

This month's collection of European emission reminder light reset procedures is a real mixed bag. We found some models to be very simple and straightforward. Resetting the mileage counter on most of these cars should take less time than replacing the oxygen sensor.

Just to keep things interesting, we also found a few models whose reset switches are hidden in more out of the way places. A few technicians told us they find it easier to simply remove the reminder light bulb from the dash than to track down a hidden reset switch. But be careful. Unless the manufacturer recommends this twist and toss procedure for turning off the light, resist the temptation to do the same. Once you pull the bulb, there's no way to remind the customer of future oxygen sensor replacement or maintenance intervals. And on some cars, the light is connected to the ECU as a fault code indicator.

You probably know that oxygen sensor replacement isn't a very popular topic with most customers. It's hard to convince a customer that he needs to spend a couple hundred dollars just because a reminder light lit up on his dash. Your ability to convince your customer of the need to replace his oxygen sensor really depends on how well you can explain what it does and how important it is to the proper operation of the vehicle's fuel system.

Unfortunately, you're starting out at a disadvantage. Many of your customers probably don't even know what an oxygen sensor is, and explaining what an oxygen sensor does can be even more frustrating.

Most customers don't know that the oxygen sen-

sor is responsible for sending a constantly changing electrical signal to the ECU. Even fewer realize that over time, the sensor loses the ability to send those signals quite as quickly as it did when it was new. As it gets older, it may stop signalling for long periods,

or even stop signalling completely. The biggest reason for the decline in the oxygen sensor's performance is that it lives in a very hot and hostile exhaust environment.

Maybe an analogy would help the customer understand things better. Let's compare our oxygen sensor to something the customer knows and understands—a pay phone in a bus station. Now if that isn't an example of a signal sender in a hostile environment, we never heard of one.

When the telephone is new, everything works the way it's supposed to. Put in a quarter and your call goes right through. As time goes by, however, a few too many people take out their frustrations on the phone. Your call still goes through, except now you get a wrong number or the operator comes on the line instead. If the phone is left to fend for itself in-

definitely, it will probably stop working altogether, just like a worn out oxygen sensor.

Many manufacturers knew that their oxygen sensors couldn't last for the life of the car in the hostile exhaust system environment. That's why they had to install those pesky reminder lights. Once your customers understand this, you should have less trouble selling oxygen sensor replacements as a necessary maintenance service.

