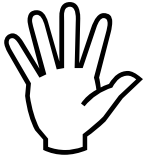




***Installation Instructions for:
EMS P/N 30-1220
1999-02 GM 5.7L LS1 F-Body***

WARNING:



This installation is not for the tuning novice nor the PC illiterate! Use this system with **EXTREME** caution! The AEM EMS System allows for total flexibility in engine tuning. Misuse of this product can destroy your engine! If you are not well versed in engine dynamics and the tuning of management systems or are not PC literate, please do not attempt the installation. Refer the installation to a AEM trained tuning shop or call 800-423-0046 for technical assistance. You should also visit the AEM EMS Tech Forum at <http://www.aempower.com>

NOTE: AEM holds no responsibility for any engine damage that results from the misuse of this product!

This product is legal in California for racing vehicles only and should never be used on public highways.

ADVANCED ENGINE MANAGEMENT INC.
2205 126th Street Unit A Hawthorne, CA. 90250
Phone: (310) 484-2322 Fax: (310) 484-0152
[Http://www.aempower.com](http://www.aempower.com)

Instruction Part Number: 10-1220

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Congratulations! You have just purchased the finest Engine Management system for your car at any price!

The AEM Engine Management System (EMS) is the result of extensive development on a wide variety of cars. Each system is engineered for the particular application. The AEM EMS differs from all others in several ways. The EMS is an all new stand alone system, which completely replaces the factory ECU and features unique Plug and Play Technology, which means that each system is configured especially for your make and model of car. There is no need to modify your factory wiring harness and in most cases your car may be returned to stock in a matter of minutes. The AEMPro software is configured to work with the factory sensors and equipment, so that there is no need for expensive or hard to find sensors, making replacement and repairs as simple as with an unmodified car. For stock and some slightly modified cars, the AEMPro software will be preprogrammed with a set of base parameters, providing a starting point for individual tuning. For more heavily modified cars, the EMS has many spare inputs and outputs allowing the elimination of separate rev-limiters, boost controllers, nitrous controllers, and fuel computers. It will also allow programmable control over all automatic transmission functions, and includes a configurable onboard data logger capable of recording 512kb of information. Every EMS comes with all functions installed and activated, and there are no expensive options or upgrades to be performed.

IMPORTANT NOTE: This AEM ECU uses the stock sensors and actuators with the exception of the mass air flow meter. The output frequency from this sensor is not compatible with current EMS speed based inputs. The stock manifold pressure sensor is used as the primary load input.

IMPORTANT NOTE: This ECU assembly is different from previous Plug & Play EMS systems. It re-uses several components from the factory ECU including the top half of the enclosure. Some assembly is required before the EMS can be installed in the vehicle.

IMPORTANT NOTE: The Class 2 Serial connection of this EMS to the Class 2 data bus is transmit only. The EMS transmits messages such as current Engine RPM, Fuel Level, etc... but does not receive any messages. Any messages directed to the stock PCM (\$10) over the data bus are ignored by the EMS. What this means is that scan tools will not be able to connect with EMS through the Class 2 data bus. Additionally, scan tools may or may not be able to communicate with other modules on the data bus (such as the ABS module) for the retrieval of DTC's, etc... with the EMS connected.

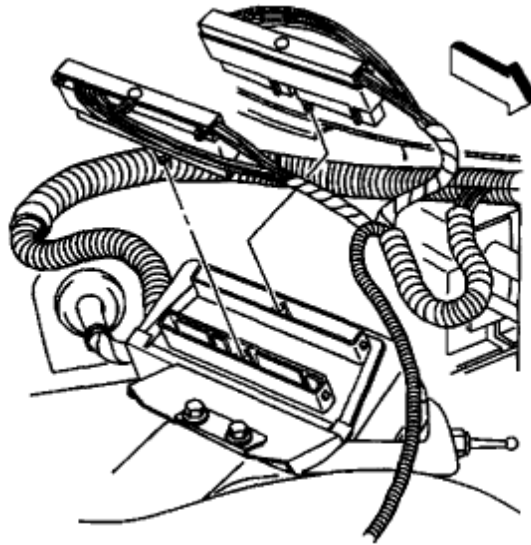
The startup calibration is automatically installed in the startup calibrations directory in the AEMPro directory on your computer. It is named 1220 Stock MAP.V1.21.cal. You will need to make sure you have selected version 1.21 calibration file type to see this file. Full details of the test vehicle used to generate this map can be found in the file notes section. The startup calibrations are intended as good starting points and may save you considerable time and money; however, they will not replace the need to tune your specific application. It is not intended to be driven aggressively.

Ignoring this can and will damage your engine!

