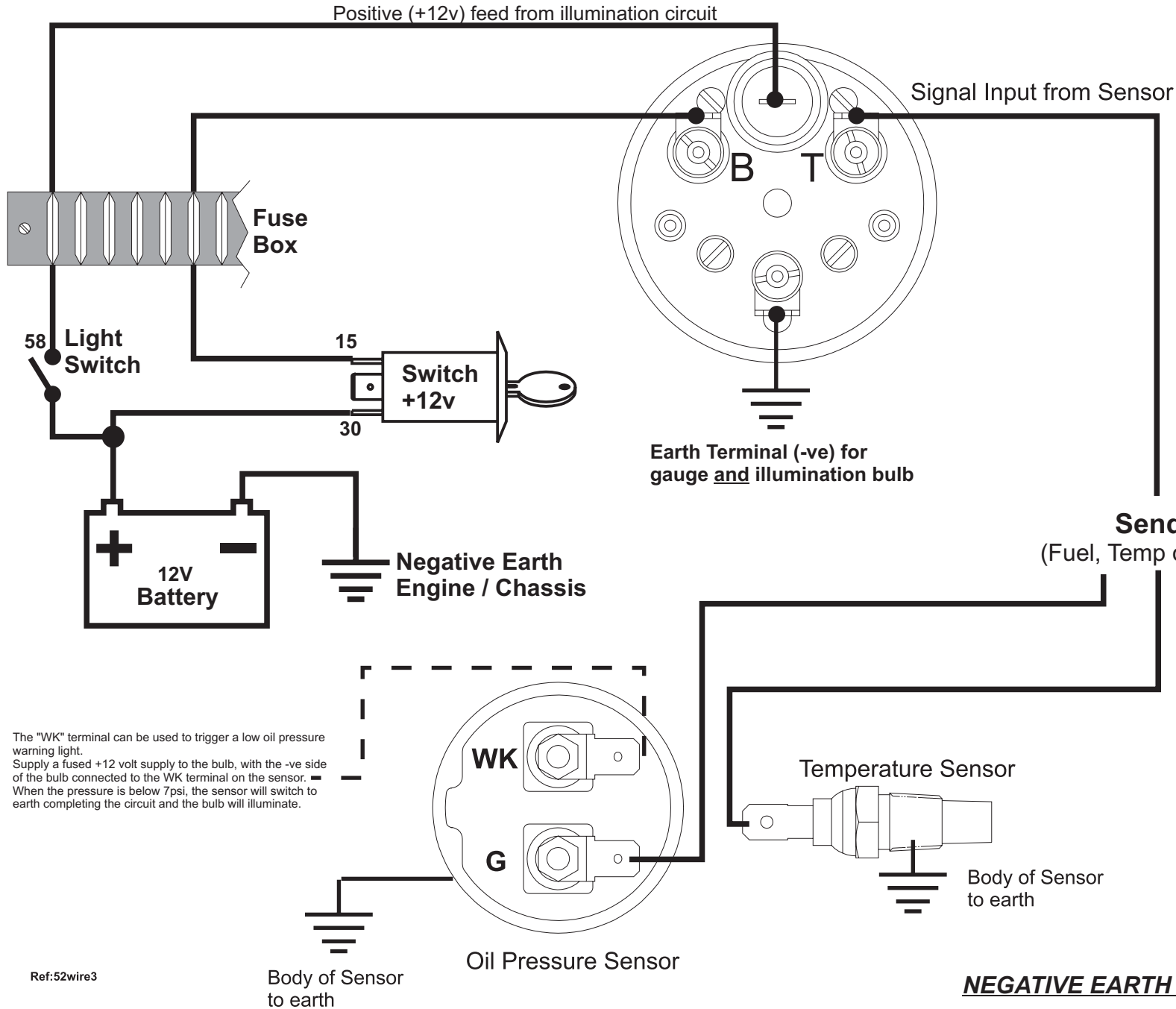


# 52mm Gauge - Fuel, Temp and Oil Pressure



**PLEASE READ SAFETY INSTRUCTIONS ON OTHER SIDE FIRST**

**WIRING INSTRUCTIONS**

1. Always disconnect the battery prior to installation
2. Run wires from the instrument location through the bulkhead according to the following:-
  - a) from the (B) terminal on the gauge to the positive (+) terminal on the battery (after the ignition switch, and after the fuse box);
  - b) from the illumination bulb spade connector to the light switch (also after the fuse in the fuse box);
  - c) from the earth terminal on the gauge to a good, dedicated ground / earth location (i.e. where the negative (-) battery pole is connected to the chassis of the vehicle); and
  - d) from the (T) terminal on the gauge to the signal terminal on the sender unit.

