

Electrode Cable Replacement Kit

Prodigy™ Tube-Mount Automatic Powder Spray Gun



WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.



WARNING: Turn off the electrostatic voltage and ground the spray gun electrode before performing the following tasks. Failure to observe this warning could result in a severe shock.

Removal

1. Disconnect the air tubing and control cable from the gun.
2. See Figure 1. Unscrew the lock knob (22) and pull the powder tubing from the lock nut (20).



Figure 1 Disconnecting Powder Tubing

3. Remove the spray gun from the gun mount and move it to a clean work area.
4. See Figure 2. Unscrew the retaining nut (1) and remove the nozzle assembly from the spray gun to prevent damaging it while you are working on the gun.

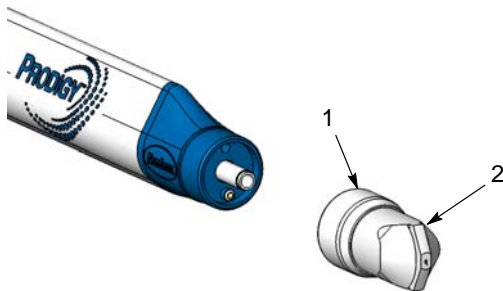


Figure 2 Removing Nozzle Assembly

5. See Figure 3. Remove the two screws (24) with a 2.5 mm hex wrench, then unscrew the lock nut (20) from the powder tube.

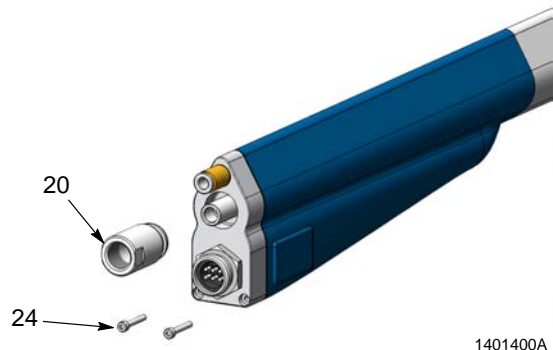


Figure 3 Removing Heat Sink Screws and Lock Nut

6. See Figure 4. Pull the heat sink (18) away from the housing (13) until stopped by the air tubing (6). Disconnect the air tubing from the internal connector (16).

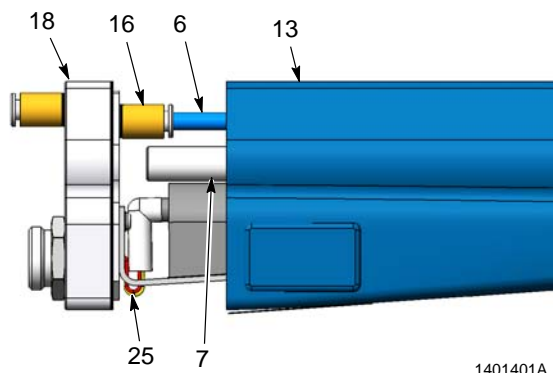


Figure 4 Pulling Heat Sink away from Housing

2 Electrode Cable Replacement Kit - Prodigy Automatic Powder Spray Gun

7. See Figure 5. Pull the heat sink (18) and multiplier (15) out of the housing until you can grasp the multiplier nut (14).

