

**INSTALLATION INSTRUCTIONS  
FOR PART #20130 MUSTANG  
STAGE 3 BOOST COOLER®  
WATER/METHANOL INJECTION  
SYSTEM**



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Have a question?

FAQ: [www.snowperformance.net/faqs.php](http://www.snowperformance.net/faqs.php)



You must completely read through these instructions before installing and operating this product. Failure to do so can result in damage to this product and the vehicle.

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### **Parts List**

- UHO (Ultra High Output) Pump
- 10 ft. 1/4" OD Tubing
- 3ft. Black Wire Loom
- 18" 1/8" Silicone Tubing
- 3 Quart reservoir

### **Electrical Packet**

- 2 Wire Splices
- 2 Butt Connectors
- Vacuum "T"
- 2 Small Eyehooks
- 1 Female Connector
- 1 Male Connector
- 10 Tie Wraps
- 3" Double Sided Tape
- Stage 3 Controller
- Level Switch Upgrade

### **Required tools**

- Electric drill w/ drill bits
- Adjustable wrench
- Utility knife
- Screw driver – Phillips
- 5/16" open end wrench (for nozzle)
- 1/8" NPT Tap

### **Mechanical Packet**

- 1 Nozzle Holder
- 8 #8x1&1/2in. Screws
- 8-#8 Washers
- 4 #6x1/2in. Screws
- 1 Tube E6000 GOOP®
- 1 Bulkhead Fitting
- 1 3/8 NPT to 1/4" tube reservoir fitting

### **Nozzles**

- 60ML/MIN (1)
- 100ML/MN (2)
- 175ML/MN (3)
- 225ML/MN (4)
- 375ML/MN (5)
- 625ML/MN (6)

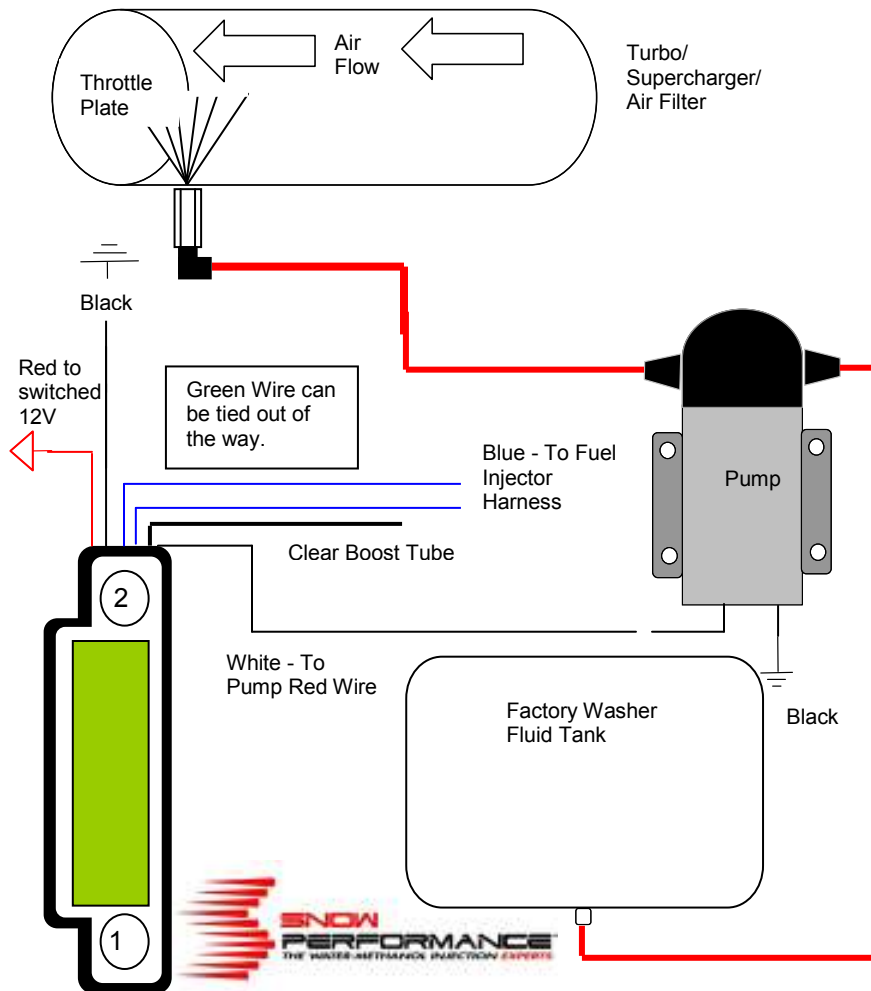
### **Upgrades**

- 2.5 Gallon Reservoir
- Solenoid
- Hose Adaptor or Bung
- SafeInjection®
- Nitrobooster®
- Dual Nozzle
- Carb Plate

