

OWNERS MANUAL

InPower Model ETM 67A/68A

Electronic Throttle Module for Chevy/GMC 2006+ Diesel and 2007+ Gas Engines with Automatic Transmissions

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1. Introduction

This owners manual describes the InPower Model ETM67A and ETM68A electronic throttles used on Chevy and GMC vehicles with gas and diesel engines. Note that the ETM67A and ETM68A systems support the exact same vehicles and differ only in functionality. The ETM68A provides three fast idle preset speed modes (RPM1, RPM2 & RPM3). The ETM67A provides three fast idle preset speed modes (RPM1, RPM2 & RPM3) and an additional *Charge Protect* (CHRG) mode.

2. Product Description

Each ETM67A or 68A system consists of the following components:

1. ETM67A OR ETM68A Control Module
2. 7201.006B 36 inch Data Link Cable (DLC)

The electronic throttle installation requires customer-supplied control wiring to select the required mode of operation. For example, a remote toggle switch or a relay contact from a compressor or aerial lift circuit could be wired to the RPM1 terminal on the electronic throttle controller to activate the RPM1 fast idle mode. The RPM1 mode is then adjusted to the desired fast idle engine speed RPM. The RPM2 and RPM3 mode inputs can be wired likewise if the user needs additional fast idle engine speed functions.

The customer wiring connects to the electronic throttle module via quarter inch Faston terminals. The electronic throttle system is supplied with a three foot data cable. This cable contains a 16-pin connector at one end and quarter inch Faston terminals at the other end. The Faston terminals will connect at the electronic throttle module and the 16 pin connector plug will attach to the vehicle's OBDII (On Board Diagnostic) data link connector (DLC). The DLC is usually located at the lower part of the dash on the driver's side.

3. Vehicle Applications

Please refer to our throttle selector to verify that your 2006+ Diesel and 2007+ Gas Engine, Automatic Transmission Chevy/GMC vehicle is compatible. The selector can be found at the following url:

http://inpowerdirect.com/electronicthrottlecontrols_selector.php

4. Installation Procedures

4.1 Safety Precautions



WARNING

This electronic throttle product has been designed and manufactured to meet the intended application requirements and specifications. Any modifications to the product or to the installation procedure can be dangerous and will void InPower's warranty.

- Read and understand the instructions in this manual and other manuals before starting the installation.
- Make sure that the vehicle battery power is disconnected during installation of the throttle module.
- Reconnect the battery when the system installation is complete.
- Wear appropriate safety equipment, such as protective eyeglasses, face shield and clothing when installing equipment and handling the battery.
- Be careful when working near a battery. Make sure that the area is well ventilated and that there are no flames near the battery. Never lay objects on the battery that can short the terminals together. If battery acid gets in your eyes, immediately seek first aid. If acid gets on your skin, immediately wash it off with soap and water.

4.2 Getting Started

This manual provides instructions for installing the InPower Model ETM67A and ETM68A throttle modules on 2006+ Diesel and 2007+ Gas Chevy/GMC vehicles with Automatic Transmissions. It is important that you follow these

instructions carefully and contact InPower if you need assistance or more information. Note that product technical documents are available on InPower's web site.

Note: The unit should not be located in the engine compartment or any location that is not protected.

This throttle system installation requires additional parts and materials that are not supplied with the throttle kit. Installers will need a crimping tool for the 0.25 inch Faston blade terminals and a wire stripping tool. Be sure to follow the crimping tool instructions for the proper wire size and terminals.

Inspect the throttle module and all other components for damage before starting the installation. Do not perform the installation if any problems exist.

4.3 Mounting

The recommended mounting location for the ETM module is under the dash using the two mounting holes. Ensure that you have sufficient distance to install the 36 inch long DLC cable. **DO NOT EXTEND THE LENGTH OF THIS CABLE OR WARRANTY WILL BE VOIDED.**

4.4 Wiring Instructions

1) Install the DLC Cable

Connect the two Faston terminals on the DLC cable to the ETM module terminals. (Green wire to the CANL terminal and Yellow wire to the CANH terminal). Route the cable to the OBDII Data Link Connector and plug it in. The OBDII connector will be located on the lower part of the dash on the driver's side. Using a cable tie, secure the plug to the OBDII connector so that it will not vibrate out. We recommend that you route the cable of the plug back across the bottom of the connector and loop the cable tie around the plug, socket and cable, thereby keeping the cable out of the way. Also ensure that the entire cable is routed and secured to keep it out of the way.

2) Wire the Parking Break Switch Input

Note - Follow this procedure ONLY for the following chassis configurations:

1. 2006, 2007 Silverado/Sierra Classic C2500, C3500 with 6.6L Diesel
2. 2006-2008 Kodiak/Topkick C4500, C5500 with 6.6L Diesel
3. Express, Savanna with 6.6L Diesel

The ETM67A/68A systems require an input to detect that the parking brake is set before it can go to fast idle on these models. Install a wire from the PK BRK terminal on the ETM module to the chassis parking brake switch. Connect this wire on the side of the switch that is not grounded. Verify that the wiring is correct by measuring the voltage at the PK BRK terminal when the parking brake is operated. The terminal should be at ground when the break is depressed and at + voltage when not depressed.