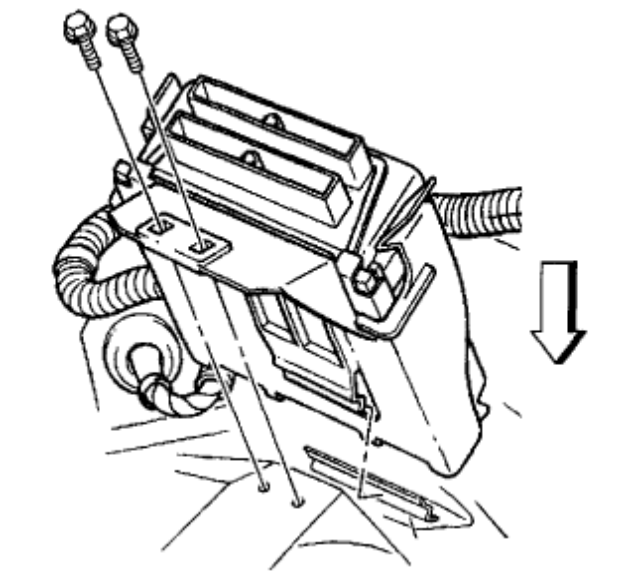
Please visit the AEM EMS Tech Forum at <http://www.aempower.com> and register. We always post the most current strategy release, PC Software and base calibrations online. On the forum, you will find many helpful hints/tips to make your EMS perform it's best.

Removing the factory PCM

1. In order to prevent internal PCM damage, the ignition must be OFF when you disconnect or connect the PCM.
2. Disconnect the negative battery cable.
3. Before replacing the PCM, remove any debris from the PCM connector surfaces. Ensure that the gaskets are installed correctly. The gaskets prevent contamination intrusion into the PCM.
4. Disconnect the PCM Connectors.

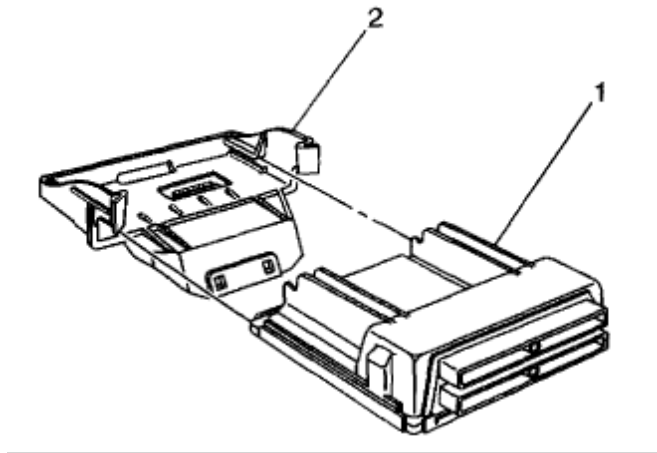


5. Remove the mounting fasteners from the PCM bracket.



6. Remove the PCM and mounting bracket assembly from the engine compartment.

7. Remove the PCM (1) from the mounting bracket (2)



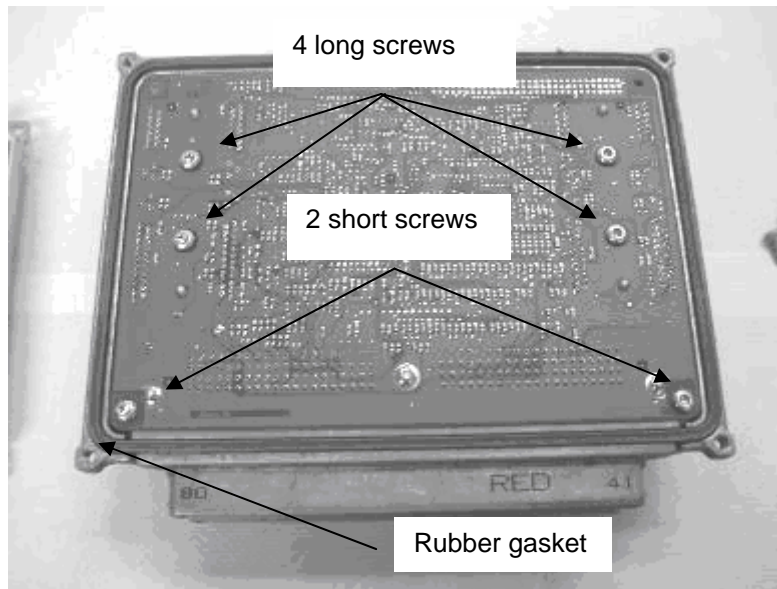
Install the AEM Engine Management System.

The EMS system is installed into the stock PCM top case cover. A new bottom cover is supplied along with all necessary hardware.

