

Installation Instructions

Part Number: PM-1000

Thank you for your purchase.

Please read the installation instructions or view the video installation instructions before attempting to install this product.

Video & Print Instructions: www.jms-powermax.com



If installed improperly, PowerMAX will not function and may be damaged.



PowerMAX Voltage Booster-Regulator is designed to increase the output of any fuel pump. The unit must be mounted inside the vehicle cabin (*under a seat*) or in the trunk. Install the unit so it does not come into contact with water or extreme engine heat (+250F).

WOW! Increase the output of ANY fuel pump by up to 80%!!



Simple installation - PowerMAX splices into your existing fuel pump +12V DC feed wire.



Compatible with all 12V or 16V battery systems and works with all vehicles!



Remote Mounted Voltage Control Knob

Adjusts the *output voltage* **only** when the device is boosting voltage. The **maximum output voltage** is dependent upon the grounding of the correct enable wire. (18V or 21V)



Knob Save Feature

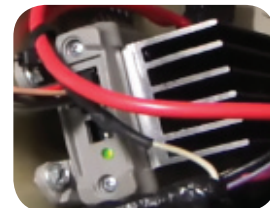
If the Remote Mounted Voltage Control Knob is disconnected, Green LED twinkles and the knob setting is saved.



Green Status LED

When PowerMAX is powered **on** the LED will glow solid green and the output voltage is: **14V DC**.

If PowerMAX is boosting voltage, the *green LED will blink* and the output voltage will match the user setting on the Remote Mounted Voltage Control Knob (up to 21V DC Output).



Adjustable Voltage Ramp In / Ramp Out Time

Eliminate fuel pressure spikes!!

Use the two position dip switch to change the Voltage Ramp In/Out Time. Correct drive-ability issues and start enjoying your vehicle again!



Technical Specifications

Input Voltage Range:
Input Fuse:

9.5V - 19V DC
40 AMPS



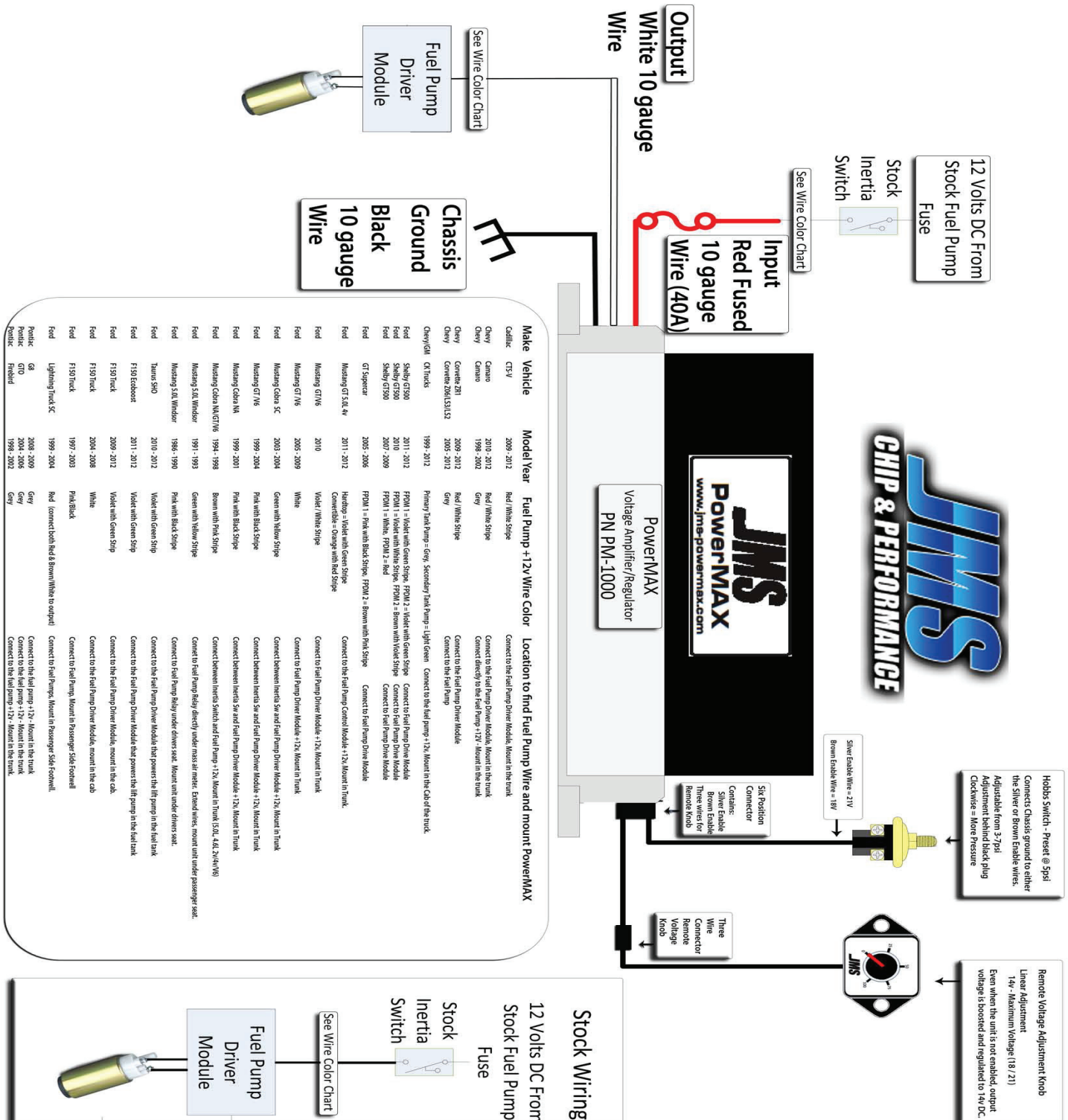
Output Voltage (Minimum): 14V DC Continuous

