

www.MotorMonitor.com.au

Motor Monitor 02/07/2018

Congratulations on purchasing Motor Monitor, an Australian owned and designed product. Your decision to invest in protecting and better understanding your vehicle will enhance your ability to protect your vehicle and minimise inconvenience and costly repairs by alerting you to problems before they cause damage.

“MotorMonitor is able to measure over 15 sensors, control 2 outputs, has a colour touch screen. Future developments will enable Bluetooth and wireless sensor connectivity, logging, connection to the cloud and enable configuration by a phone or other portable device.”

Installation

MotorMonitor is supplied with 2 ports. Each port can take a number of difficult sensor harness configurations. The standard sensor harness has been supplied with your unit measures voltage, 2 x temperature sensors, one coolant level and one oil level.

STEP 1

Plug harness into Port 1 of the MotorMonitor, power the unit by plugging the cigarette plug into the socket in your vehicle and turn on ignition to test the unit starts and runs as supplied (Ignore alarms that may arise as no sensors have been installed).



STEP 2

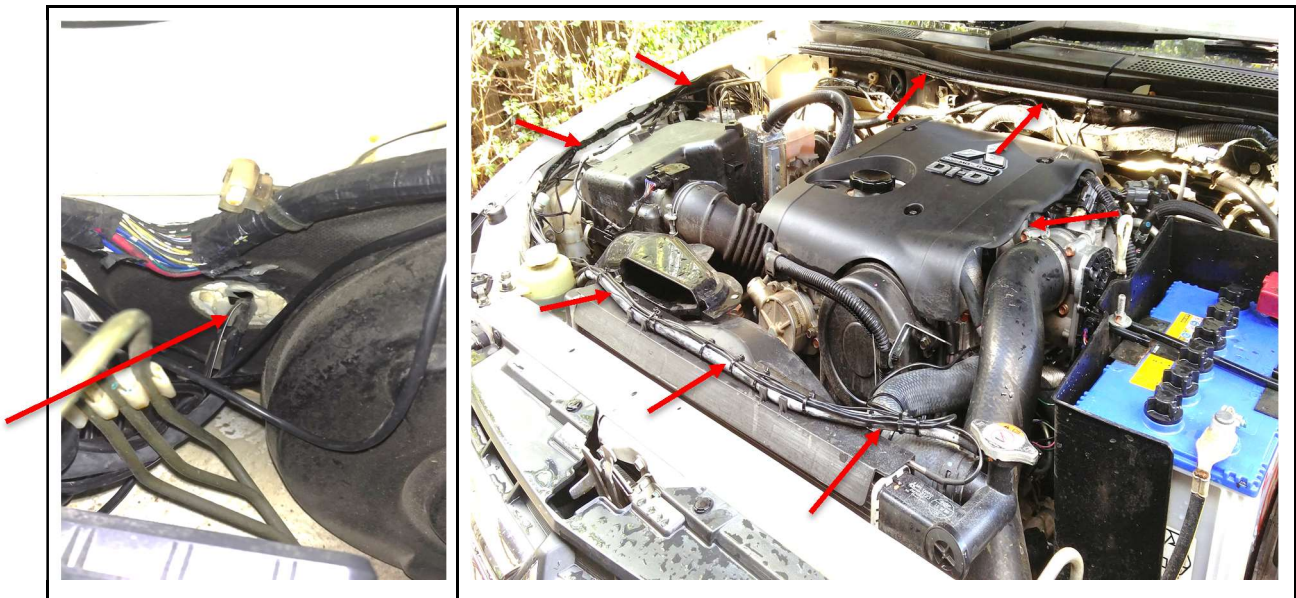
Locate the best position for mounting the MotorMonitor unit around the dashboard.

Note This version doesn't come with a mount. We suggest the use of double sided tape or silicone to hold it in place. Possible locations to mount include dashboard, windscreen, instrument panel etc.

STEP 3

Lay the harness out loosely in the engine bay with the LAN plug close to the driver's seat side of the engine bay. (If mounting location if in the middle of the car the drivers or passengers side could be used).

Search the firewall of the vehicle from under the bonnet to locate ideally a spare rubber plug on the driver's side of the firewall to use as access from the Dashboard to the engine bay. Remove the plug and feed the LAN plug on the harness into the cabin and feed up onto the dashboard in the location you have chosen for the MotorMonitor to operate.



Hide the cable under the floor carpet and cabin trim to hide it as much as possible.

Note: you will need to replace the plug or reseal with silicone once installation is complete.

