PULSAR

INLINE CONTROL MODULE XT

19+ Ram EcoDiesel

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Pulsar XT Mobile App

Download Instructions

This product requires a Mobile App to function correctly.

Scan this QR code or visit the link below to find download options for your smartphone. You can also find other useful information and instructions about the Pulsar XT on our website.

https://www.holley.com/products/tuners_and_programmers/inline_tuning_modules/pulsar_xt/

Read Me

Safety Warning & Caution

Throughout this User Manual you will see important messages regarding your safety or the protection of your vehicle. These messages are designated by the words WARNING, CAUTION, or NOTICE.

> ⚠ **WARNING**

A WARNING indicates a hazardous situation which, if not avoided, will result in death or serious injury.

> ⚠ **CAUTION**

A CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

A NOTICE indicates a condition that could cause damage to the product or your vehicle.

NOTE

A NOTE is a step or reminder that is important to remember when installing or using the product.

The product you have purchased is a high-performance product. As such, it does present some risks of which you should be fully aware. Do not use this product until you have carefully read the following safety information and the Owner Agreement.

> ⚠**WARNING:** *Prior to use, read the User Manual. Misuse of the device could result in traffic accidents, death or serious injury, and/or damage to your vehicle. HOLLEY IS NOT RESPONSIBLE FOR AND SHALL HAVE NO LIABILITY TO YOU FOR ANY CLAIMS ARISING OUT OF OR RELATING TO ANY MISAPPLICATION OF THE DEVICE, CUSTOM TUNES, IMPROPER USE OF CALIBRATIONS, MALFUNCTION OR LACK OF LEGAL COMPLIANCE FOR CUSTOM PROGRAMS CREATED BY THIRD PARTIES.*

Safety Guidelines

- Do not exceed legal speed limits on public roadways. Violating traffic laws is dangerous and could result in injury or vehicle damage or both.
- Use any enhanced speed capabilities of this product only in closed circuit, legally sanctioned racing environments expressly for this purpose. Violating traffic laws is dangerous and could result in injury or vehicle damage or both.
- Do not operate the device while driving. Distracted driving could result in traffic accidents, death or serious injury, and/or damage to your vehicle.
- Always perform all adjustments or changes while stopped. Changing a setting while driving can interfere with your attention to roadway conditions and could result in injury or vehicle damage or both.
- Do not stack products. "Stacking" performance-enhancing devices or other improper installation can cause power train failure on the road. Other products may have features incompatible with your device. Follow all installation and operating instructions.
- Some modifications may affect other parts of your vehicle. For example, if you remove/adjust the speed limiter in your vehicle, be sure your tires and other components are rated for the increased speeds they will have to withstand. Not doing so can lead to loss of vehicle control. Modify the speed limiter only for use in closed circuit, legally sanctioned racing environments, not for use on public roadways.

NOTE: The stickers included in some products apply to products that have recieved CARB exemption for emissions compliance.

This product may meet the emissions compliance requirements of the California Air Resources Board and Federal Environment Protection Agency. If so, it is legal for sale and use on pollution-controlled vehicles operated on public streets and highways. The device must be installed and operated according to the instruction provided in this user manual. Included with these compliant products is a sticker for you to keep in your vehicle. You can either adhere it somewhere on the vehicle (e.g., the inside end of driver's door) or simply store it in your glove box. The purpose of these stickers is to inform anyone who may have questions regarding the use of this product and how it affects emissions. For example, it would be something to show an emissions technician if questioned when taking your vehicle in for an emissions check to let him/her know the product is CARB emissions compliant.