3) PTO Enable Wiring - Diesel Engines Only

On 2007 and earlier chassis it is necessary to activate the *PTO Enable* input function on the Engine Control Module (ECM) when going to high idle. There are different methods of activating this function depending on the chassis configuration. See *InPower Technical Bulletin TB-49* for details.

On 2008-2012 Gvans there is no *PTO Enable* function so the following procedure must be used when going to high idle:

- Step 1 Turn on the Cruise Control
- Step 2 Turn on the ETM67A/68A
- Step 3 Press the Cruise Control Set Button

4) Wire the Mode Selection Controls

The following wiring is required by the customer to select the operating modes required to run the ETM system. You will need to supply contact closures such as a toggle switch or relay contact to supply +12 volts at the ETM module's terminals for the required preset rpm modes (RPM1, RPM2, RPM3 or CHRG). It is important that the +12 volts when the Ignition Switch is On, and zero volts when Ignition Switch is Off.

5) Wire the Power and Ground

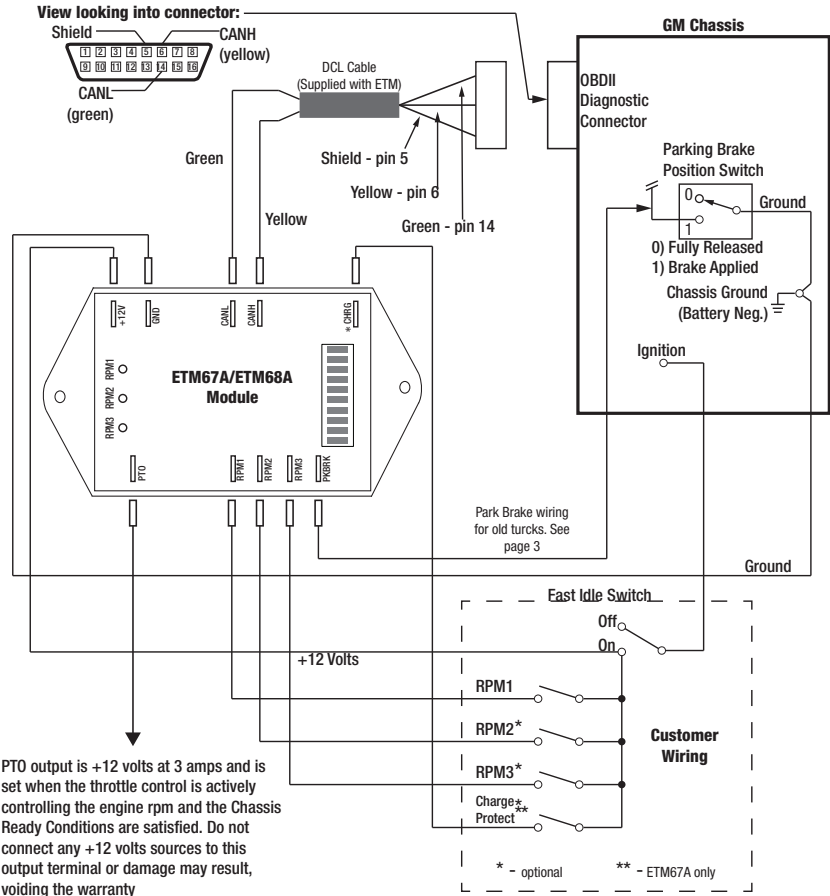
Install a wire from a good ground (battery negative) to the GND terminal on the ETM67A/68A module. Install an optional Fast Idle Switch (not supplied with system) and wire one side of the switch to a source of +12 volts that is fused and only powered when the ignition switch is in the On position. Wire the other side of the switch to the +12V terminal on the ETM module and to the contacts that select the RPM1, RPM2 and RPM3 modes.

4.5 Set Up and Calibration

The only calibration required is the speed RPM setting for the three preset RPM modes (RPM1, RPM2 and RPM2). To perform the calibration, activate the desired preset mode, observe that the engine RPM elevates, then adjust the respective speed calibration potentiometer for the required speed.

Note: The calibration potentiometers are located on the top of the module in recessed holes. Take care to use a proper size screwdriver (3/64" / 1.5mm) or damage to the potentiometers may result, voiding the warranty.

5. Wiring Diagram



6. Operation

When the vehicle is parked and **Chassis Ready Conditions** are satisfied, the engine speed may be controlled by one of the three available preset modes. The preset speed is adjusted by three calibration potentiometers on the top of the ETM module.

