THE BEST PROGRESSIVE NITROUS CONTROLLER

MAXIMUM CONTROL

ProMax Progressive Controller Installation and Operation Instructions

These instructions will guide you through the setup, installation, and use of the Nitrous Outlet ProMax Progressive Controller. If you have questions about the ProMax, please call our Teach Help Line at (254) 848-4300 or email us at TechSupport@NitrousOutlet.com. We are open Monday-Friday, 8:30-5:30CST.

TABLE OF CONTENTS:

NITROUSOUTLET.COM

NITROUS OUTLET

(254) 848-4300

©N20101323

INSTALLATION NOTE:

Before beginning the installation or programming of the ProMax, you must first decide the configuration in which you will be operating it in.

- 2-Output mode will allow progressive operation of two individual stages of nitrous.

- AFR mode will allow progressive control of a single stage of nitrous, with closed loop fueling control, based on wide band O2 input.

It is required you make this decision from the start, as it will affect the wiring of the system and the overall programming of the controller.

— ATTENTION —

The ProMax Controller should always be mounted within the passenger glove box compartment and **NEVER UNDER THE HOOD.**

©N20101323

IMPORTANCE OF WIRING CONNECTIONS

Use quality copper wire and quality connectors. Speaker wire and wire nuts have no place here!

ProMax has a 10ga primary ground wire. You need a minimum of a 10ga wire running from battery ground to the ProMax. The further the ProMax is from the battery, the larger the wire gauge needs to be. You may end up with 8ga or 6ga.

We suggest running a minimum 10ga power wire, fused for the needed amp load, direct to the battery positive for the solenoids. Whatever gauge you run for ground, also run for the power.

Nitrous and Fuel Pressure Sensors Shield Wire

On the connector pigtail provided with the ProMax pressure sensors, there is a bare, stranded wire. This is the shield wire and is intended to dissipate any electrical "noise." These shield wires need to go directly to the battery ground ideally, but a dedicated independent chassis ground will suffice.

Connector Pigtail
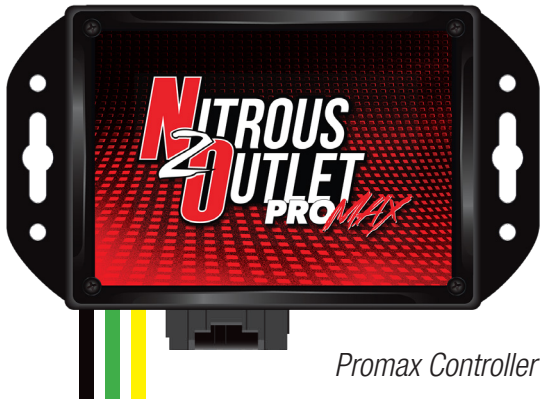

Shielded Wire

©N20101323

WWW.NITROUSOUTLET.COM/INSTALLATION-GUIDES

PROMAX PROGRESSIVE CONTROLLER

INSTALLATION INSTRUCTIONS

ProMax Wiring Layout:

Promax Controller

1	
2 OPEN	
3 OPEN	
4	
5	
6	
7	
8	
9	
10	

11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
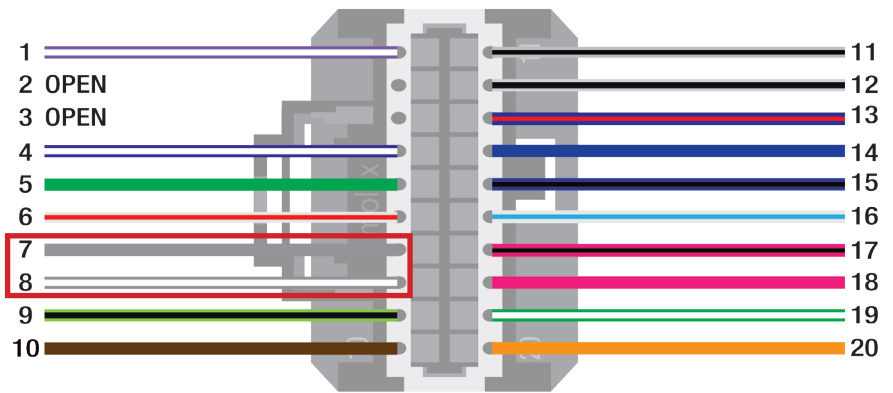
Wire Color Location

Promax Controller Wire Color Location

Black	Main Controller Ground	Connect directly to battery negative. Provides primary ground for all controller functions.
Green	Stage 1 (2-stage) or N2O Solenoid (AFR)	Connects to the ground side of both stage 1 solenoids in 2-Output Mode or to the ground of the N2O solenoid for AFR Mode.
Yellow	Stage 2 (2-stage) or Fuel Solenoid (AFR)	Connects to the ground side of both stage 2 solenoids in 2-Output Mode or to the ground of the Fuel solenoid for AFR Mode.

Connector Wire Color Location

1.	Purple/White	Tach Signal Input	This is the RPM Input wire. Common locations for rpm signal are: Coil, Fuel injector, RPM output for aftermarket ignition.
2.	OPEN		
3.	OPEN		
4.	Blue/White	Input from N2O Sensor 2	Reference signal for Nitrous Pressure. We recommend PN: 00-61002-NPS Nitrous Outlet ProMax Progressive Controller Nitrous Pressure Sensor
5.	Green	12v Signal from Trans Brake Button	This is the trans brake input. Can be used to interrupt all nitrous activation with 12v applied.
6.	White/Red	0-5V Analog Output	This is a reference wire for solenoid duty cycle. This can be hooked to an input on an aftermarket ECU to reference solenoid duty cycle for fuel enrichment on dry nitrous systems.
7.	Grey	CAN Bus HI	High side CAN Bus network wire. Used for external modules.
8.	Grey/White	CAN Bus LOW	Low side CAN Bus network wire. Used for external modules.
9.	Lt. Green/Black	5v Sensor Supply	5v supply voltage for N2O and Fuel Pressure Sensors.
10.	Brown	Sensor Ground	Ground supply for N2O and Fuel Pressure Sensors.
11.	Grey/Black	Input from Vehicle Speed Sensor	This can be utilized with your vehicles factory two-wire or hall effect speed sensor.
12.	White/Black	Output to Stage 1 Ignition Retard Box	Can be set as a 12v+ or ground output.
13.	Blue/Red	Output to Stage 2 Ignition Retard Box	Can be set as a 12v+ or ground output.
14.	Blue	Input from N2O Sensor 1	Reference signal for Nitrous Pressure. We recommend PN: 00-61002-NPS Nitrous Outlet ProMax Progressive Controller Nitrous Pressure Sensor
15.	Blue/Black	Manifold Absolute Pressure (MAP) Input	Can be configured for 1-Bar, 2-Bar and 3 Bar GM MAP sensors.
16.	White/Blue	Input from Fuel Pressure Sensor Input	Reference signal for Fuel Pressure. We recommend PN: 00-61002-FPS Nitrous Outlet ProMax Progressive Controller Fuel Pressure Sensor
17.	Pink/Black	Wideband 1 Input	0-5v input for Air/Fuel ratio. Requires use of Wideband O2 sensor controller with 0-5V analog output.
18.	Pink	Wideband 2 Input	0-5v input for Air/Fuel ratio. Requires use of Wideband O2 sensor controller with 0-5V analog output.
19.	Green/White	Throttle Position Input	This can be configured to monitor throttle percentage via a TPS sensor or via a WOT switch tied to a 12v signal.
20.	Orange	12v Switched Power from Arm Switch	This is the keyed 12v power from your system arm switch to power the ProMax controller.

NOTE: #7 and #8 stating CAN Bus high and low side do not function and are not used.

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

©N20101323

Basic Installation - AFR Wiring Diagram:
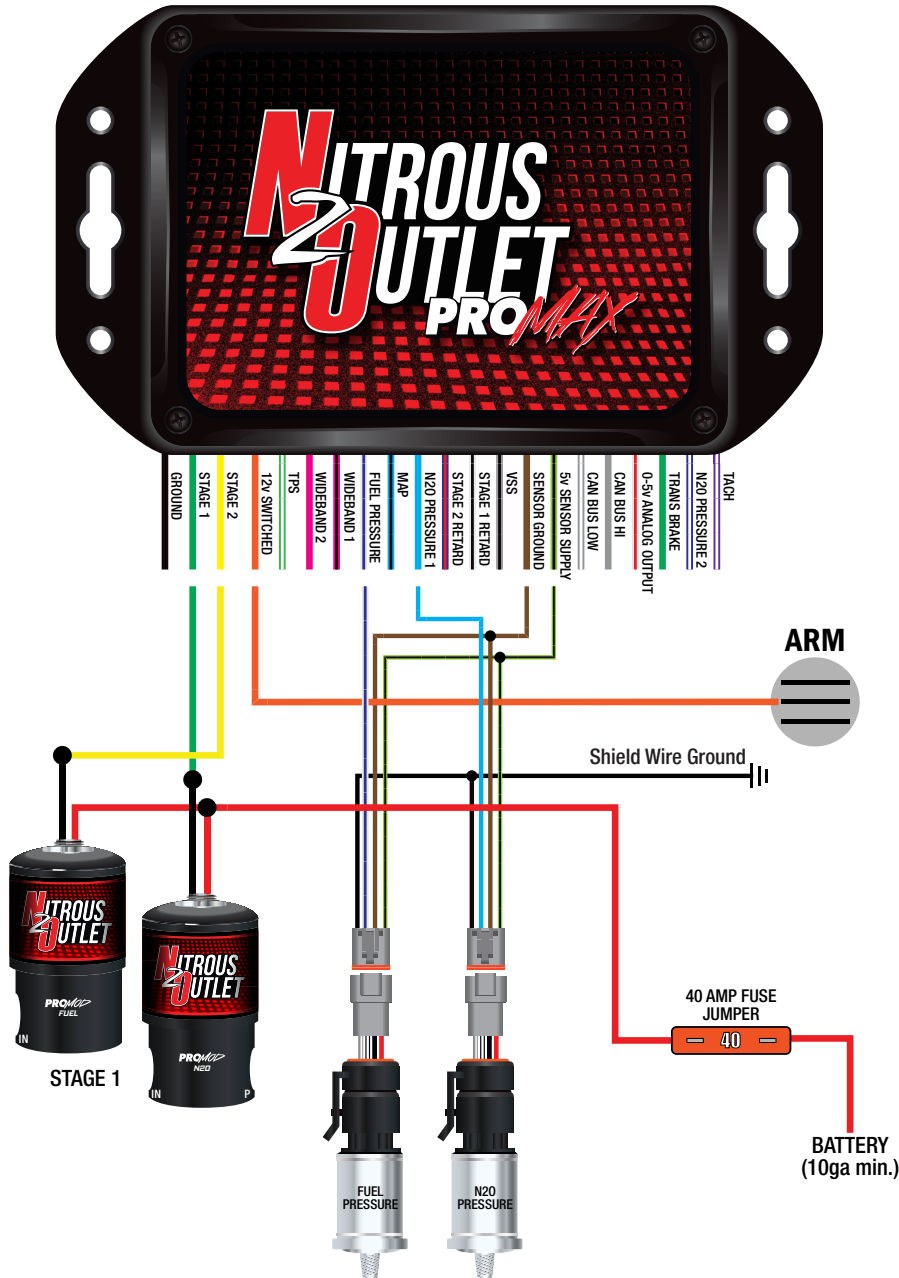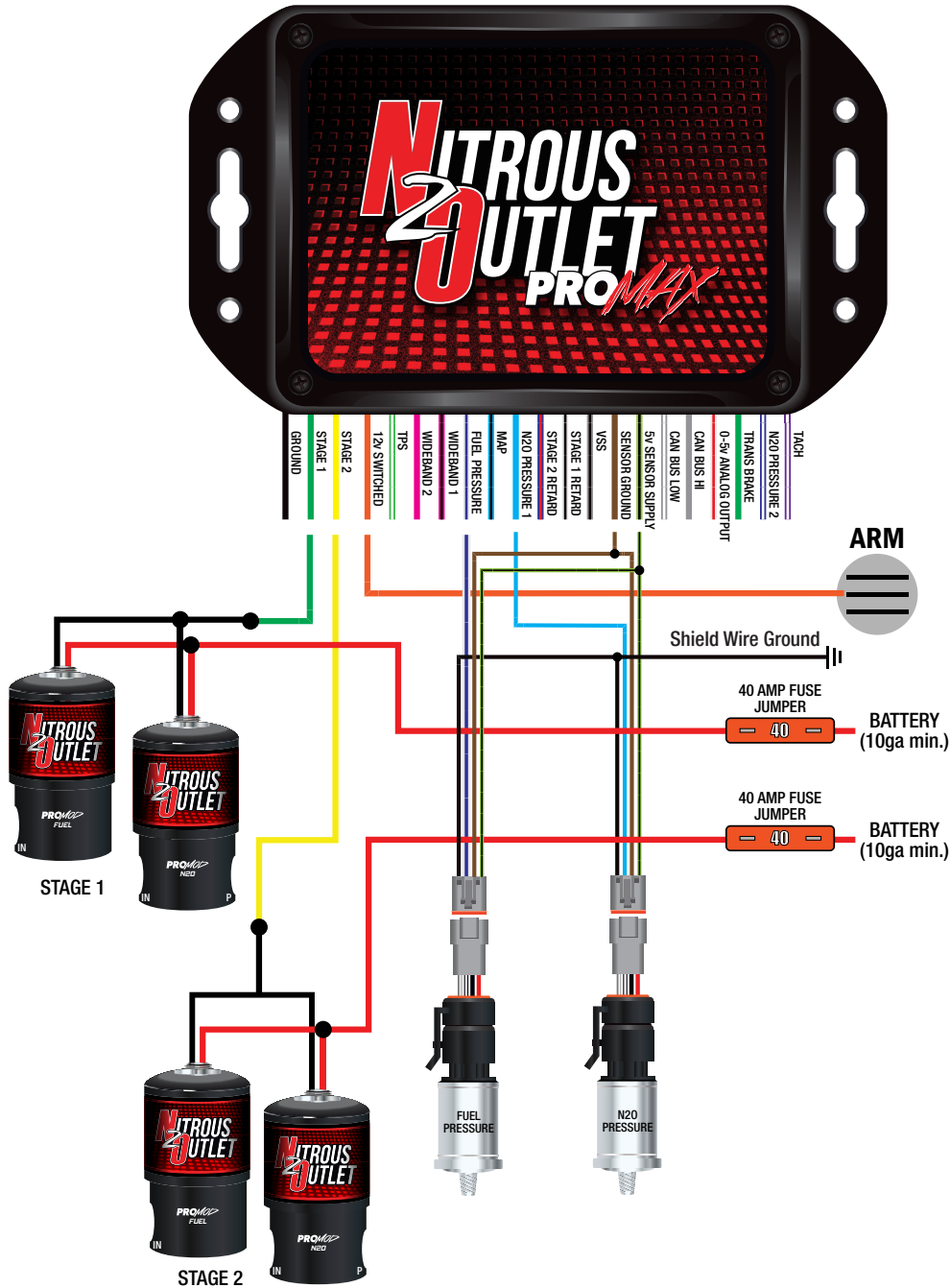

