

JUICE
ATTITUDE
CTS4+



EDGE

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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.

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.

NOTE: After the display has been installed, the following warning message will appear when powered on. Swipe the screen upward to read the full disclaimer.

 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 CTS4, CUSTOM TUNES, IMPROPER USE OF CALIBRATIONS, MALFUNCTION OR LACK OF LEGAL COMPLIANCE FOR CUSTOM PROGRAMS CREATED BY THIRD PARTIES.**
DO YOU AGREE?

Safety Guidelines

WARNING

Before using device, read and understand the user manual, including these additional safety instructions.
Failure to do so could result in DEATH or SERIOUS INJURY.

- 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.

Safety Guidelines Cont'd

NOTE: *The stickers included in some products apply to products that have received 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 Compliance



Contains FCC ID: VPYLBES5PL2EL
Contains IC: 772C-LBES5PL2EL

Edge Products CTS4 Programmer

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.

WARNING: *Changes or modifications to this device not expressly approved by Edge Products, LLC could void the user's authority to operate the equipment*

▲ NOTE: *This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:*

RF Exposure

This equipment complies with radiation exposure limits set forth for an uncontrolled environment. This equipment is in direct contact with the body of the user under normal operating conditions. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Cet equipment est conforme aux limites d'exposition aux radiations dans un environnement non controle. Cet equipment est en contact direct avec le corps de l'utilisateur dans des conditions de fonctionnement normales. Cet emetteur ne doit pas etre co-localisees ou operant en conjuction avec tout autre antenne ou transmetteur.

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) Il'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 fonctionnement.

Quick Start

In-Cab Display

Red LED light when Recording Gauges

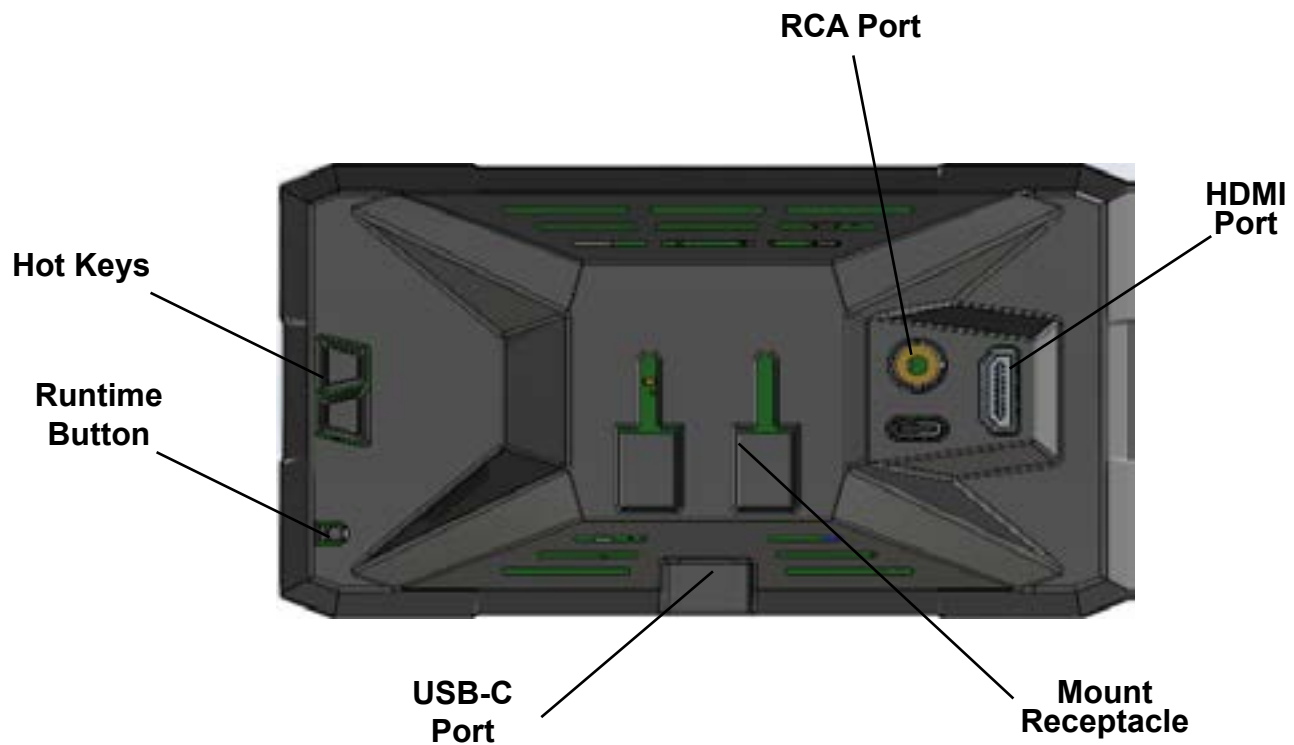
Blue LED light when recording Run Times

Green LED light when REGEN in progress



Light Sensor

Touch Screen



Hot Keys

Runtime
Button

USB-C
Port

RCA Port

HDMI
Port

Mount
Receptacle

Accessories

Windshield Suction Mount



Alcohol Wipe



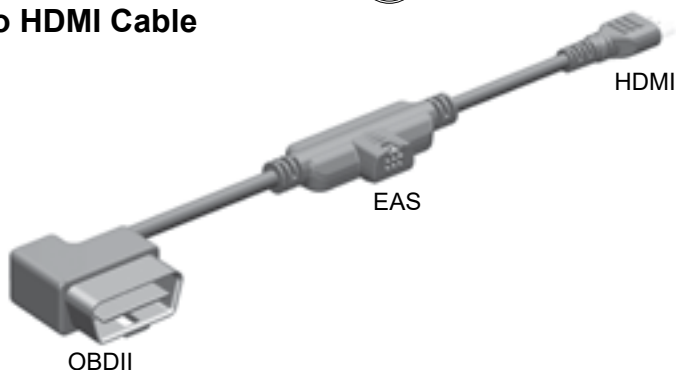
USB Cable



Zip Ties



OBDII to HDMI Cable



Cable Installation

1. Locate the OBDII port. The connector is typically found directly below the driver side dash console.
2. Plug the OBDII connector into the vehicle port.
3. Route the HDMI connector up the driver side dash. *(On most vehicles, the side panel may be removed to expose the underside of the dash for easier routing. Leave panel open until the display is installed.)*



Windshield Mount Installation

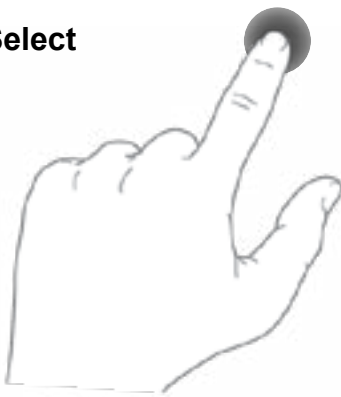
1. Use the alcohol wipe to clean the windshield in the area you plan to place the suction cup. Allow the glass to dry completely.
2. Firmly press and hold the suction mount against the glass.
3. Rotate the Cam Lever towards the glass to create the suction.
4. Plug the HDMI connector into the back of the device and slide the device onto the mount.



Touch Screen

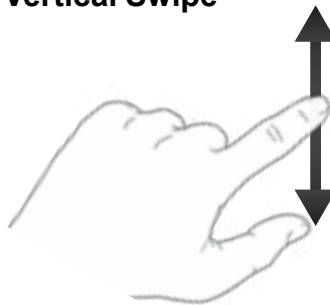
Use these gestures to navigate and control the display.

Press/Select



Select options, input values, enter menus, etc.

Vertical Swipe



Drag up or down menus, and scroll through menu items.

Horizontal Swipe



Scroll through gauge screens or change option values.

Double Tap



Enter sub-menus such as gauge editor.

Home Menu

The Home Menu displays each of the menu options available on your device.

To navigate to one of the 6 menu options, simply select an icon.



TIP: You can also reach this menu from the Gauge Screen by swiping up from the bottom of the screen and pressing the Home icon.



Menu Options	Basic Descriptions
Juice Settings	Change specific settings controlled by the Juice module.
Testing	Quickly and easily test your new tunes & performance.
Settings	Adjust device settings to better fit your needs.
Monitor	Monitor and record your vehicle performance.
Diagnostics	Diagnose and clear trouble codes.
EAS Settings	Configure EAS Accessories.

**Tuning options not available on CTS4 Insight models*

⚠ WARNING: Misapplication or misuse of this product could lead to a serious or fatal accident. Comply with all safety information in this manual, and your vehicle owner's manual. Follow safety, installation and operating instructions in this User Manual to assure proper use.

Attention: Vehicles manufactured after June 2006! The Key FOB operation is unreliable while the turbo timer feature continues to run your vehicle after turning off the key. When the turbo timer is running it is recommended that you either lock the doors manually or repeatedly press the lock button on the FOB until you can verify that your doors have locked.

Updating the CTS4

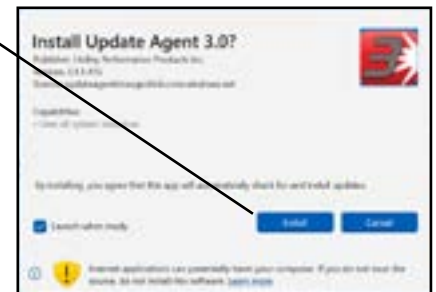
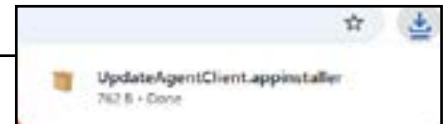
Downloading Update Agent

Update Agent may be used to update the device via the USB connection. The software can be downloaded to the computer using the internet.

1. A) Go to www.edgeproducts.com
- B) Select the SUPPORT tab at the top of the page
- C) Select Software Updates
- D) Select the Download Update Agent link



2. Open the downloaded "UpdateAgentClient.appinstaller" file.
3. Select INSTALL.
4. Open the Update Agent program.
5. Refer to the next page for performing product updates.



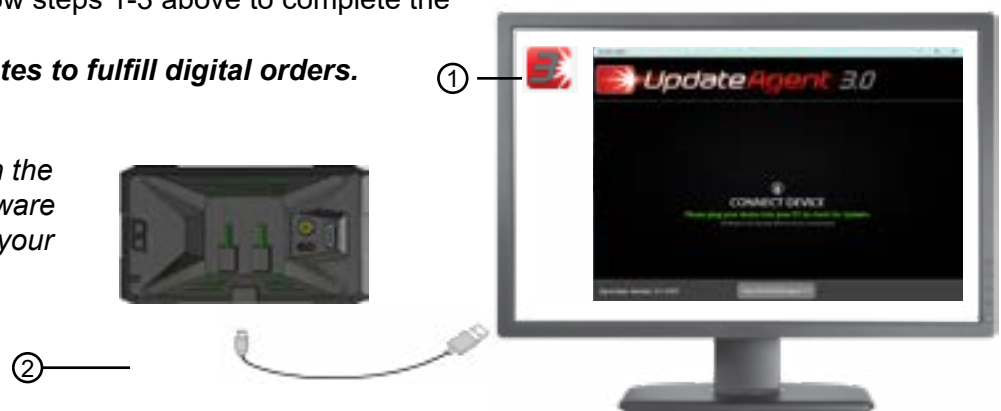
Product Updates (USB/Wireless)

This device has the ability to update via a USB connection or a wireless connection. Refer to the following information for USB updates. **See page 20 for details on how to setup Wi-Fi and for updating the device wirelessly.**

1. Open the **Update Agent** program.
2. Connect device to the computer using the supplied USB Cable.
(Update Agent will automatically search for updates related to the device.)
3. If updates are available for your device, Update Agent will ask to install them. Click **Yes**.
The update process will start and finish automatically. Once the update is complete, you may be directed to the online store.
4. To purchase any of the shown available upgrades, click on the item and add to cart, then follow the instructions on the website to check out.
5. If a purchase was made, follow steps 1-3 above to complete the update.

NOTE: It may take a few minutes to fulfill digital orders.

NOTE: A warranty is available in the Online Store to protect the hardware and mechanical components of your CTS4 device.



NOTE: Edge Products makes updates available periodically to add coverage and features. Updates could include a new version of the update software. When you elect to update, please refer to the "Download" tab and follow instructions for CTS4 updates in the event software should upgrade.

JUICE CONTROL

Installing the Juice Hardware

Refer to the Juice Installation Guide at the end of this manual for detailed information on how to install the Juice specific hardware (harness, sensors, etc.)

Adjusting Power Levels

While on the Main Gauge screen, press the Up or Down arrows until the desired power level is showing on the indicator located between the two buttons.

Tip: You can program the hotkeys to open a power-level slide-out, allowing you to continue using other gauge screens while maintaining quick access to power-level information.



Power Levels Explained

MILEAGE (LEVEL 1) - Recommended for daily driving. The mileage tuning was created for optimal fuel economy under normal driving.

TOW (LEVEL 2) - Recommended when pulling a load. The tow tuning was created to provide power where it is needed most when pulling a load.

DRIVE (LEVEL 3) - Recommended for all around daily driving and performance.

RACE (LEVEL 4) - Recommended for sanctioned racing events. The fuel injection and timing strategies are aggressively tuned to pull substantial power gains from the vehicle without sacrificing driveability or durability.

EXTREME (LEVEL 5) - Recommended for sanctioned racing events. The fuel injection and timing strategies are aggressively tuned to pull the highest level of power and performance from your vehicle.

HOT UNLOCKER (LEVEL 6 OPTIONAL) - This level should only be used when the vehicle power and drive-train have been upgraded. To unlock this level you will need to:

1. Visit www.edgeproducts.com
2. Click the support tab.
3. Click the "Hot Unlock Codes" option.
4. On the Hot Unlock web page, scroll down to the bottom and choose to either purchase a code online, or download a form for mail in.

Adjusting the Juice Control Settings

While in the Main Menu, select the **JUICE SETTINGS** icon.



This menu allows you to regulate engine power delivery and drive-train performance by enhancing the Engine Control Module (ECM) factory settings through the Juice Module.

1. Select an option to adjust its settings.
2. Refer to the next sections of the manual for more detail on each **JUICE SETTINGS** option.

NOTE: The following settings may or may not be available depending on your make of vehicle and/or your Edge Product.



Backdown Settings

NOTE: Depending on your make and model, the following backdown features may or may not be available for your vehicle.

Based on certain parameters, the Attitude will automatically defuel the vehicle at a specified set point. As the value approaches the set point, a percentage of de-fueling occurs. This percentage is shown as the backdown value. When 100% is reached, the Juice module is no longer controlling the vehicle.

NOTE: Yellow LED flashes during Backdown.

This is the maximum Exhaust Gas Temperature (EGT) value at which the Attitude will automatically begin to de-fuel the vehicle.



This is the maximum Boost value (psi) at which the Attitude will automatically begin to de-fuel the vehicle.

Press to Enable or Disable the backdown feature.

⚠ CAUTION: Other high performance modifications in addition to the Juice can allow the fueling to exceed the max set point and stock EGT levels, even after 100% de-fueling by the Attitude. This may result in detrimental EGT levels and potential power-train damage.

NOTE: Your vehicle is equipped with modern emissions control devices including a particulate trap and possibly a NOx absorber. These devices will cause changes in Exhaust Gas Temperature (EGT) during normal driving. Please refer to the owner's manual for an explanation of how your truck's EGT is affected by these devices.

Important NOTE: It is the customer's responsibility to watch for and ensure complete regeneration cycles. Edge Products' devices do not adversely affect the regeneration cycle of your vehicle. Any vehicle exhaust-and emission-system issues are the sole responsibility of the vehicle owner and the OEM. No DPF warranties are expressed or implied.

Low Boost Response

These settings are used to determine the percentage of the extra fuel that will be added as Turbo Boost increases.

There are 5 settings for each Power Level. If you want the extra fuel to be distributed across a larger range (such as 0-20 psi), you would pick a small number such as 1 or 2. If you want the extra fuel to be added across a smaller range (such as 0-5 psi), you would choose a more aggressive setting such as 4 or 5.

1. Adjust the individual power settings.
2. Press the **SAVE** button to return to the Juice Settings menu.



Timing Options

NOTE: This option is only available on specific Dodge diesel trucks.

2006-2012

Juice Timing will allow the timing to be matched with the Juice Power options.

Stock Timing will allow the engine to run according to stock settings.



2013-2018

For each Power level, select a Timing level:

- Level 1 = Stock Timing
- Level 2 = 25% Juice Timing
- Level 3 = 50% Juice Timing
- Level 4 = 75% Juice Timing
- Level 5 = Max Juice Timing



NOTE: Injector noise can be reduced with less timing, but you will also have less horsepower.

Torque Management

NOTE: Available on 2013-18 Dodge Diesel Trucks

These settings are used to determine how much fuel will be added during low Turbo Boost conditions.

STEP 1 - Adjust the individual power level settings.

STEP 2 - Press the **SAVE** button to return to the Juice Settings menu.



⚠ CAUTION: We recommend choosing de-fueling (Yes) during torque converter or clutch slip for stock transmissions. Selecting (No) will allow the Juice to fuel when the transmission slips. (Yes) eases the transmission strain because the Juice lowers its power output when the torque converter or clutch is slipping.

Transmission Setup

NOTE: Depending on your make and model, the following features may or may not be available for your vehicle.

These settings allow for de-fueling during shift & torque converter lock.

The Shift Defuel Settings menu includes the following options:

- Defuel all shifts
- Defuel 5-6 (or 4-5) shift
- No defuel on shifts



Protects your transmission from slipping.

On specific Dodge trucks, after selecting this feature, you will be given 3 transmission options:

NOTE: The right/up and left/down refer to the location of your reverse gear.

1. Automatic
2. 6spd Right Up
3. 6spd Left Down



Defuel WOT Shifts:

NOTE: Depending on your make and model, the following features may or may not be available for your vehicle.

This option allows you to defuel during a shift that takes place at Wide Open Throttle (WOT).

Press the button to toggle this feature On or Off



Truck Model Year

NOTE: This option is only available on specific Dodge diesel trucks.

Select your truck's model year.

This allows the Juice and Attitude to adjust settings based on your vehicle.



Speed Limiter

NOTE: Depending on your make and model, the following features may or may not be available for your vehicle.

This option allows you to enable or disable the speed limiter.



⚠ WARNING: Removal/adjustment of the factory speed limiter is intended for use at a closed circuit, legally sanctioned racing environment. If you drive on public roads after removal or adjustment of the speed limiter, you must still obey all driving laws, including adhering to posted speed limits. To drive at racing speeds on public roads seriously endangers you, your passengers, and others nearby. Also it is your responsibility to ensure your tires and other vehicle components are rated to travel at increased speeds. Driving at high speeds with inadequate tires or other components can lead to serious or fatal injury.