FCC & Industry Canada Compliance

MODEL: Parallax FCC ID: 2AA9B05 IC: 12208A-05

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
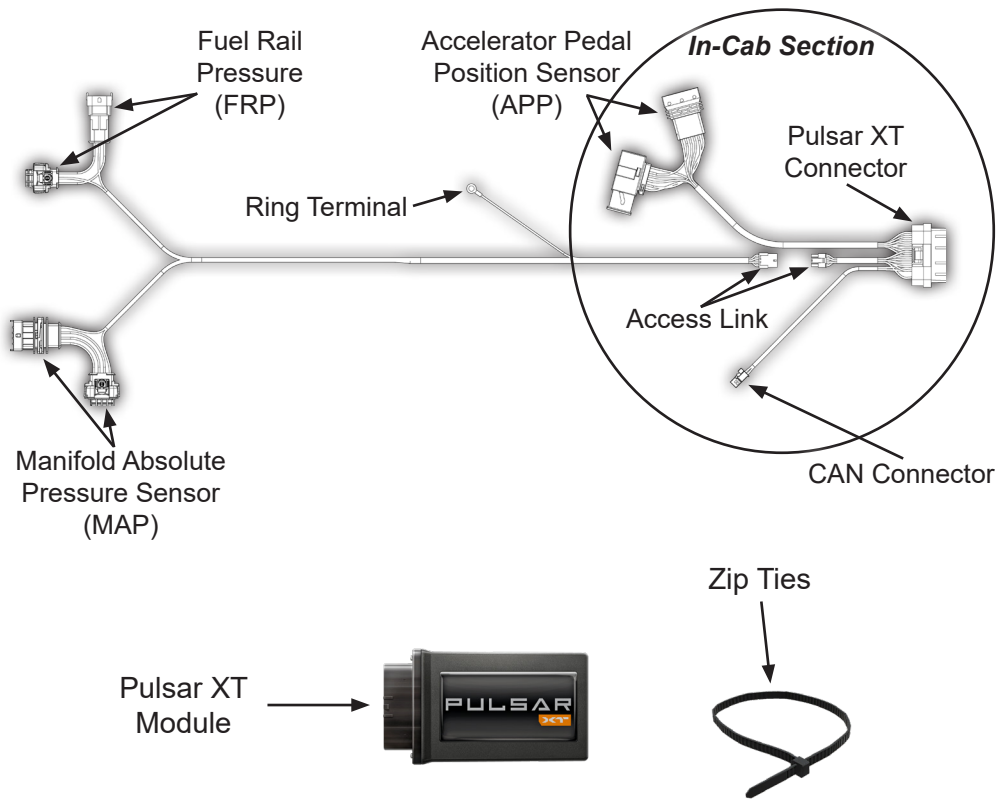
Industry Canada

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes: (1) ll'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnememnt.

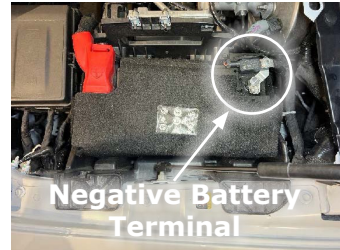# Installation of Pulsar XT 19+ Ram EcoDiesel

Materials

Fuel Rail Pressure (FRP)

Accelerator Pedal Position Sensor (APP)

In-Cab Section

Pulsar XT Connector

Ring Terminal

Access Link

CAN Connector

Manifold Absolute Pressure Sensor (MAP)

Zip Ties

Pulsar XT Module

PULSAR XT

Required Tools

7mm, 8mm, 10mm, 12mm, 14mm, Sockets/Wrench
Pick Tool
Flat Head Screwdriver
Clip Removal Tool
Precision Knife/Blade

Pulsar XT Installation
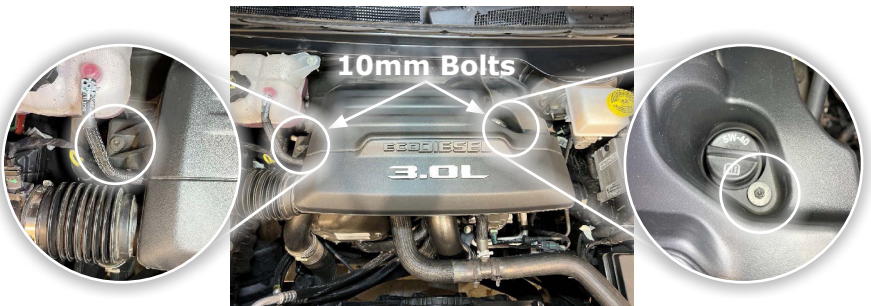

Fuel Rail Pressure Sensor (FRP)

Manifold Absolute Pressure Sensor (MAP)

Battery

STEP 1 - Disconnect the negative terminal on the battery using a 10mm socket/wrench.

