

# INSTALLATION INSTRUCTIONS ELITE DIGITAL FUEL LEVEL - VOLTAGE GAUGE

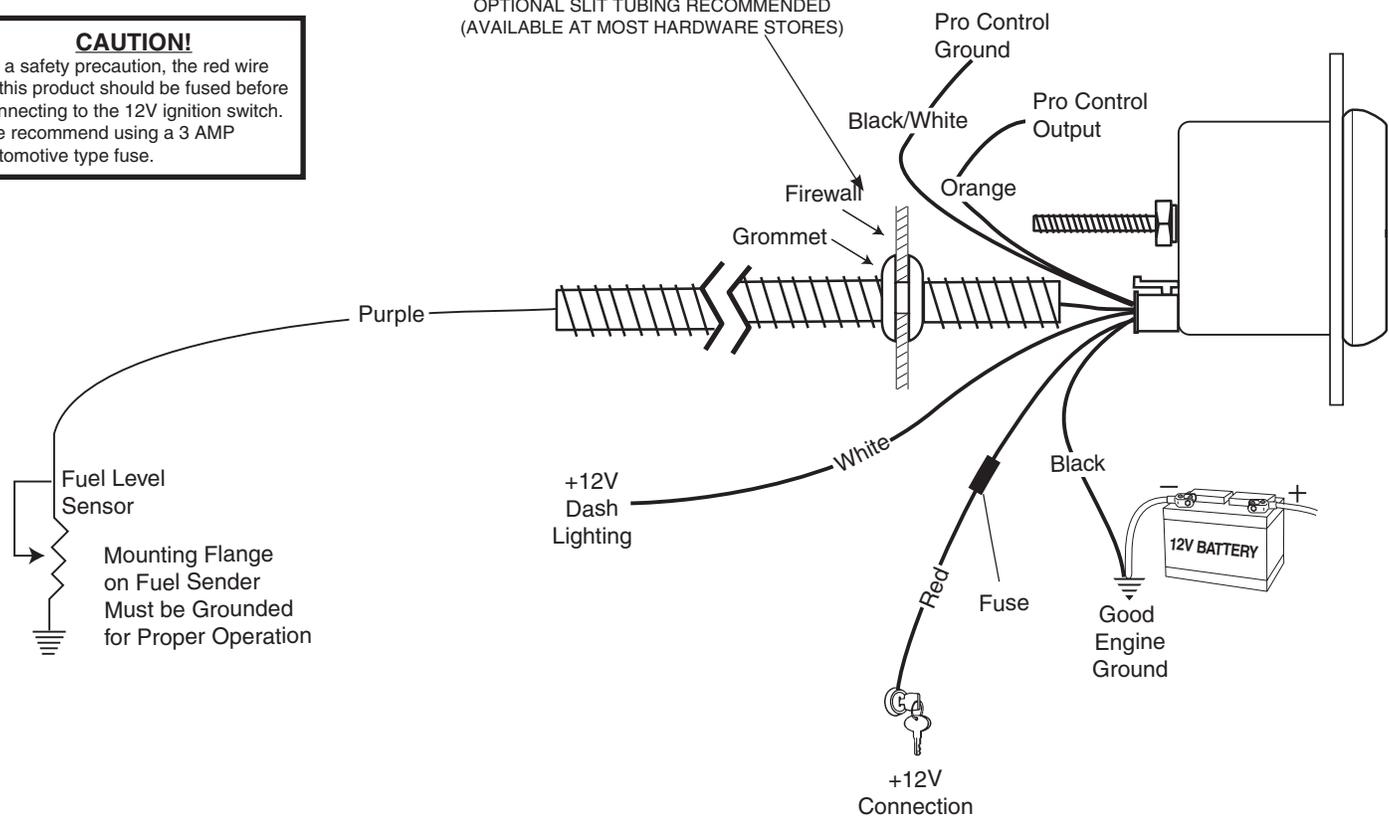
2650-1948-77 Rev. A

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



**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)



## 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<sup>1</sup>/<sub>16</sub>" 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,
6. Connect purple wire to fuel level sender, making sure that the sender is grounded.
7. Reconnect negative (-) battery cable.

the red wire to switched +12V source and the black wire to ground. (see diagram for details)