## Introduction:

The Stage 3™ Mustang System is designed to deliver precise amounts of water-methanol in a wide range of operating conditions. This system can deliver cooler combustion temperatures, lower intake air temperatures, and 20-25 point octane gains over regular pump gas. It utilizes the factory washer fluid tank. This does not defeat the original purpose of the tank and makes for an easy, professional installation.

Naturally aspirated Mustangs will utilize the EFI sensor capability of the controller for injection control, while Mustangs with forced induction of any kind will use both boost and EFI data to control injection.



## Contact Us:

### Phone

Office

(719) 633-3811

Fax

(719) 633-3496

Tech Support Line (Toll Free)

(866) 365-2762

### Web

<http://www.snowperformance.net>

### Email

[sales@snowperformance.net](mailto:sales@snowperformance.net)

[customerservice@snowperformance.net](mailto:customerservice@snowperformance.net)

[tech@snowperformance.net](mailto:tech@snowperformance.net)

### Mail

Snow Performance, Inc

1017-A East Highway 24

Woodland Park, CO 80863

## Notes

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Products returned due to damage or misuse and Products retested with no problem found will be returned to customer at customer's expense.

#### LIMITATION OF LIABILITY

REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT IS THE ORIGINAL RETAIL PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY. DAMAGE OR INJURY TO THE ORIGINAL RETAIL PURCHASER, TO HIS OR HER VEHICLE, CARGO, OR PROPERTY, AND/OR TO ANY OTHER PERSON OR PROPERTY IS NOT COVERED BY THIS WARRANTY. THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER EXPRESS WARRANTIES, WHETHER ORAL OR WRITTEN. SNOW'S SOLE LIABILITY IS LIMITED TO THE REMEDY SET FORTH ABOVE. IN NO EVENT WILL SNOW BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES OR FOR ANY OTHER DAMAGES OF ANY KIND OR NATURE (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS OR LOST SALES). SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

#### Non-Warranty Repair/Retest

Products returned due to damage or misuse and Products retested with no problem found are subject to repair/retest charges. Product will be returned to customer at customer's expense. A credit card number must be provided in order to obtain an RMA (Return Merchandise Authorization) number prior to returning Product.

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## Installation- Mechanical

### Step 1 Bulkhead Fitting Install

The factory windshield washer reservoir is used as the reservoir for your system.

- Drill 9/16" hole in desired bulkhead location.
- Remove one nut from bulkhead and turn the remaining nut until it is at the very end.
- Feed red tubing through the drilled hole and up and out of the top of the reservoir.
- Attach tubing to the bulkhead on the side opposite the nut.
- Pull the tubing through the bulkhead hole until the bulkhead seats against the inside of the reservoir.
- Apply E6000® sealant (included) around bulkhead.
- Slide the nut you had previously removed up onto the tube and thread onto bulkhead.



**Factory washer tank from a 2007 GT shown with 9/16 hole drilled for bulkhead fitting. See page 19 for details on mounting the optional fluid level switch. Note that in some cases it will be easier to mount the bulkhead fitting in the side of the tank so that the hose exits in the direction of the pump.**

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## Caution\*\*\*\*\*

To avoid gravity feeding of fluid with rear mount reservoirs, it is essential to use a check valve in-line between the reservoir and pump. **Do not operate** your rear mount equipped vehicle without a check valve installed.

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## Caution\*\*\*\*\*

Whenever the nozzle is mounted post-throttle plate, to avoid siphoning fluid at idle, it is essential to use a solenoid upgrade inline between the reservoir and pump.

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### Step 2 Pump Install

Mount the pump so the inlet is positioned at the lowest point of the reservoir or lower. Pump can be mounted horizontally or vertically using the supplied screws and washers. Ensure that no sharp bends in the high pressure tube occur near the pump. Sharp bends can cause stress on the inlet and outlet ports of the pump, causing leaks. Trim tube with a utility knife or razor blade, making sure to eliminate any burrs or kinks on the end. Insert firmly into the pump about ½ inch through the light grey locking collar. Note the arrows indicating flow direction on the top of the pump. To remove the hose, gently and evenly push the light grey locking collar into the head unit of the pump, then pull on the hose gently.