⚠ CAUTION: Removing/adjusting the speed limiter for purposes inconsistent with the products's intended function violates the product's intended use and will invalidate the product's warranty. Edge Products is not responsible for, or liable for the consequences of improper product use.

Axle Ratio

⚠ CAUTION: This feature should only be used if you have replaced the stock Axle.

This option allows you to adjust the calculated output shaft speed.

Use the +/- buttons to adjust the ratio, then press **SAVE**.



Available Menu Options

These are all available menu options and the menus where they can be found. Depending on your make and model, these options may or may not be available for your vehicle.

Option	Menu	Description
Axle Ratio	Vehicle Settings	Select the Axle Ratio currently installed in the truck (if aftermarket).
Backdown	Backdown Settings	Enables or Disables Backdown.
Clear DTC's Delay	Trouble Codes	The amount of time that the Juice waits before it clears DTC's.
Clear On Start	Trouble Codes	Enables or Disables DTC Clear on Start.
Cold ECT Defuel	Backdown Settings	Enables or Disables Backdown while the engine is cold.
Defuel WOT Shifts	Transmission Setup	Enables or Disables Defueling on WOT Shifts.
Gear Ratio	Vehicle Settings	Select the Gear (Axle) Ratio currently installed in the truck (if aftermarket).
Max Boost Setpoint	Backdown Settings	Above this Boost Level, the Juice will enter backdown mode.
Max EGT Setpoint	Backdown Settings	Above this EGT, the Juice will enter backdown mode.
Shift Defuel Setting	Transmission Setup	
Speed Limiter Remover	Vehicle Settings	Enables or Disables Speed Limiter.
Target EGT	Turbo Cool Down Setup	If Turbo Timer is set to use EGT, the truck will stay running until EGT's drop below this threshold, after the key is removed.
Target Time	Turbo Cool Down Setup	If Turbo Timer is set to use Time, the truck will stay running for the amount of time selected, after the key is removed.
Timing Options	Timing Options	Adjust Timing Options per Juice level.
Tire Size	Vehicle Settings	Enter the current height of the tires, in inches.
Trans Slip Protection	Transmission Setup	Enables or Disables Trans Slip Protection,
Trans Type	Transmission Type	Select the type of transmission installed in the vehicle.
Truck Model Year	Vehicle Settings	
Turbo Cool Down Setup	Turbo Cool Down Setup	Settings for Turbo Timer Features.
Turbo Timer EGT	Turbo EGT	Select which EGT Sensor to use for the Turbo Timer EGT functionality.

TESTING

0-60, 0-100, 1/4 Mile, & 1/8 Mile Tests



While in the Main Menu, select the **TESTING** icon.

The TESTING menu includes the following options:

- 0-60 Test
- 0-100 Test
- 1/4 Mile Test
- 1/8 Mile Test
- Saved Tickets

1. Select the **Performance Test** you want to start.

NOTE: There are two ways to perform these tests: the use of a drag tree, or a stop light. Use the middle button to toggle between the options.

Drag Tree:

1. When the vehicle is in place, select the **START** button to initiate the drag tree sequence.
2. Once the two green lights are lit up, release the brake and proceed to accelerate.

NOTE: The time gauge will read **JUMP** if you've started before the drag timer completed its countdown. If this occurs, select **RESET** and start over.



TIP: Toggle between Drag Tree and From Stop using the middle button.

From Stop:

1. When the vehicle is in place, release the brake and proceed to accelerate.

NOTE: Once the speed has been reached, the test will stop and the results will be displayed. A digital drag slip will be created providing run information such as reaction time, speed at specific distances, and other useful information.



⚠ WARNING: Do not exceed legal speed limits on public roadways.

⚠ WARNING: Running performance tests with this product should only be conducted 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.

SETTINGS



While in the Main Menu, select the **SETTINGS** icon.

This menu includes the following options:

- Help/Info
- Display Settings
- Configure Hot Keys
- Device Colors
- Audio Settings
- Wi-Fi Setup
- Email Setup
- Check For Updates
- Unit of Measure
- Restore Default PIDs
- Restore Default Settings
- Alert Settings
- Vehicle Weight
- Tire Size (for PIDs)
- Pulsar Settings
- Juice Settings

Refer to the next sections of the manual for more detail on each **SETTINGS** option.



TIP: The gauge icon takes you directly to the gauge screens.

Help/Info

The information in this section assists our Tech Support team when support is needed. It also provides tutorials and answers to common questions.

1. Select the desired **Help/Info** setting.
2. Press **EXIT** to return to the **SETTINGS** menu.

NOTE: The *Tech Support* option is to be used only when Tech Support requests information.



Display Settings

This menu includes the following settings to adjust the display:

- Day Mode Brightness
- Night Mode Brightness
- Day/Night Threshold
- Swipe Sensitivity
- LED Brightness
- Menu Timeout
- Gauge Refresh Rate
- Camera Delay

1. Select the desired display.
2. Modify each setting by adjusting its value.
3. Press **EXIT** to return to the **SETTINGS** menu.

TIP: You can adjust the numbers by tapping the number to open the number pad, or tap + or -.



TIP: The Information icon provides more detail regarding each Display Setting.

Device Colors

Change and modify device colors for background and borders.

1. Select the desired display setting and select the color for your background or accent.
2. Select Customize to make custom colors
3. Press **SAVE** to save your changes.
4. Press **BACK** to return to the Device Colors menu. *Unsaved changes will be lost.*
5. Press **EXIT** to return to the **SETTINGS** menu.



TIP: You can adjust the numbers by tapping the number to open the number pad, or tap + or -.



Audio Settings

1. Select the desired setting and toggle the ON/OFF switch.
2. Press **EXIT** to return to the **SETTINGS** menu.



Wi-Fi/Email Setup

This device is equipped with the ability to connect to and update over a secure Wi-Fi connection. For more information on how to check for updates, refer to the **Check for Updates** section.

1. Select the **Wi-Fi Setup** option from the Settings menu. A list of available networks will appear.

NOTE: You may be prompted to put in an Email address before connecting to a network. Enter the same email address you registered the device with.

2. Select the network that you would like to connect the device to.

3. Use the **keypad** to enter the network password, then press **SAVE**. Note that most networks are case sensitive.



TIP: A green check mark will appear when the device is connected.



Check for Updates (Wi-Fi)

Ensure that the device is connected to Wi-Fi to use this feature to look for updates online.

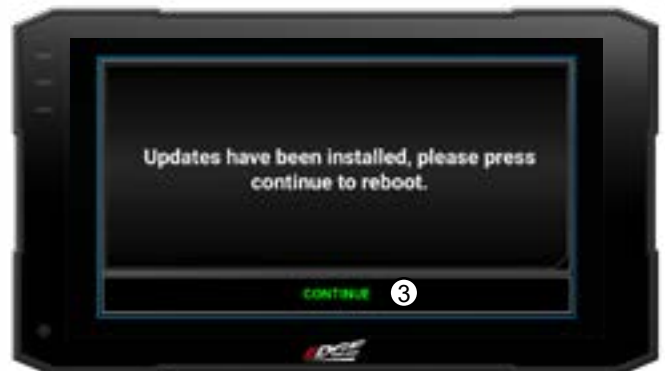
1. Select the **Check for Updates** option from the Settings menu.

NOTE: If Wi-Fi is disconnected, the device will prompt you to configure a network first.

2. The device will check for any updates. If available updates are found, it will prompt you to continue.

3. Follow the on-screen instructions to complete the update process. If asked to reboot the device, press **continue** as prompted. The update should be completed after reboot.

NOTE: You will need to unplug the device for the changes to take effect. DO NOT unplug the device while driving.



Unit of Measure

1. Toggle to choose Imperial or Metric, then hit **SAVE**.

2. Press **BACK** to return to the **SETTINGS** menu.

NOTE: You will need to unplug the device for the changes to take affect. DO NOT unplug the device while driving.



Restore Default PIDs

1. Press continue to restore the default PID list.

NOTE: This will NOT restore your vehicle's factory data.

2. Device will reboot automatically.

Restore Default Settings

1. Press continue to restore all user settings to the factory default values.

NOTE: This will NOT restore your vehicle's factory data or unmarry the tool from your vehicle.

2. Device will reboot automatically.

Alert Settings

1. Toggle ON or OFF for gauge alerts.

2. Select **EXIT** to return to the **SETTINGS** menu.



Vehicle Weight

1. Enter or modify your vehicle's weight and press **SAVE**.

2. Select **EXIT** to return to the **SETTINGS** menu.

Tire Size (for PIDs)

Tire size will affect the C-Speed in the Gauges, so this menu will also show up the first time you set up the C-Speed PID.

1. Enter your stock and modified tire size. Use the tabs above for other available options.
2. Press **SAVE** to save your changes.



TIP: You will also reach the Tire Size menu the first time you set up the C-Speed gauge, at which point you will be prompted to enter the tire size.



MONITOR

Gauge Layouts

While in the Main Menu, select the **MONITOR** icon.

The first of 3 gauge layouts will be displayed. To toggle between screen layouts, swipe the screen left or right.



Edit Gauge Layout:

1. Open the pull-down menu by swiping downward from the top of the screen. Select **EDIT LAYOUT**.
2. Select one of the 3 layouts, or add a layout.

TIP: Select the Trash Can icon to delete the current layout settings.



4. Toggle through the screen style options by swiping the image up/down or selecting the up/down arrows.
5. Press the **SELECT** button to choose the new layout style.
6. Press the **SAVE** button on the Layout Editor screen. You will be given the option to **Save as new Layout**.
7. Use the keypad to enter a name for your custom layout then press **SAVE**.

TIP: Option to load saved layouts.



Pitch / Roll G-Force Screen

Each CTS4 device gives you the option to check the pitch and roll of your vehicle.

1. While in the **EDIT LAYOUT** screen, choose which screen you wish to replace.
2. Using the up and down arrows to the right, select the **Pitch / Roll G-Force Screen**.
3. Select **SAVE** and choose to create or replace a layout.
4. Select **BACK**. When the Gauge Screen is in view, swipe right until you're on the Pitch/Roll G-Force Screen.



TIP: By holding down on the pitch / roll gauge for three seconds, you can level the gauges and G-Meter out to 0.



Individual Gauge Setup

Each gauge within a gauge layout can be modified individually. Settings such as Unit of Measure, PIDs, Alert Settings, and Tick Marks may be modified.

PID Selection:

1. While the gauge screen is in view, **Double Tap** the individual gauge to be modified.
2. Select a PID from the provided list. Swipe up/down to see the entire list.
3. A green check mark will appear next to the selected PID.
4. If the PID measures temperature, speed, or pressure, go to Unit of Measure in Settings and use the toggle switch to change between Metric or Imperial units.
5. Select **SAVE** to apply the changes.



TIP: If you don't see what you want and need a more expansive list, change between Basic and Advanced PIDS.



TIP: The Information icon provides more detail regarding the PID.

Alerts:

1. Select the  icon.
2. Use the toggle buttons to turn each option on/off.
 -  Alerts On/Off
 -  Alert sounds On/Off
 -  Warning On/Off

Tap on the center value to open a keypad to set specific values.



3. To adjust the warning and alert values for the PID, use the value editors.
4. Select **Save** to apply the changes.

Tick Mark Customization:

1. Select the  icon.
2. Using the Min/Max values, adjust where the gauge starts and ends.
3. Adjust the Decimal Places as desired.
4. Select **SAVE** to apply the changes.



Wallpaper

Change the background image displayed on the device.

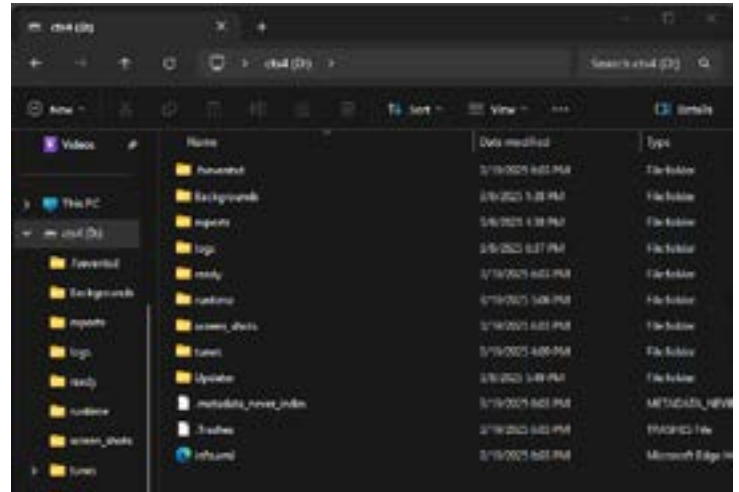
1. While the Gauge Screen is in view, open the pull-down menu by swiping downward from the top of the screen.
2. Select **Wallpaper**.
3. Toggle through the available background images by swiping up/down on the image or using the up/down arrows.
4. Press **SAVE** to apply the Image and **EXIT** to return to the gauges.



Custom Wallpaper

Add custom wallpapers to be displayed as the device background.

1. Plug in the device and find the cts4 folder on your PC and open the folder.
2. The cts4 device folder should show a Backgrounds folder.
3. Drag or save any images wanted as a background into that folder.
4. Return the device to your vehicle and follow the steps to change your wallpaper. Any images added to the Backgrounds folder will automatically appear in your wallpaper list.



TIP: The suggested image size is 1280 x 720. Anything smaller will be automatically centered by the CTS4. The image should be a .jpg, .png, or .gif. The device will also begin to slow down the more images there are. Recommended amount is five.

Theme Settings

Change and modify individual gauge element colors and transparency.

1. While the Gauge Screen is in view, open the pull-down menu by swiping downward from the top of the screen.
2. Select **THEME SETTINGS**.
3. Select and adjust the desired Gauge Theme.
4. Select **SAVE** to apply the changes.



TIP: Touch the gauges to view them in their normal, warning, and alert states.

Camera

To use a backup camera with the CTS4 device, connect camera harness to the RCA jack on the back of the screen. Visit <https://edgeproducts.com> for more information.

The camera has to be connected to the CTS4 before the device boots up to be recognized.

When the CTS4 can detect the gear parameter from the automatic transmission, the camera will automatically display when the vehicle is in reverse gear.

1. While in the Gauge Screen, open the pull-down menu by swiping downward, starting from the top of the screen.

2. Select the camera icon.

3. Touch the screen to return to gauges.



Recording

Use the recording option to log and save vehicle data.

1. While the Gauge Screen is in view, open the pull-down menu by swiping downward from the top of the screen.

2. Press the **Record** button to start the recording process. When the desired amount of information has been gathered, press the **STOP** button.

NOTE: The LED above the recording icon will light up red during the recording.



DIAGNOSTICS



While in the Main Menu, select the **DIAGNOSTICS** icon.

This menu includes the following items:

- Trouble Codes
- Maintenance Minder
- High Idle



Trouble Codes

NOTE: Trouble codes are created when an issue is detected by vehicle sensors. Use this feature to view and clear these trouble codes.

1. If a code has been initiated, select the code to see a description of the issue.

TIP: Write the codes down for future reference.

2. Once you have read the code(s) description, you have the option to clear them. Select **Clear All** to clear the codes from the device and reset the vehicle's check engine light.



NOTE: If a DTC persists, this could indicate a vehicle malfunction. We recommend seeking a qualified professional in resolving the issue. Program the vehicle back to stock prior to service.

Maintenance Minder

The Maintenance Minder settings provide a way to track required maintenance and alert you to upcoming maintenance.

This menu includes the following items:

- Service Items
- General Minder Settings

NOTE: The Maintenance Minder will ask for an odometer value to work properly. Follow the instructions to enter your odometer information.



Maintenance Minder Cont'd

Service Items:

This menu includes the following items:

- Engine Oil
- Air Filter
- Transmission Fluid
- Differential Fluid
- Water In Fuel
- Fuel Filter
- Brake Pads
- Create New Service Item



1. For each service item you will see the information shown below. Select the desired menu item to adjust the values.



TIP: The Information icon provides more detail regarding each Service Item setting.

General Minder Settings:

These settings show the odometer value and allow you to set up thresholds and alerts.



EAS SETTINGS

EAS Overview

The CTS4's functionality may be added upon by use of EAS (Expandable Accessory System) devices. The CTS4 automatically connects to any new EAS devices connected to it before it boots on, and will alert the user.

While in the Main Menu, select the **EAS SETTINGS** icon.

This menu includes the following items:

- Trouble Codes
- Maintenance Minder
- Manual Regeneration
- Injector Balance Rates
- Readiness Tests

Upon installation and loading of a new device, the following settings are available:

- Display Name
- Description
- Display Units
- Scaling
- Current Settings
- Restore Defaults

Upon installation and loading of a new device, the following settings are available:

DISPLAY NAME: Changing this item will change the name of the PID, this name will be shown on the gauges and in the PID selection menu.

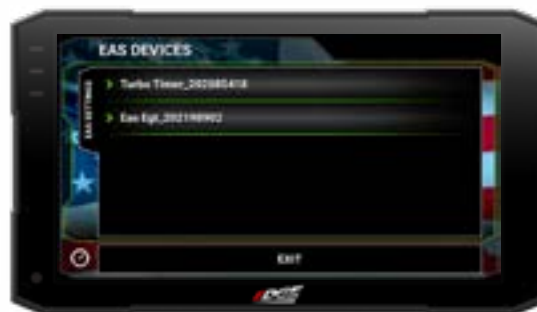
DESCRIPTION: Changing this item will change the description of the PID. This is shown when pressing the INFO button when assigning to PID to a gauge.

DISPLAY UNITS: Changing this item will change the Units when displayed on gauges.

SCALING: Selecting one of these scaling options will allow the device to display the proper data once placed on a gauge. This selection is required for your EAS accessory to work properly.

CURRENT SETTINGS: This will display the current settings previously saved within the device.

RESTORE DEFAULTS: This will restore all items preloaded with this device in relation within this EAS device.



EAS Device Instructions

EAS EGT Probe

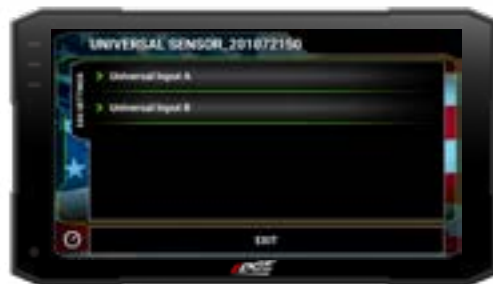
The EAS EGT Probe does not need any of the pre-defined settings adjusted. However, users have the ability to customize its *Name*, *Description*, and/or *Current Settings*.

EAS Universal Sensor Input (5 Volt)

The EAS Universal Sensor Input provides the ability to read any 0-5 volt signals and translate them into meaningful values for display on the CTS4. Use the EAS Settings Menu to properly configure any sensor intended for use with the accessory. There are two channels to this input, Channel A and Channel B. Following the onscreen prompts will allow you to go to each channel's individual settings.

