

INSTALLATION OF CONNECTOR 6 PRONG MALE KIT PRODUCT NUMBER F202

1.0 OVERVIEW

The F202 CONNECTOR 6 PRONG MALE KIT is for replacement of the six prong plug on the back of the WELLS FOOT CONTROL, product numbers F011, F013, F015 and F017.

2.0 TOOLS & MATERIALS REQUIRED

F202 CONNECTOR 6 PRONG MALE KIT, straight blade screwdrivers (1/4" and 3/16") and needle nose pliers. Older foot controls without a fuse require a soldering gun and rosin core solder.

3.0 DISASSEMBLY

- 3.1 Disconnect the Engine Unit main power cord from the receptacle.
- 3.1 Disconnect the five wire cord from the foot control.
- 3.2 Remove the four rubber feet from the bottom of the foot control and lift off the base cover.
- 3.3 Fold back the paper insulation cover. See Figure 1.

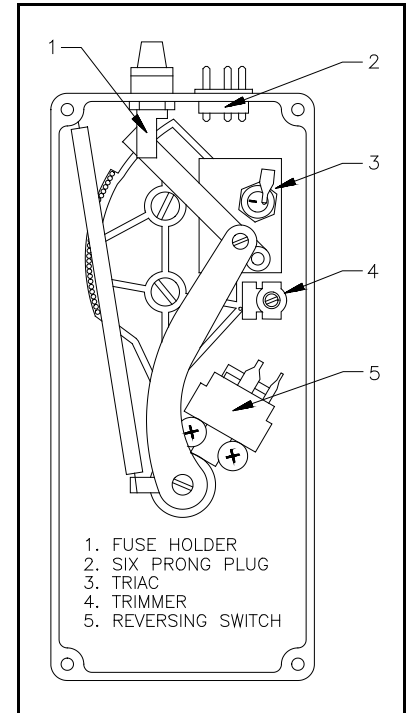


Figure 1. Components

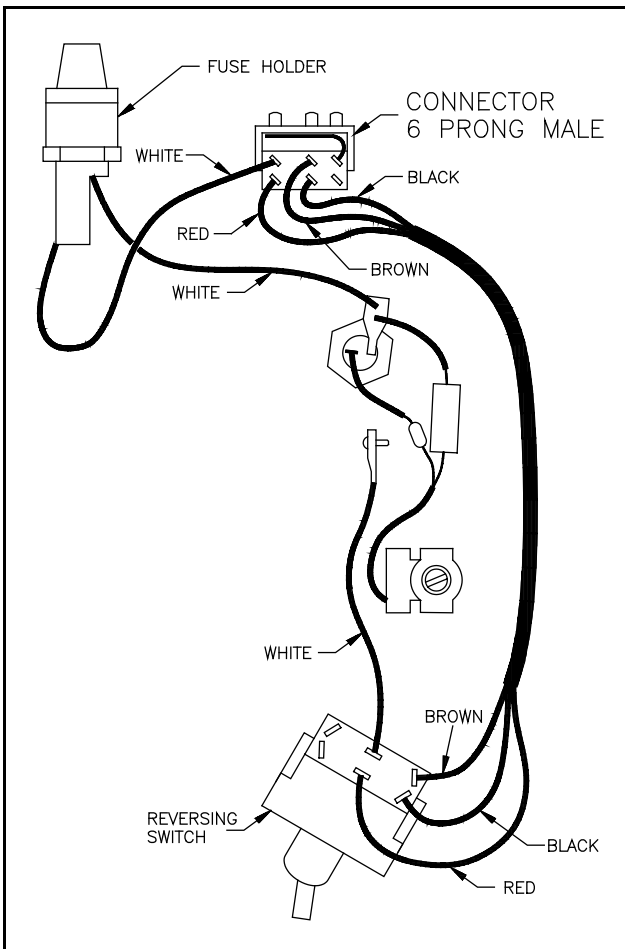


Figure 2. Wiring diagram

- 3.4 Disconnect the white wire at the fuse holder. See Figure 2. (If the foot control does not have a fuse, unsolder the white wire from the terminal on the six prong plug. See Figure 3.)
- 3.5 Note to which terminals the red, brown and black wires are connected at the reversing switch and disconnect them.
- 3.6 Remove the two screws that hold the six prong plug and the wire plug retainer.
- 3.7 Note how the wires from the six prong plug are routed behind the heat sink (brass bracket). Remove the six prong plug.

4.0 ASSEMBLY

- 4.1 Install the new six prong plug routing the wires behind the heat sink (brass bracket).
- 4.2 Attach the wire plug retainer and six prong plug with the two screws. Older models have nuts for the screws. Use needle nose pliers to hold the nuts while tightening the screws.
- 4.3 Connect the red, brown and black wires to the correct terminals on the reversing switch. See Figure 2.
- 4.4 Connect the white wire to the terminal on the end of the fuse holder. Make sure the white wires are connected to the fuse holder as illustrated in Figure 2.

(If the foot control does not have a fuse, unsolder the white wire with the connector from the new six prong plug. Solder the white wire from the triac to the terminal on the six prong plug. See Figure 3.)

