



Hellcat Bypass Valve Controller

Installing the SmoothBoost Electronic Bypass Valve Controller

If necessary the 6 pin connector can be de-pinned easily by prying out the red terminal keeper inside the connector and using a pointy object to gently move the plastic tang out the way allowing the terminal to slide out the wire insertion side.

Pin1: Light Blue, 2: Brown, 3: N/A, 4: Orange, 5: Yellow, 6: Green

The control box may be mounted either inside the cabin or inside the engine compartment away from direct heat/weather.

Wiring

RED wire: You need a good switched 12v source that is active when key is in the start/run position. A good solution to this is the cigarette lighter jack. Be sure to choose the one that has 12v when the key is in the start/run position and not active all the time. **Be sure to verify this with a meter or a test light.**

BLACK wire: This is the ground and can be connected to the ground wire for the same cigarette lighter jack.

PURPLE wire: **!!! Important: PLEASE READ!!! Do not install this wire with the unit powered ON. Leave the 6 pin power plug disconnected from controller until all wiring steps are complete**

Any more than 5 volts will destroy the controller. This wire connects to the APPS signal which is a 0-5v signal from the gas pedal "Accelerator Pedal Position Sensor". A vehicle specific wiring diagram may be needed. This can also be tested with the key in the run position and a multimeter to verify less than 1 volt without pressing the pedal and climbing to nearly 5v with the pedal fully depressed.

Commonly, 2011+ 1x/lc/wk2 HEMI cars it is **PIN number 2** on the pedal connector. Pins are labeled 1-6 on the wire insertion side of connector.

***Any more than 5 volts on this wire will destroy the controller**

The Blue and Tan wires are optional and activate momentarily when they receive a GROUND

signal.

NOTE: NEVER put voltage of any kind to these wire's as damage will occur

- **BLUE** wire:

This is the BOOST CUT Wire - This wire defaults the actuator to open the bypass valve. This will cut all capable boost from the engine. Signal can be generated by components such as a failsafe air/fuel guage, water meth low tank level, standalone ecu, ect....

- **Tan** Wire

This is the Scramble Mode - Activation will give full boost mode as if the boost knob was turned up all the way up

**Boost control through an external device can be achieved with our SB-DCA converter which replaced the boost knob and transforms a (PWM (-) signal to a 0-5v analog signal

When wiring is complete the bypass valve can be tested and run with the key in the start/run position to verify everything is working correctly. The valve should close as the pedal is depressed. If the valve is already installed in the supercharger you should be able to hear the bypass valve move while working the throttle pedal.

Disclaimer:

Release of Liability

Please read all instructions prior to installation and use. Improper installation or misuse of any SmoothBoost products may lead to failure and damage to both product and vehicle. The user assumes all responsibility. For assistance. All products are intended for use off public streets and highways. Vehicle and or aftermarket parts manufacture warranty maybe voided should any modification(s) or removal(s) of OEM components are determined. Federal and state law may prohibit the removal, modification or rendering of any device affecting vehicle emissions. It is the users responsibility to be aware of federal, state and local laws. User assumes all cost and risks associated with purchase and installation of after market components