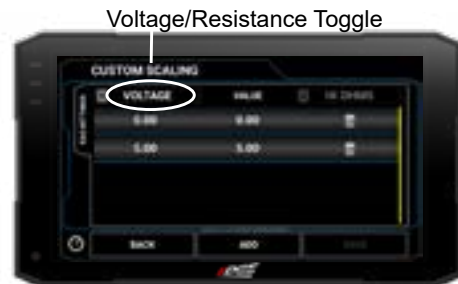
Setting up a EAS branded sensor:

1. Enter the EAS Settings Menu.
2. Select your Universal Sensor Module (**NOTE: The serial number should match the unit that is connected to the sensor you are attempting to configure**).
3. Select the channel that you connected your sensor to, either A or B.
4. Select Scaling and then search the list for the sensor you are using.
5. At this point, you can save the settings and begin using the sensor. The name and description will be populated with the default EAS sensor's name, description, and display units.
6. Alternatively, you can customize the name, description, and units if you choose. (**NOTE: Changing the sensors display units does not have any effect on the data being displayed. The sensors scaling is set up for the default display units**).
7. When in the Gauges mode, you'll be able to apply that sensor to any gauge using the Gauge Editor Menu.



Setting up a custom sensor (non-EAS):

1. Enter the EAS Settings Menu.
2. Select your Universal Sensor Module (**NOTE: The serial number should match the unit that is connected to the sensor you would like to configure**).
3. Select the channel that you connected your sensor to, either A or B.
4. Select Name to give your sensor a name (optional).
5. Select Description to give your sensor a description (optional).
6. Select Display Units to define your sensor's display units.
7. Select Scaling and then Custom Scaling.
8. From this screen you'll be able to add as many data points necessary to scale your sensor. This information should be provided by the sensor manufacturer. If it's a resistive based sensor, you can toggle from *Voltage* to *Resistance*. Doing this will allow you to also select the pull up resistor value, 1K or 10K.
9. Once you've added all of the data points to the scaling you can then save all of your sensor's settings.
10. When in the Gauges mode, you'll be able to apply that sensor to any gauge using the Gauge Editor Menu.



EAS Device Instructions Cont'd

EAS Power Switch

The EAS Power Switch allows you to control your favorite aftermarket accessories such as lights, air compressors, etc. directly through the CTS4. Upon starting the CTS4 for the first time with the EAS device installed, you may go straight to changing Switch settings, or you may opt to go to the home menu and navigate to the EAS Settings Menu at any time after to change the Switch Names and Descriptions.

When an EAS Power Switch is connected to a CTS4, a new switch page is automatically added to the Gauged mode. It is added in the very first slot, to the far left of the gauge pages. The switch page will be automatically populated with connected switches (up to 4). You also have the option of placing a switch on any digital gauge.

Switch Operation:

A single tap on a switch, or digital gauge holding a switch, will change the state of the switch.

- A long press and hold on a switch, or digital gauge holding a switch, will enter the Switch Customization Menu.

Switch Customization Menu:

Users can change the switch look, and LED color through this menu.

Gauges Mode Operation with EAS Power Switch connected:

- If an EAS Switch module is present, the sleep timer is extended to 30 seconds. The 30 second timer is also used if a device is woken up by a tap (warm boot).
- If a switch is toggled to the ON position, the sleep timer is suspended until the switch is toggled to the OFF position. Once the switch is toggled OFF, the sleep timer will begin counting down.



DataViewer 2 Download

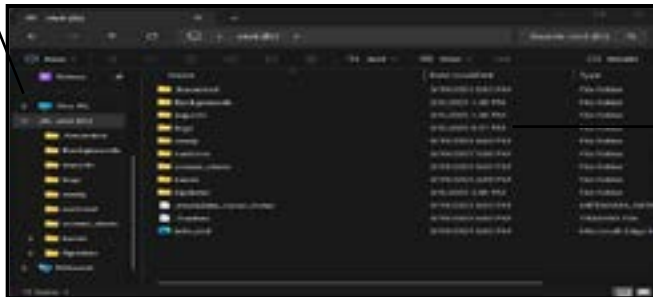
This windows software allows OBDII data logs that were recorded with the Edge Products tuner to be opened and viewed. This software can be downloaded from the Edge Products website.

1. Go to: www.edgeproducts.com
 2. Click the SUPPORT tab located at the top of the page and click on “Software Updates”.
 3. Select the DOWNLOAD link under DataViewer 2 software.
 4. Click the RUN button on the pop-up menu.
 5. Follow the on-screen instructions.
-

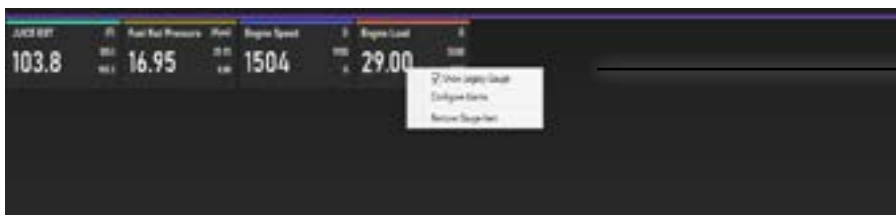
DataViewer 2

After a recording session, unplug the device from the vehicle and follow these instructions.

1. Double-Click the DataViewer 2 icon located on your computer desktop.
2. Connect the device to the PC using a USB connector.
3. Select the folder icon 
4. Browse to the CTS4 drive.



5. Open the logs folder. Select the log file you would like to open and click the open button to continue.
6. Toggle on/off information, by right clicking the gauge and using the check boxes.



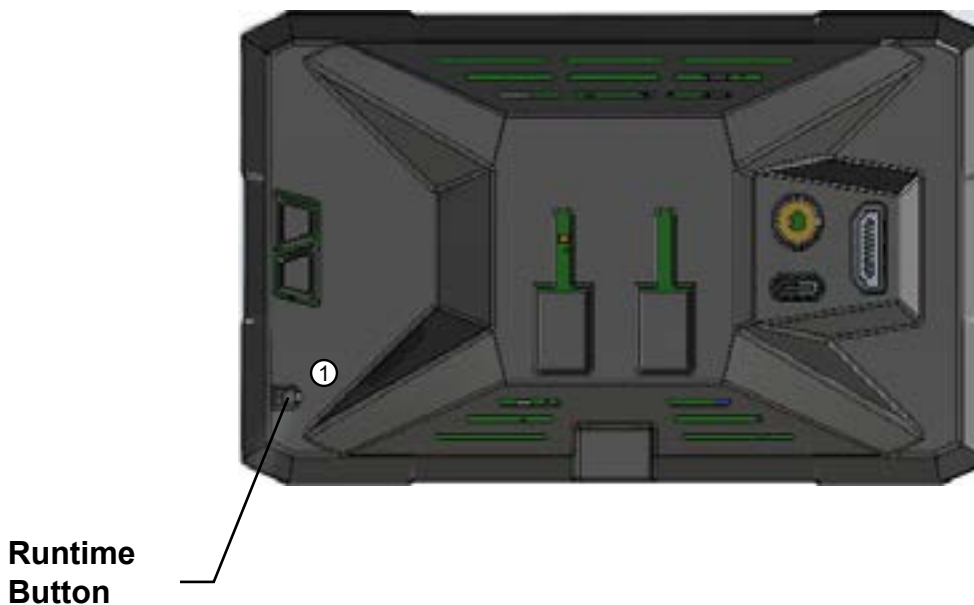
Runtime Log

How to generate and access a Runtime log on the CTS4 device:

1. During the time of an issue or shortly after having an issue, locate circular button on back of monitor
2. Press and release the button. This has to be done during or shortly after you have an issue but BEFORE the device powers off or is disconnected.

NOTE: The bottom most LED will flash blue when saving a runtime log.

3. Wait 3-5 seconds then disconnect the CTS4 from the vehicle and connect it via USB to a computer.
4. On the computer, go to your drive in "This PC". The CTS4 will come up in your Devices and Drives like a flash drive. It should be labeled cts4 (D:)
5. Expand the cts4 drive and in that drive locate the Runtime folder and open it.
6. The most recent Runtime will be labeled "runtime_00.dbg" at the top of that list. Please save the most recent runtime (the top most runtime) and attach it to an email.



DODGE JUICE INSTALLATION

Getting Started

About the Juice

Congratulations on purchasing the Edge Juice/Attitude system for the Dodge Cummins Diesel.

The Juice/Attitude system features an intelligent module (Juice) that acts as an add-on Engine Control Module (ECM) for the Cummins Engine. This module is controlled and customized in the cab of your truck by the Attitude monitor/controller.

This system offers many cutting-edge, additional features not available with the factory setup. Since the Juice Module is an add-on ECM, it uses data from your truck's computer or engine control module (ECM), and then enhances the factory settings to optimize your truck's performance. This product offers a wide variety of amazing performance and safety features that can ensure you get the driving experience you desire without damaging your valuable truck.

Please take the time to thoroughly review all of the features and product options outlined in this manual. Taking the time to understand how this product works and how to properly operate this product will ensure that you have an extraordinary and safe driving experience. If we can be of any assistance to help you get the most from your product please call us at 888-360-3343, Monday through Friday 6am to 6pm MST.

IMPORTANT: Read through these instructions completely so that you understand each step prior to installation. Refer to the on dash display User Manual for Safety and Warranty information.

Safety Terms

Throughout this User Guide (hereafter noted as User Manual or Manual) you will see important messages regarding your safety or the protection of your vehicle. These messages are designated by the words WARNING or CAUTION.

⚠ WARNING indicates a condition that may cause serious injury or death to you, your passengers or others nearby. Pay careful attention to these Warning messages, and always comply with them. They could save a life.

CAUTION indicates a condition that could cause damage to your vehicle. It is important to install and operate your EDGE product in conformance with instructions in this Manual. Caution alerts you to particularly important things that will keep your vehicle operating properly.

Product Registration

PLEASE take the time to register your product online at http://www.edgeproducts.com/product_registration.php

BENEFITS OF PRODUCT REGISTRATION

-Your Safety: Registering your product allows us to know exactly which product you have and provide important product updates to you that improve the quality and/or safety of the product.

-Enhanced Features: Almost all Edge products are easily updated via the internet. We are constantly adding new features and improvements to our product that we know you will want to enjoy.

-Confirmation of Ownership: Provides a record in case of product loss, theft, or required warranty work. When you call us for support our team will already have much of the information they need to help you.

-Improved Product Development: Helps us better understand you (our customer) and design products that meet your needs.

-Special Offers: Allows us to inform you about special offers on accessories and/or new products that fit your vehicle and enhance your driving experience.

Important Notes

1. If you have used another tuner/programmer on your truck, you will need to program your truck back to stock before using the Attitude or Juice.

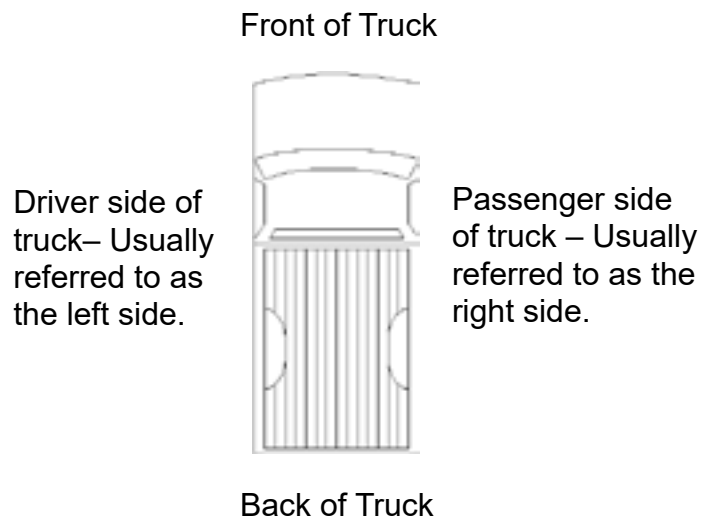
Failure to return to stock may result in PCM failure or engine damage.

2. Do not program your vehicle in remote location in case of vehicle failure.

3. All Edge modules and programmers are built to operate with OEM calibrations. When you take your vehicle to a service center they may, by your request or otherwise, update your vehicle's calibrations. It is important that you return your vehicle to stock before taking it in for service. Edge updates its products to work effectively with updated OEM calibrations. However, Edge is not always made aware of calibration changes made by the OEM. In the case of discontinued products, Edge cannot ensure that your unit will work effectively if you take your vehicle to a dealership and you are given, by your request or otherwise, a new calibration.

Truck Orientation

The following view is a top view of the vehicle (looking down from above the vehicle). References in the text to "looking down", means looking toward the ground. Looking up, means looking towards the sky from below the vehicle. Front, rear, left and right are as noted.

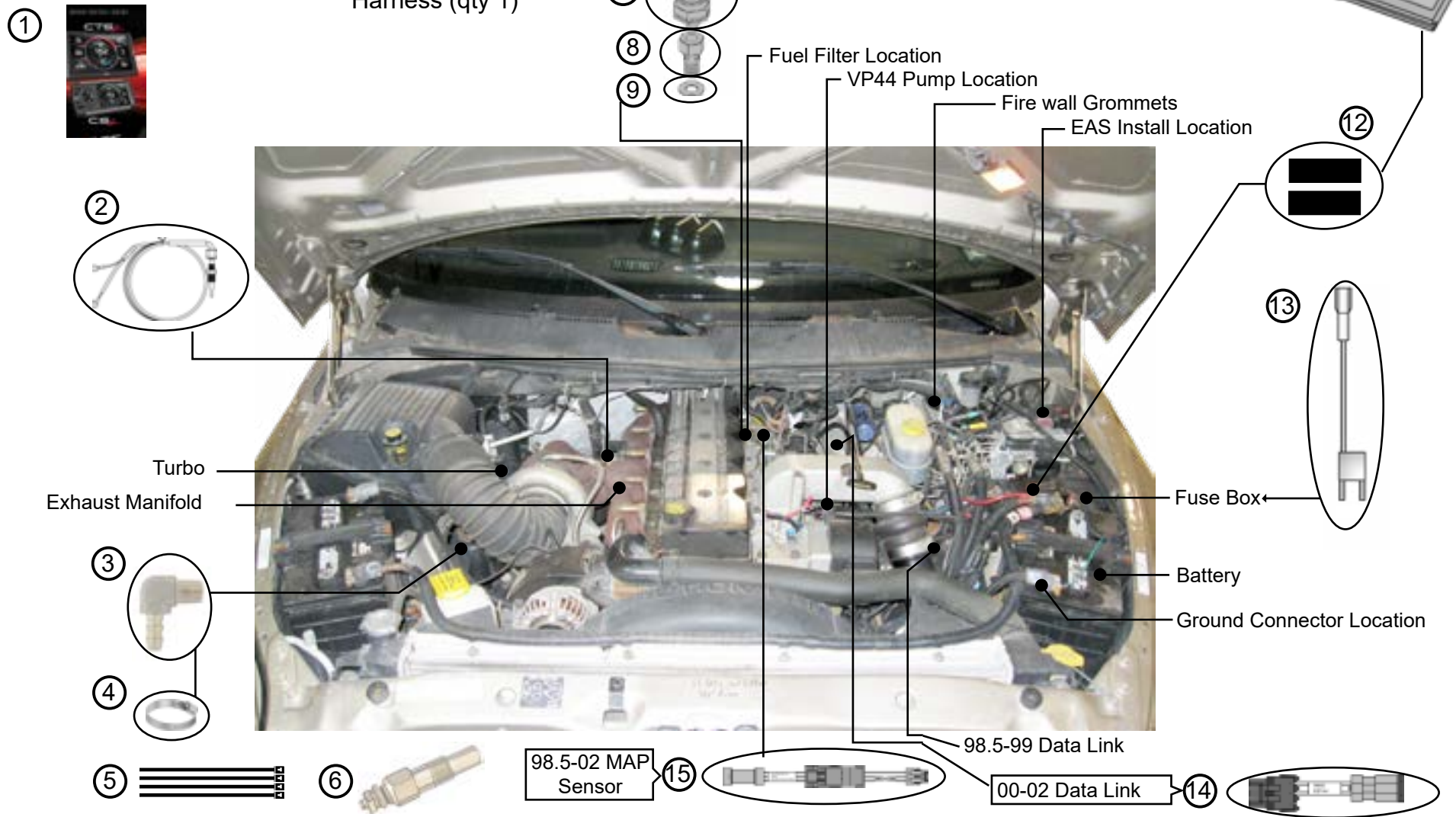


Juice Installation 1998.5-2002 5.9L (24V)

Supplied Items

NOTE: Depending on your year of truck, you may not need everything provided.

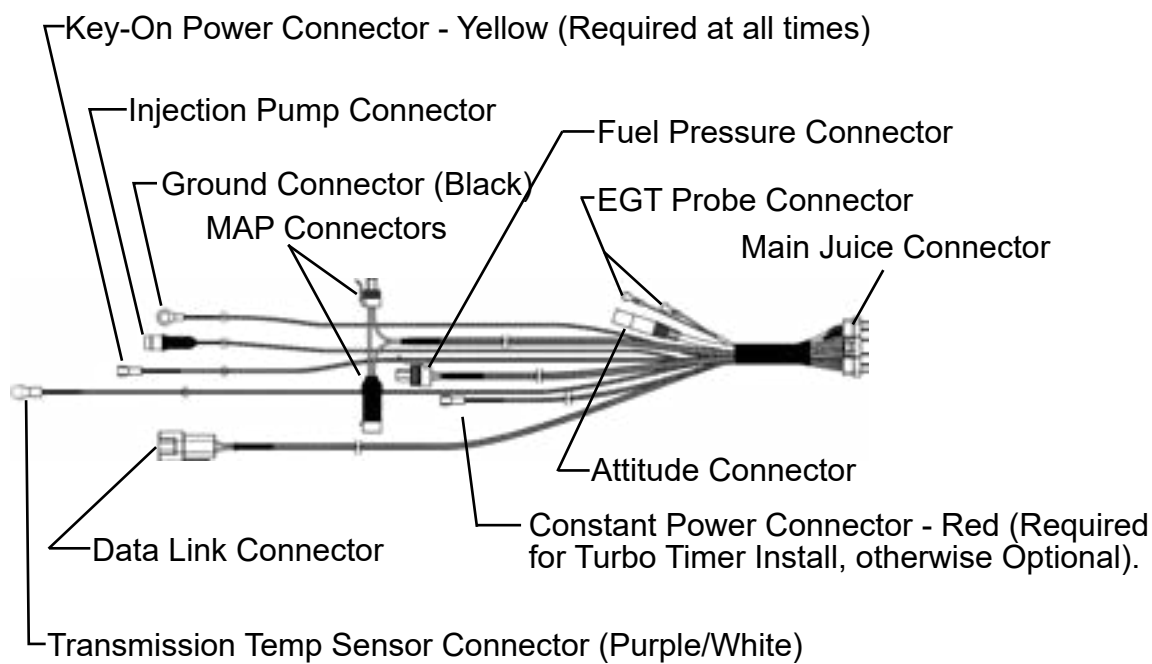
- | | | |
|--------------------------------|--|------------------------------------|
| 1. Quick Install Guide (qty 1) | 6. Transmission Temperature Sensor (qty 1) | 11. Juice Module (qty 1) |
| 2. EGT Probe (qty 1) | 7. Fuel Pressure Sensor (qty 1) | 12. Velcro (qty 2) |
| 3. Brass Fitting (qty 1) | 8. Banjo Bolt (qty 1) | 13. Fuse Link (qty 2) |
| 4. Hose Clamp (qty 1) | 9. Washers (qty 2) | 14. 2000 Data Link Adapter (qty 1) |
| 5. Zip Ties (qty 10) | 10. Main Wiring Harness (qty 1) | 15. 2001-2002 MAP Adapter (qty 1) |



Required Tools

- | | |
|------------------------------|----------------------------|
| -Knife | -5/16" Socket |
| -2 to 3 ft of wire (fishing) | -7/16" Deep Well Socket |
| -Needle nose pliers | -10mm Socket |
| -Phillips screwdriver | -13mm Socket |
| -Flat tip screwdriver | -1/8" NPT Tap |
| -3/8" Drive Torque Wrench | -5/16" or 21/64" Drill Bit |
| -1/2" Wrench | -RTV Silicone Sealer |
| -3/8" Drive Ratchet | -Teflon Tape |
| -1/4" Socket | -Pipe Thread Sealant |

Harness Connection Guide



NOTE: Data Link and MAP connectors may vary from this view depending on your vehicle year. If this is the case, you will need to use the supplied adapters.)