Labels on the controller harness (left to right): GROUND, STAGE 1, STAGE 2, 12v SWITCHED, TPS, WIDEBAND 2, WIDEBAND 1, FUEL PRESSURE, MAP, N20 PRESSURE 1, STAGE 2 RETARD, STAGE 1 RETARD, VSS, SENSOR GROUND, 5v SENSOR SUPPLY, CAN BUS LOW, CAN BUS HI, 0-5v ANALOG OUTPUT, TRANS BRAKE, N20 PRESSURE 2, TACH

ARM

Shield Wire Ground

STAGE 1

FUEL PRESSURE

N20 PRESSURE

40 AMP FUSE JUMPER
40

BATTERY
(10ga min.)

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

©N20101323

Basic Installation - 2 Stage Wiring Diagram:

STAGE 1

STAGE 2

FUEL PRESSURE

N2O PRESSURE

ARM

Shield Wire Ground

40 AMP FUSE JUMPER

BATTERY (10ga min.)

40 AMP FUSE JUMPER

BATTERY (10ga min.)

Controller wire labels:
GROUND | STAGE 1 | STAGE 2 | 12v SWITCHED | TPS | WIDEBAND 2 | WIDEBAND 1 | FUEL PRESSURE | MAP | N2O PRESSURE 1 | STAGE 2 RETARD | STAGE 1 RETARD | VSS | SENSOR GROUND | 5v SENSOR SUPPLY | CAN BUS LOW | CAN BUS HI | 0-5v ANALOG OUTPUT | TRANS BRAKE | N2O PRESSURE 2 | TACH

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

PROMAX PROGRESSIVE CONTROLLER

INSTALLATION INSTRUCTIONS

Software Installation on PC:

Included in the box with the ProMax controller is a USB flash drive. Insert the flash drive into one of your PC/laptop USB ports. When the windows wizard popup window appears, select open folder to view files. Double click ProMax Installer icon. The setup wizard will guide you through the rest of the install process. The software is Windows 7, 8, 10, and 11 compatible. **Apple computers are not supported.**

ProMax USB Flash Drive

PC Laptop/Desktop USB Drive
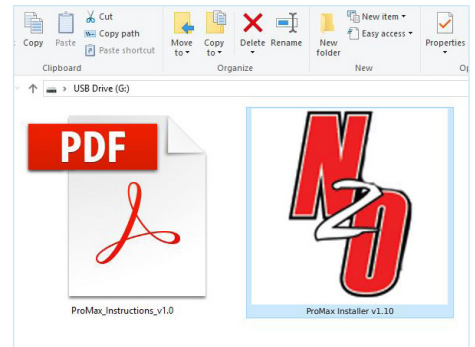
PC Desktop USB Drive
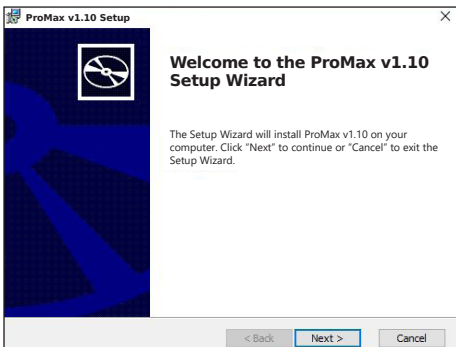
ProMax Setup Wizard
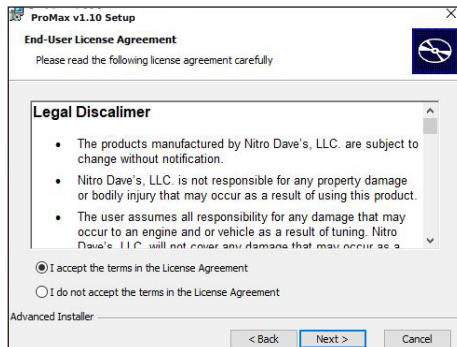
End-User Agreement
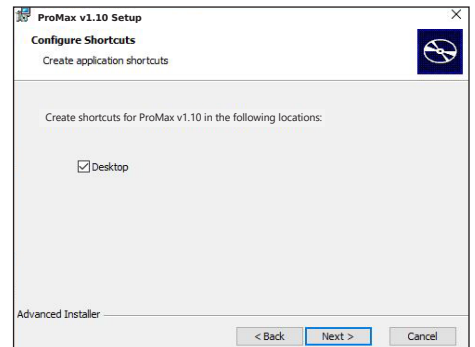
Configure Shortcuts
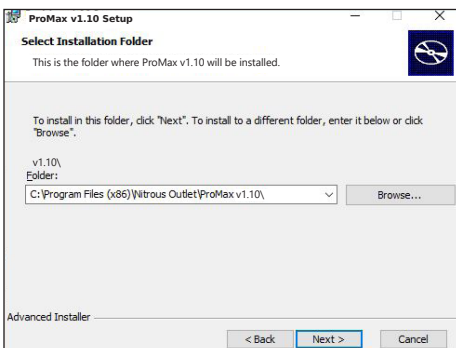
Installation Folder Selection
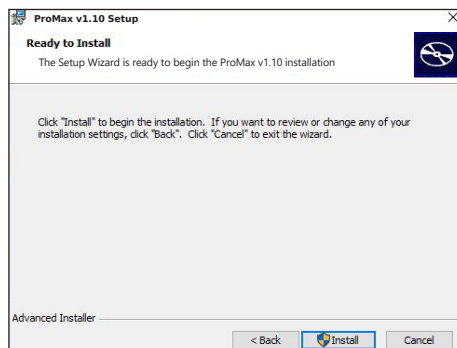
Ready to Install
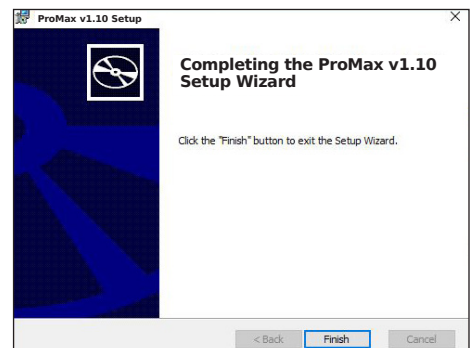
Installation Complete

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

©N20101323

Updating Firmware to Your ProMax Controller:

— THE LATEST FIRMWARE FOR THIS CONTROLLER HAS ALREADY BEEN UPDATED —

For future firmware updates, this is how you'll install them to the ProMax controller and/or the Display Screen.
Firmware updates will be made available on our website and be sent out via mass email. Complete the following steps:
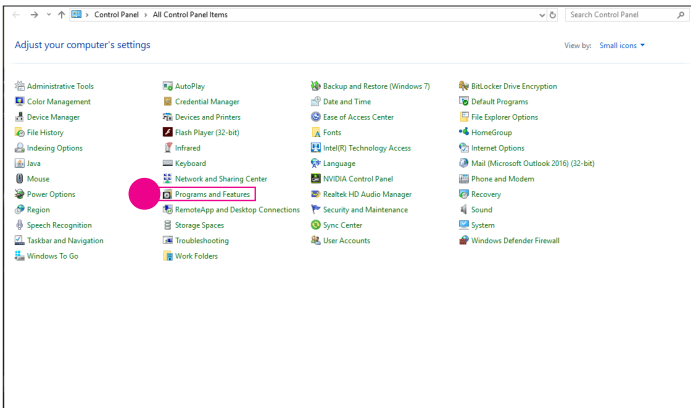
Illustration 1   *Control Panel Screen*
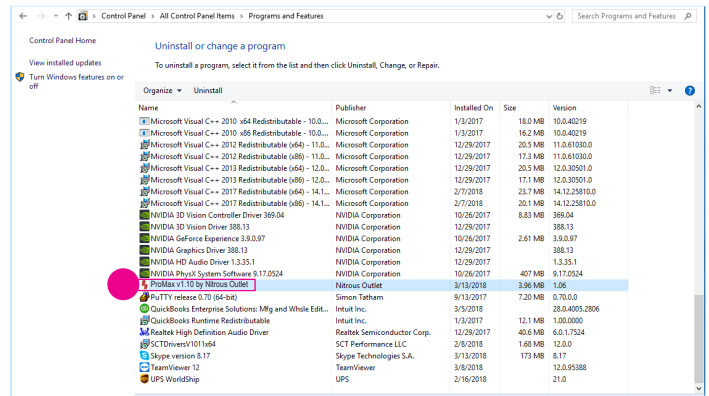
Illustration 1.1   *Uninstall Program List Screen*

1. Go to your control panel, and uninstall any previous ProMax software as shown in the above illustrations.

Note: If you get the following warning when downloading the software, simply click the up arrow next to the warning and then click Keep.

Illustration 2   *ProMax Product Page*
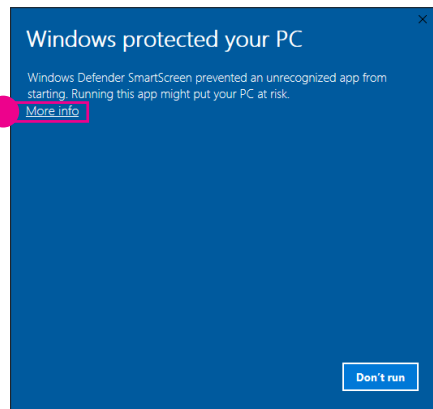
Illustration 3   *Windows Screen*
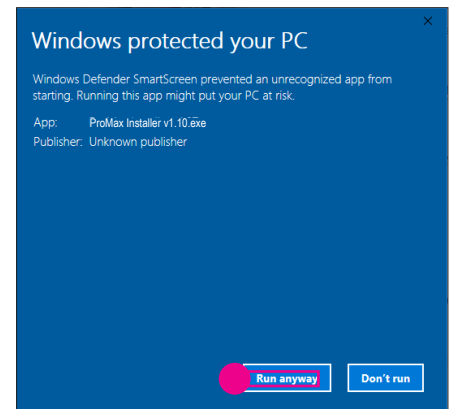
Illustration 3.1   *Run ProMax Installer v1.10.exe*

2. Download the latest ProMax Installer at http://www.nitrousoutlet.com/media/tech docs/promax/ProMax_Installer_v1.10.exe. It is also available on the ProMax Controller product page on nitrousoutlet.com. See illustration above.

