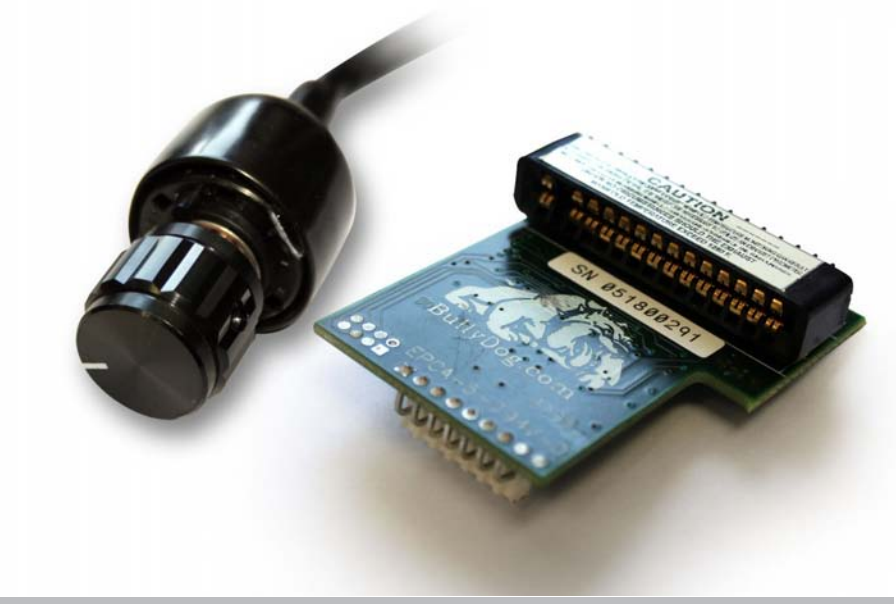
BULLY DOG

#1 IN PERFORMANCE

INSTALLATION MANUAL



Vehicle Application	Part#
F450-F550 & Excursion 7.3L '94-'03	41602
F250-F350 7.3L '94-'97 Automatic Transmission Ford Power Stroke	41611
F250-F350 7.3L '94-'97 Standard Transmission Ford Power Stroke	41612
F250-F350 7.3L Early '99 Automatic Transmission Ford Power Stroke	41613
F250-F350 7.3L Early '99 Standard Transmission Ford Power Stroke	41614
F250-F350 7.3L '99.5-'01 Automatic Transmission Ford Power Stroke	41615
F250-F350 7.3L '99.5-'01 Standard Transmission Ford Power Stroke	41616
F250-F350 7.3L '02-'03 Automatic Transmission Ford Power Stroke	41617
F250-F350 7.3L '02-'03 Standard Transmission Ford Power Stroke	41618

SPECIALTY EQUIPMENT MADE RIGHT
BULLY DOG
SINCE 1999

TROUBLESHOOTING:

If you have questions during the installation of this product, please visit www.bullydog.com/Product_Updates.php. The latest version of these instructions can be found at the same location. Please review the Troubleshooting section on page 13 before calling technical support to cover most common issues. Technical support is available by calling 866-bullydog (866-285-5936).

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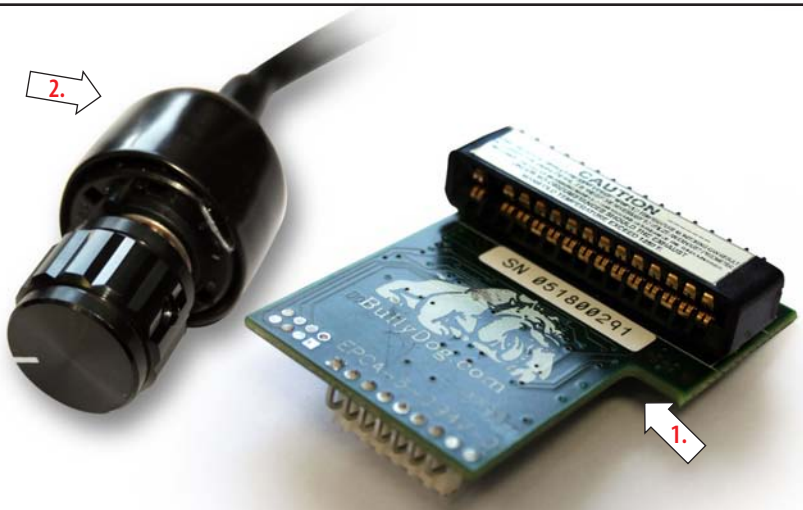
INTRODUCTION