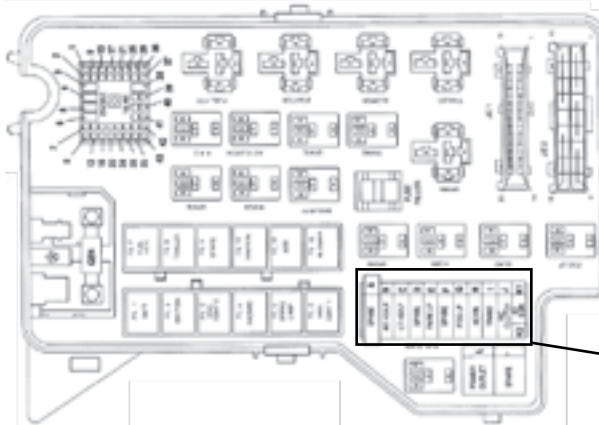
Installing the Juice Harness

1. Using the ½" wrench, loosen both negative battery cables.
2. Remove cables from the battery posts and set aside.

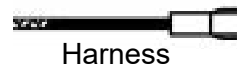
NOTE: DO NOT reconnect until installation is complete. Connecting power may cause fault code in the ECM.

3. Locate and remove the 10 Amp "A/C Clutch" fuse from inside the engine compartment fuse panel.

4. Insert the Leaded Fuse link. The leg with the wire soldered to it needs to plug into the "HOT" side of the fuse location. Orient the fuse exactly as shown below.



5. From the main harness, connect the Red Constant Power Connector to the installed Fuse Link.



Harness



Fuse Link

6. Cut a 1/2" slit in the fire wall grommet.

NOTE: Automatics - easy access is the clutch hole grommet located to the left of the fire wall brake hole. **Manuals or Automatics**- Use the large vehicle wiring harness grommet on the fire wall.

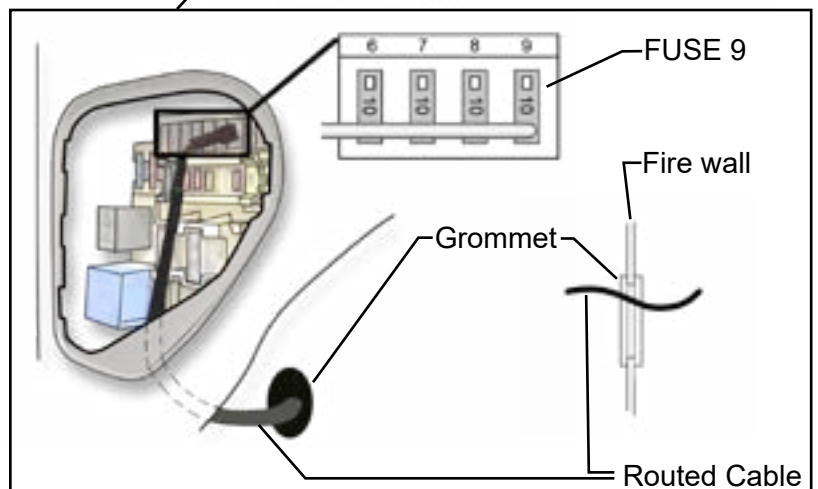


7. Route the Yellow Key-On Connection from the engine compartment to inside the cab through the cut hole from step 6.

8. Locate and remove Fuse 9 (10 Amp) from inside the driver side fuse panel.

9. Insert the Leaded Fuse link. The leg with the wire soldered to it needs to plug into the "HOT" side of the fuse location. Orient the fuse exactly as shown.

10. Connect the Yellow Key-On (routed in step 7) to the installed Fuse Link.



FUSE 9

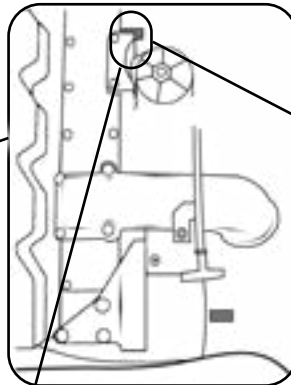
Fire wall

Grommet

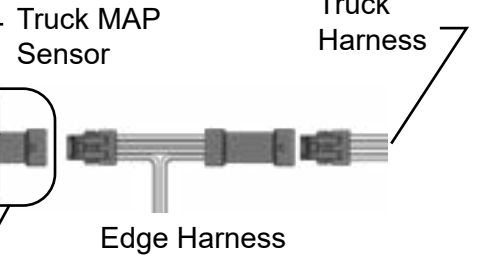
Routed Cable



11. Disconnect the stock wiring harness from the boost sensor located at the rear of the fuel filter housing.

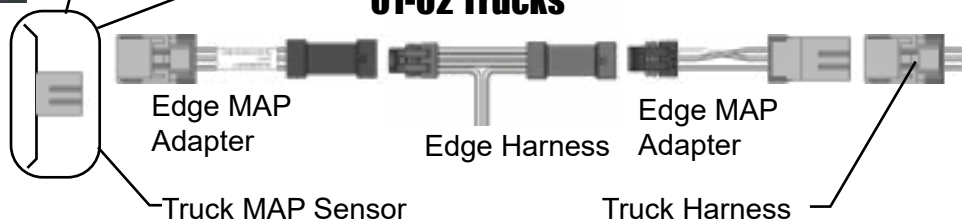


98.5-00 Trucks



OR

01-02 Trucks



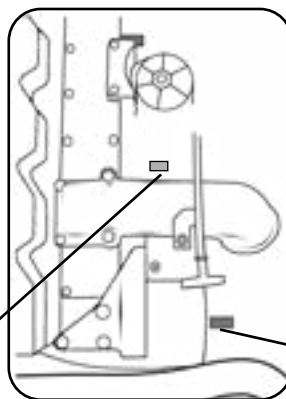
12. Plug the Edge harness MAP connectors in between the truck MAP sensor and the truck MAP sensor cable. For 01-02 year trucks, the MAP adapter is needed.

13. Locate the Data link connectors:

1998.5-1999: The triangle shaped connector is located on the driver's side of the engine in the wiring harness near the power steering pump.

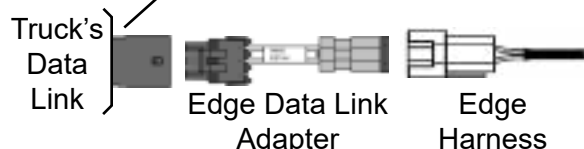
2000-2002: The three-pronged flat connector is located on top of the fuel lift pump that is located on the driver's side of the engine directly below the MAP sensor.

NOTE: On some 2001 trucks the Data Link connector can be located on the driver's side of the engine in the wiring harness near the power steering pump.

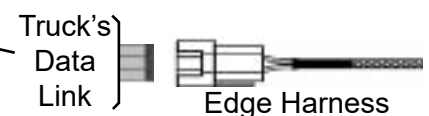


14. Replace the protective plug on the truck Data Link with the Juice harness Data Link Connector as shown.

00-02 Trucks



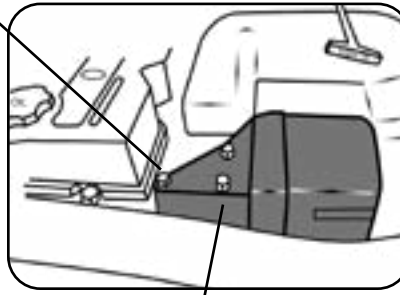
98.5-99 Trucks



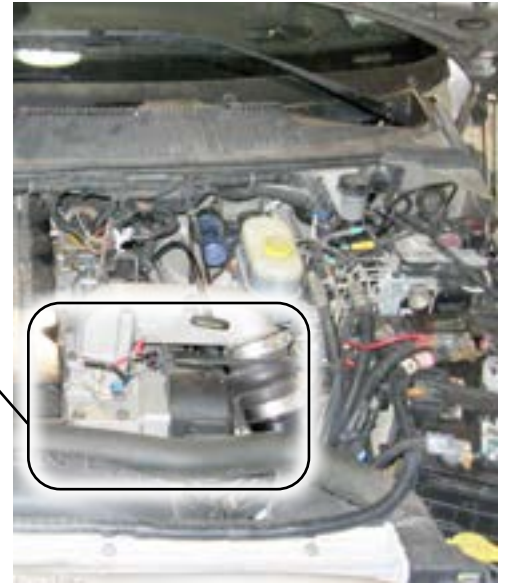
15. Unbolt and remove the casting that attaches to the Throttle Position Sensor (TPS) housing.

16. On the Fuel Pump, partially remove the insulation that covers both pump wires.

17. Locate the TOP injection pump wire. **NOTE: This will be the wire on the top, closest to the engine block.**



TPS Housing



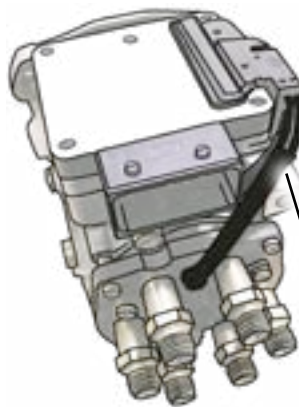
18. Unscrew the Posi-Tap®. Place the wire in the slot cap's slot.

19. Place a single drop of RTV Silicone Sealer into the cap. The sealer provides a water tight seal in and around the connection.

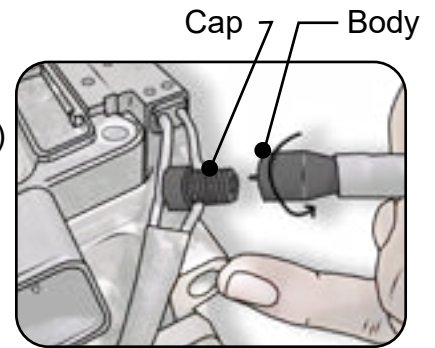
20. Pre-twist the body of the Posi-Tap® counter clock-wise with about seven full turns before twisting on to cap.

NOTE: This will pre-load the wire so that when the body of the Posi-Tap® is installed on the cap, the wire will not remain twisted in the wire harness.

VP44 Fuel Pump



(Modify this wire)
Wire Bundle 2
(Do Not Modify)
Wire Bundle 1

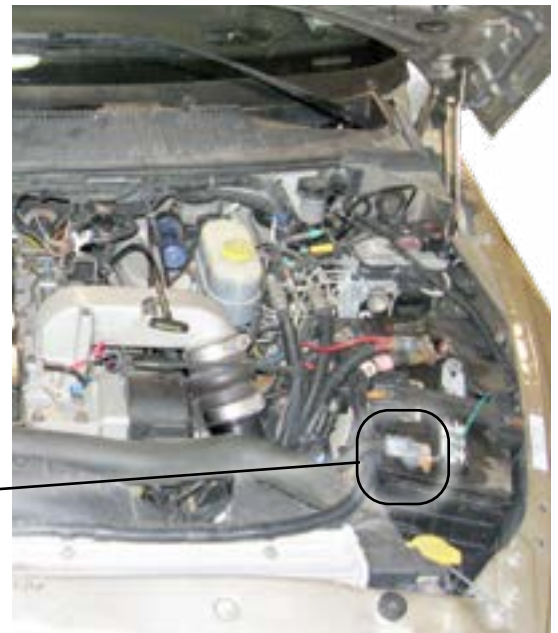


21. Twist harness onto cap until tight.

22. Remove the nut on the NEGATIVE battery terminal/cable.

23. Slide the ring terminal onto the bolt, then replace the nut. This will tightly hold the ring terminal in place.

24. Tighten the nut accordingly.

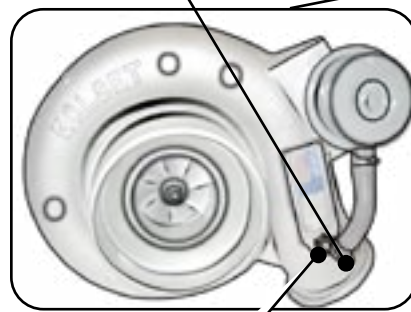
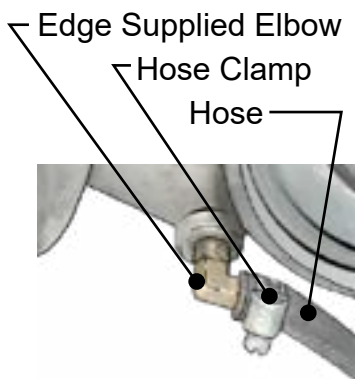


NOTE: On some vehicles, there is a solid line and cannot be replaced with a brass elbow.

25. Using the 5/16" socket, loosen the two clamps securing the air induction hose to the air filter housing and the turbo inlet.

26. Remove the hose and set it aside.

27. Using the pliers, remove the crimp style clamp from the hose on the brass fitting located on the now exposed lower front side of the turbocharger.



28. Remove the hose from the brass fitting and dispose of the crimp style clamp.

29. Using the 7/16" wrench, unscrew the stock brass fitting.

30. Install the supplied brass fitting. Tighten while being careful not to over-tighten.

31. Slip the supplied hose clamp onto the stock hose then the stock hose onto the new brass fitting. Tighten the hose clamp with the 1/4" socket.

32. Re-connect the air induction hose to the air filter housing and turbocharger inlet.

33. Using the 5/16" socket, tighten both clamps securely.

CAUTION: If you lack experience or tools to bleed the fuel system, take the truck to an experienced mechanic for installation of the fuel pressure sensor!

CAUTION: The fuel that is pumped to the injectors also acts as a lubricant for the Bosch VP-44 high pressure pump. A loss of fuel pressure to the high pressure pump may result in permanent damage to the high pressure pump.

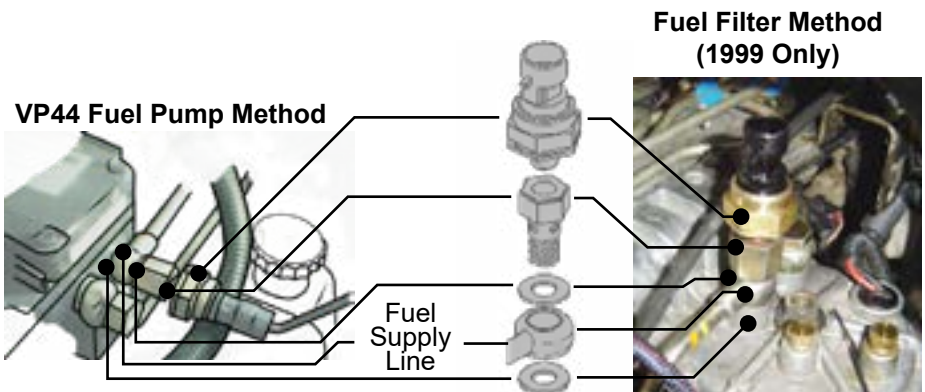
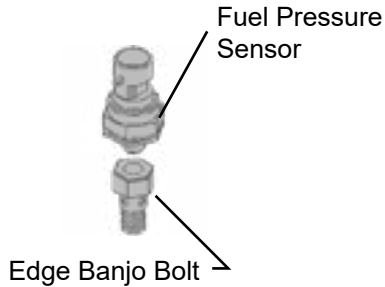
NOTE: Fuel Filter Housing (Optional placement of Banjo bolt for 1999 Trucks only).

34. Locate the fuel pump.

35. Thread the fuel pressure sensor into the supplied banjo bolt.

36. Remove the stock banjo bolt from the injector pump supply line located on the VP44 with the pre-installed neoprene washer and fuel pressure sensor.

37. Tighten bolt to the appropriate torque specifications (18 ft-lbs)



CAUTION: When the Fuel Supply Line is removed, fuel can drain out of the VP 44 pump, and air can enter the line and/or pump. In order to minimize the amount of air that is let into the fuel system, pre-install the fuel pressure sensor onto the supplied banjo bolt before removing the stock banjo bolt from the pump. Tighten the sensor into the banjo bolt until it is snug.

CAUTION: IT IS CRITICAL THAT THE AIR INTRODUCED INTO THE FUEL LINE BE REMOVED FOR THE FUEL SYSTEM TO OPERATE PROPERLY.

NOTE: Use this bleeding procedure at the end of the installation. Trying to bleed the fuel system half way through the installation could cause a check engine light.

38. In order to remove the air from the system, loosen BUT DO NOT REMOVE the overflow valve banjo fitting that connects to the return line.

39. Place a shop rag or towel around the banjo fitting to catch excess fuel.

40. Turn the ignition key to CRANK position and quickly release the key to the ON position.

CAUTION: DO NOT START THE ENGINE! The fuel lift pump will operate for up to 25 seconds.

