

Fit a gauge to take your oil pressure

Oil is the lifeblood of your car's engine. Although almost all cars have a low oil pressure warning light, it will only come on at pressures of about 5-10psi. By the time the pressure has dropped to such a low level, serious damage may have already occurred.

An oil pressure gauge gives you an instant reading of what's going on in your engine. Once you know what the normal readings are (your dealer will be able to tell you) you can then see immediately when a fault has developed.

Types of gauge

There are two types of gauge you can buy: mechanical and electrical. The mechanical gauge is usually the cheaper of the two, and comprises a gauge, plastic or copper tubing and an adapter.

The adapter screws into the engine block in place of the warning light pressure switch. The tubing is run from there into the car and up to the dash where it connects to the gauge. The only problem with this is

routing the tubing, which can be a little awkward to fit.

The electrical gauge uses an electrical sender unit – basically a bulkier version of the oil warning light switch that it replaces. It sends an electrical signal along a wire to the gauge. It is much easier to fit but a lot more expensive.

Keep warning light

Many kits allow you to have both the original warning light and the gauge if you wish. The kit may supply a T- or Y-shaped adapter that can be fitted in place of the warning light switch. The warning light switch is then screwed to one arm of the adapter, and the new sender unit or oil piping to the other.

If you do not get a T-piece in the kit, or the one supplied is unsuitable for your car, you can always get the appropriate one from a good accessory shop. But when you buy an extra adapter, such as a T-piece, make sure that the threads on all the unions on it match those on the unions in the kit you already have.

