

# JUICE

## ATTITUDE

**2004.5-2005 Dodge Ram Cummins 5.9L  
325HP**

*Edge Juice and Attitude  
Installation Instructions and Manual*

OLD P/N: EJD3000A/ EAD3000A/ EJD3000AWAM  
NEW P/N: 30004(Juice) 33002(Attitude) 30104(Juice w/Attitude)



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*Manual version 7*

## **THIS IS A HIGH PERFORMANCE PRODUCT. USE AT YOUR OWN RISK.**

Do not use this product until you have carefully read the following agreement.

This sets forth the terms and conditions for the use of this product. THE INSTALLATION OF THIS PRODUCT INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS ITS TERMS AND CONDITIONS.

### ***DISCLAIMER OF LIABILITY***

Edge Products, LLC, MSD Ignition, and their successors, distributors, jobbers, and dealers (hereafter **SELLER**) shall in no way be responsible for damage resulting from incorrect use of this product. The BUYER/USER assumes all responsibility for any damage resulting from the use or misuse of this product. **THE BUYER HEREBY WAIVES ALL LIABILITY CLAIMS.**

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The **SELLER** assumes no liability regarding the improper installation or misapplication of its products.

It is the installer's responsibility to check for proper installation and if in doubt, contact the manufacturer.

### ***LIMITATION OF WARRANTY***

Edge Products, LLC, MSD Ignition, (hereafter "**SELLER**") gives Limited Warranty as to description, quality, merchantability, fitness for any product's purpose, productiveness, or any other matter of **SELLER's** product sold herewith. The **SELLER** shall be in no way responsible for the product's open use and service and the **BUYER** hereby waives all rights other than those expressly written herein. This Warranty shall not be extended or varied except by a written instrument signed by **SELLER** and **BUYER**.

The Warranty is Limited to one (1) year from the date of sale and limited solely to the parts contained within the product's kit. All products that are in question of Warranty must be returned shipping prepaid to the **SELLER** and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by Edge Products Inc

Under no circumstances shall the **SELLER** be liable for any labor charged or travel time incurred in diagnosis for defects, removal, or reinstallation of this product, or any other contingent expenses.

If the **BUYER** sends back a failed unit that is out of warranty and chooses to buy a refurbished unit, the refurbished unit will only carry a 60 day warranty. If the **BUYER** purchases a new unit at a predetermined discounted rate, it will have the standard 1 year warranty.

Under no circumstances will the **SELLER** be liable for any damage or expenses insured by reason of the use or sale of any such equipment.

**IN THE EVENT THAT THE BUYER DOES NOT AGREE WITH THIS AGREEMENT, THE BUYER MAY PROMPTLY RETURN THIS PRODUCT, IN A NEW AND UNUSED CONDITION, WITH A DATED PROOF OF PURCHASE, TO THE PLACE OF PURCHASE WITHIN SIXTY (60) DAYS FROM DATE OF PURCHASE FOR A FULL REFUND.**

**IMPORTANT INFORMATION ABOUT YOUR VEHICLE'S WARRANTY — PLEASE READ!**

Many of our customers ask, “Will your product void my vehicle’s manufacturer’s warranty?” While the answer is straightforward from a legal standpoint, it’s important to educate our customers (and all aftermarket consumers) on some industry realities and offer some common sense precautions to minimize your risk. Edge is committed to providing quality products that are safe to use. Our products do not cause damage to a vehicle when used as intended. *Please keep in mind that towing in anything higher than the towing level and hard driving in race or extreme performance levels is not recommended.*

Consumers of aftermarket products are protected by the Federal Magnusson-Moss Warranty Act. The Act states that if something breaks on your vehicle and you take it in for warranty repair, the dealer must honor your warranty unless whatever modifications you have added to your vehicle actually caused the problem in question.

However, the reality is that many dealerships have been known to void warranties on vehicles that use aftermarket products as a matter of policy. This applies in particular to those aftermarket products that produce horsepower, such as performance enhancement “chips,” modified intake manifolds, or aftermarket exhaust systems, regardless of product brand.

You have strong legal protection as a consumer in regard to your vehicle’s warranty. However, Edge strongly recommends you always disconnect and remove your module/programmer and monitor when you take your vehicle to a dealer for warranty work. In addition, leaving the product connected may affect dealer diagnostic analysis and CAN tool functions. Edge makes every effort to produce product that can be easily removed. **Note:** *Even if you disconnect your unit, your dealer can detect the use of any programmer—even if the unit has been removed.*

Thank you for purchasing the Edge *Juice* Module and *Attitude* Monitor for the Dodge Cummins Diesel®. The *Juice* and *Attitude* have been developed and produced from the highest quality materials available to ensure the best performance for years to come. If you have any concerns or questions, please contact us.

**Note:** *This warranty is void for any new products purchased through auction websites. Warranty is valid only for new products purchased through Authorized Dealers (proof of purchase required for all warranty claims).*

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.***

**Programming your vehicle may expose existing defects in your vehicle's PCM that could disable your vehicle. It is advised that you do not program your vehicle in remote locations in case of vehicle failure.**

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 vehicles calibrations. Therefore it is important that you return your vehicle to stock before taking it in for service. Edge updates its active products (i.e. those currently being manufactured) to work effectively with updated OEM calibrations. However, this process can take some time as 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.

**Note: This manual consists of two sections, one for the Juice module and the other for the Attitude monitor.**

- 1. If you are purchasing only the Juice module, you will mainly refer to the Juice module section.**
- 2. If you previously had purchased the Juice module and are adding the Attitude monitor, you will mainly refer to the Attitude monitor section.**
- 3. If you are purchasing the Juice with the Attitude, you will need to refer to both sections.**

## About the Dodge Juice

Congratulations on purchasing the Edge *Juice* module for the Dodge Cummins Diesel®. You will need to refer to this section if you are installing the *Juice*. If you have previously purchased and installed the *Juice* module and are adding the *Attitude* monitor, you may quickly review this section and go on to the *Attitude* section. If you have any questions, please contact Edge Products. We will be very happy to answer your questions about our complete product line.

The *Juice* Module is an add-on Engine Control Module (ECM) for the Cummins® Engine that offers additional features not available with the factory setup. Since it is an add-on ECM, it uses all the factory data, and then enhances the factory settings to optimize your truck's performance. These features include:

- Engine temperature monitoring and power increase from the *Juice* module as engine reaches operating temperature
- Three selectable power level settings via an in-cab 3-position switch if just installing the *Juice* module.
- 5 on-the-fly selectable power settings if installing with the *Attitude* Monitor—(6 with the Hot Unlock option)

The *Juice* module offers a large power increase over stock throughout the rpm range, but the power is most noticeable in the midrange rpm's. This greatly improves drivability and towing performance. Transmission downshifting is greatly reduced, especially while passing or towing.

The *Juice* also regulates power delivery and timing based on engine temperature. This means that while the engine temperature is below 140° F no additional fueling or timing is delivered. At 140° F the module begins delivering fuel at 25% of the calculated additional fuel, and the percentage increases as the engine temperature increases, until at full engine temperature (174° F) the *Juice* delivers 100% of the calculated additional fuel. At full engine temperature the *Juice* also starts modifying timing.

# Juice Getting Connected

## Supplied Items:

1. Edge Juice Module
2. Accessory package including Velcro mounting strips, wire ties and Fuse taps.
3. Power Level 3-position Switch

(**Note:** *This item is only included when the customer purchases the Juice Module by itself.*)

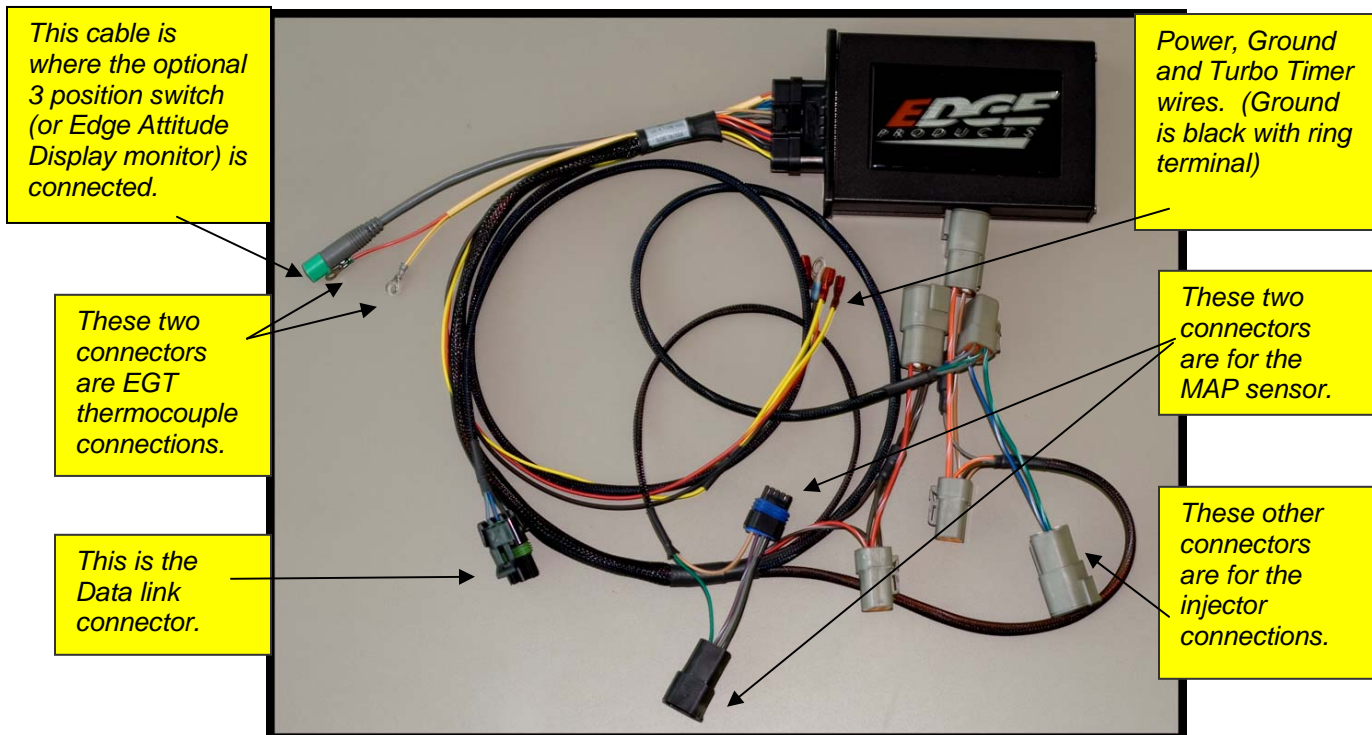
## Required Tools:

10mm Box-end wrench or socket/ratchet (to connect ground wire)

Please read these instructions completely so that you understand each step prior to installation.

## The Edge Juice Module

Figure #1 shows the Edge *Juice* Module with the harness cable attached.



