

Dodge Ram Electronic Throttle



Key Features

- Three Adjustable Engine Speed Presets
- Provides Elevated Engine Idle for PTO, A/C and Alternator Loads
- Diagnostic LED Indicators for System and Sensor Status
- Encapsulated electronics for maximum environmental protection
- Compact Size Mounts Under Dash
- Easy to Install

Chassis Supported

Dodge Ram and Sterling Bullet Trucks with Manual Transmissions and Cummins® 6.7 Liter Diesel Engines

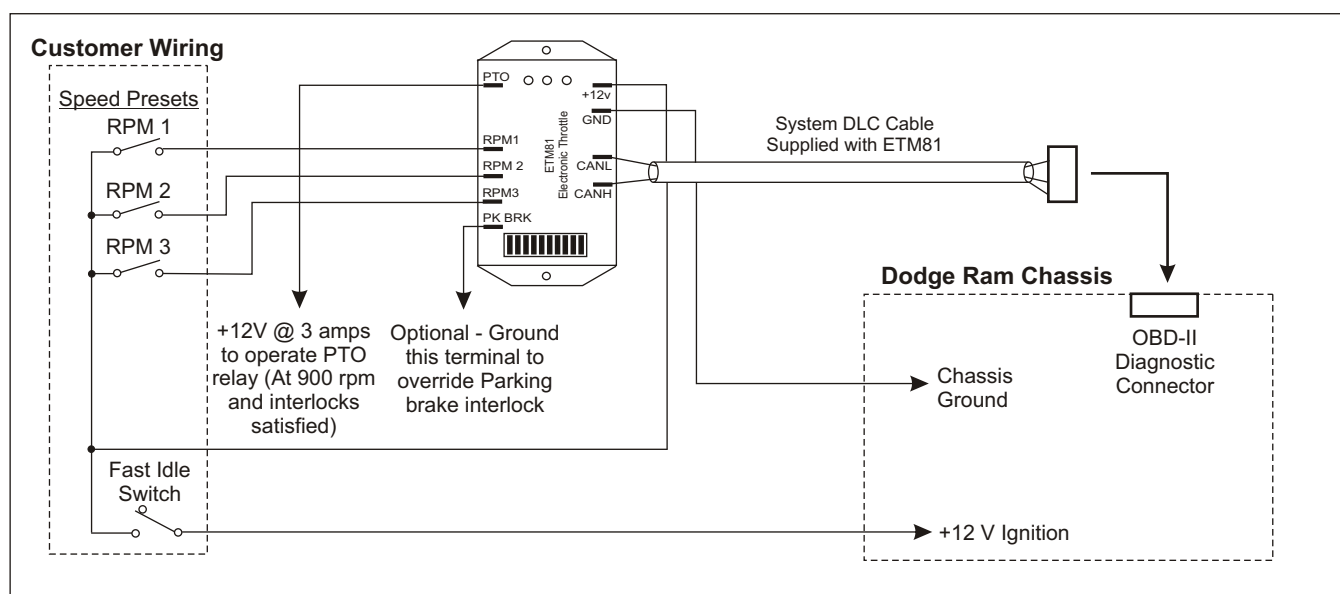
Three fixed speed preset modes are available that allow the engine to be operated in the range of 900 rpm (normal idle) to 2000 rpm. The modes are selected by applying +12 volts to the RPM1, RPM2 or RPM3 mode input terminals. The three fast idle presets can be individually adjusted by calibration potentiometers accessible on the top of the module.

The fast idle function includes interlock safeguards that must be satisfied before the engine speed can be increased. These enablers include: transmission in Neutral, parking brake set (hardwired input from the parking brake switch), engine started and idling below 1000 rpm, vehicle stationary (no speed), foot off service brake, and foot off accelerator.

A 10 LED diagnostic indicator is provided on the ETM81 module to display the selected operating mode, status of sensors monitored and other system conditions.

The ETM81 controller module is compact, measuring only 2 x 4 inches. Wiring terminations utilize 0.25 inch Faston (blade) terminals. The controller mounts under the dash and is supplied with a three foot cable that plugs into the vehicle's OBD-II Data Link Connector.