Chassis Ready Conditions:

1. Parking Break is set
2. Gear shift in "Park"
3. Foot is off the service brake
4. Foot is off the accelerator pedal
5. Vehicle is stationary (no speed)
6. Engine is started and idling below 1000 RPM

1. Modes of Operation:

Three preset RPM High Idle Modes:

Function:	Increase idle to a preset RPM value	
Terminals:	RPM1, RPM2, RPM3	
Activation:	Apply +12V to terminal	
Range of Calibration:	2006-2012 Diesel:	650 to 1460 RPM
	2013+ Diesel:	650 to 2000 RPM
	Gas:	650 - 2000 RPM
Type of adjustment:	Internal Potentiometers	

2. Mode Priorities:

If more than one mode is selected at a time, the modes take the following priorities:

RPM1	Highest - overrides all other modes
RPM2	Second - overrides lower modes
RPM3	Third - overrides lower mode
CHRG	Fourth - ETM67A only

3. Charge Protect Mode (ETM67A only)

Function:	Varies RPM to maintain battery charge voltage
Control Terminal:	CHRG
Activation:	Apply +12V to CHRG terminal
RPM Range:	900 to 1700 RPM
Battery Voltage Levels:	When battery reaches 13.3 V DC, increases to high idle ; When battery reaches 13.5 V DC, decreases back to low idle.

7. Status Indicators and Troubleshooting

A 10 segment LED provides status and problem detection information. Refer to the following table for coding of these functions. NOTE: These LED indicators will only be powered when a Mode is selected (RPM1, RPM2, RPM3, CHRG).

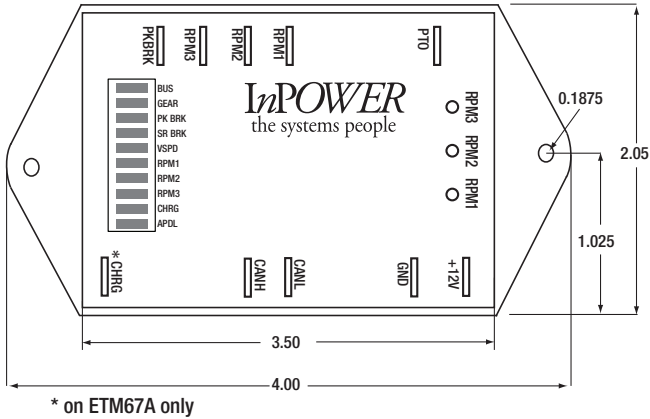
LED	Status	Indication
BUS	On Solid	Module ON and functioning
	Flashing	Module ON, problem detected with Data Bus
GEAR	On Solid	Transmission in PARK position
	Flashing	Transmission not in PARK position
PK BRK	On Solid	Park Brake set
	Flashing	Park Brake not set
SR BRK	On Solid	Service Brake off
	Flashing	Service Brake applied
VSPEED	On Solid	Vehicle is stationary
	Flashing	Vehicle is moving
RPM1	On Solid	RPM1 mode selected, engine at fast idle
	Flashing	RPM1 mode selected, engine not at fast idle Chassis Ready Conditions not satisfied*
RPM2	On Solid	RPM2 mode selected, engine at fast idle
	Flashing	RPM2 mode selected, engine not at fast idle Chassis Ready Conditions not satisfied*
RPM3	On Solid	RPM3 mode selected, engine at fast idle
	Flashing	RPM2 mode selected, engine not at fast idle Chassis Ready Conditions not satisfied*
CHRG	On Solid	Charge Protect mode selected
	Flashing	Charge Protect mode selected, engine not at fast idle Chassis Ready Conditions not satisfied*

Note: If all LEDs are flashing, this indicates either a faulty DLC connection or that this ETM67A/ETM68A version is not compatible with the chassis.

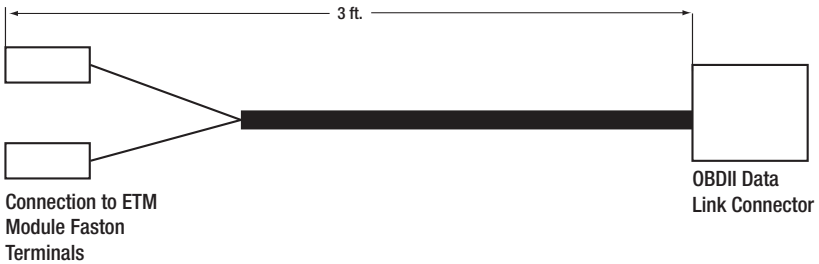
* See *Chassis Ready Conditions* on page 6 for required conditions to allow increased idle speed.

8. Mechanical Drawing

Electronic Throttle Module ETM67A / ETM68A



System Data Link Connector (DLC) Cable



Contact Us

InPower LLC
8311 Green Meadows Drive
Lewis Center, Ohio 43035
740-548-0965
www.InPowerLLC.com