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## HIGH IDLE KIT



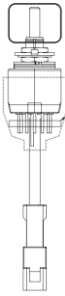
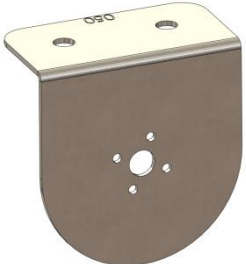




1036620	1998.5-2002 Dodge Cummins (24 valve) 2003-2004 Dodge Cummins (with APPS on motor)
1036621	2005-2006 Dodge Cummins
1036622	2007-2023 Dodge Cummins 5.9/6.7 2020-2022 GM 6.6L Duramax 2019-2025 GM 3.0L Duramax
1036627	2008-2019 GM 6.6L Duramax

**PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION**

**NOTE:** 2021+ Duramax models may not work with remote start. Read operation section.




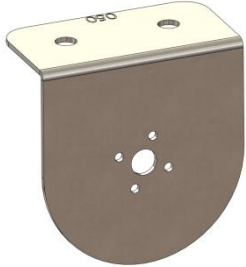





## Kit Contents

Please check to make sure that you have all the parts listed in this kit prior to installation.

<b>1036620 High Idle Kit</b>					
<b>1301185</b>	<b>1331190-3</b>	<b>1331185</b>	<b>1003331</b>		
					
<i>High Idle Module</i>	<i>Wiring Harness</i>	<i>Switch</i>	<i>High Idle Decal</i>		
<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 1</b>		
<b>1330050</b>	<b>1330052</b>	<b>1300348</b>	<b>1330054</b>	<b>1330053</b>	<b>1300131</b>
					
<i>Switch Bracket</i>	<i>Screw</i>	<i>Posi-tap</i>	<i>Tape; DS</i>	<i>Alcohol Swab</i>	<i>Cable Tie</i>
<b>Qty: 1</b>	<b>Qty: 2</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 6</b>

**1036621 High Idle Kit**

<b>1301185</b>		<b>1331191-3</b>		<b>1003331</b>	
					
<i>High Idle Module</i>		<i>Wiring Harness</i>		<i>High Idle Decal</i>	
<b>Qty: 1</b>		<b>Qty: 1</b>		<b>Qty: 1</b>	
<b>1330050</b>	<b>1330052</b>	<b>1300348</b>	<b>1330054</b>	<b>1330053</b>	<b>1300131</b>
					
<i>Switch Bracket</i>	<i>Screw</i>	<i>Posi-tap</i>	<i>Tape; DS</i>	<i>Alcohol Swab</i>	<i>Cable Tie</i>
<b>Qty: 1</b>	<b>Qty: 2</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 6</b>

<b>1036622 High Idle Kit</b>					
<b>1301185</b>		<b>1331192-3</b>		<b>1003331</b>	
					
<i>High Idle Module</i>		<i>Wiring Harness</i>		<i>High Idle Decal</i>	
<b>Qty: 1</b>		<b>Qty: 1</b>		<b>Qty: 1</b>	
<b>1330050</b>	<b>1330052</b>	<b>1300348</b>	<b>1330054</b>	<b>1330053</b>	<b>1300131</b>
					
<i>Switch Bracket</i>	<i>Screw</i>	<i>Posi-tap</i>	<i>Tape; DS</i>	<i>Alcohol Swab</i>	<i>Cable Tie</i>
<b>Qty: 1</b>	<b>Qty: 2</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 6</b>

**1036627 High Idle Kit**

<b>1301185</b>		<b>1331197-3</b>		<b>1003331</b>	
					
<i>High Idle Module</i>		<i>Wiring Harness</i>		<i>High Idle Decal</i>	
<b>Qty: 1</b>		<b>Qty: 1</b>		<b>Qty: 1</b>	
<b>1330050</b>	<b>1330052</b>	<b>1300348</b>	<b>1330054</b>	<b>1330053</b>	<b>1300131</b>
					
<i>Switch Bracket</i>	<i>Screw</i>	<i>Posi-tap</i>	<i>Tape; DS</i>	<i>Alcohol Swab</i>	<i>Cable Tie</i>
<b>Qty: 1</b>	<b>Qty: 2</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 1</b>	<b>Qty: 6</b>

**Tools Required**

- Wire Strippers
- Side Cutters
- Utility Knife
- Flat Screwdriver
- Philips Screwdriver
- Soldering Equipment

## Introduction

This high idle kit connects to the vehicle throttle pedal and allows the operator to increase engine speed easily by way of a control knob mounted on the dashboard. This kit is ideal for faster engine warm-ups, extended idling, running belt-driven power take-off equipment, and high-power electrical accessories including winches, inverters, and pumps.

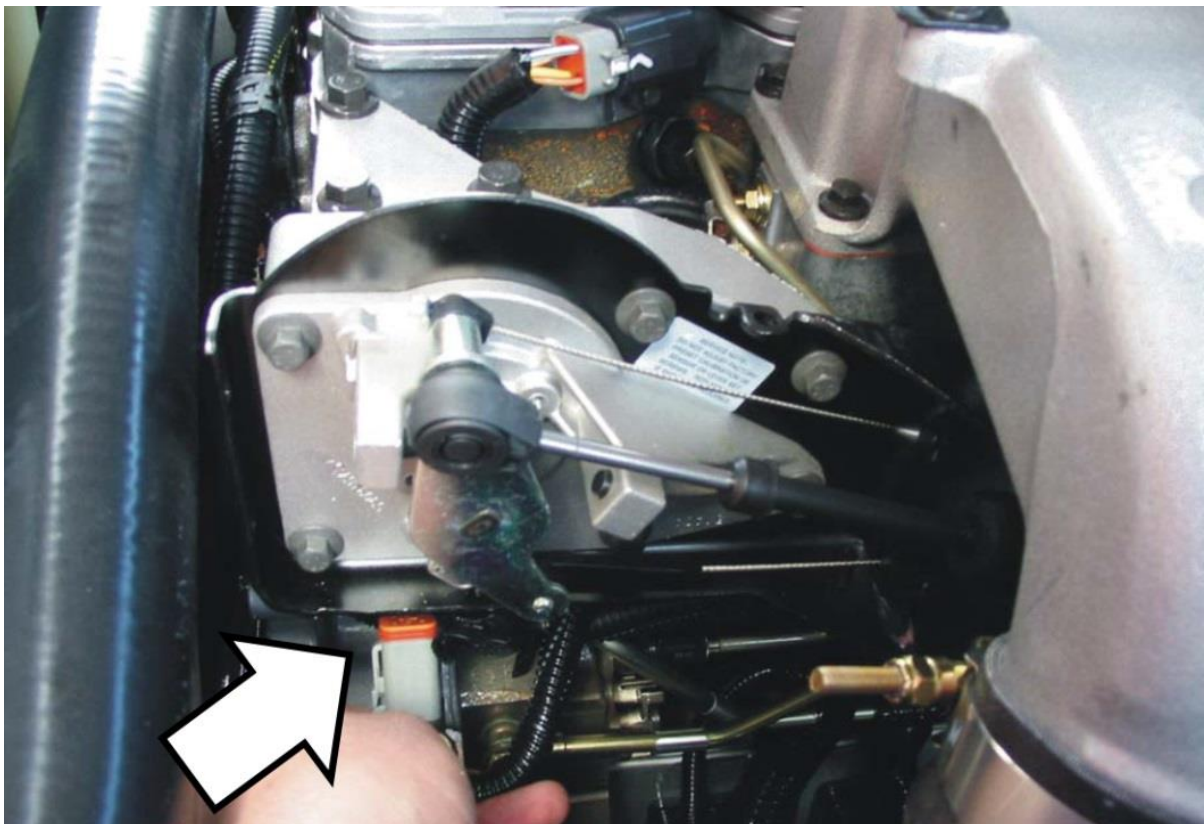
Closed loop control provides up to five engine speeds: 900, 1200, 1500, 1800, and 2100 RPM.