Negative Battery Terminal

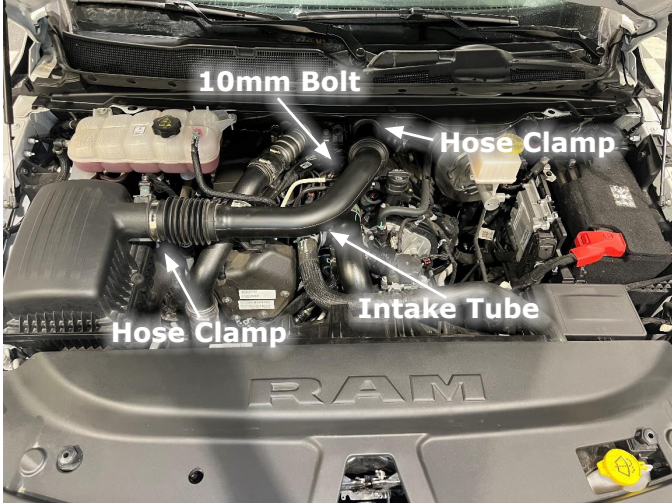**STEP 2** - Remove the engine cover by removing the two 10mm bolts. The cover will lift up and out towards the front of the vehicle.
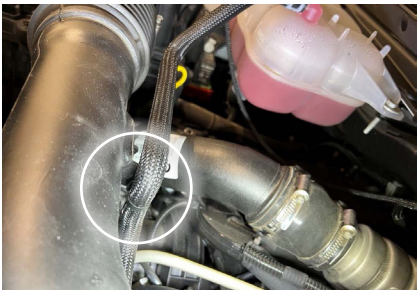

10mm Bolts

Pulsar XT Installation Cont'd

STEP 3 - Remove the Intake Tube by loosening both hose clamps at both ends with an 8mm socket/wrench. Then, use a 10mm socket to remove the bolt holding down the Intake Tube.

STEP 4 - Use a clip removal tool to disconnect the Coolant Overflow Hose from the Intake Tube.

STEP 5 - Lift up on the Intake Tube to separate it from the Charge Pipe below it, the ball socket joint should come apart.
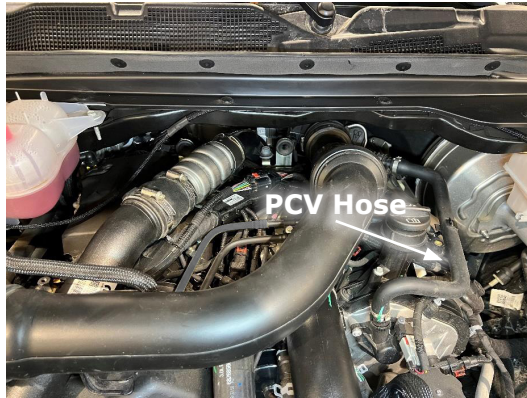
Pulsar XT Installation Cont'd

