ECT-A Module Installation

The ECT-A Display Driver is a small module designed to operate the temperature gauge in S2000 clusters when the cluster is installed in another vehicle. This product only works with clusters from S2000 model years 2000 to 2003 (AP1) or 2004 to 2005 (AP2).

Terminal descriptions:

- **GND** – connect to ground as described in the specific instructions below, do not use 'any old ground' as it may not work
- **+12v** – 12 volt DC ignition power
- **Gauge** – S2000 cluster temperature gauge wire, which is yellow/green if using an S2000 wire harness (see page 2)
- **Sensor** – The water temperature sensor signal as described in the wiring diagrams below

NOTE – Do not connect to a temperature sensor mounted in the radiator. Radiator-mounted sensors are used to control the radiator fan and are not an indicator of engine coolant temperature.

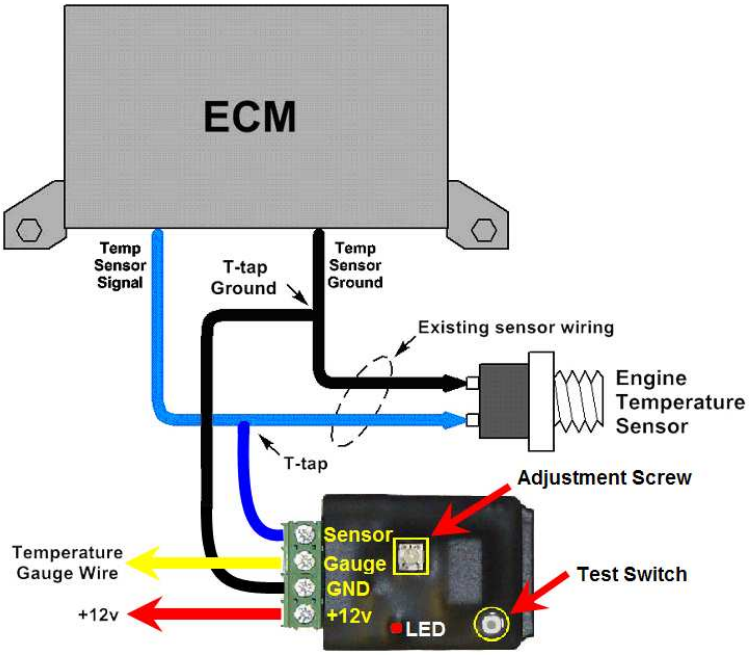
Wiring notes for cars with a 2-wire temperature sensor

The ground wire is the most critical wire in this installation. Two-wire sensors are very sensitive to ground currents from other electrical accessories so the ECT module must be wired to the same sensor ground used by the ECM. Honda wouldn't install a separate ground wire for the sensor if it wasn't needed, so use it!

If you can't locate the temperature sensor wires at the ECM you can make your connections at the sensor itself. Run 2 wires from the ECT module 'ground' and 'sensor' terminals to the temperature sensor that is mounted on the engine and make your T-taps near the sensor. If you don't know which sensor wire is ground, use a volt meter to measure the voltage on each wire when the ignition is on. The sensor wire with the lowest voltage (should be close to zero volts) goes to the ECT module 'ground' terminal.

Do not connect the ECT module ground wire anywhere other than the locations described here. Doing so can affect the accuracy and consistency of the temperature gauge.

Wire colors shown are for clarity only, no wiring is provided.