3. If you get this popup, click More Info and then click Run Anyway. See illustration above.

4. Follow the setup prompts as on the previous page of this manual.

5. Once loaded, ensure the ProMax software is closed.

— THE LATEST SOFTWARE UPDATES HAVE BEEN COMPLETED, DO NOT UPDATE A NEW BOX OR SCREEN —

Updating ProMax ECU Box:

1. Start with ProMax software closed.
2. If you have a touch screen, disconnect it from the ProMax at this time.
3. Power up the controller box and connect it to your PC/Laptop using the USB cord provided with your ProMax unit.
4. Wait 10 seconds then open the ProMax software by double clicking the icon on your desktop.
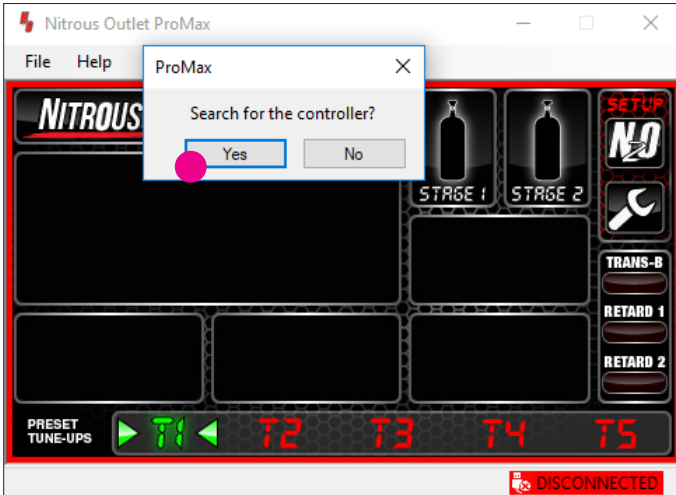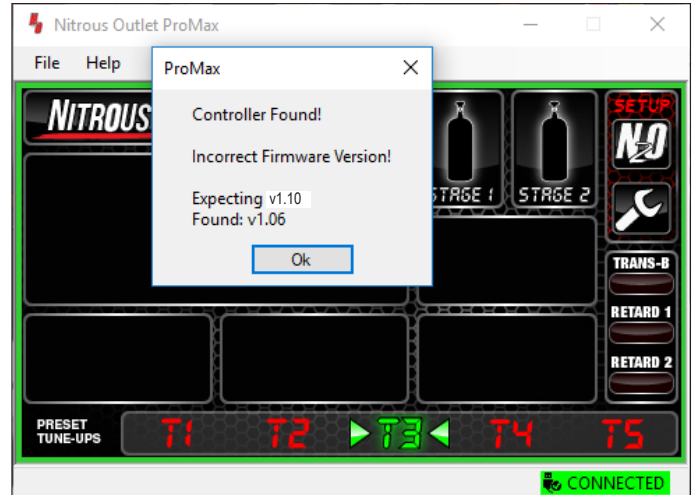

Illustration 5   *ProMax Controller Screen*

5. Click yes on the popup box asking if it should search for controller.

Illustration 6   *ProMax Controller Screen*

6. Another popup will appear stating the controller is found, but that the firmware is different. Click Ok.
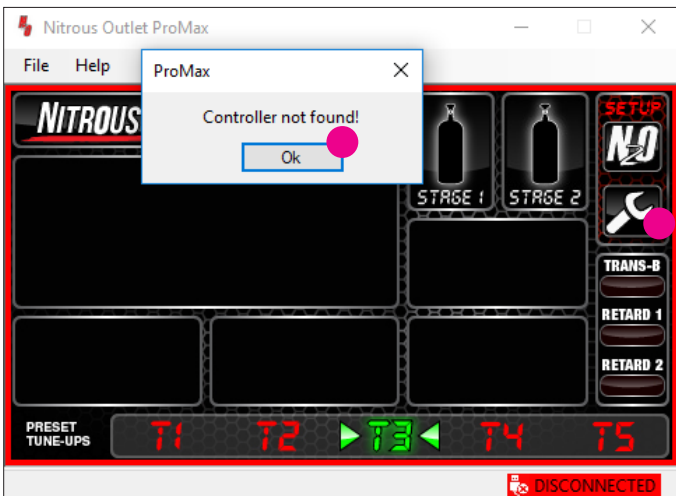
Illustration 7   *ProMax Controller Screen*

7. A popup will appear saying controller not found. This is normal and is not an issue. Click Ok.

8. Click the Wrench Icon on the software screen.
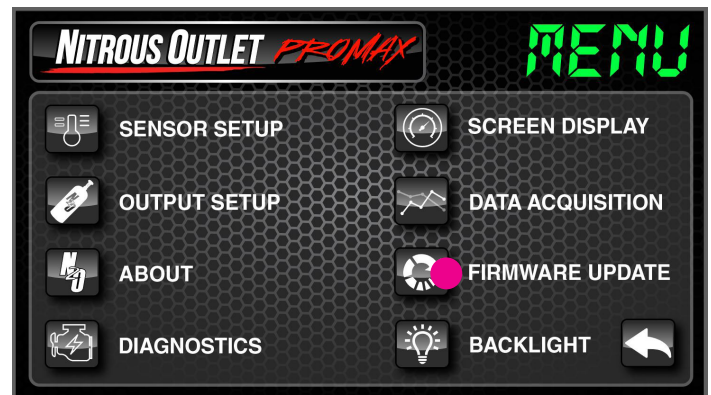
Illustration 9   *ProMax Menu Screen*

9. Then click Firmware Update.

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

PROMAX PROGRESSIVE CONTROLLER

— THE LATEST SOFTWARE UPDATES HAVE BEEN COMPLETED, DO NOT UPDATE A NEW BOX OR SCREEN —

Illustration 10   *Firmware Update Screen*

10. The firmware update window will appear.
    Click the box with 3 dots on the right of the window.
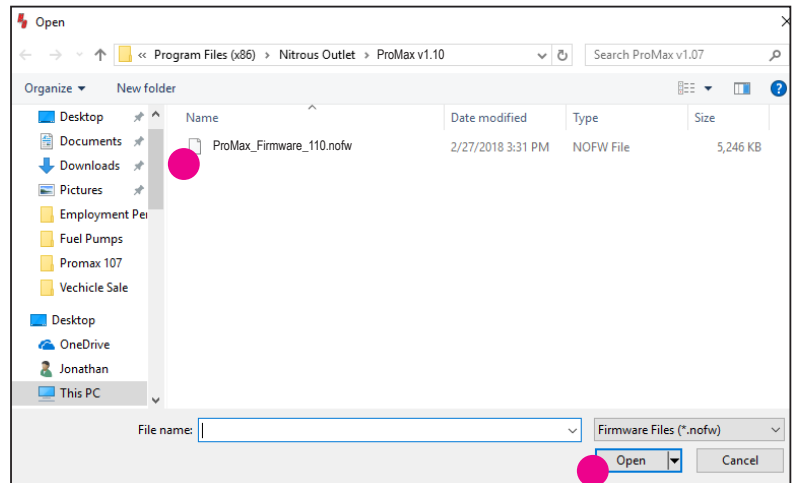
Illustration 11   *Firmware Update Screen*

11. It will navigate to the ProMax folder on your computer. Select the firmware version and click open.
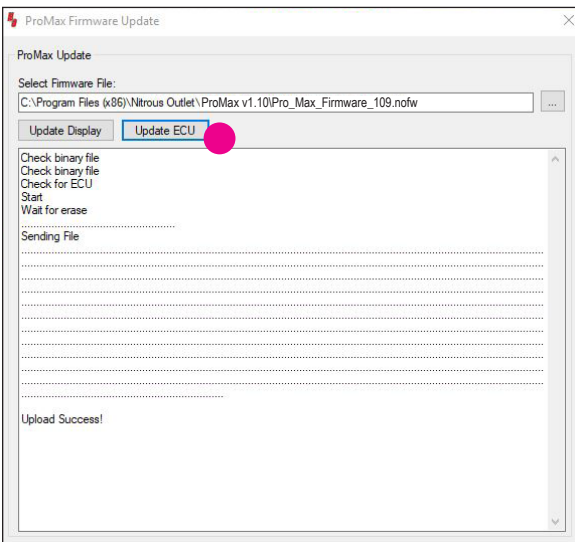
Illustration 12   *Firmware Update Screen*

12. Then click Update ECU.

14. It will take several minutes for the update process to complete.

15. Once the update window shows Update Success, close the window.

16. Close the ProMax software, power off the controller, and unplug the USB from the ProMax controller.

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

©N20101323

PROMAX PROGRESSIVE CONTROLLER

INSTALLATION INSTRUCTIONS

— THE LATEST SOFTWARE UPDATES HAVE BEEN COMPLETED, DO NOT UPDATE A NEW BOX OR SCREEN —

Updating Your ProMax Touch Screen:

1. Connect the screen to the controller, power on the controller, connect the screen to the USB cable and your laptop, and wait 10 seconds.
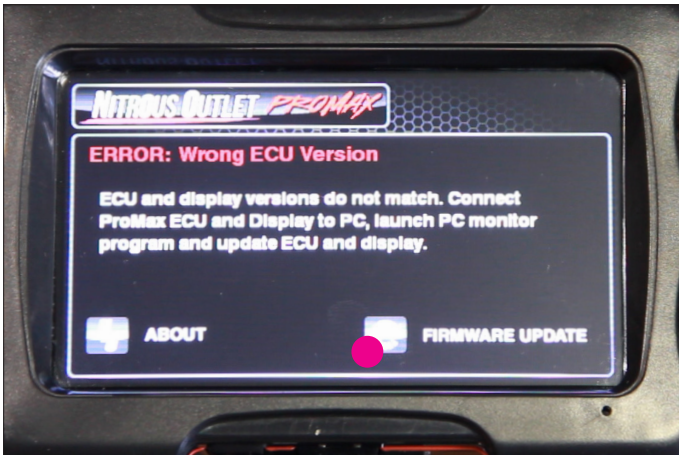
Illustration 2   ProMax Touch Screen Firmware Update

2. Once powered, the screen will show that the Firmware is the incorrect version. Click Update Firmware.
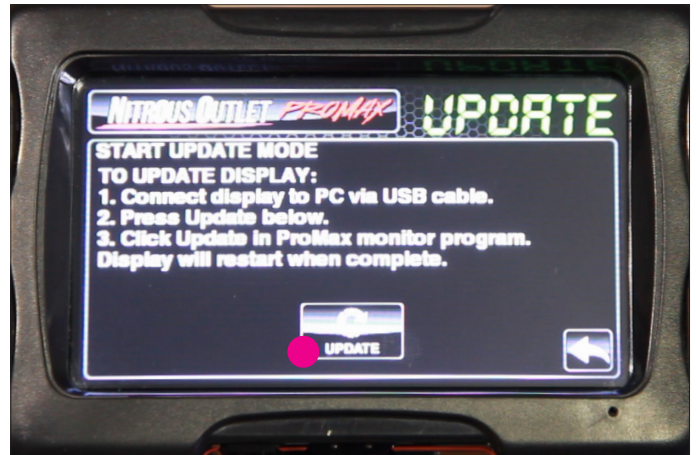
Illustration 3   ProMax Touch Screen Firmware Update

3. On the next screen, click update. The screen will go dark. This is normal and not an issue.

4. Open the ProMax software by double clicking the icon on your desktop. Click No when asked to search for the controller.
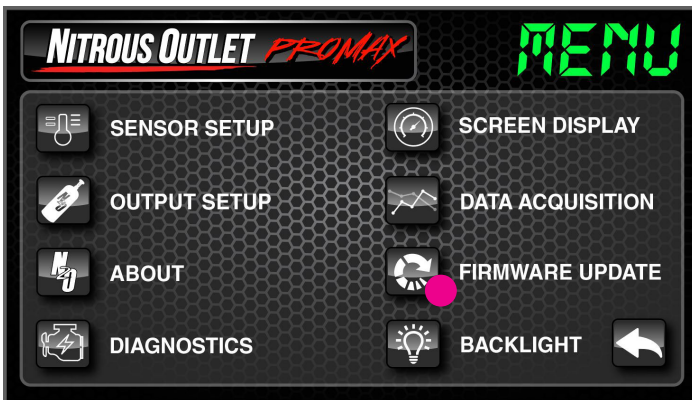
Illustration 5   ProMax Menu Screen

5. On your PC/Laptop, click the wrench icon and then click Firmware Update.

6. The firmware update window will appear. Click the box with 3 dots on the right of the window.

7. It will navigate to the ProMax folder on your computer. Select the firmware version and click open
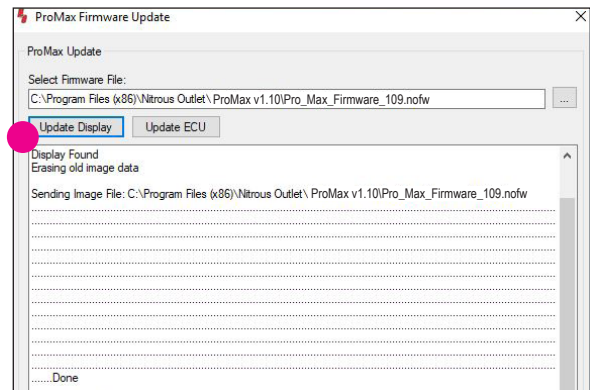
Illustration 8   Display Update Screen

8. Then click Update Display.

9. It will take several minutes for the update process to complete.

10. Once the update window shows Update Success, close the window.

11. Close the ProMax software, power off the controller, and unplug the USB from the ProMax Screen.

©N20101323

PROMAX PROGRESSIVE CONTROLLER

INSTALLATION INSTRUCTIONS

PC Interface/Screen Layout:

The PC Interface/Display shows 5 configurable windows (A), 5 preset progressive tunes (T1-T5) (B), Activation % of stages or operation % of nitrous and fuel (depending on what output type is selected) (C), N20 Icon (nitrous activation parameters) (D), Wrench Icon (main controller setup) (E), and 3 status lights for transbrake and timing retards (F).
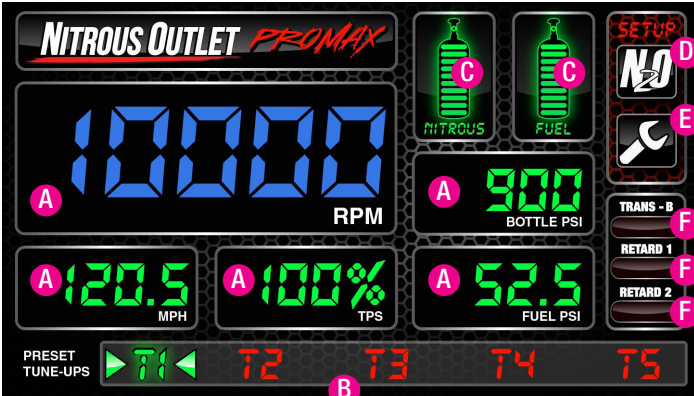