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### Warranty

#### Warranty Policy

Snow Performance, Inc. warrants that the Product shall conform to and perform in accordance with published technical specifications and shall be free of defects in materials and workmanship for 90-days providing:

1. You are the original purchaser and provide proof of purchase.
2. For 1-year warranty, the Warranty Card that came with system (not applicable to separate parts purchases) is returned to Snow within 45-days of purchase. If valid warranty card not on file with Snow, the standard 90 day warranty applies from date of purchase.
3. For Lifetime warranty, the Warranty Card that came with system (not applicable to separate parts purchases) is returned to Snow within 45-days of purchase and Boost Juice® injection fluid is used exclusively.\*
3. An RMA # has been attained and is displayed on package containing returned part.
4. Parts Warranty ~ 90 day warranty on parts purchased separately if used in conjunction with a Snow System. No warranty implied if used with a non-Snow part/system.

Subject to Snow's inspection of the product, Snow will remedy defects in materials and/or workmanship by repairing or replacing, at Snow's option, the defective product without charge for parts or labor, subject to the limitations and exclusions described in this warranty.

This warranty does not cover problems caused by normal wear and tear including aesthetic oxidation of surfaces, accidents, unlawful vehicle operation, or modifications or repairs to product not performed or authorized by Snow. This includes any product that is disassembled or taken apart for any reason.

\* Boost Juice® usage evidenced by invoices/ receipts.

In addition, this warranty does not cover problems resulting from conditions beyond Snow's control including, but not limited to, theft, misuse, overloading, or failure to assemble, mount or use the product in accordance with Snow's written instructions or guidelines included with the product or made available to the original retail purchaser. In the event of failure, Snow will repair or replace the part at Snow's sole discretion. Failures resulting from misapplication or misuse of the Product, failure to adhere to any specifications or instructions, or failure resulting from neglect, abuse, accidents, or act of nature are not covered under this warranty.

Warranty service may be obtained by calling 719-633-3811, getting an RMA (Return Merchandise Authorization), delivering the part to Snow along with proof of purchase. Customer agrees to insure the Product or assume the risk of loss or damage in transit, to prepay shipping charges to Snow, and to use the original shipping container or equivalent. Shipping for Warranty replacement parts shipped outside the continental US will be charged to customer.

Non-Warranty Repair/Retest

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## Install Notes

Pump Setting \_\_\_\_\_(psi)

Nozzle Size \_\_\_\_\_(ml/min)

Boost / Vacuum setting \_\_\_\_\_

Misc:

### Disclaimer

Do not use this product until you have carefully read the following agreement. This 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 its terms and conditions. Performance products by their nature are designed to increase horsepower and performance not engineered in the original vehicle and the increased stress could result in damage to related systems. This is a high performance product – use at your own risk. Snow Performance Inc., Its agents, employees or owners shall not be under any liability whether in contract or otherwise whether or not resulting from our negligence or contents of information supplied for any damage or loss resulting from such information. The **BUYER** is responsible to fully understand the capability and limitations of his/her vehicle according to manufacturer specifications and agrees to hold the **SELLER** harmless from any damage resulting from failure to adhere to such specifications. 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 **BUYER** is responsible to obey all applicable federal, state, and local laws, statutes, and ordinances when operating his/her vehicle, and the **BUYER** agrees to hold **SELLER** harmless from any violation thereof. 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.

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Measure the distance from the bulkhead fitting on the reservoir to the pump inlet. Cut the ¼" red tubing using utility knife. Make cuts are as square as possible.

Ensure there are no kinks in the tubing and insert tubing into quick disconnects at pump and reservoir until fully seated. Keep the pump within 2 feet of the reservoir.

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## Caution\*\*\*\*\*

Pump must be shielded from road debris and tire wash. Failure to do so will result in pump failure

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### Step 3 Nozzle Selection


Nozzle sizing is a function of horsepower, which approximates the engine airflow, and boost, which approximates intake charge heat. The following are some general guidelines (assuming 50-50 water-methanol).

