

Thank you for purchasing CT Engineering's ESM, a MAP signal modifier. All components have been designed and manufactured utilizing the latest in technology and materials. We are sure you will be pleased with the look, fit, dependability and performance this kit will provide.

Warning: Incorrect connection of wires will damage ECU and ESM

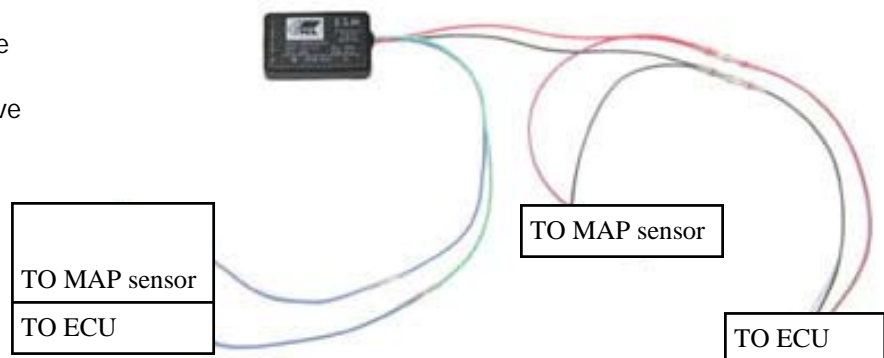
These instructions are only a guide to proper installation. It is the technicians' responsibility to confirm all connections are correct, use of the proper factory service manual is recommended. We recommend that only a competent and qualified mechanic perform this installation



Special Notes: ESM control Voltage is **preset** for Honda and Acura automobiles @ 2.93v (NSX, S2000 & 03 CL-S 6-speed) or 2.84v (Accord V6, CL-S, TL-S supercharger kits). **THERE IS NO REASON TO ADJUST THE ESM FOR HONDA OR ACURA VEHICLES.** If using this ESM on vehicles other than Honda and Acura, voltage may need to be adjusted based on MAP sensor output determined by Manufacturer and specific engine and vehicle type. Adjustment is accomplished with ESM installed and ignition switch on. Insert Volt meter probes into ESM as marked on front panel. Adjust by turning screw on end of ESM. Clockwise will increase voltage reading. Counterclockwise will decrease voltage reading. Exact voltage should be set just below the voltage required to set ECU into default mode.

Solder Splice Connectors: Solder splice connectors have a solder ring and a heat shrink insulator sleeve. When insulation sleeve is heated, it shrinks and the meltable color coded adhesive ring flow, sealing the connection. The solder ring also melts for a secure solder joint. Be sure too use a heat gun when heating the solder splice connectors and do not use an open flame torch(it will make to much heat and burn the connector). Make sure to be very careful when heating the solder splice connectors that you do not get anything else in the area too hot.

- 1) Disconnect negative terminal of battery.
- 2) Confirm correct plug, pin # and wire colors on ECU and ESM match the diagram provided. All connections are in one plug, check diagram for your vehicle. If there is any discrepancy between your car and the instructions consult the factory service manual to confirm proper pin locations.
- 3) Locate and confirm Signal wire from MAP sensor to ECU. Cut wire approximately 2" from plug. Strip a 1/2" of jacket off each end of the signal wire to expose the bare wire. Using the smaller of the two solder splice connectors (Clear adhesive ring) connect the signal from the ECU to the green wire on the ESM. Using the other small/clear solder splice connector connect the signal wire from the MAP sensor to the blue wire on the ESM.
- 4) Locate and confirm the MAP sensor ground wire. Cut the wire approximately 2" from plug. Strip a 1/2" of jacket off each end of the ground wire to expose the bare wire. Using the larger solder splice connector (red adhesive ring) connect the black wire from the ESM to the ground wire. On one side of the solder splice connector you will have one wire coming from the ECU into it and on the other side you will have two wires going into it, one from the MAP sensor along with the black wire from the ESM.
- 5) Locate and confirm the MAP sensor power wire cut the wire approximately 2" from plug. Strip a 1/2" of jacket off each end of the power wire to expose the bare wire. Using the larger solder

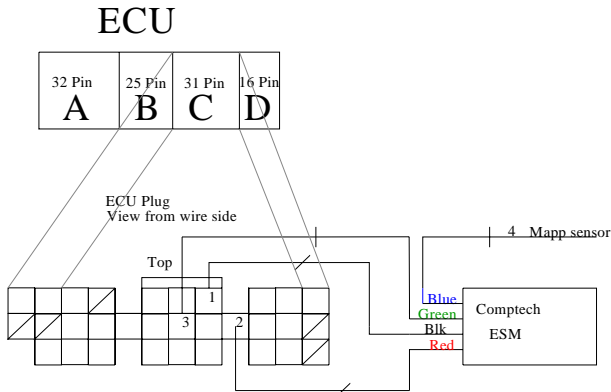


splice connector (red adhesive ring) connect the red wire from the ESM to the power wire. On one side of the solder splice connector you will have one wire coming from the ECU into it and on the other side you will have two wires going into it, one from the MAP sensor along with the red wire from the ESM.

- 6) Recheck all wire colors and pin / plug locations.
- 7) Reconnect battery negative terminal and start engine. If all connections are correct there will be no change in drive-ability or setting of engine codes.

