

UNIVERSAL INSTRUMENTS FITTING INSTRUCTIONS

OIL PRESSURE GAUGE

Mount the instrument in a selected position and secure with the U bracket and holding nuts. Where an oil pressure switch is fitted and is required to operate in conjunction with the gauge a special engine adaptor will be required for 1/8" B.S.P. use Part No. M44704 and for 1/4" N.P.T.F. use Part No. M44705.

INSTALLATION

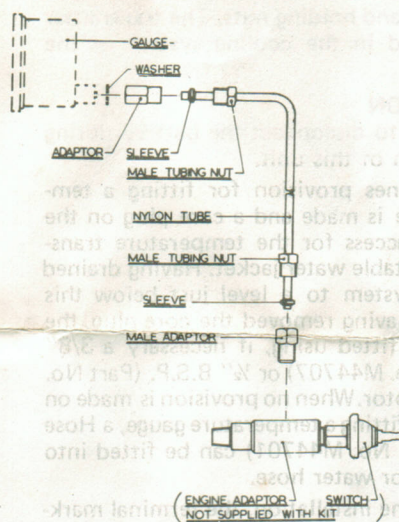
There are two methods of installation. The first one is by means of a 4.8mm (3/16") O.D. copper tube and flexible hose connection. The latter is considered necessary for the purpose of absorbing engine vibration.

A more economical and simple method is by means of a special nylon tubing which does not necessitate the use of the flexible hose. The nylon tubing complete with connections at both ends is supplied in kits with a step by step instruction sheet. The Part Numbers for these Smiths Oil Gauge Fitting Kits are —

1. With 1.5m (5ft.) long nylon tube M73201.
2. With 4.6m (15ft.) long nylon tube M73202.

Before connecting the tubing to the gauge place the end in a container and run the engine at idling speed until oil flows through. Stop the engine and connect the tubing to the gauge, making sure that the sealing washer is in position. Finally check all connections for leaks.

TYPICAL OIL PRESSURE GAUGE INSTALLATION



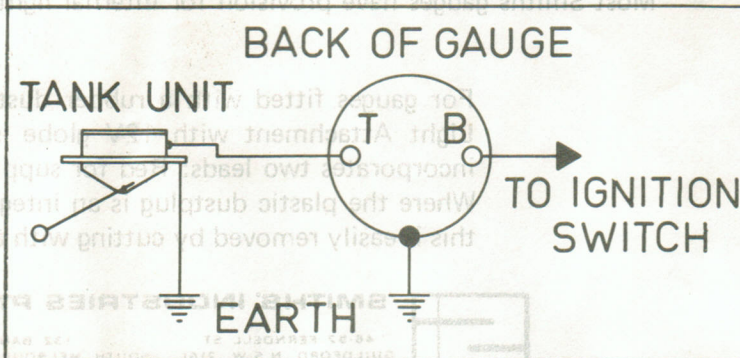
FUEL GAUGE

This gauge operates in conjunction with a Smiths Tank Unit. Smiths Tank Units are available in "Universal" Kits, Part No. M58601 for 12V. operation. It will be necessary therefore to closely follow the "Fitting Instructions" supplied with the tank units.

The indicator is mounted in a selected position on the dash and secured with the U bracket and holding nuts. Connect the fuel gauge T terminal to the tank unit terminal by means of insulated wire. The terminal marked "B" at the rear of the gauge must be connected to any convenient point on the outlet side of the ignition switch, such as the lead to the ignition coil.

The indicator and tank unit must both be well earthed to complete the electrical circuit.

FUEL GAUGE CIRCUIT



AMMETER

Mount the instrument in a selected position and secure with the U bracket and holding nuts. The U bracket should be carefully mounted as this part is specially insulated from the terminals. In later models the U bracket is retained by a single stud and should be kept clear of the electrical connections at all times. Disconnect the battery before completing the installation.

INSTALLATION

Vehicle Electrical Systems vary considerably and installations of Ammeters are likely to cause problems unless correct wiring procedures are followed. SMITHS Ammeter Wiring Kit Part No. M73001 is supplied with 2 x 1.5m (5ft.) leads which have terminals soldered to both ends. The kit also includes a special insulated terminal block and easy to follow fitting instructions. This information covers all vehicles with either generator or alternator electrical systems.

TEMPERATURE GAUGE

A. (ELECTRICAL TYPE)

This gauge operates in conjunction with a Smiths Temperature Transmitter Part No. TT-3200-00.A or M60101. The indicator is mounted in a selected position on the dash and secured with the U bracket and holding nuts. The transmitter must be fitted in the cooling system of the engine.

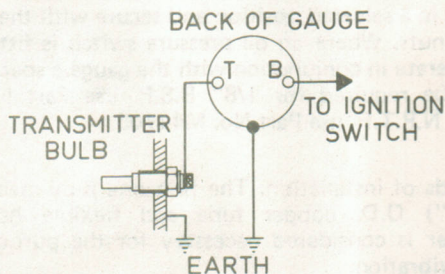
INSTALLATION

It is desirable to disconnect the battery during the installation of this unit.

On most engines provision for fitting a temperature gauge is made and a core plug on the engine gives access for the temperature transmitter to a suitable water jacket. Having drained the cooling system to a level just below this position and having removed the core plug, the transmitter is fitted using, if necessary a 3/8" B.S.P. (Part No. M44707) or 1/2" B.S.P. (Part No. M44703) Adaptor. When no provision is made on the engine for fitting a temperature gauge, a Hose Adaptor (Part No. M44701) can be fitted into the top radiator water hose.

To complete the installation, the terminal marked "B" at the rear of the indicator must be connected to any convenient point on the outlet side of the ignition switch, such as the lead to the ignition coil. The T terminal at the rear of the indicator must be coupled to the transmitter terminal. It is essential that the indicator and transmitter are both well earthed to complete the electrical circuit. When a Hose Adaptor is used, a special terminal is provided for earthing. Refill cooling system to correct level before testing.

ELECTRICAL TEMPERATURE GAUGE CIRCUIT 12V



B. (CAPILLARY TYPE)

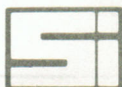
If necessary, cut a 19mm (3/4") diameter hole in the bulkhead through which to pass the bulb and the capillary tube. On no account must the tubing be disconnected from the bulb or the gauge. The tubing should be attached by means of clips or tape to any suitable structural member and should be kept away from parts of the engine which become excessively hot. Surplus tubing can be formed into two or more coils 60mm diameter (2 1/2") to absorb engine vibration.

On most engines provision for fitting a temperature gauge is made and a core plug on the engine gives access for the temperature bulb to a suitable water jacket. Having drained the cooling system to a level just below this position, and having removed the core plug, the bulb is fitted by means of the 5/8" UNF union nut. If necessary, a reducing bush 3/8" B.S.P. (Part No. M44707) or 1/2" B.S.P. (Part No. M44703) should be used. When no provision is made on the engine for fitting a temperature gauge, a Hose Adaptor (Part No. M44701) can be fitted into the top radiator water hose. Sharp bends should be avoided in the capillary tubing. The tubing must not be twisted during fitting and no sharp tools should be applied to it.

LIGHTING OF INSTRUMENTS

Most Smiths gauges have provision for internal lighting and details are available as follows:

For gauges fitted with a rubber dust plug at rear of case, the Light Attachment with 12V globe is Part No. M70001. This incorporates two leads: Red for supply and Green for earthing. Where the plastic dustplug is an integral part of the plastic case this is easily removed by cutting with a sharp knife.



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