- 4.5 A short circuit in any of the connections may cause a semiconductor failure. Be sure to check each wire from its connection along its whole length to make sure that the bare areas and terminals are separated by a gap of at least 1/16". Check all the connections at the six prong plug. Check the leads on the triac and the semiconductor circuit. Check all the connections and jumpers at the reversing switch. Check the connections at the trimmer.
- 4.6 After confirming the circuits are correct, fold down the paper insulation cover. Place the base cover so the hole allows access to the trimmer and fasten the four rubber feet.

5.0 WIRING CHECK

Before putting the foot control back into service, a careful check of all other wiring is necessary to prevent a semiconductor failure.

- 5.1 Check the five wire cord from the engine carefully. Replace the cord if cuts, crimps or abrasions are found.
- 5.2 A short in the connector at the end of the five wire cord is a prime cause for semiconductor failure. Loosen the strain relief clamp screws on the connector. See Figure 4. Push out the small pin in the connector with an awl or small diameter tool. Pull back the cover and examine the connections carefully. Make sure that the terminals are not bent and are separated by at least 1/8". Solder any loose or frayed connections and assemble the cover.

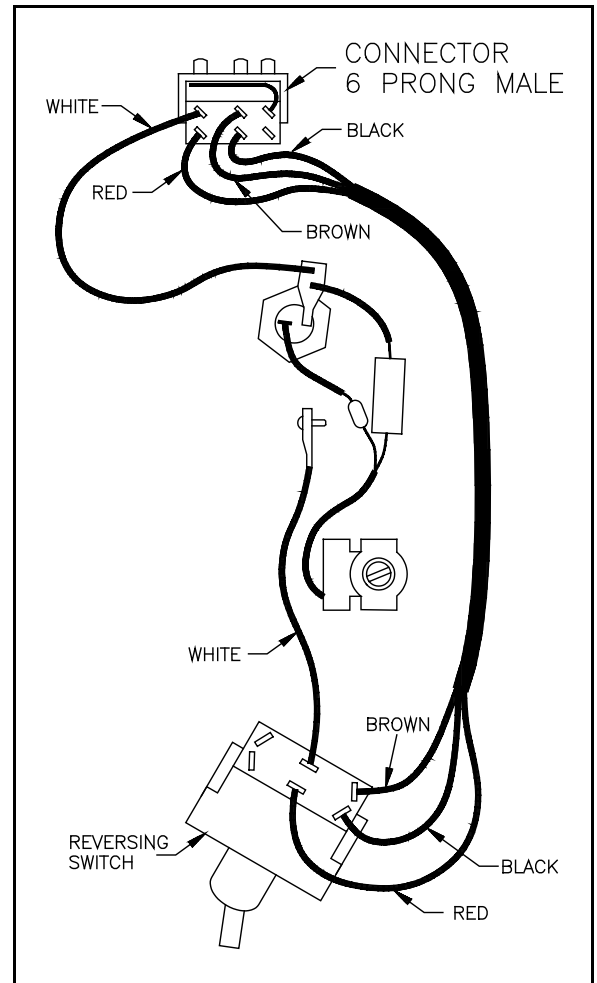


Figure 3. Wiring diagram - with no fuse

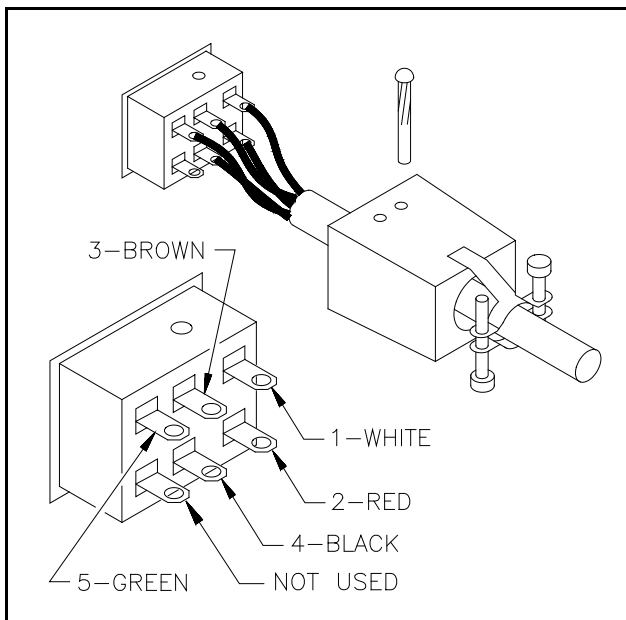


Figure 4. Five wire cord connector

- 5.3 If the foot control has a fuse, check that it is not blown. Replace it with the same type and rating of fuse only. Order WELLS part number F109 FUSE 5 AMP PKG-2 or use a type 3AG fast acting 250 volt, 5.0 amp fuse.
- 5.4 Connect the five wire cord to the foot control. Plug the main power cord into a receptacle.

The installation of the six prong plug is now complete. If you have any questions or problems, please call WELLS DENTAL, INC. at 1-800-233-0521.