Schematic Example only

Consult graph for specific Pin # & Wire color



**Warning! Incorrect connection of wires
Will damage ESM and ECU**

ESM Wiring diagrams

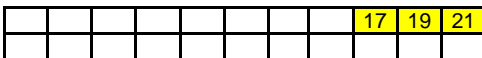
ECU Plug

View from wire side of connector

Wire Connections

Service Manual page*

D 22 Pin



91-94 NSX

ECU Pin #	To MAP snsr	17	19	21
Wire Color	Wht/Gry	Wht/Gry	Yel/Wht	Grn / Wht
Function	Signal	Signal	V+	V-
ESM Wire color	Blue	Green	Red	Black

93 NSX p.11-11*

D 22 Pin

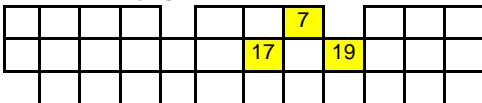


95-05 NSX

ECU Pin #	To MAP snsr	9	10	11
Wire Color	Wht/Yel	Wht/Yel	Yel/Blu	Grn/Blu
Function	Signal	Signal	V+	V-
ESM Wire color	Blue	Green	Red	Black

95 NSX p.11-49*

C 31 Pin

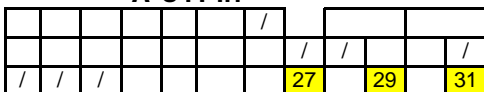


ECU Pin #	To MAP snsr	17**	19	7
Wire Color	Grn/Red**	Grn/Red**	Yel/Red	Grn / Wht
Function	Signal	Signal	V+	V-
ESM Wire color	Blue	Green	Red	Black

01-03 S2000 p.11-18*
01-03 3.2CL/TL p.11-16*
98-01 Accord p.11-19*

**S2000, 01-03 CL & 99-03 TL (including Type-S) and
99-02 Accord V6 (color configuration is RED/GREEN on # 17 pin)

A 31 Pin



03 Acura 3.2CL Type-S (6-speed ONLY)

ECU Pin #	To MAP snsr	27	31	29
Wire Color	Grn/Red	Grn/Red	Yel/Red	Grn / Wht
Function	Signal	Signal	V+	V-
ESM Wire color	Blue	Green	Red	Black

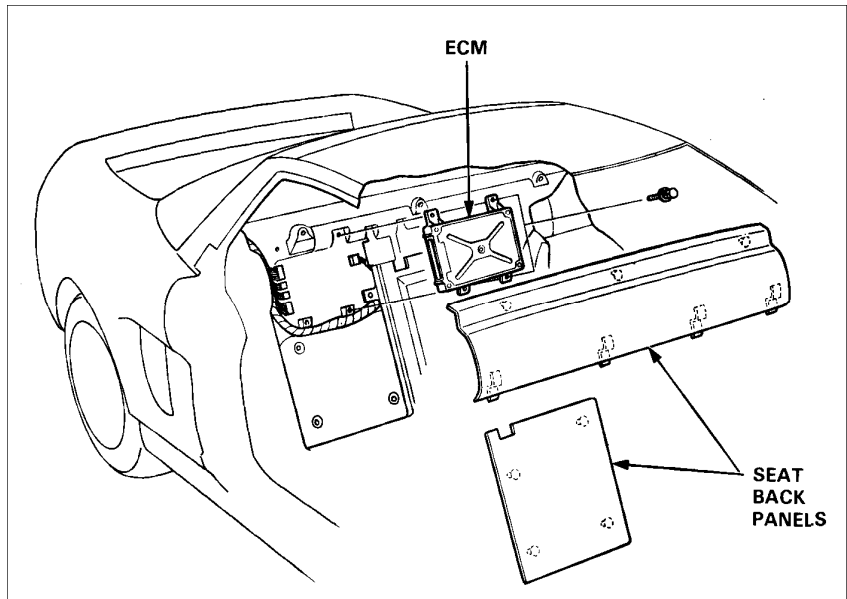
03 CL-S (6-spd) p. 11-19*

Accord V6, CL-S auto, TL-S auto all require a voltage setting of 2.8v on the ESM for maximum performance.

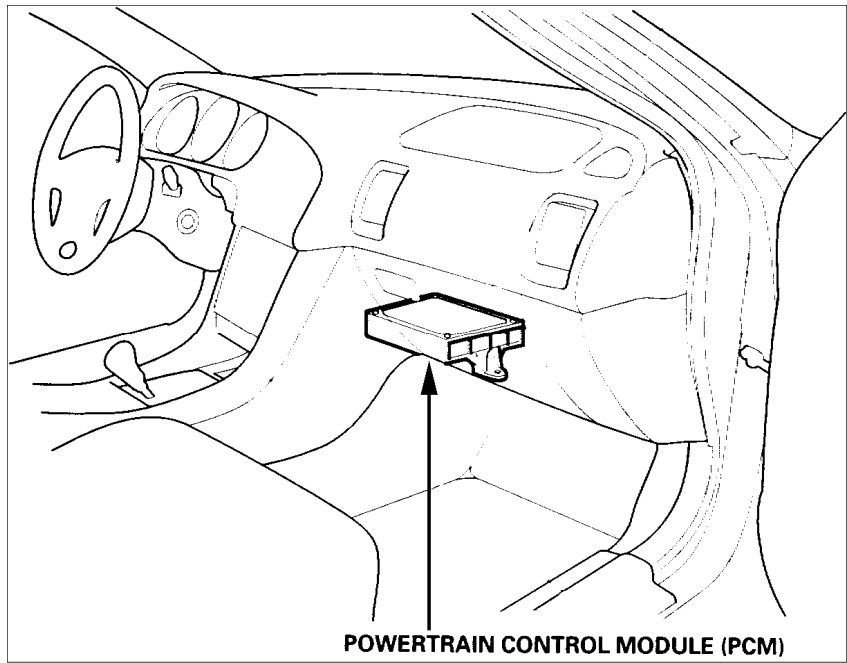
*Page #'s refer to the Factory Manual.

Engine Control Unit Locations

91-05 Acura NSX



98-02 Honda Accord V6
01-03 Acura CL & CL-S
99-03 Acura TL & TL-S
(behind center console)



00-05 Honda S2000