AFR (Air Fuel Ratio) Mode
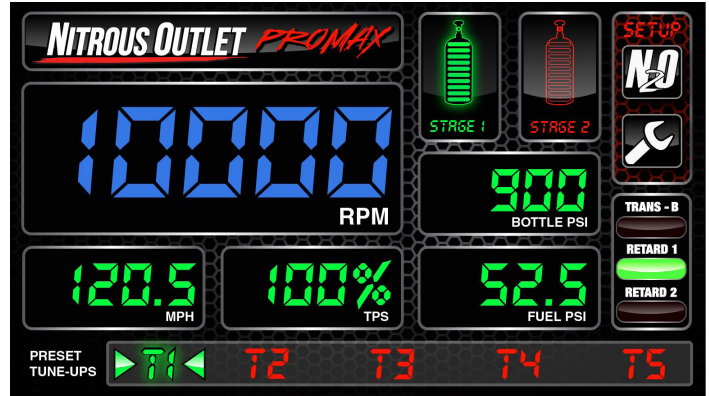
2-Stage Mode

Controller Setup - Section 1:

Begin controller setup by selecting the Wrench Icon. Then click sensor setup.
This is where all of your Controller Inputs will be configured. Each Input option screen will have an Enable Checkbox in the upper left corner. The checkbox must be checked to make the input active. If you do not wish to utilize an input option, simply leave the box unchecked.
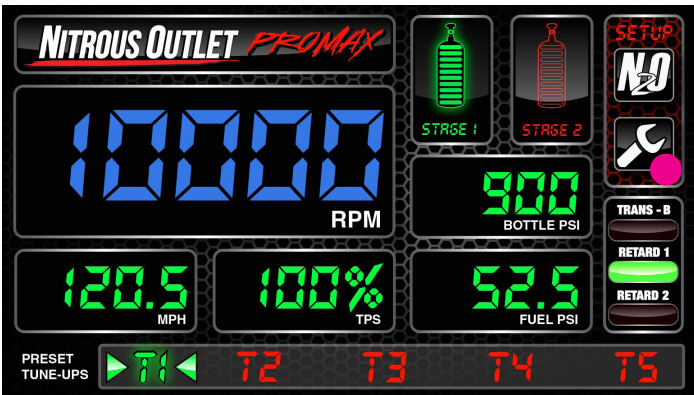
Main Screen
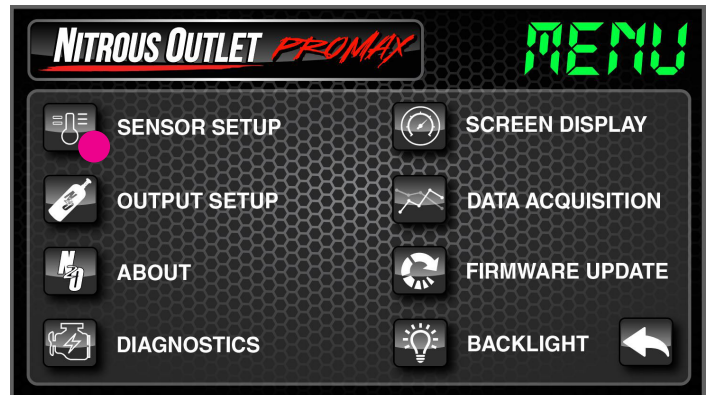
Menu Screen

©N20101323

1. Select RPM Setup:

Check the RPM Enabled Checkbox if you want this input active. Select your number of cylinders from the menu using the up or down arrow. You can choose between 1 and 12 cylinders. Select your coil type using the up or down arrows. You can select Distributor, Coil on Plug (COP), or Waste Spark. With the vehicle running, the RPM will be displayed on the right allowing you to verify the correct Coil Type. For example, LS engines are COP. Use the Back Arrow in the lower right of the screen to return to the Sensor Setup Menu.
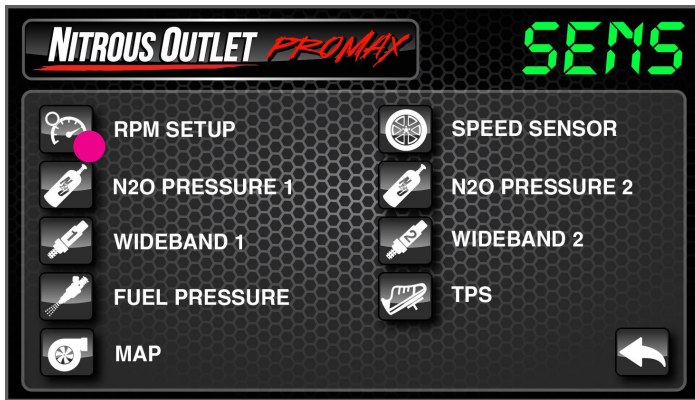
Sensor Setup Screen
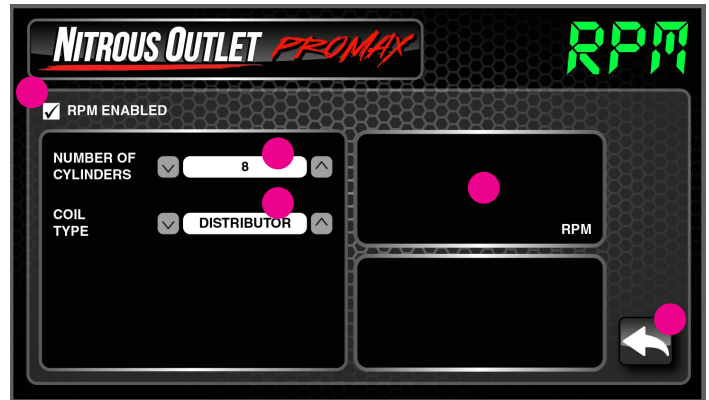
RPM Setup Screen

2. Select Speed Sensor:

Check the Speed Enabled Checkbox if you want this input active. Select your Units from the menu using the up or down arrow. You can choose from Miles per Hour (MPH) or Kilometers per Hour (KPH). Determine what type of speed sensor your vehicle has by looking at the connector on the speed sensor itself. If it has two wires, select Two Wire on the Sensor Type, if it has more than two wires, select Hall. Finally set your Pulses Per Mile using the up or down arrows. The easiest way to do so is to drive the vehicle and change the Pulses Per Mile until the speed displayed on the controller matches the vehicle speedometer. If your speedometer is incorrect or you don't have one, you can download a free GPS App for your phone and adjust the Pulses Per Mile until the speed displayed on the controller matches the GPS. Use the Back Arrow in the lower right of the screen to return to the Sensor Setup Menu.
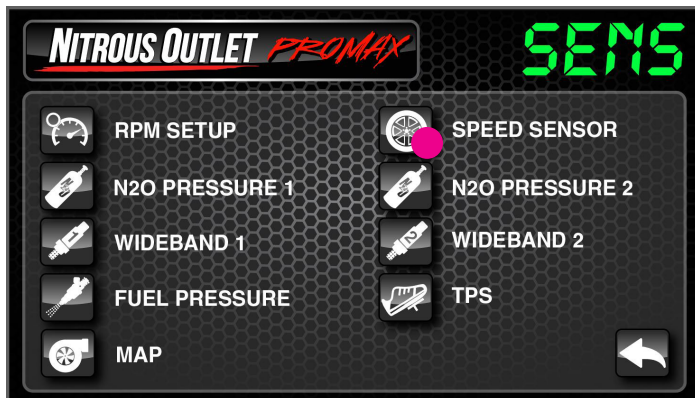
Sensor Setup Screen
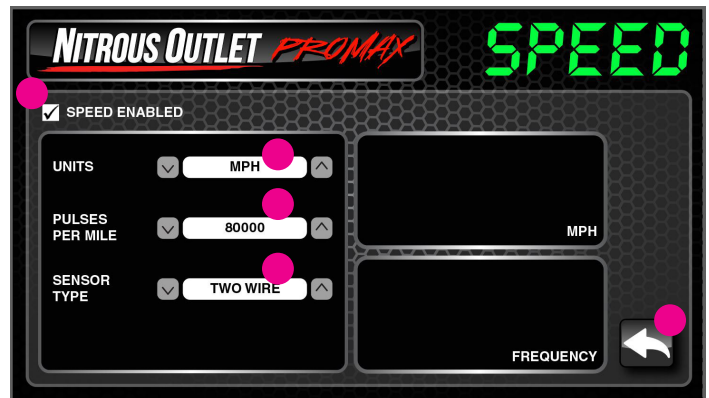
Speed Sensor Setup Screen

Most other late models as well as the 2015 and newer Dodge/Chrysler/Jeep vehicles will need to install an aftermarket stand alone speed sensor as the ProMax will not read the factory speed sensors.

©N20101323

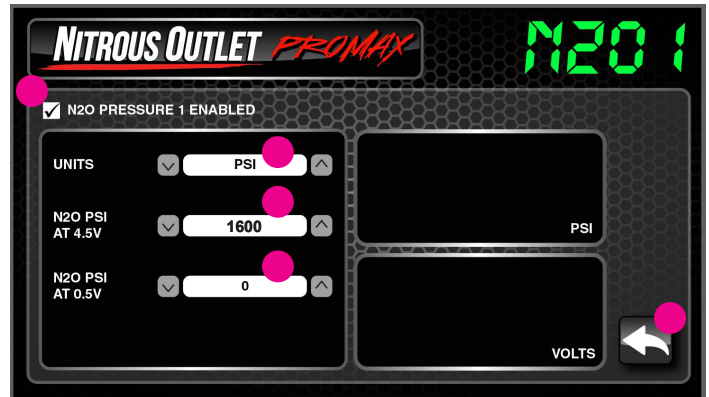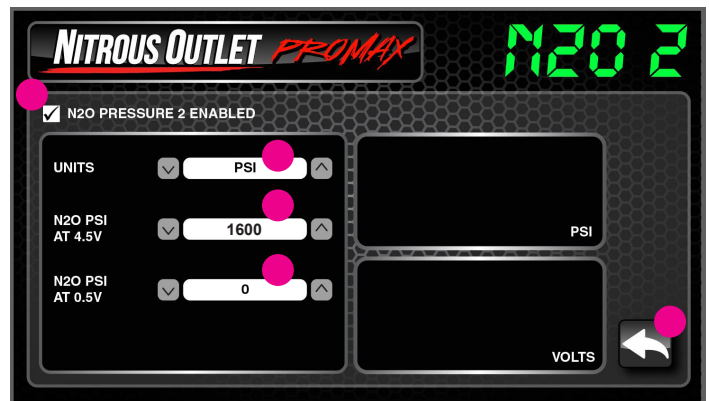### 3. Select Nitrous Pressure 1:

Check the N2O Pressure 1 Enabled Checkbox if you want this input active. Select your Units from the menu using the up or down arrow. You can choose from Pounds per Square Inch (PSI) or Kilopascal (KPA). If using the Nitrous Outlet N2O Pressure Sensor (PN: 00-61002-NPS), set the N2O PSI at 4.5v to 1600 and the N2O PSI at 0.5v to 0. To set the N2O PSI at 4.5v and N2O PSI at 0.5v for another brand sensor, you'll need to reach out to the manufacturer for proper settings. Once PSI at 0.5v and 4.5v is set, use the Back Arrow in the lower right of the screen to return to the Sensor Setup Menu.
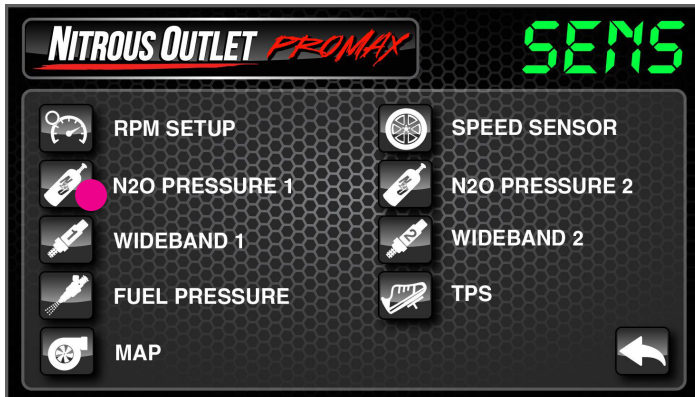
Sensor Setup Screen