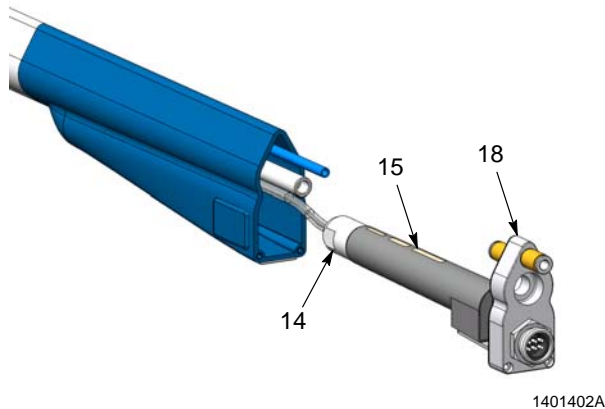


Figure 5 Pulling Multiplier out of Housing

8. See Figure 6. Unscrew the multiplier nut (14) from the multiplier (15).

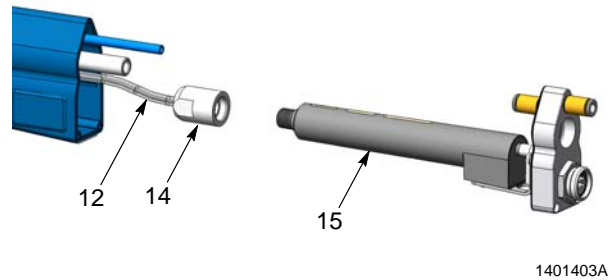


Figure 6 Disconnecting Electrode Cable

9. Pull the electrode cable (12) out of the cable guide tube.
10. Remove the multiplier nut from the cable by sliding it up the cable and off the pin/washer end.

Installation

1. Install the multiplier nut on the new cable and slide it down to the spring end.
2. Inject approximately 0.3 cc of dielectric grease into the multiplier well, so that it is about 75% full.
3. See Figure 6. Insert the spring end of the electrode cable (12) into the multiplier well until it bottoms out, then screw the multiplier nut (14) onto the multiplier until tight.
4. See Figure 7. Pull the housing (13) off the body tube (11) to expose the cable guide (10).

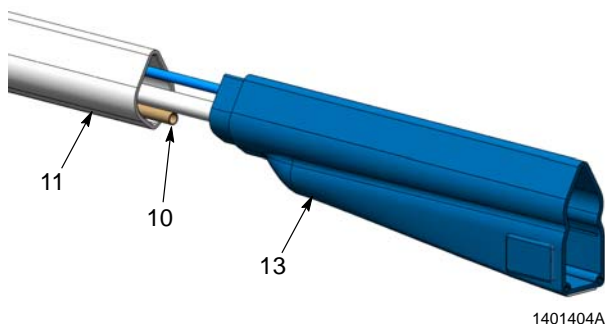


Figure 7 Pulling Housing Off Body Tube

5. See Figure 8. Route the new electrode cable through the housing as shown. Pull the cable through the housing, while guiding the multiplier into the housing, until the heatsink is about 1 inch from the end of the housing.

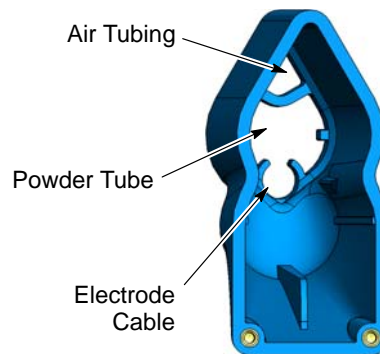


Figure 8 Air, Powder, and Electrode Cable Routing Through Housing

6. See Figure 7. Insert the end of the cable into the cable guide (10) and route the powder tube and air tubing through the housing as shown in Figure 8.
7. Connect the housing to the body tube.

8. See Figure 9. Connect the air tubing (6) to the internal connector (16), then push the heat sink (18) back up against the housing while fitting the powder tube (7) through the heat sink. Make sure the harness wires (25) are not pinched between the housing (13) and the heat sink.

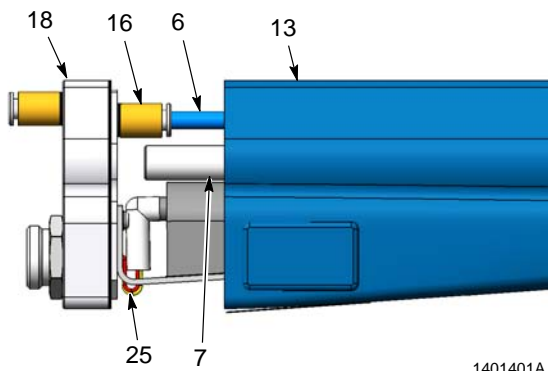


Figure 9 Connecting Air Tubing and Installing Heat Sink in Housing

9. See Figure 10. Screw the lock nut (20) onto the powder tube and tighten it securely. Do not overtighten it or you may damage the plastic threads on the powder tube.

