



BULLY DOG

#1 IN PERFORMANCE

INSTALLATION MANUAL



Engine Applications

Part#

C10 10.3L '99-'03

C11 11.1L '04-'07

C12 12.0L '99-'03

C13 12.5L '04-'07 (does not include DPF*)

C15 14.6L '99-'03

C15 15.2L '04-'07 (does not include DPF*)

C16 15.8L '99-'02

46520



INTERNET UPDATES, THE CAT UPDATE AGENT™:

The Power Pup™ for the caterpillar model engines uses a CAT specific Update Agent Software. This software can be obtained on our website or on the CAT Update Agent CD included in the Power Pup package. Use of the CAT Update Agent™ is free of charge to update the Power Pup™. The CAT Update Agent is a crucial tool that must be used for proper installation of the CAT Power Pup™.

The CAT Update Agent™ Software CD included with this package contains a free version of the CAT Update Agent™. To see the latest version updates for the Big Rig Power Pup™ visit: www.bullydogbigrig.com



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INTRODUCTION

Congratulations on purchasing the Caterpillar Big Rig Power Pup™! The Power Pup™ is the only performance tuning device available for class eight vehicles in the Big Rig aftermarket. Our rigorous development and testing processes ensure a quality product that produces positive results. The Power Pup™ improves fuel economy and adds up to 15% more power. See our conversion charts on the following pages to look up horsepower results for all the Caterpillar applications.

This product is extremely easy to install. All installation takes place inside the cab of the vehicle through the data port. For installation questions or guidance contact your local dealer or distributor. You can also contact the Bully Dog tech support group 24 hours a day.

TECH SUPPORT: 888-844-6260

Installation of the Caterpillar big rig power pup requires that the CAT Update Agent is installed on a PC that has access to a strong internet connection. Be prepared during installation to take the Caterpillar Big Rig power pup to a PC to obtain file information for the vehicle involved in the installation. Specific instructions to the use of the Update Agent during installation are included in the installation instructions of this instruction manual and on the CAT Update Agent.

IMPORTANT: *It is not recommended that this product be used in conjunction with any other electronic module or downloader that is intended to increase horsepower.*

WARRANTY INFORMATION:

Warranty information for the Power Pup™ downloader can be found in the Power Pup™ package along with this instruction set. Warranty information can also be found on the web at:

www.bullydogbigrig.com

BILL OF MATERIALS

The list and diagram shown below includes all of the hard parts required for installation and updating the product online.

BILL OF MATERIALS

1. Power Pup™ Downloader
2. Data Port Cable (Used for Installation)
3. USB Cable (Used for Internet Updates)
4. CAT Update Agent™ Software Installation CD

TOOLS NEEDED

Fuse Puller



POWER CHART

The chart in this section illustrates estimated improvements in power for the Caterpillar C-15 Accert engines when coupled with the Bully Dog Power Pup™. The chart shows an engine description along with the Power Pup™ Part number associated with that application.

These Gains are obtained when the Economy w/Power tune is installed on the truck.

Stock advertised ratings on the following charts are as advertised by Caterpillar. Power ratings displayed in use with the Bully Dog Power Pup™ are estimated based on a 15% gain in power as seen during in-house testing performed by Bully Dog Technologies. Results may vary and at any time Bully Dog may changing power ranges.

Caterpillar C-15 '06-'07 (No/DPF) Power Chart, Power Pup™ PN: 46520

Advertised Horsepower	Stock Peak Horsepower	Stock Advertised Peak Torque	Horsepower with Power Pup™	Torque with Power Pup™
435	450	1550	500	1783
435	450	1650	500	1898
475	490	1650	546	1898
475	490	1850	546	2128
500	515	1850	575	2128
550	550	1850	632.5	2128
435 MT	450	1550/1650	500	1783/1898
435 MT	450	1550/1750	500	1783/2013
475 MT	490	1650/1750	546	1898/2013
475 MT	490	1650/1850	546	1898/2128
600	600	1850	690	2128
600	600	2050	690	2358
625	625	2050	719	2358

INSTALLATION PRECAUTIONS: (VERY IMPORTANT)

It is important before downloading to take some precautions. These precautionary steps to installing the Power Pup™ will help ensure that downloads are successful.