Welcome to the world of increased power, performance and economy brought to you by the leader in performance, Bully Dog Technologies. This set of instructions outline how to install and operate the 6 Position Chip for the 7.3L Ford Power Stroke. The 6 Position Chips have been specially designed by the engineers at Bully Dog to add additional horsepower and economy to the 7.3L Power Stroke.

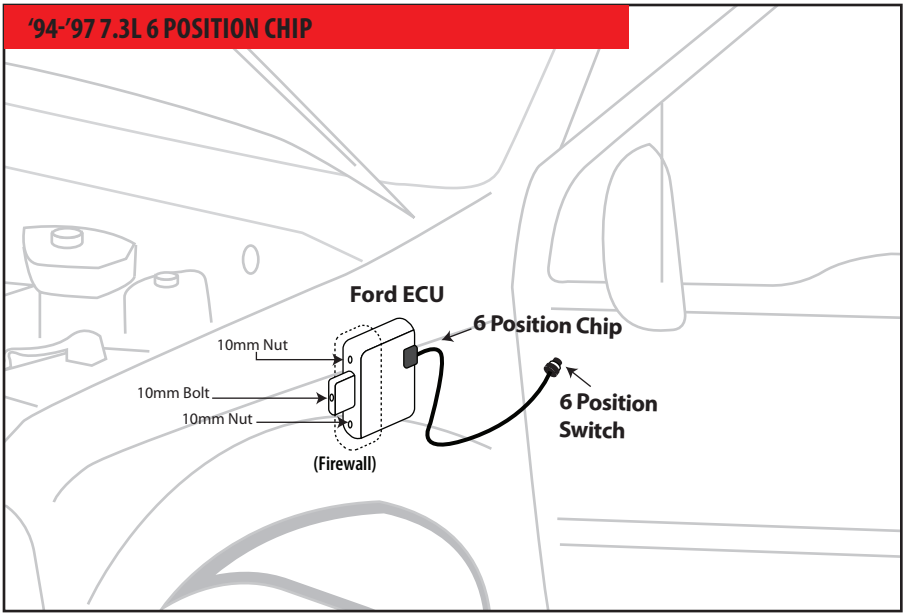
Note: This instruction set and the included 6 Position chip are made for the '94-'03 7.3L Ford Power Stroke. This chip will not work on any other vehicle other than the stated make, model and year. Officially there were no '98 model Power Stroke vehicles produced by Ford, these vehicles are referred to as early '99 vehicles.

IMPORTANT: Performance Chips must always be removed before taking the vehicle in for any kind of service, as it may interfere with diagnostic tools.

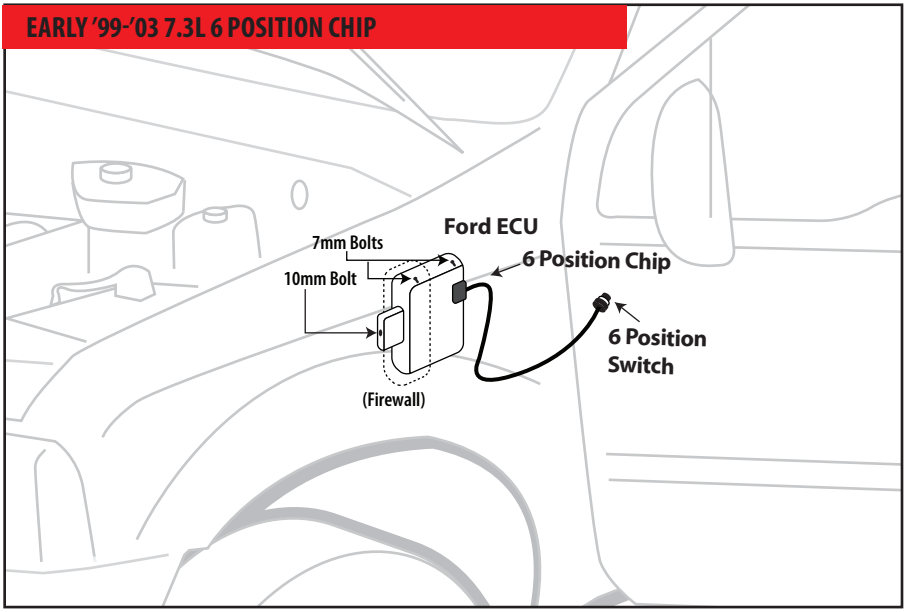
BILL OF MATERIALS	TOOLS NEEDED
1. 6 Position Chip 2. 6 Position Switch	5.5mm Wrench or Socket 7mm Wrench or Socket 10mm Wrench or Socket 13mm Wrench or Socket 5/16 Allen Wrench Sharp Knife or Razor Blade Drill & 13/32 Drill Bit Scotch Bright Pad