**Figure #1**  
**(View of a Turbo Timer enabled Juice Module)**



## Mounting the Juice Module

The Edge *Juice* Module can mount on top or to the side of the black plastic fuse box cover located on the driver's side fender. Attach using the supplied Velcro strips, and allow harness movement for removal of the cover. (See figure #2)

**Note:** *The installation is much easier if you do not mount the juice module until after all of the harness connectors are connected, and the power and ground lines are connected.*



Figure #2

## Connecting the Harness

1. Disconnect all 3 stock injector connectors by squeezing the tab on the side of the connector. (See Figure #3)

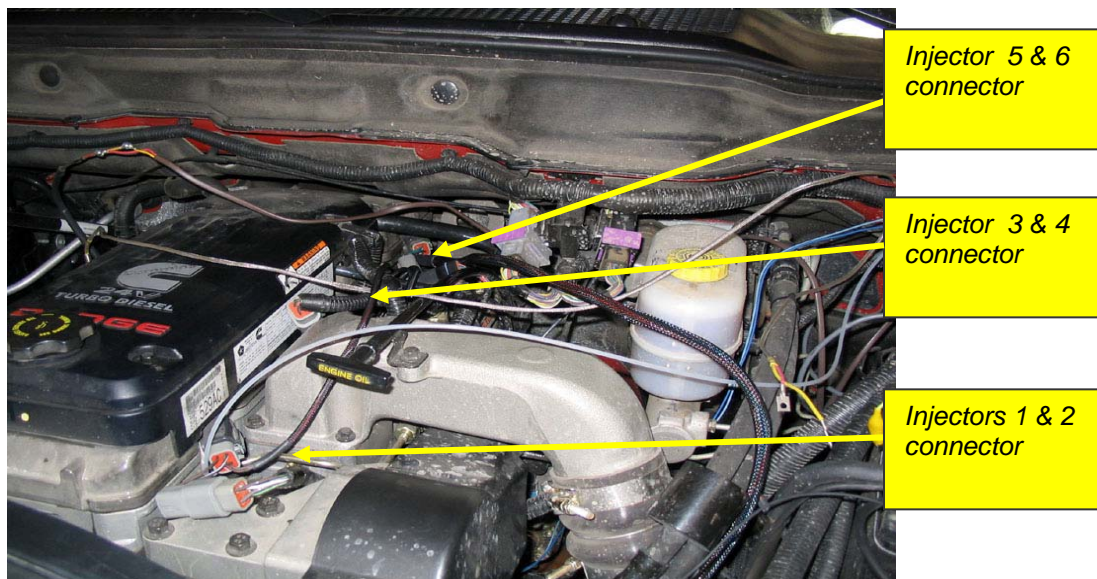
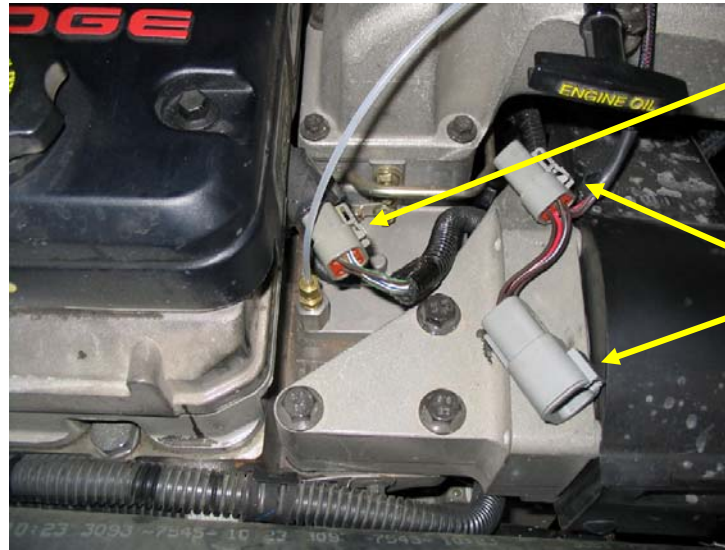


Figure #3

- Carefully and gently insert and connect the *Juice* connectors between the stock connectors, and lock in place. (See Figure #4) The connectors for injectors 1 & 2 are closest to the Juice box, and have Red/White and Brown/White wires. The connectors for injectors 3 & 4 have Orange/White and Tan/White wires, and the last remaining connectors' tare for injectors 5 & 6.



Unplug the stock injector connectors

Insert the Edge Juice injector connectors between the stock connectors

Figure #4

**Notice:** Use caution when inserting connector bodies. If the connector does not slide smoothly, remove the connector, inspect the pins, and retry installation.

- Next, connect the harness ground wire to the truck by removing the 10mm bolt from the fender, above the battery. Add the black ground wire with the round terminal to the wires already on the bolt. Replace and tighten the bolt. (See Figure #5)



Figure #5



The MAP and Data link connector locations are shown in Figure #6.

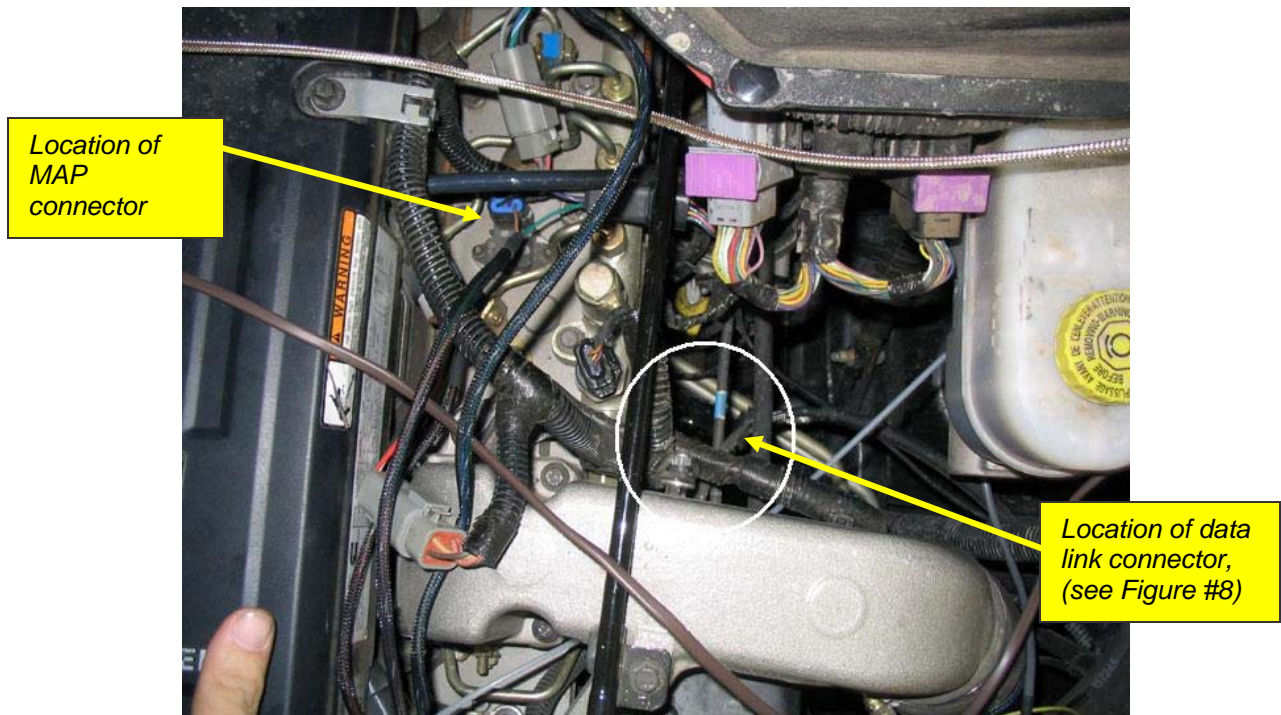


Figure #6

4. Remove the stock MAP connector located between the middle and back injector connectors on top of the motor and install the Juice MAP connectors between the stock connectors. (see Figures #6 & 7)

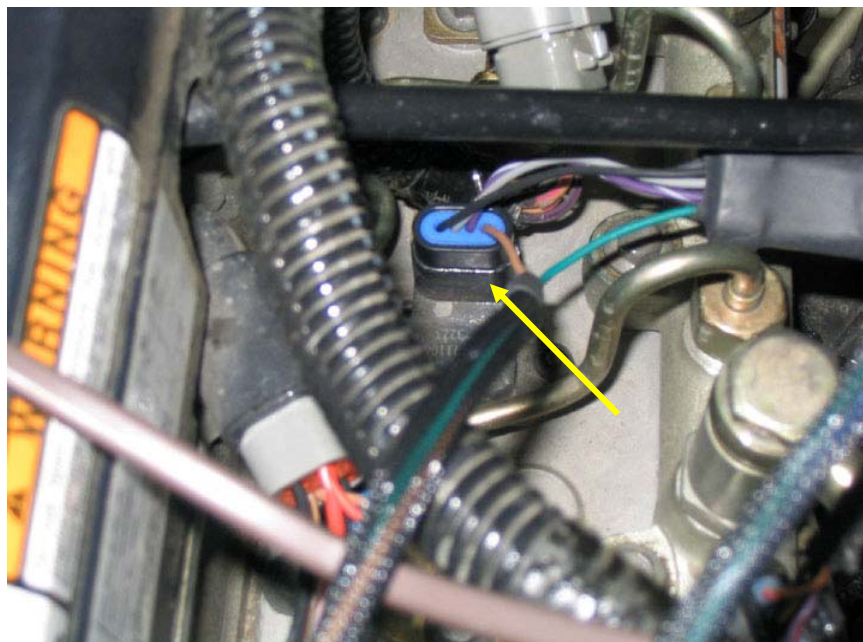


Figure #7

5. Install the *Juice* data link connector. The data link connector is behind the air intake horn toward the bottom of the engine (see Figures #6, 8, & 9).

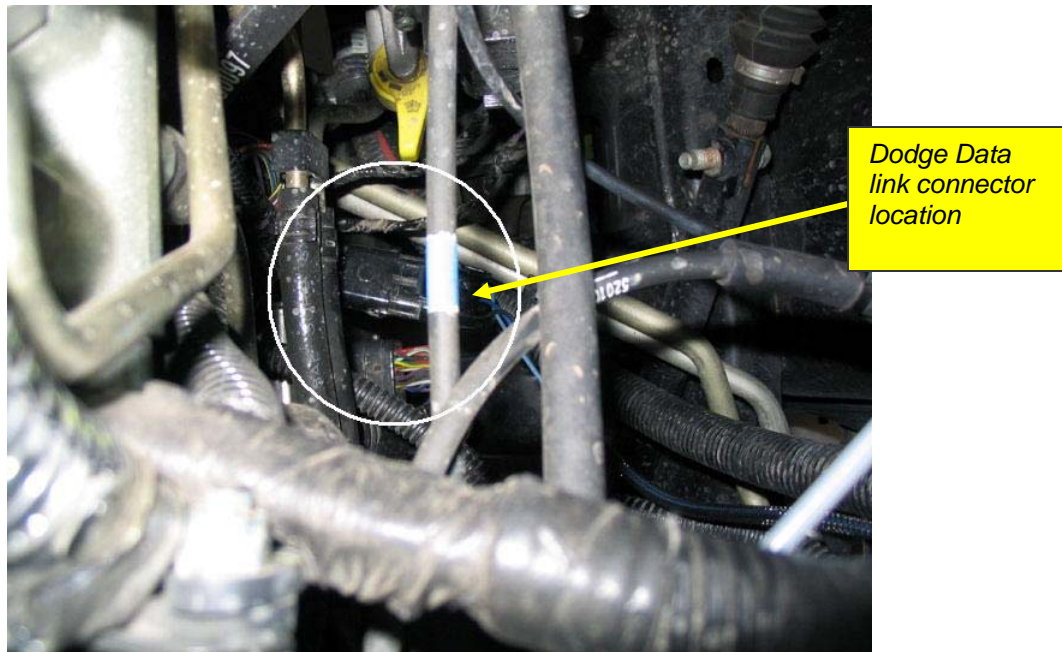


Figure #8

The connector comes from the factory with a dummy plug in it. 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 truck service.