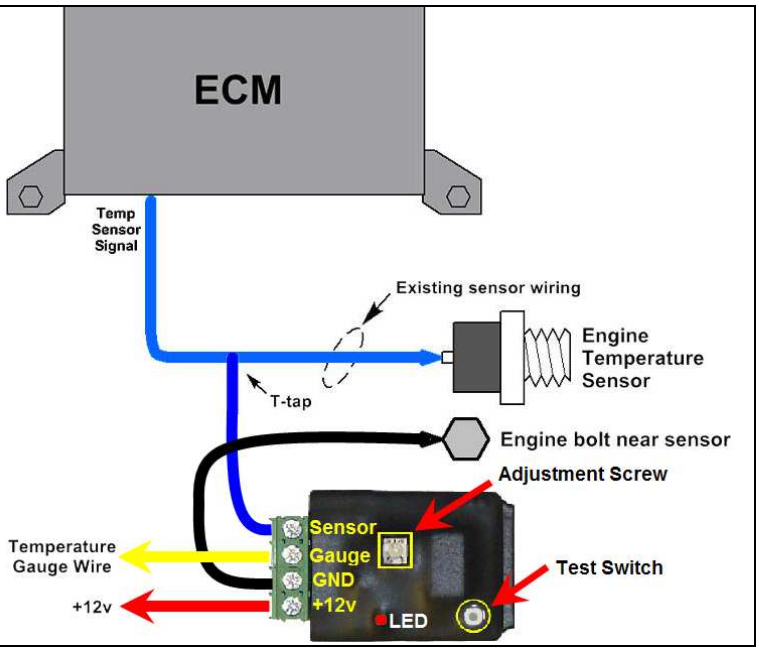
Wiring notes for cars with a 1-wire temperature sensor

As with a 2-wire sensor, the ground wire is the most critical wire in this installation because the ECT module needs to see the same ground as the sensor, which is at the engine block.

You should run 2 wires from the ECT module 'ground' and 'sensor' terminals to the temperature sensor, connecting the 'sensor' wire to the sensor and the 'ground' wire to an engine block ground as close as possible to the temperature sensor.

Do not connect the ECT-2 module to any other ground.

Wire colors shown are for clarity only, no wiring is provided.



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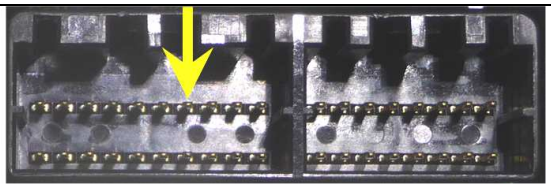
Testing procedure:

1. Turn the ignition to ON and observe the LED on the module to make sure it is blinking. Blink rates will vary from once every 2 seconds (engine cold) to about 5 blinks a second (engine overheated), with normal coolant temperatures causing about 1 to 1.5 blinks per second.
    a. If the LED does not blink then the module is either bad or is not receiving power, so check the +12v and ground connections. Bad modules are rare as each one is tested on an S2000 cluster before shipping. For testing purposes you may temporarily connect the ECT module +12v and ground wires to a 9-volt battery to verify the LED blinks.

2. Press the 'test' button on the ECT module until the LED lights steady. The module will send a signal to the S2000 cluster to light the 3rd bar (AP1) or the 8th bar (AP2) on the temperature gauge. The gauge responds slowly so it may take up to a minute for the correct reading. This test verifies the ECT module is working, that it is connected to the correct terminal on the cluster, and the cluster is operating correctly. To exit the test power down the ECT module.
    a. If the cluster display does not light any segments verify you have connected the output of the ECT-A module to the correct wire on the cluster for the temperature gauge (see below photos).

AP1



Terminal 7 on the cluster's largest black connector socket

AP2

Terminal 5 on the cluster's blue connector socket

Adjustment procedure:

This ECT module is equipped with an adjustment screw that changes the indication on the temperature gauge. Turning the screw to the right (clockwise) will increase the number of bars displayed on the gauge. Turning it left (counter-clockwise) will decrease the number of bars displayed. The adjustment range will usually provide the ability to change the display by up to 3 bars (AP1) or 8 bars (AP2). The module comes shipped with the adjustment set to display 3-4 bars (AP1) or 8-9 bars (AP2) at normal operating temperatures for a typical Honda Civic.

If your temperature gauge is not providing the display you want to see you can turn the adjustment screw using a 2mm jewelers screw driver. The screw only rotates about ¾ of a full circle and will hit a mechanical "stop" at either end of the rotation. If this adjustment range is not enough to correct the temperature gauge then you have either a wiring problem or your engine/sensor/ecu is significantly different than a typical Honda Civic.

Caution – Be sure your engine is operating at normal temperatures when adjusting the ECT module, particularly if the gauge indicates a high temperature and you want to adjust it downward. If the engine is truly overheating and you mask that problem by making the gauge read normal you could cause serious engine damage.