



Hellcat Boost Controller Kit

Modern Muscle Xtreme Hellcat Boost Controller Installation and Instruction Manual

Version 1.1 - Date: 10/07/24



Modern Muscle Xtreme
340 Colonel Lee Road
Martinsville, VA 24112
276-666-1934



Overview

Welcome! This manual provides comprehensive instructions for installing, operating, and maintaining your MMX Hellcat Boost Controller, an advanced aftermarket solution designed to optimize your vehicle's performance by controlling the bypass valve for your HEMI Hellcat Supercharger.

Product Overview

This device is suitable for vehicles without factory-installed Hellcat superchargers. The MMX Hellcat Boost Controller comes with a user-friendly wiring harness, making installation straightforward and efficient.

Key Features:

1. **Seamless Integration:** The MMX Hellcat Boost Controller integrates seamlessly with your vehicle's Auto-Shutdown (ASD) circuit, ensuring power is only supplied when the ignition is in the ACC or RUN positions.
2. **Customizable Control (Plus version only):** The controller features a 12-position rotary switch that enables you to set the desired boost conditions based on your whatever your driving preferences are.
3. **Durable Design:** The MMX Boost Controller is engineered with high-quality materials for reliable operation under various driving conditions.
4. **Easy Installation:** With a provided wiring harness, the installation process for the MMX Hellcat Boost Controller is simplified and streamlined, making it an ideal choice for DIY enthusiasts or professional mechanics.

Tools You'll Need

Before we begin, ensure you have the following tools:

- Wire cutter/stripper
- Wire terminal crimper
- 10mm socket
- 13mm socket

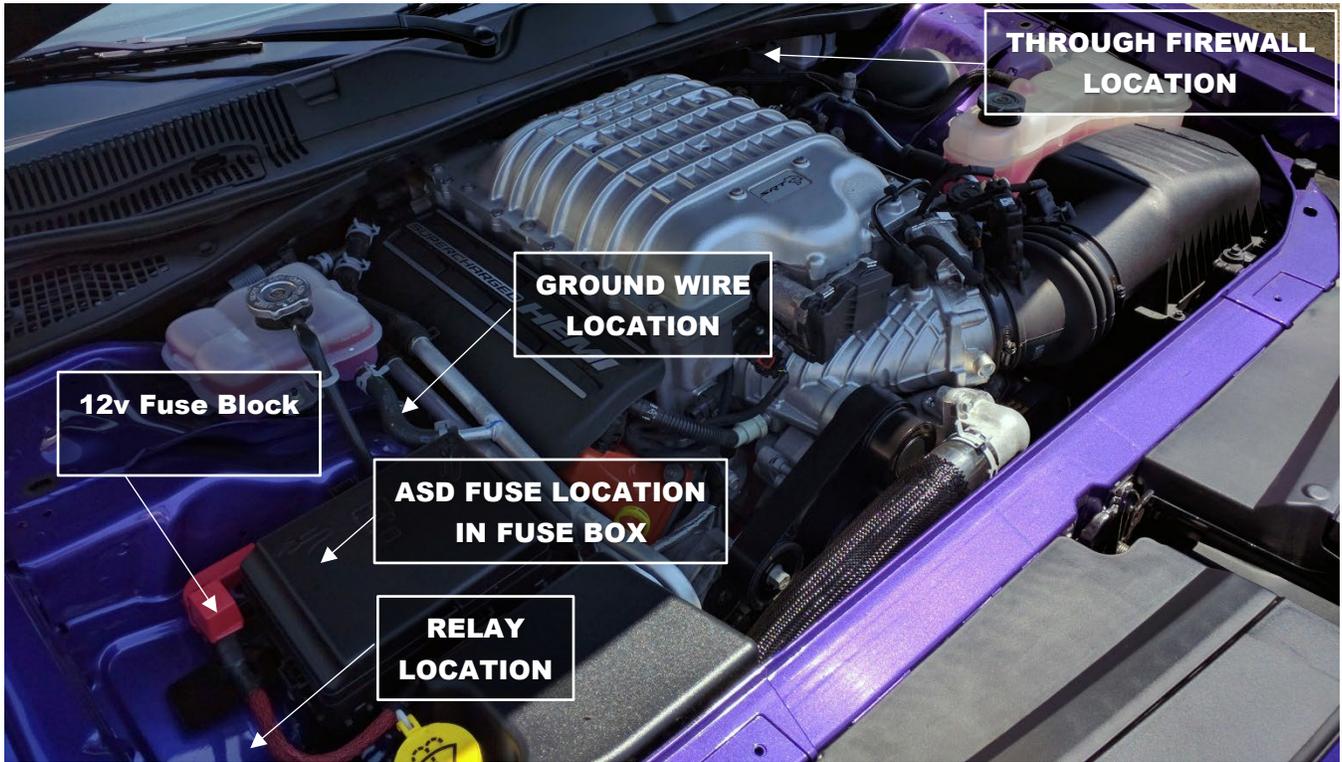
Modern Muscle Xtreme
340 Colonel Lee Road
Martinsville, VA 24112
276-666-1934