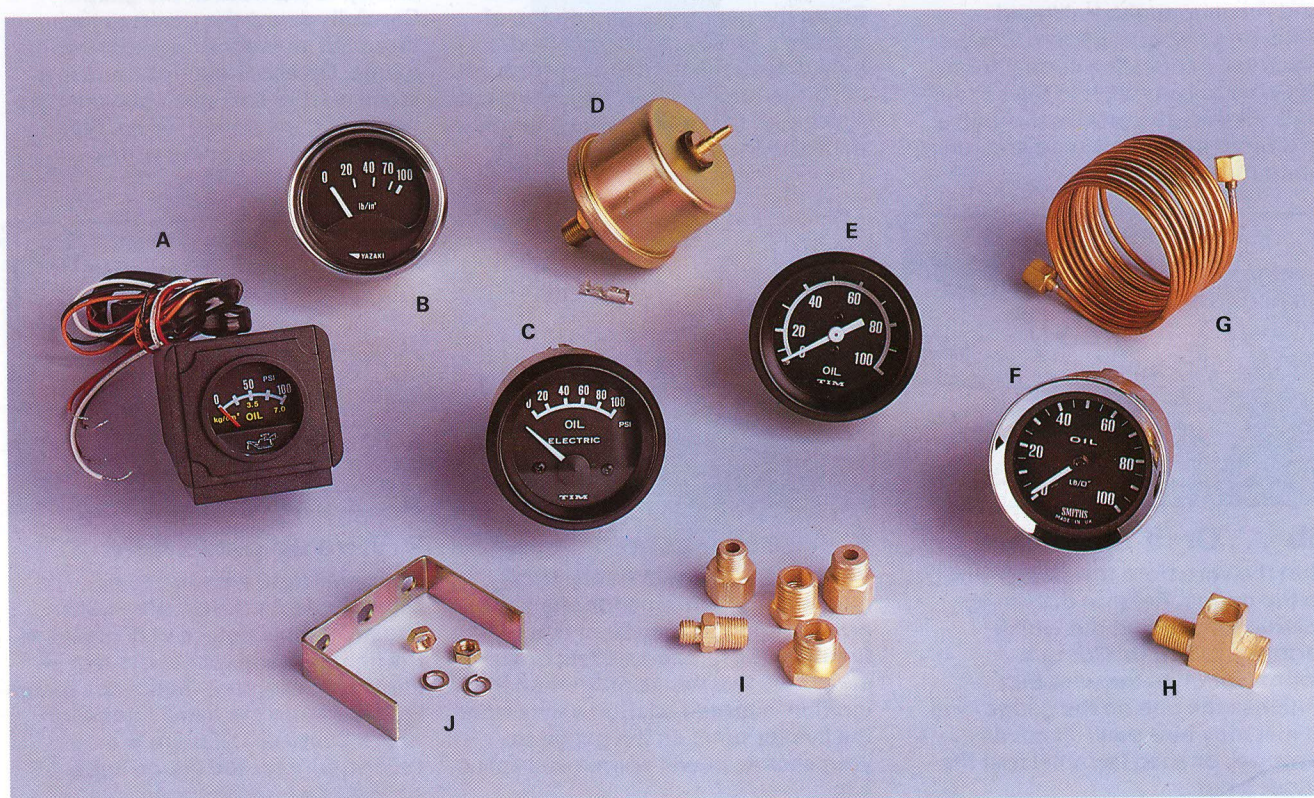


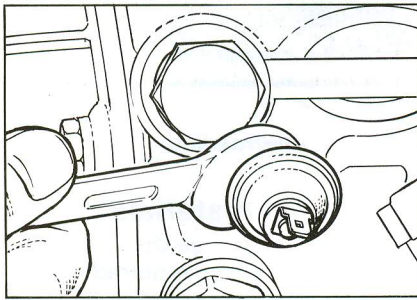
Tools and materials

- Oil pressure gauge kit
- T-piece adapter if required
- Spanners, sockets and screwdrivers
- Rags for cleaning
- Wiring and assorted connectors
- Crimping pliers and pliers
- Drill and drill bits if required

Gauge selection

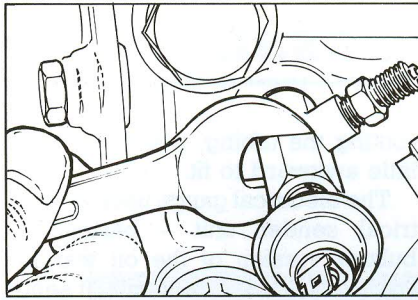
Electrical oil pressure gauges (A, B and C) all come with an oil pressure sender unit (D). Mechanical gauges (E and F) come with piping (G). Some kits contain a T-piece (H), and adapters (I). All gauges come complete with U-bracket and fittings (J) for mounting the gauge into a pod or bracket.





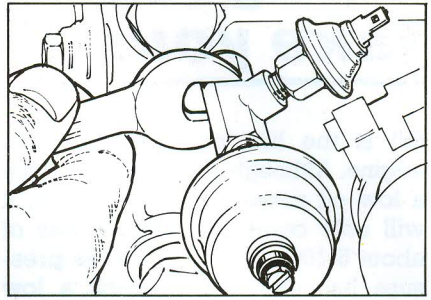
1 Undo pressure switch

First find the oil pressure light switch on the side of the engine block. Clean all traces of loose dirt from around it with a rag, then use a spanner or socket to undo it. Take care not to lose the brass washer that fits between it and the engine block.



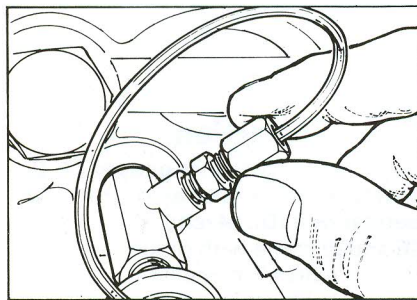
2a T-piece mechanical

First fit the adapter for the oil pressure piping into the T-piece. Screw it down tight to avoid oil leaks. Then fit the oil pressure light switch to the remaining hole left in the T-piece. Screw the T-piece into the hole in the engine block – if a locknut is fitted, do that up to hold the T-piece firmly.



