ELITE DIGITAL FUEL LEVEL - VOLTAGE GAUGE

Models 6709-CB, 6709-PH, 6709-SC, 6709-UL

IMPORTANT
WEAR SAFETY GLASSES

CAUTION!

As a safety precaution, the red wire of this product should be fused before connecting to the 12V ignition switch. We recommend using a 3 AMP automotive type fuse.

OPTIONAL SLIT TUBING RECOMMENDED (AVAILABLE AT MOST HARDWARE STORES)

Pro Control Ground

Pro Control Output

Black/White

Orange

Firewall

Grommet

Purple

Fuel Level Sensor

Mounting Flange on Fuel Sender Must be Grounded for Proper Operation

+12V Dash Lighting

White

Red

Fuse

Black

12V BATTERY

Good Engine Ground
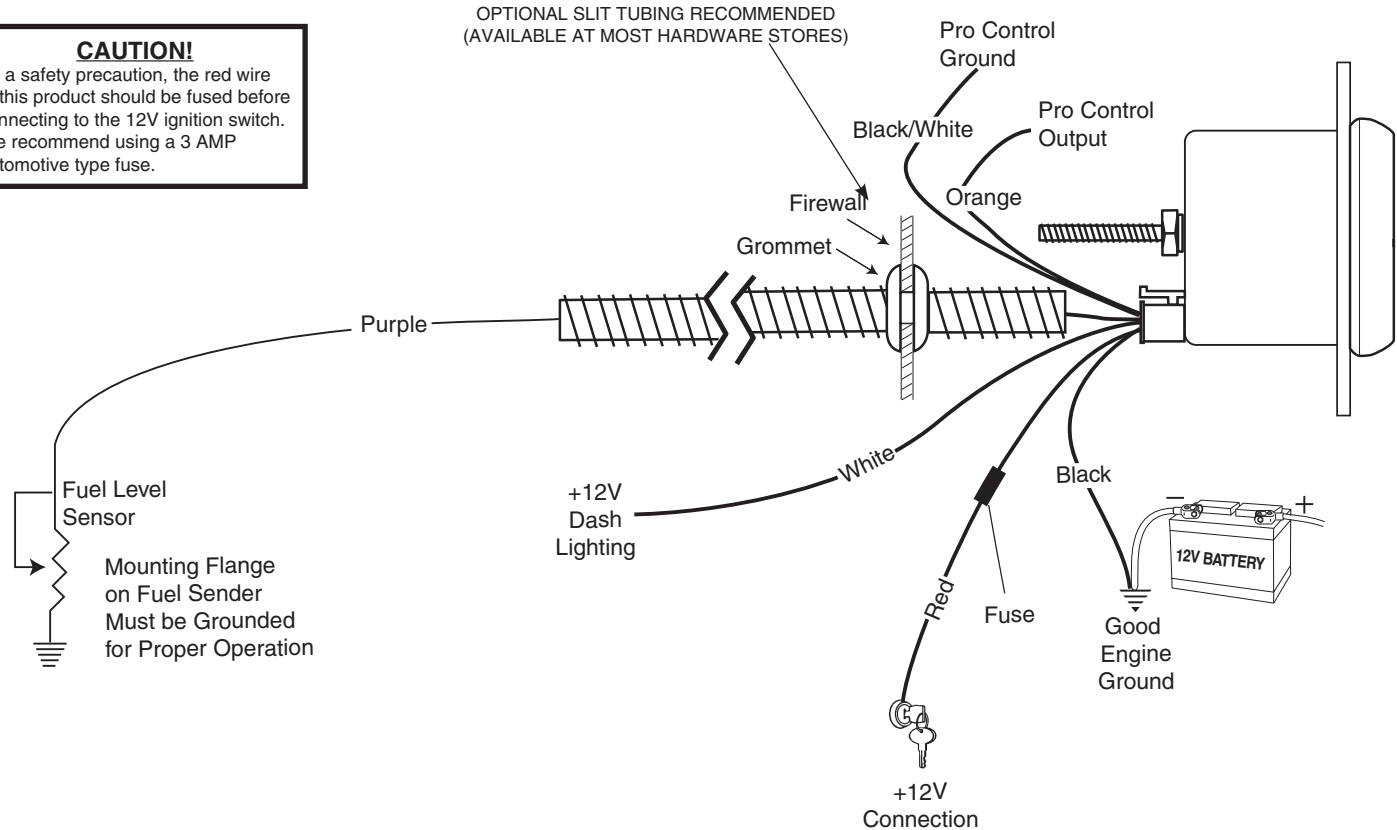
+12V Connection

Connections

Red	+12V
Black	Good Engine Ground
White	Dash Lighting
Violet	Fuel Sender
Orange	Pro Control Out
Black/White	Pro Control Ground

Installation - Fuel Level

1. Check that you have all parts required for installation, and the engine is cool.
2. Disconnect the negative (-) battery cable.
3. Gauge mounts in a 2$\frac{1}{16}$" hole. Use supplied brackets and nuts to secure gauge to dash.
4. Drill 1" diameter hole where wires pass through sheet metal (such as firewall) and install rubber grommet provided. (Grommet will require slit.)
5. Connect the white wire to dash lighting or switchable 12v light source, the red wire to switched +12V source and the black wire to ground. (see diagram for details)
6. Connect purple wire to fuel level sender, making sure that the sender is grounded.
7. Reconnect negative (-) battery cable.