Output Voltage (Maximum): 18V or 21V DC

Output AMPS: 21 AMPS - Continuous; 28 AMPS - Peak (60 seconds)

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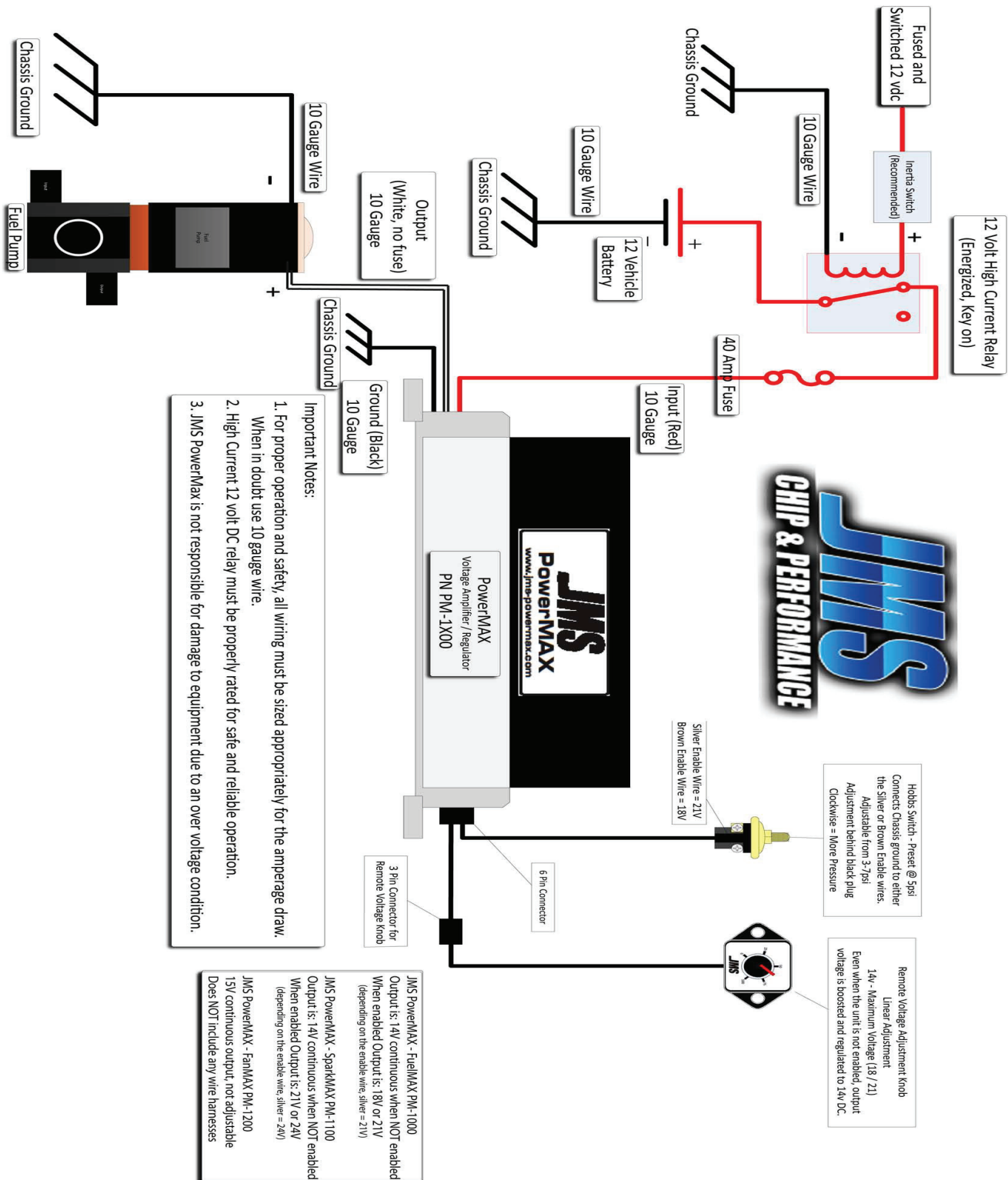
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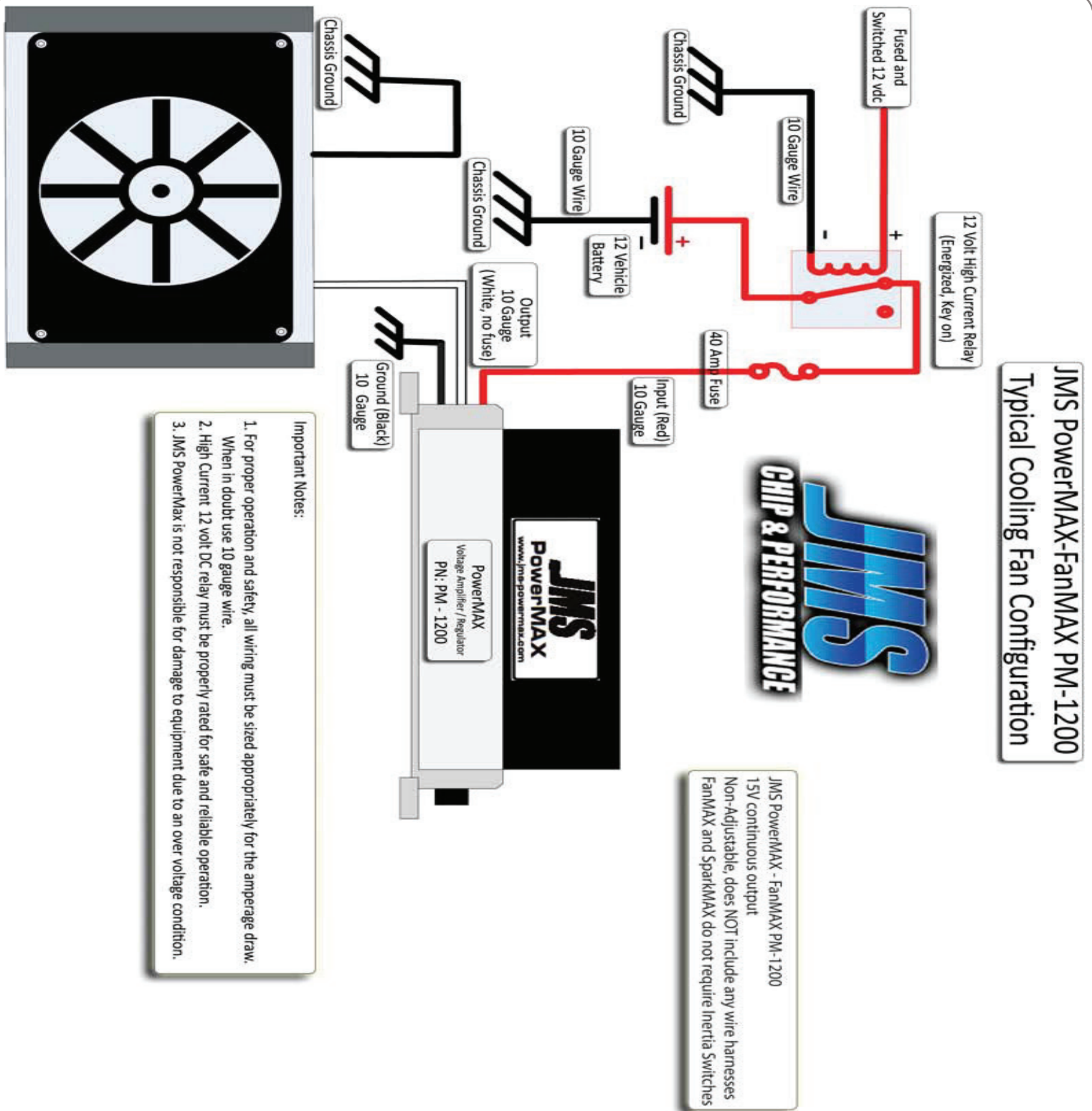
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JMS PowerMAX PM-1000, 1100, 1200 Typical Race Fuel Pump Configuration



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2005 - 2010 Mustang GT

Step 1:

Open the hood

Locate and open the black fuse box near the passenger fender.

Replace the 15 amp fuel pump fuse with the 30 amp fuse from the installation kit.



