

# Installing the *Throttle Commander*

**2007-2010 3500-5500 Cab Chassis**

**2007-2009 2500-3500 Pickup**

**2007-2009 Sterling Bullet**

**5.9L & 6.7L 24 Valve Cummins Diesel**

**T500115**

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**VMAC – Vehicle Mounted Air Compressors**

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## Installation Manual for VMAC *Throttle Commander*

2007-2010, 3500-5500 Cab Chassis, 2007-2009, 2500-3500 Pickup, 2007-2009, Sterling Bullet, 5.9L & 6.7L 24 Valve Cummins Diesel

### Changes and Revisions

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F	ECN 10-117	AC 18 Oct 2010	SM 28 Oct 2010	3 Nov 2010

## Important Information

The information in this manual is intended for certified VMAC installers who have been trained in installation procedures and for people with mechanical trade certification who have the tools and equipment to properly and safely perform the installation. Do not attempt this installation if you do not have the appropriate mechanical training, knowledge and experience.

Follow all safety precautions and standard shop practices for mechanical work.

These instructions are a general guide for installing this throttle control on standard production trucks and do not contain information for installation on non-standard trucks. If you have difficulty with the installation, contact VMAC.

The VMAC warranty form is located at the back of this manual. This warranty form must be completed and mailed or faxed to VMAC at the time of installation for any subsequent warranty claim to be considered valid.

To order parts, contact your VMAC dealer. Your dealer will ask for the VMAC serial number, part number, description and quantity. To locate your nearest dealer, call 1-888-241-2289.

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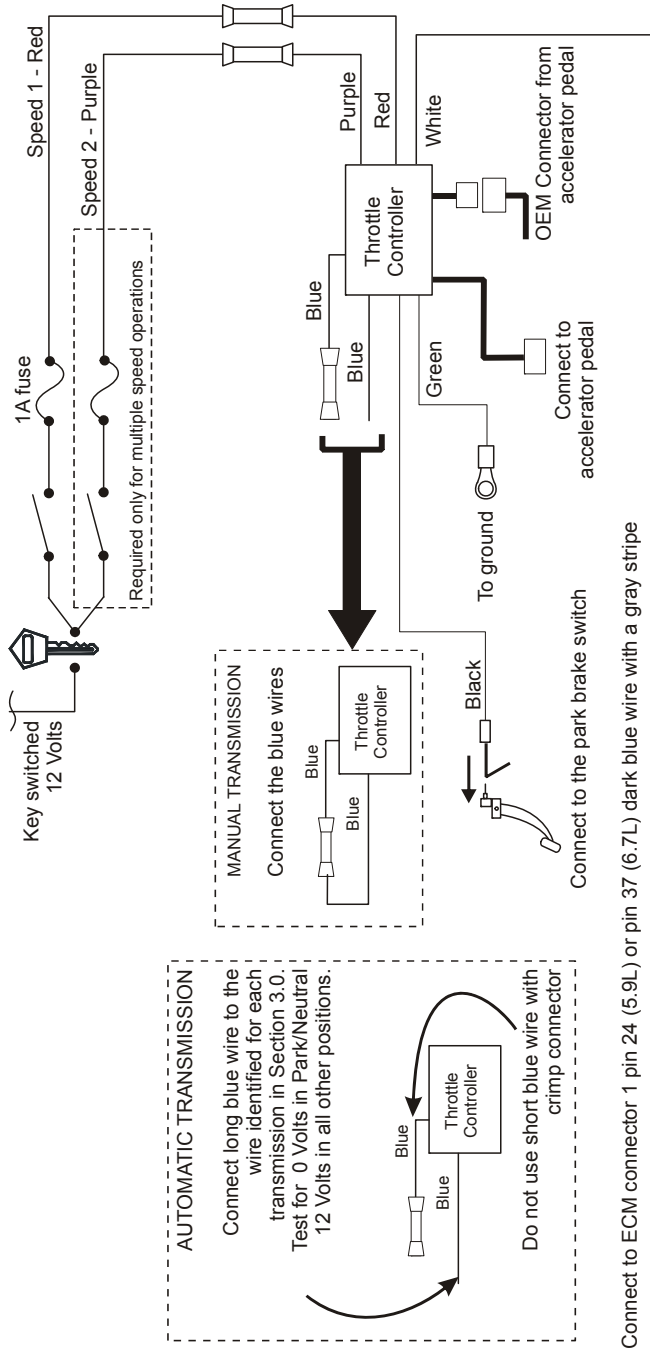
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## 1.0 Preparing for Installation

- Disconnect the vehicle batteries.
- Study the wiring diagrams and locate the wires on the components so that you are familiar with the connections.