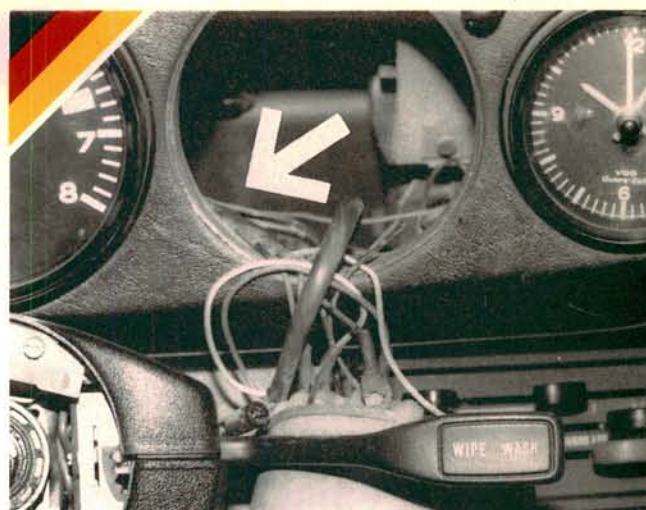
—By Karl Seyfert





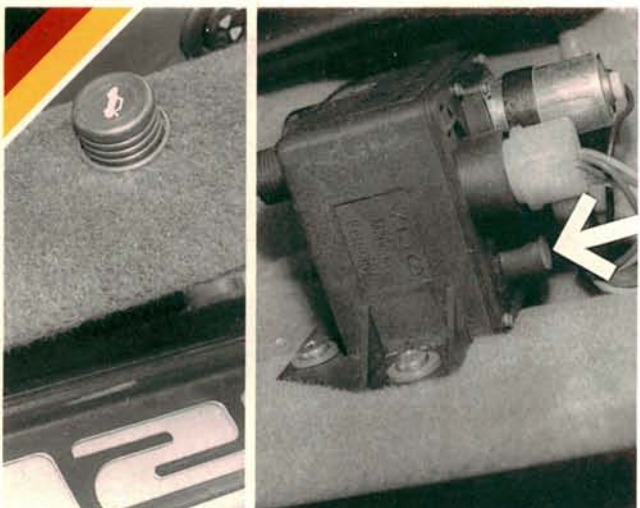
Mercedes-Benz

Pre-1980 Mercedes-Benz vehicles equipped with oxygen sensors would turn on their reminder lights at 30,000 miles. The mileage counter mechanism was built into the main instrument cluster. This is one case where removing and discarding the bulb was an approved procedure. But 1986 and later Mercedes vehicles (shown) use the light, not as a mileage reminder, but as an ECU fault warning light, so don't be fooled into tossing out the bulb on these later models.



Porsche 911

1975-77 Porsche 911 models use an EGR reminder light which comes on at 15,000 mile intervals as a maintenance reminder. The OXS reminder light used on 1980-83 models lights at 30,000 mile intervals. The EGR and OXS reset buttons are both mounted behind the speedometer. The speedo head is held in place by a ribbed rubber collar. Gently pry the speedo head loose, then use a thin rod to depress the white reset button. This also applies to 930s although newer models have discontinued use of the light.



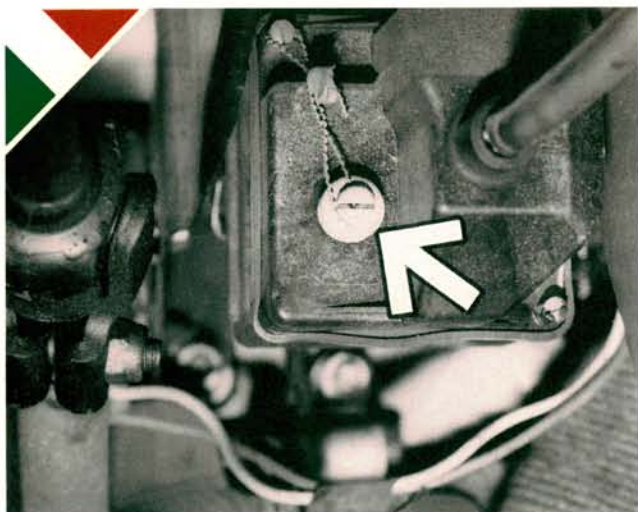
Porsche 928

All oxygen sensor equipped Porsche models (except 928S models with LH Jetronic and 944s) have an "OXS" reminder light which comes on at 30,000 mile intervals. The mileage counter on this 928 is mounted under a trim panel on the floor between the passenger seat and the step plate (left photo). After replacing the oxygen sensor, remove the cover to reveal the mileage counter (arrow). Depress the reset button until it hits its stop. Ensure that the reminder light is out.



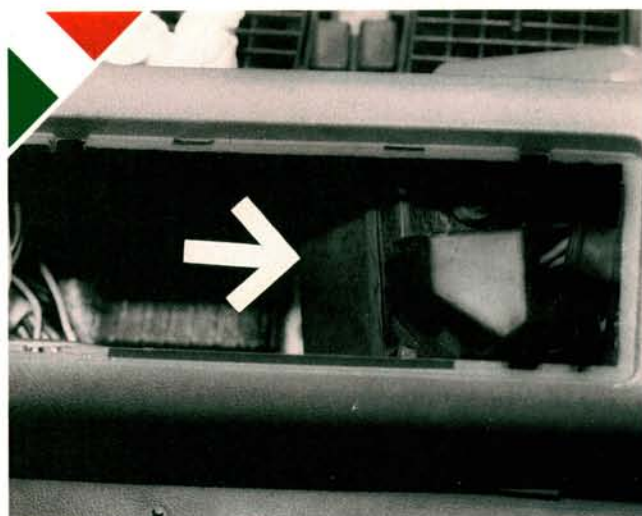
Porsche 924

The in-line mileage counter on 1980-82 Porsche 924 Turbos is mounted on the engine compartment side of the left strut tower (left photo). Follow the speedometer cable from the firewall to locate the counter. The reset button is located on the bottom of the counter (arrow). Use a thin rod to push the reset button to its stop. Some early model, naturally aspirated 924s have a mileage counter in the cowl area like the one used on an Audi 4000 (right photo).