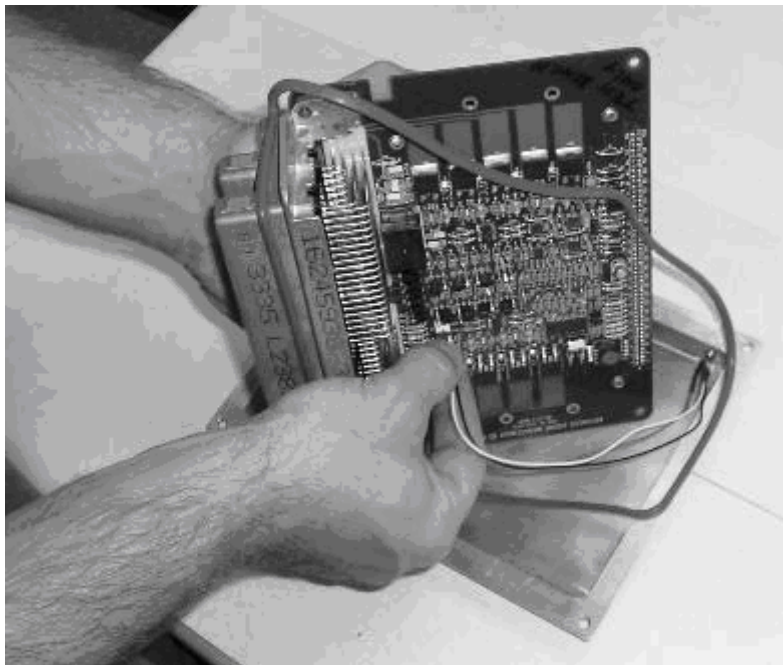
1. Turn the PCM upside down and remove the 4 screws that hold the bottom cover onto the top case using a T25 Torx bit. Save the screws.



2. Using a T20 Torx bit, remove the 2 short and 4 long screws that attach the circuit board to the top case. Save the short screws. Carefully remove the circuit board from the top case. Remove and save the rubber gasket.



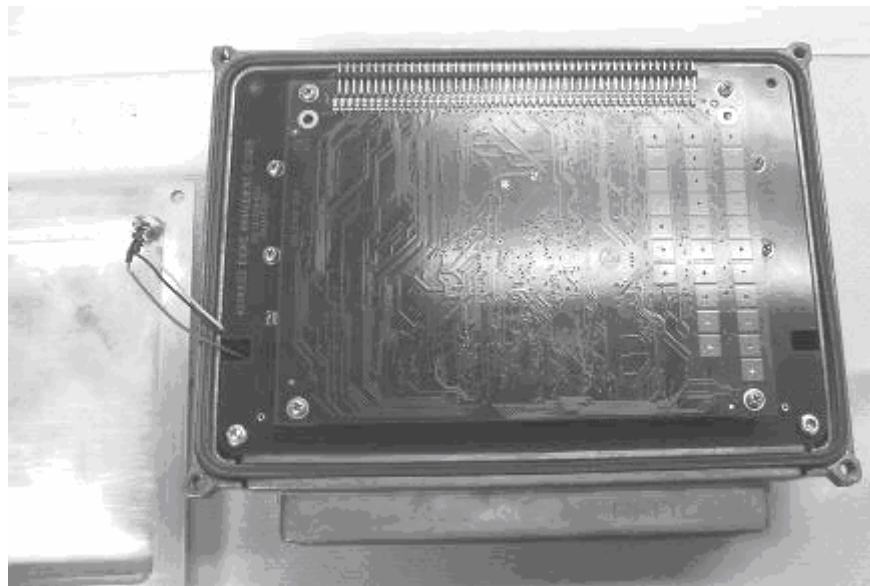
3. Install the rubber gasket loosely around the main connector on the AEM EMS circuit board.
4. Route the 3 pin communications connector attached to the AEM EMS bottom cover through the gasket and plug it into the mating 3 pin connector on the circuit board as shown below.



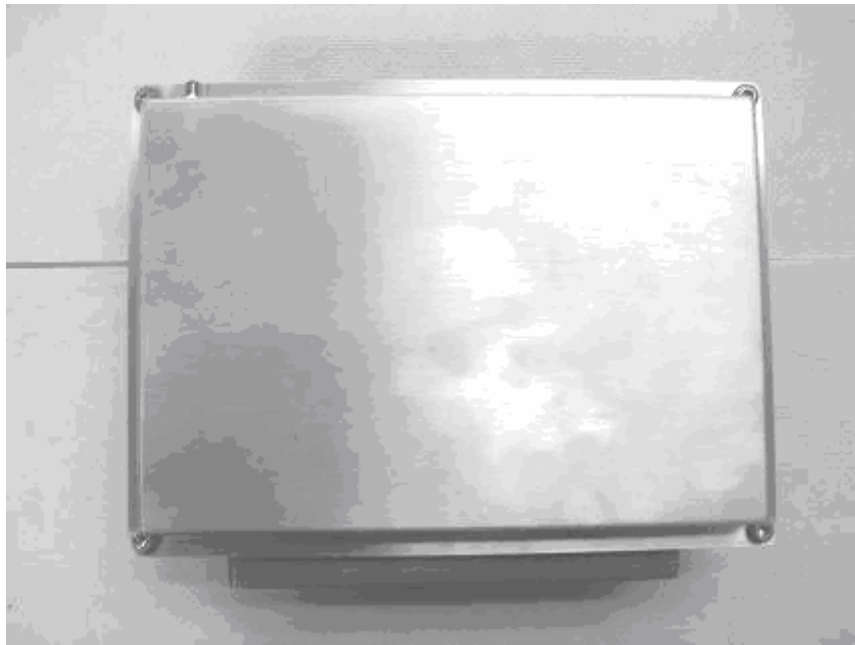
5. Using the supplied #6-32 screws, loosely attach the two 90 degree standoffs to the top case as shown below. Do not tighten fully yet.