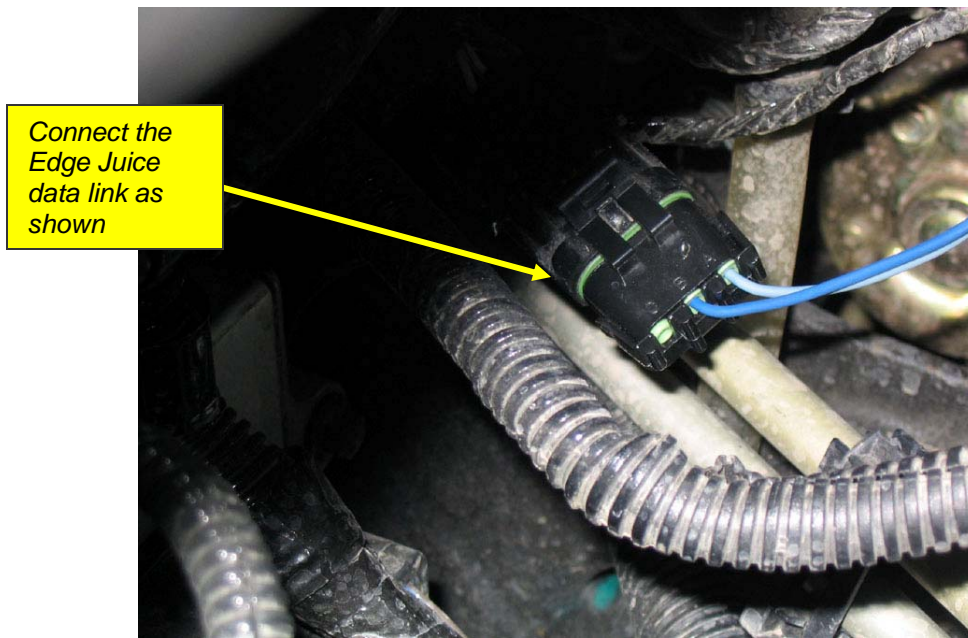


Figure #9

## Connect Power & Turbo Timer Wires

### IF NOT EQUIPPED WITH TURBO TIMER OPTION

If your *Juice* Module has a built-in harness that can not be detached, you DO NOT have a turbo timer option. There will only be one **RED POWER WIRE** to attach. The red power wire will connect in the fuse box under the hood. You will need to open the lid to the fuse box to access fuses and attach the wire.

With the fuse box open, locate and remove **fuse 28** and install a supplied fuse tap on the radiator side of the fuse (toward front side of engine compartment). Re-insert the fuse to lock the tap in place. Connect the red wire to the fuse tap you have installed at fuse 28.

If the wire terminal does not fit snugly, gently squeeze the terminal that slides over the fuse tap until it fits more securely. Replace the Fuse box lid.

### IF EQUIPPED WITH TURBO TIMER OPTION

If your *Juice* Module has a harness that can be detached from the module, you DO have a turbo timer option. There will be two yellow and one red power wire to attach. The wires will connect in the fuse box under the hood. You will need to open the lid to the fuse box to access fuses and attach the wires. (See Figure #1 in getting connected section)

#### **RED WIRE – Turbo Timer Wire**

With the fuse box open, locate and remove **fuse 26** and install a supplied fuse tap on the radiator side of fuse (toward front side of engine compartment). Re-insert the fuse to lock the tap in place. Connect the red wire to the fuse tap you have installed at fuse 26 (see Figure #10).

If the wire terminal does not fit snugly, gently squeeze the terminal that slides over the fuse tap until it fits more securely.

#### **YELLOW WIRES – Power Wires**

Locate and remove **fuses 28 and 35** and install a supplied fuse tap on the radiator side of the fuses (toward front side of engine compartment). Re-insert the fuses to lock the taps in place. Connect the yellow wires to the fuse taps on fuses 28 and 35. (see Figure #10)

If the tap does not fit snugly, gently squeeze the terminal that slides over the fuse tap to make it fit more securely. Replace the Fuse box lid.



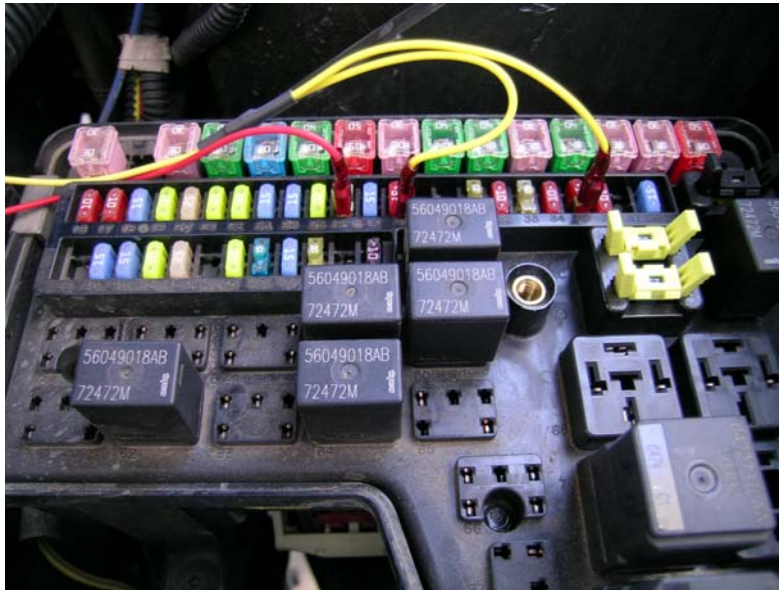


Figure #10

## Connecting the Power level Switch

1. Attach the 3-position switch cable (or *Attitude* monitor cable) with the green connector to the mating green connector on the harness (shown in Figure #1) and pass it through or around the rubber boot in the firewall behind the battery. (see Figure #11)

After routing the switch under the dash, mount the switch to the lower dash panel at the left of the steering column.

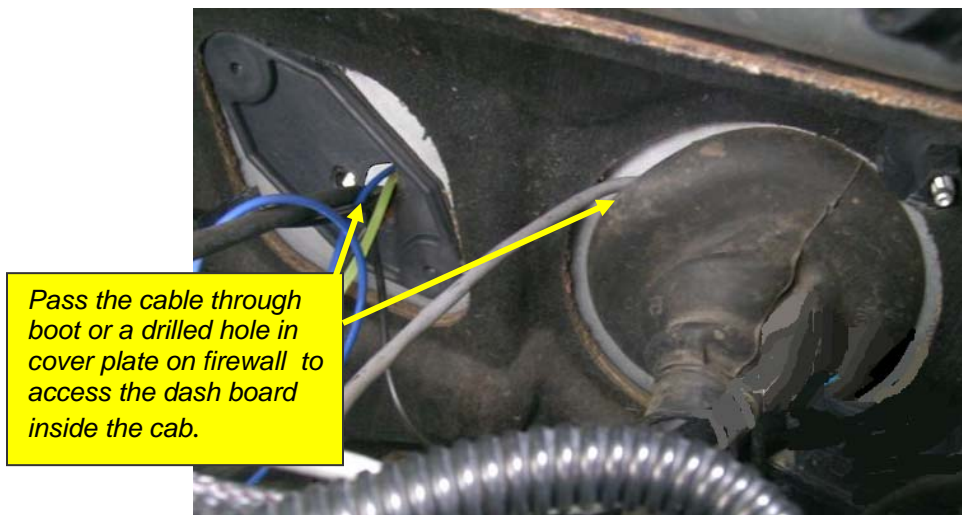


Figure #11

2. Using a 1/4 inch drill, carefully drill a hole through the plastic in the lower dash panel section. Insert the switch through the hole and secure by placing the tab ring, internal star washer and then tightening the nut. **Caution:** Make sure the location you select to drill the hole does not drill into wires or other critical components.

## **Final Inspection**

3. Recheck all connections for a properly secure installation. Using the supplied wire ties, secure the wiring harness and cable to prevent possible heat damage or to interfere with pedal movement.
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 motor, remove the keys from the ignition, then check the Juice module connections, making sure all connectors are fastened tightly. If failure conditions still exist, contact Edge Products Technical Support.

## Using the Juice

### Adjusting Power Levels

The *Juice* module offers three power levels which are set by adjusting the 3-position toggle switch.

Refer to the power level switch picture for position and power level selection. The cable connected to the switch is long enough to allow you to place the switch at a convenient location in the cab.



(Adding the *Attitude* monitor will allow five power levels, six with the Hot Unlock option. See the *Attitude* Section of the manual.)

The *Juice* module was designed to allow the user to easily select an appropriate power level for normal driving or for towing. This provides torque converter lockup in gear 3 reducing transmission heat, and also raising the shift rpm threshold to keep the rpm's higher. It is recommended that you maintain engine rpm above 1800 while towing. When towing, the *Juice* module allows the engine to pull many grades in the mid rpm's rather than having to downshift and pull them in the high rpm's. This provides for lower EGT (Exhaust Gas Temperature) with the same power output. EGT rises significantly with rpm--especially above 2500 RPM. It is highly recommended that you install an EGT gauge while using the Edge *Juice*. (When you add the *Attitude* monitor, you can also limit the EGTs by using the monitor max set point to back-down fueling and maintain lower EGT levels.)

When the module detects transmission slippage, it automatically defuels your vehicle to prevent slippage. If you detect a power loss during hard acceleration, this may be the reason.

**(Note:** *It is recommended that you only use level 1 or 2 on the switch while towing to keep EGT temperatures lower and reduce transmission stress.*)

**Warning:** *Do not exceed your vehicle's max GVWR as outlined in the vehicle's owners manual.*



## Power Gains

The following power gains are representative of an actual test vehicle. These gains were measured on a Super Flow Dyno at an altitude of 4400 ft above sea level, and represent power delivered to the rear wheels of the test truck. The only modification made to the test truck was the addition of the Edge Juice module. Power gains may vary somewhat on a different vehicle or in different geographic settings.