## 2.0 Installing the Throttle Control Box

- Mount the throttle control under the dash to the right of the steering column so that the connectors will easily reach the accelerator pedal. Secure it in place with ties.

## 3.0 Connecting the Wiring

- Unplug the cable from the foot pedal assembly and connect it to the throttle control box. Connect the throttle control box cable to the foot pedal assembly.



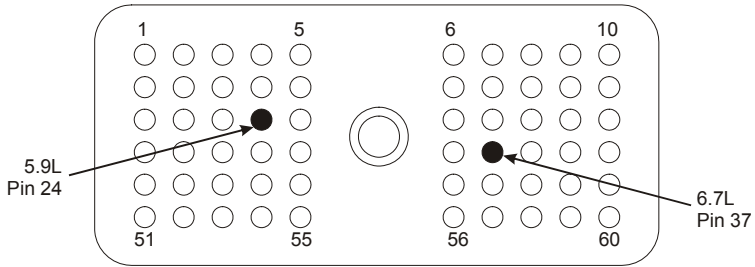
***NOTE: The connector from the throttle box does not have a positive mechanical lock to keep the connectors together. If this connection comes apart it will cause driveability problems. Secure the connection using a small nylon tie strap.***

- Attach the green wire with the ring connector to a good ground under the dash.
- Remove the OEM connector from the park brake switch connect the black wire with the piggyback connector to the park brake switch and the OEM connector to the piggyback connector.
- Locate at the ECM on the driver's side of the engine. Solder and seal the white wire to the dark blue with gray stripe wire at pin 24 for the 5.9L or pin 37 for the 6.7L of the forward-most connector (C1) on the ECM.

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**Figure 1**

### 3.1 Automatic Transmission

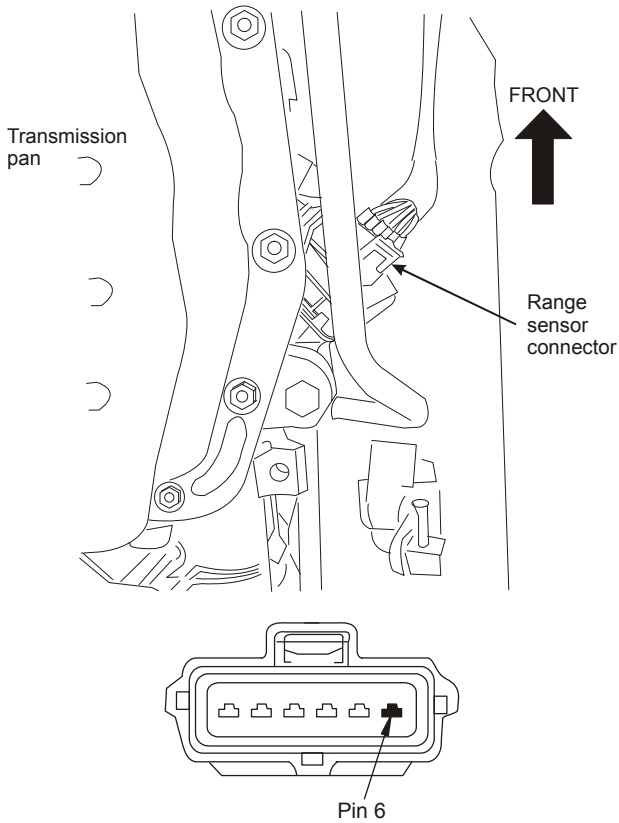
- Route the blue wire from the throttle control to the transmission range sensor on the driver side of the transmission above the oil pan.