Remove the panel covering the spare tire

Step 2:

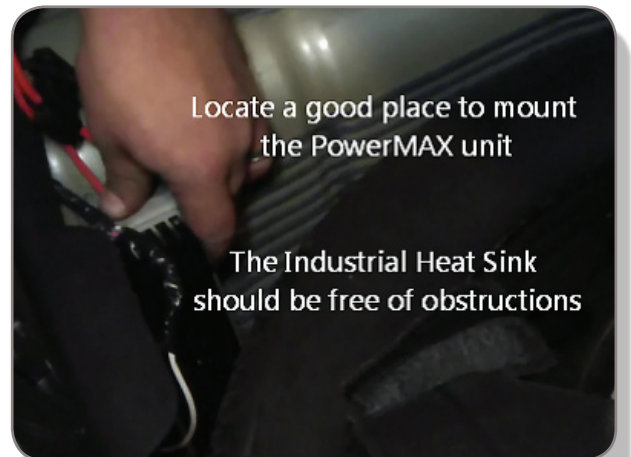
Open the trunk.

Remove the panel that covers the spare tire.

Step 3:

Located a good position to mount PowerMAX.

The industrial heat sink should be kept clear of obstructions.



Locate a good place to mount the PowerMAX unit

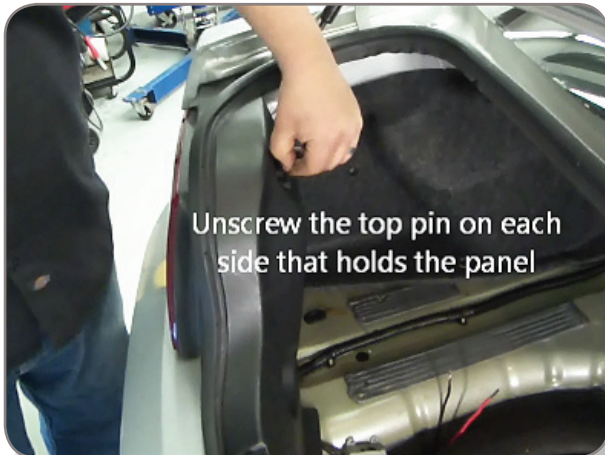
The Industrial Heat Sink should be free of obstructions

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Step 4:

Remove the push pins that attach the trunk panels to the sheet metal.



Unscrew the top pin on each side that holds the panel

Step 5:

Unscrew the top pin on each side that holds the trunk panel to the sheet metal.

Step 6:

Remove the plastic trunk panels.

This provides easy access to the FPDM (Fuel Pump Driver Module) and PoweMAX.



*Remove the trunk panel.
This provides access to the
FPDM and PowerMAX*

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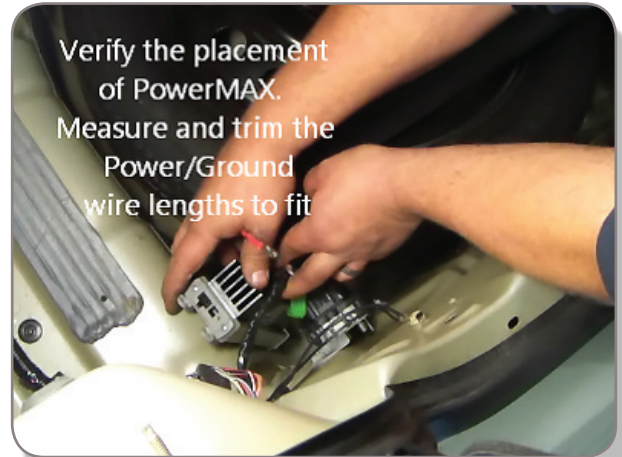
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Step 7:

With the spare tire in place.

Re-Verify the placement of PowerMAX.

Measure and trim the Power and Ground wires to fit.



Step 8:

Remove the Spare Tire for improved access.

Step 9:

Remove the tape from the wire harness that powers the FPDM (Fuel Pump Driver Module).

Find and isolate the White +12v Power Feed wire.

The White +12V FPDM power wire is: 14-16 gauge. Yes, this wire is very thin. Upgrade kits are available to upgrade this wire to 12 gauge or 10 gauge from the fusebox.



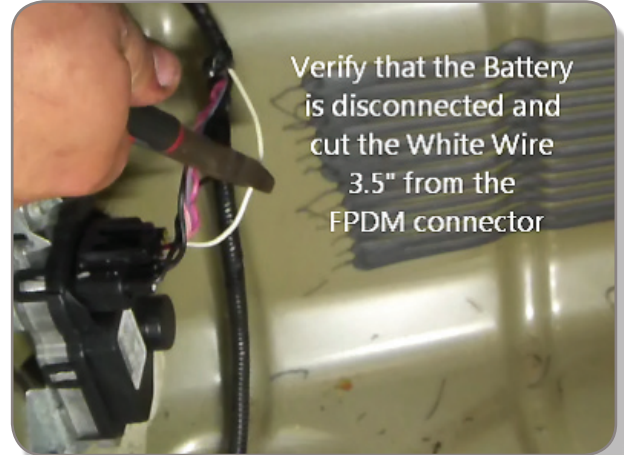
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Step 10:

Disconnect the Battery.