	<i>Horsepower</i>	<i>Torque</i>
Level 1:	25 HP	80
Level 2:	40 HP	120
Level 3:	80 HP	200

## Making Sense of It All

This section is designed to help you understand how the additional power will change your driving experience as well as help you figure out what power level will best suit your driving style.

The first thing you will probably notice is improved performance, especially if this is your first time driving a diesel truck with a performance module. You will experience more power, better throttle response, better passing and acceleration, and even better fuel economy. Power level one is specifically designed to maximize fuel economy improvements. If you are towing, the beauty of the extra power the Edge module delivers is that not only will you be able to maintain speed going up a hill, but the added power will also keep you in a higher gear, so your transmission will not keep “hunting” for lower gears. We recommend level one or level two for towing applications.

The remaining power levels are designed to match fueling with any additional upgrades you may have done to your vehicle. Level three should never be used while towing and is the highest level you should use with your stock vehicle. Level three is designed to take advantage of the built-in safety margins the manufacture needs in order to make sure your vehicle will operate at its maximum capacity.

(When using the *Attitude* monitor, levels four and five are race levels and are designed to be used with upgraded drive trains. If you have modified your injectors, upgraded the transmission, changed turbos or performed other similar enhancements, levels four and five will match fueling to the additional performance created by these upgrades. On a stock truck, it is possible to overstress the engine and transmission while driving in levels four and five.)

### **EGTs: What they mean and why**

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, heat will be generated until the motor just gets too hot and things start to melt. This is a situation you want to avoid. Exhaust gas temperature is the ideal measurement of how hot the motor is, since temperature fluctuations in exhaust gas are almost instantaneous. It is possible to generate excessive EGT on a stock truck, particularly if you are towing.

This is why we always recommend installing an EGT gauge and why we offer the Attitude monitor, which monitors EGT and will automatically defuel your truck when EGTs get too high. In our experience 1350 degrees is about as high as you want to let your EGTs go. Keep in mind, the stress on your engine created by the heat is a function of both temperature and time.

As you drive your truck in the various power settings, keep your eye on the EGTs. Depending on how you drive and where you drive, you may find a particular power level is more suitable to your power needs.

## **The Juice Module and your Transmission**

The automatic transmission has a fluid-filled clutch-like device called a torque converter. This device uses the spinning motion of the motor to drive the transmission which drives your wheels. As the truck speed stabilizes, the torque converter engages a mechanical connection which locks the two halves of the torque converter, so the output shaft is going the same speed as the input shaft. This mechanical linking of the two halves is called ***Transmission Lock-up***. If the motor produces too much power, this mechanical lock-up can start to slip. When this slippage occurs, the Juice module reduces the power output to allow the transmission to function properly. This is a great feature that provides an extra level of protection for your vehicle. (Please keep in mind however, that if you run in level 4 or 5 with the *Attitude* monitor, the additional power is so great that it is possible to overstress a stock transmission if you drive too hard.)

## **Technical Support**

Edge takes a great deal of pride in the quality of our customer service. If you have any questions or concerns about your Juice module, please feel free to call us at 888-360-3343.

# ATTITUDE

**2004.5-2005 Dodge Ram Cummins 5.9L  
325HP**

*Edge Attitude Monitor  
Installation Instructions and Manual*

**OLD P/N: EAD3000A  
NEW P/N: 33002, 30104**



**EDGE  
PRODUCTS**

## About The Attitude

Congratulations on purchasing the *Attitude* Monitor for Dodge Cummins Diesel®. The following manual contains information and instructions on the proper use of the *Attitude*. Please read carefully before proceeding to install in your vehicle.

The *Attitude* allows you to monitor the performance of your vehicle's vital engine components and output values. The following parameters can be displayed on the main *Attitude* screen (maximum of 4 at one time):

- EGT (exhaust gas temp.)
- RPM
- % Backdown
- % Load
- Intake Temperature
- Boost
- Speed
- Throttle position
- Engine Temperature
- Barometric Pressure
- Transmission Lock
- Transmission Slip

One of the most powerful features of the *Attitude* is the option to monitor the EGT of your vehicle and automatically lower the fuel input to maintain an EGT below a maximum desired level (we recommend 1350°F).

The following items should be included in your *Attitude* package:

1. The *Attitude* Module with Cable
2. Accessory package including Velcro Mounting strips, and wire ties.
3. Attitude Mounting L Bracket
4. EGT Thermocouple Sensor Probe

## Power Gains

The following power gains are representative of an actual test vehicle. These gains were measured on a Super Flow Dyno at an altitude of 4400 ft above sea level, and represent power delivered to the rear wheels of the test truck. The only modification made to the test truck was the addition of the Edge Juice module and Attitude monitor. Power gains may vary somewhat on a different vehicle or in different geographic settings.

	<i>Horsepower</i>	<i>Torque</i>
Level 1:	25 HP	80
Level 2:	40 HP	120
Level 3:	60 HP	150
Level 4:	80 HP	200
Level 5:	100 HP	250

## Attitude Getting Connected

The *Attitude* monitor connects under the hood to the Edge *Juice* module harness (See Figure #1 for view of harness in the Juice section of the manual). Follow these steps to install the *Attitude*:

### Attitude Installation

1. Place your *Attitude* monitor on the dash of your vehicle approximately where you want it installed. Desired mounting locations may vary.
2. Using the supplied Velcro, attach the bracket to the surface of your dash, and secure the *Attitude* to the bracket using the two-sided tape (*see figure #1*).

**TIP:** Before applying Velcro to your dash, use soap and water or alcohol pad to remove any non-sticking substance like *Armor All*.



Figure #1

3. Route the cable along the side of the dashboard between the dash and the A pillar. Then route behind the door weather seal, and under the dash as shown in Figure #2 and #3.

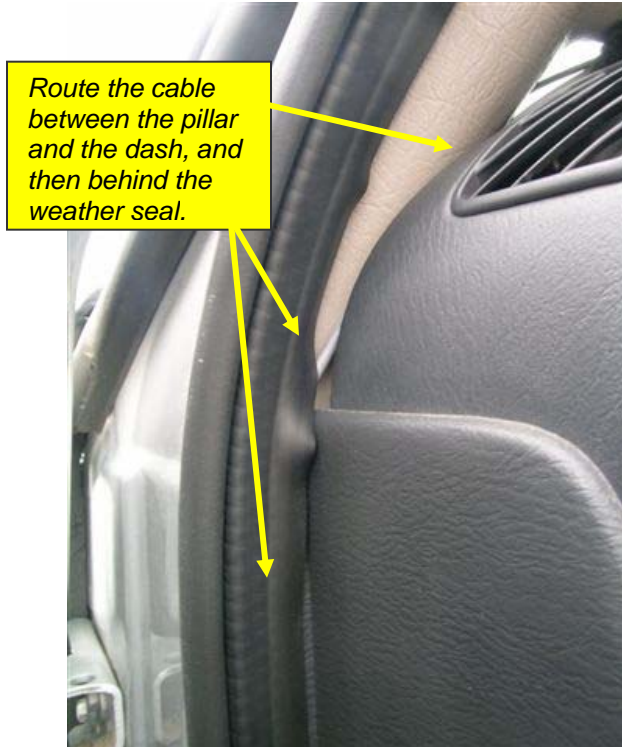


Figure #2

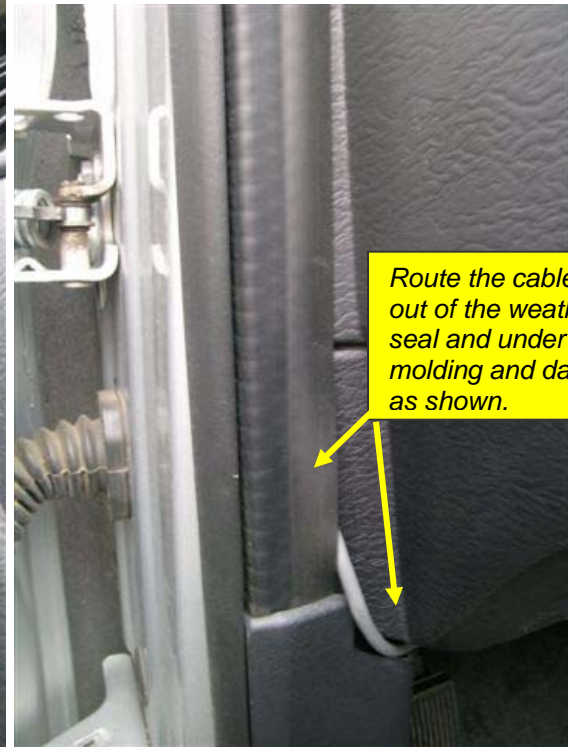


Figure #3

4. Route the cable under the dash and through or around the existing harness rubber boot (see Figure #4) on the firewall and into the engine compartment.

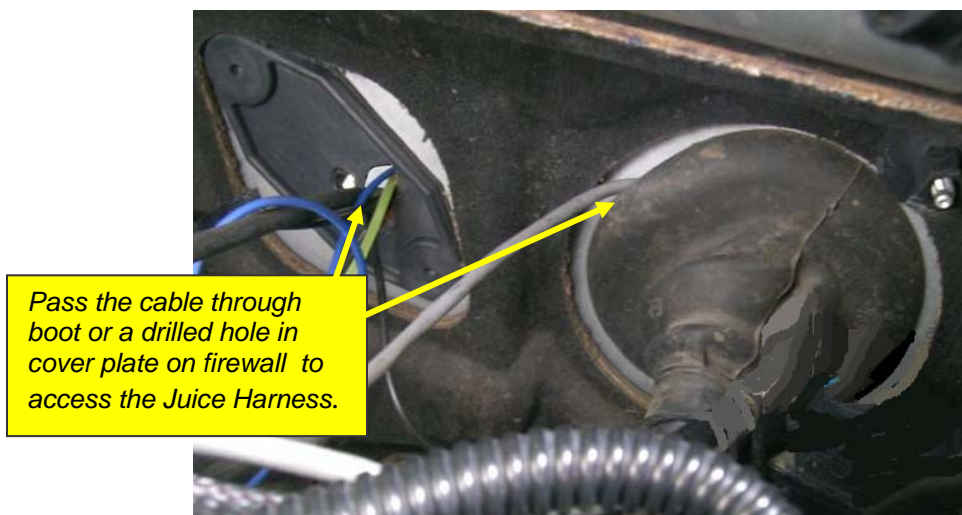


Figure #4



5. Connect the *Attitude* to your *Edge Juice* module by snapping together the cables with the green connections (*see Figure #5*). Secure any excess cable to prevent entanglement with moving engine parts or with pedal movement.

