

Press Release

Did you know that a major cause of engine failure is due to coolant loss in your vehicle going undetected?

And yet very few manufacturers are fitting Low Coolant Alarms to engines as standard equipment.

Redarc, a rapidly growing Australian electronics designer and manufacturer, have responded to many requests, from their customers, with the release of the Redarc **Low Coolant Alarm**, part number LCA1224. This product suits a wide variety of applications including Passenger vehicles, 4WD vehicles, Trucks, Buses, Motorhomes, Generators, Forklifts, Tractors and Earthmoving equipment.

The radiator is an integral part of the engine's cooling system. It is designed to protect an engine from the destructive forces of excessive heat. The radiator's function is to lower the temperature of hot coolant coming from the engine by cooling air that passes through the radiator.

A large proportion of major engine failures are a result of coolant loss going un-detected. Most engine temperature gauges and protection systems will not detect loss of coolant fluid. This is because the gauges and temperature switches rely on sensing the coolant temperature and when there is no coolant, the gauges cannot sense the temperature. Some engines have the water pump mounted so high that even a little coolant loss can result in the pump running dry causing major damage to the engine.

The radiator can lose fluid due to a worn hose, impact with an object, a crack in the top plastic header tank, a faulty seal or simply because the radiator cap wasn't replaced properly.

- Hoses provide a flexible connection for coolant flow between, the engine and the radiator, and the engine and the heating block. When a heater or radiator hose splits the coolant is lost in a matter of seconds. The temperature gauge reading drops and subsequently the engine overheats.
- The radiator core can be damaged by hitting something (parking kerb, road debris, an animal) as stress fractures may occur in the radiator leading to loss of coolant. In this scenario, the vehicle owner is at risk of significant repair costs because the coolant loss will prevent the temperature gauge from working correctly. Once the vehicle is parked following this damage the coolant will seep out on the driveway. At a later time, when the vehicle is next driven and before the owner is aware of a critical situation, the engine suffers a cracked cylinder head.

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- A vehicle's water pump is the heart of its cooling system. If the water pump fails in your vehicle it will run hot, overheat and cease to function. Most water pump seals, when they fail, firstly weep a little bit of coolant when the engine is running. When the engine is switched off for the night, the coolant steadily leaks out of the vehicle's radiator as the system is no longer under pressure. Next morning, once the engine is started and the vehicle is driven away the temperature gauge will not read correctly due to the absence of coolant and the vehicle will sustain a cracked cylinder head.
- If the radiator cap is not sealed properly it can disable the system's ability to draw coolant back from the overflow reservoir, to boiling of the coolant under severe operating conditions and to the loss of coolant.

The REDARC **low coolant alarm** will provide an early warning that a vehicle has low coolant levels. It is a cheap insurance against the significant costs that can arise from an engine overheating. The product has a number of smart features including an anti-slosh delay. If the radiator is not quite full, the LED flashes after ½ second but the audible alarm will not turn on for 3-4 seconds... therefore you will have a visual reminder to top up without an annoying alarm.

The REDARC **low coolant alarm** can be used in a 12V or 24V automotive system or a remote water pumping system to monitor radiator coolant level. It will provide both a visual and, in this case, an audible alarm if the coolant falls below the chosen level or if the pump loses priming.

The REDARC **low coolant alarm** has a self-test process on ignition turn on. The LED flashes twice and the audible alarm will emit four short bursts. The unit is also designed with broken wire detection. If the wire to the probe is broken it will sound the alarm and operate the buzzer.

Another important design feature of this product is the AC sensing. The probe is supplied with AC; therefore, it doesn't produce electrolysis that causes corrosion. Chemical corrosion can often be a cause of premature radiator failure.

The REDARC **low coolant alarm** also has an external warning lamp output. It allows a dashboard lamp to be used when the product (LCA1224) is not visible to the driver or to operate a relay to provide an alarm for a remote engine/pump. The product is supplied with a coolant level probe along with a threaded brass boss for use when installing the unit in a metal tank.

The REDARC **low coolant alarm** is designed and manufactured by REDARC in South Australia and comes complete with a two year warranty.

For further information please contact Dylan Pinkard, customer service technician or any of the friendly team at REDARC on 08 8322 4848, power@redarc.com.au or visit www.redarc.com.au.