'94-'97 7.3L 6 POSITION CHIP



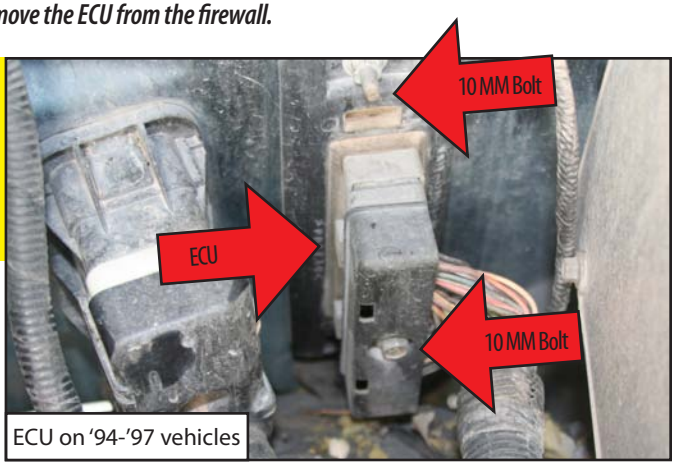
EARLY '99-'03 7.3L 6 POSITION CHIP



REMOVING THE ECU FROM THE ENGINE BAY FIREWALL '94-'97

In these steps you will remove the ECU from the firewall.

IMPORTANT: The steps on this page are for '94-'97 model vehicles. If your vehicle is not a '94-'97 skip the steps on this page.



ECU on '94-'97 vehicles

1. Locate the back side of the ECU on the firewall closest to the wheel-well in the engine bay.
2. There is a 10mm bolt that needs to be removed from the back side of the ECU. The 10mm bolt is located in the center of the housing.
3. Remove 10mm nuts that hold the ECU in place at the top and bottom of the ECU seal.
4. Slide the ECU out from the firewall.

ECU with Seal Removed

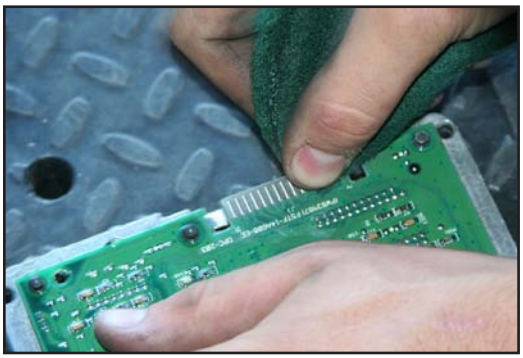
ECU pulled out half way

DISASSEMBLE ECU TO CLEAN CONTACT POINTS '94-'97 VEHICLES

In these steps you will disassemble the ECU and clean the contact points.

IMPORTANT: The steps on this page are for '94-'97 model vehicles. If your vehicle is not a '94-'97 skip the steps on this page.

1. With the ECU laid on a flat service, remove six 5.5 mm bolts on the top half of the ECU.
2. Remove the top cover.
3. Gently remove the bottom cover as well.



