

The ECT-2 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:

- **PROG** – used for re-programming the temperature values (programming instructions at www.modify.com/products/ect2)
- **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
- **Jumper** – No connection for ECT-2 when using your OEM sensor. For ECT-2S, add a jumper to the ‘sensor’ terminal.

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.

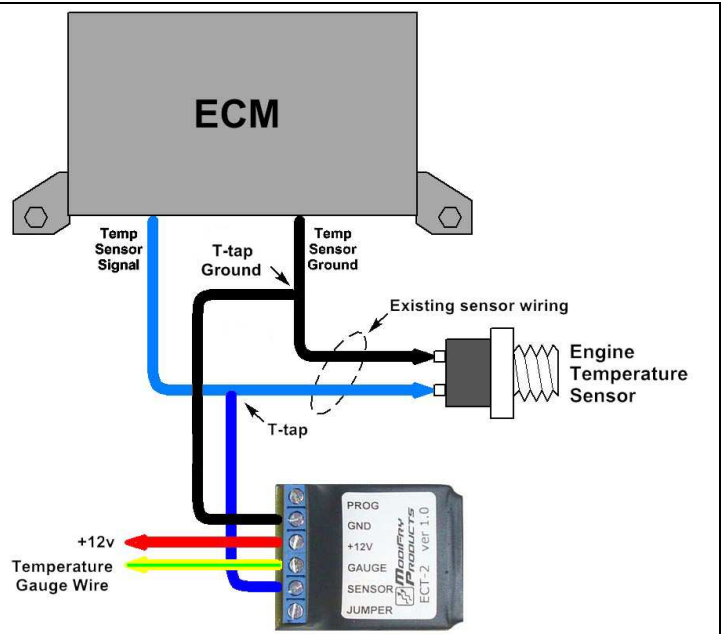
Wiring notes for cars with a 2-wire temperature sensor

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.



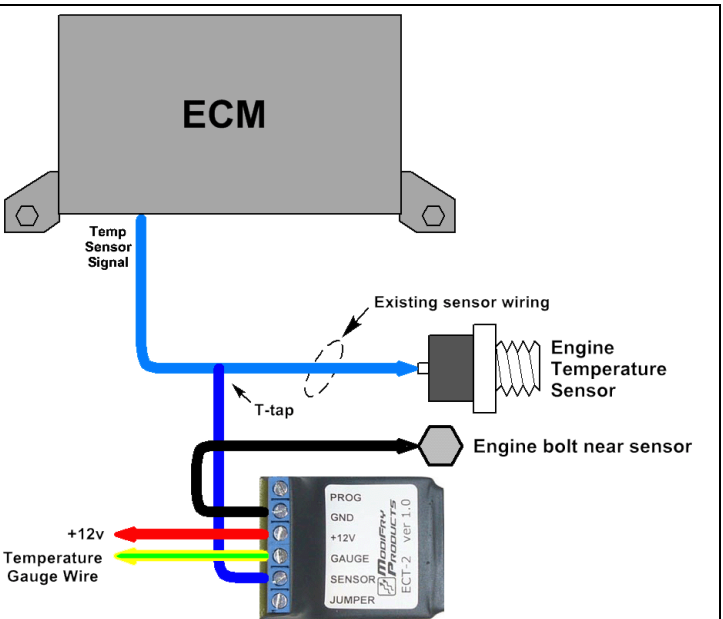
Wiring notes for cars with a 1-wire temperature sensor

As with a 2-wire sensor, the ground wire is the most critical wire in this installation but for different reasons. In this case 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.



Installation of the ECT-2S with provided temperature sensor

You will need to purchase a "radiator hose adapter" that fits your radiator hose, is tapped for a 1/8" NPT sensor, and has a ground screw attached (see photo below). These are available on ebay for \$12 to \$15 if you do a search for "radiator hose adapter".

Install the provided temperature sensor into the hose adapter without using gasket sealer or Teflon tape, as the sensor must make good electrical contact with the adapter. The threads on the adapter and sensor are tapered so a water-tight seal will be achieved without using sealants. Mount the hose adapter in the upper radiator hose, in a straight section as near to the engine as possible. The hose adapter should not contact the engine block or any other object that could ground it.

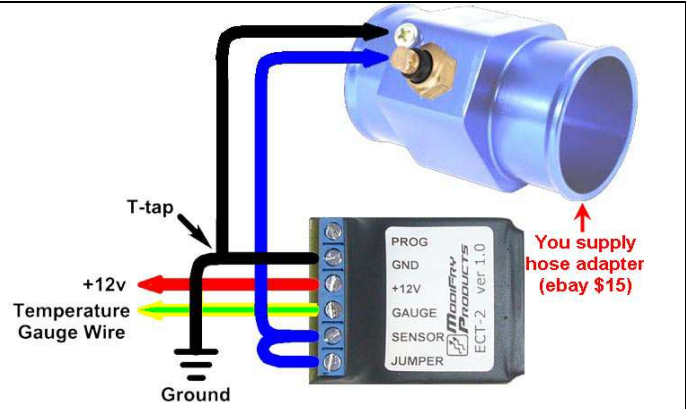
Wiring notes for the ECT-2S with provided temperature sensor

Run 2 wires from the ECT module 'ground' and 'sensor' terminals to the hose adapter and connect as shown in the diagram.

In this installation you will need to provide another ground connection near the ECT module but the location is not critical, just make sure it is good clean ground that will not be disturbed.

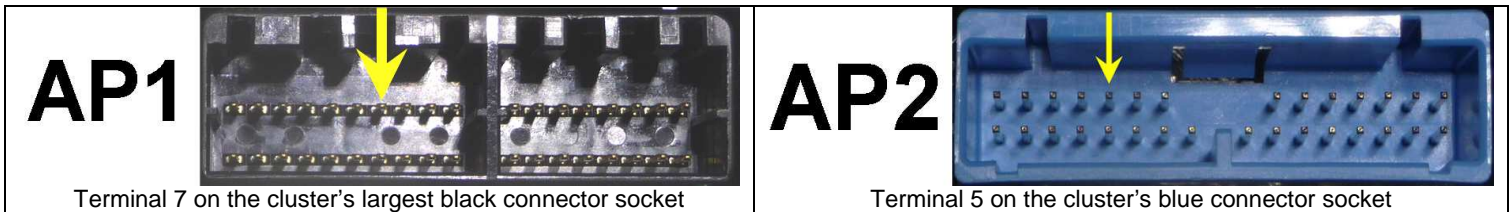
Make sure you connect a jumper wire from the ECT module 'sensor' terminal to the 'jumper' terminal as shown.

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



Testing procedure for all ECT-2 modules:

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 power 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 10th 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 the correct wire for the gauge (see below).



AP1 and AP2 temperature displays shown below are typical when using the ECT-2S with the calibrated temperature sensor. When using the ECT-2 and your car's sensor, many Honda Civic owners will get similar results with the standard programming provided in the ECT-2 module. However, best accuracy is achieved by re-programming the ECT-2 module for your particular car/engine/ECU combination.

For more information about re-programming your ECT module please see our web site:
www.modify.com/products/ect2