STEP 4 Power

Power can come from either the engine bay or the cabin Socket (using the socket provided). The power cable can be run through the firewall hole inside the cabin as recommended to the Cigarette Socket (fused).

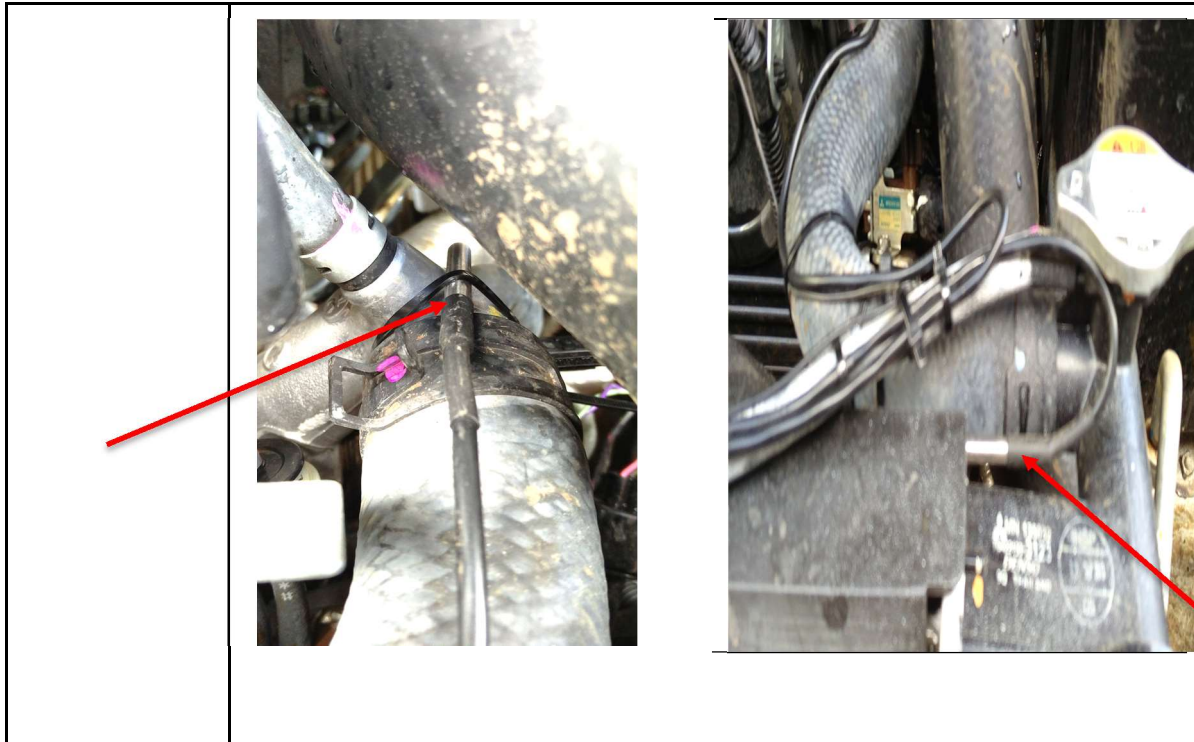
Ground -ve	Connects to the negative terminal of your battery or the chassis. This can be via the cigarette lighter plug supplied or by direct connection to a ground point in the vehicle
------------	--

	
Plus +ve	Connects to the 12 to 24 Volt supply of your vehicle. This can be via the fused cigarette lighter plug or at a key voltage supply point that you wish to monitor such as at the battery terminal or the ignition. 

STEP 5 Temp Sensors

Simply attach the temp sensors to the engine in locations you wish to monitor using the cable ties supplied. Tidy up the cable to keep it away from damage and coil any slack in a suitable location close to the firewall plug/entry.

Temp Sensor	This is a pre-calibrated temperature sensor. There are a range of different areas that these can be installed. Some consideration should be given to the particular vehicle and what may be considered an at risk area. One area of interest could be the outlet temperature of the engine and compare this to the outlet temperature of the radiator for example. A sensor could be fitted to a cylinder head, coolant outlet from the cylinder head or the coolant outlet from the radiator or to one of the transmission components like the automatic transmission or differential. Once MotorMonitor has been installed, the minimum and maximum values of these temperature sensors should be adjusted through the menu to ensure that alerting only occurs when the temperature moves to a range outside that which has been observed under normal operating conditions.
-------------	--



STEP 5 Coolant Level

Insert the coolant level wire sensor into the coolant level filling container ideally through the overflow pipe or under the existing lid of the coolant to provide level sensing.

