

This test device is intended to allow customers using Smith-Root type LR-24 and Model 12/15 backpack Electrofishers to test their anode poles and cathodes (rat-tails) in a simple concise manner that requires minimal interpretation. The Test Device is designed to give a clear go – no go test of both anode poles and cathodes, as well as some limited indication of what is likely wrong with the item being tested. The Test Device is simple to use, and negates the need for any other test equipment (such as a VOM or continuity tester). It is self-contained, and except for periodic replacement of the battery requires no service or calibrations. The test can be performed by one person with no assistance.

**LR-24 Anode Pole / Cathode  
 Test Procedure**

In practice, anode poles are tested first. This is accomplished by plugging the anode pole connectors onto the Test Device (paying attention to the key-way in the connectors), and attaching the clip on the end of the Test Device coil cord to the anode ring on the anode pole. The operator then presses the anode pole switch. The Test Device performs the test, and the results are displayed either by a light, or a beeper, or both, and are interpreted according to the label on the Test Device (*See below*).

If the anode pole tests good, the larger anode pole connector is removed from the Test Device, and the Cathode (rat-tail) is plugged on in its place. The clip is removed from the anode ring and clipped onto the metal portion of the cathode. Once again the anode pole switch is pressed, and the results are displayed either by a light, a beeper, or both, and the results are interpreted by referring to the label on the Test Device (*See below*).

**Anode Test Results:**

1. Both light and beeper when the pole switch is pressed? ..... Anode pole ok
2. Light only – no beeper? ..... Pole switch ok, HV lead bad
3. No light – no beeper? ..... Pole switch bad, HV lead unknown

**Cathode Test Results:**

1. Both light and beeper? .....Cathode is good
2. Light only – no beeper? .....Cathode is bad

**Model 12/15 Anode Pole / Cathode  
 Test Procedure**

In practice, anode poles are tested first. The test adapter is first installed onto the test device, (paying attention to the key-way in the connectors), then the anode pole connector is screwed onto the adapter, then attaching the clip on the end of the Test Device coil cord to the anode ring on the anode pole. The operator then presses the anode pole switch. The Test Device performs the test, and the results are displayed either by a light, or a beeper, or both, and are interpreted according to the label on the Test Device (*See below*).

If the anode pole tests good, unscrew it from the adapter and disconnect the clip from the anode ring. Screw the Cathode (rat-tail) onto the adapter. The light on the test device should come on as soon as the connector is screwed on indicating the safety jumper in the cathode is electrically ok. Then the coil cord clip is attached to the metal cable part of the cathode. The tester should beep indicating that the cathode is electrically ok. See the charts below to summarize your test results.

**Anode Test Results:**

1. Both light and beeper when the pole switch is pressed? ..... Anode pole ok
2. Light only – no beeper? ..... Pole switch ok, HV lead bad
3. No light – no beeper? ..... Pole switch bad, HV lead unknown

**Cathode Test Results:**

1. Light on when cathode attached? ..... Safety jumper is ok
2. Both light and beeper when clip is attached? .....Cathode is ok
3. No light or no beeper? .....Cathode is bad