Cut the White Wire ~ 3.5 inches from the FPDM Connector.



Step 11:

Wire Connection Overview

Do not connect the wires at this time.

The wire harness side of the white wire connects to the INPUT wire on PowerMAX..

PowerMAX: Input wire is a Fused 10 gauge Red Wire.

The white wire that connects to the FPDM connects to the OUTPUT wire on PowerMAX.

PowerMAX: Output wire is a 10 gauge White Wire.

Step 12:

Using PowerMAX as a template:

Use a permanent marker to mark the appropriate holes to drill or use when installing the self-tapping screws.

Verify that nothing behind the sheet metal can be damaged before drilling or installing the self-tapping screws.



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Step 13:

After mounting PowerMAX with the self-tapping screws.

Verify that PowerMAX clears the spare tire.



Step 14:

Strip 1.5" of insulation off of each of the two cut White wires.

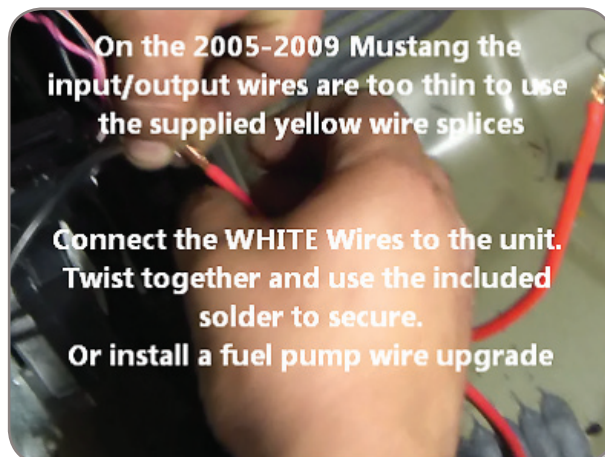
Strip 1.5" of insulation from the PowerMAX Red Fused 10 gauge Input wire.

Strip 1.5" of insulation from the PowerMAX White 10 gauge Output wire.

Step 15:

On the 2005-2010 Mustang, the FPDM input and output wires are too thin to utilize the supplied wire splices.

Twist the appropriate wires together and use the supplied solder to secure the connections.



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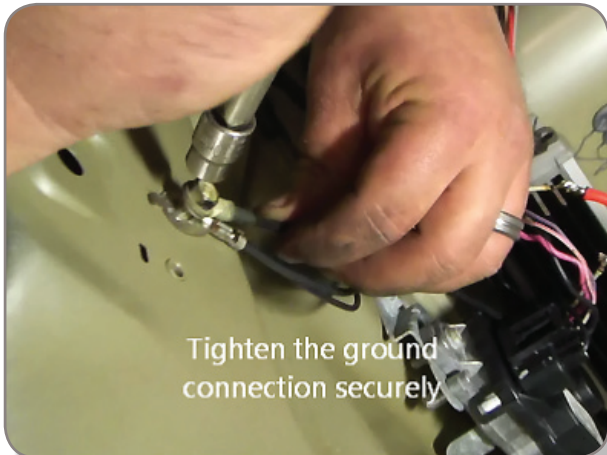
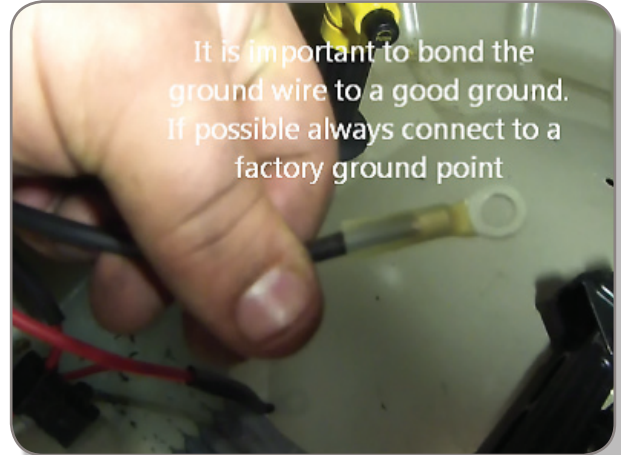
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Step 16:

Strip back the PowerMAX Ground: 10 gauge Black wire.

Insert the stripped wire into the connector and crimp.

After crimping, apply heat to heat shrink the connector onto the wire.