## Installation



**VEHICLE SHOULD BE SAFELY SECURED BEFORE INSTALLATION.**

1. To avoid setting possible fault codes, disconnect vehicle batteries before proceeding.
2. Locate the accelerator pedal position sensor and disconnect the wiring harness.
  - a. On 1998.5-2004 Dodge vehicles, this sensor is located under a plastic cover below the intake elbow on the driver's side of the engine. The connector for the sensor faces downward.



- b. On all other models, the sensor is built into the top of the accelerator pedal below the dashboard.



3. Connect the supplied wiring harness to the accelerator pedal position sensor and the other end to the factory wiring harness. Secure the harness with zip ties so that it does not interfere with pedal operation. Removal of the knee bolster may ease installation.



4. For 98.5-04 Dodge kits, disconnect the control knob harness from the main wiring harness. Route the two-wire switch harness and white wire through the firewall and reconnect it to the main wiring harness. (Not required on other models).

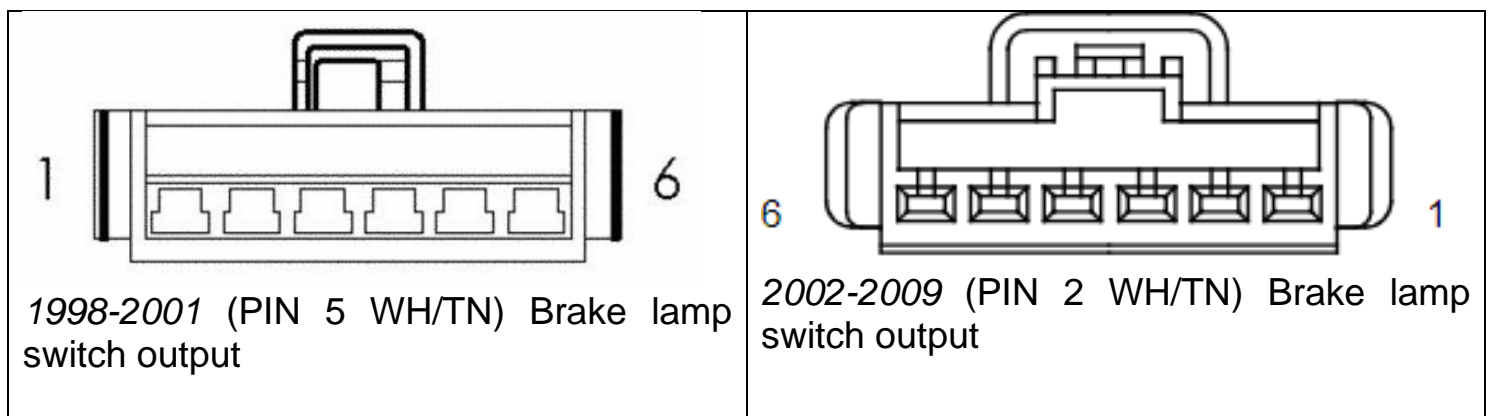
For all applications other than the 98.5-04 Dodge kits, route the light blue wire (RPM signal) from below the dash into the engine bay through the firewall.

5. Connect the white brake light input wire to the brake light switch using the supplied Posi-tap. This connection may be soldered for better longevity if desired.

	<b>WHITE wire (brake light 12V)</b>	<b>Location to tap</b>
<b>98-01 Dodge</b>	Pin 5 - White/Tan	Brake Switch
<b>02-09 Dodge</b>	Pin 2 – White/Tan	Brake Switch
<b>10-12 Dodge</b>	Pin 2 – White	Brake Switch
<b>13-23 Dodge</b>	Connector C6/F, Pin 39 White/Dark Green	Body Control Module
<b>01-07 GM</b>	Pin A – White	Brake Switch
<b>07.5-11 GM</b>	Pin A – Lt Blue/White	Brake Switch
<b>12-14 GM</b>	Connector 5, Pin 5 – Lt Blue	Body Control Module
<b>15-22 GM 6.6</b>	Connector 4, Pin 11 – Violet/White	Body Control Module
<b>19-22 GM 3L Truck</b>		
<b>21-22 GM 3L SUV</b>	Connector 5, Pin 25 – Brown/Yellow	Lighting Control Module
<b>23-25 GM 3L (All)</b>		Module

### 98-09 Dodge – Brake Lamp Switch

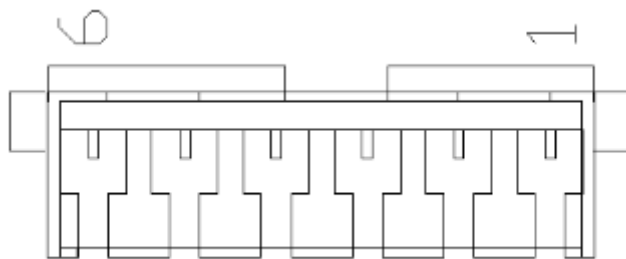
The brake lamp switch is located on the brake pedal assembly under the dash.



### 10-12 Dodge – Brake Lamp Switch

The brake lamp switch is located on the brake pedal assembly under the dash.