STEP 6 - Disconnect the electrical connector on the PCV (indentified below), and then remove the PCV Hose from the Intake Tube by first locating the side connected to the engine and then squeezing in the sides of the lock ring and lifting up until the PCV Hose is disconnected.
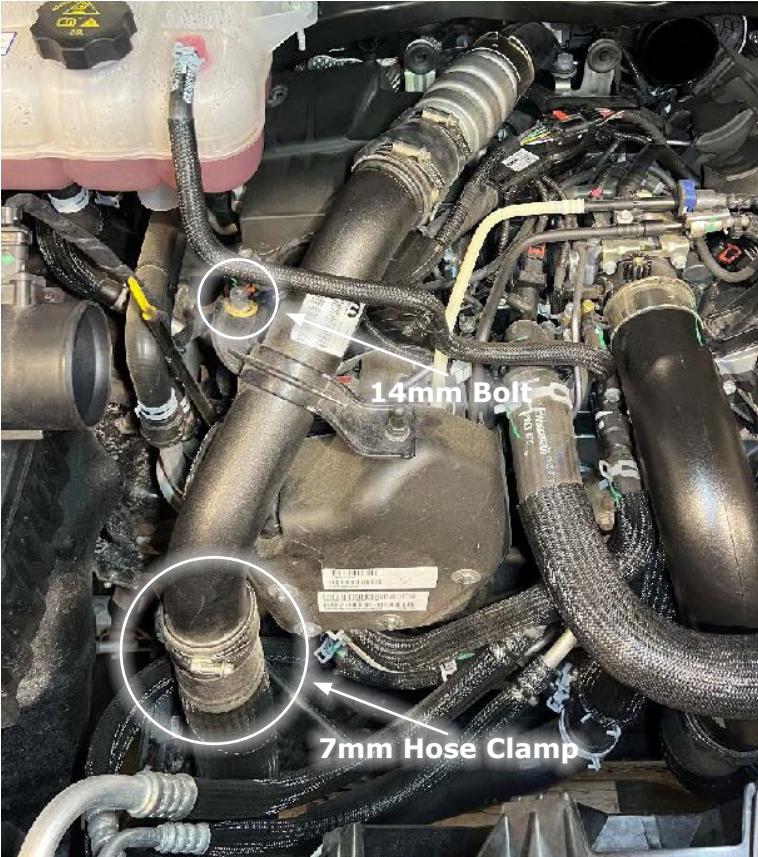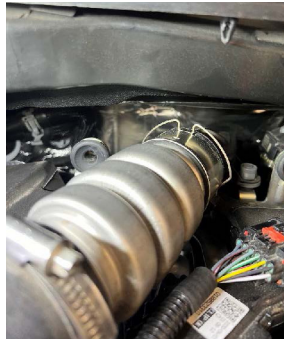
Pulsar XT Installation Cont'd

STEP 7 - Remove the Intake Tube from the Airbox and Intake Inlet and set it aside.

STEP 8 - Remove the Charge Pipe by loosening the 7mm hose clamp at the bottom and the 14mm bolt that holds down the Charge Pipe. Then, remove the Spring Clip located at the top by the firewall (see images on page 11). The Charge Pipe can be disconnected from the rubber hose and set aside.
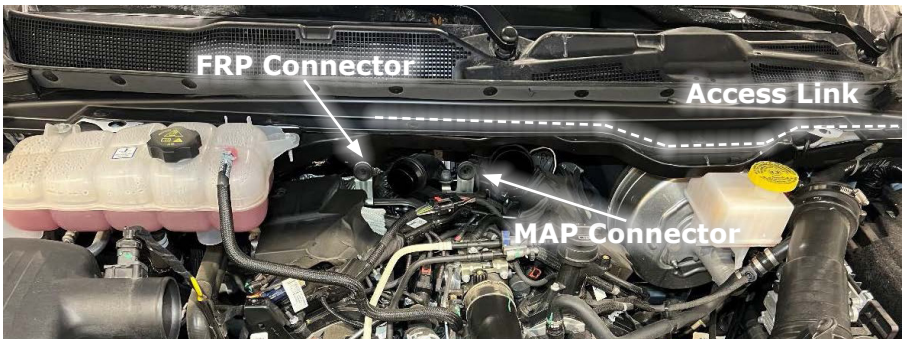

14mm Bolt

7mm Hose Clamp

Pulsar XT Installation Cont'd

NOTE - *To remove the Spring Clip, push the charge tube in towards the cab. Then, pull on both sides until they click into their respective latches. The Spring Clip should then unlock, freeing the Charge Pipe.*

