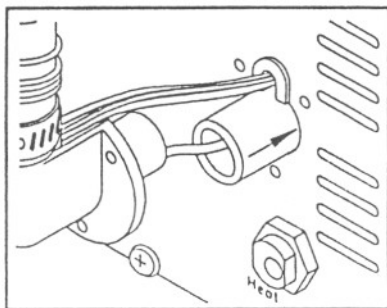
28. Install the U shaped rubber Grommet (removed in step 22) in position in the slot at the top of the hole in the Rear Panel. If this part has been lost during the disassembly process, use the spare Grommet taped to the Air Blower Fitting on the replacement handpiece.

### NOTE

In order to prevent wire damage when installing parts in the Rear Panel, care must be taken to feed or hold all wiring against the Grommet at the top of the hole.

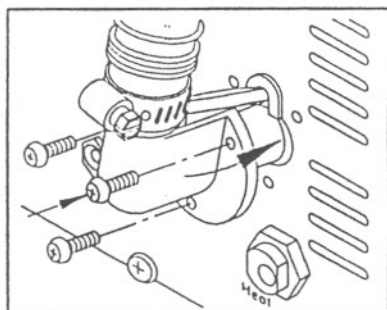
29. Lift all of the wires running through the hole in the rear panel up into and against the Grommet. Refer to illustration, steps 23 & 24.

30. Holding the wires up into and against the Grommet, feed the Blower Air Hose through the hole in the Rear Panel.



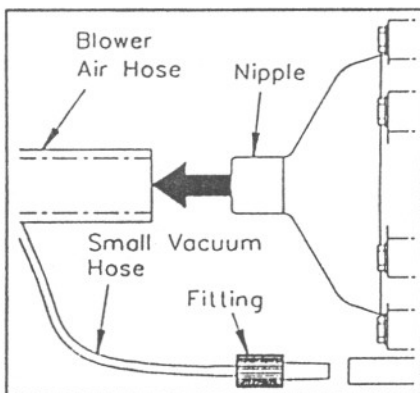
31. Holding the wires up into and against the Grommet, insert the Air Blower Fitting into the hole in the Rear Panel. NOTE - Insure that the Grommet remains in position.

32. Attach the Air Blower Fitting to the Rear Panel using the three (3) Fitting Mounting Screws removed in step 20.



33. Install the Blower Air Hose onto the Blower Assembly and the Air Blower Fitting as shown in the illustration with the small Vacuum Hose pointing down.

34. Connect the small, Black Vacuum Hose (extending through the Blower Air Hose) to the plastic fitting which connects to the larger, translucent vacuum hose connected to the Flo Pump Assembly.

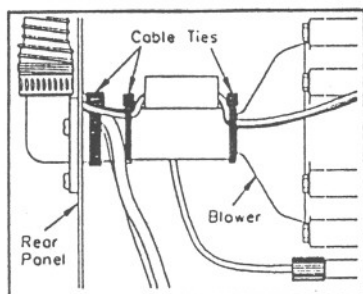


### NOTE

Insure that the small Vacuum Air Hose does not become pinched.

35. Install the Three (3) Cable Ties supplied in the following manner.

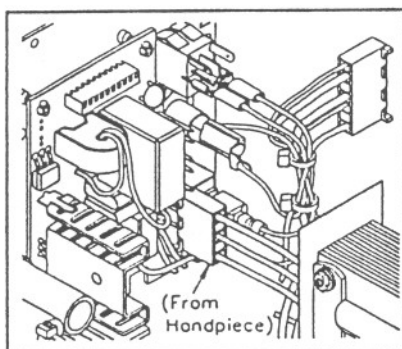
- a) Install a large Cable Tie at the Rear Panel around the Blower Air Hose and the wire harness with White connector.
- b) Install a small Cable Tie next to the large Cable Tie and around the Blower Air Hose and the small wire harnesses.
- c) Install a small Cable Tie at the Blower Air Hose to Blower connection and around the Blower Air Hose and the wire harness with the Red connector.



d) Trim (cut off) ends of Cable Ties.