#### 3.1.0 5.9L diesel

- Solder and seal the blue wire to the yellow wire with the dark blue stripe at pin 6 on the connector (Figure 2).



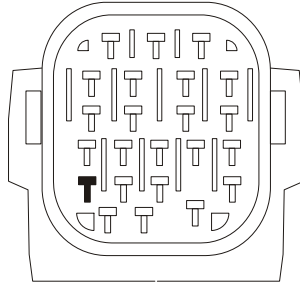
***This wire should show 0 Volts in Park or Neutral and approximately 12 Volts in all other gear selector positions.***



**Figure 2**

### 3.1.1 6.7L diesel 68RFE 2007-2010 2500-3500 Ram pickup

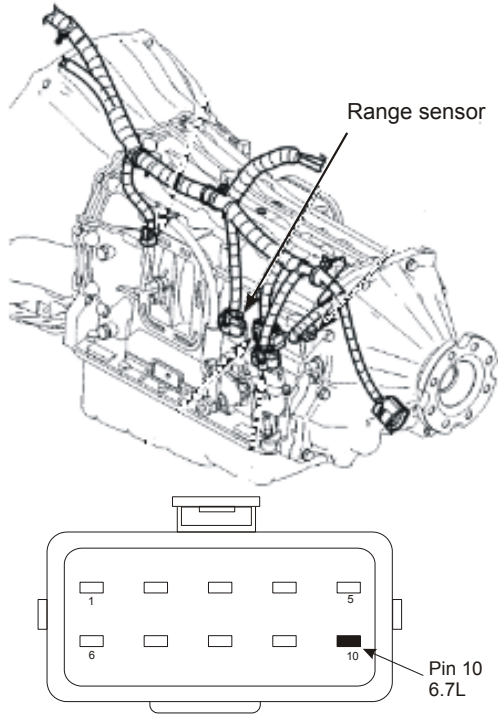
- Locate the 23 pin connector near the shift mechanism on the driver's side of the transmission. Solder and seal the long blue wire from the throttle control to the yellow wire with the dark blue stripe on this connector (Figure 3).



**Figure 3**

**3.1.2 6.7L diesel Aisin AS68RC 3500-5500 Ram pick up & Sterling Bullet.**

- Solder and seal the blue wire to the yellow wire with the dark blue stripe at pin 10 on the connector (Figure 4).



**Figure 4**

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### 3.2 Manual Transmission

- Cut the long blue wire to about 6 inches, strip the end and connect it to the short blue wire with the crimp connector.

### 3.3 Red and Purple Control Wires

- Complete the safety test before connecting these wires.

## 4.0 Completing and Testing the Installation

- Check all wiring to ensure that it will not contact any hot or moving components and will not interfere with the operation of the vehicle. Secure all wiring with nylon ties and the supplied loom as required.
- Connect the batteries. Place the vehicle in a safe operating position and block the wheels. Ensure that there are no people near the vehicle before beginning the test.
- Temporarily route an 18 gauge test wire from the positive battery terminal into the cab for the operational and safety tests.
- Place the automatic transmission in PARK or manual transmission in neutral and engage the park brake. Start the vehicle engine and wait for the idle to stabilize and for engine temperature to reach normal operating range.
- Momentarily activate the throttle by quickly connecting and disconnecting the temporary wire from the battery positive post to the red wire. The engine should start to idle up.
- Firmly apply the service brake pedal and hold it down.
- Release the park brake and momentarily activate as before. The engine should not idle up.
- Apply the park brake and shift the automatic transmission into reverse with your foot on the service brake pedal. Momentarily activate as before. The engine should not idle up. Repeat the test in all gears.
- Shift the transmission into Park and shut down the engine.

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***If the vehicle fails the test, check the wiring connections. If you require additional assistance, contact your local VMAC dealer or call VMAC at 1-888-241-2289 or 250-740-3200.***

## **5.0 Auxiliary Equipment Connection**

The throttle control has three speed settings obtained by providing battery power to the red and purple wires. Default settings are:

<b>Speed Selection</b>	<b>Red wire</b>	<b>Purple wire</b>	<b>Factory setting</b>
Off	0 Volts	0 Volts	0 RPM
Speed 1	12 Volts	0 Volts	1,250 RPM
Speed 2	0 Volts	12 Volts	1,800 RPM
Speed 3	12 Volts	12 Volts	1,525 RPM

Different methods for single speed connection are shown in Figure 5 (switched) and Figure 6 (relayed). Multiple speed connections are a duplicate of the single speed method.