STEP 9 - Once the Charge Pipe and Intake Tube are removed, lay the harness across the engine bay alongside the firewall with the Access Link connector laying towards the driver's side. We recommend that the Pulsar XT harness follows the OEM plastic harness shroud that can be seen right below the windshield tray.
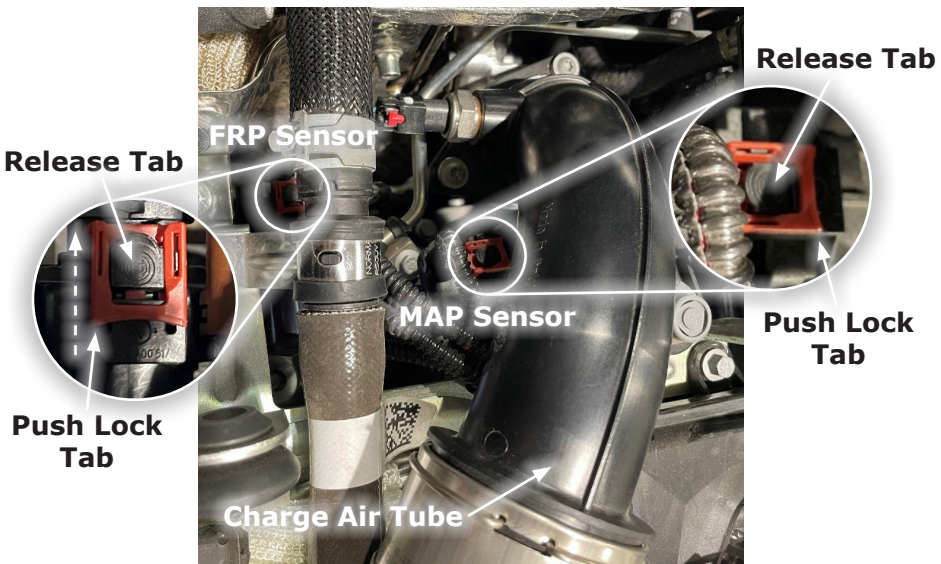
Pulsar XT Installation Cont'd

STEP 10 - Disconnect both the MAP (Mass Air Pressure) Sensor and FRP (Fuel Rail Pressure) Sensor by first pushing back on the red locking tab and then pushing in on the release tab. Connect both sensors into the Pulsar XT harness.

Pulsar XT Installation Cont'd

STEP 11 - Move the Pulsar XT harness up under the windshield tray so that they are not pinched underneath the Charge Pipe or Intake Tube.

STEP 12 - Take the plastic positive terminal cover off, then unbolt the nut using a 12mm socket. Then, install the Ring Terminal from the Pulsar XT harness onto the positive battery cable and tighten the 12mm nut. Ensure that the Ring Terminal is orientated so the plastic positive terminal cover can fit snug.
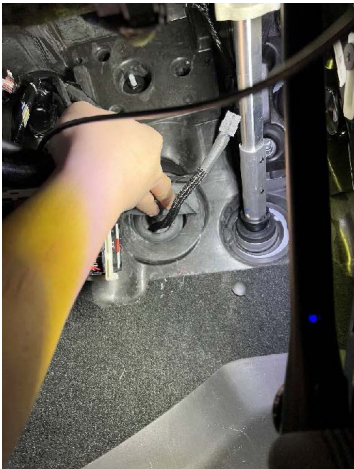
Pulsar XT Installation Cont'd

STEP 13 - Reinstall the Charge Pipe, Intake Tube, and Engine Cover. Use the previous steps in reverse order for reference.

STEP 14 - Locate the grommet for the gear shift cable that is on the driver's side of the firewall. From the in-cab side, lift up the big rubber flap and cut a small hole or slit using a precision knife or blade.

STEP 15 - Disconnect the 8-pin Access Link on the Pulsar XT harness by depressing the release tab. Then, feed the Access Link into the cabin using the hole or slit in the gear shift cable grommet. Reconnect both ends of the Access Link back together.

