## Fitting Instructions

# SMITHS

# Supplementary instruments and mounting panels



### Impulse tachometers

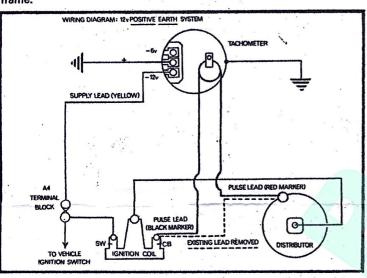
Codes IT.4, IT.4C, IT.6

The method of fitting the IT4, IT4C and IT6 instruments is the same. The tachometers are supplied complete with the bracket. If there is insufficient room on the existing dashboard to cut an aperture of  $3\frac{3}{16}$  diameter, this bracket can be used to mount the instrument in a convenient position under the dashboard.

#### POSITIVE EARTH CONNECTIONS

Remove the lead connecting the contact breaker terminal (C.B.) on the ignition coil to the contact breaker terminal on the engine distributor

Connect the white lead identified by a black marker to the (C.B.) terminal on the ignition coil, and the white lead identified by the red marker to the terminal on the engine distributor. Determine the vehicle battery voltage and cut the yellow lead supplied to required length and connect from appropriate terminal, i.e., -12 volt or -6 volt, located on the rear of tachometer and thence to A4 terminal on the vehicle terminal block or to a switched fused circuit. It is most important to determine the correct voltage and to exercise care in selection of the appropriate instrument terminals as incorrect connection will damage the movement within. From the centre terminal on the tachometer marked '+' connect the balance of the yellow lead and earth instrument to a suitable point on the engine frame.



#### NEGATIVE EARTH CONNECTIONS

To operate the instrument on a vehicle with a negative earth electrical system, the ignition impulse lead and electrical supply lead are connected as follows:

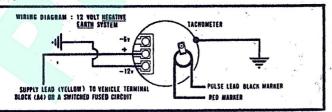
Impulse Lead: Red marker to ignition coil terminal, black marker to engine distributor terminal.

Electrical Supply: Lead from -12 volt or -6 volt terminal (as applicable) to earth. Lead from terminal marked '+' to A4 terminal or a switched fused circuit.

#### IMPORTANT

If it should be necessary to adjust the length of white pulse lead on either side of the plastic moulding at the rear of the instrument do not remove the white lead, but make any adjustment by moving the lead through the block. If a longer overall length of lead is required, a further length of type 14/010 wire may be added, but it is important to make a secure and clean connection.

### LEAD POLARITY TO BE REVERSED FOR NEGATIVE EARTH SYSTEMS



## Slim line impulse tachometer

Codes ST.4, ST.6

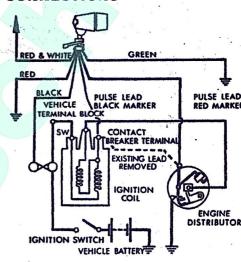
The method of fitting the ST.4 and ST.6 is identical.

Having established the most suitable position to fit the instrument, drill a  $\frac{1}{2}$ " diameter hole. Remove the wing nut and nylon washer and insert the instrument. The nut and washer should then be replaced, but before finally tightening the wing nut, the instrument should be adjusted to give the required viewing angle. Before making the electrical connections, disconnect the battery feed lead.

#### POSITIVE EARTH CONNECTIONS

#### The Impulse leads:

Remove the connecting the contact breaker terminal (CB) on the ignition coil to the contact breaker terminal on the engine distributor. Connect the white lead identified by a black marker to the CB terminal, on the ignition coil, and the white lead identified by a red marker to the contact breaker terminal on the engine distributor.



#### The electrical supply leads:

Connect the red lead to a suitable earthing point on the chassis and the black lead to the A4 terminal on the vehicle terminal block or to a fused circuit wired through the ignition switch.

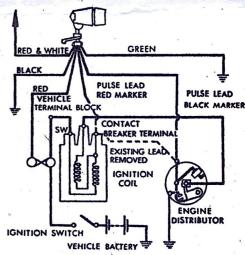
#### **NEGATIVE EARTH CONNECTIONS**

To operate the instrument on a vehicle with a negative earth electrical system, the leads should be connected as follows:

#### Impulse leads:

Red marker to the ignition coil and black marker to the distributor.

Electrical supply leads: Black lead to earth and red lead to A4 terminal or switched fused circuit.



#### Illumination leads:

Connect the red and white lead to a suitable point on the existing instrument illumination circuit, and the green lead to a suitable earthing point.

#### NOTE

On many ignition coils the terminal markings have been changed from SW and CB to — and + for positive earth systems and + and — on negative earth systems respectively.

#### **IMPORTANT**

#### Installation where a radio is fitted to a vehicle:

Where a radio is fitted it is recommended that, in order to achieve maximum radio suppression, the lead connecting the CB terminal on the coil to the contact breaker terminal on the distributor is left intact. Instead the lead to the SW terminal from the ignition switch should be disconnected at the coil end and the pulse lead with the black marker connected to it. The pulse lead with the red marker should then be taken to the SW terminal on the ignition coil. For negative earth application the pulse leads should be reversed. Other connections as above.