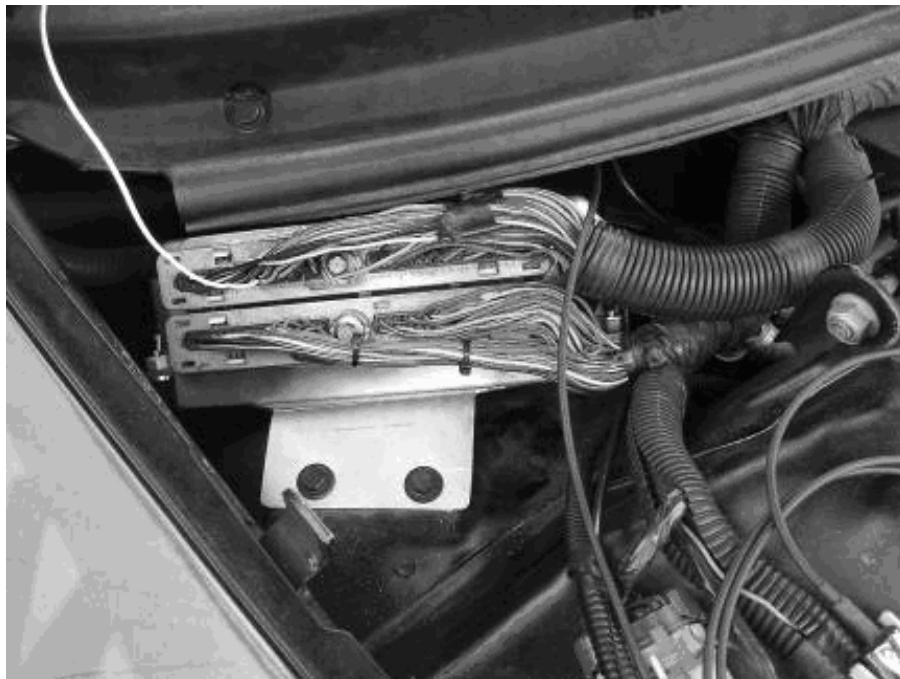
6. Lay the AEM EMS circuit board inside the case as shown. Check the alignment of the two 90 degree standoffs. Remove the circuit board and adjust the standoffs as necessary then tighten them fully. Re-install the circuit board. Using the two short torx head screws from the GM assembly and the 4 supplied #4-40 screws, attach the AEM EMS circuit board to the top case. Be careful not to damage the gasket or the communications cable. Route the communications cable through the clearance slot in the circuit board.



7. Flip the bottom cover over and attach the bottom cover to the top case using the original 4 torx head screws from the GM case. Be careful not to damage the communications cable or the gasket. Tighten the screws until the gasket fully compresses and the cover surface meets the top case.



8. Attach the black communications cable to the mating connector on the bottom cover. The AEM EMS is now ready to be installed in the vehicle.
9. Use the supplied AEM mounting bracket and follow steps 1-7 above in reverse order to install the AEM EMS in the vehicle.





10. Route the communications cable inside the vehicle through an existing firewall pass-through or run it along the cowl to the inner fender/door jam area. Be careful not to damage the cable.
11. Connect the 9 pin serial connector to your laptop pc to begin using the AEM Pro software. See the AEM Pro User's Guide installed in the C:\Program Files\AEM\AEMPro\Instructions directory for further instructions on loading a startup calibration and beginning the tuning process.
12. **IMPORTANT NOTE:** The ignition timing **MUST** be synchronized between the engine and AEM EMS prior to starting the engine to prevent the possibility of engine damage due to excessively advanced ignition timing. Once the startup calibration is loaded into the EMS, make sure you are connected to the EMS and then go to Options -> Injector. Deactivate the injectors by unchecking the "Active" box for all 8 injectors. Alternatively, you can simply unplug all the wiring connections to the injectors. Then, using a piston stop or other device, rotate the engine to TDC firing #1 cylinder and then mark the balancer and timing chain cover so that the ignition timing can be checked. In AEM Pro, go to Configure -> ECU Setup -> Set Ignition. Crank the engine over and check the ignition timing on cylinder #1 using a timing light. (Note: If you are using a dial back type timing light, the ignition timing will read **DOUBLE** the actual ignition timing unless the timing light is set to 0 degrees.) Using the Advance and Retard buttons, adjust the ignition timing until the timing at the crank is the same as displayed in AEM Pro. Then go to Options -> Injectors and check the "Active" box for Injectors 1-8. You should now be able to start the engine and begin tuning.