**Note:** *If the Juice module had previously been installed with the 3-position power level switch, the switch cable will have to be disconnected or removed to allow the Attitude monitor cable to be installed. Carefully lift the latch on the Juice connector side to allow the connector to release.*

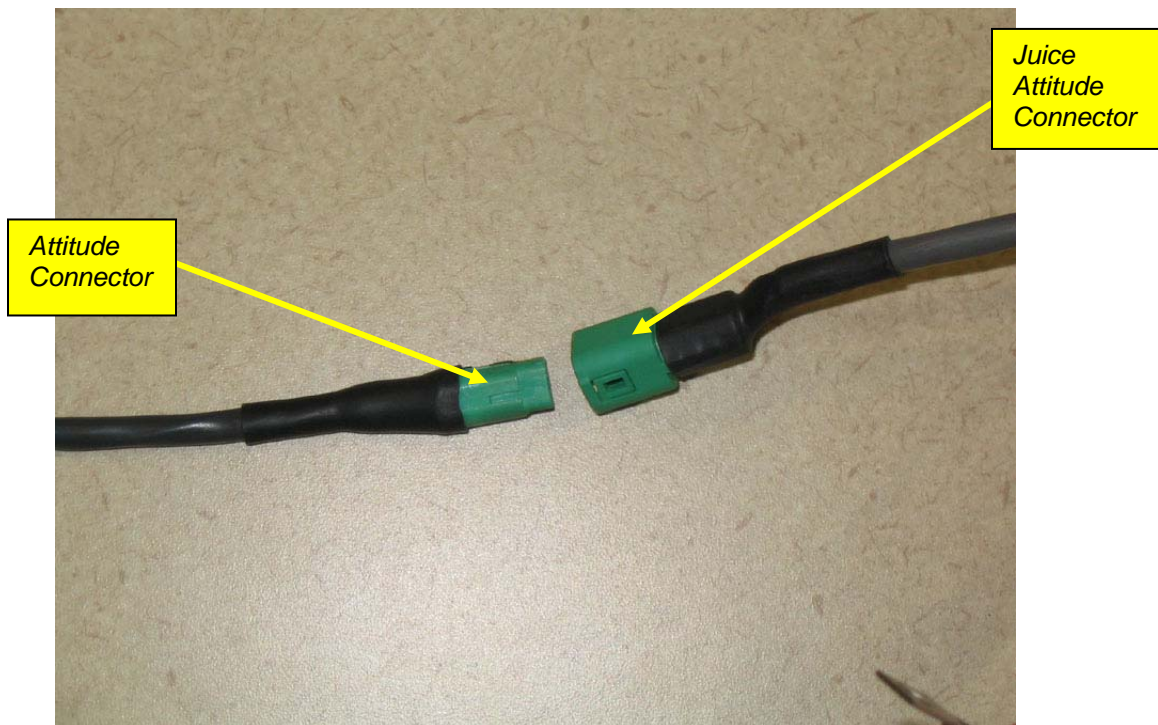


Figure #5

## EGT Probe Installation

**TIP:** *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.*

**CAUTION:** *Wear eye protection and protective clothing when performing this operation, to protect from getting metal chips in your eyes. Also, since exhaust manifolds can be very hot, allow the engine to cool before drilling. Make sure the park brake is set when working under the vehicle.*

1. **The EGT probe must be mounted before the turbo for the *Juice* safety features to operate properly.** Obtain a 1/8" National Pipe Tap (NPT) available from your hardware store. Drill a 21/64" (5/16" optional) hole through the manifold wall, and then use the pipe tap to cut the threads. Follow the instructions provided with the tap. The pipe tap is tapered, so you will only want to turn the tap until the bottom threads of the tap are slightly deeper than flush with the inside of the exhaust manifold wall. Use caution not to tap too deep since this would cause the thermocouple fitting and probe to seat too deep. (See Figure #6)
2. Now that the manifold has been drilled and tapped, remove the fitting from the Thermocouple and install by tightening the tapered thread end into the manifold with a 9/16" end wrench. (Ideally the tip of the fitting would be less than or flush with the inside of the exhaust flow path.) Tighten the fitting so that it is securely seated. Then install the probe into the fitting, and tighten the top nut of the fitting just tight enough to keep the probe firmly mounted. Make sure that the probe cable is positioned to allow best path and minimal bending, for cable routing to the top of the engine compartment. (See Figure #7 for final installation)
3. Slide the provided heat shrink over the red and yellow wires of the EGT cable. Connect the red wire of the probe to the red wire on the *Juice* module with the nut and bolt. Using a heat gun, or a lighter, shrink the tubing. Repeat the same steps for the yellow wire.

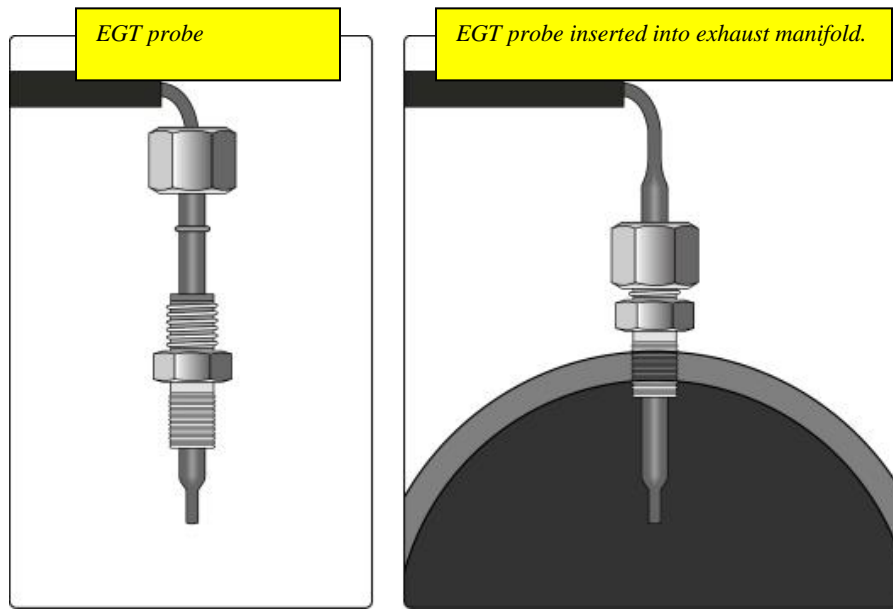


Figure #6 – EGT

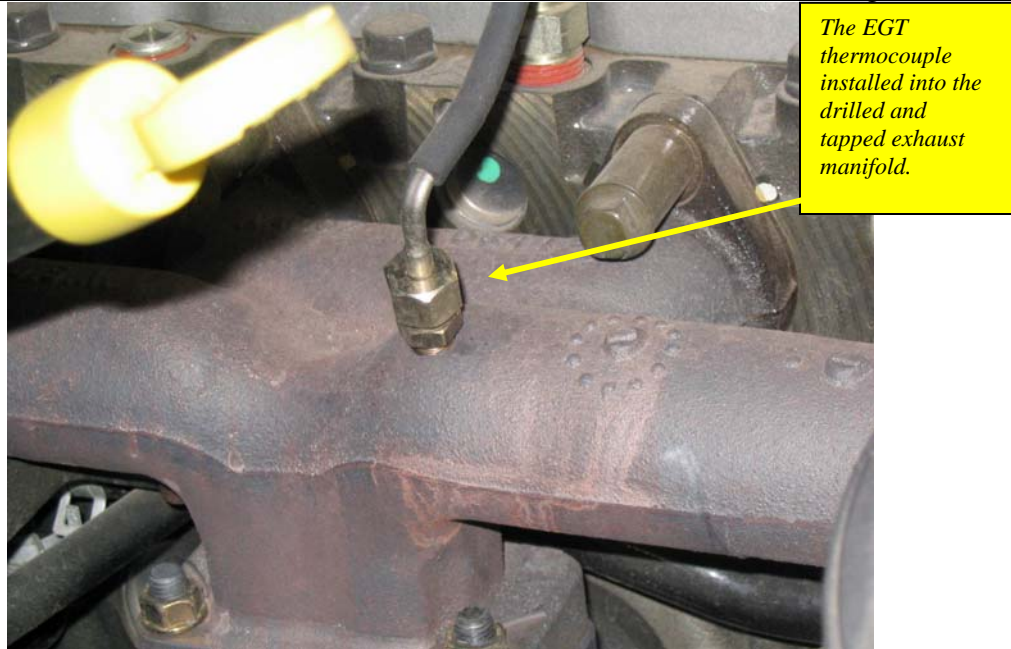
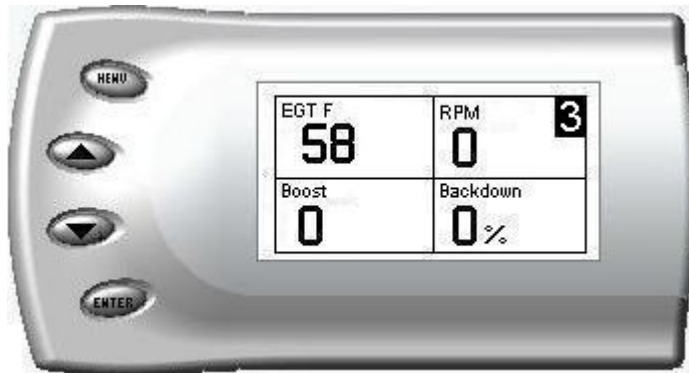


Figure #7

Once your *Attitude* monitor is installed successfully and you have turned on your vehicle, you will be prompted to indicate acceptance of the user agreement contained in this user manual. To indicate you accept the agreement, press the [Enter] button. This screen will appear the first five times the *Attitude* monitor is used.