(PIN 2 WT) Brake lamp switch output

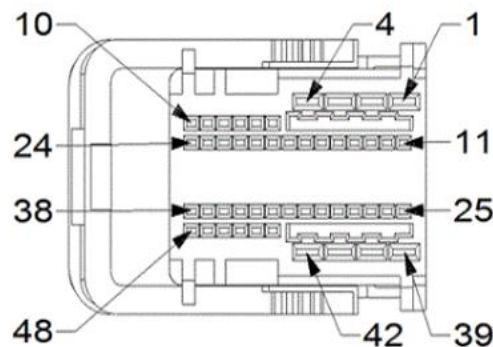
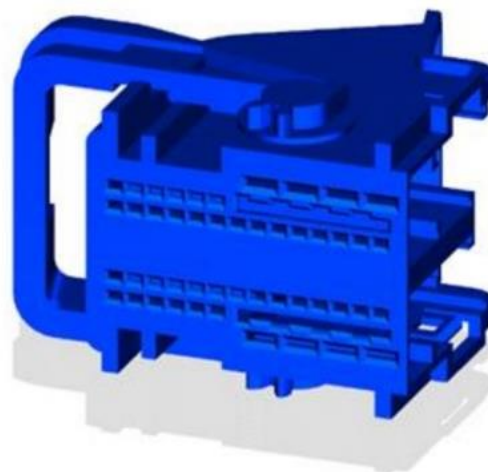
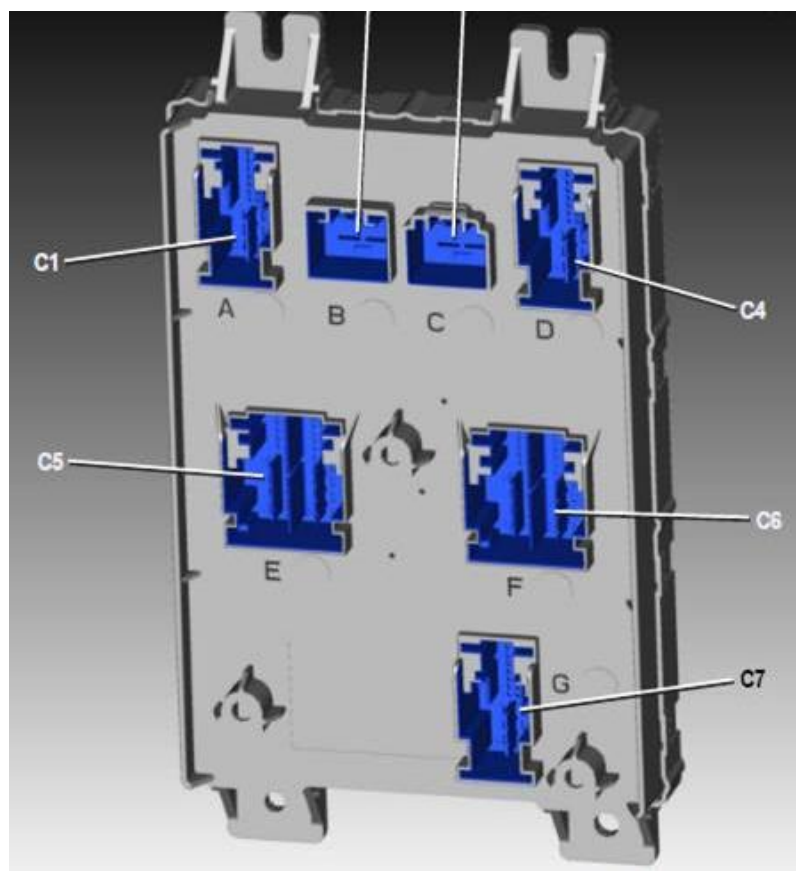


### 13-23 Dodge – Body Control Module (BCM)

The BCM is located on the firewall on the inside of the truck behind the dash on the driver's side.

2013-2023 (PIN 39 WH/DG) - Brake lamp switch output (connector C6/F)

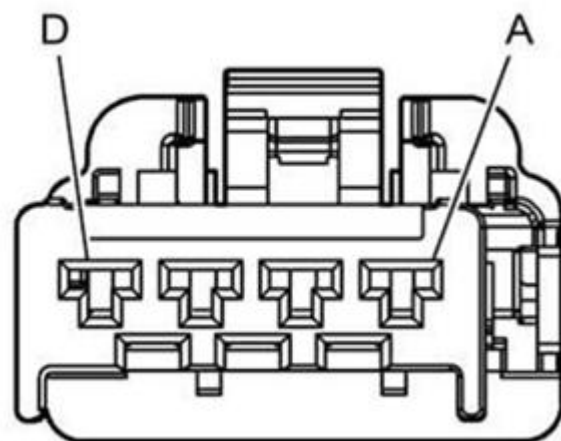
**NOTE:** It is challenging to access the BCM so you may optionally locate the brake light wire between the BCM and the back of the cab and tap in there instead. Make sure to get the third brake light wire. Using the normal rear brake lamps is not recommended as they will flash when the vehicle is locked or unlocked which would cancel the high idle.



### 07.5-11 Duramax – Brake Lamp Switch

The brake light switch is mounted to the top of the brake pedal assembly below the dash.

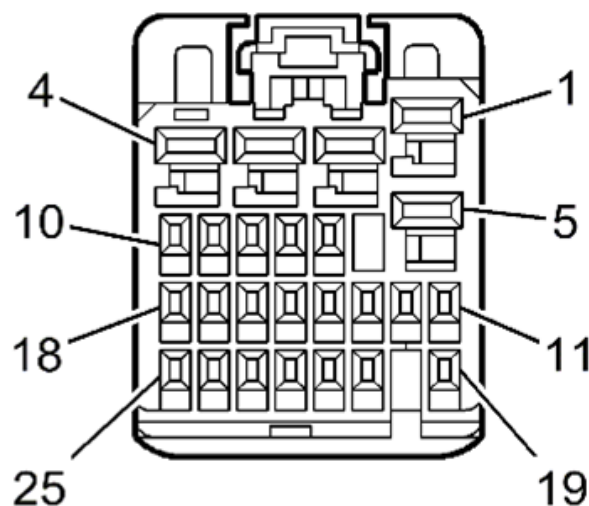
(PIN A LB/WT) Brake switch output



### 12-14 Duramax – Body Control Module (Connector 5 - BROWN)

The body control module is located behind the knee bolster on the driver's side of the dash.

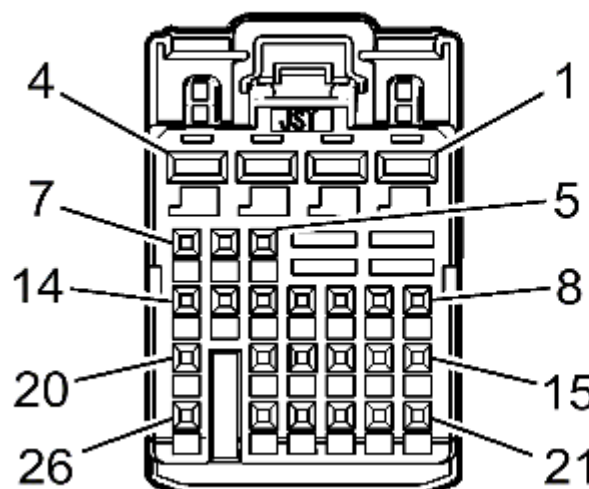
(PIN 5 LB) Brake lamp output



### 15-22 6.6L Duramax / 19-22 3L Duramax (Truck) – Body Control Module (Connector 4 - BLACK)

The body control module is located behind the knee bolster on the driver's side of the dash.

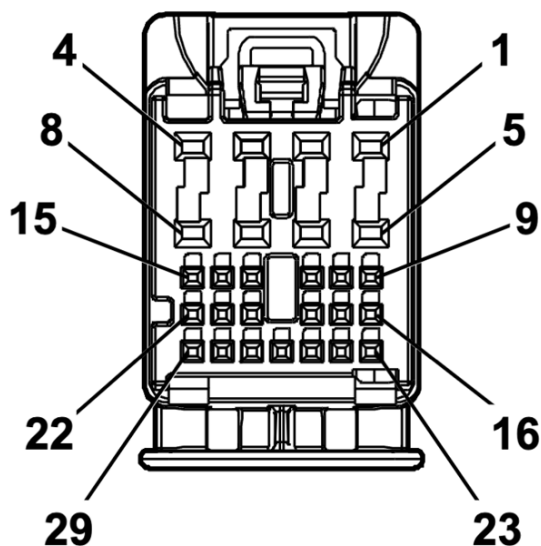
(PIN 11 VT/WH) Brake lamp output



**21-22 3L Duramax (SUV) / 23-25 3L Duramax  
(All) – Lighting Control Module (Connector 5 -  
BLUE)**

The light control module is located to the left of the brake pedal under the dash.