Nitrous Pressure 1 Setup Screen

4. Repeat step 3 to setup Nitrous Pressure 2:
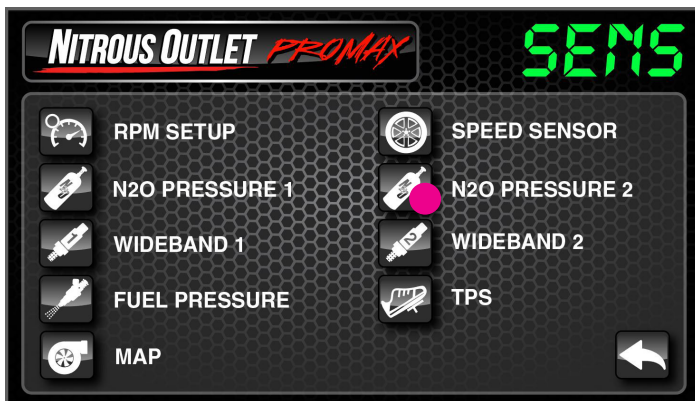
Sensor Setup Screen

Nitrous Pressure 2 Setup Screen

5. Select Wideband 1:

Check the Wideband 1 Enabled Checkbox if you want this input active. This would connect to an analog output from an external wideband controller. Select your Units from the menu using the up or down arrow. You can choose from Lambda or Air Fuel Ratio (AFR). Select your Fuel Type using the up or down arrow. You can choose from Gasoline, Liquified Petroleum Gas (LPG), Methanol, Compressed Natural Gas (GNG), E100, E90, E85, or E70. Set the Lambda at 5v and Lambda at 0v. The manufacturer of the wideband controller may have this information available for the sensor they use. If not, you can monitor the analog output of the wideband controller and input the corresponding Lambda at 5v and Lambda at 0v in to ProMax. Both Lambda and Volts are displayed to the right so you can make minor adjustments to make the ProMax readout match your wideband controller. Once the Lambda at 5v and Lambda at 0v are set, use the Back Arrow in the lower right of the screen to return to the Sensor Setup Menu.
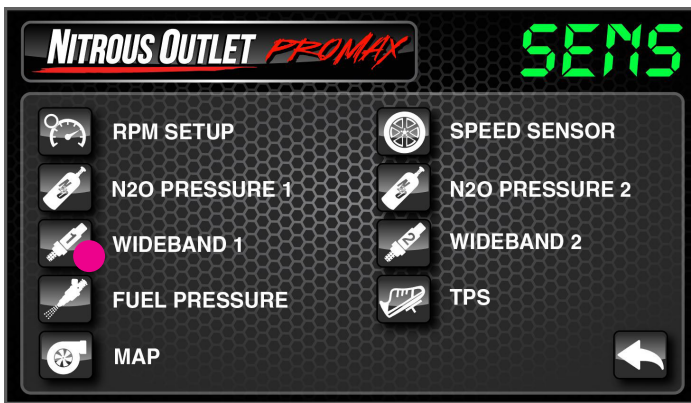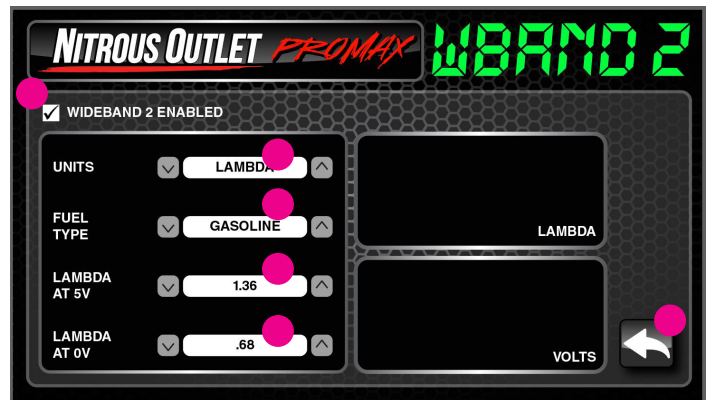
Sensor Setup Screen
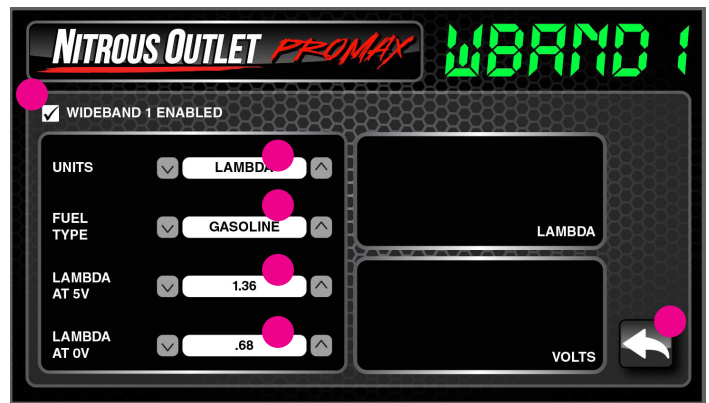
Wideband 1 Setup Screen

6. Repeat step 5 for Wideband 2:
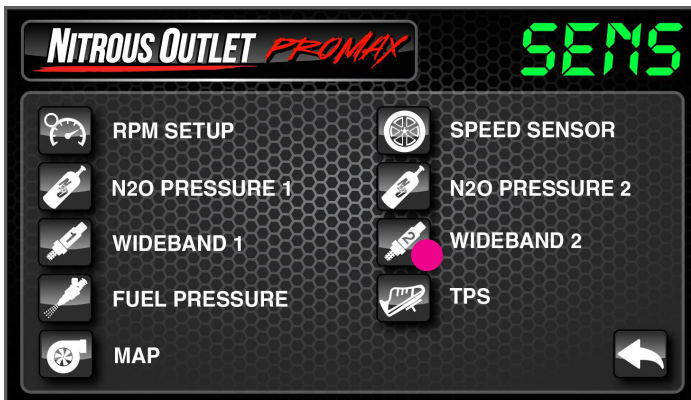
Sensor Setup Screen

Wideband 2 Setup Screen

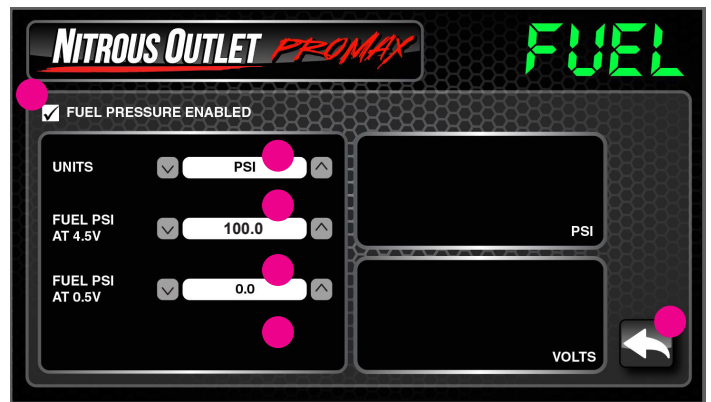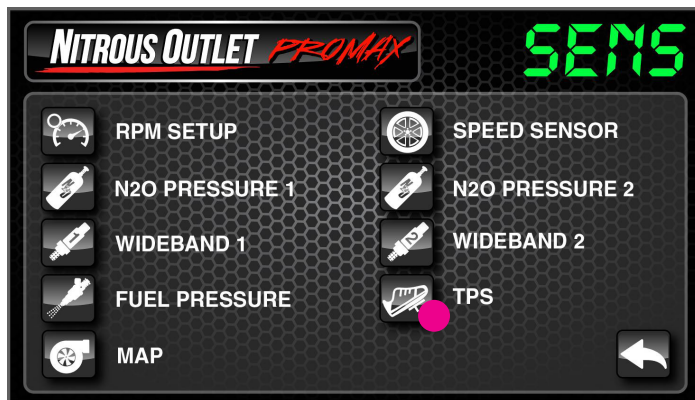### 7. Select Fuel Pressure:

Check the Fuel Pressure Enabled Checkbox if you want this input active. Select your Units from the menu using the up or down arrow. You can choose from Pounds per Square Inch (PSI) or Kilopascal (KPA). If using the Nitrous Outlet Fuel Pressure Sensor, set the Fuel PSI at 4.5v to 100 and the Fuel PSI at 0.5v to 0. To set the Fuel PSI at 4.5v and Fuel PSI at 0.5v for another brand sensor, you'll need to reach out to the manufacturer for proper settings. Once PSI at 0.5v and 4.5v is set, use the Back Arrow in the lower right of the screen to return to the Sensor Setup Menu.
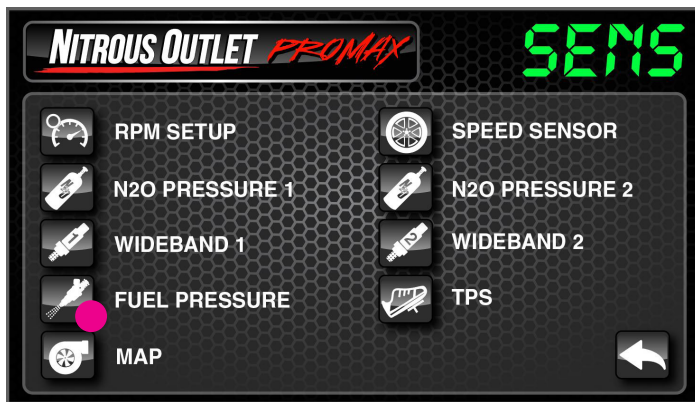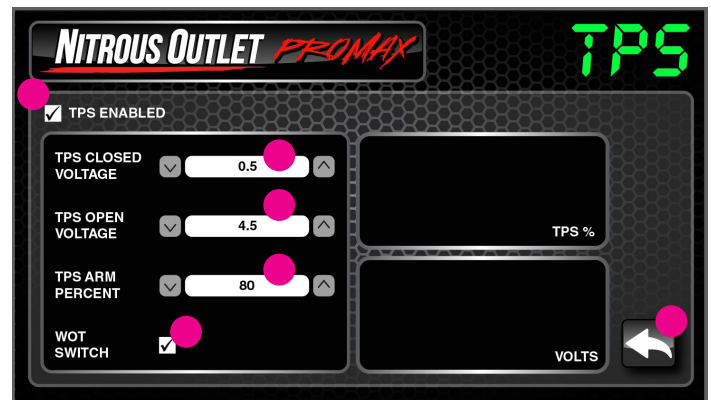

Sensor Setup Screen

Fuel Pressure Setup Screen

8. Select TPS:

Check the TPS Enabled Checkbox if you want this input active, If you are using a WOT Switch instead of TPS, simply check the WOT Switch Box (the enabled checkbox needs to remain checked). If using the Throttle Position Sensor (TPS), select your TPS Closed and TPS Open Voltage using the up or down arrow. On a cable driven throttle body, you can read voltage with the key on/engine off. On drive by wire/electronic throttle, you may have to have the engine running. Set the TPS Arm Percent using the up or down arrow. This is the throttle percentage you want the programmer to allow system operation. Once set, use the Back Arrow in the lower right of the screen to return to the Sensor Setup Menu.

Sensor Setup Screen

Throttle Position Sensor Setup Screen

### 9. Select MAP

1. Check the MAP Enabled Checkbox if you want this input active

2. Select your Units from the menu using the up or down arrow. You can choose from:

   - **PSI** – This is Absolute Pressure, meaning that the ProMax would read 14.7psi at perfect sea level and the engine not running. On a street car with the engine at idle it would read about 5psi. At 6lb of boost, it would read about 20.7psi.

   - **KPA** - This is Absolute Pressure, meaning that the ProMax would read 101.4kpa at perfect sea level and the engine not running. On a street car with the engine at idle it would read about 35kpa. At 6lb of boost, it would read 143kpa.

   - **inHG (VAC)** – This will display engine vacuum and read 0 at perfect sea level and the engine not running. On a street car with the engine at idle it would read about 19inHG. At 6lb of boost, it would read about -12inHG.

   - **PSI (BST)** – This will display boost pressure is PSI and will read 0 at perfect sea level and the engine not running. On a street car with the engine at idle it would read about -9psi. At 6lb of boost, it would read 6psi.

3. This controller was based around using a GM MAP sensor as they are cost effective and readily available. The following are our suggested baseline settings, but may need to be adjusted slightly based on your altitude for a more accurate reading.

   - For GM 1-Bar MAP sensor, set MAP PSI at 4.5v to 14.0 (96kpa) and MAP PSI at 0.5v to 2.9 (20kpa).

   - For GM 2-Bar MAP sensor, set MAP PSI at 4.5v to 27.3 (188kpa) and MAP PSI at 0.5v to 4.1 (28kpa).

   - For GM 3-Bar MAP sensor, set MAP PSI at 4.5v to 41.4 (285kpa) and MAP PSI at 0.5v to 4.8 (33kpa).