41. Once this procedure is complete, tighten the return line banjo fitting and torque to 24 Nm (18 ft-lbs).

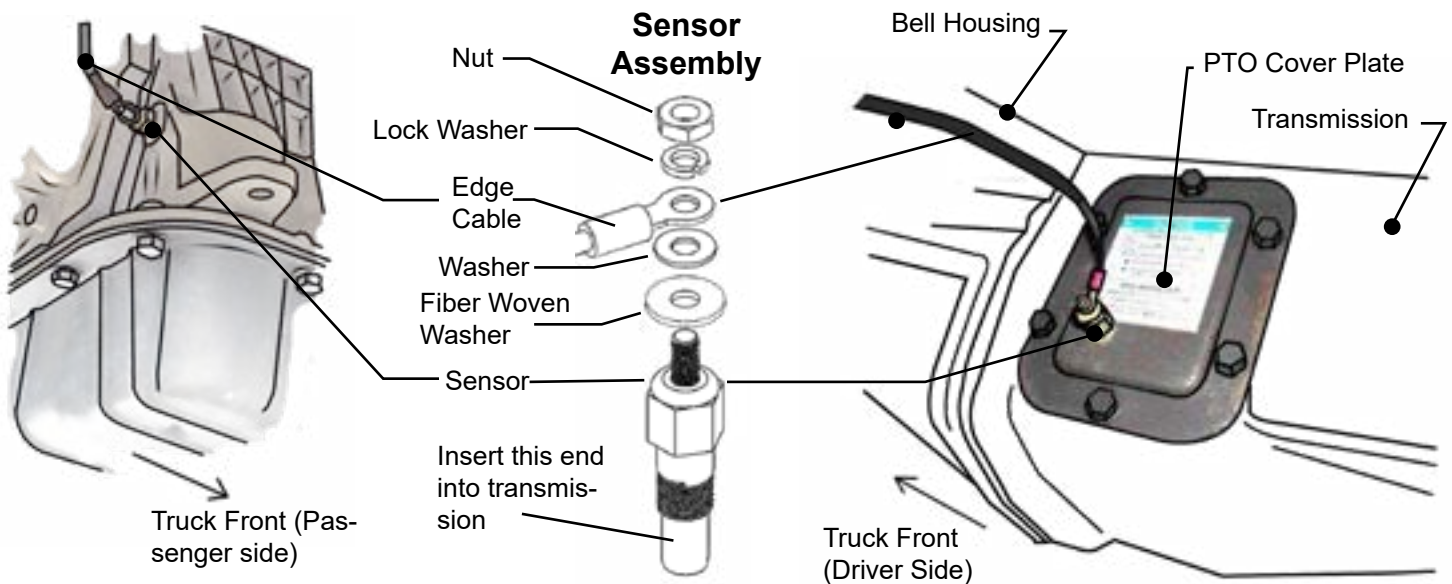
42. Attempt to start the engine.

NOTE: The engine may be very noisy or run erratic for a few minutes. Keep an eye on the fuel pressure as displayed on the Attitude. If the pressure drops below 4 psi, or the engine quits running, re-bleed the fuel system. If the engine still does not start, remove and check the fuel filter. If the filter is dirty or damaged, replace the filter.

CAUTION: •Do not engage the starter motor for more than 30 seconds – Allow two minutes between cranking intervals.

•Although it is rare, on occasions the LIFT pump may fail to prime after the banjo bolt has been replaced, signifying a possibility of a worn pump. In this instance the LIFT pump should be replaced.

43. Reinstall the throttle bracket onto the fuel injection pump using the three bolts. Torque these bolt to 18 ft-lbs using a torque wrench and 13mm socket.



NOTE: When the Power Take-Off (PTO) plate is removed ALL of the gear lube from the transmission will drain out – Ensure that you have the CORRECT replacement oil prior to removing the PTO plate. See the Dodge service manual for replacement gear lube type.

44. Using a 14 mm wrench, remove the lowest bolt on the PTO cover plate and drain the transmission fluid.

45. Unbolt the remaining five bolts to the PTO cover plate and remove it completely.

46. Using a 5/16" or 21/64" drill bit, drill a hole in the PTO cover plate in the location shown above.

47. Using a 1/8" NPT tap, thread the hole in the PTO cover plate.

48. Apply Teflon tape or pipe thread sealant to the

sensor threads and screw it into the PTO cover plate.

49. Clean the surface of the PTO cover plate and transmission. The plate will need to be resealed. Apply an automotive gasket silicone to the clean plate and install.

50. Connect the edge cable to the sensor using the supplied hardware.

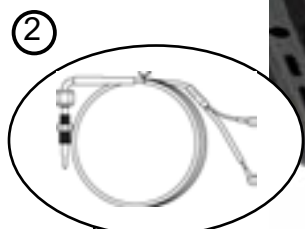
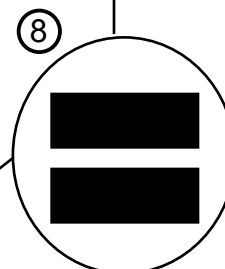
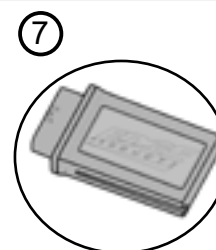
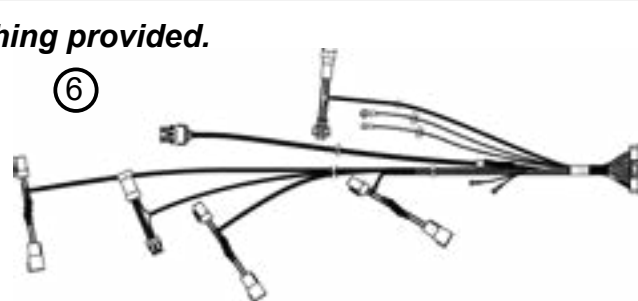
51. Refill the transmission with fluid according to OEM specifications.

Juice Installation 2003-2004 5.9L (CR)

Supplied Items

NOTE: Depending on your year of truck, you may not need everything provided.

- | | |
|--------------------------------|--------------------------|
| 1. Quick Install Guide (qty 1) | 6. Juice Harness (qty 1) |
| 2. EGT Probe (qty 1) | 7. Juice Module (qty 1) |
| 3. Brass Elbow (qty 1) | 8. Velcro Strips (qty 2) |
| 4. Hose Clamp (qty 1) | 9. Fuse Link (qty 1) |
| 5. Zip Ties (qty 10) | |

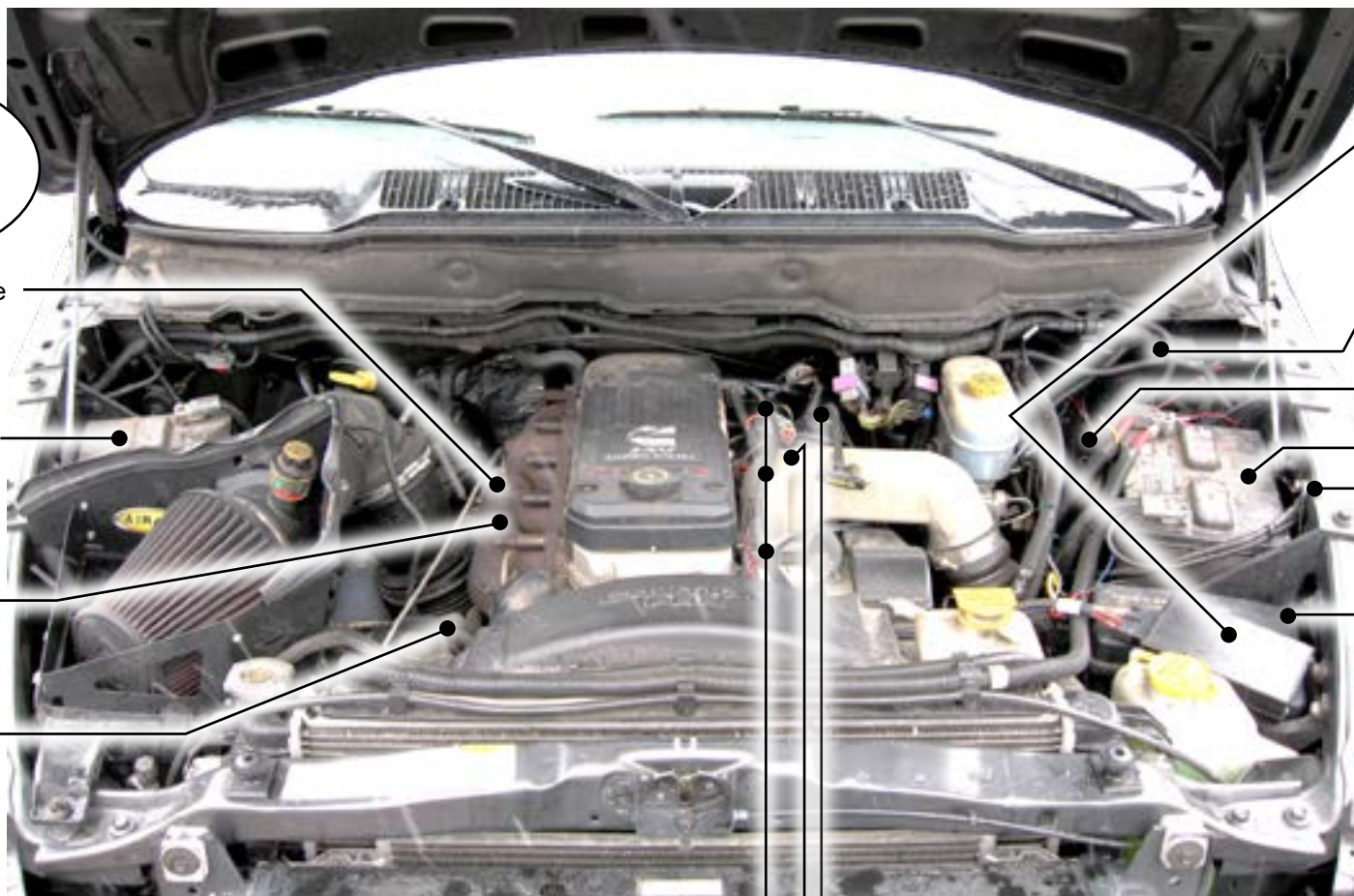
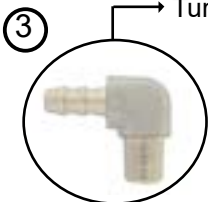


EGT Probe Location

Battery

Exhaust Manifold

Turbo



MAP Sensor

Fuel Pressure Sensor

Injectors

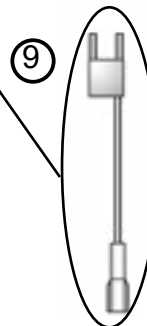
EAS Install Location

Fire wall Grommets

Battery

Ground Connector Location

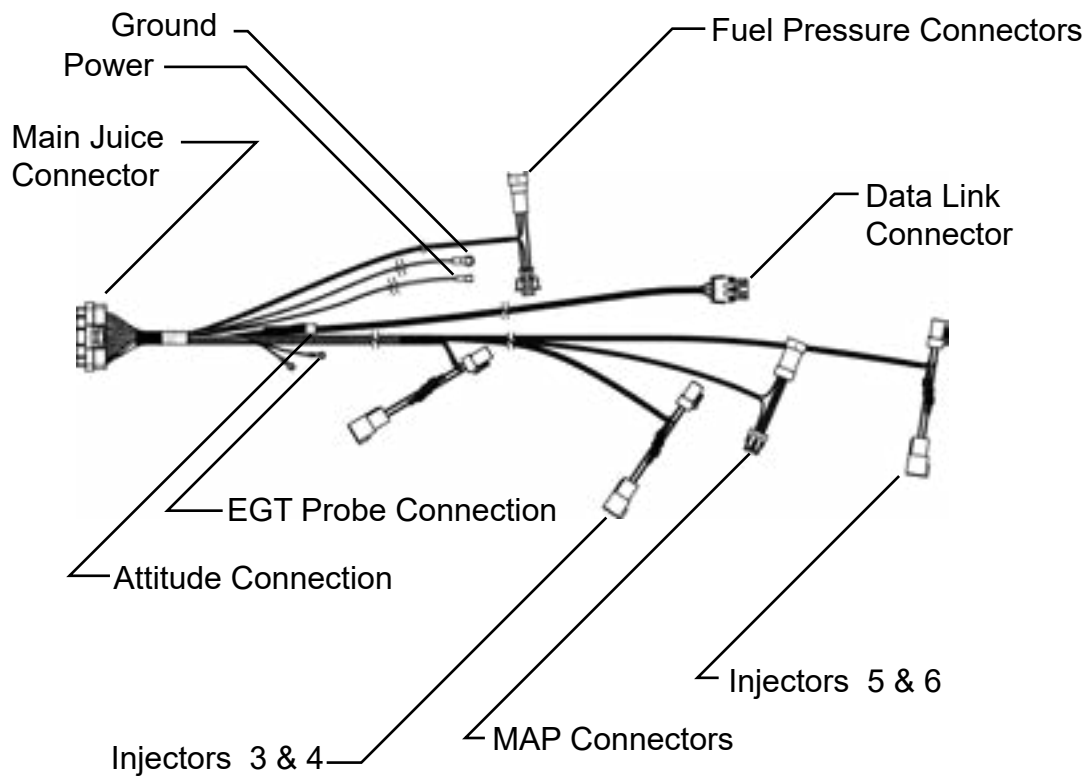
Fuse Box



Required Tools

- 3/8" Drive Ratchet
- 10mm Socket
- 5/16" Socket
- 1/2" Wrench
- 7/16" Wrench

Harness Connection Guide



Installing the Juice Harness

1. Using the ½" wrench, loosen both negative battery cables.

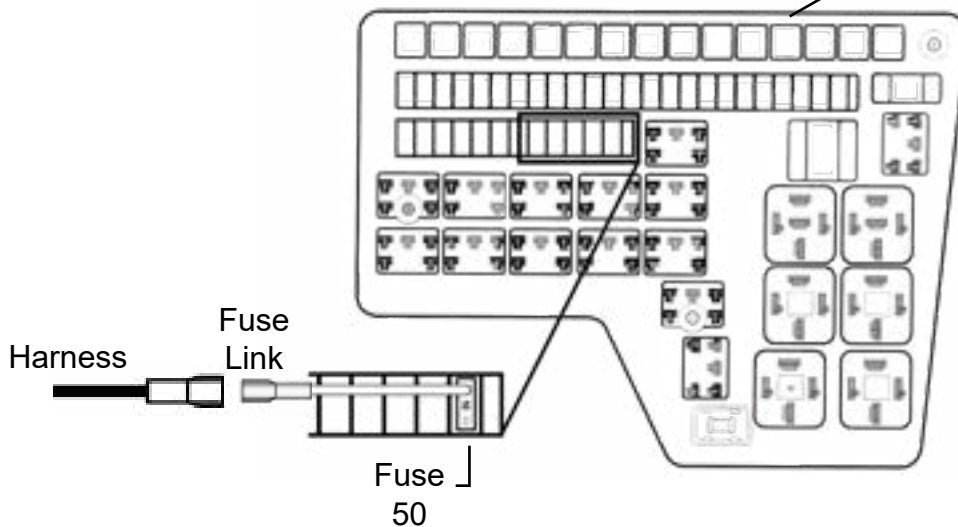
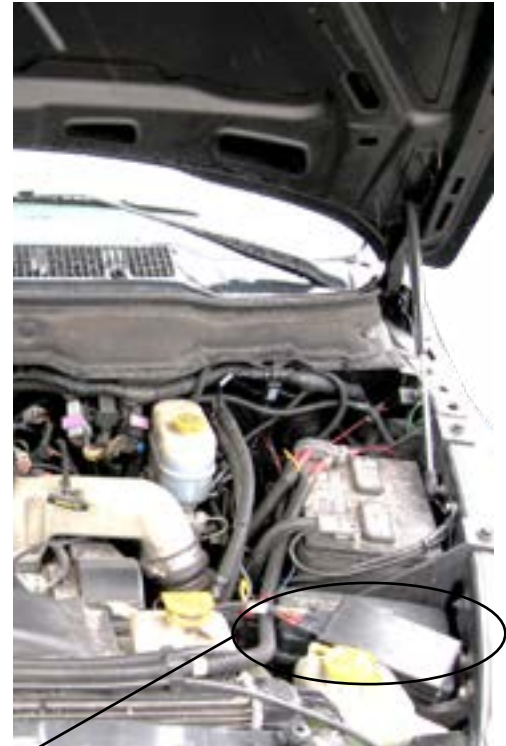
2. Remove cables from the battery posts and set aside.

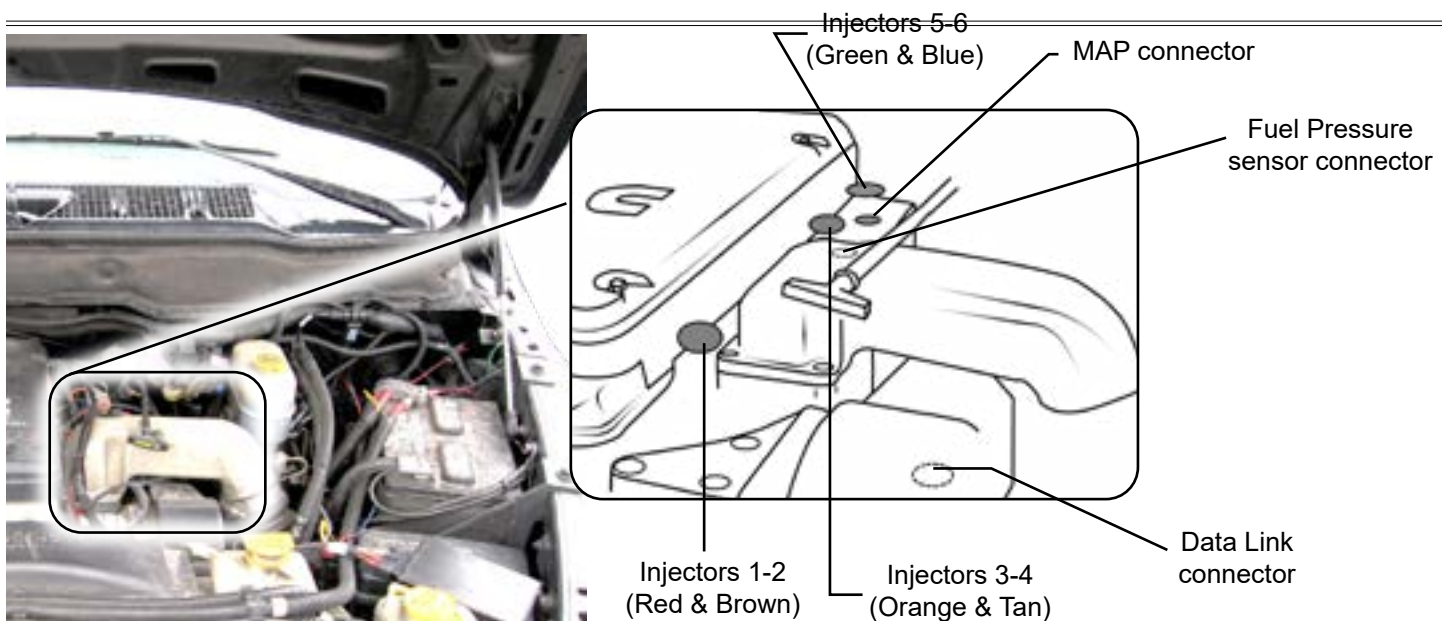
**NOTE: DO NOT reconnect until installation is complete.
Connecting power may cause fault code in the ECM.**

3. Locate and remove Fuse 50 (10 Amp) from inside the engine compartment fuse panel.

4. Insert the Leaded Fuse Link. The leg with the wire soldered to it needs to plug into the "HOT" side of the fuse location. Orient the fuse exactly as shown below.