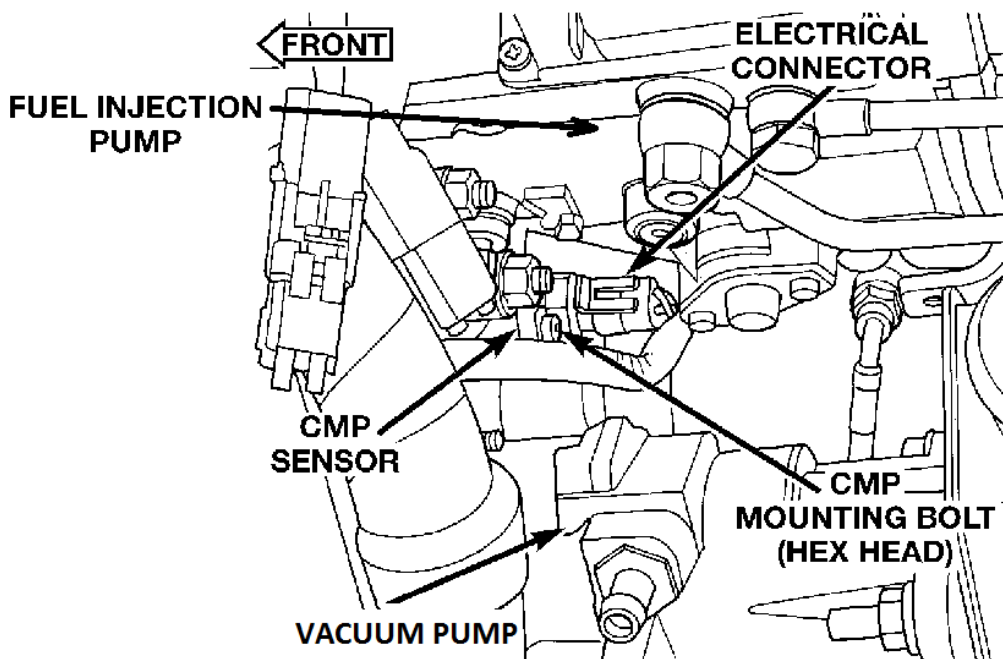
(PIN 25 BN/YE) Center High Mounted Stop Lamp  
Supply Voltage



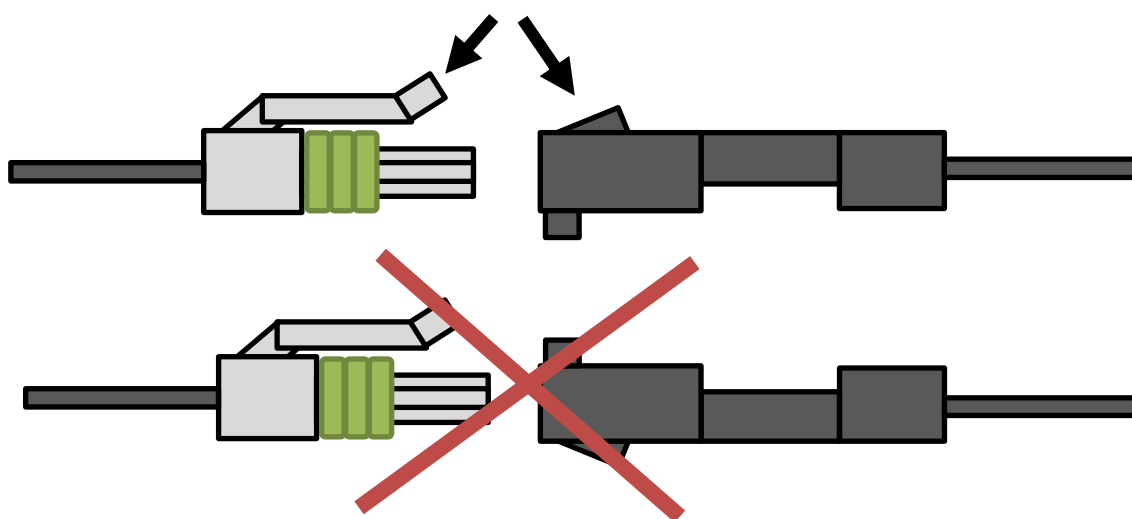
6. Connect the light blue wire from the module to the crankshaft or camshaft sensor signal wire as indicated below. A Posi-tap has not been supplied for this connection as it is to be soldered.

	Signal Wire	RPM signal wire and suggested tap location
<b>1998.5-2000 Dodge</b>	Camshaft	Plug in connector supplied for cam position sensor
<b>2001-2002 Dodge</b>	Camshaft	Plug in connector supplied for cam position sensor
<b>2003 Dodge</b>	Crankshaft	White with Tan tracer Crank sensor pin 3
<b>2004 Dodge</b>	Crankshaft	Light Blue with Brown tracer -or- Brown with Light Blue tracer Crank sensor pin 3
<b>2005-2023 Dodge</b>	Crankshaft	Brown with Light Blue tracer Crank sensor pin 3
<b>2008-2010 GM (LMM)</b>	Crankshaft	White with Black tracer Pin 17 – 40 way black main engine disconnect.
<b>2011-2016 GM (LML)</b>	Crankshaft	White with Black tracer In orange loomed engine wire harness
<b>2017-2022 GM (L5P)</b>	Crankshaft	Green wire Pin 3 of the 8-pin harness connector on top of engine.
<b>2019-2025 GM (LM2/LZ0)</b>	Crankshaft	Light green At the ECU connector

**1998-2002 Dodge 5.9 (24V)** – Locate the engine camshaft position (CMP) sensor, just above the injection pump on the back side of the engine timing cover. Disconnect the camshaft position sensor connector and plug in the supplied connector in line with the sensor.



**IMPORTANT:** The cam sensor plug on the BD harness must be connected the correct way around. Pay attention to the diagram below to ensure you connect the plug correctly. If this is connected backwards the high idle kit will not work and your tachometer may not work depending on model year.

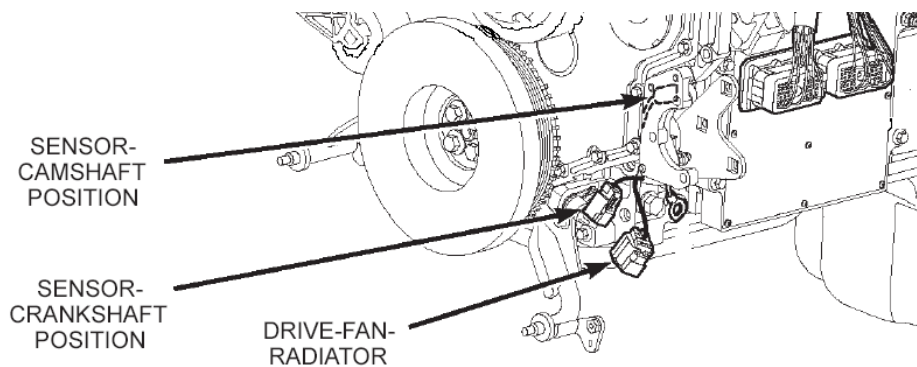


**2003-2004 Dodge 5.9L (CR)** – Locate the engine crankshaft position sensor, located toward the front of the engine on the left side beside the harmonic balancer. Cut off and discard the supplied three pin connector from the blue wire on the BD wiring harness (this is used only up to 2002). Tap the blue wire into the crankshaft sensor wire from pin 3 of the connector. Solder this connection and cover it with heat shrink for longevity.

