# Cummins-2004 Dodge ®

# Edge EZ Module Installation Instructions and Manual





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Manual Version 2

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# The EZ Module is a high performance product It is strongly recommended that EGT and boost gauges be installed when using this product. This product is not intended to be used to break any law including emissions standards. USE THIS PRODUCT 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 and its successors, distributors, jobbers, and dealers (hereafter **SELLER**) shall in no way be responsible for the product's proper use and service. THE **BUYER** HEREBY WAIVES ALL LIABILITY CLAIMS.

The **BUYER** acknowledges that he/she is not relying on the **SELLER's** skill or judgment to select or furnish goods suitable for any particular purpose and that there are no liabilities which extend beyond the description on the face hereof and the **BUYER** hereby waives all remedies or liabilities, expressed or implied, arising by law or otherwise, (including without any obligations of the **SELLER** with respect to fitness, merchantability and consequential damages) or whether or not occasioned by the **SELLER's** negligence.

The **SELLER** disclaims any warranty and expressly disclaims any liability for personal injury or damages. The **BUYER** acknowledges and agrees that the disclaimer of any liability for personal injury is a material term for this agreement and the **BUYER** agrees to indemnify the **SELLER** and to hold the **SELLER** harmless from any claim related to the item of the equipment purchased. Under no circumstances will the **SELLER** be liable for any damages or expenses by reason of use or sale of any such equipment.

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 (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, LLC

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.

THE INSTALLATION OF THIS PRODUCT INDICATES THAT THE BUYER HAS READ AND UNDERSTANDS THIS AGREEMENT AND ACCEPTS ITS TERMS AND CONDITIONS.

#### AFTERMARKET PRODUCTS AND YOUR VEHICLE'S WARRANTY

Many of our customers ask, "Will your product void my vehicle's manufacturer's warranty?" While the answer is straightforward from a legal standpoint, we also want to educate our customers (and after-market consumers) on some industry realities and offer some common sense precautions to minimize your risk.

Consumers of aftermarket products are protected by The Federal Magnusson-Moss Warranty Act. The Act states that if something breaks on your car and you take it in for warranty repair, the dealer must honor your warranty unless they can prove that whatever modifications you have added to your car actually caused the problem. Please keep in mind that towing in anything higher than level two and hard driving in level three is not recommended.

While as a consumer, you have strong legal protection with regards to your vehicle's warranty, there is also a practical reality that different automotive manufacturers and dealers have greatly varying views on aftermarket products, in particular those that produce horsepower, such as (performance enhancement) chips and intakes. There are dealers and manufacturers out there that will use the presence of a horsepower upgrade to void your vehicle's warranty. They will do this regardless of whose box or chip you are using. Any aftermarket company that does not acknowledge this is misleading you.

The bottom line is that while the law protects the consumer and provides for enforcement of the warranty, it is very difficult for most people to hire an attorney and fight a voided warranty. Edge recommends that you always disconnect and remove your module and monitor when you take your vehicle to a dealer for warranty work in order not to interfere with Diagnostic equipment.

## **About the Dodge EZ**

#### Introduction

Thank you for purchasing the *Edge EZ* Module for the Dodge Cummins® 5.9L Diesel. The *Edge EZ* module has been developed and produced from the highest quality materials available to ensure the best performance for years to come. If you have any questions, please contact Edge Products. We will be very happy to answer your questions about our complete product line.

• The *Edge EZ* Module is an add-on Engine Control Module (ECM) for the Cummins® 5.9L Engine that offers additional features not available on a stock engine. 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.