Step 17:

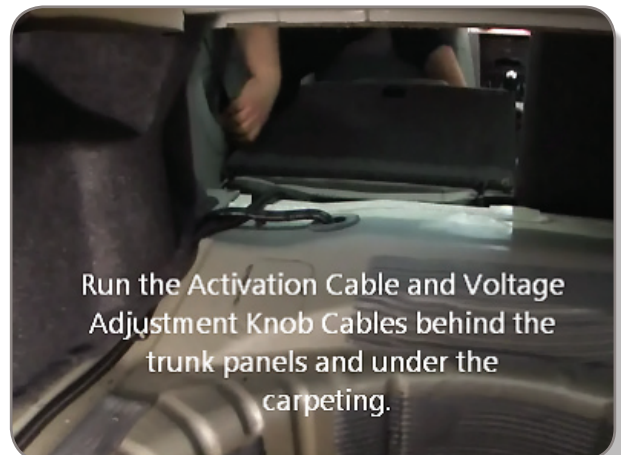
A good ground is very important.

Find a factory grounding point and attach the ground wire securely.

Step 18:

Lower the rear seat:

Run the PowerMAX activation wires and Voltage Adjustment Knob cable behind the trunk panels and under the carpet.

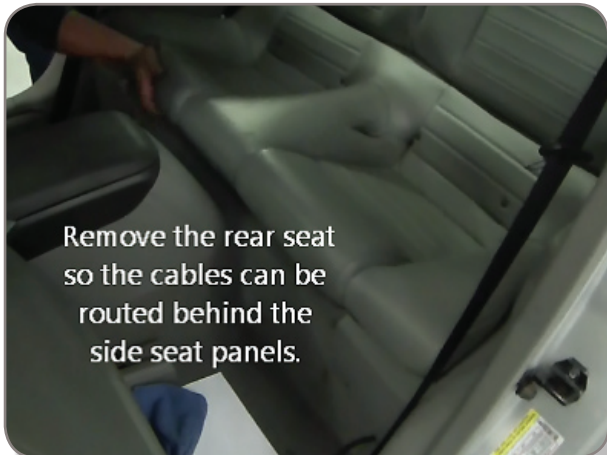
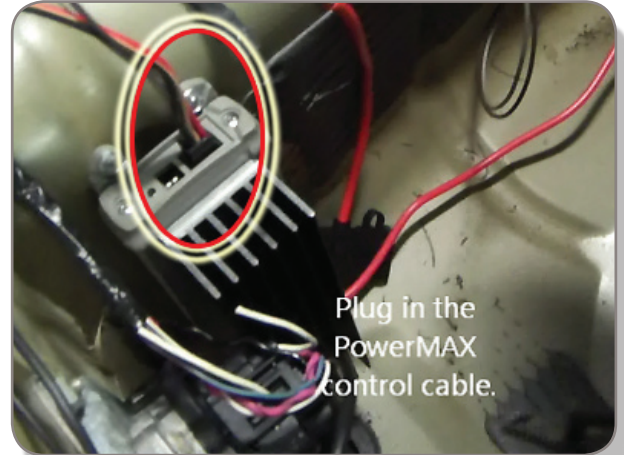


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Step 19:

Plug the 6 wire control cable into PowerMAX.



Step 20:

Remove the rear seat and route the PowerMAX enable cables and the Remote Voltage Knob cable down the side of the vehicle.

Step 21:

Remove the rocker trim panel and route the wires under the carpet.

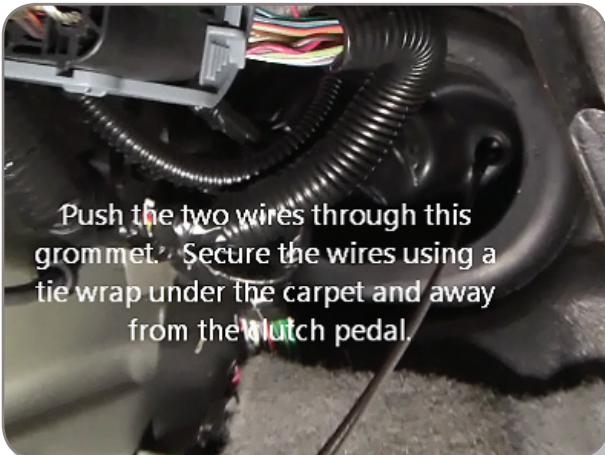


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Step 22:

Remove the kick panel and route the cables up to the firewall.



Step 23:

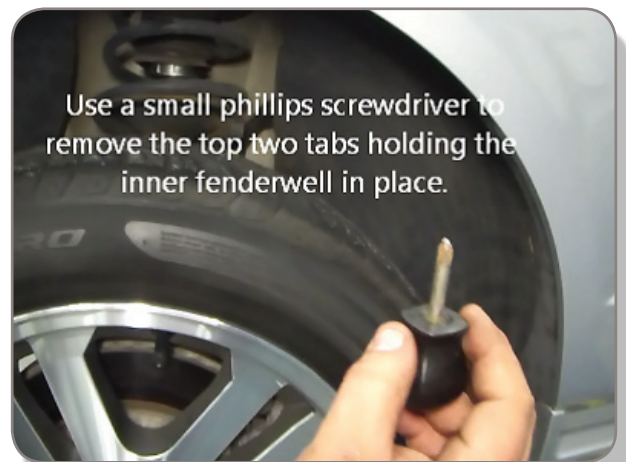
Use a razor blade to create a small hole in the firewall grommet.

