



Warning! This product can expose you to chemicals such as styrene which is known to the State of California to cause cancer. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

California Proposition 65 Warning Label

# VaporWorx

We Give You Gas

## WARNING

**Working with fuel is dangerous. If fuel is handled improperly it can lead to fires and death. It is imperative above anything else that all appropriate safety measures be used to control the fuel and any ignition sources, including static electricity, heat, sparks, and any other sources. Proper high-pressure fuel lines and connections must be used in accordance to the manufacturer's specifications and routed away from any potential sources of heat, ignition, and protected from mechanical damage. If you are unsure about your work or safety, stop work immediately and consult with a qualified automotive technician and/or safety official.**

## Installation instructions for the SmartRamp Controller for the JMS FuelMax Voltage Booster

Thank you for choosing the VaporWorx SmartRamp controller. This controller will automatically change the output voltage of the JMS FuelMax voltage booster automatically based on the output duty cycle of the Fuel System Control Module. Unlike voltage ramping methods that rely on MAP, spark, TPS, or other methods, the SmartRamp only increases voltage to the pump(s) when needed. Hence, the power to the pump(s) is minimized to only what is needed to meet the commanded fuel pressure.

VaporWorx was founded on Customer Satisfaction and Service. We strive to treat people and our products the way we would want others to treat us and the products we purchase. That is why our electronics products are tested thoroughly before they are packaged and shipped. VaporWorx stands behind our products for one full year after purchase with a well-stocked repair facility and quick turnaround times. VaporWorx does not want to be the reason you cannot enjoy your car. The Terms of Warranty and Service are as follows:

### Limited Warranty

VaporWorx warrants its products to be free from defects in material and workmanship under normal use and if properly installed for a period of one year from date of purchase. If found to be defective as mentioned above, it will be replaced or repaired if returned along with proof of date of purchase. This shall constitute the sole remedy of the purchaser and the sole liability of VaporWorx to the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representations whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall VaporWorx be liable for special or consequential damages. This warranty is only valid on products purchased from VaporWorx or their Authorized Dealers.

### Service

In case of malfunction, your VaporWorx component will be repaired free of charges according to the terms of the warranty. When returning VaporWorx components for warranty service, Proof of Purchase must be supplied for warranty verification. After the warranty period has expired, repair service is charged based on a minimum and maximum charge rate. (Contact VaporWorx for current rates).

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**The following steps will help to ensure good fuel module operation and long life. Careful attention to wire routing, protection, strain relief, connectors, crimps, etc. will lead to a longer lasting and more reliable installation. Be sure to use appropriate personal protective equipment and safe automotive lifting, support, and working methods. A fire extinguisher must be kept available, ready, and functional at all times. If unsure of your work seek immediate assistance from an experienced automotive specialist.**

The SmartRamp controller is meant to be used with an OEM or VaporWorx pulse width modulated Fuel System Control Module that pulses the PUMP+ feed. If the negative side of the FSCM is pulsed, please contact VaporWorx.

See Diagram 1 for wiring layout. Note that no relays should be used to feed the JMS FuelMax voltage booster. The JMS has its own on/off circuitry that will shut down automatically.

- 1) Connect the JMS voltage booster heavy gauge red wire to BAT+
- 2) Connect the JMS voltage booster heavy gauge black wire to BAT-
- 3) Determine the FSCM BAT+ input wire. Cut the wire in an appropriate location to attach with the best access. Connect the JMS heavy gauge white wire to the FSCM wire using butt connectors and heat shrink to seal the connections. Cap the cut end of the OEM feed wire with heat shrink.
- 4) Attach the 20ga black SmartRamp wire to the FSCM output Pump- wire. It is suggested to not cut the Pump- conductor. Usually removing a short length of the Pump- wire insulation, a small dab of solder, and resealing the connection works well.
- 5) Similar to the above, connect the 20ga gray SmartRamp to the Pump+ pulsed wire.
- 6) Tune the JMS FuelMax as follows, and shown in Diagram 1
  - a) Switch 1 - ON
  - b) Switch 2 – OFF
  - c) Switch 3, 4, and 5 – ON
  - d) 5V Adjust Input Trigger Knob – Clocked to about 10:30, just past the hash mark.
  - e) 100% Adjust Output Voltage: Clocked to about 1:00, just past the 50% marker.
- 7) Tidy up all wiring and insert the JMS fuse.
- 8) Start the engine. Flip Switch 1 to OFF. This locks the settings on the JMS. If tuning the system, leave Switch 1 to on. Once complete, Switch 1 can be set to OFF to lock the settings if desired.