Menu Options:

There are many features provided by your AutoMeter Elite Digital Fuel Level - Voltage gauge. Use the left (-) button to navigate through the following options in order:

- Peak Recall – Digit display will show "P"
- Pro Control 1 Set – Digit display will show "PC1"
- Pro Control 2 Set – Digit display will show "PC2"
- Fuel Level Channel Display Assignment – Digit display will show "CH1"
- Voltmeter Channel Display Assignment – Digit display will show "CH2"
- Channel 1 Alarm Set – Digit display will show "A1"
- Channel 2 Alarm Set – Digit display will show "A2"
- Sender Select– Digit display will show "SEn"
- Gauge Firmware Revision – Digit display will show a the firmware revision number.

Power-Up

When power is applied to the gauge, the digit display will light with "8.8.8." and the entire bar graph display will light for one second. Then the gauge will begin normal operation and display real time sender readings.

Channel Assignment

The AutoMeter Elite Digital Fuel Level - Voltmeter Gauge has two displays, one shows digits, the other is a radial bar graph consisting of 30 green LED's. If Channel 1, fuel level, is assigned to the digit display, it will show the remaining fuel in percent. 100% is a full tank, 0% is empty. If Channel 2, voltage, is assigned to the digit display, it will show the battery voltage in tenths of a volt. If Channel 1, fuel level, is assigned to the bar graph display, all 30 LED's indicates a full tank. Only the 15 left side LED's indicates the fuel tank is half full. No LED's will be lit indicates empty. Channel 2, voltmeter, has a range of 8.0 to 18.0 volts. If Channel 2, is assigned to the bar graph display, all 30 LED's indicates 18.0 volts. Only the 15 left side LED's indicates 13.0 volts. No LED's will be lit indicates 8.0 (or less) volts.
To assign Channel 1 to one or both displays, press the left button repeatedly until the digit display shows "CH1". Then press the right button. The digit display will show "dig", "bAr", "bth", or "---". To assign Channel 1 to the digit display, press the left button until the digit display shows "dig". Wait for the display to flash this text rapidly, then "S c". It will continue to do this until the left button is pressed to save the setting, or the right button is pressed to cancel the setting. Saving the setting when the digit display shows "bAr" assigns Channel 1 to the bar graph display. Saving the setting when the digit display shows "bth" assigns Channel 1 to both the digit display and the bar graph display. Saving the setting when the digit display shows "---" assigns Channel 1 to neither display.
To assign Channel 2 to a display, press the left button repeatedly until the digit display shows "CH1". Then press the right button. Assign Channel 2 in the same manner as Channel 1.

Peak Recall

To view peak low measured values, press the left button. The digit display will show "P". Press the right button. The digit display and bar graph display will show the lowest values measured by the gauge. After 3 seconds the gauge will return to normal operation. Pressing the right button while the peaks are still being shown will clear the peaks. The display will show "---", then the gauge will return to normal operation.