Pulsar XT Installation Cont'd

STEP 16 - Disconnect the APP (Accelerator Pedal Position) Sensor located above the accelerator pedal by sliding the locking tab towards the rear of the vehicle. As the lock tab slides out, the sensor will slowly slide up and you will be able to disconnect it once the locking tab is fully released. Connect both sides into the Pulsar XT harness.

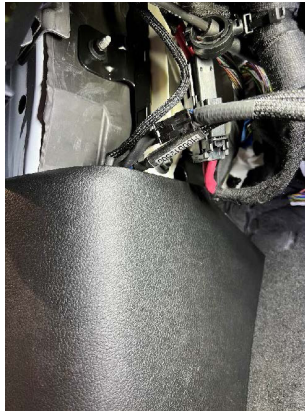*NOTE - If needed, use a flat head screwdriver or pick tool to gently pry the locking tab out.*

Pulsar XT Installation Cont'd

STEP 17 - Locate the CAN connector and run it above the driver's side kick panel. You will see a green and white STAR Connector Junction Box. Connect the CAN connector into any open port of the green junction box (towards the rear of the vehicle).

STEP 18 - Plug the Pulsar XT module into the Pulsar XT connector until it clicks. Then, tuck the module behind the driver's side kick panel so that it is snugly held in place.

STEP 19 - Use provided zip ties to secure excess cables away from the brake and accelerator pedals, hot surfaces, and any moving components in the cab and in the engine bay.

STEP 20 - Reconnect the negative battery terminal and tighten with the 10mm socket.
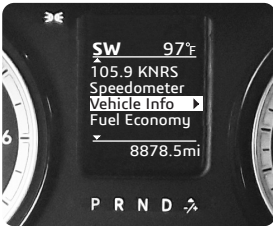
Power Levels

Steering Wheel Controls

With cruise control off, the Pulsar XT is controlled using the Cruise Control buttons.

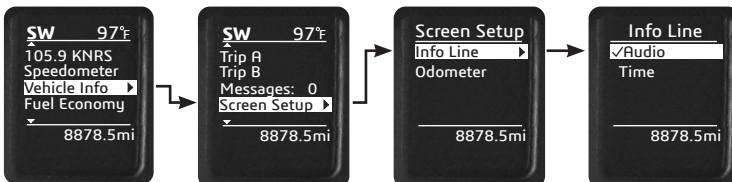| Power Levels	
	Function
RES+	Level Up
SET-	Level Down
CANCEL	View Level

Power Levels Setup

Dash Option A

This dash display requires modifications to the menu settings before Pulsar XT power level changes can be viewed.

STEP 1 - Place the ignition into the RUN Position.

STEP 2 - Using the arrow buttons on the steering wheel, enter the sub menu as shown below. Select the Audio option in the Info Line sub-menu. This will allow you to view the Pulsar XT Level while in the Main Menu.
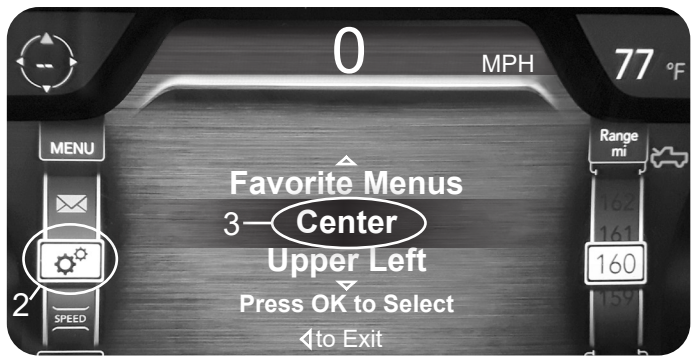
Power Levels Setup Cont'd