Application Notes for EMS P/N 30-1220

99-02 GM 5.7L LS1 F-Body

Make:	Chevrolet/Pontiac
Model:	LS1 Camaro/Firebird
Years Covered:	99-02
Engine Displacement:	5.7L
Engine Configuration:	V8
Firing Order:	1-8-7-2-5-6-4-3
N/A, S/C or T/C:	N/A
Load Sensor Type:	MAP
# Coils:	8 coils run split on 4 coil outputs
Ignition driver type:	0-5V Falling edge trigger
How to hook up a CDI:	Must replace stock coils
# Injectors:	8 (Inj 1-8)
Factory Injectors:	26.4-28.8 lb/hr Saturated
Injection Mode:	Sequential
Knock Sensors used:	2
Lambda Sensors used:	2
Idle Motor Type:	Stepper
Main Relay Control:	Yes, built into EMS
Crank Pickup Type:	Hall Effect
Crank Teeth/Cycle:	48
Cam Pickup Type:	Hall Effect
Cam Teeth/Cycle:	1
Transmissions Offered:	M/T, A/T
Trans Supported:	M/T, A/T
Drive Options:	RWD
Supplied Connectors:	None

Spare Injector Drivers:	Inj #9, Pin 49, C1 Blue
Spare Injector Drivers:	Inj #10, Pin 50, C1 Blue
Boost Solenoid:	PW #2, Pin 16, C1 Blue
PW1 & PW1I Pulse Width Idle Motor Outputs:	PW #1, Pin 10, C1 Blue PW #1I, Pin 55, C2 Red
EGT/RTD/0-5V Input:	EGT #1, Pin 73, C2 Red
EGT/RTD/0-5V Input:	EGT #2, Pin 19, C2 Red
EGT/RTD/0-5V Input:	EGT #3, Pin 51, C2 Red
EGT/RTD/0-5V Input:	EGT #4, Pin 64, C2 Red
Spare 0-5V Channels:	MAF, Pin 56, C1 Blue
Wideband UEGO Input:	O2 #1, Pin 30, C1 Blue
Wideband UEGO Input:	O2 #2, Pin 31, C1 Blue
Spare Switch Input:	Switch #5, Pin 18, C2 Red
Spare Switch Input:	Switch #6, Pin 32, C1 Blue
Spare Low Side Driver:	Idle #5, Pin 47, C2 Red (M/T Only, w/ Idle #6*)
Spare High Side Driver:	Idle #6, Pin 2, C2 Red (M/T Only, w/ Idle #5*)
Spare Low Side Driver:	Idle #7, Pin 48, C2 Red (M/T Only, w/ Idle #8*)
Spare High Side Driver:	Idle #8, Pin 23, C2 Red (M/T Only, w/ Idle #7*)
Spare High Side Driver:	High Side #3, Pin 6, C2 Red (M/T Only)
Spare Low Side Driver:	Low Side #2, Pin 2, C2 Red (M/T Only)
Spare Low Side Driver:	Low Side #4, Pin 44, C2 Red (M/T Only)
Spare Low Side Driver:	Low Side #11, Pin 42, C2 Red (M/T Only)
<p>* Idle #5 & Idle #6 are activated together and Idle #7 & Idle #8 are activated together</p>	

Connection Diagram for EMS P/N 30-1220

99-02 GM 5.7L LS1 F-Body

PnP	The Plug and Play system comes with this configured for proper operation of this device but is still available for reassignment by the end user.
Available	The function is not currently allocated and is available for use
Dedicated	The location is fixed and can not be changed

