



Asheville, North Carolina
www.dukepro.com
866-587-3853

D80/ESI Owner's Manual

Step 1. For safety always remove the ignition tip from the machine when loading the shock tube.

Step 2. Electric: This machine fires 80 two-ohm caps through five ohm lead line or 165 ohms. This machine supplies 8 joules at 340 VDC.

Shock Tube: Load shock tube into one of the shock tube adapters on the tip. Use the smaller blue tip for standard commercial shock tube, or the larger black tip for Mil-Spec shock tube.

Step 3. When you are ready to fire the shot:

Electric: Attach the lead lines to the binding posts.

Shock Tube: Mount the tip onto the terminal blocks. The side with the shock tube inserted should be closest to the terminal blocks.

Step 4. To Arm the machine push the "ARM" switch for 6-8 seconds and the "READY" lamp should illuminate.

Step 5. To Fire the shot maintain the ARM switch AND with the READY lamp illuminated depress the FIRE switch.

TO ABORT THE SHOT:

Release the ARM switch *without* pressing the FIRE switch. The high voltage will be discharged internally.

BATTERY REPLACEMENT:

To replace the battery remove the two screws on the back cover. Remove the nine volt cell from the battery clip. Duracell® part number MN1604 is the recommended battery or any American made 9 volt alkaline cell as a replacement. Reattach the rear cover being careful to align the back cover and replace and tighten screws. Do not over tighten screws. Gradually tighten the screws making 2 passes so that the pressure is applied uniformly to the rear cover and gasket.

D80/ESI TESTING/MAINTENANCE PROCEDURE

TESTING

- Test the tip prior to insertion of the shock tube for spark. An audible 'pop' should be heard and approximately 1" of plasma flame should be ejected from the tip.
- Test ignition tip with a short (less than 4 inch) piece of shock tube.
- Check the battery with a volt meter. There should be at least 7.5 Volts. Replace as necessary.
- If spark is still weak or missing, test the tip on another ESI. If second ESI is not available, verify battery voltage (It should be greater than 7.5 volts). If battery is okay then calibrate the tip per instructions on the opposite side of this page.

MAINTENANCE

- During normal usage, no maintenance is required for the electronics except battery replacement. Expected battery life (Duracell 9V Alkaline) is 200 - 300 shots.
- Each ignition block should last at least 1,000 shots. Replacement is described on reverse side.
- Case may be cleaned with water or a damp cloth.
- ➔ **TECH TIP:** Improperly shipped or stored shock tube can have 'dead' spots that will not easily fire. Always store a roll of shock tube on its side!

D80/ESI Tip Maintenance Procedure

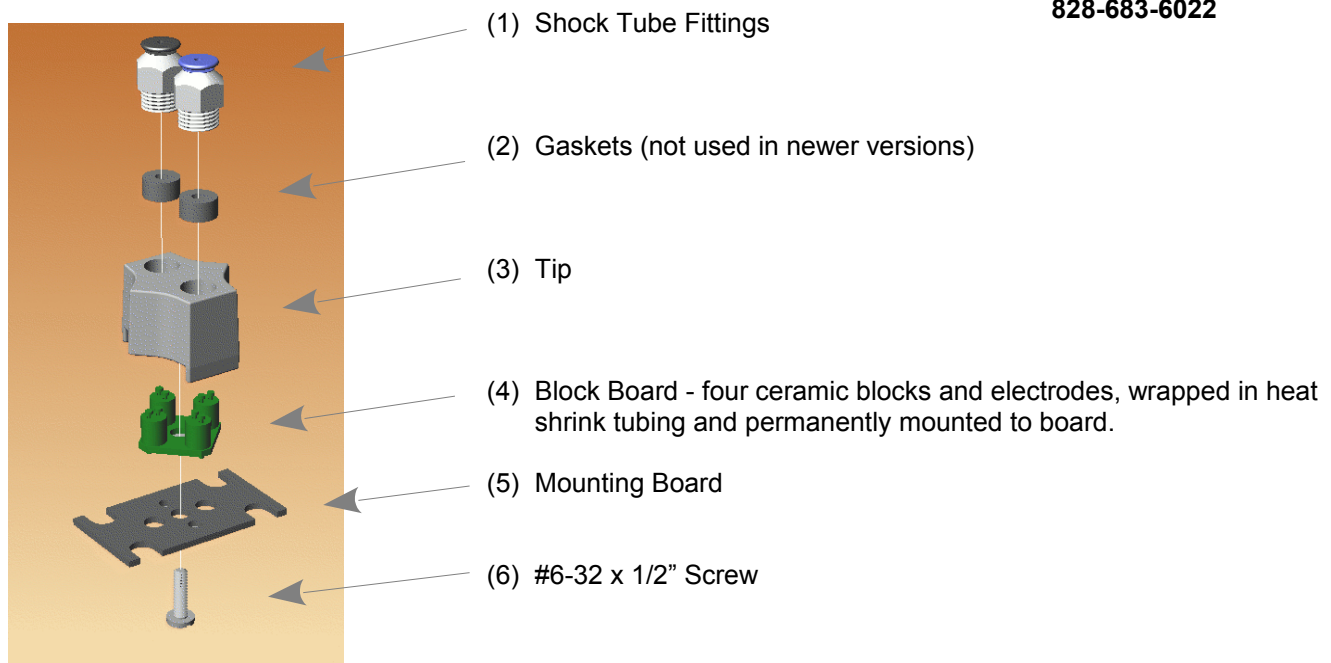


Illustration 1: Exploded View

1. Remove #6-32 screw (6) and the mounting board (5).
2. Remove both shock tube fittings (1).
3. Remove block board (4) using a flat blade screwdriver to gently pry the block board out of the tip (3). Rotate the block board (4) 90 degrees, and re-insert into tip (3), or replace the block board with a new one.
4. Replace mounting board and secure with 6-32 screw. Tighten firmly.
5. Replace both shock tube fittings to slightly more than finger tight.
6. Test the tip by mounting it on the initiator and test fire several times. Approximately 1-1/2 to 2 inches of flame should be ejected from tip on each fire cycle. Repeat with other side of tip.
Caution: Metal particles are ejected from shock tube tip when firing. Do not look directly into the tip when firing.

Replacement block boards (4) are available from Duke Pro. See www.dukepro.com or call 866-587-3853 for pricing.