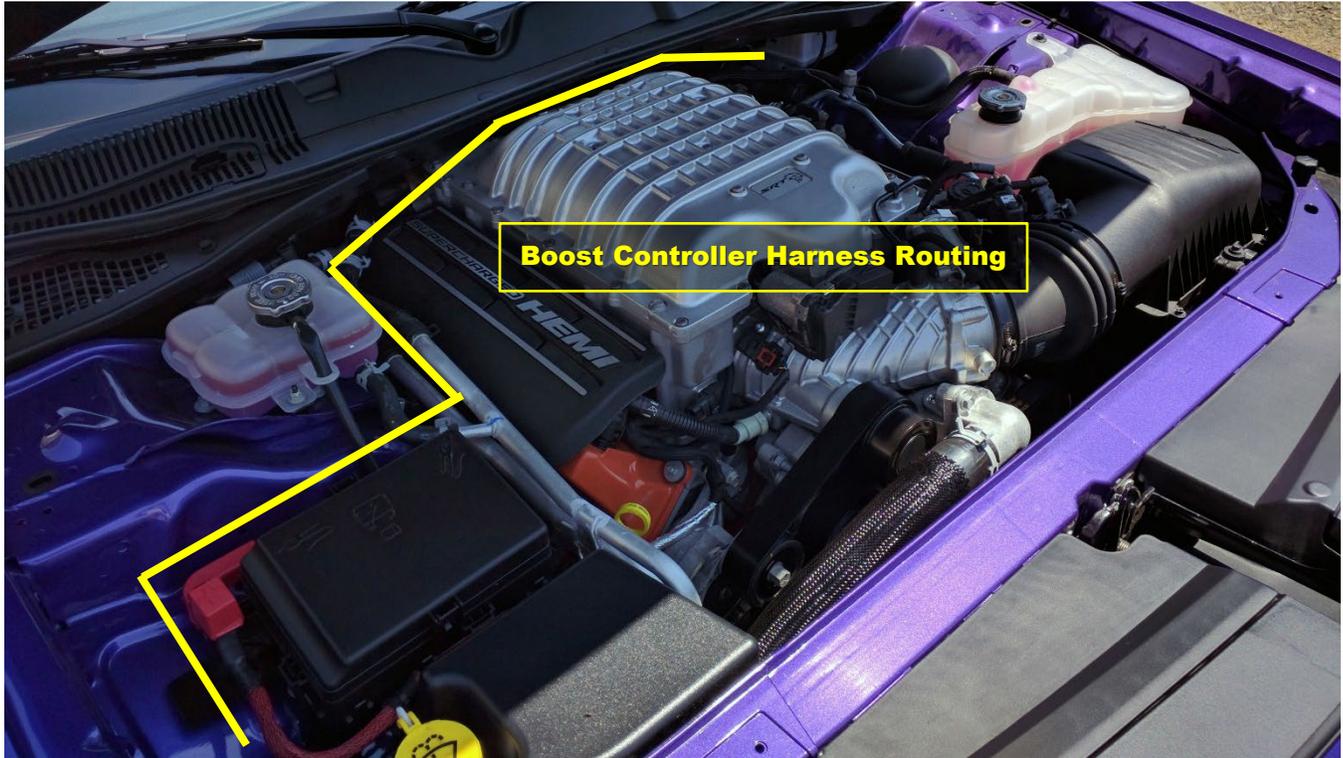
Hellcat Boost Controller Kit

Installation Instructions

Overview of Installed Wiring Harness:



Modern Muscle Xtreme
340 Colonel Lee Road
Martinsville, VA 24112
276-666-1934



Step 1. Disconnect the battery:

Disconnect the negative terminal from the battery before starting installation.