Engines running mild or high boost and making 400-600 HP will use a 375 ML/MN nozzle or 625 ML/MN nozzle. (Red and Blue colored nozzles respectively)

Engines making mild boost and 200-400 HP will use a 175 ML/MN nozzle or a 225 ML/MN nozzle.

A naturally aspirated engine making 300-400 HP will use a 100 ML/MN nozzle or a 175 ML/MN nozzle.

A naturally aspirated engine making 400-600 HP will use a 225 ML/MN nozzle or a 375 ML/MN nozzle.

 **TECH TIP** Seal the nozzle into the nozzle holder using included E6000® sealant. Using a sealant that is not permanent will allow for nozzle changes during tuning. Simply remove the nozzle, clean the threads, and reinstall using sealant.

Assemble desired nozzle into nozzle holder using E6000® sealant. **The end of the nozzle with the fine mesh screen is to be inserted into the nozzle holder.** Torque 1/2 turn past finger tight. Do not use Teflon sealants on Snow Performance fittings.





Correct



Incorrect

### Step 4 Nozzle Mounting

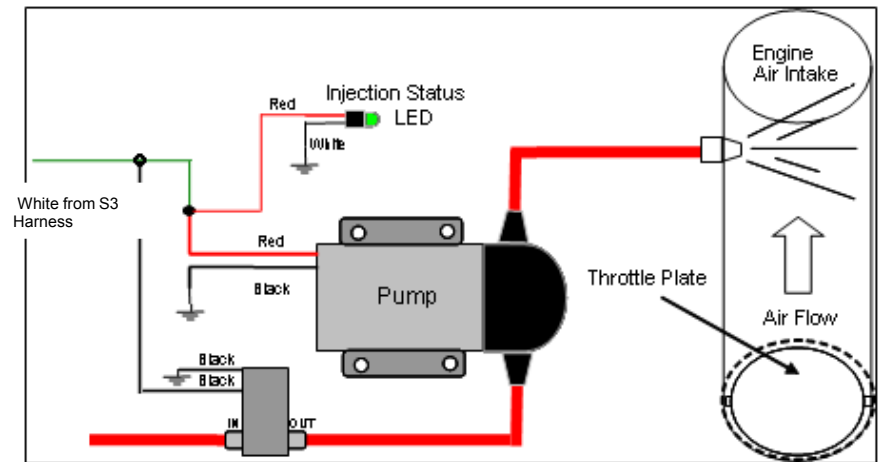
The nozzle should be installed 90° to the direction of airflow. On round intake tubes, this is 360° around the tube meaning the nozzle can be mounted in any direction. This will ensure maximum cooling as the nozzle sprays in a cone pattern. The nozzle should be the highest point in the system, and its tip should be flush with the inside wall of the tube or projecting slightly into the airflow to ensure good spray pattern.

Drill and tap (11/32" pre-drill, 1/8"-27 NPT tap) air inlet tube as close as feasible to throttle body/throttle plate. Be sure to remove the pipe to avoid getting any shavings into the engine.



## Solenoid Upgrade (optional)

The optional Solenoid Upgrade (#40060) is required if the nozzle is to be installed after the intake throttle plate (as shown), or the fluid reservoir is mounted higher than the nozzle. It is highly recommended for trunk-mount reservoirs.



Finger thread the two 1/8" NPT quick connect fittings into ports labeled (2 or IN) and (1 or OUT) on the solenoid. Tighten an additional half turn past finger tight.

### Note: Solenoid must be installed Pre-pump to ensure correct operation.

Cut high pressure line at location solenoid is to be installed. Insert ends of cut line into quick connect fittings of solenoid. The port labeled (2 or IN) is the inlet and the port labeled (1 or OUT) is the outlet. Gently pull on line to check secure connection. If line pulls out, re-insert farther into fitting to engage locking clips. If high pressure line removal is required, firmly press in metal fitting ring to disengage locking clips while pulling hose from fitting.

Connect one of the BLACK wires from solenoid to the RED positive pump wire or the WHITE wire from the controller. Note that connecting the wire to any other power source other than the pump/controller wire will result in improper operation of solenoid. Connect the second BLACK wire to a secure chassis ground location.



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## Fluid Level Switch



Fluid level switch and Bulkhead fitting shown on '07 Mustang Washer Bottle.