5. From the main harness, connect the Red Power Connector to the installed Fuse Link.



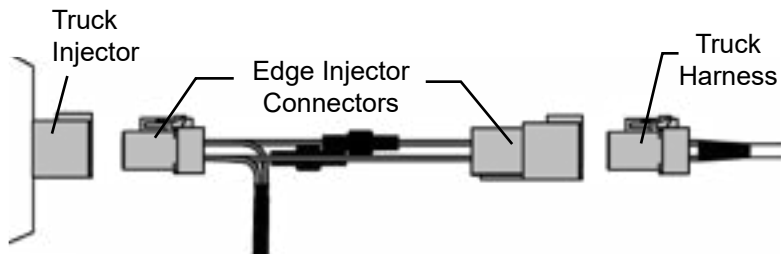


CAUTION: Do not force the connection. If the connectors do not easily go together, inspect the pins and retry installation.

6. Disconnect all 3 stock injector connectors by squeezing the tab on the top of each connector.

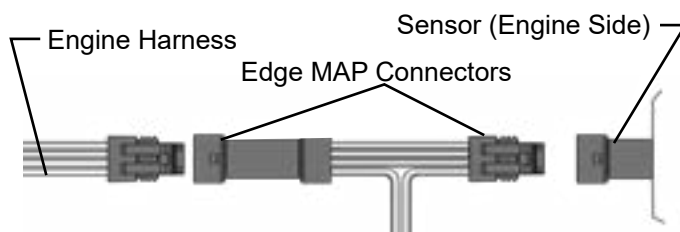
7. Insert the Edge Injector Connectors between the stock connectors and lock in place.

NOTE: Match Edge Harness connectors to the proper injector set according to the wire colors described below.



8. Locate the MAP connector.

9. Remove the vehicle MAP sensor connector and connect the Edge Harness MAP connectors in between the vehicle harness and the sensor itself.



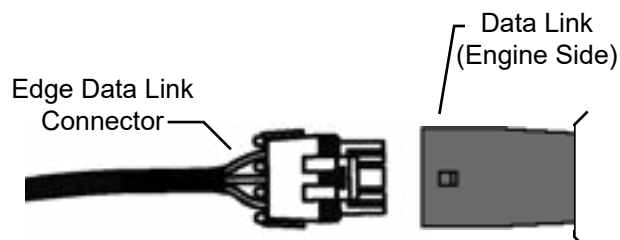
10. Locate the Fuel Pressure sensor connector.

11. Remove vehicle Fuel Pressure Sensor connector and connect the Edge Harness Fuel pressure sensor connector "T" in between the vehicle harness and the sensor itself.

12. Locate the vehicle Data Link connector. (Towards bottom of Engine)

13. Unplug the existing Data Link connector and re-connect using the Edge Harness Data Link connector.

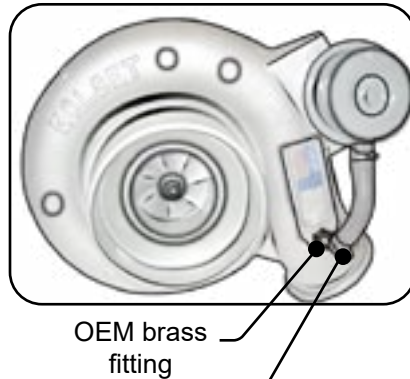
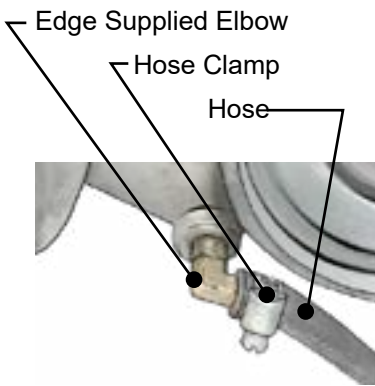
NOTE: The data link may come from the factory with a dummy plug in it. If so, remove the dummy plug, and connect the Edge data link connector into the socket. Save the dummy plug for use if the Juice must be removed for vehicle service.



NOTE: On some vehicles, there is a solid line and cannot be replaced with a brass elbow.

14. Using the 5/16" socket, loosen the two clamps securing the air induction hose to the air filter housing and the turbo inlet.

15. Remove the hose and set it aside.



16. Using the pliers, remove the crimp style clamp from the hose on the brass fitting located on the now exposed lower front side of the turbocharger.

17. Remove the hose from the brass fitting and dispose of the crimp style clamp.

18. Using the 7/16" wrench, unscrew the stock brass fitting.

19. Install the supplied brass fitting. Tighten while being careful not to over-tighten.

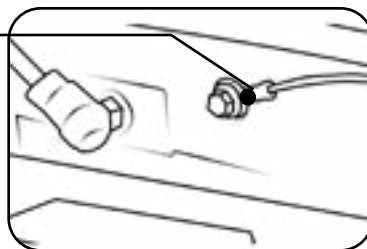
20. Slip the supplied hose clamp onto the stock hose then the stock hose onto the new brass fitting. Tighten the hose clamp with the 1/4" socket.

21. Re-connect the air induction hose to the air filter housing and turbocharger inlet.

22. Using the 5/16" socket, tighten both clamps securely.

23. Remove the 10mm bolt from the driver side fender (above the battery).

24. Add the black ground connector with the round terminal to the wire bundle already being fastened by the bolt.



25. Tighten the bolt.



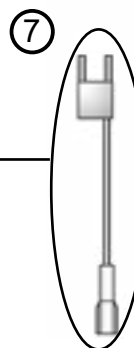
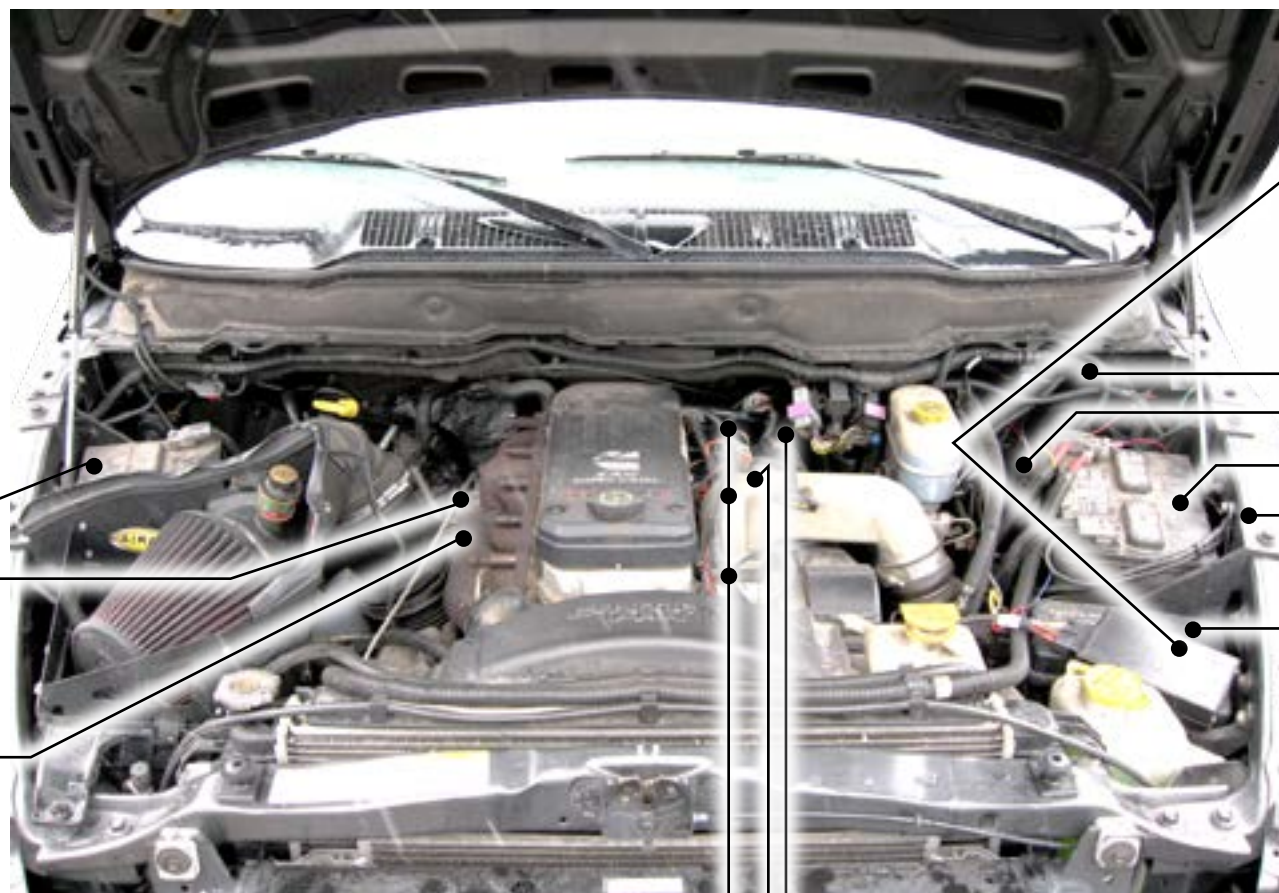
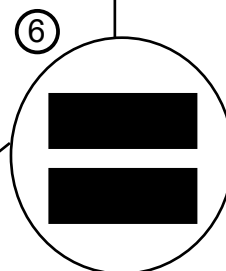
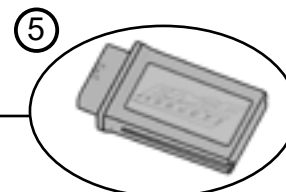
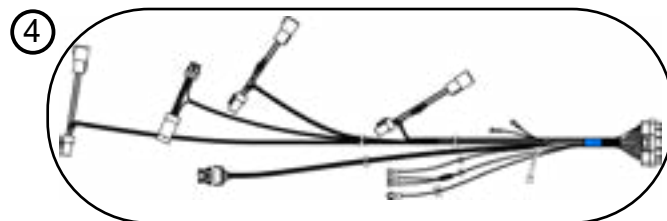
NOTE: YOUR JUICE MODULE INSTALLATION IS NOT COMPLETE. REFER TO THE "EGT PROBE INSTALLATION" SECTION TO CONTINUE.

Juice Installation 2004-5-2005 5.9L (600)

Supplied Items

NOTE: Depending on your year of truck, you may not need everything provided.

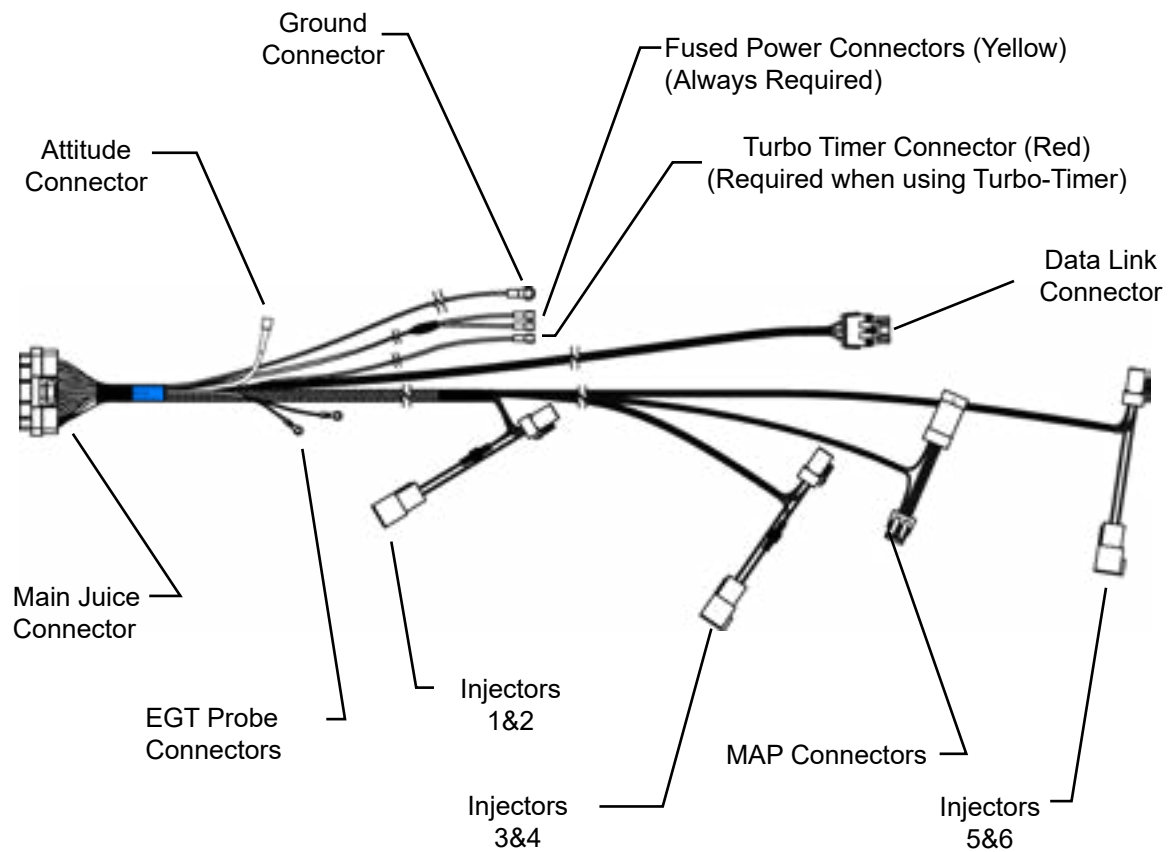
1. Quick Install Guide (qty 1)
2. EGT Probe (qty 1)
3. Zip Ties (qty 10)
4. Juice Harness (qty 1)
5. Juice Module (qty 1)
6. Velcro Strips (qty 2)
7. Fuse Link (qty 3)



Required Tools

-3/8" Drive Ratchet
-10mm Socket
-5/16" Socket
-1/2" Wrench
-7/16" Wrench

Harness Connection Guide



Installing the Juice Harness

1. Using the ½" wrench, loosen both negative battery cables.
2. Remove cables from the battery posts and set aside.

NOTE: DO NOT reconnect until installation is complete. Connecting power may cause fault code in the ECM.

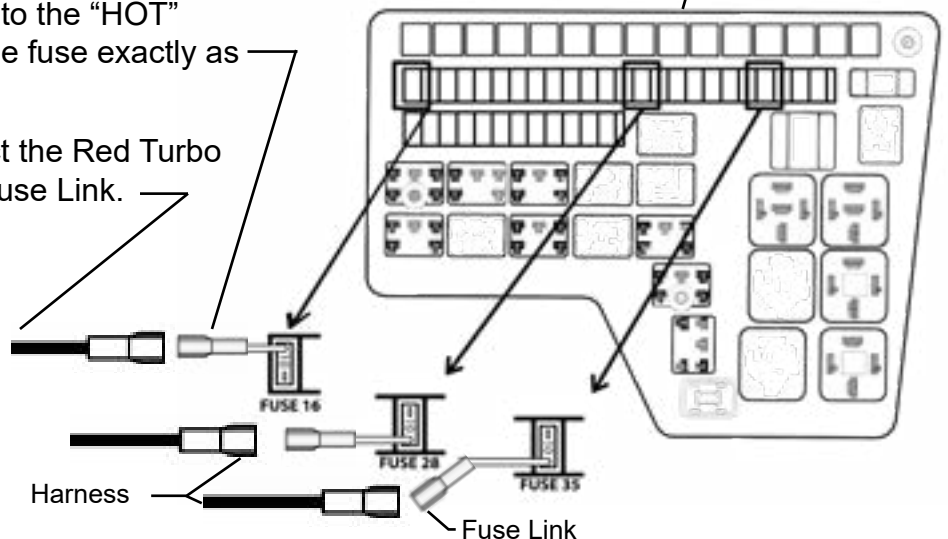
3. Locate and remove Fuses 28 and 35 (10 Amp) from inside the engine compartment fuse panel.
4. Insert the Leaded Fuse Link. The leg with the wire soldered to it needs to plug into the "HOT" side of the fuse location. Orient the fuse as shown below.
5. From the main harness, connect the yellow Power Connectors to the installed Fuse Links.

NOTE: DO NOT reconnect battery until installation is complete. Connecting power may cause fault code in the ECM.



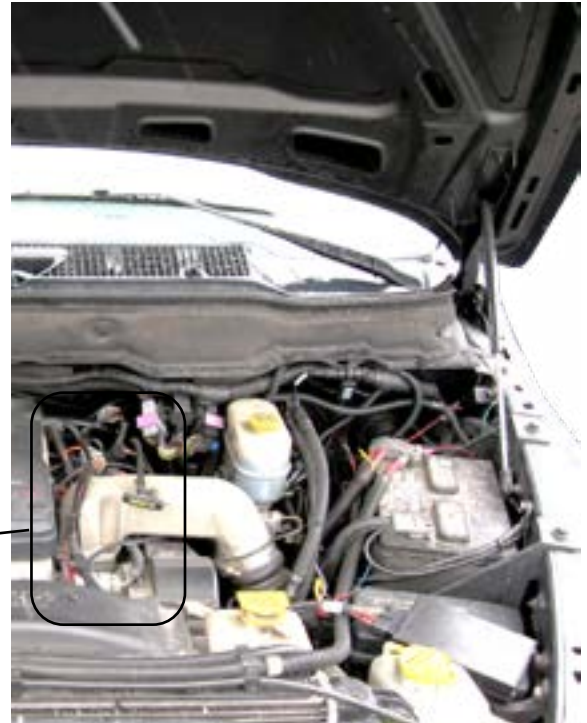
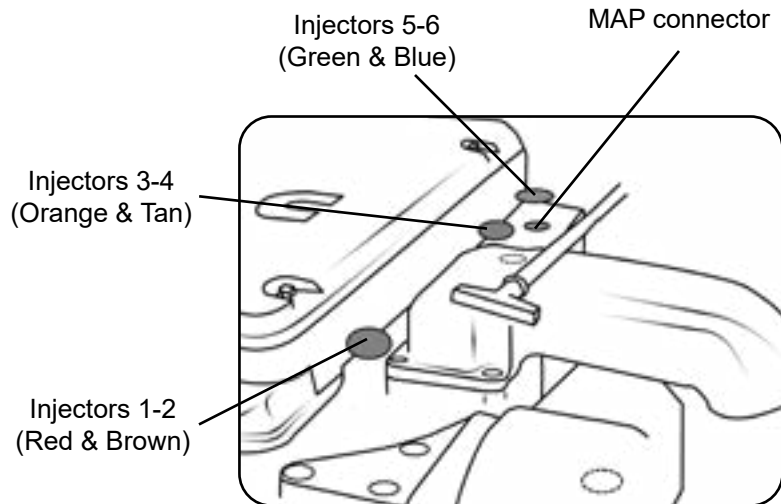
Turbo Timer (Optional)

1. Locate and remove Fuse 16 (10 Amp) from inside the engine compartment fuse panel.
2. Insert the Leaded Fuse Link. The leg with the wire soldered to it needs to plug into the "HOT" side of the fuse location. Orient the fuse exactly as shown.
3. From the main harness, connect the Red Turbo Timer Connector to the installed Fuse Link.