Step 2. Lay out the harness:

Lay out the supplied harness as shown in the photo to the right.



Step 3. Mount the relay:

Mount the relay near the vehicle's fuse box, as shown.

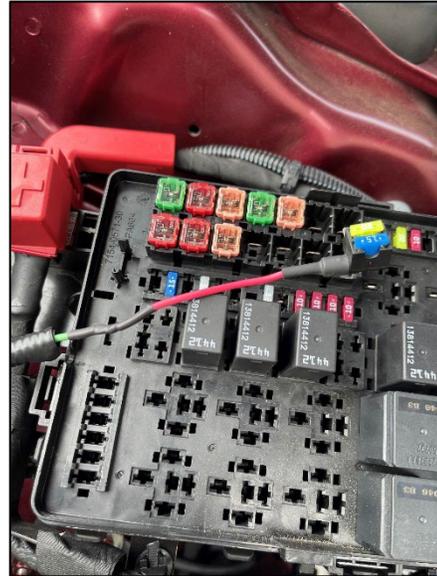


Step 4. Connect main power wire:

Use a 13mm socket to remove the nut securing the fuse box power wire. Connect the main power wire eyelet to the exposed stud on the fuse box and reinstall the nut securely.

Step 5. Remove ASD fuse:

Remove the ASD fuse from the fuse box and connect the appropriate fuse tap in its location as shown. Multiple fuse taps are supplied to cover a large range of vehicle fitments.

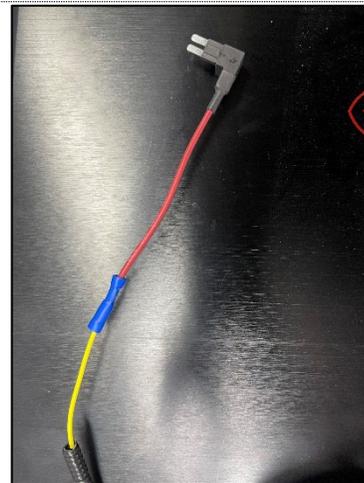


Step 6. Install fuse tap:

Install the fuse tap into the ASD fuse location, installing the original ASD fuse into the blank slot in the fuse tap.

Step 7. Connect relay trigger wire:

Strip a small portion of the relay trigger wire located on the BPV wiring harness near the attached relay (yellow wire). Crimp it onto the fuse tap wire as shown. This will allow the vehicle's ASD circuit to trigger the relay on the BPV harness. Some modification to the plastic fuse box lid may be needed to avoid pinching/cutting the added wire.



Step 8. Connect ground wire:

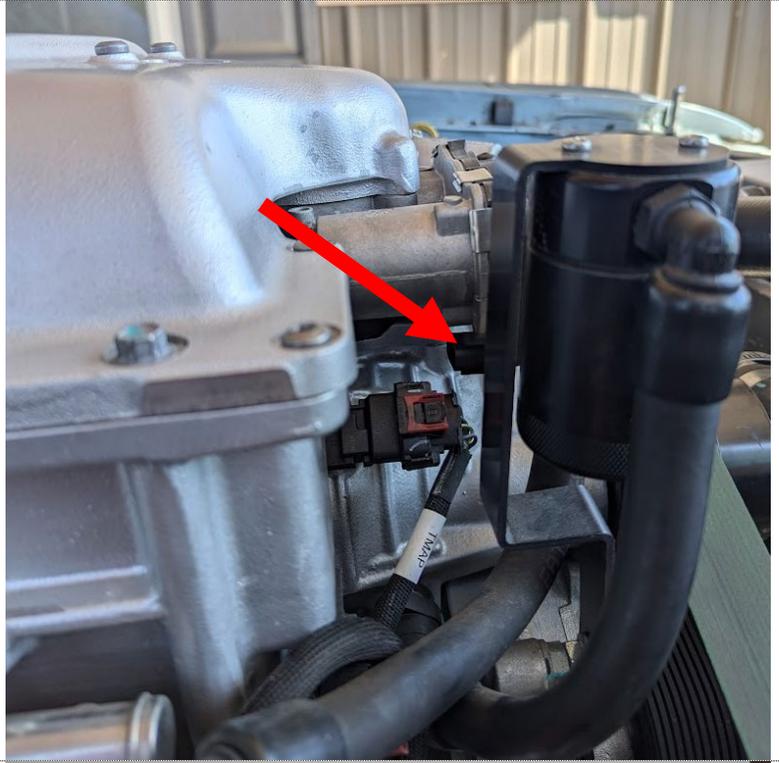
Using a 13mm socket, remove the ground stud and connect the harness ground eyelet. Reinstall the ground stud securely.



