

Subject: Troubleshooting Guide for 2-Inch Fuel Level Gauges	Initial Release Date: 02/16/99	Revision Date:	Revision:
	Product Group: Heavy Duty Instrumentation		

1. Required Materials and Tools

You will need an inexpensive volt-ohmmeter that can read from 0 to 35 volts DC, and resistance. You will also need a Resistance Decade Box such as:

- Borroughs Instrument Gauge Tester Model BT-7707A from Kent Moore Tool Division, Warren, MI (800) 328-6657
- RS-200 Resistance Substituter from IET Labs, Inc., Westbury, NY (800) 899-8438

2. Procedure

2.1 Gauge Does Not Work At All

1. Gain access to the terminals on the rear of the fuel gauge. If the gauge plugs into a panel, remove the gauge from the panel. (Be sure to reinstall the gauge after testing.)
2. Switch the ignition on and measure the voltage between the ignition and ground connections on the rear of the gauge (or panel connectors). You should measure battery voltage.
3. If no voltage is measured, repair wiring or panel connections.
4. If voltage is measured, disconnect the signal wire from the fuel gauge sender at the sender and observe the gauge. It should read minimum scale (Empty). Next, short the signal wire from the gauge to ground. The gauge should read full scale.
 - a. If the gauge responds as described, test the sender and replace it if necessary.
 - b. If the gauge *does not* respond, first use the ohmmeter to check the continuity of the signal wire from the sender to the gauge for an open connection. If the wire and connections are good, replace the gauge. Otherwise, repair the wiring.

2.2 Gauge Is Inaccurate

1. With the ignition off, disconnect the signal wire from the gauge sender at the sender.
2. Connect a 240-ohm test resistance between the signal wire and ground and switch the ignition on. The gauge should read near "Empty" (E).
3. Replace the 240-ohm test resistance with 33 ohms. The gauge should read near "Full" (F).
 - a. If the gauge reads correctly, test the sender and replace it if necessary.
 - b. If the gauge *does not* read correctly, replace the gauge.

3. For Additional Support

Troubleshooting assistance is available from our Service Department Monday through Thursday from 7 a.m. to 5:30 p.m. MT, and Friday from 7 a.m. to 3:30 p.m. MT, at (970) 244-1243 or (970) 244-1259. You may also leave a detailed message at service@ametekdixson.com.