## 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.

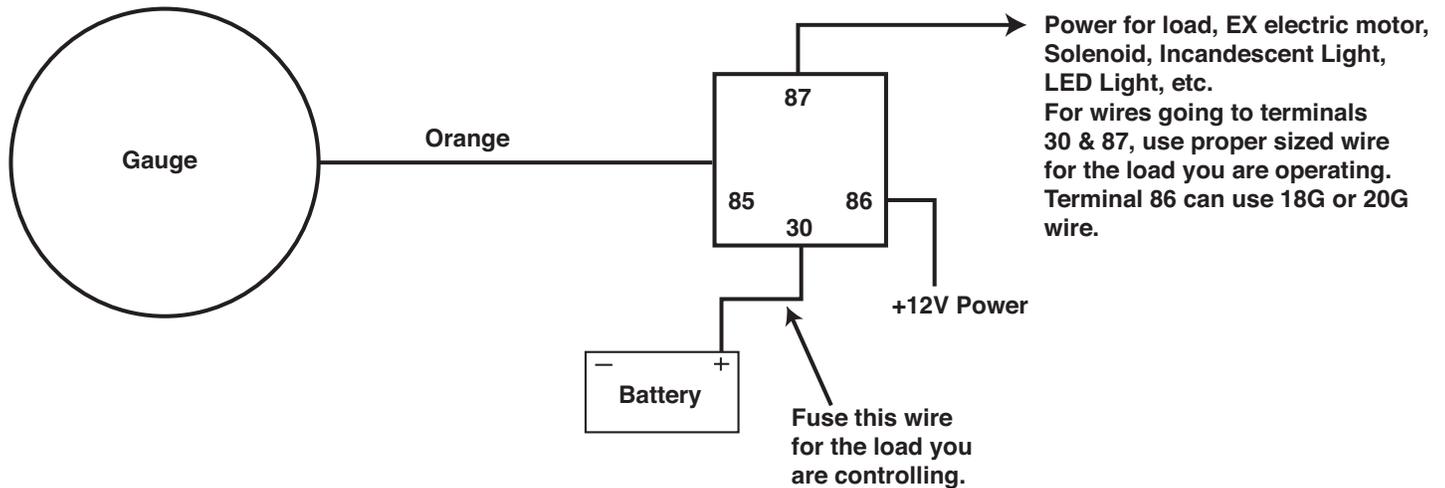
To assign Channel 2 to a display, press the left button repeatedly until the digit display shows "CH1". Then press the right button. Assign Channel 2 in the same manner as Channel 1.

# 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.

## SERVICE

For service send your product to AutoMeter in a well packed shipping carton. Please include a note explaining what the problem is along with your phone number. If you are sending product back for Warranty adjustment, you must include a copy (or original) of your sales receipt from the place of purchase.

## 12 MONTH LIMITED WARRANTY

AutoMeter Products, Inc. warrants to the consumer that all AutoMeter High Performance products purchased from an Authorized AutoMeter Reseller will be free from defects in material and workmanship for a period of twelve (12) months from date of the original purchase. Products that fail within this 12 month warranty period will be repaired or replaced at AutoMeter's option, when determined by AutoMeter that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of parts in the AutoMeter High Performance product and the necessary labor done by AutoMeter to effect the repair or replacement of the AutoMeter High Performance product. In no event shall AutoMeter's cost to repair or replace an AutoMeter High Performance Product under this warranty exceed the original purchase price of the AutoMeter High Performance Product. Nor shall AutoMeter Products, Inc. be responsible for special, incidental or consequential damages or costs incurred due to the failure of an AutoMeter High Performance Product. This warranty applies only to the original purchaser of the AutoMeter High Performance Product and is non-transferable. This warranty also applies only to AutoMeter High Performance Products purchased from an Authorized AutoMeter Reseller. All implied warranties shall be limited in duration to the said 12 month warranty period. Breaking the instrument seal, improper use or installation, accident, water damage, abuse, unauthorized repairs or alterations voids this warranty. AutoMeter disclaims any liability for consequential damages due to the breach of any written or implied warranty on all products manufactured by AutoMeter Products, Inc. For a comprehensive listing of Un-Authorized AutoMeter Resellers please visit [www.autometer.com/autometerlocator/index/unauthorized](http://www.autometer.com/autometerlocator/index/unauthorized).

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