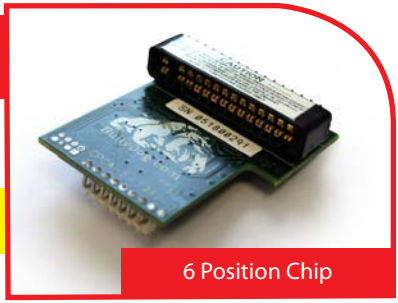
4. Locate the contact point where the 6 Position chip will plug in.
5. Clean both the top and bottom of the contact points. Ensure that the pins on the ECU are showing copper.

NOTE: Most initial issues with the chip not working after being plugged in are caused because the contact points were not clean enough. A solid connection between the 6 Position Chip and the contact points is required in order for the chip to function correctly. The best way to clean the contact points is to scrape the silicon with a sharp knife or razor blade. Then take a nylon pad such as a scotch bright pad to remove the remainder of the silicon so that the copper connections are exposed.

INSTALLING THE 6 POSITION CHIP & SWITCH ON '94-'97 VEHICLES

In this steps you will route the switch into the cab and plug the 6 Position Chip into the ECU.

IMPORTANT: The steps on this page are performed on '94-'97 vehicles only. If your vehicle is not a '94-'97 skip this page.



6 Position Chip

1. With the contact points clean, the 6 Position Chip can now be installed onto the ECU. Gently work the 6 Position Chip onto the connector. You may have to work it side to side in order to slide it completely onto the connector.

Removal of the Kick Plate

Kick Plate Removed

2. Ensure that the connections are solid with both the chip as well as the switch.
3. The switch now needs to be routed into the cab. To do so the kick plate located inside the cab by the driver's side door needs to be removed. To remove the kick plate remove one screw in the door's molding and a large plastic rivet that is located in the center of the kick plate.
4. With the kick plate removed and the ECU removed you should be able to see through the firewall into the engine bay. Take the ECU inside the engine bay and first route the switch through the ECU housing and then reinstall the ECU back in it's housing.
5. Reverse the removal process and put the seal back in place and reconnect the cabling. Leave the kick plate off until you have the switch installed.

INSTALL THE 6 POSITION SWITCH EARLY '94-'97

In these steps you will install the switch inside the cab '94-'97 vehicles.

IMPORTANT: The steps on this page are for '94-'97 model vehicles. If your vehicle is not a '94-'97 skip the steps on this page.

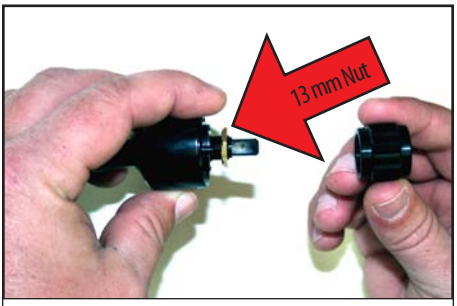
6 Position Switch

1. When you put the ECU back in place you will need to snake the cable through the housing that holds the ECU in place.

Switch Location on '94-'97

2. Find a suitable place to install the switch If you are going to drill a hole in the dash you will need a 13/32 drill bit.

3. If you need to disassemble the switch in order to get it through the hole that you have chosen for your location, the button can be removed with a 5/16" Allen Wrench.



6 Position Switch Knob Removed

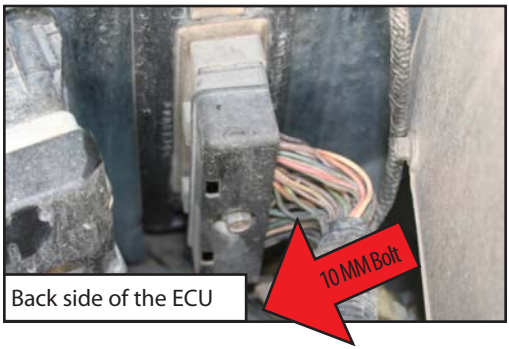
4. Also remove the 13mm nut. Then when you put the switch through the hole, replace the 13mm nut to keep the whole switch from turning.

REMOVING THE ECU FROM UNDERNEATH THE DASH EARLY '99-'03

In these steps you will remove the ECU from underneath the dash.