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

# Dodge Cummins 5.9L EZ Installation

#### **Supplied Items:**

- 1. Edge EZ Module
- 2. Three Wire Ties
- 3. Two Velcro Strips

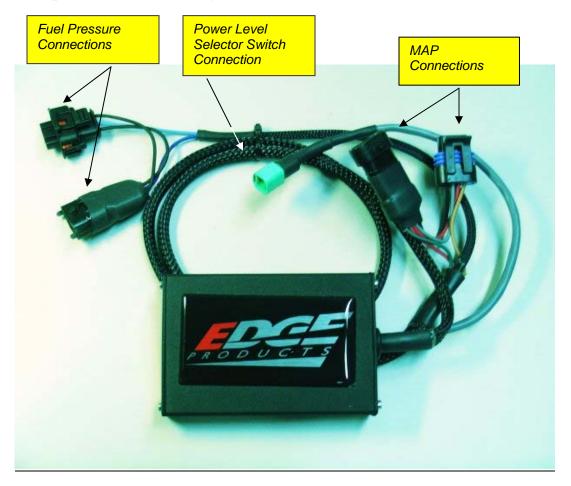
#### **Tools Required:**

None

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

#### The Edge EZ Module

This picture shows the Edge EZ Module with the harness cable



#### **Module Installation**

The *Edge EZ Module* can mount on the flat black plastic fuse box cover located in the engine compartment on the driver's side fender. Attach the module to the truck using the supplied VELCRO® strips, allowing enough harness movement for removal of the cover.

<u>Harness Connector</u> – Your EZ module may be equipped with a harness that can be disconnected at the EZ module itself (See figure 1A). It is important to make sure that your EZ module is always connected to the harness when the wiring harness is connected to the truck, otherwise the truck may not run properly, or may trip engine "codes."

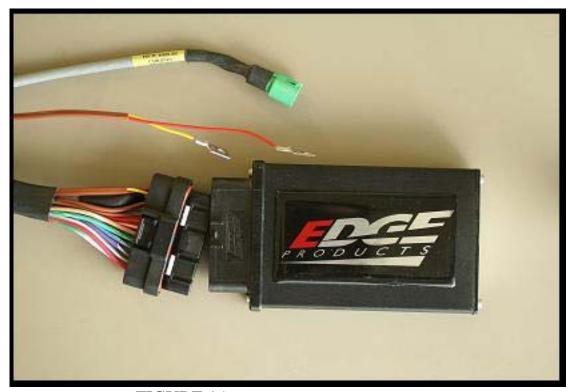


FIGURE 1A

#### MAP (Manifold Absolute Pressure) Connection

1. Connect the supplied MAP sensor wiring harness to the main wiring

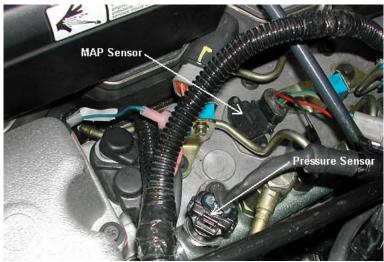


harness in the engine compartment. Disconnect the stock wiring harness at the MAP sensor located on top of the intake manifold. Plug the supplied MAP sensor connector into the stock engine MAP sensor and the stock engine wiring

harness connector into the supplied MAP sensor connector.

#### Fuel Pressure Sensor Connection

2. Disconnect the stock wiring harness at the sensor located on the main fuel rail on the driver's side towards the rear of the engine. Plug the supplied



pressure sensor connector into the stock pressure sensor on the engine and the stock engine wiring harness connector into the supplied pressure sensor connector.

#### Final Inspection and Operation

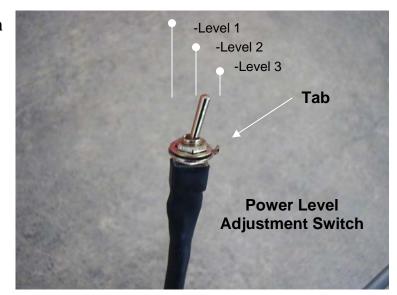
- 3. Recheck all connections, fittings and fasteners for a properly secure installation.
- 4. Using the supplied wire ties, secure the wiring harness from possible damage from moving engine parts.

#### Adjusting Power Levels

The *Edge EZ Module* offers 3 levels of power beyond stock. The power from the *Edge EZ Module* begins by plugging the module into your truck.

The power levels are adjusted by changing the "in cab" switch position to the level you need. Adjusting power levels on an EZ module has never been EZier!

Refer to the power level switch picture for position and power level selection.



# Power Levels

#### **Expected output power and torque**

The following power gains are representative of an actual test vehicle. Power gains may vary somewhat on a different vehicle or in different geographic settings.

