

289-WH1201 - Standalone Wiring Harness

The 289-WH1201 Standalone Wiring Harness is tailor-made to seamlessly integrate with GM Vortec engines manufactured between 1999 and 2006. These engines are equipped with a Drive by Cable throttle body and are commonly mated with 4L60E or 4L80E transmissions (with adapter).

Here are some vital details and instructions for its installation:

Applications:

- 1999-2006 GM Vortec engines featuring a 4L60E transmissions or 4L80E (with adapter) Transmissions equipped with Drive-by-Cable Throttle

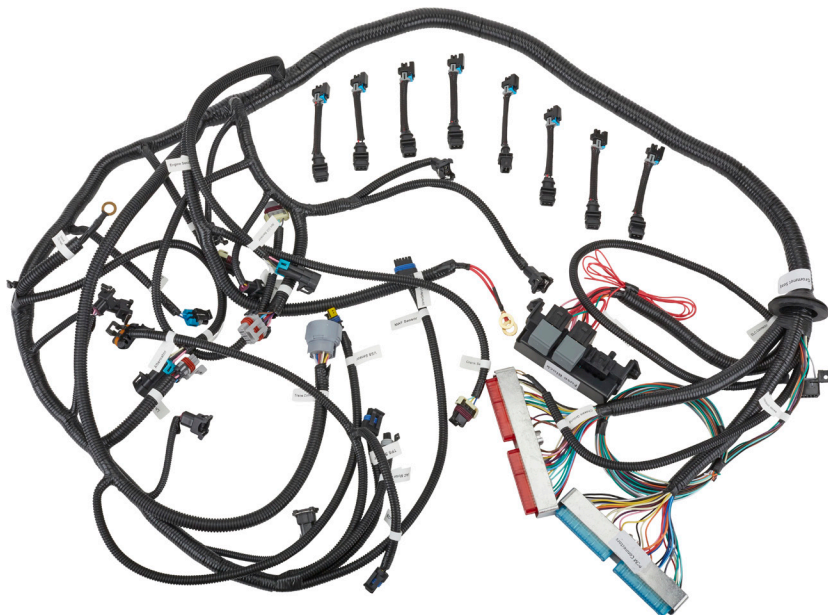
Tools Required:

- Terminal Crimping Tool
- Wire Strippers
- Electric / Pneumatic Hand Drill
- 2" Hole Saw (for rubber grommet on the firewall pass-through)

Specific Requirements:

- Remove VATS (Vehicle Anti-Theft System) from the PCM for all Vortec engines.
- Vortec engines use two sensors on each side, one before and after the catalytic converter. Rear O2 sensors (after the catalytic converter) are not utilized.
- EGR, Air Pump, and CCP features are excluded from this harness as they are non-essential for engine operation. PCM programming might be necessary to avoid Diagnostic Trouble Codes (DTC) due to the absence of emission equipment.
- When utilizing a 4L60E or 4L80E transmission, a two-position brake switch is necessary to ensure proper TCC (Torque Converter Clutch) functionality. Ensure the brake switch is closed when brakes are not applied and open when they are applied, this is contrary to a standard brake switch.

Caution: Incorrect wiring of the brake switch may lead to the torque converter being unable to unlock.



INSTRUCTIONS

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Sensor Part Numbers	
Item Description	Part #
Main Computer (PCM)	GM# 9354896 or 12200411
Manifold Absolute Pressure (MAP)	GM# 16212460 / DELCO# 12614970
Idle Air Control (IAC) Sensor	GM# 17113391
Engine Coolant Temp Sensor (ECT)	GM# 15326388 / DELCO# 213-953
Oil Pressure Sensor	GM# 12562267
Ignition Coil	GM# 12558948 / TSP# 81015-8
Oxygen Sensor (O2)	GM# 25161131 / DELCO# AFS123
Throttle Position Sensor (TPS)	GM# 17123852 / DELCO#213-912
Mass Air Flow Sensor (MAF)	GM# 25168491 / DELCO# 213-364
Cam Position Sensor	GM# 12561211 / DELCO# 213-363
Crankshaft Position Sensor	GM# 12560228 / DELCO# 213-354
Knock Sensor	GM# 10456603

Important Installation Guidelines:

- Do not disconnect the battery with the ignition turned on.
- Avoid shorting any wires in the harness to ground, excluding the ground wires, to prevent potential PCM possible damage.
- Use a Multi-meter with at least 10-Mohm resistance for circuit testing. Back probing wires should be avoided to prevent permanent wire damage.