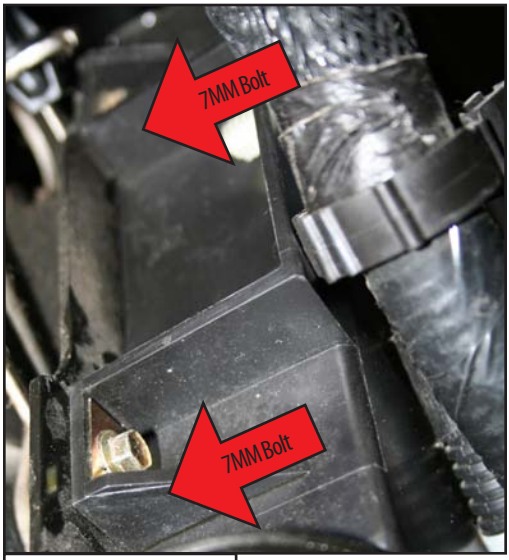
IMPORTANT: The steps on this page are for Early '99-'03 7.3L model vehicles.

1. Locate the back side of the ECU on the fire-wall closest to the wheel-well in the engine bay.
2. There is a 10mm bolt that needs to be re-moved from the back side of the ECU. The 10mm bolt is located in the center of the housing.



Back side of the ECU

3. Go inside the cab of the vehicle
4. Locate the ECU underneath the right dash flush against the outside frame.
5. Remove two 7 mm bolts that hold the ECU in place inside the cab. If there are cables connected to the ECU with plastic rivets you will need to disconnect them.
6. Slide the ECU towards the passenger side of the vehicle and back for easier removal.



ECU inside of the cab

Note: On vehicles with standard transmissions you will need to press the clutch in all the way in order to remove the ECU. Ensure that the vehicle is on a flat surface and the parking brake in on before taking the vehicle out of gear.

DISASSEMBLE ECU TO CLEAN CONTACT POINTS EARLY '99-'03

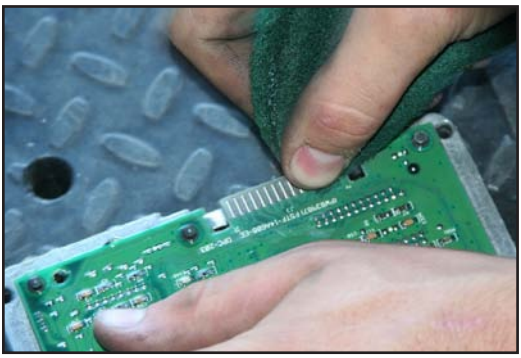
In these steps you will disassemble the ECU and clean the contact points.

IMPORTANT: The steps on this page are performed on Early '99-'03 vehicles only. If your vehicle is not an Early '99-'03 skip this page.

1. With the ECU laid on a flat service, remove six 5.5 mm bolts on the top half of the ECU.

2. Remove the top cover.

3. Gently remove the bottom cover as well.



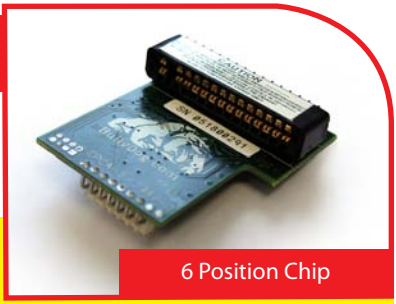
4. Locate the contact point where the 6 Position chip will plug in.

NOTE: Most initial issues with the chip not working after being plugged in are caused because the contact points were not clean enough. A solid connection between the 6 Position Chip and the contact points is required in order for the chip to function correctly. The best way to clean the contact points is to scrape the silicon with a sharp knife or razor blade. Then take a scotch bright pad to remove the remainder of the silicon so that the copper connections are exposed.

INSTALLING THE 6 POSITION CHIP & SWITCH ON EARLY '99-'03 VEHICLES

In these steps you will route the switch into the cab and plug the 6 Position Chip into the ECU.

IMPORTANT: The steps on this page are performed on Early '99-'03 vehicles only. If your vehicle is not an Early '99-'03 skip this page.