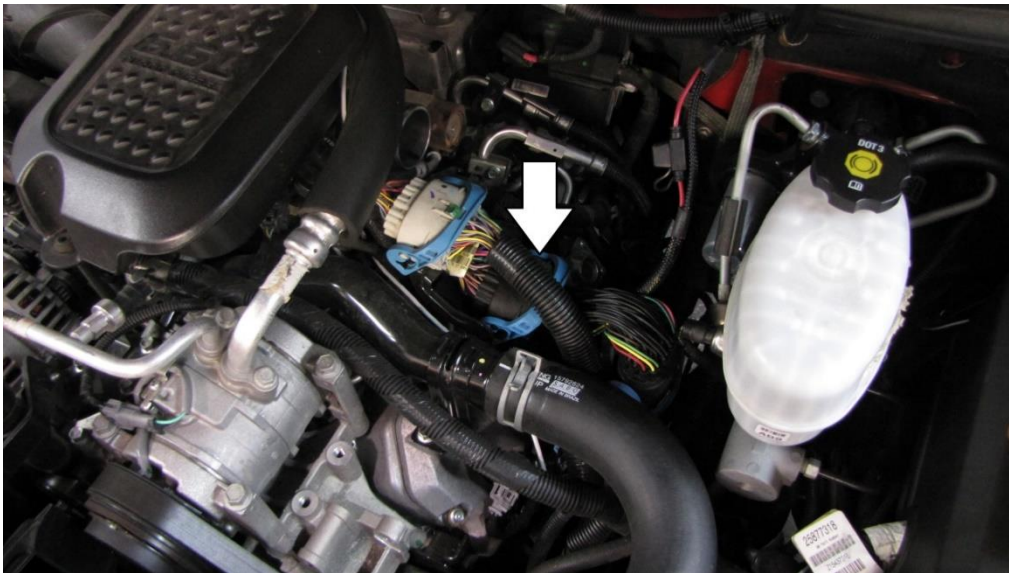
->2003 is a white wire with tan tracer

->2004 may be either light blue with brown tracer or brown with light blue tracer depending on the build date.

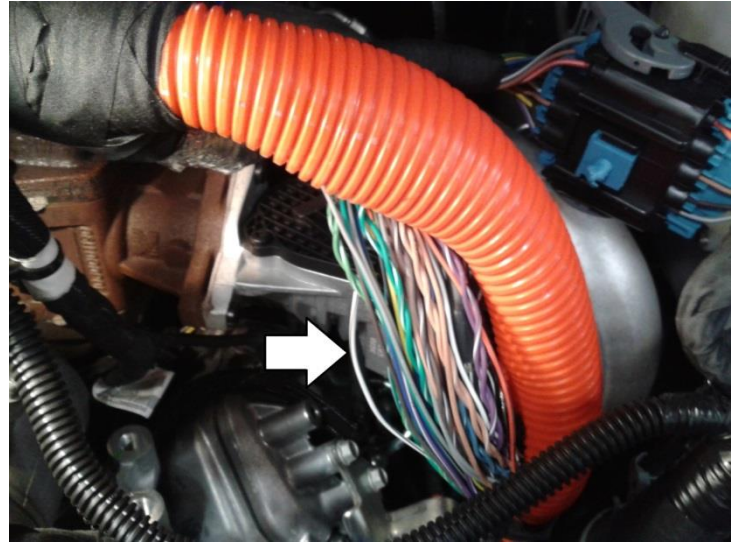
**2005-2023 Dodge 5.9/6.7L** – Locate the engine crankshaft position sensor, located toward the front of the engine on the left side beside the harmonic balancer. Tap the brown wire with a light blue tracer (connector pin 3). Solder this connection and cover it with heat shrink for longevity.



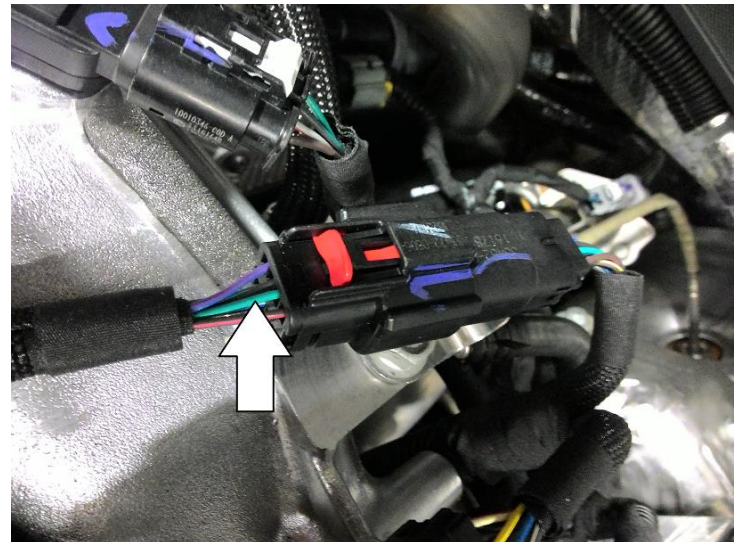
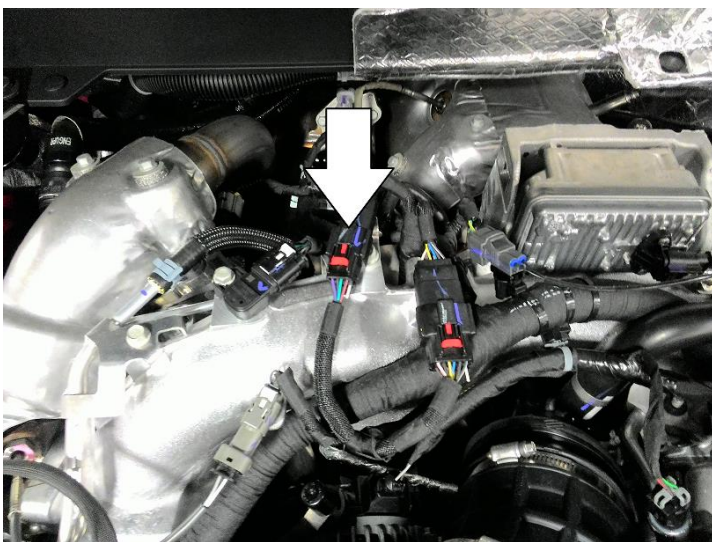
**2008-2010 GM LMM** – Locate the 40 way black engine disconnect on top left of engine. Locate pin number 17 (white wire with black tracker). Tap blue wire from the module onto this wire. Solder this connection and cover it with heat shrink for longevity.