4. To calibrate the ProMax select the PSI Unit and plug in the suggested numbers above for your MAP sensor. Then if you want the ProMax to display vacuum or boost, simply change the Units to the desired setting and you're done!
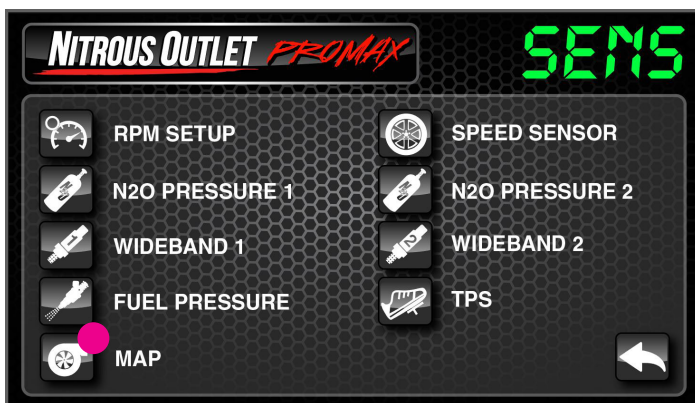
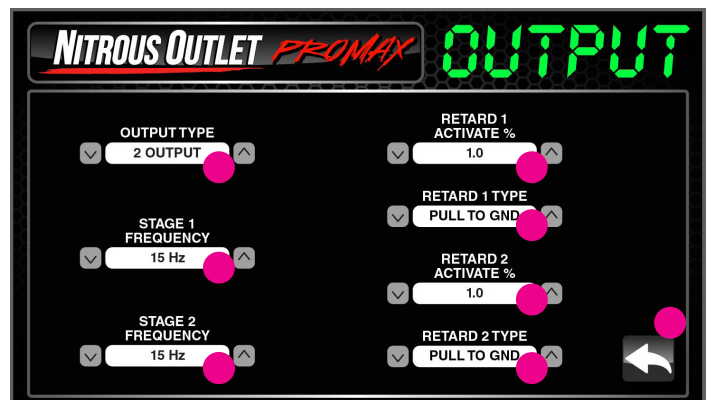*Sensor Screen*
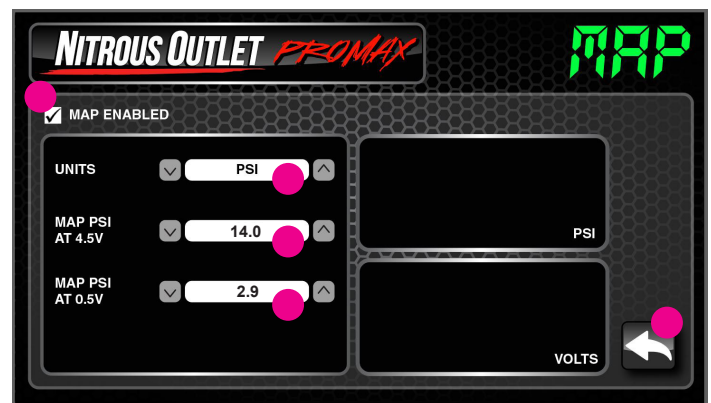
Map Screen

©N20101323

Controller Setup - Section 2:

Output Setup:

1. Click output setup.

2. Select the desired Output Type.

3. Output will allow progressive operation of two individual stages of nitrous. AFR mode will allow progressive control of a single stage of nitrous with closed loop fueling control based on wideband O2 input.

   • If Selecting 2-Output, set the Stage 1 and Stage 2 Frequency. We suggest the following starting points for Nitrous Outlet Solenoids – For .112 and .122 orifice nitrous solenoids, set the Frequency to 20Hz. For .178 orifice nitrous solenoids, start at 15Hz. If starting your progressive ramp below 40%, you may find that lowering the frequency will help smooth solenoid operation, especially on the larger .178 orifice unit. Testing will be required to find the right frequency for your setup.

   • If Selecting AFR, set the Nitrous and Fuel Frequency. On nitrous frequency, we suggest the following starting points for Nitrous Outlet Solenoids – For .112 and .122 orifice nitrous solenoids, set the Frequency to 20Hz. For .178 orifice nitrous solenoids, start at 15Hz. If starting your progressive ramp below 40%, you may find that lowering the frequency will help smooth solenoid oper ation, especially on the larger .178 orifice unit. For fuel frequency, use the same frequency as the nitrous solenoid as a starting point. Based on your datalogs you can adjust the fuel frequency to help smooth out your air fuel ratio while progressing solenoids. You'll likely find that the Fuel Frequency will be different than the Nitrous Frequency.

4. Set the Retard 1 Activate % using the up or down arrow. This is the percentage in the progressive ramp the timing retard output will acti vate. It's hard to suggest a starting point as it is very dependent on the aggressiveness of your N/A timing curve. The more aggressive your timing curve, the sooner you want to engage the timing retard. The less aggressive your timing curve, you can engage the retard at a higher percentage. Regardless, by 30%, you'll want the retard engaged.

5. For Retard 1 Type, choose Pull to BAT for a 12v output signal or choose Pull to GND for a ground output signal. Once set, use the Back Arrow in the lower right of the screen to return to the Setup Menu.
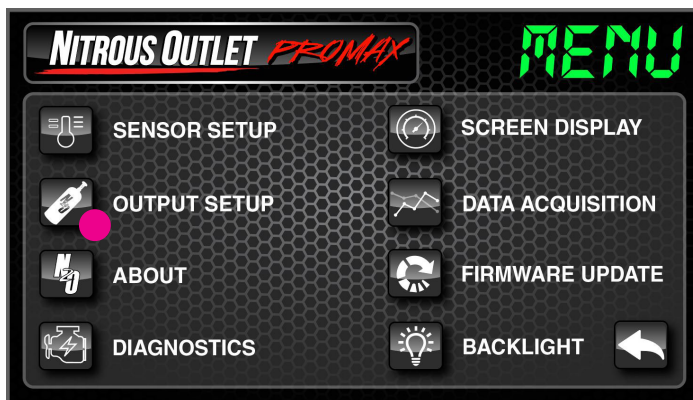
Menu Screen

Output Screen
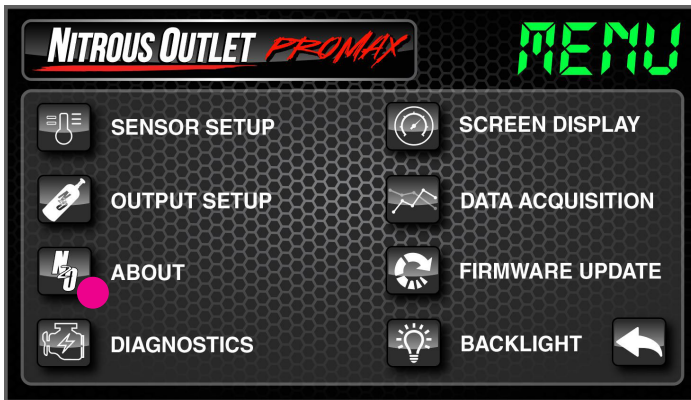
Controller Setup - Section 3:

About and Diagnostics Screens:

The About Screen shows the Monitor Version, ECU Version, Boot Version, and Hardware Version.
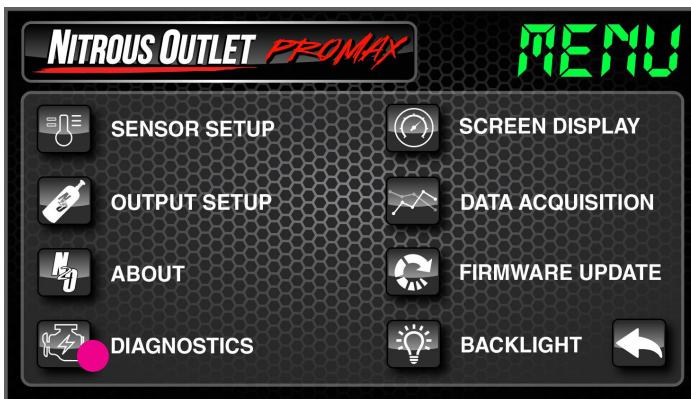
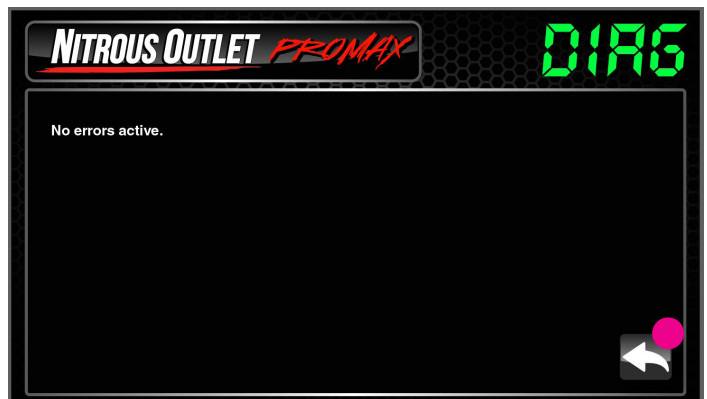The Diagnostics Screen shows any active programmer errors.

Menu Screen

ProMax Progressive Nitrous Controller

Display Version: 1.09.03
Display Boot Version: 1.5
Display Hardware Version: 3
ECU Version: 1.09.03
ECU Boot Version: 1.0.5
ECU Hardware Version: 1
www.NitrousOutlet.com

About Screen

Menu Screen

No errors active.

Diagnostics Screen

PROMAX PROGRESSIVE CONTROLLER

Controller Setup - Section 4:

Screen Display

This is where you select the data displayed on the Home Screen in the five configurable windows. Use the up or down arrow to select from: RPM, Speed, N2O Pressure 1, N2O Pressure 2, Wideband 1, Wideband 2, Fuel Pressure, TPS, MAP, Time 1, Time 2, Gear 1, Gear 2, Battery Voltage, Stage 1 % (or N2O % in AFR mode), Stage 2 % (or Fuel % in AFR mode), Lockouts, or leave it set to Blank to display nothing. Once set, use the Back Arrow in the lower right of the screen to return to the Setup Menu.
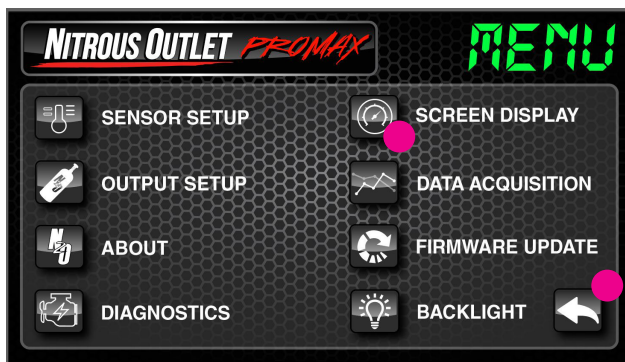
Menu Screen
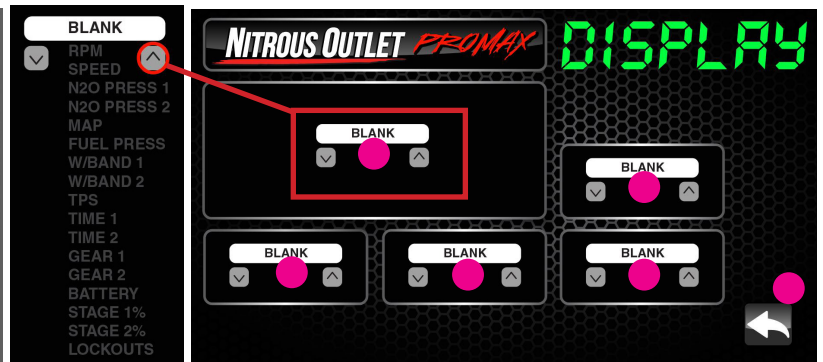
Screen Display Screen

Controller Setup - Section 5:

Data Acquisition Screen

This is your datalogging! There are four trigger types which are inputs that will start the datalog for the run – RPM, TPS, MAP, and Transbrake. Trigger logic is the range in which the trigger will function and the Trigger Value is the point at which the trigger will engage.

- For RPM, Trigger Logic can be greater than or less than. The Trigger value is the RPM from 0 to 10,000RPM in 100RPM increments.
- For TPS, Trigger Logic can be greater than or less than. The Trigger value is the TPS percentage from 0 to 100% in 1% increments.
- For MAP, Trigger Logic can be greater than or less than. The Trigger value is the PSI or KPA from 0 to 125psi (0 to 862kpa) in 0.1 increments.
- For Transbrake, the Trigger logic either enables or Disables the log based on the 12v input from the transbrake button.

Once set, use the Back Arrow in the lower right to return to the Setup Menu and again to the main display. This completes initial sensor and output setup.
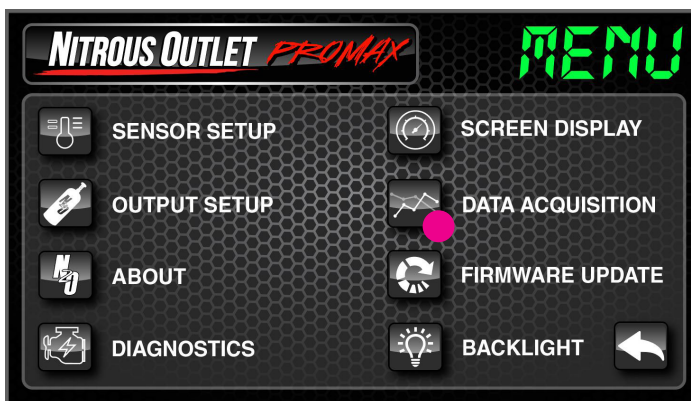
Menu Screen
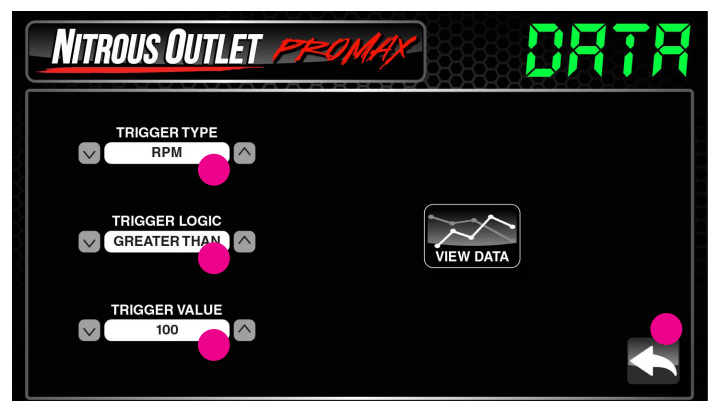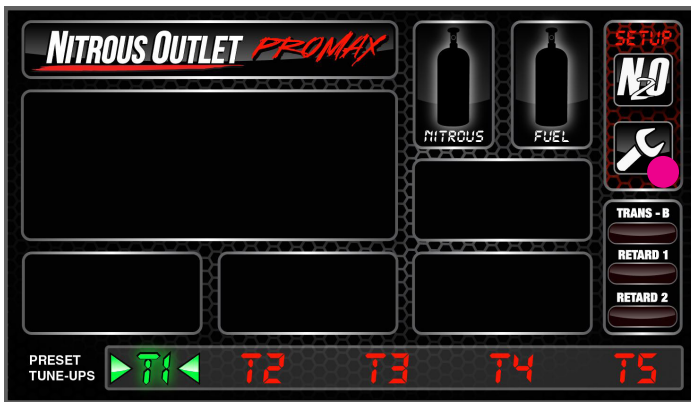
Diagnostics Screen

