

A-10606 Gauge Voltage Reducer

Installation Instructions

No need to change or modify the stock gauges or senders. Just install the Electronic Voltage Reducer "EVR" on the back of each gauge, and the gauges will continue to run on 6 volts, while the rest of the vehicle is 12 volt. Works on fuel, oil pressure, and water temperature gauges. Use all the stock 6 volt sending units. This electronic voltage reducer, EVR, stabilizes the voltage output at 6 volts and eliminates fluctuations in the gauges typical with cheap resistors conversions.

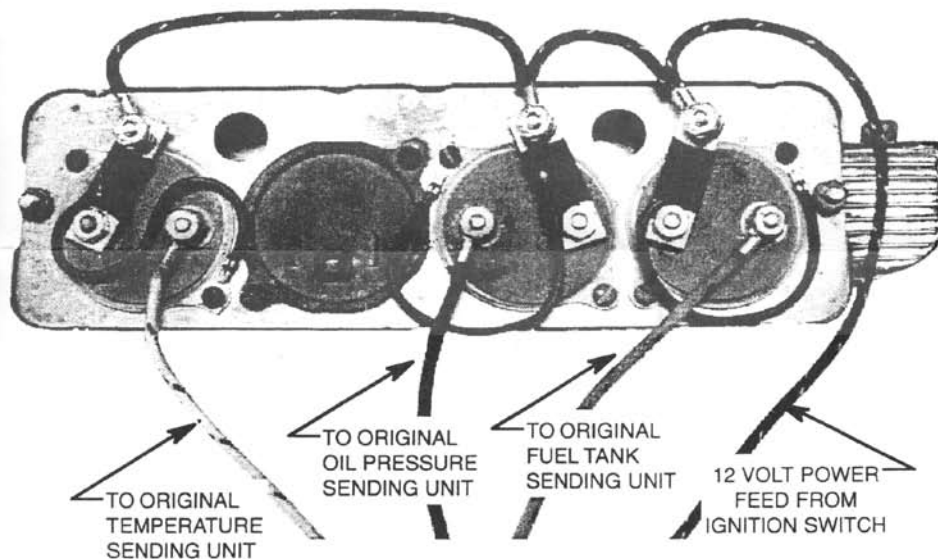
The following instructions assume that the vehicle is converted to a 12-volt negative ground system and that the stock 6 volt gauges and sending units are installed and wired as original, and were known to function when last used with 6 volts. Note: Do not use on amp gauge. Most amp gauges will work on 12 volts with no change required.

BEFORE INSTALLATION - DISCONNECT VEHICLE BATTERY

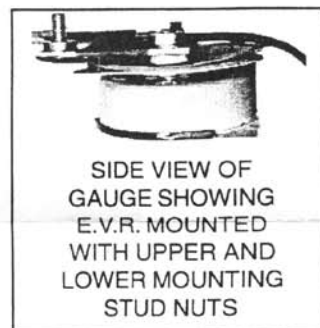
- 1) Remove gauge cluster. Each gauge will have TWO terminal posts. One terminal post will have a wire that goes to the sending unit (oil pressure, engine temp or fuel tank). The OTHER terminal post wire goes to the ignition switch to provide power feed for the gauge.
- 2) Remove the power feed wire from the gauge. Install the Electronic Voltage Reducer (EVR) on the gauge terminal post as shown. Note that there are two nuts on the original gauge. The lower nut must be in place to touch the copper contact on the EVR. Gently tighten the upper nut to secure the EVR.
- 3) Attach the gauge power wire to the terminal post on the EVR. This wire supplies the 12 volts when the ignition switch is in the "on" or "run" position. See the photo below. Note that all the EVR are powered by one feed wire from the ignition switch. Depending on the application, this wire may have to be made for the particular installation
- 4) The short black wire from the EVR must be grounded. The gauge mounting screw is usually used. See photo below.
- 5) Double check your work. Reinstall the gauge cluster. Connect Battery.

CAUTION -DO NOT GROUND THE EVR TERMINAL POSTS !!!

A DIRECT SHORT TO GROUND WILL PERMANENTLY DAMAGE THE EVR



1947/48 FORD GAUGE CLUSTER SHOWN



Read carefully before doing any tests. Permanent damage to the electronic voltage reducer "EVR" will occur if it is grounded. These tests assume that you have access to the sending units, and back of the gauge cluster with wiring connected and functional.

Q: Do I need a 12 volt fuel sending unit ?

A: NO, Use the original fuel sender, or reproduction replacement for the original 6 volt vehicle. Even if the vehicle has a modern V-8 engine, use the original type temperature and oil pressure senders. Most will mount up with pipe adapters/reducers.