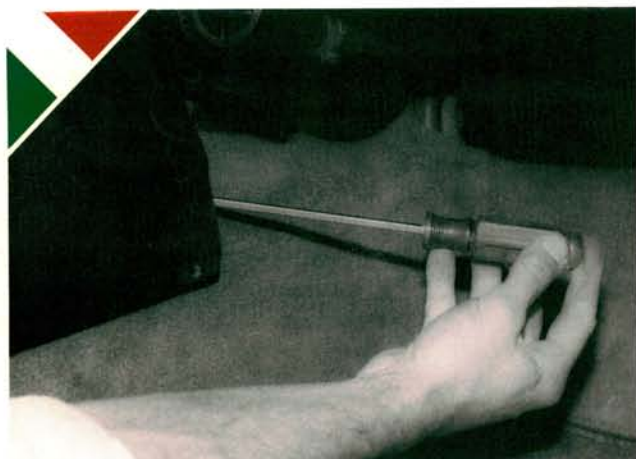
Fiat Spider 2000

The oxygen sensor reminder light on all fuel injected Fiats comes on at 30,000 mile intervals. The mileage counter used on all models has a safety-wired tamper-proof plug covering the reset button. Cut the safety wire and unscrew the plug with a flat bladed screwdriver. Then depress the reset button with a thin rod. The counter on this Spider 2000 is very easy to reach above the accelerator pedal. Reset the counter, then replace the plug. The safety wire and lead seal are optional.



Fiat Strada

The mileage counter on this injected Fiat Strada is located inside the dash, between the radio and glove box. The radio was already removed on this car, so we pulled the counter out into the open to give you a look. The counter can also be reached by removing the four heater box bolts, then reaching the counter from the underside of the dash. The glove box isn't easily removed, so don't try to reach the counter from that direction. Cut the safety wire, remove the plug, then depress the reset button.



Fiat and Bertone X/19

The mileage counter on fuel injected Fiat and Bertone X/19s is located on the right side of the center console. You'll have to take our word that the counter is behind the plastic side panel shown here. It's much easier to see in person than it is to photograph. Follow the same procedure with the safety wire and plug that we described for the other Fiat models. A long magnetic screwdriver will reach the plug. Dropped plugs will disappear into an opening in the car's unibody below the counter.



Peugeot

Peugeot 505 models through 1985 are equipped with an oxygen sensor and reminder light which comes on at 30,000 mile intervals. The light and counter have been discontinued on newer models. After you replace the oxygen sensor, locate the mileage counter. It's beneath the master cylinder. The reset procedure is similar to Fiat's. Remove the white plastic cover, then unscrew the plug covering the access hole for the reset button. Use a thin rod to depress the button before replacing the plug and cover.



Old Style Jaguar

Older Jaguars used a speedometer driven mileage counter box. The counter on this 1979 XJ6 is located on the right side of the engine, just ahead of the firewall in the engine compartment. Some counters were hidden behind the glove box. A local specialist with 20 years Jaguar experience said he's found these counters installed on either side of the engine, or behind the glove box. Reset as you did on the MG by using the special key, or two small pins to turn the disc.