Pressurised coolant tanks are not yet possible unless you can locate an existing level sensor within the tank. Another option is to place the sensor within a radiator hose by sliding the wire between the radiator hose and the radiator into the hose coolant flow. Note seal with a high temperature silicone or sikaflex sealant.

(Under development are a sensor to support pressurised overflow tanks.)

Future sensors are under development. The wire sensor may be inserted under a radiator hose into the coolant with a suitable high temperature sealant.

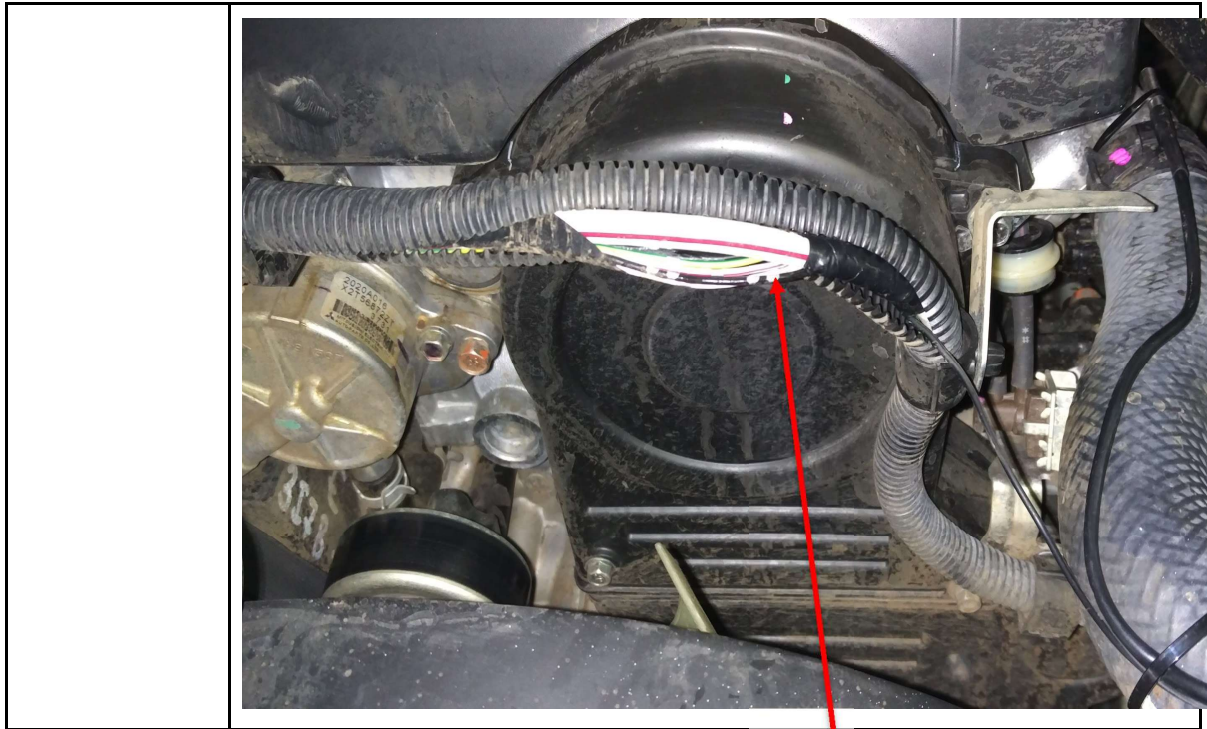
Level	This 2 wire cable that should be fed into the coolant level overflow tube and positioned to sit at the minimum coolant level. It alarms if the coolant goes below this level.
-------	---



STEP 6 Oil Pressure

Locate and connect to the oil pressure sensor wire. The pressure sensor is typically located near the oil filter and it can be spliced onto that wire there or anywhere. In this vehicle it's been located higher up away from the hot exhaust to make installation easier.

STEP 6 Coolant Level	Connect this to your oil pressure sender. There are 3 types: 1. Switch type which switches to 12 volts or ground when oil pressure reaches a limit. 2. Resistor type that puts out a voltage proportional to pressure 3. Bimetal version that switches on an off to a gauge in proportion to pressure.
---------------------------------------	---



STEP 7

Congratulations job complete!

Running the MotorMonitor and allow it to learn the maximum normal operating temperatures for your vehicle. Remember to edit temperature's as needed to set them to the maximum that your vehicle runs at over time. On hot days you may need to adjust it slightly to know what is NORMAL for your vehicle.

Congratulations on your installation!

For information regarding usage of the MotorMonitor refer to the user guide.