Q: Why does the fuel tank sending unit need to be grounded?

A: To complete the gauge circuit back to the battery, each sending unit must be grounded. Same is true for the temp and oil sending units that are grounded on the engine block.

Q: My gauge does not move at all.

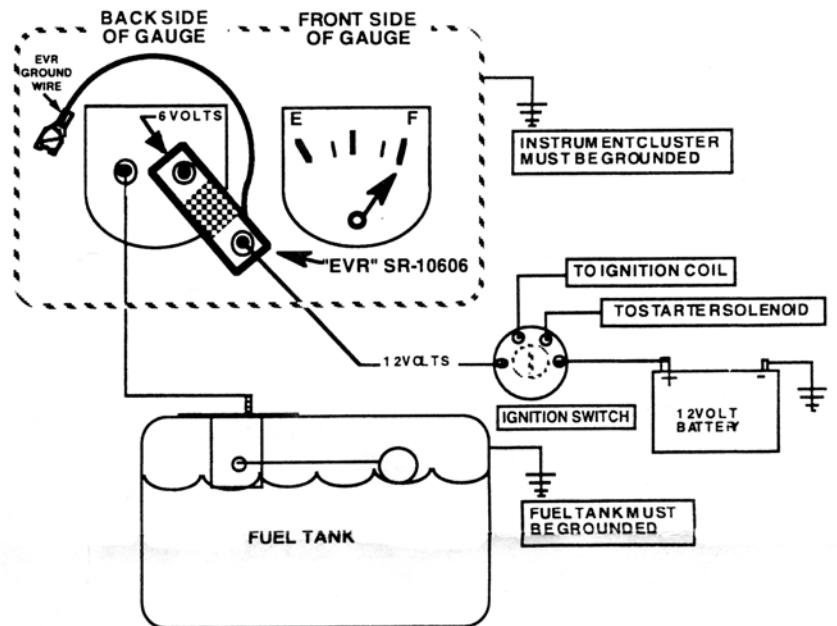
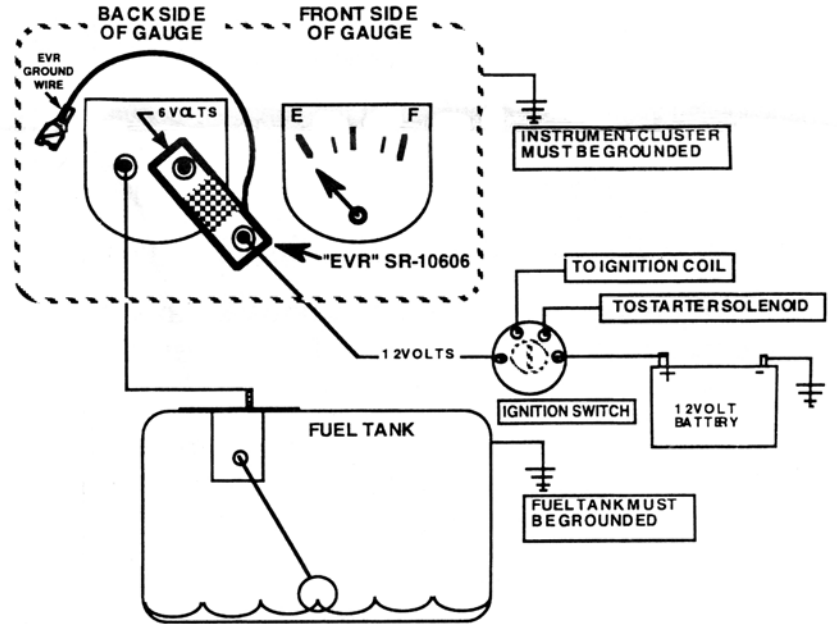
How do I test if the gauge or sending unit is at fault?

A: Here's a few Quick checks -

1) With the ignition switch "on", momentarily ground the wire at the sending unit. If gauge needle starts to move up, then the sending unit is at fault. Do not ground more than a few seconds, or damage to the gauge may result!

2) If the gauge did not move in step 1, then check the following at the gauge cluster. With a volt meter, check the terminal post of the gauge where the EVR is mounted. There should be 5- 7 volts. If there is no voltage, make sure the EVR is grounded, and that the instrument/gauge cluster is grounded. Also double check that 12 volts is coming into the EVR from the ignition switch.

3) If there is voltage to the gauge at the EVR then momentarily ground the gauge terminal post that goes to the sending unit wire. If the gauge moves, then the wire between the gauge and sender is bad. If the gauge does not move, the gauge is bad.



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