6 Position Chip

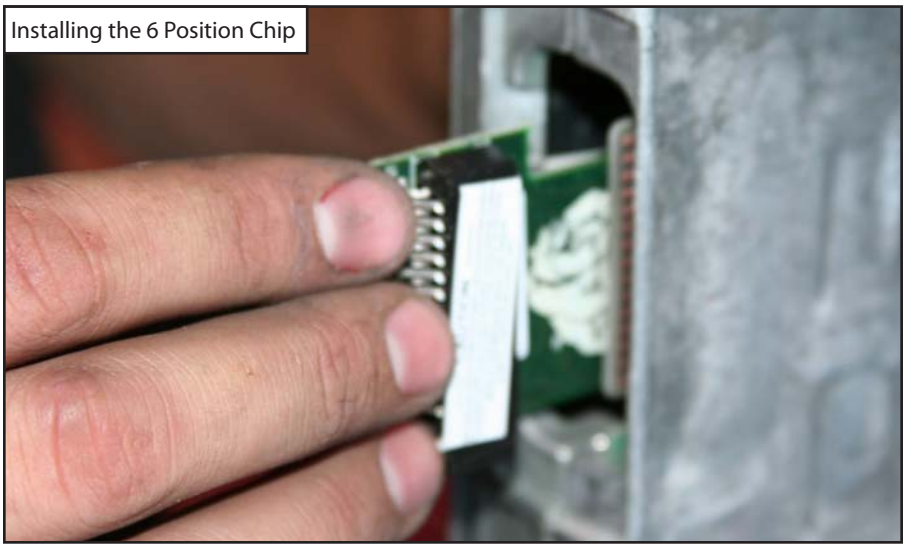
1. With the contact points clean, the 6 Position Chip can now be installed. Gently work the chip onto the connector. You may have to wiggle the chip side-to-side in order to slide it completely onto the connector.

2. Ensure that the connections are solid both with the chip as well as the switch.

3. Reverse the removal process by putting the ECU back together and place the ECU back into the plastic housing. Keeping in mind, that you will need to snake the 6 Position Switch cable through the plastic housing that holds the ECU.

4. Reinstall the ECU back inside the cab and remember that you will need to reconnect the cabling to the ECU inside the engine bay.

Installing the 6 Position Chip



INSTALL THE 6 POSITION SWITCH EARLY '99-'03 VEHICLES

In these steps you will install the switch inside the cab '99-'03 vehicles.

IMPORTANT: The steps on this page are performed on Early '99-'03 vehicles only. If your vehicle is not an Early '99-'03 skip this page.

6 Position Switch

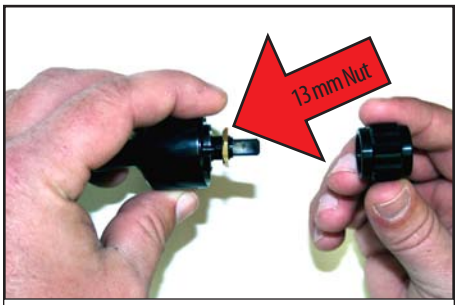
1. When you put the ECU back in place you will need to snake the cable through the housing that holds the ECU in place.

2. Find a suitable place to install the switch If you are going to drill a hole in the dash you will need a 13/32 drill bit.

Note: There are many places on the Early '99-'03 vehicles where the 6 Position switch can be located. If you are looking for easy access the best place to install the switch is next to the steering column nearest the driver's side door. If you want the switch hidden, there is a hole directly underneath the steering column that is perfect for installing the switch.

Switch Location on '99-'03

3. If you need to disassemble the switch in order to get it through the hole that you have chosen for your location, the button can be removed with a 5/16" Allen Wrench.



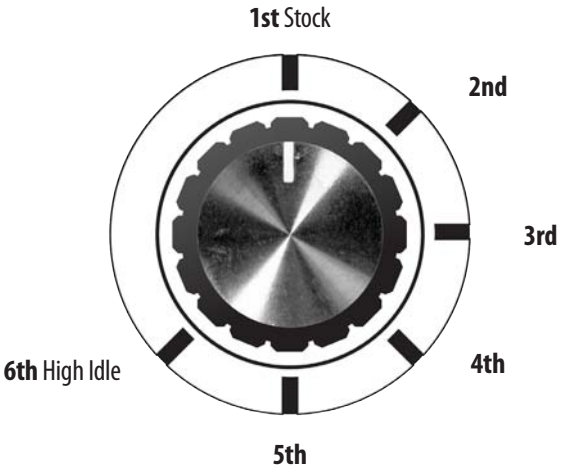
6 Position Switch Knob Removed

4. Also remove the 13mm nut. Then when you put the switch through the hole, replace the 13mm nut to keep the whole switch from turning.