PCM C1 - BLUE				
Pin #	99-02 Gm F-Body	AEM PEMS P/N 30-1220	I/O	Availability
1	PCM Ground	Power Ground	Input	Dedicated Power Ground
2	CKP Sensor Pos Supply	5V Reference	Output	Dedicated 5V Reference
3	Fuel Injector #3 Control	Injector #3	Output	PnP for Injector #3
4	Fuel Injector #2 Control	Injector #2	Output	PnP for Injector #2
5	Not Used	PCTX	Input	Available Serial Comms PC Transmit
6	Not Used	PCRX	Output	Available Serial Comms PC Receive
7	Not Used	5V Reference	Output	Dedicated 5V Reference
8	TPS 5 Volt Reference	5V Reference	Output	Dedicated 5V Reference
9	Not Used	CGND	Input	Available Serial Comms Ground
10	Not Used	PW1 – PW Idle Motor	Output	Available PWM Output (1.5A Max)
11	Knock Sensor 2 Signal (Rear)	Knock #2	Input	PnP for Knock #2 Input
12	CKP Sensor Signal	Crank	Input	Dedicated Crank Position Input
13	Not Used	Not Used	---	---
14	Not Used	Not Used	---	---
15	Not Used	Not Used	---	---
16	Not Used	PW2 – Boost Solenoid	Output	Available PWM Output (1.5A Max)
17	Trans Fluid Press Switch Signal B	TFPSB	Input	Dedicated for Auto Trans Shift Lever Position
18	Trans Fluid Press Switch Signal C	TFPSC	Input	Dedicated for Auto Trans Shift Lever Position
19	Ignition 1 Voltage	IGNSWT	Input	Dedicated for Switched Ignition Input
20	Battery Positive Voltage	PERM	Input	Dedicated for Permanent Power Input
21	CKP Low Reference	AAGND	Output	Dedicated Low Reference
22	Not Used	Not Used	---	---
23	Fuel Tank Pressure / Fuel Level Low Reference	AAGND	Output	Dedicated Low Reference
24	Not Used	Coil #4	Output	---
25	HO2S Low Signal Bank 2 Sensor 2	Not Used	---	---
26	HO2S Low Signal Bank 2 Sensor 1	Not Used	---	---
27	Not Used	Not Used	---	---
28	HO2S Low Signal Bank 1 Sensor 2	Not Used	---	---
29	HO2S Low Signal Bank 1 Sensor 1	Not Used	---	---
30	Not Used	O2 #1	Input	Available 0-5V Wideband UEGO Input
31	Not Used	O2 #2	Input	Available 0-5V Wideband UEGO Input
32	CPP Switch Signal	Switch #6	Input	PnP for Clutch Switch (M/T) Available Switched Input with (A/T)
33	TCC Brake Switch Signal	Not Used	---	---
34	PNP Switch Signal	Not Used	---	---

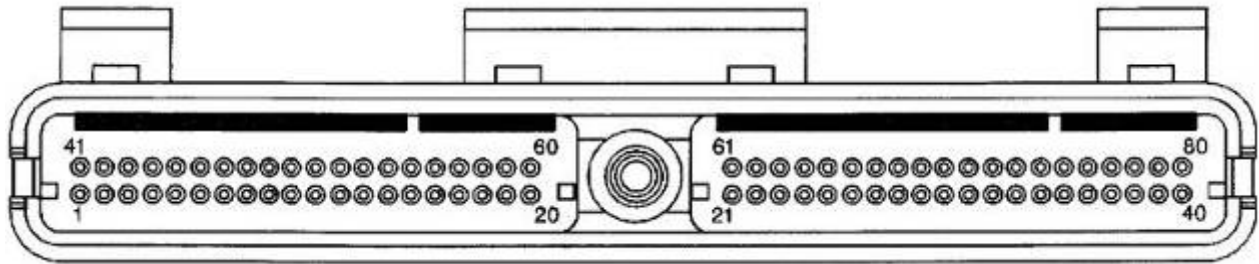
35	Not Used	Not Used	---	---
36	Fuel Injector #1 Control	Injector #1	Output	PnP for Injector #1
37	Fuel Injector #6 Control	Injector #6	Output	PnP for Injector #6
38	Not Used	Not Used	---	---
39	Not Used	Not Used	---	---
40	PCM Ground	Power Ground	Input	Dedicated Power Ground
41	Not Used	Not Used	---	---
42	Low Speed Cooling Fan Relay Control	Low Side #8	Output	PnP for Low Speed Fan Control
43	Fuel Injector #7 Control	Injector #7	Output	PnP for Injector #7 Driver
44	Fuel Injector #4 Control	Injector #4	Output	PnP for Injector #4 Driver
45	A/C Press 5 Volt Ref	5V Reference	Output	Dedicated 5V Reference
46	Fuel Tank Press 5V Ref	5V Reference	Output	Dedicated 5V Reference
47	EGR Pintle Position 5V Reference	PCTX	Input	Available Serial Comms PC Transmit
48	MAP 5 Volt Reference	5V Reference	Output	Dedicated 5V Reference
49	Not Used	Injector #9	Output	Available Injector #9
50	Not Used	Injector #10	Output	Available Injector #10
51	Knock Sensor 1 Signal (Front)	Knock #1	Input	PnP for Knock #1 Input
52	Not Used	PCRX	Output	Available Serial Comms PC Receive
53	Trans Temp Low Reference	AAGND	Output	Dedicated Low Reference
54	MAP Low Reference	AAGND	Output	Dedicated Low Reference
55	EGR Pintle Position Sensor Signal	Not Used	---	---
56	Not Used	MAF	Input	Available 0-5V MAF Sensor Input
57	Battery Positive Voltage	BATT+	Input	Dedicated Battery Positive
58	Class 2 Serial Data	CLASS2	Output	Dedicated SAE J1850 Class II Serial Output
59	Not Used	Not Used	---	---
60	TPS Low Reference	AAGND	Output	Dedicated Low Reference
61	CMP Low Reference	AAGND	Output	Dedicated Low Reference
62	Not Used	Not Used	---	---
63	Not Used	AAGND	Output	Available Low Reference
64	Not Used	Not Used	---	---
65	HO2S Low Signal Bank 2 Sensor 2	Not Used	---	---
66	HO2S Low Signal Bank 2 Sensor 1	Not Used	---	---
67	Not Used	Not Used	---	---
68	HO2S Low Signal Bank 1 Sensor 2	Not Used	---	---
69	HO2S Low Signal Bank	Not Used	---	---
70	Low Oil Level Switch Signal	---	Input	Dedicated Oil Level Input (Dash Only)
71	Not Used	Not Used	---	---
72	Not Used	Not Used	---	---
73	CMP Sensor Signal	CAM	Input	Dedicated Cam Position Input
74	ECT Sensor Signal	Coolant	Input	Dedicated Coolant Sensor Input
75	Not Used	Not Used	---	---
76	Fuel Injector #5 Control	Injector #5	Output	PnP for Injector #5
77	Fuel Injector #8 Control	Injector #8	Output	PnP for Injector #8
78	Not Used	CGND	Output	Available Serial Comms Ground
79	Skip Shift Solenoid (M/T) 3-2 Shift Solenoid (A/T)	Low Side #9	Output	PnP for Skip Shift Solenoid (M/T) PnP for 3-2 Shift Solenoid (A/T)
80	ECT Low Reference	AAGND	Output	Dedicated Low Reference