	Horsepower	Torque
Level 1:	25	50
Level 2:	45	77
Level 3:	65	150

### **How to Use Your Edge**

#### **Using your Edge EZ Module**

This section is to help you use the Edge EZ module effectively and add enjoyment to your diesel truck experience.

The first thing you will probably notice especially if this is your first time driving a diesel truck with a performance module is that you will experience more power, quicker take-offs, better passing and acceleration, and even better fuel economy. Power level one is specifically designed to maximize fuel economy improvements.

Another thing you may notice is that your truck is suddenly a lot more responsive to drive. *Now, a word of caution*; normally, driving the stock truck you have a feel for how fast you are going in each gear, but that changes with the EZ module. You may find yourself doing 55 in a

35 mph zone or taking corners too fast. Be cautious and be aware that there may be an adjustment period to your new-found power.

#### **Towing**

What about towing? What can this do for you when you are towing? The great thing about *Edge EZ Module* and all the other Edge® power modules is that they were created for towing. That is why Edge built them, and why we keep making them better. Let's assume that in a stock truck you would pull your 5,000lb load up the grades in 3<sup>rd</sup> gear. Your EGT (Exhaust Gas Temperature) may run at about 1200° F. With the EZ module on level 2, you have effectively increased the horsepower by 45, and the torque by 77 Foot-pounds. That is like adding a fifth horse to pull a four horse carriage. That is representative of how much your power has increased. That means you will be running at a lower rpm and your EGT has decreased. And best of all you are going faster and the truck may have already shifted into 4<sup>th</sup> gear. Power level 3 is designed to match fueling with any additional upgrades you may have done to your vehicle. Level 3 should never be used while towing. Level 3 is designed to take advantage of the built-in safety margins the manufacture needs to add in order to make sure your vehicle can tow at its maximum capacity. When driven responsibly, and used with an EGT gauge, level 3 will not stress the stock engine or transmission as long as you are not towing.

#### **Exhaust Gas Temperature**

Now let's talk about the different power levels and the Exhaust Gas Temperature (EGT) readings, and what they mean. As mentioned earlier the EGT tells you how hot the exhaust gases are in the exhaust manifold coming from the engine. This is important because you shouldn't let them run for long periods above 1350 F. The higher the level, the more fuel is fed to the engine, and potentially, the higher the EGTs. Since towing is harder on the engine and the transmission, we recommend that you tow in level 1 for a heavy load, or, on a light load level 2. This will protect you from putting too much stress on the engine and transmission. Level 2 is a good all-around mode, allowing for better economy and better performance, while not stressing the engine and transmission. We recommend that you run your truck in level 2 or lower for your normal daily activities

## **Troubleshooting**

#### To troubleshoot this EZ module, follow these steps.

- 1. Remove the end cap on the end of the EZ module; this end cap will be on the opposite side of where the harness comes out.
- 2. With the engine running, and the EZ connected, there should be a LED lit up inside the EZ module. These LED lights should look similar to picture below.
- 3. With the switch in power level 1, the yellow LED on the right hand side should be lit up. When the switch is moved to power level 2, the green LED in the middle should light up. When the switch is moved to power level 3, the red led on the left should light up.
- 4. If the LEDs function as described above, your EZ module should be working properly. If the LEDs are not working properly, or there is another issue with your EZ, please contact Technical support.

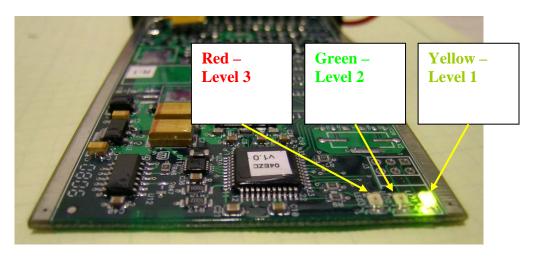


Figure 1 – LEDs are use to describe power levels using toggle switch

#### **Technical Support**

The best part of all is that when you call us you aren't just calling a call center - there are real people here at Edge Products on the technical help lines that are very knowledgeable and experienced. They drive diesel trucks and know about the things you may be experiencing. They can answer your questions and offer real support. Our number is (801) 476-3343. To expedite your support call, please have part number (i.e., EZD1000D), version number, and Date of Manufacture ready prior to calling support.

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