Once you have accepted the user agreement, you will see a screen similar to the following:



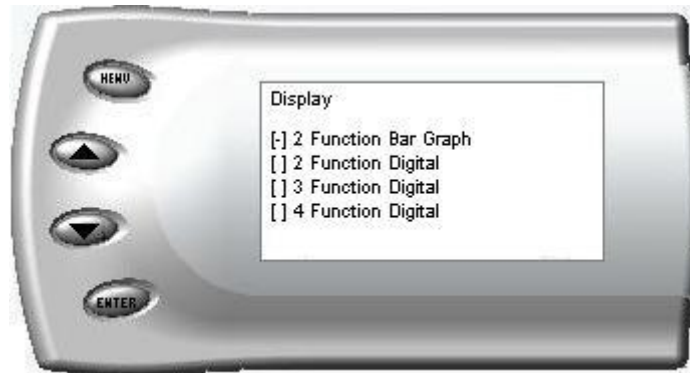
## Changing the Display View

The *Attitude* allows you to view multiple vehicle parameters on the same screen. To select a desired view, perform the following steps:

1. Press the [Menu] button until the *Setup* screen appears:



2. Select the *Display* option and press the [Enter] button. The following screen appears:

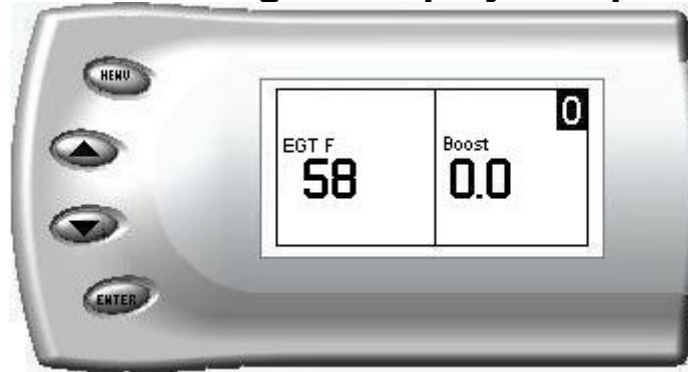


3. Select the desired viewing option by using the up and down arrows and pressing the [Enter] key. Below are examples of the display options:

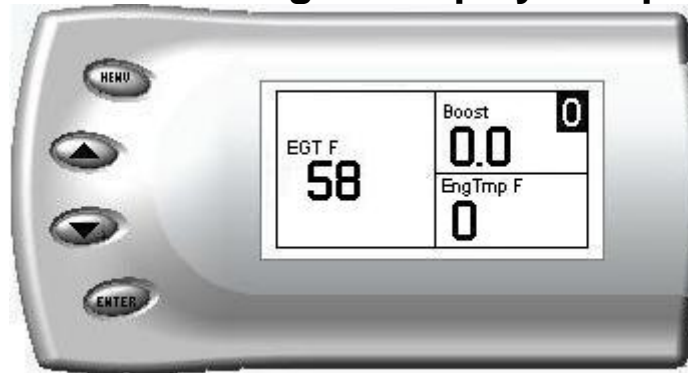
### Two Function Bar Graph Display Sample



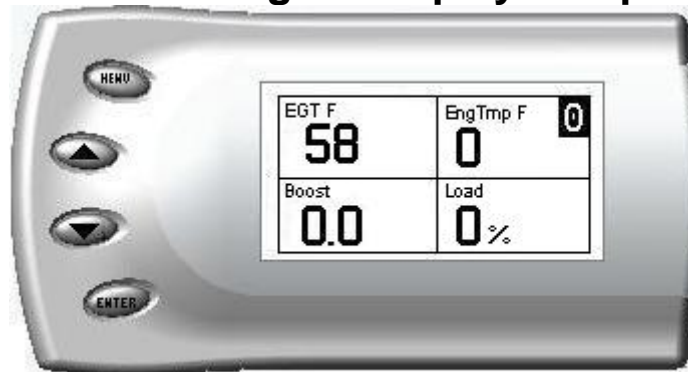
### Two Function Digital Display Sample



### Three Function Digital Display Sample



### Four Function Digital Display Sample





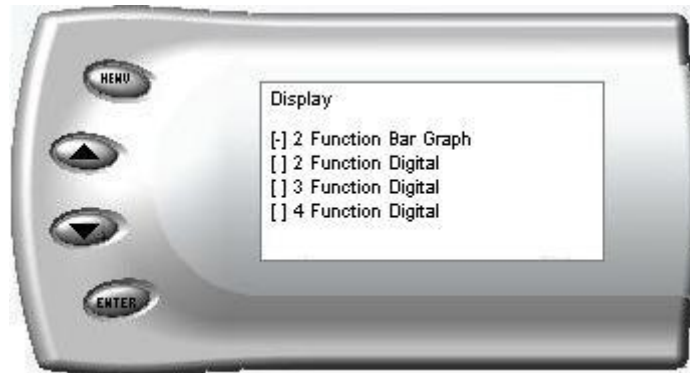
## Changing the On-Screen Variables

To change the variables on the screen, perform the following steps (Tip: Use the Up and Down arrow buttons to scroll through the screen options)

1. When viewing the vehicle parameter screen, press the [Menu] button. The following *Setup* screen appears:



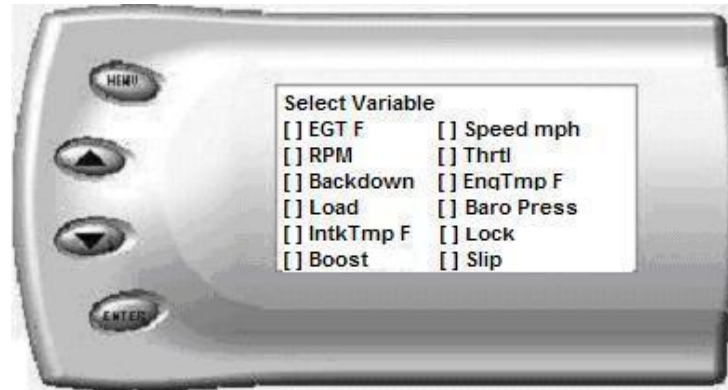
2. Select the *Display* option and press [Enter]. The following screen appears:



3. Select the display layout (i.e., *4 Function Digital*) you have previously chosen and the following screen appears:



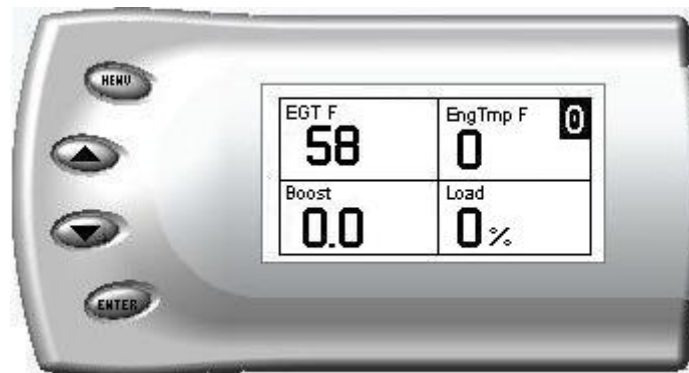
4. Select the screen position variable (i.e., *Top Left*, etc.) you would like to change and press [Enter]. A screen listing the possible replacement variables similar to the following will appear. Scroll through the list and select the variable you want to display and press [Enter]. (**Note:** *The arrow located at the bottom right corner of the screen indicates there are more parameters than the display can show.*)



5. The *Setup Digital Displays* screen appears again listing the parameter option(s) you have chosen to view. If you have no more changes, select the *Set As Display* option and press [Enter]. The vehicle parameter screen appears with your desired variables in view.

## Adjusting the Backlight

When viewing vehicle parameters (like the sample below), press the [Enter] button to adjust the backlight. Each time the [Enter] button is pressed, the backlight will change to either bright, dim, or off.



# Alerts

The *Attitude* can alert you when certain vehicle parameter levels are exceeded, such as EGT (exhaust gas Temp in F.) or Speed (MPH). When these parameter thresholds are met and exceeded, the *Attitude* screen will display the current value and you will hear a repeating alarm. The volume of this alarm cannot be changed. The alerts default to on, and the default values of the parameters are noted in each section below. To set alerts, follow these steps:

1. Press the [Menu] button until the *Setup* screen appears:



2. Select the *Alerts* option and press [Enter]. The following screen appears:



3. Turn alerts On or Off by scrolling to the *Alerts On/Off* option and press [Enter].
4. To change the EGT Alert value [default is 1350] scroll to the *EGT Alert* option and press [Enter]. The following screen appears:





5. Press the up and down arrow keys until you see the desired EGT level at which you want to be alerted and press [Enter] to set that value.
6. To change the Boost Alert value [default is 36] scroll to the *Boost Alert* option and press [Enter]. The following screen appears:



7. Press the up and down arrow keys until you see the desired Boost level at which you want to be alerted and press [Enter] to set that value.
8. To change the Speed Alert value [default is 70] scroll to the *Speed Alert* option and press [Enter]. The following screen appears:



9. Press the up and down arrow keys until you see the desired Speed level at which you want to be alerted and press [Enter] to set that value.
10. To change the Engine Temperature Alert value [default is 210] scroll to the *EngTmp Alert* option and press [Enter]. The following screen appears:



11. Press the up and down arrow keys until you see the desired Engine Temperature level at which you want to be alerted and press [Enter] to set that value.

Note: If you desire to temporarily disable an active alert, press any key (MENU, arrow or ENTER) and the alert will temporarily stop. When any of the alarm parameters drop below the set thresholds, then exceed them again, the alert will start up again.

**Records**

The *Attitude* can record some of the maximum vehicle parameters and performance test values. These records are stored in the Records section of the *Attitude*. To view or clear these values, follow these steps:

1. Press the [Menu] button until the *Setup* screen appears:



2. Select the *Records* option and press [Enter]. The following screen appears. Scroll through the list and select the record you want to display and press [Enter]. (**Note:** *The arrow located at the bottom right corner of the screen indicates there are more parameters than the display can show.*)

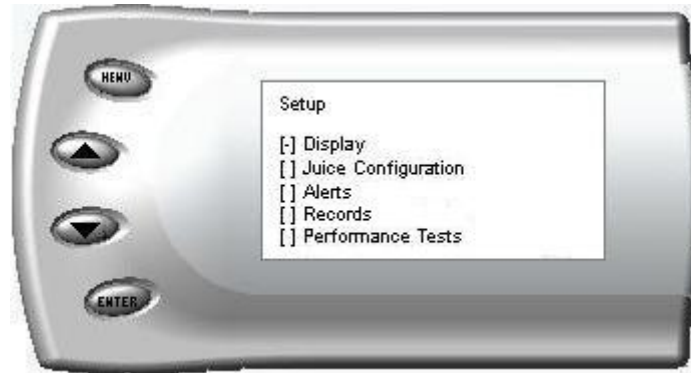


3. All of the records are stored on this screen. To clear an individual record, select that record and press [Enter]. To clear all the values, select *Clear All* and press [Enter].