36. Route the wire harness with the White connector under the Blower Air Hose and to the HV Board Assembly.

37. Plug the White connector (from handpiece) fully into the lower pin receptacle on the HV Board Assembly. You may find it necessary to push the top of the Rear Panel back gently to ease installation of the connector.

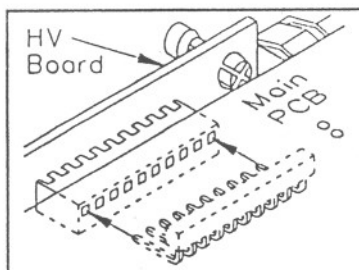


38. Plug the White connector (from power switch and transformer) fully into the upper pin receptacle on the HV Board Assembly.

39. Position the Main PCB over the Chassis and with the ribbon cable facing forward.

40. Align the COM Port receptacle at the rear of the Main PCB with its rear panel cutout

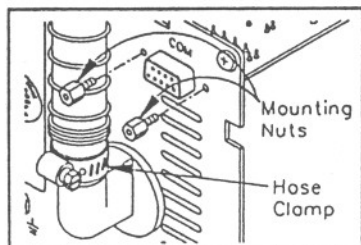
41. There is a ten (10) pin plug mounted at the rear of the Main PCB. Carefully insert these pins into the matching 10 pin connector on the HV Board Assembly.



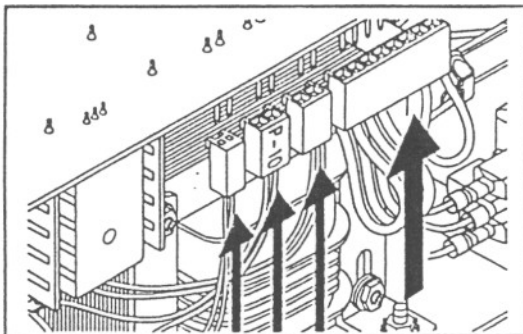
#### NOTE

Insure that the plug pins are lined up correctly with the connector. The system will not operate if connection is incorrect.

42. Install the two (2) Mounting Nuts on either side of the COM Port.



43. Install the 6 connectors removed in steps 11 & 12. Insure that each connector is pushed fully onto its PCB connection. Insure that the connector marked "P10" is plugged into the proper location. Refer to illustration.

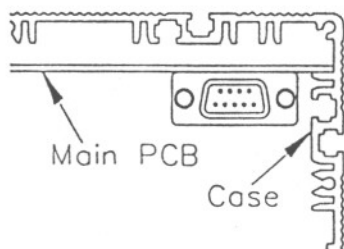


#### NOTE

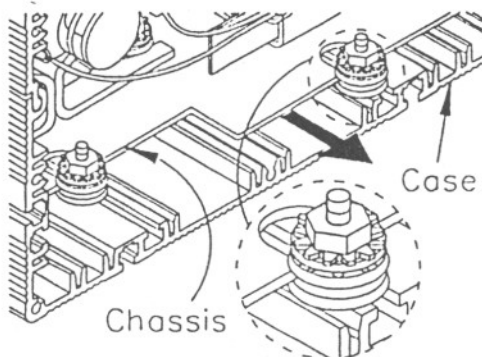
The wires attached to the Red connector are small and can be easily damaged. Take extra care when handling these wires.

44. Slide the Chassis into the rear of the Case with the Main PCB positioned as shown below. Located at the front, inside of the Case are two (2) mounting studs with Blue grommets. The two (2) slots at the front of the inner chassis plate must slide into the slots in the two (2) Blue grommets.

VIEWED FROM REAR



VIEWED FROM FRONT



#### NOTE

Wire harnesses are located along the edges of the inner chassis. Insure that these wires do not get caught or pinched against the edges of the inner chassis, Case or the rear panel as the inner chassis slides in.

45. Install the 8 Rear Panel mounting screws removed in step 7.
46. Position the power source facing forward.
47. Connect the ribbon cable (removed in step 5) to the Front Panel Connector; the two (2) plastic locking tabs will automatically lock the cable in position when it is fully seated in the connector.
48. Install the 10 Front Panel mounting screws removed in step 3.

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