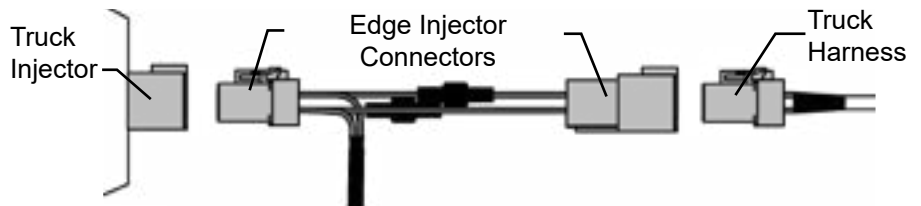
CAUTION: Do not force the connection. If the connectors do not easily go together, inspect the pins, and retry installation.

6. Disconnect all 3 stock injector connectors by squeezing the tab on the top of each connector.



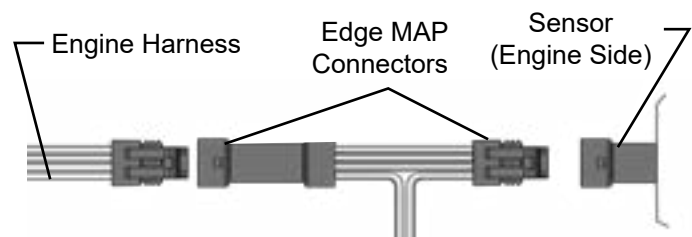
7. Insert the Edge Injector Connectors between the stock connectors, and lock in place.

NOTE: Match Edge Harness connectors to the proper injector set according to the wire colors described above.



8. Locate the MAP connector.

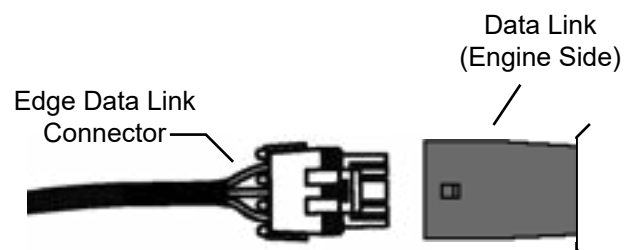
9. Remove the vehicle MAP sensor connector and connect the Edge Harness MAP connectors in between the vehicle harness and the sensor itself.



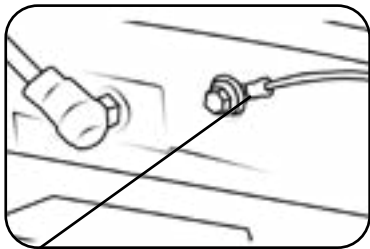
10. Locate the vehicle Data Link connector. (Towards bottom of Engine)

11. Unplug the existing Data Link connector and reconnect using the Edge Harness Data Link connector.

NOTE: The data link may come from the factory with a dummy plug in it. If so, remove the dummy plug and connect the Edge data link connector into the socket. Save the dummy plug for use if the Juice must be removed for vehicle service.



12. Remove the 10mm bolt from the driver side fender (above the battery).



13. Add the black ground connector with the round terminal to the wire bundle already being fastened by the bolt.

14. Tighten the bolt.

NOTE: YOUR JUICE MODULE INSTALLATION IS NOT COMPLETE. REFER TO THE "EGT PROBE INSTALLATION" SECTION TO CONTINUE.

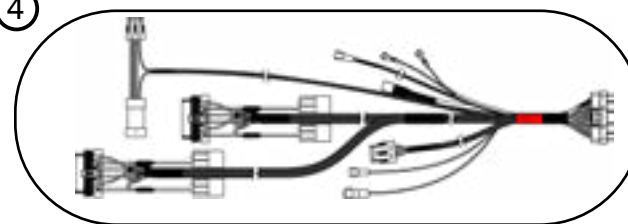
Juice Installation 2006-2016 5.9L & 6.7L

Supplied Items

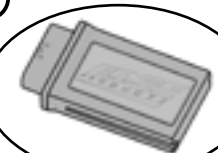
NOTE: Depending on your year of truck, you may not need everything provided.

- | | |
|--------------------------------|---------------------------------|
| 1. Quick Install Guide (qty 1) | 6. Velcro Strips (qty 2) |
| 2. EGT Probe (qty 1) | 7. Fuse Link (qty 3) |
| 3. Zip Ties (qty 10) | 8. Turbo Timer Adapters (qty 1) |
| 4. Juice Harness (qty 1) | 9. DATA/OBDII Cable (qty 1) |
| 5. Juice Module (qty 1) | |

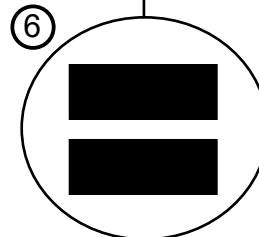
④



⑤



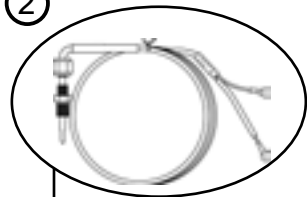
⑥



①



②



Battery

Exhaust Manifold

Turbo

③



⑨



Sensor Locations

Injector Locations

EAS Install Location

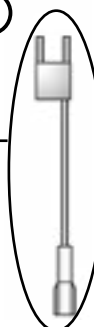
Battery

Ground Connector
Location

Fire wall Grommets

Fuse Box

⑦



2006-2009



Or

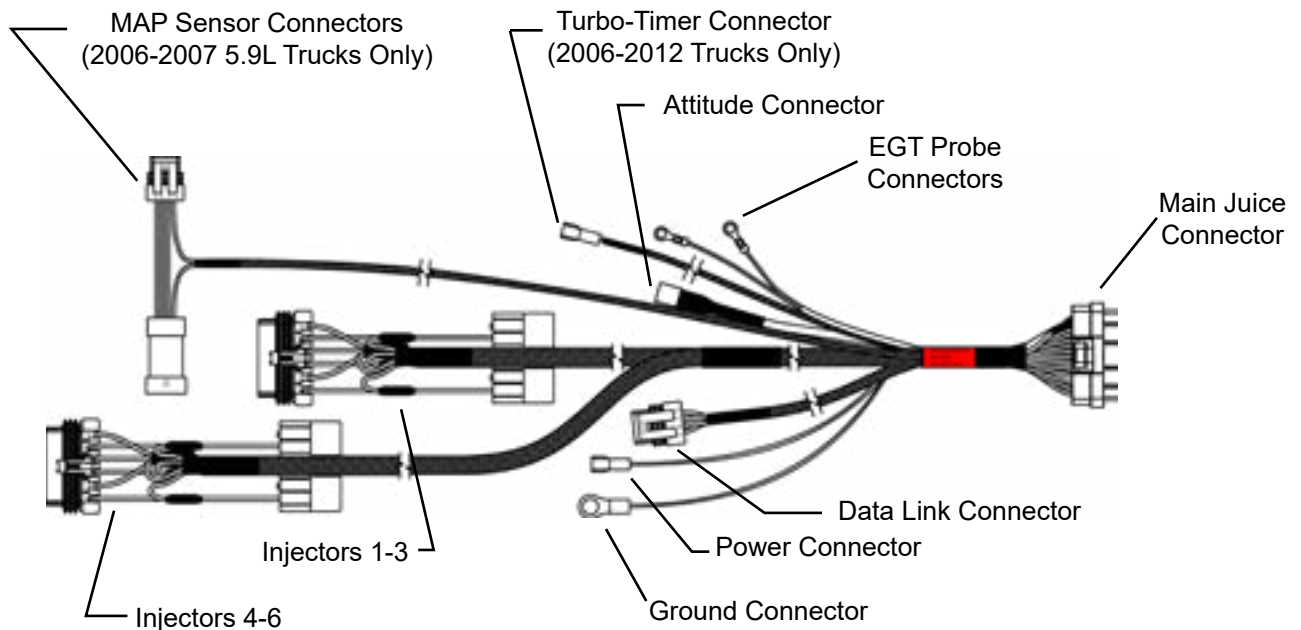
2010-2012



Required Tools

- 3/8" Drive Ratchet
- 10mm Socket
- 1/2" Socket

Harness Connection Guide



Installing the Juice Harness

1. Using the 1/2" wrench, loosen both negative battery cables.
2. Remove cables from the battery posts and set aside.

NOTE: DO NOT reconnect until installation is complete. Connecting power may cause fault code in the ECM.

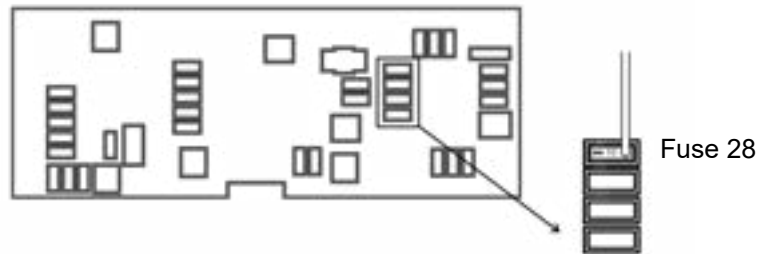
3. Locate and remove fuses from inside the engine compartment fuse panel.
4. Insert the Leaded Fuse Link. The leg with the wire soldered to it needs to plug into the "HOT" side of the fuse location. Orient the fuse as shown.
5. From the main harness, connect the Red Power Connectors to the installed Fuse Links.



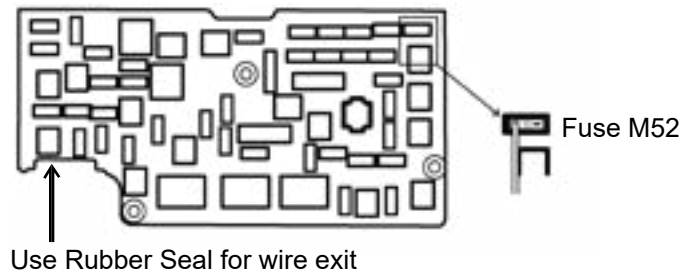
NOTE: See next page for fuse details for each setup.



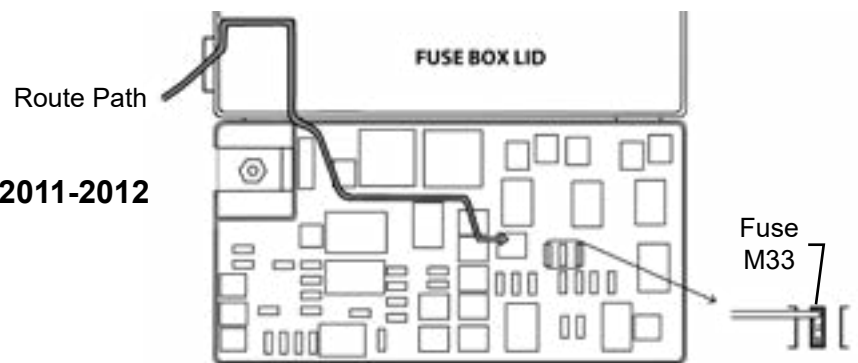
— 2006-2009



— 2010

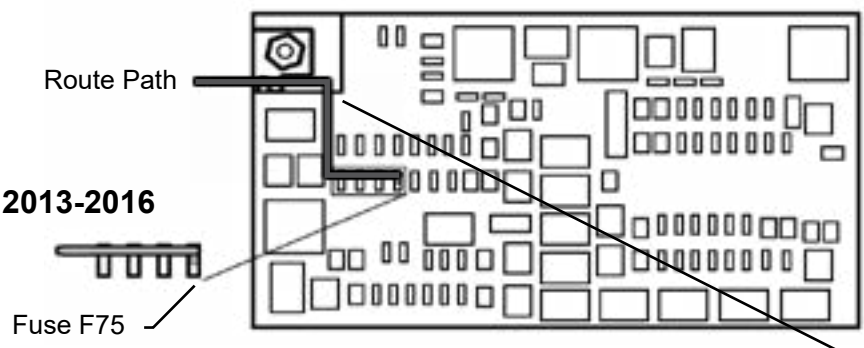


— 2011-2012



NOTE: For 2011-2012 trucks, route the wire along lid feature as shown. This will reduce the chance of the wire being crushed when the lid is closed.

— 2013-2016



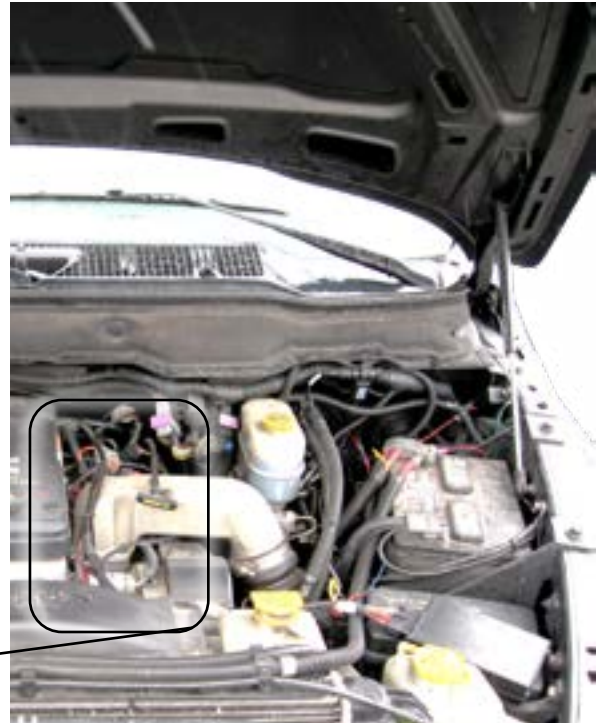
NOTE: Lightly trim the plastic to allow the wire to exit. When the lid is closed, the wire should not interfere.

CAUTION: Do not force the connection. If the connectors do not easily go together, inspect the pins, and retry installation.

6. Locate the two stock injector connectors.

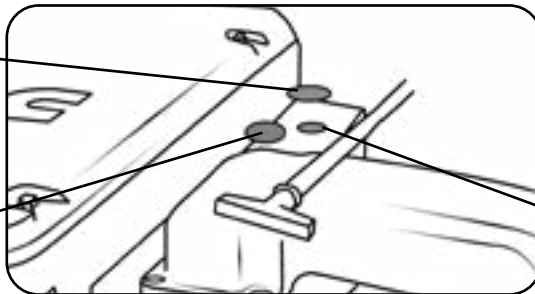
7. Remove vehicle Injector Connectors and connect the Edge Harness Injector connector "T" in between the vehicle harness and the sensor itself.

NOTE: Injector Connectors with injectors 1, 2, & 3 has Orange/White, Red/White and Brown/White wires and a shorter cable length. The connector for injectors 4, 5, & 6 has Blue/White, Green/White, and Tan/White wires and a longer cable length.



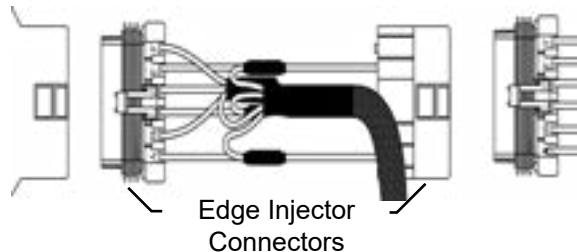
Injectors (4-6)
(blu/wht, grn/wht,
tan/wht)

Injectors (1-3)
(org/wht, red/wht,
brn/wht)

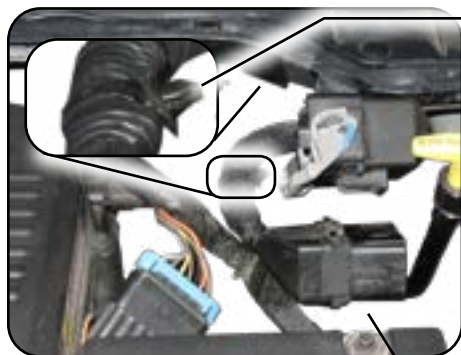


MAP connector

Injector
(Engine Side)



Engine
Harness



8. Pull the large engine harness away from the fire wall by carefully releasing the cable retention tab out of its mount.

9. Next, press in the connector lock using your right thumb, then disengage the lever by rotating it in the direction shown.



10. Remove the connector and set aside.

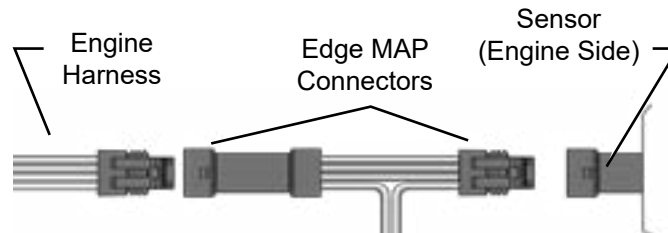


11. Lift the foam insulation in the direction shown to fully expose the injector connectors.

12. Unplug each injector set and install the edge harness according to the previous page.

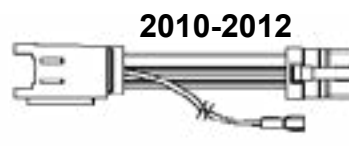
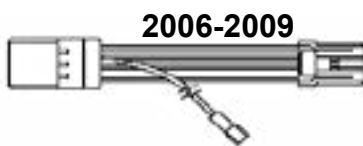
13. Reconnect all connections, and continue the install by referring to the next section.

14. Locate MAP connector.



15. Remove vehicle MAP sensor connector and connect the Edge Harness MAP connector "T" in between the vehicle harness and the sensor itself.

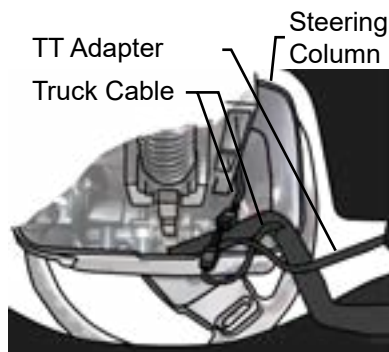
16. Locate the provided Turbo Timer cable (not applicable to 2013-15 trucks).