System Diagram



ETM81 Electronic Throttle Module

Specifications

Modes of Operation

Preset RPM Modes

Function:	Increases idle to a preset rpm
Number of presets:	Three
Input identification:	RPM1, RPM2 & RPM3
Activation:	Apply +12 V to input to select mode. Must be from +12 V Ignition power
Range of calibration:	900 to 2000 rpm
Calibration method:	Three internal potentiometers

Mode Priorities:

- RPM1 - Highest (will override all other modes)
- RPM2 - Second (will override lower mode)
- RPM3 - Third (Lowest priority)

Safety Interlocks

The following conditions must be met before the ETM81 controller will initiate a fast idle mode:

1. Engine running at idle speed below 1000 rpm
2. No vehicle speed
3. Manual transmission in Neutral with clutch not depressed
4. Service brake not depressed
5. Accelerator pedal not depressed
6. Parking brake set (hardwired input from switch)
7. No Diagnostic Trouble Code (DTC) - Check Engine light must be off.

Power Requirements

Input Voltage:	8 to 16 volts dc (from Ignition Switch)
Input Current:	30 milliamps

Optional Parking Brake Input

The Park Brake input terminal is not required for normal usage. It is provided for applications that need to increase the engine idle with the parking brake released. Grounding this terminal will allow the ETM81 system to function with the parking brake released.

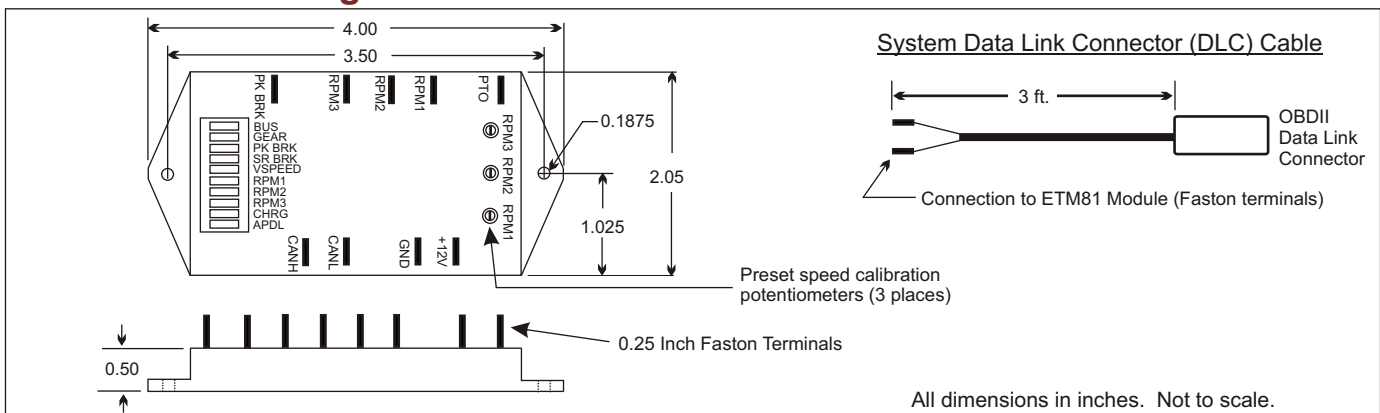
PTO Output

The PTO output is set (+12 volts @ 3 amps) to operate a PTO relay. This output turns on after all the interlock conditions are met and the engine speed has been increased to 900 rpm. After this output turns on there is a one second delay before the engine speed ramp up begins. This allows the PTO to completely engage at 900 rpm.
NOTE - Do not connect this to the OEM PTO wiring.

Fast Idle Applications

- Power Take Offs (PTO)*
- Engine Warm Up*
- Maintain Battery Charge*
- Air Conditioner Efficiency*
- Clutch Pumps*

Mechanical Drawing



InPOWER LLC

3555 Africa Road
Galena, Ohio 43021
Tel 740-548-0965
Fax 740-548-2302
www.InPowerLLC.com

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