### Instructions

- Locate desired level switch mounting position. Suggested placement is 1/5 of max reservoir height.
- Carefully drill side of reservoir using 13/16" bit. A step bit is recommended for best drilling results. Hole must be free of nicks or shavings for proper sealing.
- Remove rubber seal from level switch. Insert seal into reservoir until fully seated. Goop can be used around the edges of the hole.
- Lubricate exterior of level switch with water and insert into seal until fully seated. Position level switch so **GT** symbol is at six o'clock position.
- Wait 30 minutes for Goop to cure, then test for leaks. With fluid level above level switch, float should be angled up. With fluid level below level switch, float should be in horizontal position.
- Connect one black wire from level switch to ground.
- Connect other black wire from level switch to white wire from LED.
- Connect red wire from LED to +12 volt key on power source.



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Intake tube from Shelby GT shown. Note that the nozzle mount adaptor (part number 40100) may be useful for stock plastic intake pipes.

The nozzle is mounted using its external 1/8 NPT threads. Tighten the nozzle and nozzle holder assembly one half turn past finger tight using E6000® sealant to seal the threads.

**TECH TIP** The recommended nozzle mounting point is before the throttle body/plate and above the level of the reservoir. If you mount the nozzle after the throttle body/plate or below the reservoir, a Solenoid Upgrade (#40060) must be used to prevent siphoning at idle or gravity feed.

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## Step 5 Nozzle Connection

Measure the distance from the pump outlet to the nozzle holder(s). Cut the ¼" tubing using a sharp utility knife or razor blade. Make cuts as square as possible.

Ensure there are no kinks in the tubing and insert tubing into quick disconnects until fully seated. Gently pull on tubing to ensure a good connection. Also ensure that engine movement will not stress the tubing or fittings.



Use tie wraps to help route tubing and to ensure it doesn't contact moving or hot parts in the engine compartment. Have tubing connect to quick connect fittings at shallow angles. Having an immediate sharp bend may unseat the tubing from the internal o-ring and create a leak.

Continual insertion and removal from quick connect fittings will mar the end of the tubing. Over time the internal gripping teeth may lose their hold of the tubing which may create a leak. If this occurs simply remove the tubing and make a fresh cut using a razor blade.

## **Installation – Electrical**

### Variable Controller Installation



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**For best performance, cooling and system life it is recommend that Snow Performance Boost Juice™, part #40008, be the exclusive fluid used in the system.**

- The Pump should be off at this point. Start the vehicle and apply pressure to the boost line with a hand pump. A few psig will be sufficient to start injection. The controller should display an injection % and a boost reading should also be visible (if you are in the proper display screen).
- Ensure that the Blue leads are connected to a fuel injector harness. Unit will show a PW value and also an injection % if you are in the correct display mode with the vehicle idling. If no PW or injection is indicated, check the connections to the fuel injector harness.

## Tuning Quick Reference

The power potential of the system is realized through increased boost and/or timing. The large gains on octane and cooling provided by the system make this possible, even on standard pump fuel.

The Boost Cooler® adds an alternate fuel source as well as significantly cools combustion. With the Boost Cooler®, one does not need to cool combustion with overly rich air/fuel ratios. To minimize combustion quench, you should start with an air to fuel ratio of 12.0-12.5:1.

Injecting water/methanol lower than 3300-3500 RPM could result in combustion quench. All vehicles are different. If the engine bogs or loses power, then it is coming on too early, the quantity is too much, or there is not enough methanol in the mixture (50/50 water/methanol recommended).

## Caution\*\*\*\*\*

Prolonged quench may cause lower engine damage over a period of time.


**Maintenance** — Remove nozzle(s) and clean screen filters at least once per year using carb cleaner.

The Boost Cooler® has been designed to operate with high concentrations of methanol. Oil or other additives are not required for system lubrication.

The Stage 3 controller has an integrated wiring harness for ease of install and a clean appearance. Refer to the main wiring diagram and listing below for installation.

 **CAUTION: Disconnect the negative battery terminal while connecting wires to prevent electrical fire or damage to controller.**

- Connect BLACK wire to a good ground location.
- Tie GREEN wire out of the way.
- Connect RED wire to a 12 volt key on source.
- Connect the two BLUE wires to the two wires leading to a fuel injector using the provided wire splices. Any injector will suffice, so choose one that is easy to access. **Note: Do not solder electrical connections to the fuel injector. Use provided wire splices.**
- Connect the clear tubing to the black silicone line. This line can be 'T'ed into any accurate manifold boost pressure source. A boost gauge line that is tapped into the intake manifold is ideal. In naturally aspirated applications, this can simply be tied out of the way.
- Connect the WHITE wire to the red power wire of the pump. The BLACK wire on the pump goes to a good chassis ground.