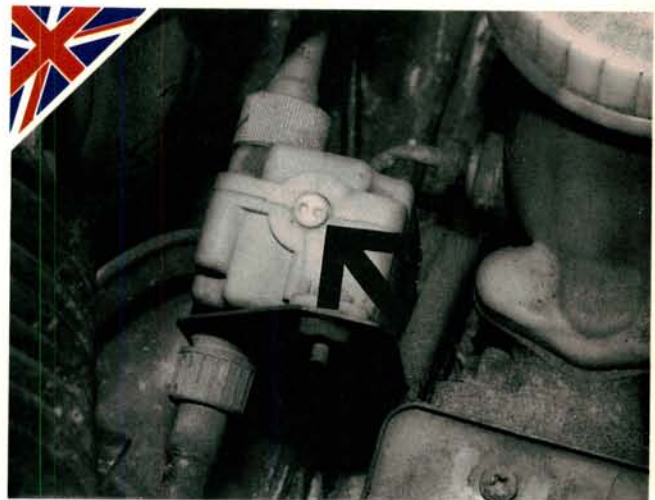
Jaguar

1983 and newer Jaguar XJ6 and XJS models use a motorized mileage minder inside the trunk to remind you that it's time to replace the oxygen sensor (two sensors on 12 cylinder models). To reach the reset on this XJ6, remove the trim panel at the head of the trunk to uncover the counter. Depress the white button with the ignition turned on. On XJS models, remove the trim panel in the left quarter panel just ahead of the wheel well to get at the counter.



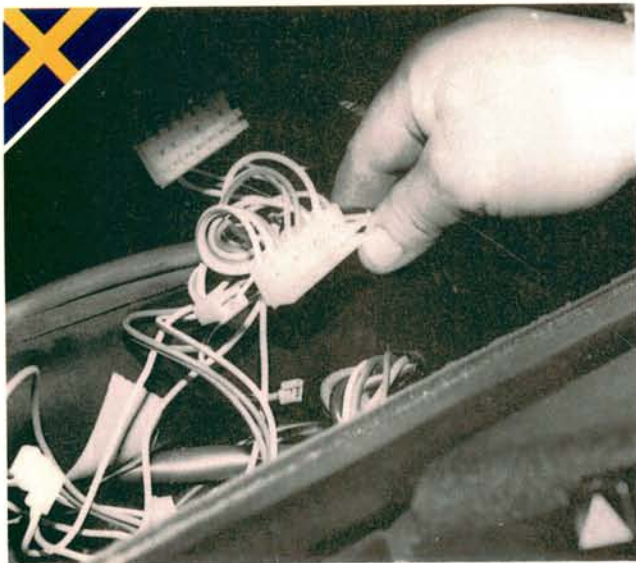
Renault

Oxygen sensor-equipped Renault 18is and Fuegos use an in-line mileage counter to turn on an emission reminder light at 30,000 mile intervals. Replace the oxygen sensor, then locate the counter near the firewall. Cut both safety wires, then remove the counter's plastic cover. Turn the reset button (arrow) one quarter turn counterclockwise toward the "0" mark to reset the mileage counter. Make sure the oxygen sensor light is off, then secure the cover with new wires.



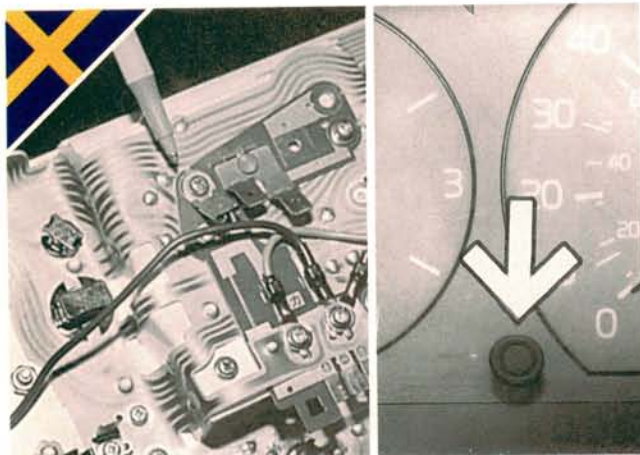
MG, Triumph

The mileage counter on this 1976 MG is located in the engine compartment near the left inner fender. It is a mechanical counter, driven by the speedometer cable. The small disc on top of the counter has two small holes in it. At one time, a special key was available that fit in these holes. A twist of the key reset the light. Two small pins will do the job. This style counter was found not only on MGs, but also on Triumph and early Jaguar models.