### **5.1 Single Speed Control**

- Connect the red wire from the throttle control through a suitable switch to an ignition activated 12-volt power source using an 18 gauge or heavier wire.
- Coil and insulate the purple wire with tape.
- Install a 1-amp inline fuse between the switch and the red wire.

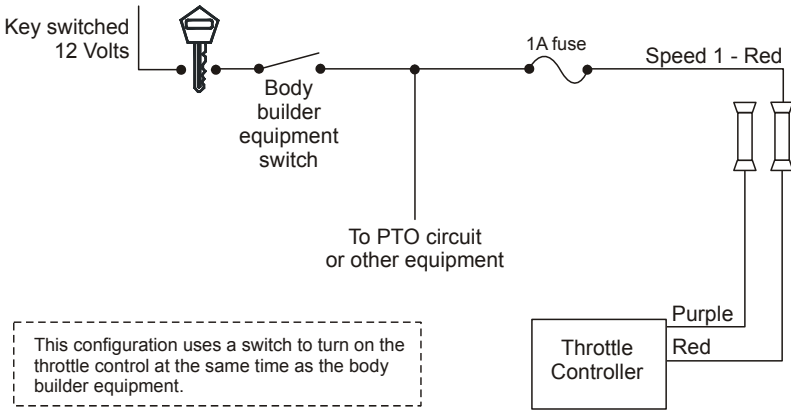
### **5.2 Multiple Speed Control**

- Make the single speed connection using the red wire.
- Connect the purple wire from the throttle control through a second switch to an ignition activated 12-volt power source using 18 gauge or heavier wire.
- Install a 1-amp inline fuse between the switch and the wire.

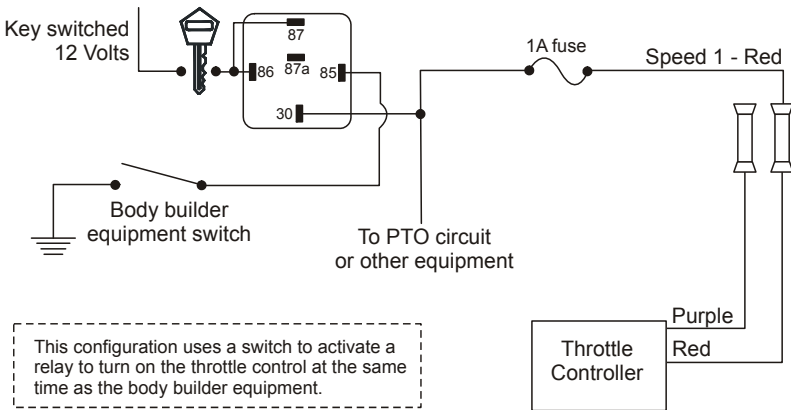
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**Figure 5**



**Figure 6**

## 6.0 Adjusting the Throttle Control

- Make sure that the switches or equipment supplying power to the throttle control are turned off.
- Start the engine. Allow the engine to reach normal operating temperature.
- Engine speed is adjusted by turning the screws on the throttle control. To increase the engine speed turn the screw clockwise, to decrease the engine speed turn the screw counter-clockwise.
- To adjust SPEED 1, activate the throttle control using the control that is connected to the red wire. Adjust the RPM by turning the RPM 1 screw.
- To adjust SPEED 2, activate the throttle control using the control that is connected to the purple wire. Adjust the RPM by turning the RPM 2 screw.



***Never use the park brake or the transmission as an ON-OFF switch. When the engine is OFF, the throttle switch must be OFF. Do not reactivate the throttle switch until the engine has been restarted and the RPM has stabilized.***

## 7.0 Ordering Parts and Warranty

To order parts, contact your nearest VMAC dealer. Please quote the part number, the description and the quantity.

The warranty form must be completed and mailed or faxed to VMAC at the time of installation for any subsequent warranty claim to be considered valid.