**IMPORTANT**

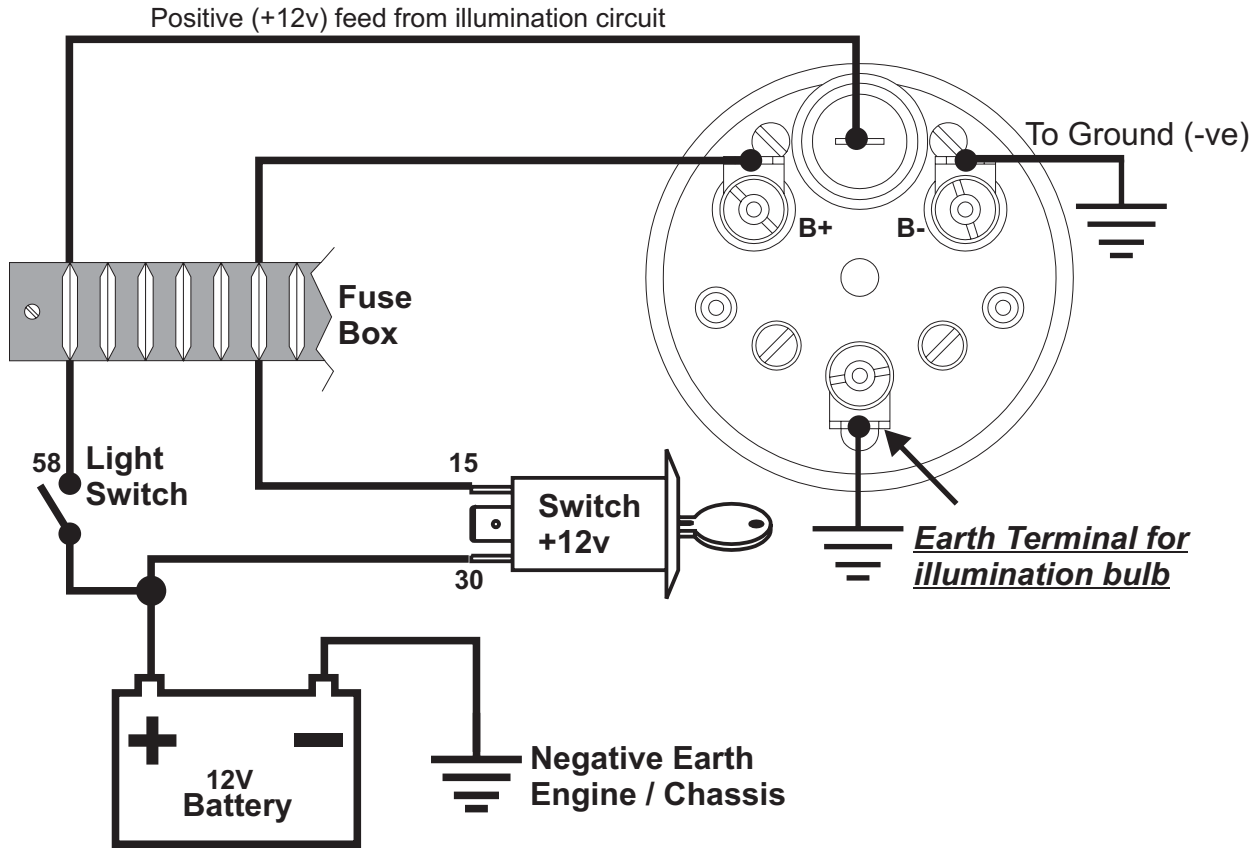
1. Do **not** use teflon / pfe tape on sender threads as this inhibits the earth return for the sending unit. Instead, gasket sealant such Green Hermatite is recommended.
2. Water temperature senders work best if they are installed near the thermostat housing.
3. Oil temperature senders can be used to replace the engine manufacturer's oil drain / sump plug.
4. The oil pressure sensor is installed in the same location as the factory sender or low pressure warning light switch.

**Remember:** These gauges measure Ohm resistance created by the sender unit. The Ohm range of the sender and gauge **MUST MATCH** or the gauge will not be accurate.

