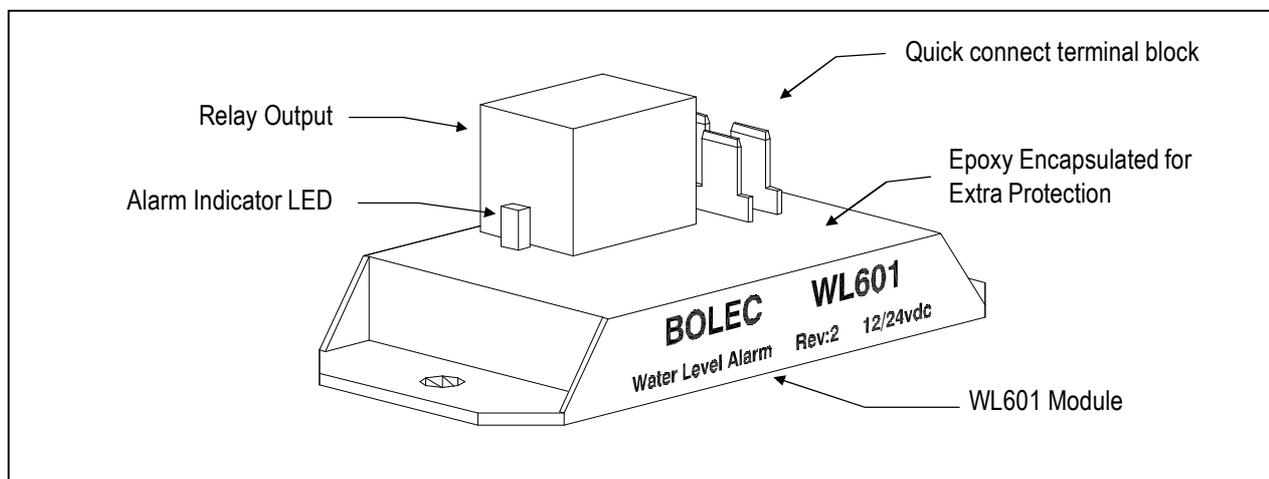


RADIATOR LEVEL ALARM – 12/24 VDC

P/No. WL601 - Connection Instructions for 12/24V Module



GENERAL

The WL601 water level alarm is designed to give an alarm output when the level in an automotive radiator falls below a predetermined level. The unit operates by measuring a resistance to ground through the water in the radiator, and using this reading to hold the relay contact open. If radiator level drops below the probe, this is read as a high resistance and the relay contact is closed, giving an alarm output to ground.

This module is designed to alarm on falling water level. Other units are available to switch on, or alarm, on rising water level or to control the level in a container between two probes.

Alarm output is via normally open relay contacts, which switch to earth internally. Contact rating is 12/24VDC 1.5 Amp resistive.

A “slosh” delay of approximately 7 seconds is included to prevent false triggering when a vehicle is rounding corners or traversing a slope. The WL601 will turn the alarm on 7 seconds after the water drops below the probe. The alarm will turn off immediately water is again detected covering the probe.

Typical applications are...

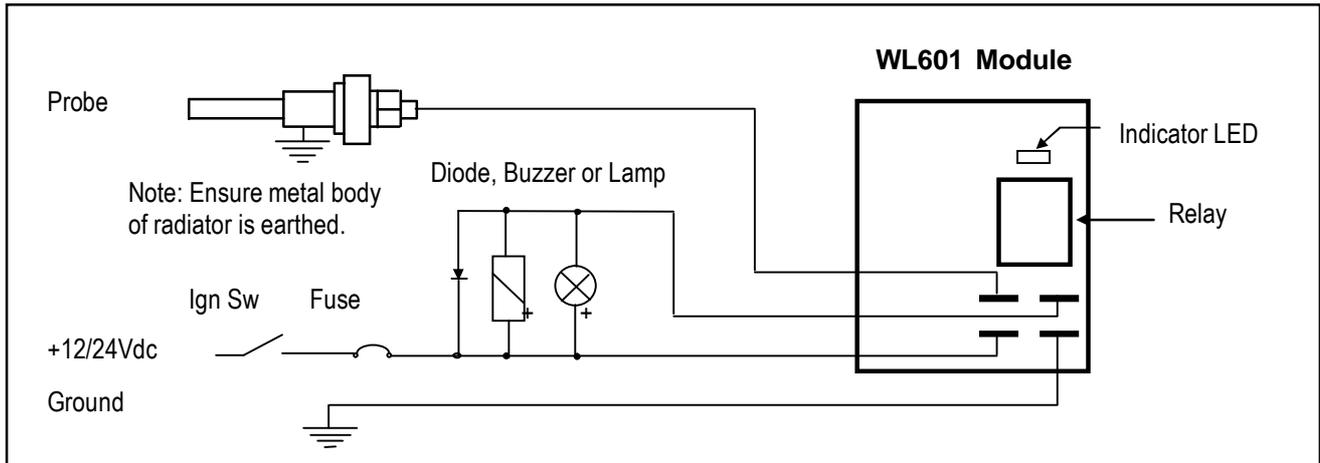
- § Low radiator level alarm for passenger vehicles, trucks, buses & agricultural equipment.
- § Low coolant alarm for commercial, industrial & marine engines.
- § Low water alarm for long range 4WD vehicle drinking water.
- § Low drinking water alarm for caravans.
- § Dewatering pump control between high & low levels (two units required).