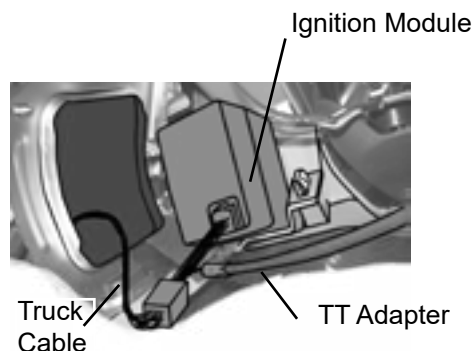
NOTE: There may be two different Turbo Timer adapters included in your kit. Once you have determined the connector is correctly installed, you may discard the remaining adapter as you will not need it.

17. Remove the panel under the steering column.

18. Locate the key position connectors. **The 2006-2009 are up and inside the steering column. The 2010-2012 are behind the key/ignition.**



Looking up from brake pedal (2006-2009)

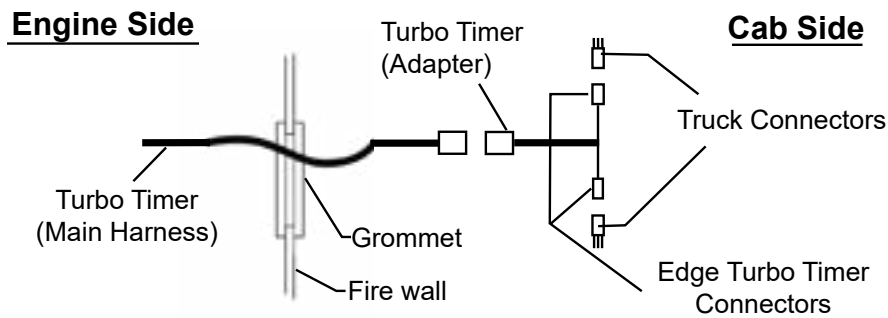


Looking up from brake pedal (2010-2012)

19. Connect the Turbo Timer (TT) adapter in between the truck connectors.

20. Route the Turbo Timer (Main Harness) connector through the fire wall.

21. Connect the Turbo Timer connector into the Turbo Timer adapter.

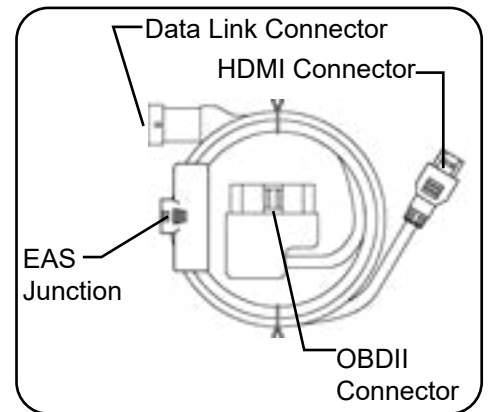


22. Locate the supplied "DATA/OBDII" cable.

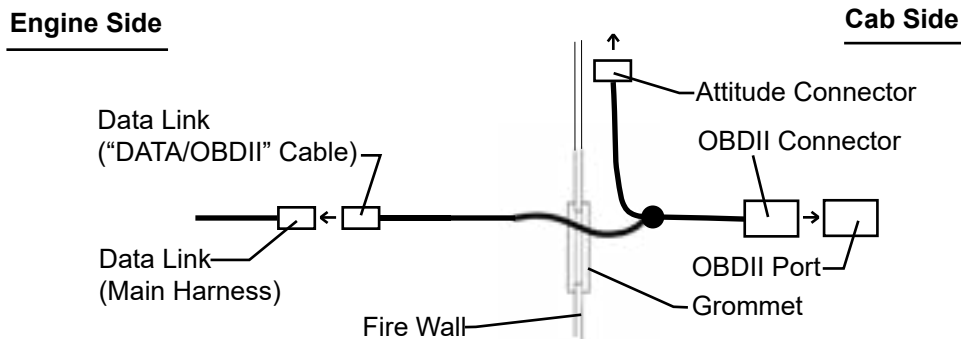
23. Locate the vehicle's OBDII port. This connector is located below the steering wheel under the dash.

24. Plug the OBDII connector into the OBDII port.

25. Route the Data Link Connector out the rubber grommet and plug it into the Data Link connector located on the Main Edge Harness.



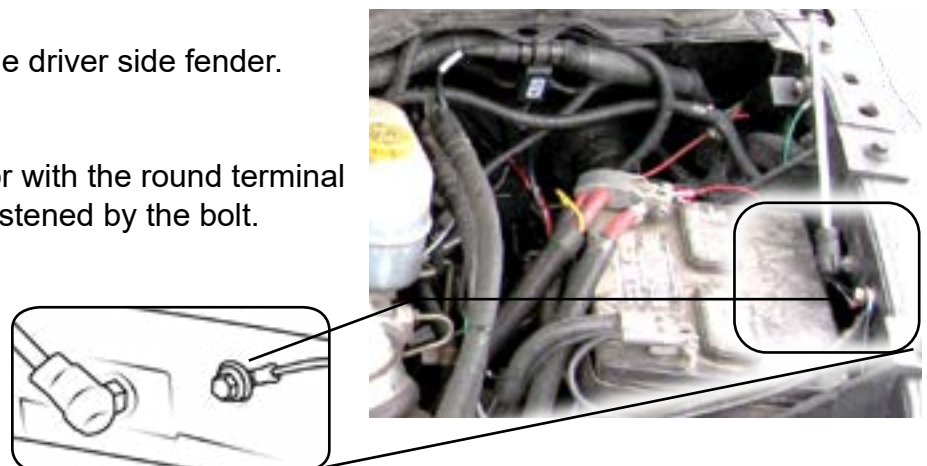
NOTE: The Attitude cable will later be routed and installed.



26. Remove the 10mm bolt from the driver side fender. (above the battery)

27. Add the black ground connector with the round terminal to the wire bundle already being fastened by the bolt.

28. Tighten the bolt.



EGT Probe Installation

Supplied Items & Required Tools

⚠ WARNING When installing the EGT (Exhaust Gas Temperature) Thermocouple, wear eye protection and protective clothing to protect from getting metal chips in your eyes. Also, since exhaust manifolds can be very hot, allow the engine to cool before drilling. When working under the vehicle, make sure the park brake is set.

<u>Supplied Items</u>	<u>Qty</u>
1. EGT Probe.....	(1)
2. Shrink Tube.....	(2)

Required Tools

- Electric/Cordless Drill
- 1/8" drill bit or similar size (for pilot hole)
- 21/64" (best size) or 5/16" drill bit (for final hole)
- 9/16" wrench or socket
- 5/8" open end wrench
- 1/8"-27 NPT Thread Tap
- Phillips screwdriver
- 5/16" or 8mm wrench



CAUTION: One effective way to avoid metal fragment contamination in your engine manifold is to apply grease in the tip of the drill bit and threads of your tap tool when drilling/tapping the hole in your manifold. Reduce pressure on the drill when the drill breaks through the manifold wall to reduce risk of pushing metal chips into the manifold.

EGT Probe Installation Locations

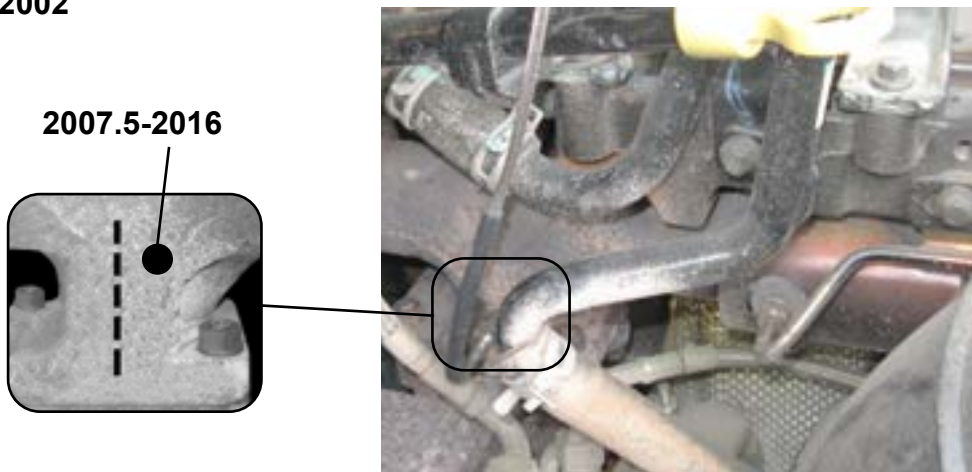
NOTE: All 3 views are looking from the passenger side.



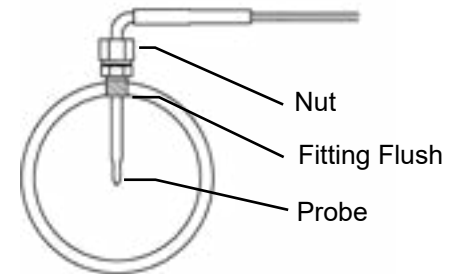
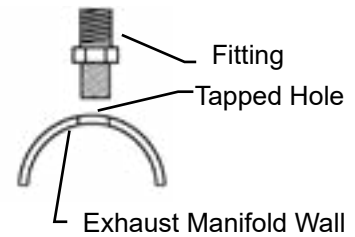
1998.5 - 2002



2003-2007



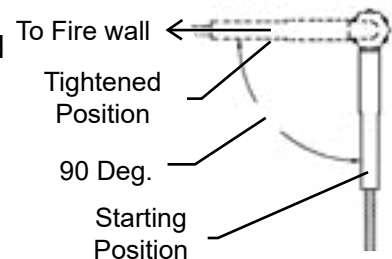
1. Obtain a 1/8"-27 NPT Thread Tap.
2. Drill a 21/64" (5/16" optional) hole through the manifold wall.
3. Use the pipe tap to cut the threads in accordance to the pipe tap manufacturer's instructions and recommendations.
4. Remove the fitting from the Thermocouple and install by tightening the tapered thread end into the manifold.
5. Tighten the fitting so that it is securely seated.
6. Install the probe into the fitting, and tighten the top nut of the fitting just tight enough to keep the probe firmly mounted.



NOTE: Ideally the tip of the fitting would be less than or flush with the inside of the exhaust flow path.

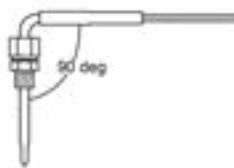
7. Make sure that the probe cable is positioned to allow best path and minimal bending for routing to the fire wall.

NOTE: The probe will move approximately 90 Deg. clockwise in the direction the nut is tightened. Before fully tightening the nut, make sure the cable starts 90 Degrees from the final resting position. When tightened, the cable will be correctly positioned.

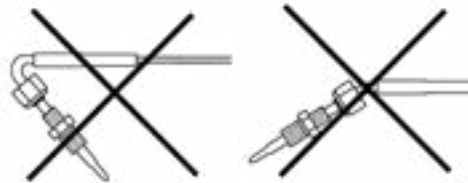


CAUTION: Do not bend the probe after installed. If needed, loosen the probe nut, adjust the probe, and re-tighten. Bending the probe tubing will result in a faulty probe.

Correct



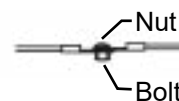
Incorrect



8. Slide the shrink tube pieces over the two wires. Later you will slide them over the bolted connections.



9. Connect the (2) ring terminals to the mating Juice harness terminals using the supplied hardware. Yellow to Yellow. Red to Red.



10. Tighten the nuts so that each wire is in line with its mating wire.

11. Position the supplied shrink tube over the secure fasteners.



12. Center the connection within the shrink tube. Heat and shrink the tubing over the connections.

13. Secure the excess cable to the existing engine wire harnesses with supplied zip ties.

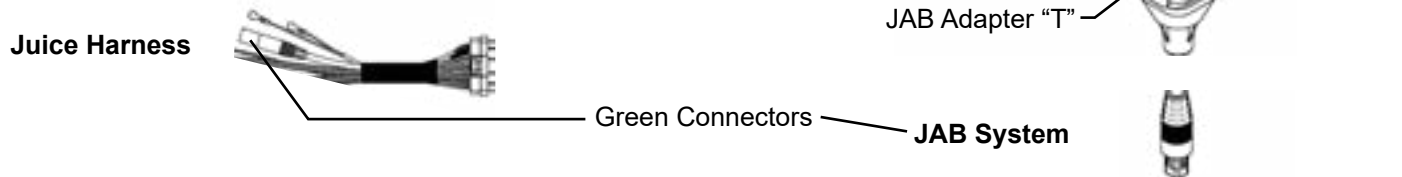
JAB Installation

1998.5-2016 Trucks

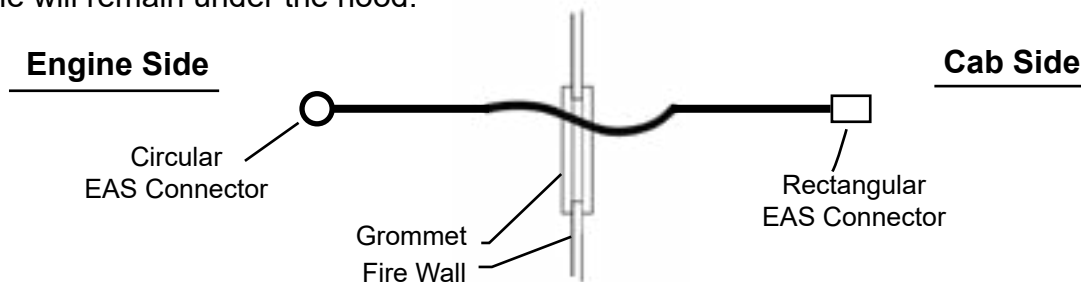
NOTE: The Attitude will not function unless the JAB is properly installed and plugged into both the Juice Module and Attitude Monitor.

1. Locate the green connector on the Juice Harness and plug it into the Green connector on the JAB.

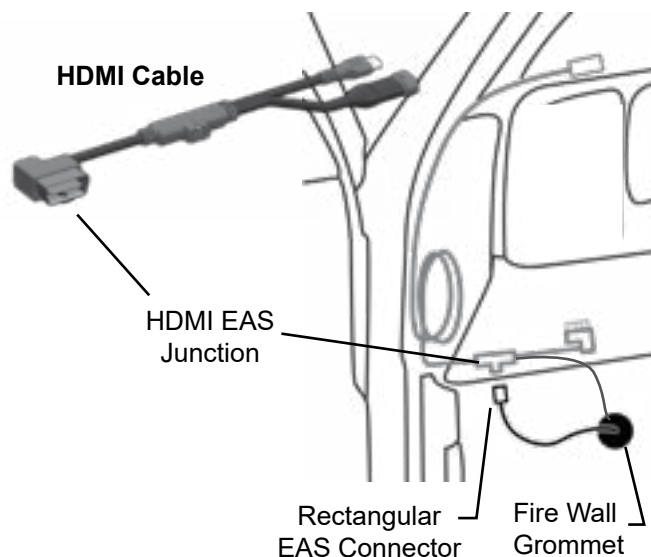
2. Under the hood, connect the 3 EAS components to one another. A “click” will be felt and heard indicating that the connectors are correctly fastened.



3. Route the Rectangular EAS Connector and cable through the fire wall grommet. The JAB and Juice Module will remain under the hood.

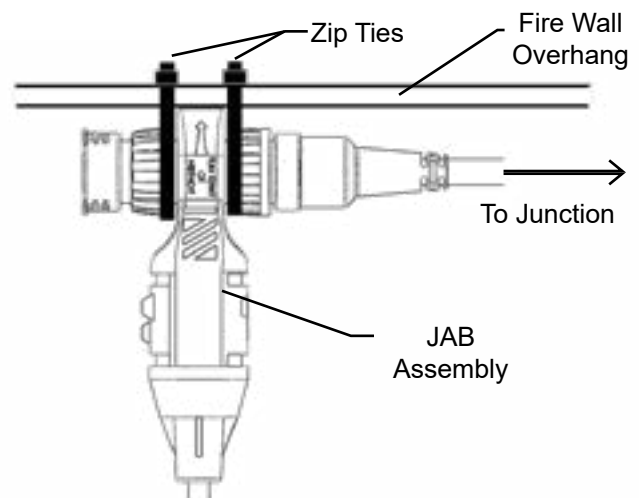


4. Route the cable from below the dash up to the HDMI cable’s EAS Junction. Refer to the Quick Install Guide for instructions on how to route the HDMI Cable.



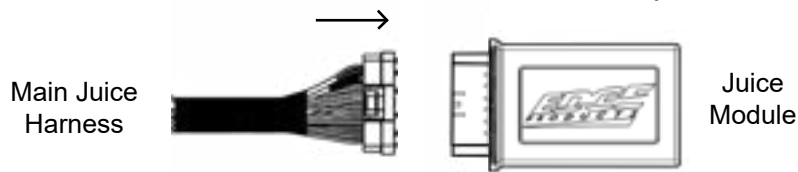
5. Using the supplied zip ties, fasten the JAB connectors underneath the overhang which runs across the top of the fire wall.

6. Keep the JAB assembly close to the driver side.



Connecting the Juice Module

1. Plug the “Main Juice Connector” into the “Juice Module” receptacle.



Mount and Secure the Juice Module

1. Attach one side of each Velcro strip to the back side of the Module and to the top side of a flat surface under the hood.

NOTE: *The best place is the top of the fuse box on the driver side. This will secure the Juice module and help keep it away from any moving or hot components under the hood.*

Final Check

1. Recheck all connections for a properly secure installation.
2. Using the supplied wire ties, secure the wiring harness and cable to prevent possible heat damage from hot engine surfaces.
3. Reconnect the battery cables.
4. Start the engine. The engine should start and idle like a stock truck. If the engine does not start or run properly, turn off the engine. Remove the keys from the ignition, and check the Juice module connections. Make sure all connectors are fastened tightly.

Appendix

Operating the Attitude Module

Refer to this Attitude User Manual for detailed descriptions on how to operate the Attitude Monitor.

Additional Information

EGT's

EGT stands for exhaust gas temperature, and is the single most important indicator of how a diesel engine is performing. Unlike a gasoline motor, a diesel motor will continue to make power as more fuel is added. As more fuel is added, the engine heat will also increase. Please be aware of the limitations of a stock engine.

ENGINE CODES

Engine codes are generally set during heavy acceleration. Although the codes will remain “set” in the PCM, the dash board indicator light should turn off within 15 minutes. Most codes that are set under hard acceleration are called “soft codes”. These soft codes are retained in the PCM and can be erased by using the Attitude to clear the codes.

Codes that may be set:

- P1211 – Injector control pressure is different than expected
- P1209 – Peak injection pressure fault

www.EDGEPRODUCTS.com

Edge Products is a brand of Holley Tuning Group

For additional questions not found in the user guide, call:

Edge Technical Support: (888)-360-3343

Mon - Fri 8:00 am - 5:00 pm MST

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



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