



EG01-2

Dual bolt-on Temp Sensor model

The temperature shown on the Display Module is a guide only and should not be considered an absolute indication of overheating. As the manufacturers of the system, we do not take any responsibility for damage that may arise or occur as a result of overheating or any other mechanical defect or failure.

Display Installation:

Locate Display on flat surface using tape supplied.

The display location should be:

- Out of direct sunlight
- In a dry, protected area (some moisture is OK)
- Easily seen by the operator
- Within 5m of the sensor
- Clean and free of silicone/Armor All

Secure loom & cable to the vehicle at regular intervals.

Connect BLACK cable to earth/negative/ground.

Connect RED cable to a 12v-24v DC supply that powers ON/OFF with ignition (preferred) or accessories.

Use a 5-amp fuse (not supplied). A 'piggyback fuse holder' is suggested. This is an accessory that plugs into the factory fuse box and adds a second fuse to an existing circuit. These feature a red 'fly lead' that can be run to the positive (red cable) on the Display. They are available at auto electricians, spare parts retailers, etc.

The buzzer is external and can be disconnected to allow for remote installation by extending the cables. The buzzer output can also be used to trigger a relay (See full Owner's Manual on website for wiring diagram).

The buzzer can be mounted behind the dashboard or nearer to the operator if it is being used in a noisy environment or is some distance from the Display.

Finally, remove the plastic film protecting the silver



overlay.

Sensor Installation:

Sensor 1 connects to the 2 x white cables marked SENSOR 1. Sensor 2 connects to the 2 x yellow cables marked SENSOR 2.

NOTE: There is no polarity of the temperature Sensor cables.

Sensors are located under the head of a bolt just like a washer.

The Sensors can be located at any point where a temperature measurement is required but **should not be subjected to more than 130c/266f**. Do not locate the Sensors or cable near the exhaust manifold, exhaust



downpipes or turbo. The Sensor should also be located to avoid impact from stones or other debris if being used on driveline components such as the transmission or transfer case. The ideal location varies depending on the application. **Generally, the best location for Sensor 1 is on the cylinder head casting, on the inlet manifold side or rear.** Other locations (such as on the cooling system, radiator, hoses, etc) can be misleading if the coolant is not circulating or is not present due to leakage.

Sensor 2 can be used to monitor:

- transmission temp using a bolt on the pan/sump
- second cylinder head on a V6, V8 or flat 4 motor
- engine oil temp using a hose clamp around the oil filter

Important: Always re-torque the bolts back to the manufacturers' specifications. If the bolt is torqued to a high specification, a flat washer should be placed on top of the ring section of the sensor to prevent damage.

Running Sensor Cable to Display:

VERY IMPORTANT: A cable tie should be used within the first 80mm section of corrugated tube on the Sensor cable to secure to a mounting point on the engine or transmission. Then run the cable back to the firewall parallel to the factory engine loom securing with cable ties. **Don't run cable straight onto the body.** Avoid running the cable near any source of extreme heat or near the ignition system.

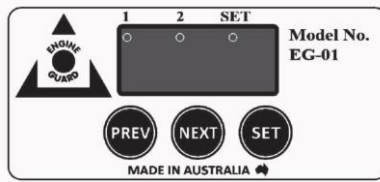
Run cables through the firewall being careful not to damage the outer PVC sheath. We suggest that you use the existing wiring loom grommets as an entry point into the cabin. A new hole and grommet can be added to the firewall if necessary. Re-seal around any points of entry into the cabin with an appropriate sealant. **Cables can be cut to length** or wound neatly and tied behind the dash.

Each Sensor connection requires 2 x crimp connectors (supplied). **Use solder/heat shrink if preferred.** To begin, separate the "Figure 8" Sensor cable into 2 individual cables. Slide the first sensor cable into a connector entry hole, then slide in a first single white SENSOR 1 cable. Use a pair of pliers to firmly press in the plunger to secure. Repeat this for the second sensor cable and second white SENSOR 1 cable.

Repeat for Sensor 2 & yellow/yellow black SENSOR 2 cables.