PnP	The Plug and Play system comes with this configured for proper operation of this device. Is still available for reassignment by the end user.
Available	The function is not currently allocated and is available for use
Dedicated	The location is fixed and can not be changed

PCM C2 - RED				
Pin #	99-02 GM F-Body	AEM PEMS P/N 30-1220	I/O	Availability
1	PCM Ground	Power Ground	Input	Dedicated Power Ground
2	TCC Control Solenoid	Low Side #2	Output	PnP for Torque Converter Clutch Control (A/T) Available Low Side Output (M/T)
3	Not Used	Not Used	---	---
4	Air Inject React Solenoid Relay Control	Not Used	---	---
5	Not Used	Idle #6	Output	Available High Side Output (M/T only)
6	PC Solenoid Valve High Control	High Side #3	Output	PnP for Transmission Line Pressure Control Output (A/T) Available High Side Output (M/T)
7	EGR Control	Not Used	---	---
8	PC Solenoid Valve Low Control	ATPCLO	Output	Dedicated Transmission Line Pressure Control Output (Peak and Hold Driver) Controlled using LS#1 Output
9	Fuel Pump Relay Control Primary	High Side #2	Output	PnP Fuel Pump Control
10	Engine Speed Signal	RPM Out	Output	Dedicated RPM Output to ABS Controller
11	Not Used	Tach Out	Output	Available 0-12V Tach Output
12	Not Used	Not Used	---	---
13	Cruise Control Engage Signal	Not Used	---	---
14	A/C Refrigerant Pressure Signal	ADCR11	Input	Dedicated for A/C Pressure
15	Generator Turn On Signal	GENPWR	Output	Dedicated for Alternator Turn On Signal
16	Not Used	Not Used	---	---
17	A/C Request Signal	---	Input	Dedicated A/C Request Input
18	A/C Compressor Clutch Supply Voltage	Switch #5	Input	Available Switched Input
19	Not Used	EGT #2	Input	Available EGT, RTD, or 0-5V Input
20	VSS Low Signal	Power Ground	Input	Dedicated Low Reference
21	VSS High Signal	Car Speed	Input	Dedicated Vehicle Speed Input
22	Not Used	Not Used	---	---
23	Not Used	Idle #8	Output	Available High Side Output (M/T only)
24	TP Sensor Signal	TPS	Input	Dedicated Throttle Position Input
25	IAT Sensor Signal	AIT	Input	PnP Intake Air Temp Input
26	IC 1 Control	Coil #1	Output	Dedicated Coil #1 Output
27	IC 7 Control	Coil #3	Output	Dedicated Coil #3 Output
28	IC 6 Control	Coil #1	Output	Dedicated Coil #1 Output
29	IC 4 Control	Coil #3	Output	Dedicated Coil #3 Output
30	Fuel Enable Control	Not Used	---	---
31	MAF Sensor Signal	Not Used	---	---
32	MAP Sensor Signal	MAP	Input	PnP for MAP Sensor Input
33	High Speed Cooling Fan Relay Control	Low Side #6	Output	PnP for High Speed Cooling Fan Control
34	EVAP Canister Purge Solenoid Control	Low Side #3	Output	PnP for EVAP Purge Control