©N20101323

Controller Setup - Section 6:
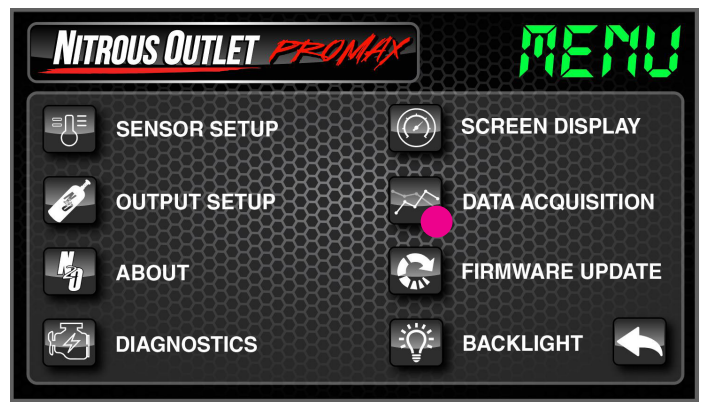
Managing Datalogs:

Datalogs cannot be viewed on the handheld display, only via PC.
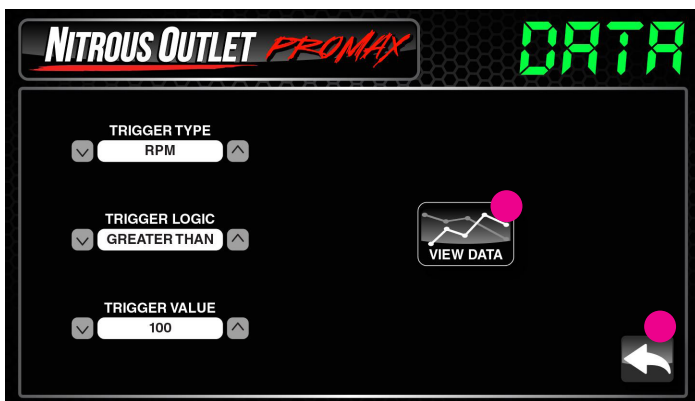
Viewing Datalogs:

To view datalogs, power on the ProMax and connect it to the PC via USB cable. Wait 10 seconds and open the ProMax software and click the Wrench Icon(1) and then click Data Acquisition(2). Click View Data(3). The Select Run window will appear and any logs saved to the controller will be listed in the window. Highlight the log you wish to view and click View Run(4). This will open the run log in a new window(5). You can view as many inputs as you want by checking or unchecking the boxes on the View Run Data window.

Main Screen

Menu Screen

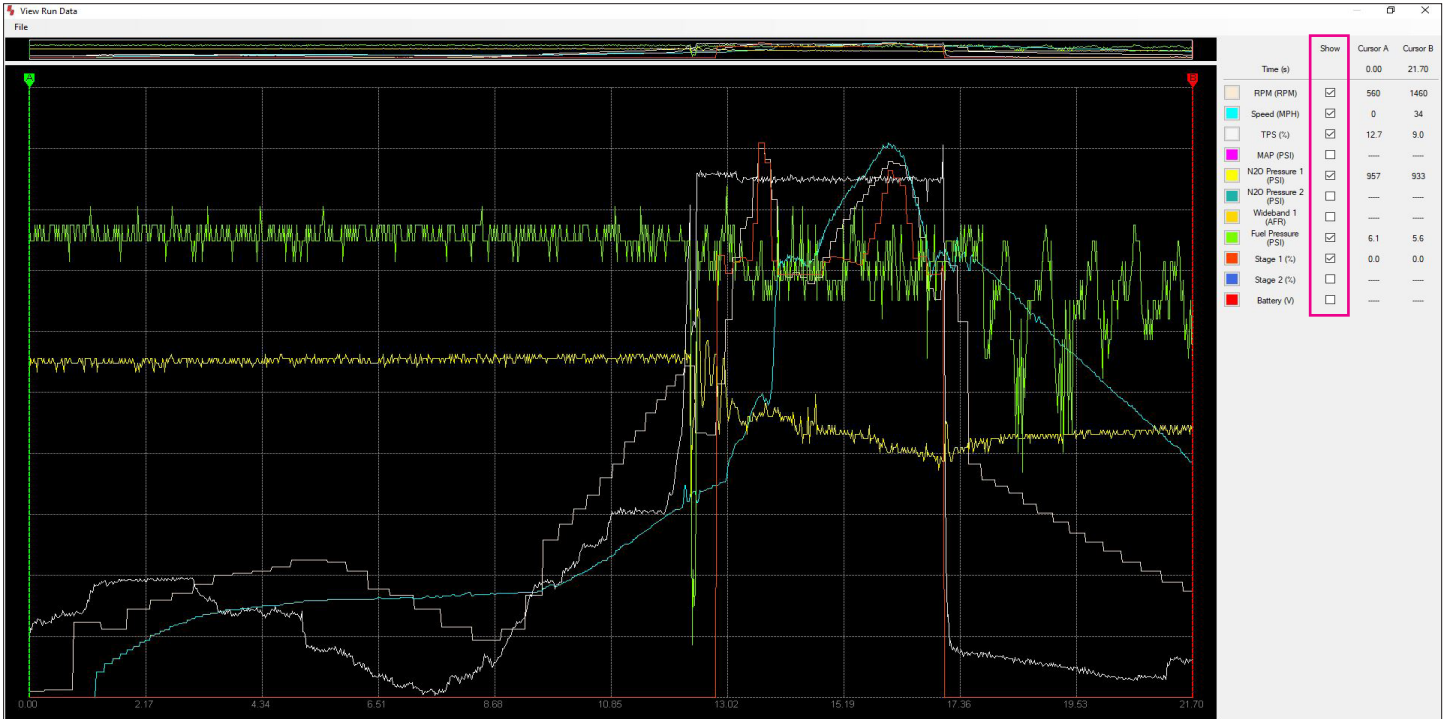*Diagnostics Screen*

View Run Screen

Run Data Screen

Saving Datalogs to PC:

To save datalogs, power on the ProMax and connect it to the PC via USB cable. Wait 10 seconds and open the ProMax software and click the Wrench Icon(1) and then click Data Acquisition(2). Click View Data(3). The Select Run window will appear and any logs saved to the controller will be listed in the window. Highlight the log or logs you wish to Save and click Save Run(4). Another popup will appear allowing you to save the Datalogs wherever you want on your PC(5).
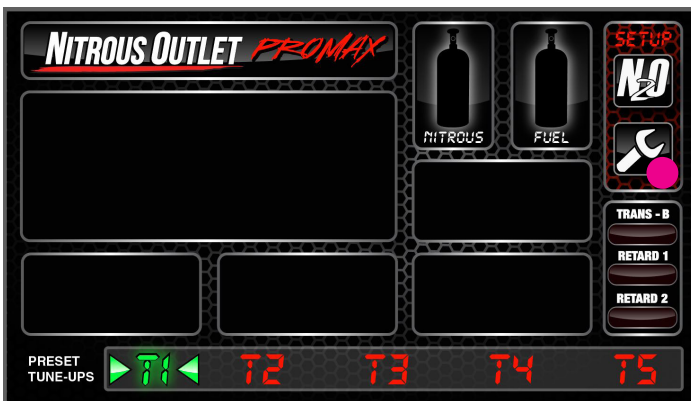
Main Screen
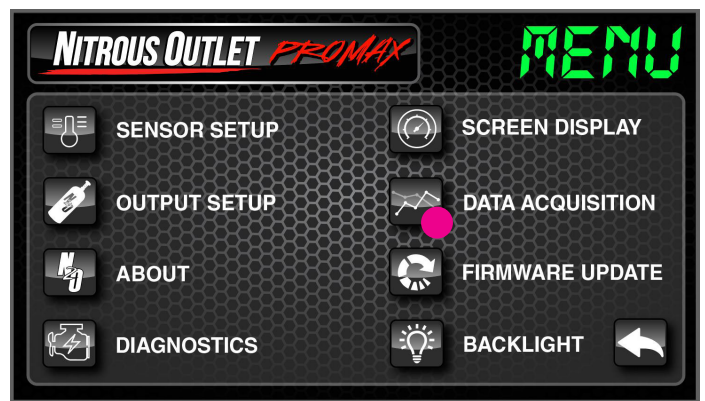
Menu Screen

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
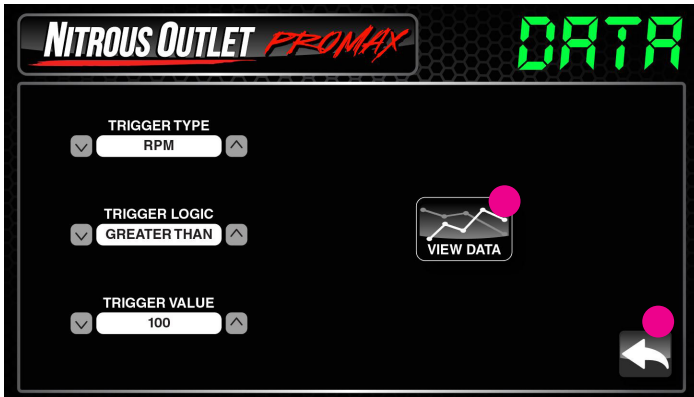Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.
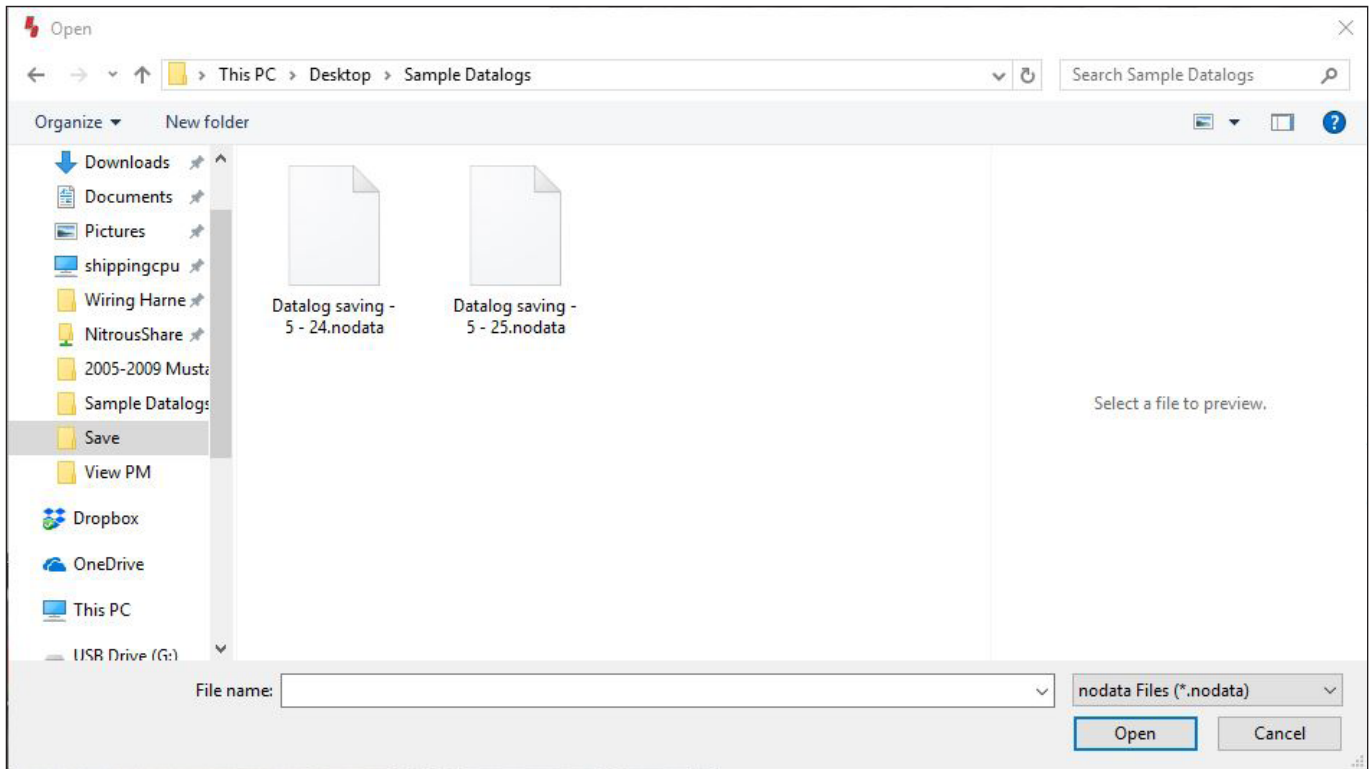
Diagnostics Screen
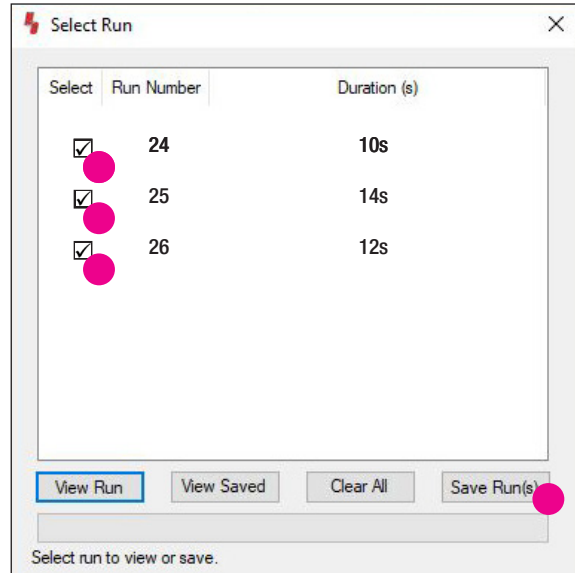
View Run Screen