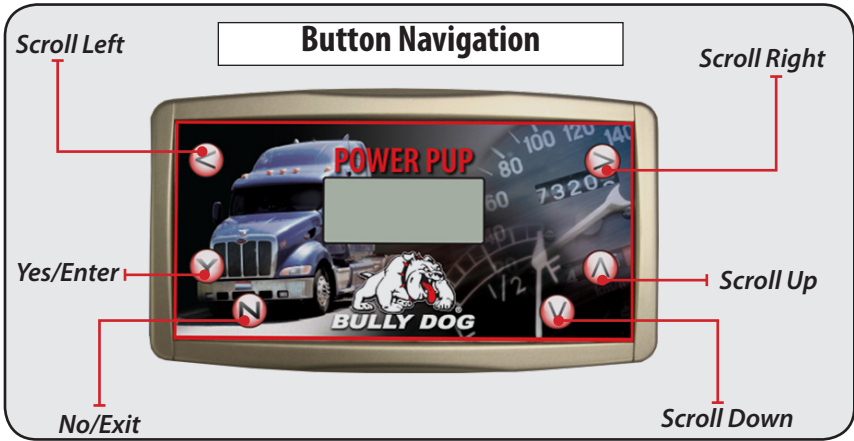
1. Before installation always update the Power Pup™ using our Update Agent™. The Update Agent™ is an online program that loads the latest vehicle programs from our website to the Power Pup™. The Update Agent™ is also included in the Power Pup™ package.
2. Only install during regular business hours. (Monday-Friday, 8am-5pm Mountain Standard Time)
3. Do not install while transporting a shipment. This is a precaution that will alleviate you from upsetting customers should a download fail.
4. Allow a considerable amount of time for installation. Estimated install time on a Caterpillar, including acquiring the engine files off of the Update Agent, is about 45 minutes.
5. Before installation, always make sure that the vehicle batteries have a full charge. It is even a good idea to have a battery charger nearby in case the batteries start draining.
6. Before installation, always pull all recommended fuses seen in the install section.
7. While performing a download to the engine using the Power Pup™ it is very important that the Power Pup™ is not disrupted. If the download is disrupted, the vehicle may not start and the download process must be restarted or the Power Pup™ may have to be used to recover the vehicle which takes more time.

The information above is extremely important to successful use of the Power Pup™

Button Navigation

POWER PUP SCREEN NAVIGATION

The diagram below demonstrates the button navigation. Button navigation is consistent throughout the installation of the downloader.



INSTALLATION INSTRUCTIONS

Important: Before installing pull all of the fuses mentioned below for the duration of the download. After download is complete the mentioned fuses can be replaced.

Also make certain that the batteries have a full charge, and that there are no electronic devices running off of the batteries while the Power Pup™ is installing on the vehicle.

There are three phases to complete the installation of the Power Pup™. All stages must be followed exactly for proper installation to take place.

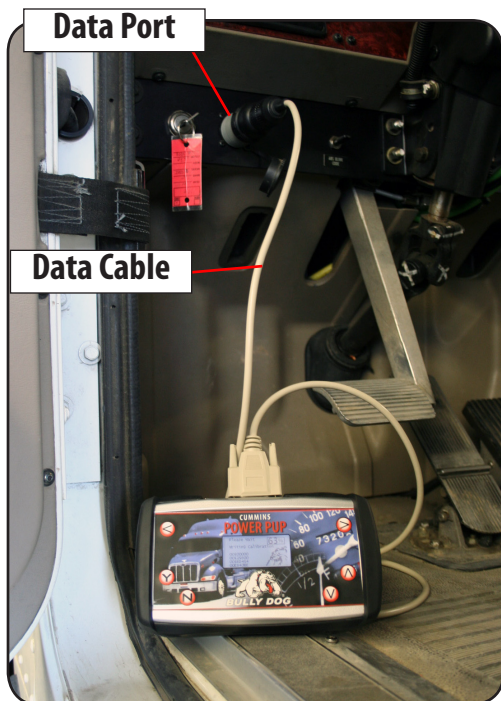
Phase 1: Pull fuses, connect the Power Pup to the truck and get a vehicle read.

Step 1: Pulling fuses

Pull all of the following fuses before installing. These fuses must be pulled so that communication between the Power Pup™ and the vehicle ECM is not disrupted during a download.

- Aftermarket satellite tracking systems
- Fleet monitoring hardware
- Aftermarket gauges
- Automatic Transmission

After the download is successfully complete these fuses can be replaced.



Step 2: Connect the Power Pup to the Truck.

