

Description and Operation

The Auxiliary Warning System (AWS) comprises a number of sensors and transducers, and two displays with electronic control.

The displays are located in the instrument cluster beneath the fuel gauge. One consists of a car outline with door ajar indication, the other a display has three warning lights. When the ignition is turned on a bulb function test illuminates the warning symbols for five seconds and then extinguishes them if there are no warnings.

Door/Luggage Compartment Lid Ajar (Five Warnings)

The ajar switch mounted on each door and luggage compartment lid lock assembly, consists of a single pair of normally closed contacts which are shared with the central locking system. The switch is closed only when the door is fully shut, when it presents a safe condition. If the door is open or shut onto the first latch position, the contacts will be open and present a warning condition.

Ice Warning (Two Warnings)

This warning consists of two snowflakes – one amber, the other red. The amber warning illuminates when the outside temperature is between $\frac{1}{2}^{\circ}\text{C}$ and 4°C inclusive. The red warning illuminates when the outside air temperature falls below $+\frac{1}{2}^{\circ}\text{C}$. Negative temperature changes are displayed immediately, positive temperature changes are compensated for by the engine coolant temperature and vehicle speed.

Air Temperature

The low air temperature sensor contains a negative temperature coefficient thermistor. The resistance seen by the control electronics decreases as temperature increases.

In view of the small currents in the sensor (necessary to prevent self-heating) a local ground is not used and both terminals of the sensor are returned to the control electronics.

Low Fuel

This warning indicates that the remaining fuel in the tank has reached approximately eight litres, corresponding to the top of the red section on the fuel gauge. The circuit takes an analogue input from the tank sender. In common with other dynamic fluid level indicators, this input is 'anti-sloshed' by the electronics to help prevent erroneous warnings.

Low Coolant

This warning indicates low engine coolant level. The circuit takes a digital input from the coolant level sensor. In common with other dynamic fluid level indicators, this input is 'anti-sloshed' by the electronics to help prevent erroneous warnings.

The low coolant level sensor is a magnetic float and reed switch incorporated into the reservoir. The switch is open when the level is low.

Low screen Washer Fluid

This warning indicates low screen washer fluid level. The circuit takes a digital input from the washer bottle level sensor. In common with other dynamic fluid level indicators this input is 'anti-sloshed' by the electronics to help prevent erroneous warnings.

The low screen washer fluid level sensor is a magnetic float and reed switch incorporated into the washer reservoir. The switch is open when the level is low.

Central Timer

The central timer, also known as the delay/warning control assembly has two basic functions, the first group controls the chime warning functions for:

- Door ajar with light on.
- Key in ignition.
- Door open when not in park position.
- Seat belt not engaged.

The second group controls the time delay for the following:

- Windscreen wipers.

- Heated windows.
- Interior lights.

Park Position Sensor (when fitted)

This consists of two ultrasonic sensors mounted in the rear bumper, a control module and a driver's display. It provides the driver with a warning of obstructions to the rear of the vehicle, whilst reversing. The driver's display, mounted on the rear parcel shelf (notchback) and the D-pillar (wagon) provides the driver with three warnings, green, amber and red. These warnings are dependent on how close the vehicle is to an obstruction. The amber and red warnings are supported with an audible tone alarm.

When the amber warning is displayed an intermittent tone is emitted. When the red warning is displayed the tone changes to continuous.