Hellcat Boost Controller Kit

Step 9. Connect Hellcat bypass valve to new harness:

Plug in the Hellcat bypass valve with using the new plug provided on the harness as shown in the photo to the right.



Step 10. Unplug Stock Harness From Gas Pedal

Unplug your stock harness from your gas pedal as shown in the photo to the right.

Aluminum Pedal Extension Not Included



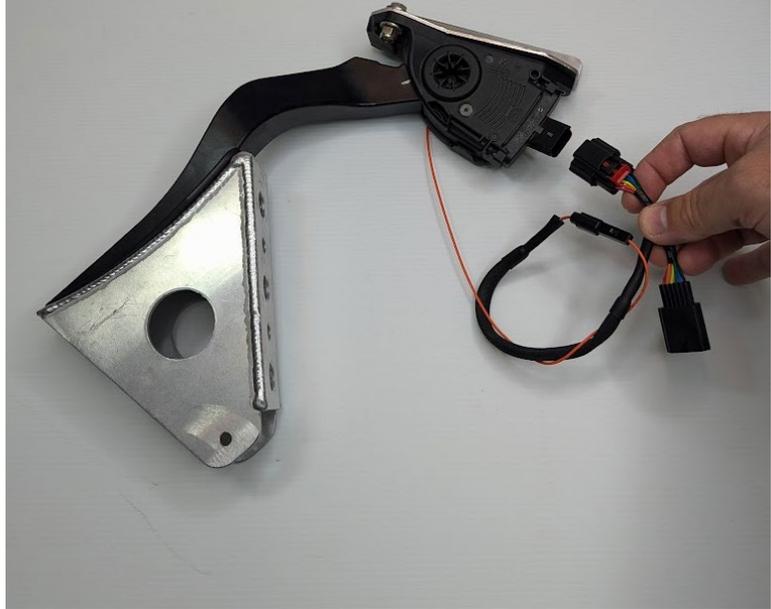
Modern Muscle Xtreme
340 Colonel Lee Road
Martinsville, VA 24112
276-666-1934

Step 11. Plug in Gas Pedal Adapter

Harness:

Plug in the female side of the new adapter harness as shown in the photo to the right.

Aluminum Pedal Extension Not Included



Step 12. Install module:

Install the module inside the vehicle to avoid moisture and excessive heat. The harness will need to be routed through the vehicle's firewall (usually through the existing grommet on the driver side below the brake booster). This may vary depending on the vehicle and installer preference.

Step 13. Connect module:

Connect the module to the harness and mount it in a desired location. At this time connect the orange lead wire from the gas pedal adapter harness to the lead wire provided on the main harness at the control module connection.

Step 14. Secure wiring:

Ensure all wiring is tied up properly and away from exhaust manifolds, ensuring wiring inside the vehicle is away from pedals and steering hardware.



Operating Instructions

LED Indicator

The controller's LED indicator provides real-time status updates

- **Solid Green:** Indicates that the control module is active and controlling the bypass valve.
- **Blinking Red – Green:** The module is currently learning the Bypass Valves range limits. This process takes a few seconds to complete.

Safety and Maintenance

Safety Precautions

Installation and operation should be performed by those with a sound understanding of automotive systems. Follow the provided manual instructions carefully to avoid damaging the controller.

Routine Maintenance

Regularly inspect connections between the controller and wiring harness for signs of corrosion or wear, replacing damaged parts immediately.

Troubleshooting

If you're experiencing operational issues, refer to the following troubleshooting guidance or contact our customer support for personalized help:

Module Appears Unpowered

- Check for proper battery power
- Ensure harness grounding is correct
- Verify fuse tap usage is appropriate
- Check Fuse: Inspect the fuse in the ASD circuit to ensure it's not blown or damaged.

Modern Muscle Xtreme
340 Colonel Lee Road
Martinsville, VA 24112
276-666-1934



Disclaimer

The use of the MMX BPV Controller can influence your vehicle's performance and fuel economy. The manufacturer assumes no liability for damages resulting from improper installation or misuse. Ensure modifications comply with all applicable local vehicle regulations.

Modern Muscle Xtreme
340 Colonel Lee Road
Martinsville, VA 24112
276-666-1934