## Performance Tests

The *Attitude* allows you to test the performance of your vehicle by timing the 0-60 and the ¼ mile times. To run these tests, perform the following steps:

1. Press the [Menu] button until the *Setup* screen appears:



2. Select the *Performance Tests* option and press [Enter]. The following screen appears:



3. Select the desired performance test and press [Enter]. The following screen appears:



4. When your vehicle is at a complete stop, the following screen automatically appears:



5. When you press the accelerator pedal, the screen returns to the display mode and automatically begins the performance test. During testing, a “T” appears in the upper right corner of the screen indicating that testing is in process. When the test is complete (the desired distance or speed is reached) the test will automatically stop and your time will be displayed on the screen as shown. (quarter mile result example):



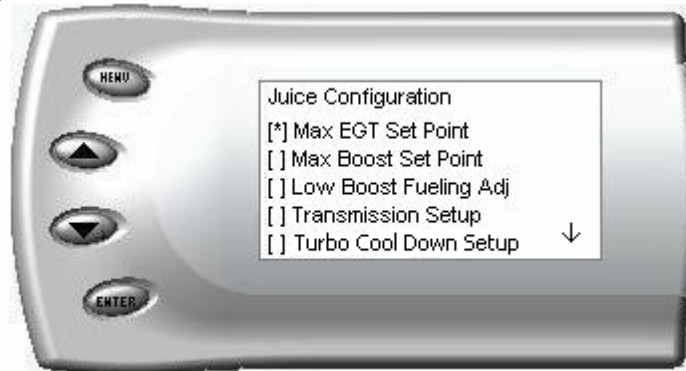
## Juice Configuration

The *Attitude* allows you to configure your *Juice* module in a variety of ways. To change the *Juice* configurations, perform the following steps:

1. Press the [Menu] button until the *Setup* screen appears:



2. Select the *Juice Configuration* option and press [Enter]. The following screen appears: (**Note:** *The arrow located at the bottom right corner of the screen indicates there are more parameters than the display can show.*)

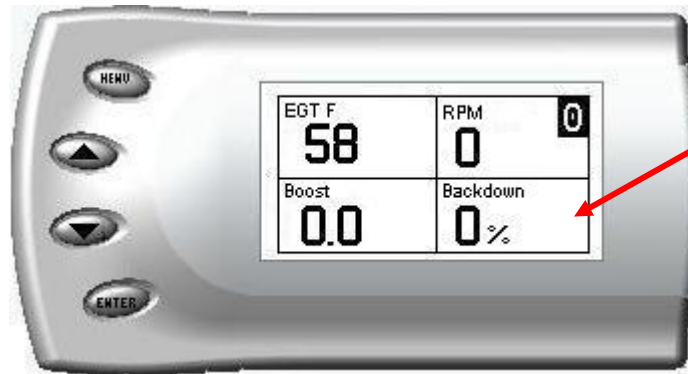


3. Select the desired option and press [Enter]. The following are descriptions of each of the *Juice* Configuration options available:

## Max EGT Set Point

The *Attitude* monitors EGT and will automatically defuel your truck at a specified max EGT set point. In our experience 1350 degrees is about as high as you want to let your EGTs go. As the exhaust gas temperature approaches the EGT set point, a percentage of defueling occurs. This percentage is represented by the backdown value you can display on your screen. When this value reaches 100% the fueling delivered by the *Juice* module has been totally disabled. However, stock fueling will allow the truck to reach stock EGT levels which may exceed the preset *Max EGT Set Point* which you established in the *Attitude*.

**Important Note:** Any other high performance modifications in addition to the *Juice* can allow the fueling to exceed stock EGT levels even after 100% backdown is reached, which may result in dangerous EGT levels.



The backdown percent represents the amount of defueling that is occurring when the max EGT level is reached.

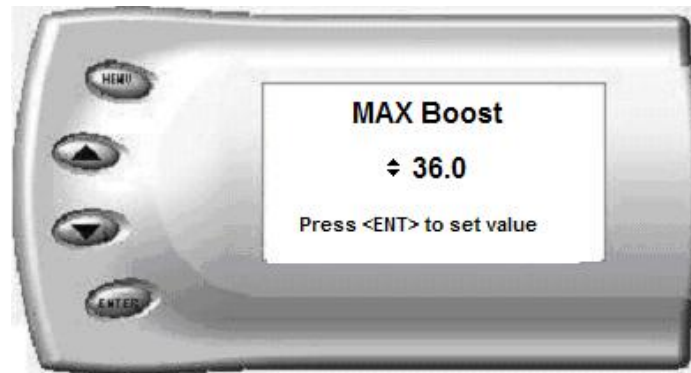
1. After selecting the *Max EGT Set Point* option from the *Juice Configuration* screen (previous steps), the following screen appears:



2. Change the *Max EGT* set point by pressing the up and down arrow keys to select the maximum temperature that you want your exhaust gas temperature to reach, then press [Enter]. When the exhaust gas temperature reaches this value, the power delivery will be decreased to prevent the temperature from exceeding this set value. On the Cummins 600 Juice/Attitude module, default values are set for EGT and Boost maximum values. Increasing these above the default value set by Edge Products introduces the risk of damage to your truck. Please note also that disabling the backdown disables both EGT and Boost backdown protection.

## Max Boost Set Point

The MAX boost set point adjusts the point at which the *Attitude* begins to backdown fueling due to boost. This is adjusted exactly like the EGT set point, and the screen looks like this. (**Note:** *Increasing the Max boost set point above 36 PSI increases the risk of damage to your turbocharger*)





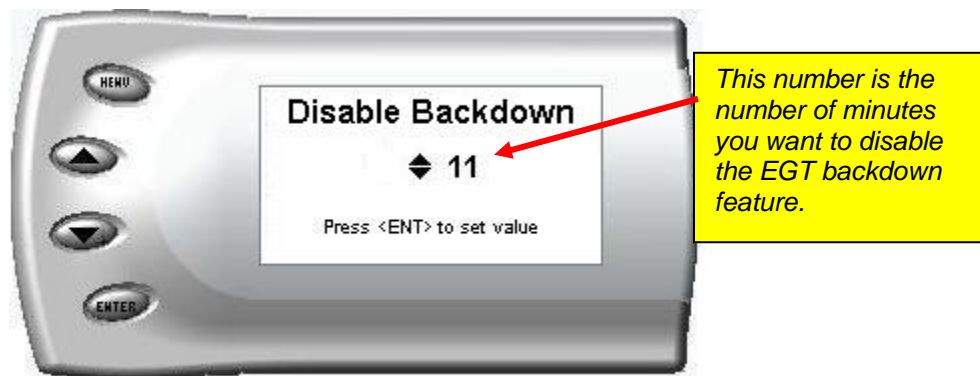
## Disabling Backdown for Excessive Boost and EGT

There are times you may want to disable the Boost and EGT backdown feature for a limited period. You may disable the backdown feature for a period of 1-30 minutes.

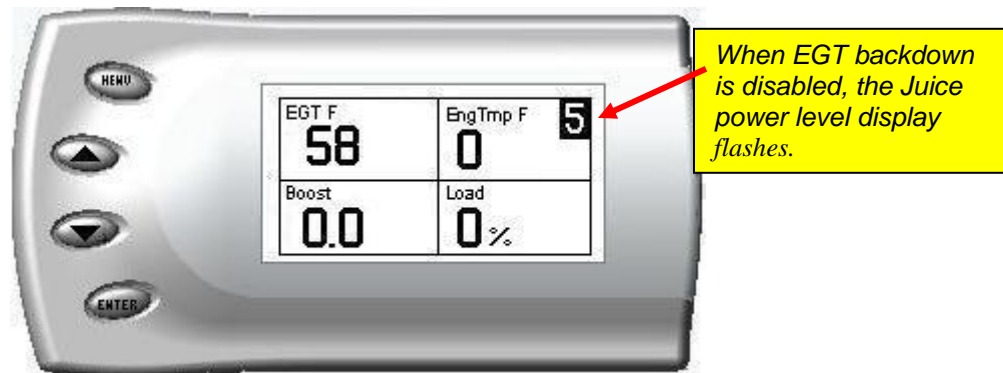
**Warning:** *Disabling this feature could lead to dangerous EGT and Boost levels.*

To temporarily disable the backdown feature, perform the following steps:

1. While viewing the vehicle parameters, press [Enter] twice quickly and the following screen appears:



2. Press the up or down arrow keys to select the desired number of minutes you would like this feature disabled. (The number of minutes you do NOT want your power decreased because of high EGT or Boost levels.)
3. After you have selected the number of minutes you would like the EGT backdown option disabled, press [Enter]. The screen will return to your previous view mode, and the *Juice* power level indicator will flash until the designated time for disabling has been reached. When the *Juice* power level indicator quits flashing, your set max EGT backdown level will go into effect.



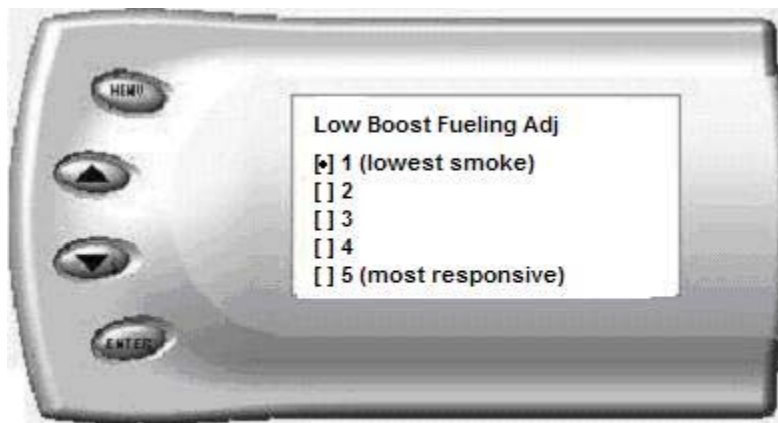
## Low Boost Fueling Adjustment

This setting will determine the performance response at low engine speed or boost pressure levels.

1. After selecting the *Low Boost Fueling Adj* option from the *Juice Configuration* screen (previous steps), the following screen appears:



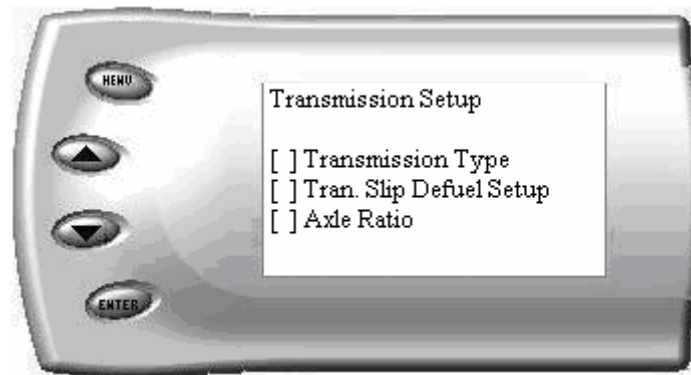
2. Select the power level for which you want to adjust the low boost fueling and press [Enter]. When you press Enter, the following screen appears allowing you to select the *Low Boost Fueling Adjustment* level that will be unique to that level and every time you select that power level the fueling adjustment will be set to what you chose on this screen.



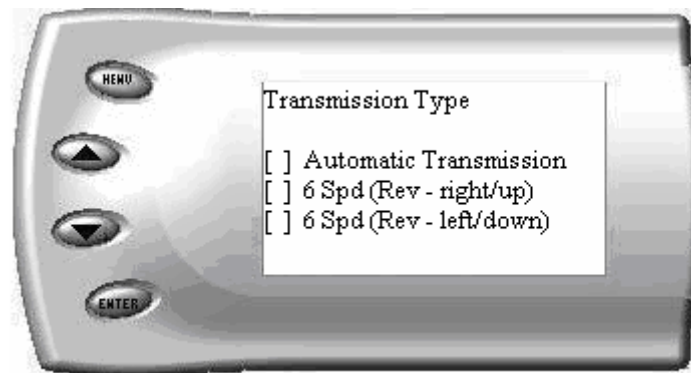
3. Adjusting the fuel at low boost allows you to adjust the response and smoke output before the turbocharger builds boost pressure in the intake. Select level 1 for the lowest level of response and smoke at low boost, and select level 5 for the highest level. You will see a significant change in vehicle response and smoke depending upon which level you select. To leave this screen, press the [Menu] button multiple times.