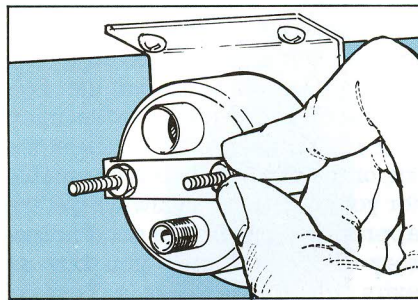
2b Or T-piece electrical

Fit the new sender unit for the gauge to one arm of the T-piece, and the warning light switch to the other. Don't forget to fit any brass washers as needed. If there was a washer between the switch and the block, fit one to the T-piece, then screw the T-piece into the engine block.



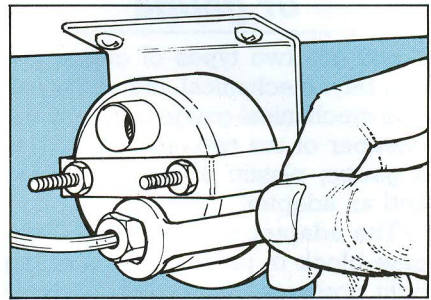
3 Run tubing or wire

On a mechanical gauge, attach the tubing to the adapter on the T-piece and run it up to the bulkhead following the wiring loom. On the electrical gauge, fit a connector to the wire to connect it to the sender unit. Fit the tube or wire through a grommet in the bulkhead and run it up to the dash.



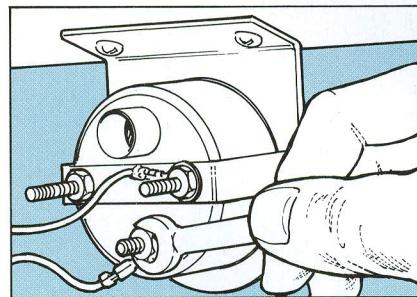
4 Fit gauge

Fit the gauge to a pod or bracket as described in *Projects 12*. If you are fitting the gauge in a pod on top of the dash, be sure to make an extra hole to feed the tube or wire through. If it is the tube that has to go through, make sure the hole is large enough to take the union on the end.



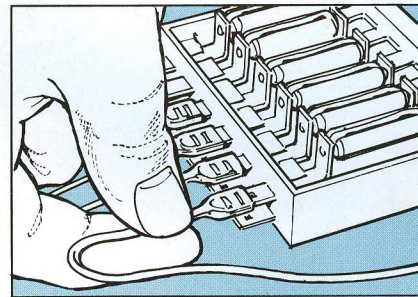
5a Connect pipe . . .

Run the pipe through the drilled hole and up to the back of the gauge. Carefully screw the union to the threaded stub sticking out of the gauge. On some gauges there is a small washer that goes between the union and the gauge – if so, fit it. Fully tighten the union with a spanner.



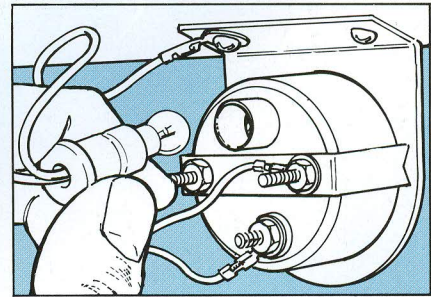
5b . . . Or fit the wire

Run the wire from the sender unit up to the gauge. Refer to the fitting instructions to find out which terminal to fit it to. Crimp a connector on to the wire that matches the one on the gauge, and fit it. It may be a push-fit spade terminal, or a tag terminal that fits under a nut.



6 Wire to live feed

You need to connect an electrical gauge to an ignition-controlled live power supply. It may be at the fusebox, the ignition switch, or an accessory that works only when the ignition is turned on. Run a wire from the live terminal on the gauge to your chosen power source and splice it in.



7 Wire up panel light

The panel light wire has to be connected into the existing light circuit. The best place to do this is at the lighting switch or at the rear of another instrument. Splice the gauge light wire into the panel light wire with a Scotchlok. If there is a second wire for the gauge light, earth it to a nearby screw.