OPERATION



The Display is controlled by three press buttons show the MODE decimal points)

The three dots above the digits (They are NOT

On start up '888' is displayed, then the software version (1.03), then the Engine Guard cycles through the following:

- The input *type* being shown on Input 1 being 'deg' (degrees C). See full Owner's Manual on www.engineguard.com.au to change to F.
- The current alarm set point on Input 1 (if no setting has been made. '---' is shown)
- The input *type* being shown on Input 2 being 'deg' (degrees C)
- The current alarm set point on Input 2 (if no setting has been made. '---' is shown)
- The Display then returns to current temperature input on 1.

Setting using the high temperature memory (suggested method):

Do not adjust the Set Point until you have driven the vehicle for some time. This will allow the ENGINE GUARD to store the highest temp in the memory. Make sure the driving includes typical conditions such as highway speeds followed by idling in traffic, towing if that is normal, etc.

- Power up the system and wait until Input 1 is displayed (dot under 1)
- Press NEXT and Input 2 is displayed (dot under 2)
- Press NEXT to enter Set Point 1 (dot under 1 and SET, '---', will be displayed)
- Press SET and hold for 10 seconds until the highest recorded temp is displayed (after 5 seconds the current temp will be displayed then the highest recorded temp will be displayed) The dot under SET should be flashing during this process.
- Press NEXT to increase and PREV to decrease the temp. **We suggest that the initial set point should be around 5 degrees above the previous highest recorded temp.**
- Press SET to store the temp in the memory (dot under SET should stop flashing)
- Press NEXT and Set Point 2 will be displayed (dot under 2 and under SET, '---', will be displayed). Repeat as per Set Point 1.
- To return to Input 1 press NEXT once or PREV 3 times.

Adjusting temp set point WITHOUT using the memory:

- Power up the system and wait until Input 1 is displayed (dot under '1').
- Press NEXT and Input 2 is displayed (dot under '2').
- Press NEXT to enter Set Point 1 (dot under 1 and SET, '---', will be displayed).
- Press SET for 2 seconds until the dot under SET is flashing.
- Press NEXT to increase and PREV to decrease the temp.
- Press SET to store the temp in the memory (dot under 'SET' will stop flashing).
- Press NEXT to enter Set Point 2 (dot under 2 and under 'SET' '---', will be displayed). Repeat as per Set Point 1.
- To return to Input 1 press NEXT once or press PREV 3 times.

This is a rough guide, and it is suggested that the owner experiment with the setting over time. If operating under high load conditions or higher than normal ambient temperature, the alarm may be triggered despite the vehicle or machine not 'overheating'- creating false alarms. Equally, if the SETPOINT is adjusted far beyond normal operating temperature then the effectiveness of the alarm as a warning of impending damage is reduced.

PLEASE NOTE: If the alarm is triggered, pressing the SET button will temporarily silence the alarm for 30 seconds.

SAFETY ADVICE!

- Please read the Owner's Manual before proceeding with the installation or operation of the system, and if you are unsure about installation, please contact the vehicle manufacturer, Dealer or a qualified trades person
- Avoid operation of the Display whilst driving
- Avoid installing the system on a vehicle that has been in operation to reduce the chance of burns.
- DO NOT attempt to install the sensor(s) on an operating engine- injury may occur.
- Always wear appropriate protective equipment and have fire safety in mind whilst installing the system.
- This device is only to be used for the purpose for which it is intended.
- This is an independent monitoring system and does not communicate with any other vehicle system(s)
- DO NOT connect the Display to any other temperature sensors other than those supplied by ENGINE GUARD
- The Display must be mounted so as to NOT obstruct or interfere with the driver's vision and/or operation of the vehicle and adhere to any relevant legislation.
- A 5amp fuse(s) MUST be used when connecting to the power source, ie. batteries or ignition.
- Cleaning is recommended with a soft damp cloth only. No chemicals or abrasive cleaners are to be used.

WARRANTY

The Engine Guard system is warranted by the manufacturers to the original retail purchaser, to be free from defects in material and workmanship under normal use. **Time period:** Warranty coverage on the Display Unit and sensors for a period of 12 months from the date of purchase, while owned by the original purchaser and is not transferable. During each of the respective limited warranty periods, all original parts subject to this limited warranty determined to be defective in materials or workmanship will be repaired or replaced by the manufacturers, at its option directly or through authorized resellers, free of charge except for shipping or other transportation charges. Reseller labour charges are not covered under this warranty.