NOTE: Most OEM FSCM's will set Malfunction Indicator Codes if the input voltage is too high. Usually a maximum input voltage of 16.5v will work well, but some tuning may be needed. If MIL codes start, especially at high pump demands, try reducing the 100% ADJUST OUTPUT VOLTAGE. Continue reducing the voltage until the MIL codes do not re-occur. Clearing of the code will be needed before additional tuning should be performed.

- 9) There is no SmartRamp adjustment needed.

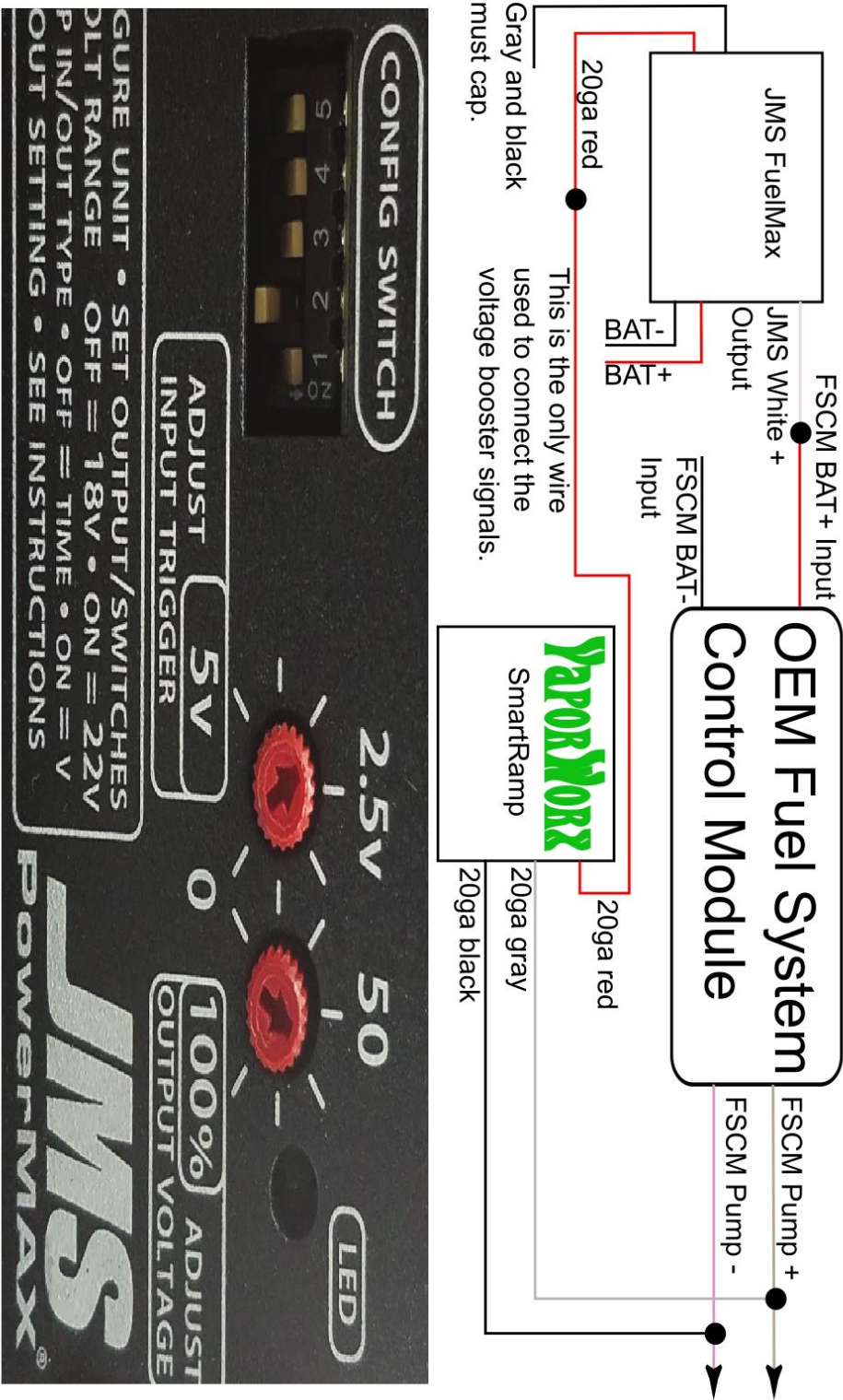


Diagram 1. Wiring Layout