NOTE: This module is designed as a universal unit to suit as many automotive type applications as possible. The manufacturer is not responsible for incorrect fitting or damage caused by or during the fitting of this module.

FITTING INSTRUCTIONS

1. Locate a convenient mounting place in the instrument panel or under the dash near the fuse panel and mount the WL601 water level alarm module. Screws, double sided tape, or a neutral cure silicone sealant are acceptable. Orientation is not critical.
2. Connect “IGN+” to a switched ignition supply line preferably via a 2 Amp fuse.
3. Connect “GND” to a good ground or earth connection.
4. Connect “ALARM” to the negative side of a lamp, buzzer or relay coil (1.5A resistive max). Note this terminal switches internally to ground. Make sure an appropriate fuse also protects the lamp, buzzer or relay
5. Fit the probe supplied to the radiator and connect from the “PROBE” terminal on the WL601 to the radiator probe. Make sure you **refill the radiator** after fitting the probe
6. Wire up a 12 or 24 vdc buzzer, lamp or relay as shown in the wiring diagram overleaf.
7. Fit reverse EMF diodes across all coils as necessary.

WIRING DIAGRAM



PROBE FITTING INSTRUCTIONS

1. Locate a point on the side of the tank, away from hose connections but as near as possible to the centre of the radiator and $\frac{1}{2}$ "/13mm above the core.
2. Drill a $\frac{3}{8}$ "/9.5mm hole through the tank wall at this point, clean away any loose material or swarf and ensure the hole is round.
3. Install the Viton rubber probe supplied with a suitable terminal and wire under the screw head. Tighten until reasonable resistance is felt. Pull up slightly on the probe to determine that it is locked in place. Should any leakage occur, seal with a silicone rubber compound.
4. Check that the radiator core is earthed. Fit an earth strap back to engine earth if necessary.
5. **Note:** Due to varying forms of radiator inhibitors and conditioners in the market, it will be necessary to check the probe for chemical build up after 6 – 8 weeks. To ensure continued reliable operation of the system use this initial check as a guide for future inspections. If there are any doubts, drain the coolant to below the probe and check the resistance between the probe and the body of the radiator. This should be open circuit or very high resistance. If the reading is 100K Ω or less, the probe must be either cleaned or replaced.

TESTING & TIPS

1. The unit may be tested by removing the wire from the probe while the ignition is turned on. In approximately 7 seconds the LED will light and the alarm should come on. After the alarm sounds, refit the wire.
2. Per the **Note** above, the best and most definitive way to check a unit like this is to drain the water below the probe and check if the unit switches as expected.
3. Temporarily replacing your alarm circuit with a test light can simplify the testing procedure.
4. When switching relay and solenoid coils with other electronic items around, it is recommended to fit reverse EMF diodes across all coils (see wiring diagram above).
5. It is good wiring practice to make all circuits failsafe where possible and practical.
6. This unit will not work if power supply to it fails, the probe wire is removed, or if there are other voltages present on the probe wire. Eg/ Electrolysis from aluminium radiators, high power or AC cables running parallel to the probe wire, etc.

SPECIFICATIONS

1. Dimensions: Approximately 58 x 42 x 29mm overall.
2. Voltage: 12/24 Volt DC Negative Ground systems.
3. Probe: Sensing via AC signal only. No plating occurs.
4. Contact Rating: 12/24VDC 1.5amp, Resistive.
5. Time Delay: Approx 7 seconds after water falls below probe.