

# INSTRUCTIONS

## Miniature Low Fuel Warning Light Module– LF2

### General

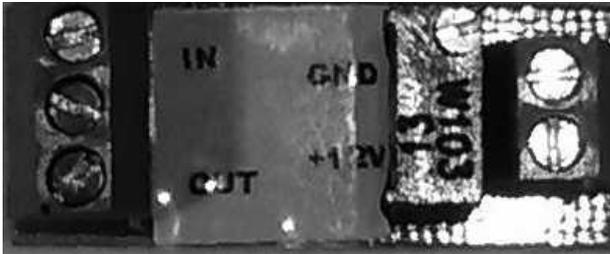
This product is based on our existing low fuel warning module. It has added screw terminals for ease of installation, and the LED has leads already soldered on for the same reason. It takes up a bit more room than the original, but you can't have everything ! It has anti-slosh built in (which means it intentionally responds slowly to level changes) The unit turns on a low fuel LED when the fuel reaches a level preset by the precision adjuster.

### Installation

Warning- To prevent short circuits, disconnect battery before starting work..

#### a) Preparation.

1. Locate a suitable mounting location before connecting, where the unit will not be seen and not interfere physically with any moving meter parts.
2. Mount the LED in a 3mm hole (5 or 6mm if using the plastic bezel - depending on type) Silicone gasket goo is useful to glue the LED in.. smear on the back of the LED once it is positioned.
3. Make sure you know which connections are which on the existing gauge.. mark them with a pen or draw a sketch



The middle terminal is not used

#### b) Make the connections.

Four connections are required.

- +12 - Connect to the +12v (or regulated) supply that feeds the fuel gauge.
- GND - Connect to a suitable ground connection in the fuel gauge, or bolt to the vehicle chassis/body in a convenient place
- IN - This should go to the connection in the gauge that goes to the sender in the tank
- OUT - This should be connected to one of the LED wires (see below for more details)

**When connecting the LED, the long lead is always connected to the most positive connection**

Method 1 (high resistance when empty) long LED wire (or Red) to +12V short LED wire (or Black) to "LEDout"  
Method 2 (low resistance when empty) long LED wire (or Red) to "LEDout" short LED wire (or Black) to Chassis Ground

*If your LED lights when it should be off, and is off when it should be on, swap to the other method.*

#### c) Calibration

With fuel level in the tank at the point where you want the LED to activate, leave the unit for at least 3 minutes to stabilise, then adjust the screw until the LED is just switching on/off The adjustment can be up to 25 turns ! don't worry about going too far, it has a built in clutch.. (turning the adjuster clockwise lowers the resistance at which the LED changes state)

#### d) Finishing

slide the heatshrink over the calibrated module and warm up with a hot air blower or carefully with a lighter, the heatshrink will shrink onto the module protecting it from short circuits and fixing the adjuster in position.

(Note, if you substitute a different LED, ensure the current is limited to approx 20mA otherwise the IC will be damaged)