 **TECH TIP** Always have a good electrical ground connection. Poor ground will result in erratic operation of controller and/or damage to the controller. Make sure boost connection is POST throttle body.

## Tuning the Stage 3 System

The Stage 3 system allows for a large range of tuning on any EFI or forced induction Mustang. It can reference fuel injector pulse-width, boost, or both simultaneously. The boost and EFI data are displayed on the LCD screen, along with the systems output as a percentage of pump capability.

All functions of the controller are accessed using the two push buttons to the left and right of the LCD screen. Pressing button 1 will scroll between

screens, while pressing button 2 will affect whatever setting is on the screen.

#### Display and Control Screens:

B	P
INJ	

#### Screen 1

This is a display only screen. It displays boost, fuel injector pulse-width (PW), and water/methanol injection as independent bar graphs.

Boost	PSI
EFI Pulse	%

#### Screen 2

This display screen shows boost in psi and injector pulse-width (PW) as a percentage. 100% pulse-width indicated 100% injector duty cycle and a fuel system injecting as much as possible

PSI	%PW
	% Injection

#### Screen 3

This screen displays boost in psi, while pulse-width (PW) and injection are shown as a percentage.

PSI
PW

#### Screen 4

This screen displays boost in psi and pulse-width (PW) as a percentage.

Control =	Both
Change-----	

#### Screen 5

This is the first setup screen. It allows you to select BOOST, EFI, or BOTH, using button number two. If BOOST is selected, then boost alone will determine the injection volume from the nozzle. If EFI is selected, then fuel injector pulse-width (PW) alone will determine injection volume. If BOTH is selected then both inputs will be used simultaneously to control injection.

#### Screen 6A

EFI START INCREASE

This screen sets the injector PW point when injection will start through the nozzle. Typical start points are in the 35% range.

EFI Start%
Increase-----

- Fill reservoir with water approx ¼ full.
- Remove tubing from nozzle (or solenoid if solenoid used in-line between pump and nozzle) and run tube into separate container.
- Apply 12 VDC to red pump wire for approximately 5 seconds or until fluid flow is consistent.
- Pump is now primed. Reconnect tubing from pump outlet to nozzle (or solenoid).

#### If using a check valve in between the pump and the reservoir:

Remove the check valve and place a solid piece of tube between the pump and the reservoir and prime the system. Then replace the check valve in between the pump and reservoir.

### Step 1 Test Pump and Mechanical System

Disconnect all control and SafeInjection® modules. Disconnect tube from the outlet port of the pump. Using a 12 volt source, apply power to red wire of pump. Pump should activate and fluid level in tank should go down. It is recommended to also check the nozzle spray pattern while following this procedure. Also check for leaks. Do not pump fluid through a SafeInjection® module without all nozzles connected. This can overflow the unit and cause damage.



If pump goes on and fluid level doesn't go down, there is an obstruction in the tube or nozzle. Activation of the pump in 1-5 second intervals will purge air from the system after installation. This can be accomplished during initial use.

### Step 2 Test Controller

- Turn ignition key on so that the system has 12volt power. If the pump runs, inspect ground wires for secure connection and repair as needed.
- Set the controller to inject at 1 psig of boost, and to start injection at 1% PW.

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Boost Start: 4 psig  
Boost Full: 15 psig  
EFI Start: 25%  
EFI Full: 65%  
PW/BOOST 65/35

Under moderately heavy throttle, boost will trigger a small amount of injection for cooling and efficiency. As more boost builds under higher throttle positions, the system will add more injection. In the event that boost reaches higher levels (such as in a race or in a WOT situation on the street) the system will inject very aggressively for maximum octane gain and cooling. But because EFI data will provide a more gradual injection curve (boost comes on instantly) the EFI values are weighted more heavily. This makes for a more progressive curve.

Note that in all of the above examples, all of the data needed in terms of PW and boost can be obtained through the controller display itself. Simply driving under cruising conditions and trying various levels of throttle and boost will allow the user to determine good set points for injection.