1. Locate the data port inside the vehicle cab, usually located on the driver's side of the vehicle.
2. Remove the data port cover and identify the number of pins on the data port. The data port will either have six or nine pins. This will determine which plug you use during installation. Notice that the data cord has both plug types at the end.
3. Once you identify the correct plug type for your vehicle application, connect the cable to the top of the Power Pup™ and then plug the data plug into the vehicle data port.

To successfully complete step 4 the CAT Update Agent must be installed on a PC with a strong internet connection so that the Power Pup can acquire the correct vehicle files from our database. The CAT Update Agent can be installed from a the disk included in the Power Pup package or from our web-site: www.bullydogbigrig.com.

Step 3: Engine Read.

1. With the Power Pup plugged into the vehicle data port turn the key to the on position, do not start the Truck.
2. Follow the screen prompts on the Power Pup™ screen to initiate the engine read. The engine read is the process by which the Power Pup™ reads and saves the stock vehicle settings. Once the engine read begins, do not disturb the reading process. Simply wait until the engine read is complete.
3. When the read is complete the Power Pup will tell the installer on the screen to now plug the Power Pup into a PC and acquire the correct vehicle files through the Update Agent. See the screen illustration below.

```
Pup Ready to Connect to
Vehicle
1 Turn ignition key to ON
Do not Start Engine!
2 Press Y after Key ON
to Continue.
```

```
PUP status: UNLOCKED

Phase 1:
Pup is Ready to Get
Data from Truck
. . .Press Y to Continue. . .
```

```
Truck Data Acquired!

Please Disconnect Pup
from Truck.

Connect Pup to PC and
use CAT Agent to
load latest files
```

Phase 2: Connect the Power Pup™ to the Update Agent.

1. After completing a successful read, remove the Power Pup from the vehicle and take the Power Pup to a PC that has the Update Agent installed and has a strong internet connection. For instructions on installing the Update Agent either view the instructions online at our website or get the instructions from off of the disk included in the Power Pup packaging.
2. Plug the Power Pup into the PC via the USB cable included in the Power Pup packaging.
3. Wait for a brief period of time while the Update Agent automatically recognizes the Power Pup.

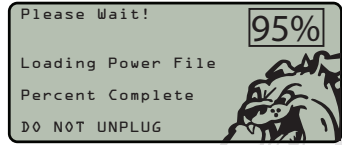
```
PUP status: UNLOCKED

Phase 2: Pup needs Data
From CAT Agent

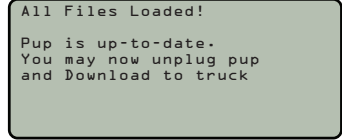
Please connect Pup to
USB Port on PC and run
CAT Agent
```

NOTE: The drivers for the Power Pup may need to be installed onto the PC. The Update Agent instructions include installation instructions for the Power Pup drivers. The drivers are necessary for the PC to recognize the Power Pup. These drivers can be acquired automatically online.

4. Once the Update Agent recognizes the Power Pup it will provide on screen instructions to update the Power Pup. Follow the instructions on screen until the Update Agent indicates that the Power Pup is ready to download to the truck.



5. As soon as the Power Pup has been updated and has the correct vehicle files, remove the Power Pup from the PC and go back out to the vehicle to continue the installation process.



Phase 3: Completing the engine Download

Step 1: Select Engine Tune.

Once returned to the vehicle plug the Power Pup back into the vehicle and turn the key to the on position. The Power Pup™ will now prompt the user to select an engine tune. The Power Pup™ will display three different options for the engine tuning:

POWER/ECONOMY: Select this tune for approximately 15% more power to the wheels and improved fuel economy.

ECONOMY: Select this tune to improve fuel economy only.

STOCK: This tune will return the stock vehicle programming to the engine computer.



Step 2: The Download.

Once the desired tune is selected, the Power Pup™ will initiate the download sequence in which the Power Pup™ loads the tune onto the vehicle ECM. The Power Pup™ will indicate that the download is completed. Follow the screen prompts to cycle the key and press the "Y" button (may take more than one key cycle). Finally, the Power Pup™ will initialize and it will indicate that it can be unplugged.

Before starting the vehicle, cycle the key to the off position for ten seconds.



Remember to replace fuses once download is complete.

HOW TO RETURN THE VEHICLE TO STOCK

FOLLOW THE INSTRUCTIONS BELOW TO RETURN THE VEHICLE TO FACTORY STOCK. NOTE THAT THIS PROCEDURE DOES NOT NEED TO BE DONE BEFORE VISITING A DEALER.