10. Install the two socket-head screws (24) in the heat sink and tighten them securely.

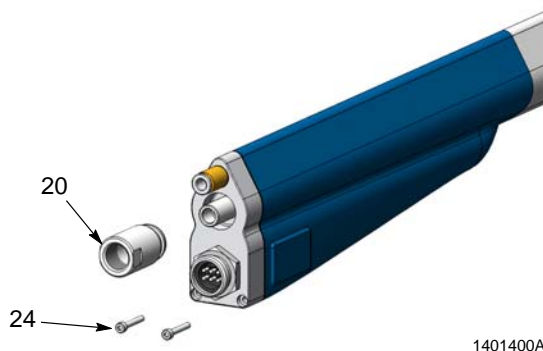


Figure 10 Removing Heat Sink Screws and Lock Nut

11. Perform the *Multiplier/Resistor Resistance Test* to make sure the high voltage path is continuous and all connections are sound.
12. See Figure 2. Install the air cap assembly and tighten the retaining nut (1).
13. Install the gun on its gun mount.
14. See Figure 1. Push the powder tubing into the lock nut (20) until it bottoms out, then tighten the lock knob (22) until snug.
15. Reconnect the air tubing and control cable.

Multiplier/Resistor Test



CAUTION: Short together the designated pins in the control cable before checking the continuity and resistance of the multiplier/resistor assembly. If these pins are not shorted together, the multiplier could be damaged.

1. See Figure 11. Remove the air cap assembly.
2. Disconnect the control cable from the gun receptacle at the rear of the gun.
3. Short together gun receptacle pins 2, 3, and 4 and connect them to the positive megohm meter probe.
4. Connect the negative megohm meter probe to the adapter spring plunger.

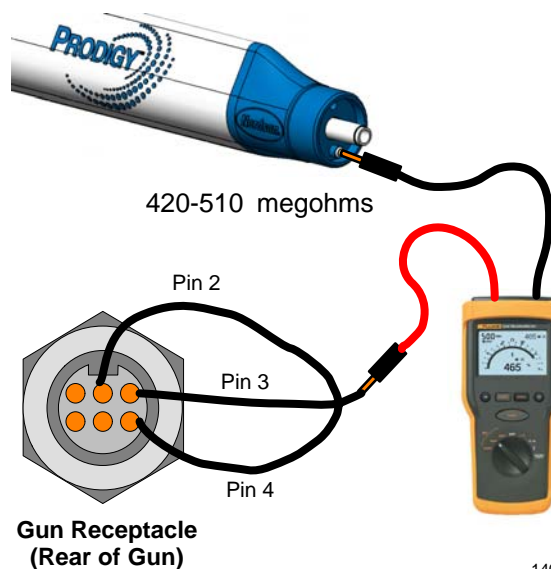


Figure 11 Multiplier/Resistor Test

4 Electrode Cable Replacement Kit - Prodigy Automatic Powder Spray Gun

Multiplier/Resistor Test *(contd)*

The megohm meter reading should be 420-510 megohms. If the reading is out of this range, check the high voltage path connections (multiplier to electrode cable to resistor to electrode to electrode ring to air cap electrode).

Refer to your Prodigy Automatic Powder Spray Gun manual, part 1054075, for more information.

Electrode Cable Kit

To order this kit, call the Nordson Finishing Customer Support Center at (800) 433-9319 or contact your local Nordson representative.

| Part | Description |
|---------|---------------------------|
| 1054599 | KIT, cable, Prodigy, auto |

Issued 5/06

Original copyright date 2004. Nordson and the Nordson logo are registered trademarks of Nordson Corporation.

Prodigy is a trademark of Nordson Corporation