#### Other controller features:

The controller can be put into a “read-only mode” for the purpose of viewing boost and EFI data without injection. To toggle this mode on and off, press and hold button 2 in any display screen. While holding button 2 down, press and hold button 1. After 1 second, release both buttons. The controller will give no indication that it is in read only mode except for the fact that it will not inject under any circumstances.

**The controller also has the ability to be programmed and display data in standard or metric units. Holding down button two while powering up the unit will trigger metric units. Pressing and holding button one as power is first applied will select standard units.**

## Testing the System

### Note: for best results, prime pump before use

To clear air from the pump and insure that the system is primed:

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Screen 6B  
EFI START DECREASE

This screen sets the injector PW when injection will start through the nozzle.

EFI Start%  
Decrease-----

Screen 6C  
EFI FULL INCREASE

This screen sets the fuel injector PW full point when maximum injection through the nozzle will be reached. Typical EFI full points are 60-80%.

EFI Full%  
Increase-----

Screen 6D  
EFI FULL DECREASE

This screen sets the fuel injector PW full point when maximum injection through the nozzle will be reached.

EFI Full%  
Decrease-----

Screen 7A  
BOOST START INCREASE

This screen sets the boost pressure required to start injection through the nozzle. This should be set at a boost that just above normal driving. If you hit 5 psig leaving a stop light normally, set this to 7 psig.

Boost Start  
Increase-----

Screen 7B  
BOOST START DECREASE

This screen sets the boost required to start injection.

Boost Start  
Decrease-----

Screen 7C  
BOOST FULL INCREASE

This screen sets the boost full point when maximum injection through the nozzle will be reached. In most applications, this should be set at a boost achieved at WOT in hard driving.

Boost Full  
Increase-----

Screen 7D  
BOOST FULL            DECREASE

This screen sets the boost full point when maximum injection through the nozzle will be reached.

Boost Full  
Decrease-----

Screen 8A  
PW/BOOST CONTROL        INC

This screen adjusts the balance between boost and PW based injection. Pressing button 2 will **increase** the PW importance and decrease the boost importance by 1%. If it is set at 50/50, then PW and boost are weighted equally to determine how much to inject at any given time. The weighting can be adjusted in 1% increments. 50/50 is often a good starting point.

PW/Boost Control  
50/50    Inc-----

Screen 8B  
PW/BOOST CONTROL        DEC

This screen will **decrease** the importance of PW while increasing the importance of boost in 1% increments as you press button 2. Decreasing the weight of boost is useful for quick spooling turbos or positive displacement superchargers in EFI applications. (See Screen 8A)

PW/Boost Control  
50/50    Dec-----

Screen 9  
POWER MODE  
Set this screen to Boost

Power Mode Boost  
Change-----

Screen 10A/B/C/D  
POWER set points

Set all POWER MODE points to 100. This mode is not used on a 20100 system and should be set such that POWER mode is not engaged. 20100 systems use the primary settings to control all injection.

Power Start    100  
Increase -----

### **Tuning Examples:**

The following are some guidelines for common applications of the Stage 3 system on Mustangs. They are not meant to be strict rules. Each application is different and will work best with different settings.

#### **Naturally Aspirated EFI Mustang:**

Control injection through the EFI function. This application idles at about 3% PW, cruises on level ground at 65 MPH at 15% PW, and will climb to 70% PW at WOT and peak RPMs:

Injection Mode: EFI  
EFI Start:        20%  
EFI Full:         60%

Anytime any moderate throttle is applied, the system provides a small amount of injection. As more throttle is applied and PW increases, the system provides progressively more injection.

#### **Moderate Boost EFI Application:**

This car makes a peak boost of 12 psig with a Procharger, and at idle has 5% PW, 65 MPH cruise is about 18%PW, and at WOT and peak RPMs 85% PW:

Injection Modes: 'BOTH'  
EFI Start:        40%  
EFI Full:         60%  
Boost Start:     3 psig  
Boost Full:      11psig  
PW/BOOST        50/50

Here we are using both boost and PW to control injection. Procharger's have a smooth boost ramp that makes for a progressive injection curve. So we weight boost and EFI equally on screen 8. As boost and EFI PW go above normal cruising conditions, we get a small amount of injection. In the event that high levels of throttle are used and boost goes to 9PSI, the system will inject at full capacity.

#### **Positive Displacement Blower Application:**

This is a Whipple blower making about 15 psig. The blower makes around 3 psig even in moderate throttle situations, and can hit 15 psig almost instantly.

Injection Mode: 'Both'