

### GM Electronic Throttle Module



#### Fast Idle Speed Control for 2003 - 2006\* Chevy & GMC Vehicles with Gas and Diesel Engines

The ETM64 Electronic Throttle Controller provides five modes of engine rpm control for Chevy & GMC trucks, vans, and buses equipped with automatic transmissions for the following:

**Engines:**

- 4.8 L Vortec V8 Gas
- 5.3 L Vortec V8 Gas
- 6.0 L Vortec V8 Gas
- 8.1 L Vortec V8 Gas
- 6.6 L Duramax Diesel\*

**Chassis:**

- Silverado, Sierra,
- Kodiak C4500-C5500,
- TopKick C4500-C5500,
- Express, Savana, Avalanche,
- Suburban, Tahoe, Trailblazer,
- Envoy, Yukon

#### Applications

- Chevy/GMC Vortec Gas and Duramax Diesel Truck Engines
- Pumper Trucks
- Aerial Trucks
- Power Take-Off (PTO) Systems
- Emergency Vehicles
- Service and Rescue Trucks
- Hydraulic Systems
- Air Compressors
- Power Inverter Systems

#### Key Features

- Five modes of fast idle operation
- Engine Control Module programming for speed presets not required
- No Chevy/GMC options required
- Direct interface to engine controller data bus
- Selectable A/C enable mode for applications requiring A/C operation during fast idle
- Hardwired parking brake switch interlock input
- LED status and troubleshooting indicators

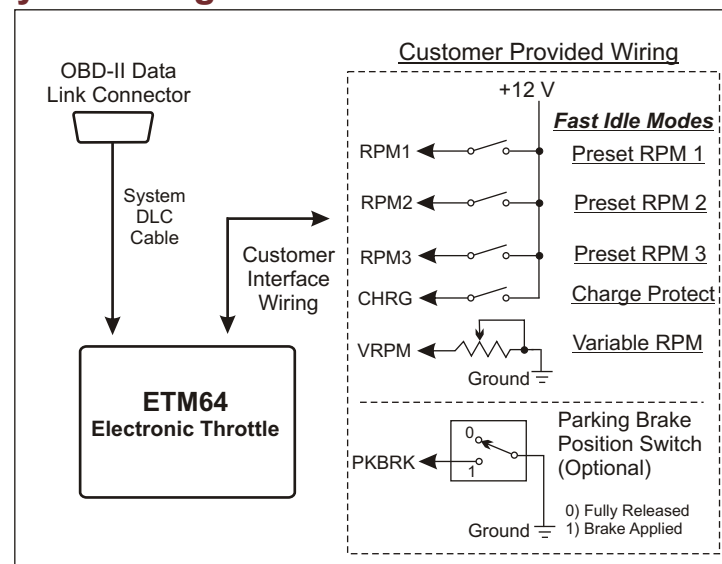
The ETM64 system can be set up to use either the engine data bus message for the parking brake interlock or a hardwired input from the parking brake switch.

Five available modes of fast engine idle operation include three preset fixed speeds, a variable speed control via a external potentiometer, and *Charge Protect*, which will automatically increase engine speed to maintain the battery charge. Ten LED indicators are provided to display the selected operating mode, system status, and error conditions. A set-up jumper option is provided that can allow the air conditioner system to either be enabled or disabled during fast idle operation (disabling the A/C allows for a more stable engine speed).

The ETM64 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. A terminal is provided to wire into the chassis parking brake position switch.

\*The ETM64 will not work with the 2006 6.6 L Duramax diesel.

#### System Diagram



# ETM64 Series Electronic Throttle Modules

## Specifications

### Modes of Operation

#### A. 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
Range of calibration:	680 to 2000 rpm
Calibration method:	Internal potentiometers (3)

#### B. Charge Protect Mode

Function:	Varies rpm to maintain battery charge
Input identification:	CHRG
Activation:	Apply +12 V to input to select mode
RPM range:	680 to 1700 rpm

#### C. Variable RPM Mode

Function:	Varies rpm as a function of external resistance change
Input identification:	VRPM
Adjustment:	10k Ohm potentiometer between input terminal and ground
RPM range:	680 to 2000 rpm

### Power Requirements

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

### Safety Interlocks

The following conditions must be met before the ETM64 controller will initiate a fast idle mode:

1. Engine running at idle speed
2. No vehicle speed (less than 3 MPH)
3. Automatic transmission in PARK
4. Service brake not depressed
5. Accelerator pedal not depressed
6. Parking brake set (hardwired input from switch, or default to engine data bus message)

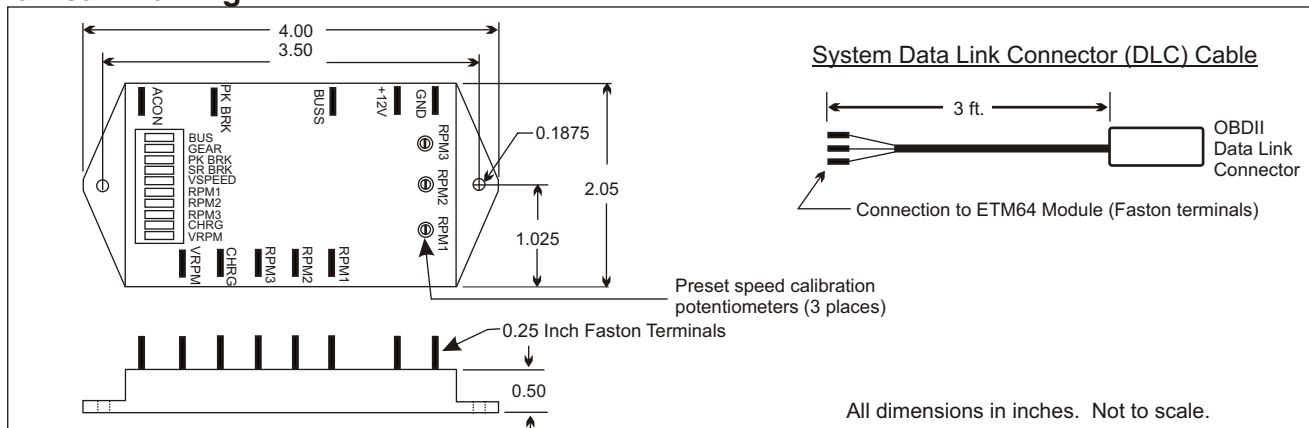
### A/C On Mode

Due to an inherent speed instability in the GM engine controller during fast idle operation, the ETM-64 controller disables air conditioner operation during fast idle operation on the gas engine vehicles. A terminal ("ACON") is provided that when wired to +12 volts will override the A/C disable and allow the A/C to operate during the fast idle mode. In this mode the engine speed will momentarily drop every time the A/C compressor cycles on or off. For 2003-2005 6.6 Duramax diesel engines, the A/C will continue to function during fast idle.

### Parking Brake Input

A terminal ("PK BRK") is provided that allows a hardwired connection to the parking brake switch. This can be used if the vehicle configuration does not provide a data bus message for the parking brake sensor status (e.g., Chassis with a non-GM instrument cluster). With no connection to the PK BRK terminal the system will default to the use the data bus message for the fast idle interlock. Or, the terminal can be wired to the parking brake switch,

## Mechanical Drawing



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