1. Plug the downloader in and navigate to the Select Engine Tune screen.
2. Use the up/down arrows to highlight the Stock level and then select the Stock level by pressing “Y”

Important: The engine download cannot be disturbed, it is crucial that the started download be completed.



3. The Power Pup™ will indicate that the download is completed. Follow the screen prompts which will instruct to cycle the key and press the “Y” button (may take more than one key cycle). Finally, the Power Pup™ will initialize and then it will indicate that it can be unplugged.



4. Before starting the vehicle, cycle the key to the off position for ten seconds to reset all of the electronics.

FREQUENTLY ASKED QUESTIONS:

Q: What do I do if I need to take the vehicle into the dealership for service?

A: After visiting a dealer, use the Power Pup to reinstall the download. If the dealership puts new information on the vehicle that is not recognizable by the Power Pup™; the Power Pup™ will need to be updated online.

Q: What do I do if the Power Pup™ freezes during the engine read/download process?

A: 1. Turn the key to the off position and unplug the Power Pup™ from the data port.

2. Try to resume the read where it left off, try up to 3 more times. If problem persists, pull all fuses mentioned in the troubleshooting section for the duration of the read and download process.

Q: What do I do if my downloader does not light up when I plug it into the data port.

A: Check your data port fuses or any associated fuses and replace them as needed.

Q: What do I do when the download is complete?

A: Test the product by taking a nice long drive and keep accurate records on fuel savings!

Q: What does DPF mean?

A: Diesel Particulate Filter. These are the new emission systems that are required on the '08 and newer vehicles.

TROUBLESHOOTING A POWER PUP™ FAILURE:

If engine read/download fails:

1. Remove any fuses that may interfere with information transfer to the PCM, such as:
 - Aftermarket satellite tracking systems
 - Fleet monitoring hardware
 - Aftermarket gauges
 - Automatic Transmission
2. **(Replace fuses after download is complete)** Try the download again, at least twice if it continues to fail. Then contact your Bully Dog dealer for technical support.

Unrecognizable Tuning Information (Unknown Vehicle):

During the vehicle read, if the Power Pup™ does not know what the vehicle is, or if the vehicle does not contain familiar information, the downloader will display on the screen: "Unrecognizable Tuning Information." If this scenario occurs, unplug the downloader from the vehicle and sync the downloader up to the Update Agent™ online software to search for an update and then try the download again.

THE CAT UPDATE AGENT™ SOFTWARE CD

The CAT Update Agent™ Software CD has all of the programs needed to successfully install the CAT Update Agent™ to a PC. In addition, this CD has instructions, in a PDF format, on how to install the CAT Update Agent™. If the CD is lost or gets damaged before installation, an additional CD can be requested or the CAT Update Agent™ can be downloaded off of our website at www.bullydogbigrig.com. To run the CAT Update Agent™ at an optimal level, it will need to be installed on a PC with at least Windows XP and high speed internet.



EASY TO USE AUTO RUN FEATURES.

Adobe Flash Player 9
File View Control Help

BULLY DOG
#1 IN PERFORMANCE

CAT UPDATE AGENT

START HERE

This CD contains an instruction manual and redistributable components from Microsoft that must be installed before the CAT Update Agent can run. The instruction manual describes how to use the CAT Update Agent. To install the CAT Update Agent simply install the Microsoft components: Microsoft Installer Pack 3.1 and Microsoft .Net Framework 3.5. Once these components are installed, click "Launch Update Agent" to complete the install.

1 INSTRUCTIONS

2 MICROSOFT INSTALLER 3.1

3 .NET FRAMEWORK 3.5

4 LAUNCH UPDATE AGENT

FINISH

Once the Update Agent is installed correctly on your PC, it will update itself through your internet connection. It will also deliver the latest product updates right to your PC.

Bully Dog Technologies, LLC is a team built on integrity that is dedicated to leading the vehicle performance industry with an uncompromising code of ethics demonstrated in the soundness of its employees, excellent customer service and superior products.

UNLEASH THE POWER

WITH BULLY DOG INDUSTRIAL and LIGHT TRUCK PERFORMANCE PRODUCTS

Clothing



Rapid Power Tractor Modules John Deere, Case IH



Performance Management Tool Light Truck (pickup)



Fuel Management Systems Monitor Private Fuel Tanks

- Fleets
- Farms
- Construction



See More at: www.bullydog.com
and at www.bullydogbigrig.com

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BULLY DOG

For Free Technical Support

Call: 1-888-844-6260