## Transmission Setup

1. Selecting *Transmission setup* will bring up the following screen:

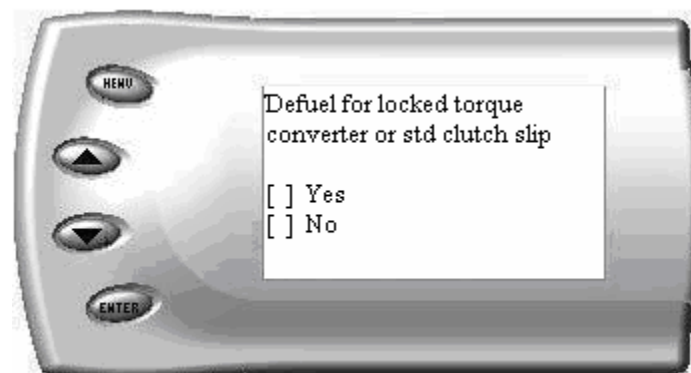


2. Select *Transmission Type* to match your vehicle transmission. After making selection, press [Enter].



***If your truck is a 6 speed, choose the option that matches the position of reverse on your transmission***

3. Select the *Trans. Slip De-fuel Setup* that best suits your needs

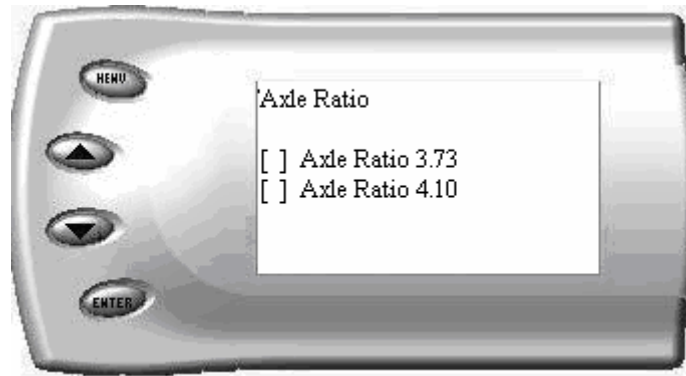


**Note:** *It is recommended that defueling (Yes) during torque converter or clutch slip be used for stock transmissions.*

**Note:** Selecting No prevents the Juice module from defueling when the torque converter or clutch is slipping.

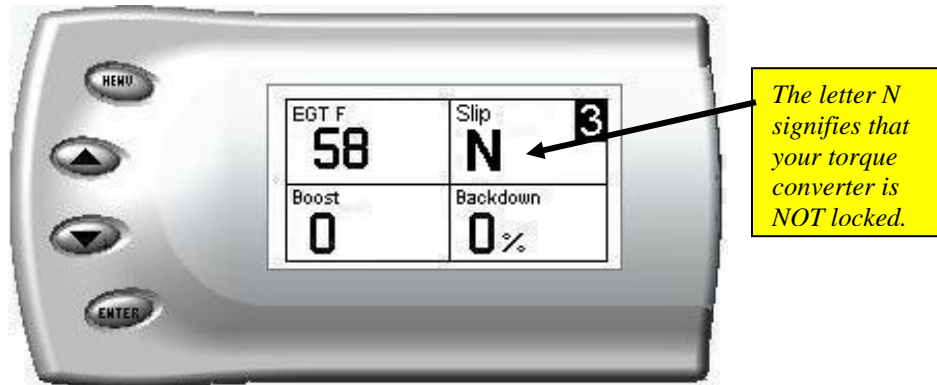
This means that the Juice will provide the full amount of fueling even when the transmission or clutch is slipping. Selecting 'Yes' will enable de-fueling, causing the Juice to defuel whenever the transmission slips. This eases the transmission strain because the Juice lowers its power output when the torque converter or clutch is slipping.

4. Select the Axle Ratio that matches your truck



## Transmission Slip

When the letter "N" appears in the Slip view mode (see below) your vehicle's torque converter is NOT locked or (if your vehicle has a manual transmission) your transmission is not in a specific gear.

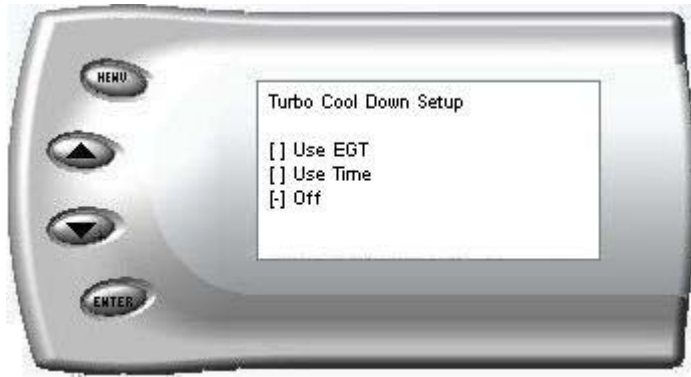


## Turbo Cool Down Setup

(**Note:** If you have an early version Juice Attitude kit, this option will not be available)

This feature allows the engine to continue running (after key-off) until one of two conditions are met. 1) if the EGT falls below the preset target EGT

set point or 2) the time set expires. Press the brake pedal to override this feature and shut off the engine.



Use EGT



Use Time



**NOTE:**  
*The Turbo Timer will not function unless:*

- 1. At least ten seconds have passed after key on*
- 2. After the ten seconds have expired, the Juice has seen an RPM above 1100*

**WARNING:** Due to potential exhaust buildup, **do not use** this feature if your vehicle's engine will be running unattended in a garage or enclosed area.

**WARNING:** *IF YOU HAVE A STANDARD SHIFT VEHICLE MAKE SURE TO LEAVE THE TRANSMISSION IN NEUTRAL, AND APPLY THE PARKING BRAKE WHEN USING THE TURBO TIMER!!*



## Tire Size

If you have stock tires on your vehicle, there is no need to adjust the tire size in the Attitude.

1. After selecting the *Tire Size* option from the *Juice* Configuration screen (previous steps), the following screen appears:



2. The numbers on this screen represent the circumference of your tire. Adjust the tire size by pressing the up/down arrow keys and then press [Enter]. The table below will help you determine your wheel circumference by matching your tire size with the sizes listed. For example, if your tire size is 285/ 65/ 18R, the value (circumference) you enter into the *Attitude* is 2599.0. Another alternative is to measure your tire's circumference by marking your tire and rolling it one complete revolution and measuring the distance then multiply the inches by 25.4 (i.e., 91.3 inches x 25.4 = 2319.0 mm). Some of the more common tire sizes can be found on the next page.

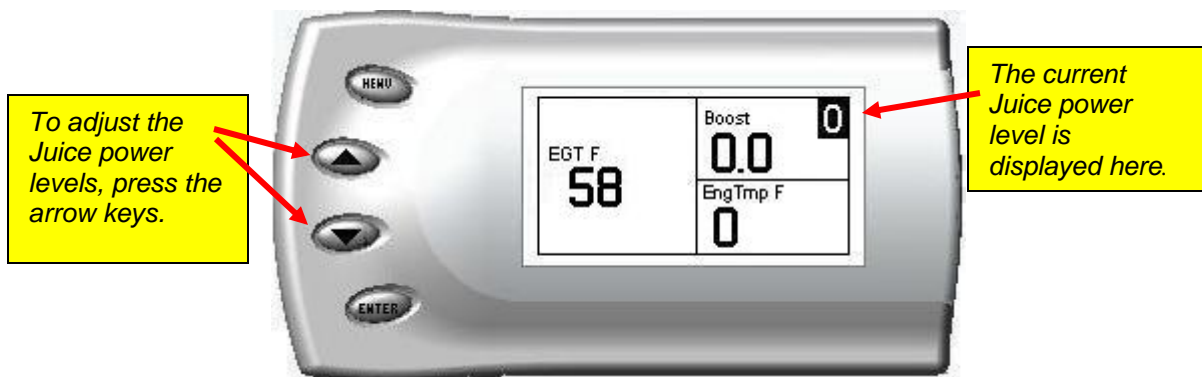
Width	Ratio	Rim	Circumference
215	75	16	2288.8 mm
245	75	16	2430.0 mm
265	75	16	2524.2 mm
285	75	16	2618.4 mm
295	75	16	2665.5 mm
305	75	16	2712.6 mm
315	75	16	2759.7 mm
325	75	16	2806.8 mm
265	70	17	2520.8 mm
285	75	17	2698.2 mm
315	75	17	2839.5 mm
285	65	18	2599.0 mm
285	60	18	2509.5 mm
325	60	18	2660.2 mm
265	70	16	2441.0 mm
275	70	16	2485.0 mm
305	70	16	2616.9 mm
Tire Size			
33			2631.9 mm
35			2791.5 mm
37			2951.0 mm
38			3030.7 mm

**\*IMPORTANT NOTE:** *If you have had your speedometer recalibrated for aftermarket sized tires, the Juice module's transmission slip protection and mph display will not function properly. If you prefer to leave the speedometer recalibrated, then make sure that the transmission slip protection is turned off to avoid improper de-fueling.*

## Adjusting Juice Power Level

The *Juice* power level is displayed in the upper right-hand corner of the screen when vehicle parameters are being viewed.

1. To adjust the power levels, press the up/down arrow keys to the desired level. Levels can be changed at any time while viewing vehicle parameters.



## Glossary of Terms

**Backdown** – This decreases the amount of additional fueling. % Backdown is the percentage of **additional** fuel held back. The *Juice/Attitude* includes a feature to backdown the fueling to control critical parameters such as EGT and Boost.

**Barometric pressure** – This is a measurement of the atmospheric pressure, mainly due to your altitude (above or below sea level) and the current weather conditions.

**Boost** – This is how much additional air pressure is added to the intake/throttle body of the truck by the Turbocharger.

**Defueling** – This decreases the amount of fuel added to the Engine (see Backdown). Both the PCM and the *Juice* do defueling, but the *Juice* can only ‘Backdown’ to stock fuel. The *Juice* does not ‘Backdown’ below stock fueling.

**EGT** – This is an acronym for **Exhaust Gas Temperature**. This is the temperature of the hot burned gases leaving the engine through the exhaust. Generally, EGT should not be permitted beyond 1350°F to prevent turbocharger damage.

**Load** – This is the percentage of total fuel supplied by the PCM.

**Low Boost Fueling** – This is a *Juice* setting controlling extra fueling before the turbo boost builds. The higher the setting, the more fuel the *Juice* adds

**PCM** – This is an acronym for **Powertrain Control Module**. This is the main onboard computer that controls the operation of the engine and transmission.

**Pyrometer** – See Thermocouple

**Power braking** – This is the process of revving the engine while keeping the brakes on. This is done to spool the turbo to a usable level (for racing).

**Spooling** – This is the process of generating turbo boost pressure by revving the motor.

**Thermocouple** – This is a device used for measuring the temperature of the exhaust gases.

**Turbo/Turbocharger** – This device takes advantage of the hot exhaust gases to pump extra air into the engine intake.

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## Technical Support 888-360-3343

To expedite your support call, please have part number, version number, and Date of Manufacture ready prior to calling support.