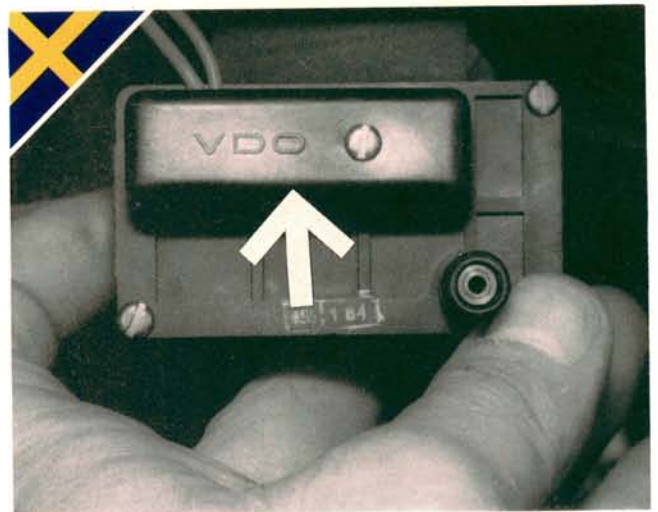
Volvo Oil Reminder

On some 1986 and later 700 series Volvos, an oil service reminder light comes on at 5000 mile intervals. On 1986-87 models, it's necessary to reach behind, or remove the dash cluster to get at the mileage counter reset button. Be especially careful when removing the cluster. Tie-wrapped wiring and close quarters make this a tough job. It's easy to break fragile cluster components.



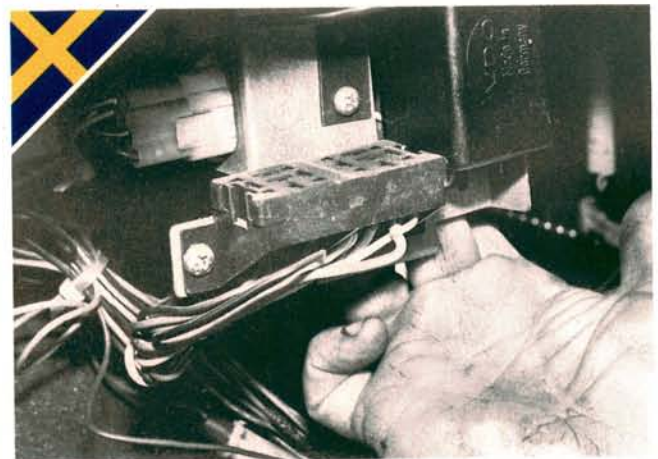
Volvo Oil Reminder

We removed a dash cluster from a 700 series. Not all of these cars have a switch. This particular cluster didn't have a switch, but we've pointed out where it would be located if it did (left photo). At least you'll know where it's installed on those cars with a reminder light if you try to reach the switch from behind. 1989 cars are much, much easier. Simply remove this plug between the speedo and clock and depress the reset button with a thin rod. Replace the plug (right photo).



Volvo

The oxygen sensor reminder light illuminates at 30,000 mile intervals on all Volvos equipped with an oxygen sensor. Replace the sensor, then locate the mileage counter. 1980-84 models have a counter mounted in-line with the speedometer cable. 1985 and later models use a small mileage counter driven off the speedometer by an extra cable. Remove the underdash cover. The counter (arrow) is clipped to the bottom edge of the left side of the dash. Remove the counter's cover, then press the reset button.



Saab

Saab models (except 1985-87 Turbo models) with an oxygen sensor have an "EXS" light which lights at 30,000 mile intervals. The mileage counter is located under the dash, to the left of the steering column, next to the flasher relay. We removed some of the underdash panels to get a photo, but you should be able to reach under the dash and locate the mileage counter by feel. Push the switch on the back of the unit to reset the counter. Replace the sensor at 60,000 mile intervals on 1985-87 Turbos.