Dash Option B
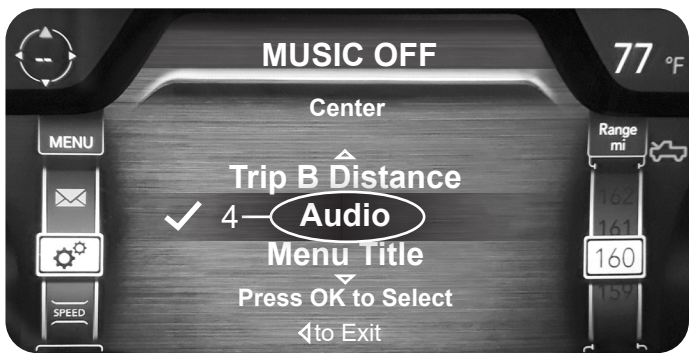**STEP 1** - Place the ignition into the RUN position.

STEP 2 - Using the left side steering wheel controls, enter the Screen Setup menu.

STEP 3 - Select the Center gauge as shown.

STEP 4 - Scroll through the available options and select the Audio option. *(The Pulsar XT device utilizes your radio's communication signals to interface with the gauge display.)*
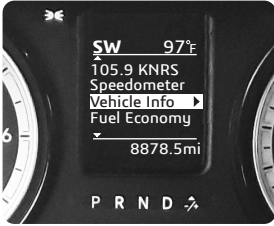
Power Levels Setup Cont'd

Dash Option A

STEP 1 - To change the power levels, use the RES+ and SET- buttons while cruise control is off. The level will briefly appear then disappear in the radio station slot.

STEP 2 - To view the current Pulsar XT power level, press the CANCEL button on the steering wheel. The level will be displayed.

Dash Option B

STEP 1 - To change the power levels, use the RES+ and SET- buttons while cruise control is off. The level will briefly appear then disappear in the radio station slot.

STEP 2 - To view the current Pulsar XT power level, press the CANCEL button on the steering wheel. The level will be displayed.

Changing Power Levels

Power Levels 0-5 are displayed on the instrument cluster's display as Audio info.

To change power levels, use the SET+ and SET- buttons while cruise control is off.

If you would like to view which level you are in without changing levels, press CANC and the power level will briefly appear on the display.

Features

High Idle

The Pulsar XT can be used to temporarily increase or decrease engine idle speed.

With the engine on and in PARK, with foot off the brake pedal, turn cruise control on and press the + button to enable High Idle. Then, use Set + to start High Idle. Use the +/- buttons to increase or decrease the idle speed.

To turn off High Idle, turn off the Cruise Controls or step on the brake pedal.

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FAQs

Frequently Asked Questions

Question: What should I do if I'm getting codes or a check engine light on my truck?
Answer: This can happen if the truck is not fully powered down before installing the Pulsar XT (battery is not disconnected), or because of improper installation of the Pulsar XT.

 Fix 1: Double check all Pulsar XT connections, and make sure all connections are fully making contact.

 Fix 2: If codes are still coming up, use the Pulsar XT app to read and clear codes, and then drive the vehicle to see if they come back up. If the codes persist, call tech support.

Question: Can I shift on the fly with the Pulsar XT?
Answer: Yes, this device allows you to shift power levels on the fly using the cruise controls or the Pulsar XT app.

Question: Does the Pulsar XT program the PCM?
Answer: Yes, Pulsar XT has a couple of options that will program the PCM. If you make any changes to these settings, we recommend reverting or reprogramming to stock before going to the dealer.

Question: What is the best way to accurately measure tire size?
Answer: Mark a line on the ground where the center of the tire rests, then drive the vehicle for two full rotations of the tire and mark the spot where it comes to a rest with another line. Measure the length between the two lines and divide by two. Then divide that number by Pi π (3.14159265359).

For additional questions not found in the user guide, call:
Holley Technical Support: (888)-360-3343
Mon - Fri 8:00 am - 5:00 pm MST, Sat 8:00 am - 2:00 pm MST

To expedite your support call, please have your Vehicle Information, Part Number, and Serial Number ready prior to calling Technical Support.