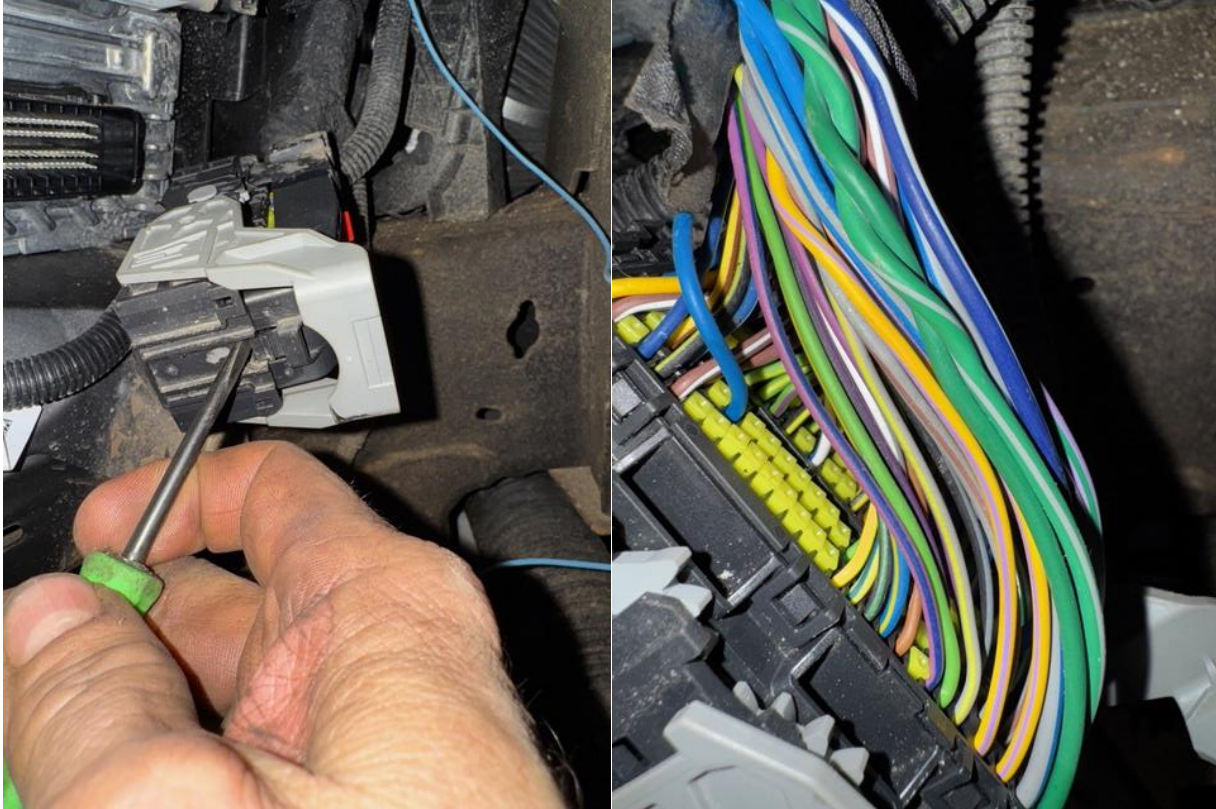
**2011-2016 GM LML** – Locate the main engine wiring harness (orange color). Caution: other wires in this harness run up to 250 volts, use care not to damage other wires or tap the incorrect wire. Remove the harness tape from the orange loom. Locate the 20 gauge white wire with a black tracer. Verify there are no duplicate wire colors in this harness as tapping into the incorrect wire may damage the module. Solder this connection and cover it with heat shrink for longevity. Put wires back into the orange loom and wrap the loom with harness tape.



**2017-2022 GM L5P**—Locate the 8-pin sub-harness disconnect on the top of the engine for the crankshaft position sensor. Locate the solid green wire in pin 3. Remove some harness tape to have some wire to work with. Attach the light blue wire here for RPM pickup. Solder the wire and cover with heat shrink for longevity. Rewrap with tape when complete.



**2019-2025 GM LM2/LZ0** – Remove the front left tire and inner fender liner. Locate the ECU. Remove the black connector and connector cover. Locate the light green wire between the purple wire with a blue stripe and the grey wire with a yellow stripe. Attach the light blue wire here for RPM pickup. Solder the wire and cover with heat shrink for longevity.



7. By default, the control knob has six positions: off, 900, 1200, 1500, 1800, and 2100 rpm. If a lower maximum rpm is desired, first turn the switch fully counterclockwise (off). Remove the knob and secondary mounting nut on the switch and lift out the switch positioning ring. Reinstall the ring such that it reduces the number of switch positions to the maximum rpm desired. Reassemble switch.

Check with the customer regarding what their needs are. If the high idle will be used mainly for extended idling or faster warm-ups, it may be desirable to limit the maximum RPM.

8. Install the control knob. If installing directly into the dashboard, drill a 1/4" hole for the switch and a 1/16" hole for the locator tab. If using supplied bracket, install using the supplied screws. Apply the decal around the hole or the bracket and then install the control knob retainer nut. The knob requires a 1/16" Allen key to secure.

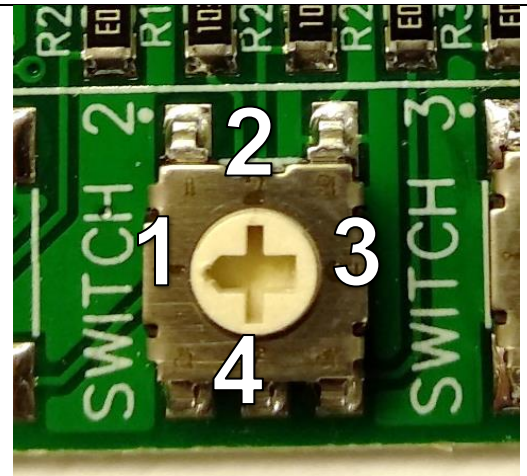
9. Remove the cover from the module.



10. For 1998.5-2000 Dodge 24V applications, set "Switch 2" on the circuit board to position 3.

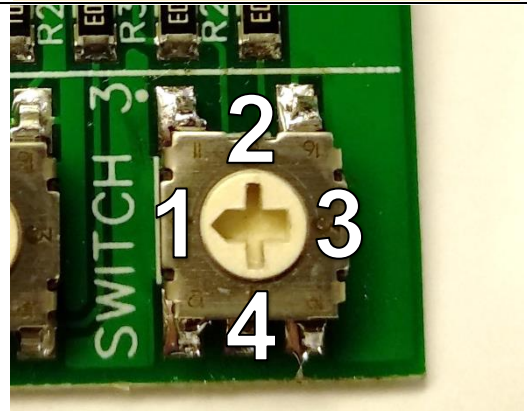
For 2001-2002 Dodge 24V applications, set "Switch 2" on the circuit board to position 2.

For all other applications leave "Switch 2" in position 1. This is the crankshaft sensor input frequency selection switch.