Push the wires through the grommet.

The wires will be behind the drivers side plastic fender liner.

Step 24:

Use a phillips screwdriver to remove two tabs holding the top of the fender liner.



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Step 25:

Remove several push pins so the fender liner can be moved.

Route the Brown and Silver enable wires up and into the engine compartment.

Replace the fender liner and hardware.



Step 26:

Strip back the insulation on the enable wire that you intend to use.

*Silver = 21V
Brown = 18V*

PowerMAX outputs the appropriate increased voltage when one of these enable wires is grounded. If both wires are grounded the output = 21V.

Step 27:

Attach the 1/8npt to 3/16" barb nipple to the Hobbs Switch.

The included Hobbs switch is preset at 5psi. It is user adjustable from 3-7psi. To adjust the setting remove the black plug from the back of the unit. Insert a Allen wrench and turn. Clockwise = Higher Pressure.

When the desired pressure is reached the Hobbs Switch activates and the wires connected to the terminals are switched together.



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Step 28:

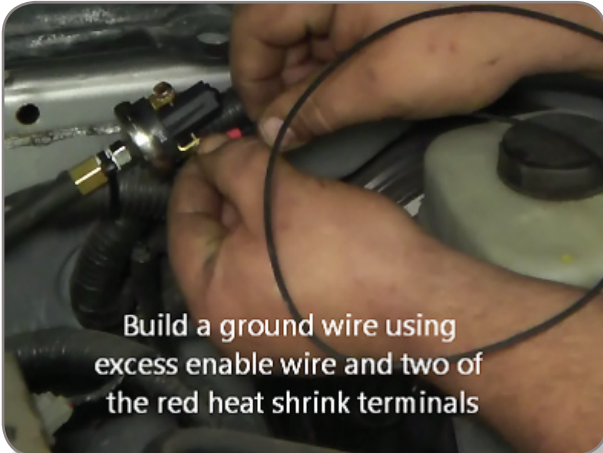
Find an appropriate vacuum source.

Cut the vacuum hose and install the appropriate vacuum tee and vacuum line from the installation kit.

3/16" x 3/16" x 3/16" tee
or
1/4" x 1/4" x 3/16" tee



Install the vacuum tee and trim the included vacuum hose to length



Build a ground wire using excess enable wire and two of the red heat shrink terminals

Step 29:

Tie wrap the vacuum tee and vacuum line in place.

Connect the enable wire (silver or brown) to one side of the Hobbs switch.

Build a ground wire using excess wire that was cut from the enable wire. Connect the ground wire to the other side of the Hobbs switch and the other to vehicle ground.

Step 30:

Remove the panel inside the center console.

The Remote Voltage Adjustment Knob can be mounted on this panel.



Remove the panel that will mount the adjustment knob

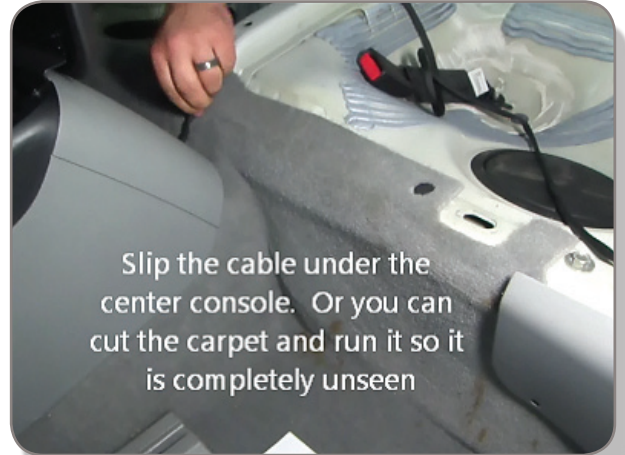
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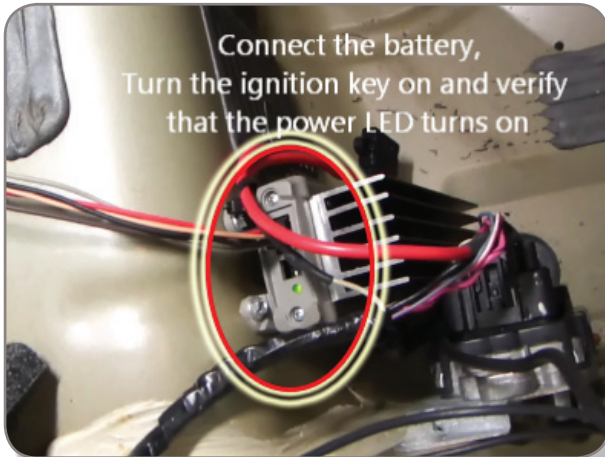
Step 31:

Slip the Remote Voltage Adjustment Knob cable under the center console and then route under the carpet and back to the PowerMAX unit.