OPERATING THE 6 POSITION SWITCH

The 6 Position Chip allows for on the fly power adjustments. This means that the 6 Position Chip can be adjusted between power levels under almost any driving conditions. Bully Dog always recommends pyrometer and boost gauges be installed when towing with the vehicle.

The 6 Position Chips are simple to operate. Turning the switch counterclockwise to the first position is the stock position on the switch. Turning the switch clockwise to the sixth position is the high idle position on the switch. The table below outlines each of the settings on the 6 Position Chip with the approximate additional horsepower or features with each setting with stock horsepower.



Part #	1st	2nd	3rd	4th	5th	6th
41611	Stock	40	65	75	CARB*	High Idle
41612	Stock	30	50	80	CARB*	High Idle
41613	Stock	50	75	101	Valet**	High Idle
41614	Stock	50	75	97	Valet**	High Idle
41615	Stock	50	75	101	Valet**	High Idle
41616	Stock	50	75	96	Valet**	High Idle
41617	Stock	CARB*	80	125	Valet**	High Idle
41618	Stock	50	75	125	Valet**	High Idle

** This setting has passed California Air Resources Board Standards*

*** Valet Setting sets a 70 MPH Speed Governor on the vehicle with Stock horsepower*

FREQUENTLY ASKED QUESTIONS

CONDITION	POSSIBLE SOURCES	ACTION
Truck Won't Start	Installation/Connection	Check the connection between the 6 Position Chip and the computer.You have to remove the silicon completely off of the computer board before plugging in the 6 Position Chip
		Make sure that you have the correct part # for your truck year and transmission
Truck Stalls	Installation/Connection	Check your connections. Again all silicon on the computer has to be cleaned off to ensure a proper connection between the 6 Position Chip and the computer
	Switch	If the truck stalls when switching from one position to the next, try starting the truck in the position where the truck stalls. Either the switch could be bad or the 6 Position Chip could be missing a program.
No Power Increase	Installation/Connection	Check the connection between the computer and the 6 Position switch
Black Smoke	Programming	To reduce black smoke, set the 6 position chip to a lower horsepower level

For more information on an up-to-date troubleshooting guide, please visit:
www.bullydog.com/Product_Updates.php

WARRANTY & DISCLAIMER

REMEMBER, THIS IS A PERFORMANCE PRODUCT, USE AT YOUR OWN RISK.

This product is not intended to be used to break the law.

Do not use this product until you have carefully read the following agreement. This agreement 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 the terms and conditions. Never exceed recommended vehicle or tire top speed ratings.

DISCLAIMER OF LIABILITY

Bully Dog Technologies, LLC. Its distributors, jobbers, and dealers (hereafter Seller) shall be in no way responsible for the product's proper use and service. THE BUYER HERBY WAIVES ALL LIABILITY CLAIMS.

The Buyer acknowledges that he is not relying on the Sellers 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 Buyers hereby waivers all remedies or liabilities expressed or implied, arising by law or otherwise, (including without any obligation of the Seller with respect 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.

The Buyer is solely responsible for all warranty issues from the manufacturer.

LIMITATION OF WARRANTY

BULLY DOG TECHNOLOGIES, LLC. (Hereafter "Seller") gives Limited Warranty as to description, quality, merchantability, and fitness for any particular purpose, productiveness, or any other matter of Seller's product sold herewith. The Seller shall be in no way responsible for the products proper use and service and the Buyer hereby waives all rights other than those expressly written herein. This warranty shall not be extended, altered or varied except be 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 products kit. All products that are in question of Warranty must be returned prepaid to the Seller and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by BULLY DOG TECHNOLOGIES, LLC.

Under no circumstances will 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.

Under no circumstances will the Seller be liable for any damage or expenses incurred 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 TEN (10) 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.

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.

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Doc.# BD41001 v1.0.0

For a full listing of Diagnostic Trouble Codes go to: www.bullydog.com/DTC.php

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