11. For all 2017+ GM Duramax (3L and 6.6L) models, set "Switch 3" to position 2.

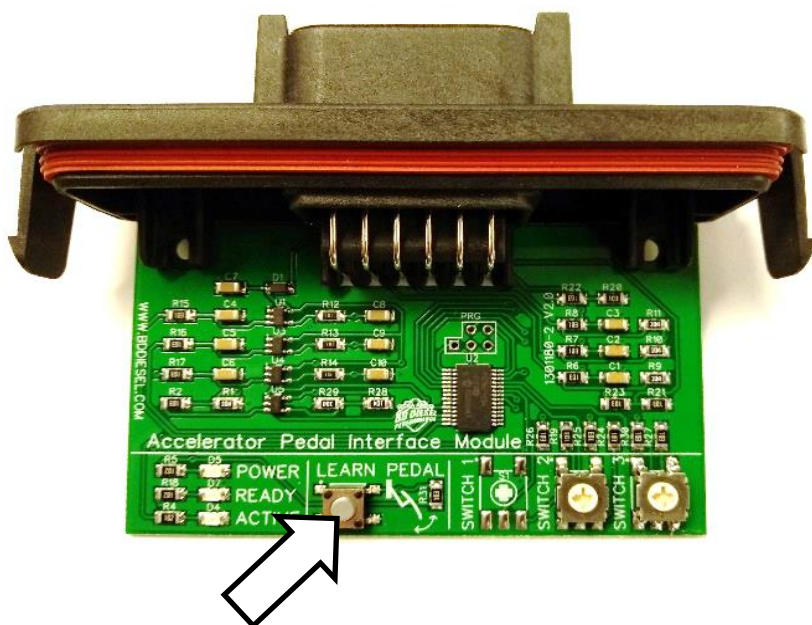
For all other applications leave "Switch 3" in position 1. This switch sets the throttle vs RPM sensitivity.



12. Connect the module circuit board to the wiring harness with the cover still off and keep away from metal objects that could cause a short circuit.

13. Reconnect vehicle batteries.

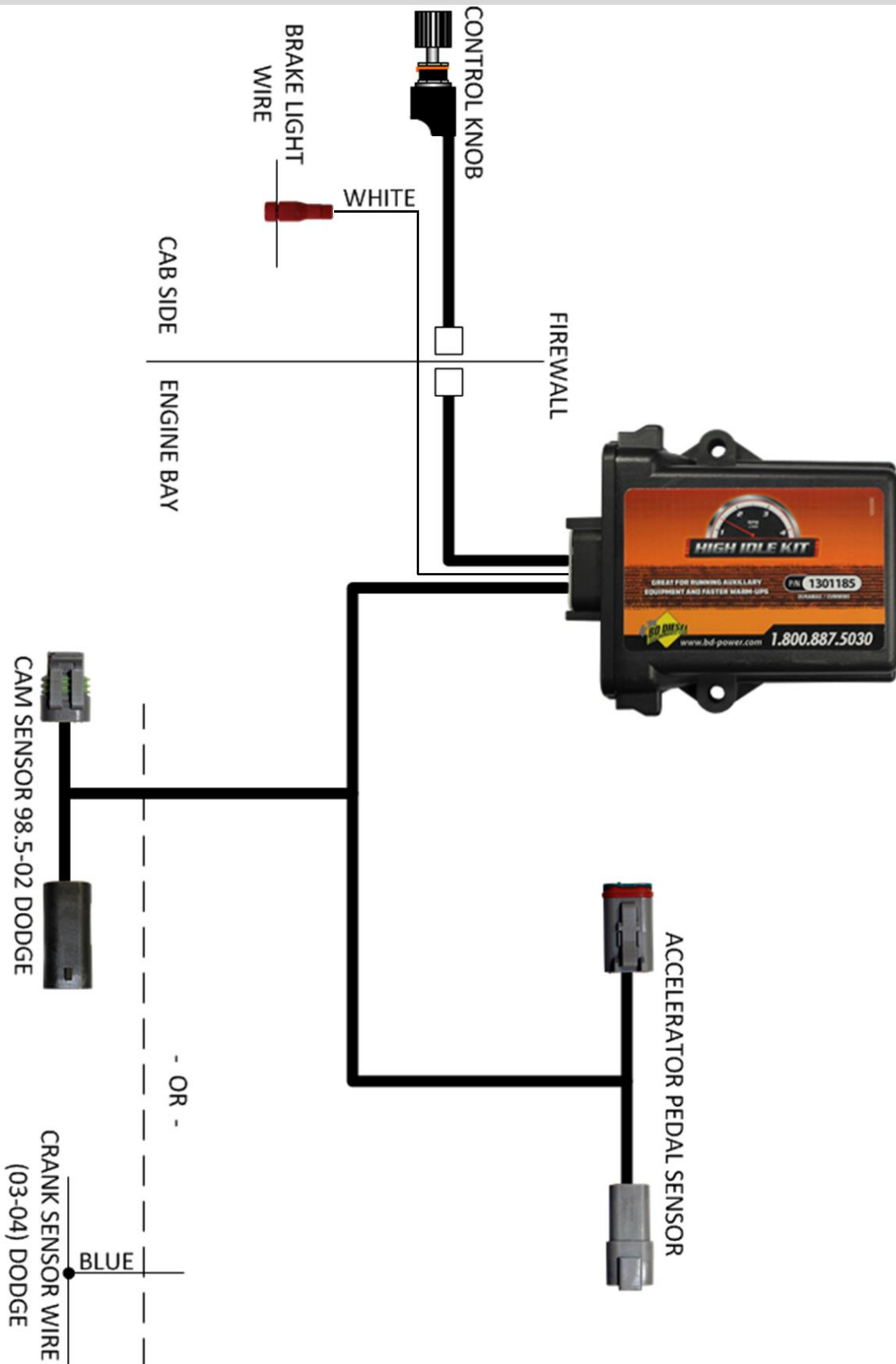
14. Make sure the high idle switch is turned off. Then turn the ignition switch to the on position (not run) and then press and release the “LEARN PEDAL” button on the module. The READY and ACTIVE indicator lights will both illuminate. Slowly depress and release the throttle pedal a few times within 15 seconds. This will allow the module to learn your specific accelerator pedal sensor output. Make sure the pedal travel is not impeded by a floor mat. Once complete, the ACTIVE light will turn back off and the READY light should go back to flashing.