35	Not Used	Not Used	---	---
36	Air Pump Relay Control	Not Used	---	---
37	Cruise Control Inhibit Signal	Cruise Out	Output	Dedicated Cruise Control Inhibit Output
38	Not Used	Not Used	---	---
39	CMP Sensor Pos Supply	5V Reference	Output	Dedicated 5V Reference
40	PCM Ground	Power Ground	Input	Dedicated Power Ground Input
41	EGR Position Sensor Ground	Not Used	---	---
42	TCC Solenoid Valve Control	Low Side #11	Output	PnP for TCC Solenoid Valve Control (A/T) Available Low Side Output (M/T)
43	A/C Clutch Relay Control	Low Side #12	Output	PnP for A/C Clutch Relay Control
44	Reverse Inhibit Solenoid Control	Low Side #4	Output	Available Low Side Output (A/T) PnP for Reverse Lockout Solenoid Control (M/T)
45	EVAP Canister Vent Solenoid Control	Low Side #5	Output	PnP for EVAP Vent Control
46	MIL Control	Low Side #10	Output	PnP for MIL Control
47	Shift Solenoid B Valve Control (2-3 shift)	Idle #5	Output	PnP for 2-3 Shift Solenoid Control (A/T) Available Low Side Output (M/T)
48	Shift Solenoid A Valve Control (1-2 shift)	Idle #7	Output	PnP for 1-2 Shift Solenoid Control (A/T) Available Low Side Output (M/T)
49	Not Used	Not Used	---	---
50	VSS Signal	Speedometer	Output	Dedicated Speedometer Control Signal
51	TFT Sensor Signal	EGT #3	Input	PnP for Transmission Fluid Temperature Input (A/T) Available EGT, RTD, or 0-5V Input (M/T)
52	Not Used	Not Used	---	---
53	Ignition Retard Signal	Switch #4	Input	PnP for Ignition Retard Command Input
54	Fuel Level Sensor Signal	ADCR14	Input	Dedicated Fuel Level Sensor Input
55	Not Used	PW11	Output	Available PW1 (Inverse) Output
56	Not Used	Not Used	---	---
57	IAT Sensor Ground	AAGND	Output	Dedicated Low Reference
58	Not Used	Not Used	---	---
59	Not Used	Not Used	---	---
60	Low Reference	AAGND	Output	Dedicated Low Reference
61	Low Reference	AAGND	Output	Dedicated Low Reference
62	Not Used	Not Used	---	---
63	Trans Fluid Press Switch Signal A	TFPSA	Input	Dedicated Transmission Shift Lever Position Input
64	Fuel Tank Pressure Sensor Signal	EGT #4	Input	PnP for Fuel Tank Pressure Sensor Signal
65	Not Used	Not Used	---	---
66	IC 8 Control	Coil #2	Output	Dedicated Coil #2 Output
67	IC 2 Control	Coil #5	Output	Dedicated Coil #5 Output
68	IC 5 Control	Coil #2	Output	Dedicated Coil #2 Output
69	IC 3 Control	Coil #5	Output	Dedicated Coil #5 Output
70	Not Used	Not Used	---	---
71	Not Used	Not Used	---	---
72	Not Used	Not Used	---	---
73	Not Used	EGT #1	Input	Available EGT, RTD, or 0-5V Input
74	Not Used	Not Used	---	---
75	Not Used	Not Used	---	---
76	IAC Coil B High Control	Idle #3	Output	PnP for IAC Control
77	IAC Coil B Low Control	Idle #4	Output	PnP for IAC Control

78	IAC Coil A Low Control	Idle #2	Output	PnP for IAC Control
79	IAC Coil A High Control	Idle #1	Output	PnP for IAC Control
80	Not Used	Not Used	---	---



Connector pinout view is of the PCM side of the connector. PCM connector C1 – Blue shown, PCM connector C2 – Red similar. Pin numbers are also cast into the connectors on the wire side of the connectors.

AEM Electronics Warranty

Advanced Engine Management Inc. warrants to the consumer that all AEM Electronics products will be free from defects in material and workmanship for a period of twelve months from date of the original purchase. Products that fail within this 12-month warranty period will be repaired or replaced when determined by AEM that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of the AEM part. In no event shall this warranty exceed the original purchase price of the AEM part nor shall AEM be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product. Warranty claims to AEM must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is non-transferable. All implied warranties shall be limited in duration to the said 12-month warranty period. Improper use or installation, accident, abuse, unauthorized repairs or alterations voids this warranty. AEM disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by AEM. Warranty returns will only be accepted by AEM when accompanied by a valid Return Merchandise Authorization (RMA) number. Product must be received by AEM within 30 days of the date the RMA is issued.

Please note that before AEM can issue an RMA for any electronic product, it is first necessary for the installer or end user to contact the tech line at 1-800-423-0046 to discuss the problem. Most issues can be resolved over the phone. Under no circumstances should a system be returned or a RMA requested before the above process transpires.

AEM will not be responsible for electronic products that are installed incorrectly, installed in a non approved application, misused, or tampered with.

Any AEM electronics product can be returned for repair if it is out of the warranty period. There is a minimum charge of \$50.00 for inspection and diagnosis of AEM electronic parts. Parts used in the repair of AEM electronic components will be extra. AEM will provide an estimate of repairs and receive written or electronic authorization before repairs are made to the product.