Pro Control On Set

The Pro Control Output wire supplies ground when activated. It is recommended to use a relay switch such as the Dedenbear HPR or equivalent. To set the fuel level that will activate the Pro Control Output, press the left button until the digit display shows "PC1". Or, to set the voltage level that will activate the Pro Control Output, press the left button until the digit display shows "PC2". Then press the right button. The digit display will show "on". Press the right button again. Use the right (+) and left (-) buttons until the number shown on the display is the desired value. When the desired number is shown, wait for the display to flash this number rapidly, then "S c". It will continue to do this until the left button is pressed to save the setting, or the right button is pressed to cancel the setting. If the fuel level or voltage fall below their Pro Control On points, the Pro Control Output will activate.
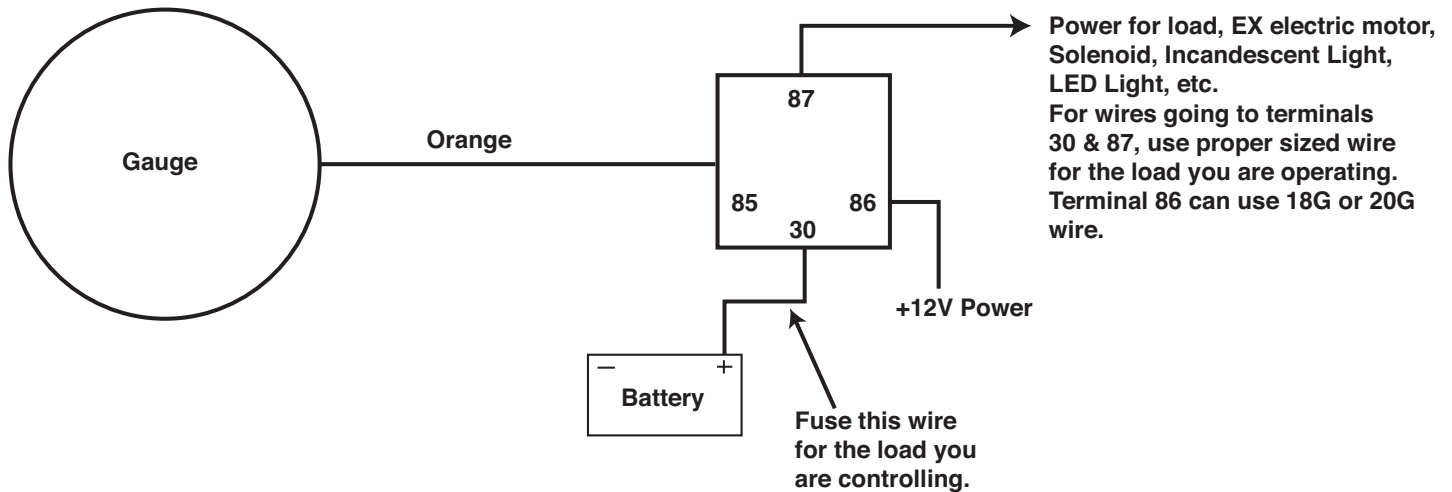
Pro Control Off Set

If it is desired to have the Pro Control Output deactivate at a higher level than it activates, press the left button until the digit display shows "PC1" or "PC2", depending on the channel it's being set for. Press the right button. The digit display will show "on". Press the left button. The digit display will show "OFF". Press the right button again. Use the right (+) and left (-) buttons until the number shown on the display is the desired value of temperature. When the desired number is shown, wait for the display to flash this number rapidly, then "S c". It will continue to do this until the left button is pressed to save the setting, or the right button is pressed to cancel the setting.

Alarm Set

This Alarm feature will cause the digit display or the bar graph display to flash rapidly if the channel shown on that display falls below a user set value. To set the level that will activate the Alarm, press the left button until the digit display shows "A1" or "A2", depending on the channel it's being set for. Press the right button. Use the right (+) and left (-) buttons until the number shown on the display is the desired value. When the desired number is shown, wait for the display to flash this number rapidly, then "S c". It will continue to do this until the left button is pressed to save the setting, or the right button is pressed to cancel the setting. If the fuel level or voltage fall below their Alarm points, the display will flash rapidly.

Sender Select

The gauge ships pre-programmed to read GM 0-90 ohm senders. If any other sender type is required, press the left button until the digit display shows "SEn". Then press the right button. Use the right (+) and left (-) buttons until the number shown on the display indicates the desired sender according to the chart below. When the desired number is shown, wait for the display to flash this number rapidly, then "S c". It will continue to do this until the left button is pressed to save the setting, or the right button is pressed to cancel the setting.

Sender Type		Display
Ford Pre-'89, Chrysler	73 – 10 ohms	-1-
Ford '89 – Present	16 – 158 ohms	-2-
GM Pre-'65	0 – 30 ohms	-3-
GM '65 – Present*	0 – 90 ohms	-4-
AutoMeter Sender	240 – 33 ohms	-5-
Eclipse '90 - '02 Civic '88 - '00	107.5 – 7 ohms	-6-
Civic '01 – Present	131 – 12 ohms	-7-
Custom Calibration		-8-

Starting in '98, some GM models began using a different sender type. If this calibration is not accurate, perform Custom Sender Calibration as described above.

Custom Sender Calibration

The fuel level gauge can be custom calibrated to accurately display the output from any fuel level sender with an output between 0 and 270 ohms. Make sure the fuel level sender is connected to the gauge and the fuel tank is empty, or nearly empty, before proceeding. Press the left button until the digit display shows "SEn". Then press the right button. Use the right (+) and left (-) buttons until the display indicates shows "-8-". Wait for the display to flash this rapidly, then "S c". It will continue to do this until the left button is pressed to save the setting, or the right button is pressed to cancel the setting. The display will show "CCE" (custom calibration empty). Press the right button. The display will show "CCF" (custom calibration full). Fill the tank and press the right button. The display will show "End", indicating custom calibration is done.