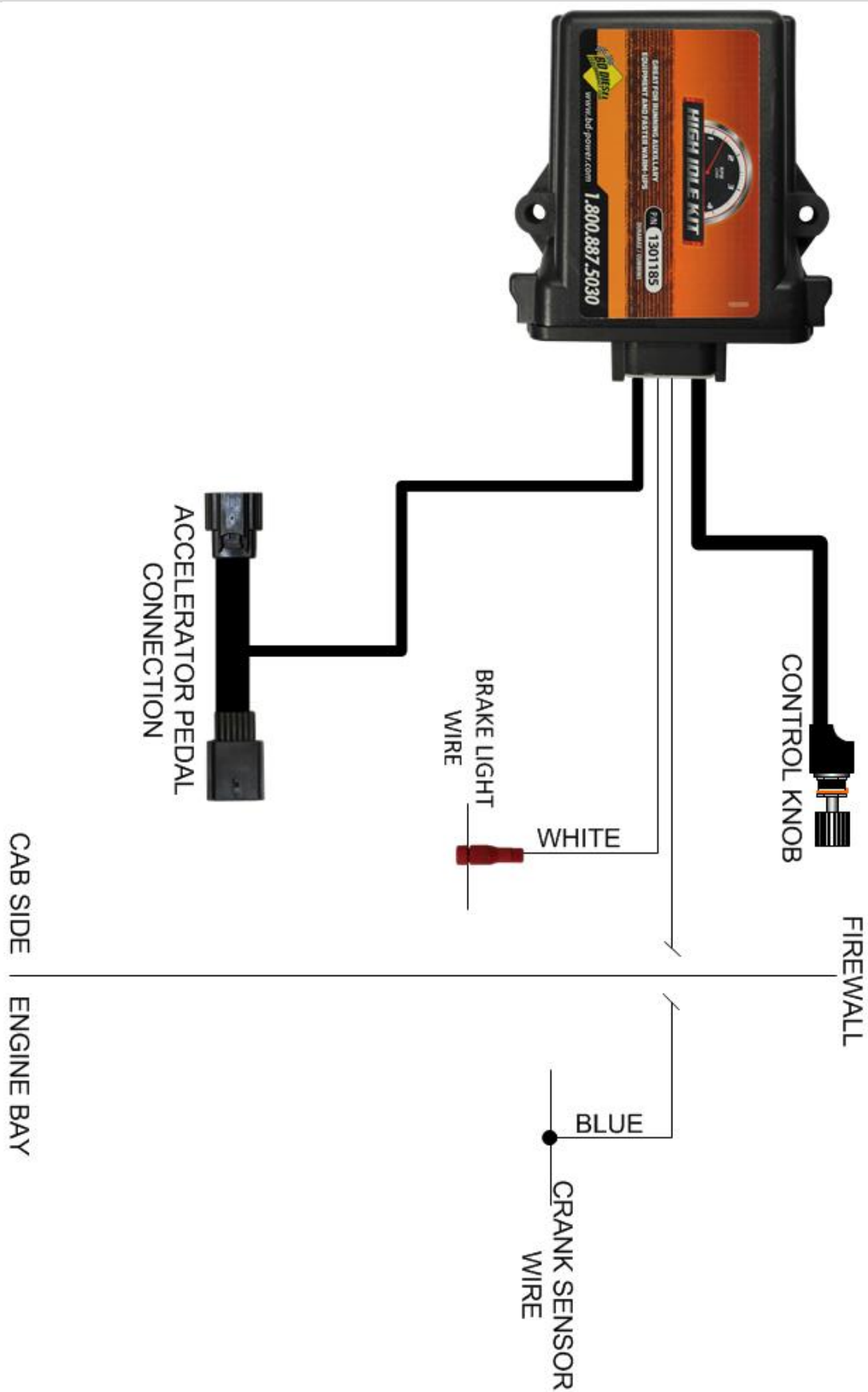


**NOTE:** If the pedal is replaced, it is a good idea to learn the module again.

15. Snap the cover back on the module and mount the module below the dashboard or in the engine bay for 1998.5-2004 Dodge trucks.

16. Check for correct operation. Ensure that pressing the brake pedal does stop high idle correctly. Installation is now complete.

**Wiring Diagrams****1036620 Kits**

**1036621-1036627 Kits**

## ***Operation Instructions***

The high idle kit allows the operator to command the engine to idle up by rotating the control switch mounted on the dashboard. When the knob is fully counterclockwise, the module will not command high idle. Turning the knob clockwise will enable the module. The available engine RPMs are 900, 1200, 1500, 1800, and 2100 rpm.

If the brake is pressed or the throttle is pressed the module will stop high idle. If this happens, the switch must be turned off and then back on or to another position to re-enable high idle. If the engine is shut off and restarted, the module will be reactivated. This feature allows the user to leave the high idle module in the desired position so that it will start automatically when the engine is started.

If the module is already turned on when the truck is started, the module will wait for 5 seconds before starting high idle. This is to allow oil pressure to stabilize before increasing engine speed. If high idle is required immediately, turning the module off and back on will cancel the timer.

**NOTE:** This kit does not control the transmission torque converter, which is required for many forms of automatic transmission mounted power take-off equipment. However, it will work with manual transmission-mounted PTO applications.

**NOTE:** In some 1998-2002 Dodge trucks, the 2100RPM setting will set a fault code for MAP vs. throttle correlation. This is due to a problem with Chrysler's ECU calibration. If this problem arises, change the switch keying to disallow the 2100RPM setting.

**NOTE:** 2011-2016 (LML) and some 2017+ (L5P) model Duramax engines will not allow excessive engine speeds when remote started. For this reason, we recommend not exceeding 1500rpm for remote start warm-ups. This applies only to factory remote start, when the key is put in the ignition this restriction is removed. On these vehicles, exceeding approximately 2000 rpm when remote started will cause the engine to automatically shut off.

**NOTE:** Customers have reported that 2021 models GM ECMs may not allow any elevated idle during remote start. This is an OEM restriction and not something that can be changed in the BD high idle kit.

## ***Control Module Version Information***

V1.3 – Add support for 1998-2002 Dodge trucks (2014)

V1.4 – Add switch 3 to reduce rpm fluctuation on L5P engines (2020)

## Troubleshooting

Vehicle Sets Codes for APPS Circuits	<p>Check that the module is powered by removing the cover and checking for the <b>POWER</b> lamp. This should be lit whenever the ignition is on (and may remain powered after the ignition has been turned off for a short time on late model trucks).</p> <p>Ensure the connectors are fully seated. Kit 1036621 connectors are harder to mate together than others, ensure they do not come apart if tugged on.</p>
High Idle RPM fluctuates and will not settle	<p>It is normal to initially undershoot or overshoot on the RPM and then have it settle on the correct setting. If it does not settle try adjusting the module. On firmware version 1.4 and up modules there is an additional switch on the PCB (Switch 3) that adjusts the reaction of the module to RPM changes. Default position is 1. Try position 2 or 3. For L5P GM models we suggest position 2.</p>
High Idle Does Not Function	<p>Open the module and check that when the brake and throttle are not pressed and the engine is running, the <b>READY</b> lamp is illuminated and not flashing. This indicates that the module's safety inputs are working, the engine RPM is detected and the module is ready to operate when commanded. If the <b>READY</b> lamp is flashing, this indicates the brake and throttle are not pressed, but the engine is not running or has no RPM input signal. If the <b>READY</b> lamp is not illuminated, verify that the brake lights are not stuck on and the throttle pedal is not stuck down. If the module has not been learned to the throttle pedal, the <b>READY</b> lamp may not illuminate.</p> <p>Ensure that the <b>ACTIVE</b> light is on when the switch is turned on. If the <b>ACTIVE</b> light is flashing this indicates the control switch is commanding high idle, but the module is disabling it because it detected the brake or throttle was pressed or the engine is not running. If the <b>ACTIVE</b> light is on and not flashing, it should be ready to apply throttle to increase the idle speed.</p> <p>The module must be learned to the throttle pedal for it to increase idle speed. If not setup correctly, refer to installation step 9 above.</p>
Brake Pedal Does Not Cancel High Idle	<p>Verify brake lights function. If nonfunctional, correct this first.</p> <p>Verify the brake sense wire is tapped on the correct wire and use test light to verify that 12V is present on the white wire when the brake pedal is pressed.</p> <p>Open module and observe <b>READY</b> light. This light should go out when the brake or throttle pedal are pressed.</p>

**If you have any technical difficulties please phone our Technical Support hotline at (800) 887-5030 between 8:30am-5:00pm PST (Pacific Standard Time) Monday to Friday.**