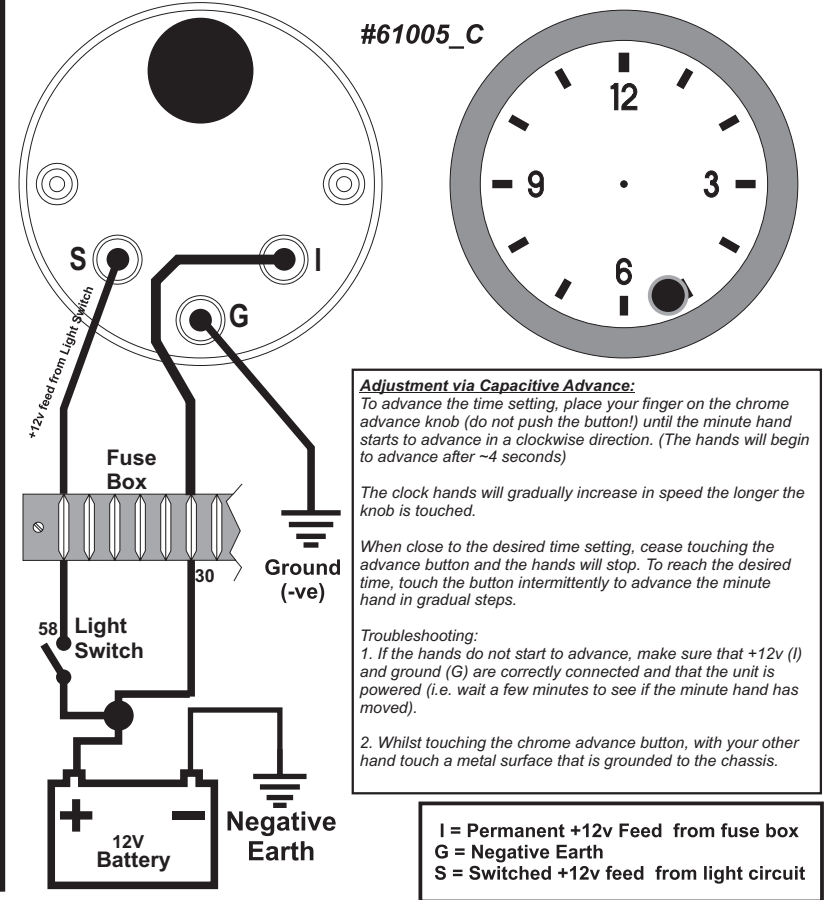
**NOTE - VDO Lever-Arm Fuel Sensors (2 x spade terminals)**  
 Connect one spade terminal on sender to gauge as shown.  
 Connect the second terminal to ground (negative earth).  
 (It does not matter which way round these are connected).

The "WK" terminal can be used to trigger a low oil pressure warning light.  
 Supply a fused +12 volt supply to the bulb, with the -ve side of the bulb connected to the WK terminal on the sensor. When the pressure is below 7psi, the sensor will switch to earth completing the circuit and the bulb will illuminate.

# 52mm Voltmeter



# 52mm Clock



PLEASE READ FIRST!

## General Safety Instructions for ALL Instruments

Prior to the actual installation work, the negative pole of the battery must be disconnected first, since otherwise there is danger of creating short circuits. Short circuits can cause cable fires, battery explosions, and damages in other electronic storage systems.

Basic knowledge of vehicle electrics and mechanics is necessary for installation to prevent harm to people, property and the environment. Make sure that the engine cannot be unintentionally started during installation. Do not wear loose fitting clothes!

For the installation location of the equipment unit, make sure that sufficient clearance is provided behind the installation aperture. Use a drill to pre-drill the installation opening and complete the opening using a compass saw or piercing saw (observe the safety instructions of the hand tool manufacturer.)

## **NEGATIVE EARTH ONLY**

**If in doubt telephone ETB Instruments Limited on (01702) 601055 for advice!**

## Electrical Wiring Safety Instructions for ALL Instruments

- Prior to the actual installation work, the negative pole of the battery must be disconnected first, since otherwise there is danger of creating short circuits. Short circuits can cause cable fires, battery explosions, and damages in other electronic storage systems.
- Connect the cables in accordance with the electrical connection diagram
- Take account of the cable cross section - a reduction in cable cross section results in a higher current density. This can cause the cable to heat up.
- When laying electric cables, use existing cable ducts and routes but without laying cables parallel to ignition or cables leading to high current consumers. Fix the cables with cable tape or adhesive tape.
- Do not route the cables over mobile components.
- Do not fasten cables to the steering column.
- Make sure that the cables are not exposed to tensile, compressive or shear forces.
- If the cables are routed through drilled holes, protect them with rubber sleeves or the like.
- Strip cables only with a cable stripper. Adjust the stripper so that no strands are damaged or severed.
- Crimp connections should only be made with a crimping tool.
- Insulate exposed strands so that no short circuiting can occur.

## **ETB Limited Warranty**

ETB Instruments Limited warrants all merchandise against defects in factory workmanship and materials for a period of 12 months from date of purchase. This warranty applies to the first retail purchaser and covers only those products exposed to normal use or service. Provisions of the warranty shall not apply to an ETB product used for a purpose for which it is not designed, or which has been altered in any way that would be detrimental to the performance or life of the product, or misapplication, misuse, negligence or accident. On any part or product found to be defective after examination by ETB Instruments Limited, ETB Instruments Limited will only repair or replace the merchandise through the original selling dealer or on a direct basis. ETB Instruments Limited assumes no responsibility for diagnosis, removal and/or installation labour, loss of vehicle use, loss of time, inconvenience or any other consequential expenses. In the event of merchandise being returned to ETB Instruments Limited, The responsibility for payment of delivery rests with the customer. The warranties herein are in lieu of any other expressed or implied warranties, including any implied warranty of merchantability or fitness, and any other obligation on the part of ETB Instruments Limited, or selling dealer. Your statutory rights as a consumer are not affected.