Plug in the 3 wire cable.



Slip the cable under the center console. Or you can cut the carpet and run it so it is completely unseen



*Connect the battery,
Turn the ignition key on and verify
that the power LED turns on*

Step 32:

Connect the battery.

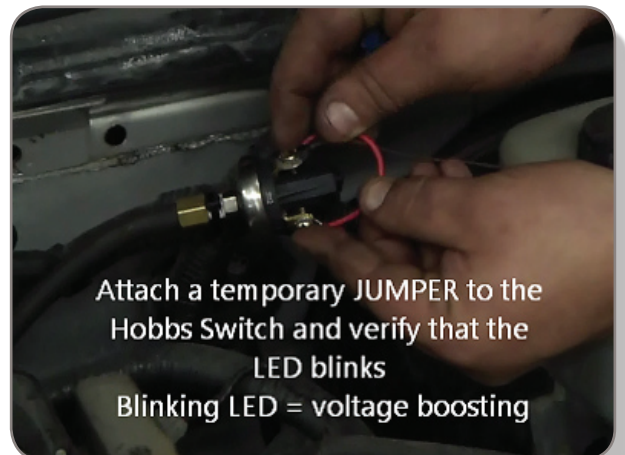
Turn the ignition key on and verify that the power LED turns on.

Step 33:

*If you "jump" the Hobbs switch
PowerMAX will boost voltage.*

Voltage output will match the setting on the Remote Voltage Adjustment knob.

If you disconnect the knob the setting will be saved (LED will twinkle).



*Attach a temporary JUMPER to the
Hobbs Switch and verify that the
LED blinks
Blinking LED = voltage boosting*

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Step 34:

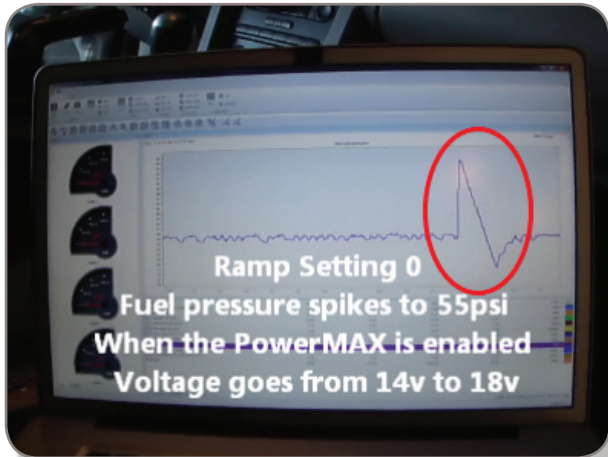
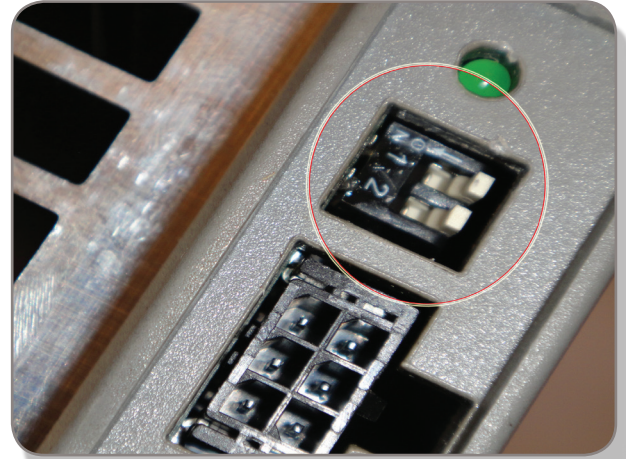
The Ramp-In/Ramp-Out rate can be adjusted via two dip switches.

Both switches OFF = 0 ramp

SW 1 ON = 0.25 second voltage ramp

SW 2 ON = 0.50 second voltage ramp

SW 1 and SW 2 ON = 0.75 second voltage ramp



Step 35:

Example of what happens to the fuel pressure when the PowerMAX is enabled with both switches off (0 ramp).

Notice that the fuel pressure spikes from 38psi to 55psi.

Note: Other devices have a fuel pressure spike that is 60+psi.

Step 36:

Example of what happens to the fuel pressure when the PowerMAX is enabled 18V output with the maximum delay turned on. Both switches on (0.75 second ramp).

Notice that the fuel pressure no longer spikes.

Using the ramp feature will correct other units fuel pressure spikes.