Steps for Proper Installation of the Wiring Harness:

1. Disconnect power by removing the negative battery cable.
2. Mark the firewall for the harness passage and drill a hole using a 2" hole saw. Ensure to debur the hole to avoid wire damage and install the pass-through rubber grommet.
3. Mount the harness under the dash or in a kick panel of the vehicle near the drilled hole in the firewall.
4. Securely mount the PCM in the desired location.
5. Feed the engine section of the harness through the drilled hole from the vehicle's interior.
6. Route the harness carefully to avoid damage.
7. Route the harness to the appropriate sides of the engine compartment.
8. Ensure sufficient slack in the harness for potential movement.
9. Connect necessary connectors following provided instructions.
10. Secure and properly terminate any unused wires to prevent short circuits.
11. Proper grounding is crucial:
 - Connect a chassis ground strap or cable to the negative side of the battery.
 - Connect an engine ground strap or cable to the chassis.
 - Connect a ground strap from the engine to the body.
 - Connect harness ground wiring to the rear portion of the driver side cylinder head and adjacent to the fuse block.
12. After making all connections, ensure the ignition is off when reconnecting to prevent PCM damage, then reconnect the battery.

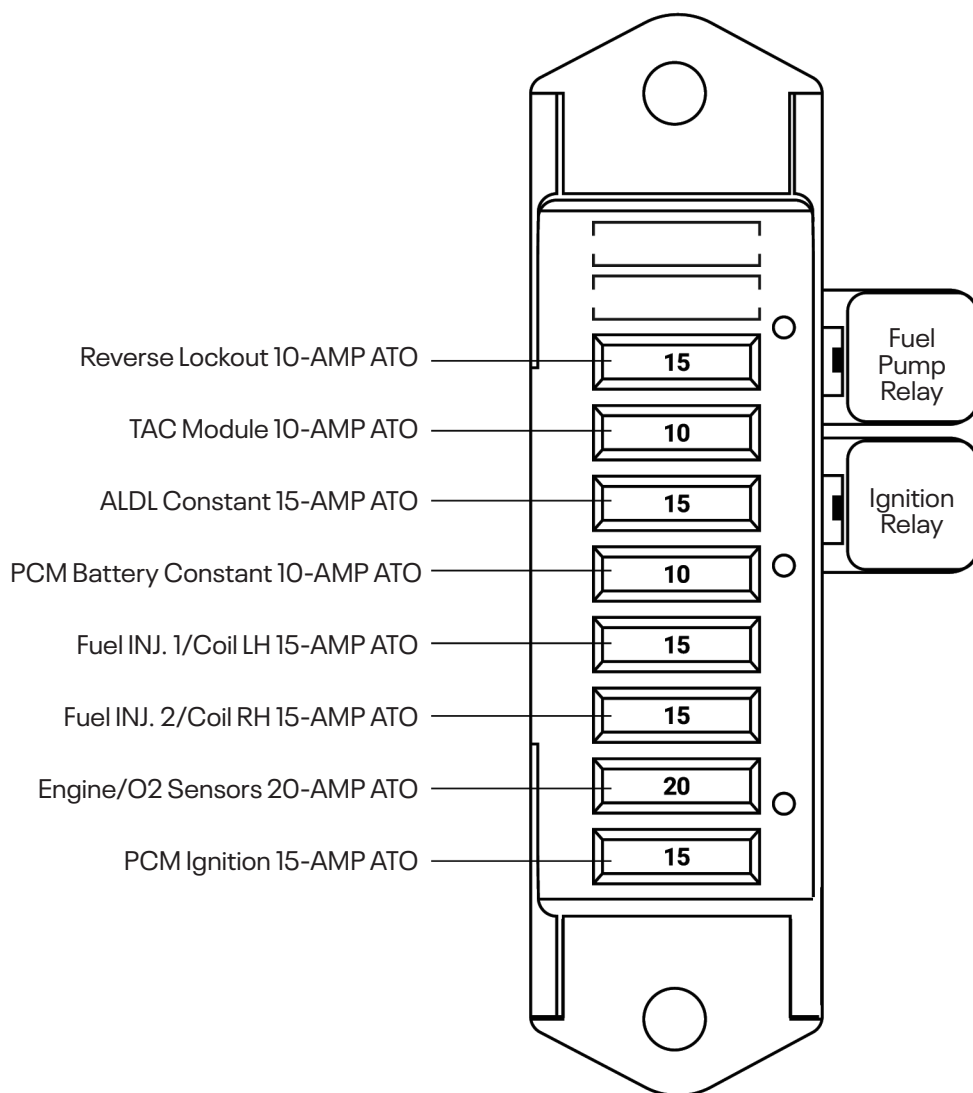
Caution: Ensure the ignition is off when reconnecting the battery to prevent PCM damage.

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Accessory Wires		
Brown	Mil Lamp Ground	Through Automotive Light to 12V
Black	Speedometer	Speedometer Module
White	Tachometer	Electric Tachometer
Dark Green	Fan 1 Ground	Ground Side of Fan Relay 1
Dark Blue	Fan 2 Ground	Ground Side of Fan Relay 2
Orange	Park Neutral Signal	To Ground (In Park and Neutral)
Purple	Brake Signal / TCC Ground	To 12V
Black Multiple Wires	Chassis Ground (Ring Terminal)	Chassis Ground
Red	Ignition Relay	12V Ignition Source
Multiple	PCM Connectors	PCM



Front View