Save As Screen

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

©N20101323

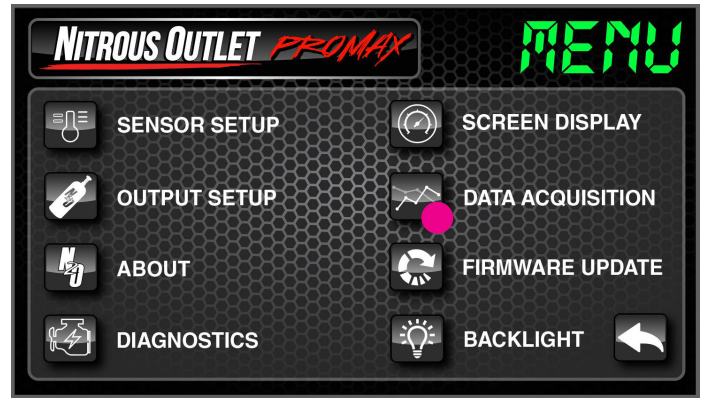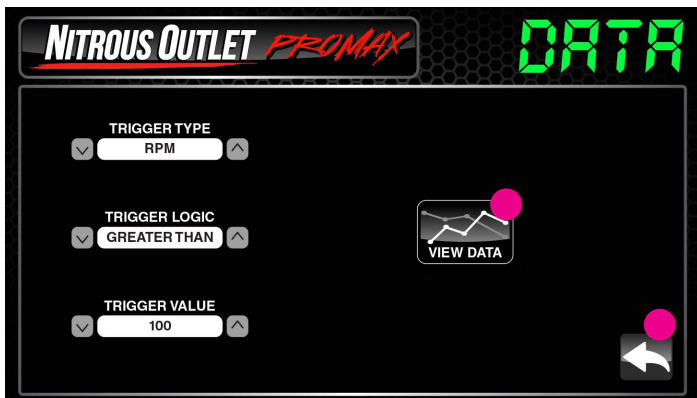### Viewing Datalogs Saved to PC:

Open the ProMax software and click the Wrench Icon(1) and then click Data Acquisition(2). Click View Data(3). The Select Run window will pop up, Click View Saved(3). The Select Run window will appear and allow you to navigate to the logs saved to the PC(4). Double click the log you wish to view and the run log will open in a new window(5). You can view as many inputs as you want by checking or unchecking the boxes on the View Run Data window.
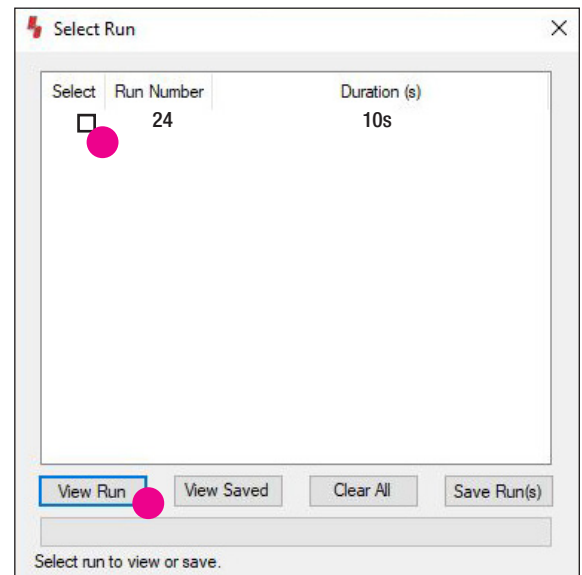

Main Screen

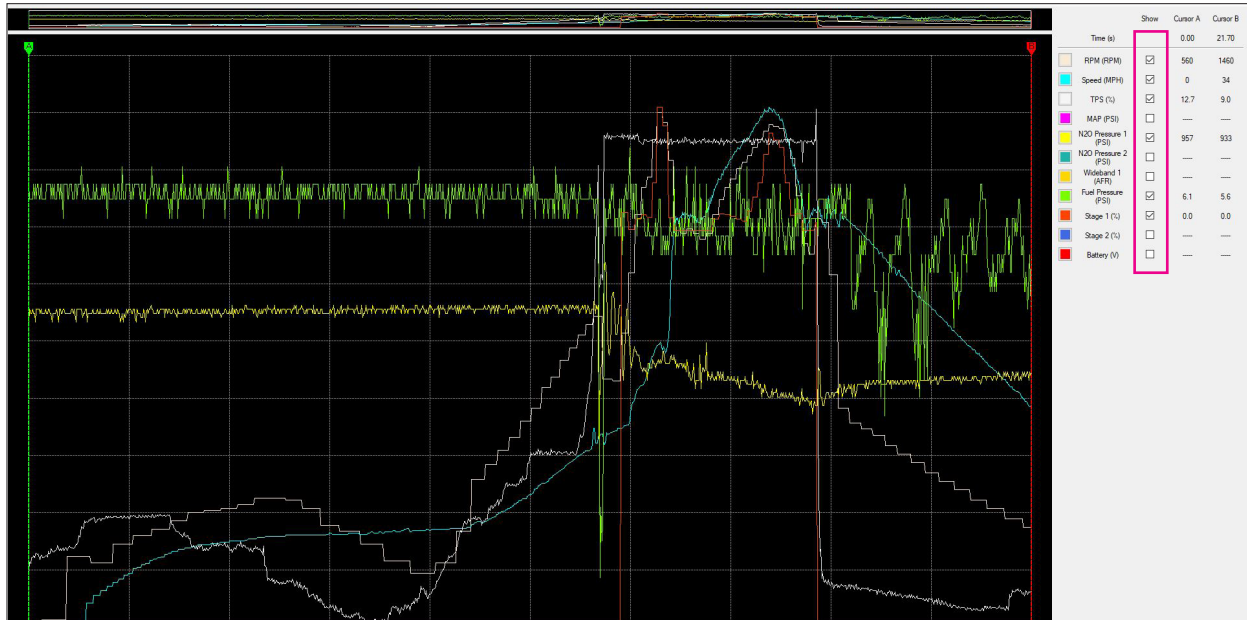

Menu Screen

Diagnostics Screen

View Run Screen

Run Data Screen

Save As Screen

WWW.NITROUSOUTLET.COM/INSTALLATION-GUIDES

©N20101323

PROMAX PROGRESSIVE CONTROLLER

INSTALLATION INSTRUCTIONS

Clearing All Datalogs Saved to Controller:

Be sure to save any datalogs you want to view later to your PC!! To clear datalogs saved to the ProMax, power on the ProMax and connect it to the PC via USB cable. Wait 10 seconds and open the ProMax software and click the Wrench Icon(1) and then click Data Acquisition(2). Click View Data(3). The Select Run window will pop up, Click Clear All(4). Another popup will appear asking if you really want to clear all(5). All logs have been erased from the ProMax.
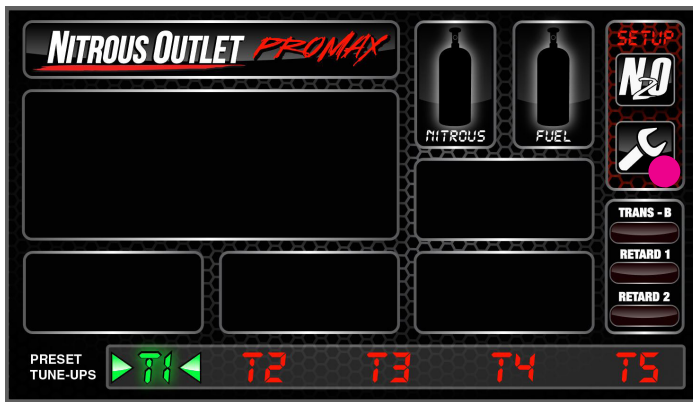
Main Screen
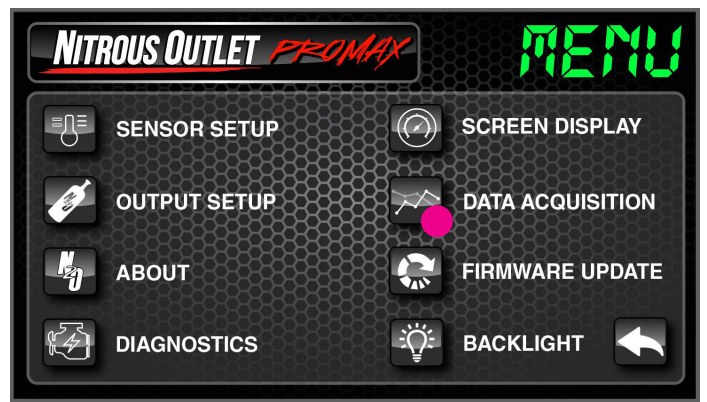
Menu Screen
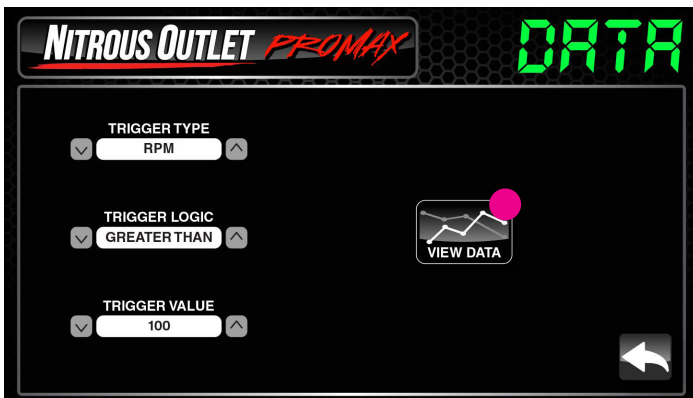
Diagnostics Screen
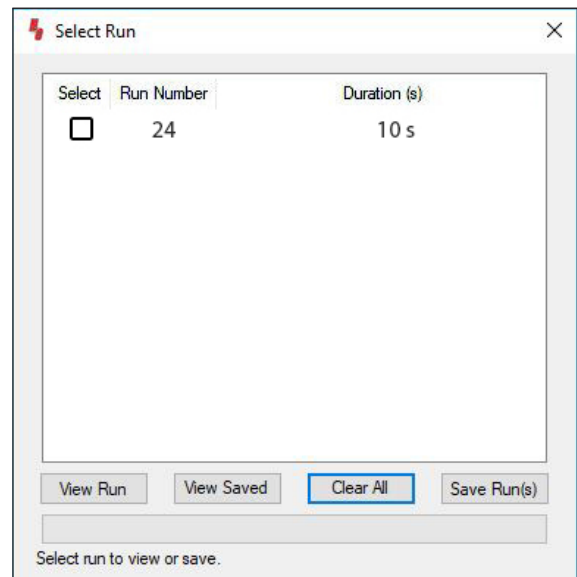
View Run Screen
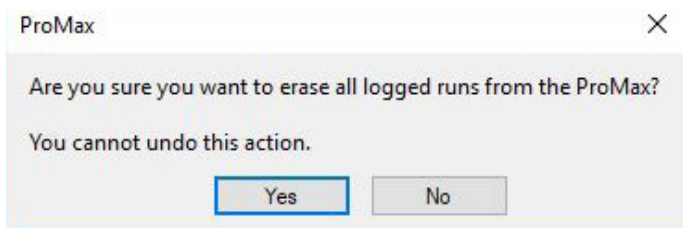
Sure You Want to Erase Dialog Box

©N20101323

How to Zoom In / Out on Datalog:

If there is an area of the log file that you would like to inspect more closely, move your "A" and "B" lines to the area you want by simply clicking and dragging(1). On the upper bar in the Run Data window, right click anywhere on the bar and then click Zoom In(2). This will zoom to the area you moved the "A" and "B" lines around(3). To zoom out, right click anywhere on the upper bar and then click Zoom Out(4).
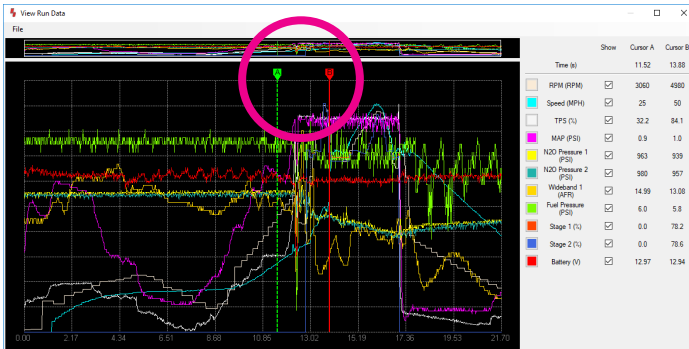
Run Data Screen
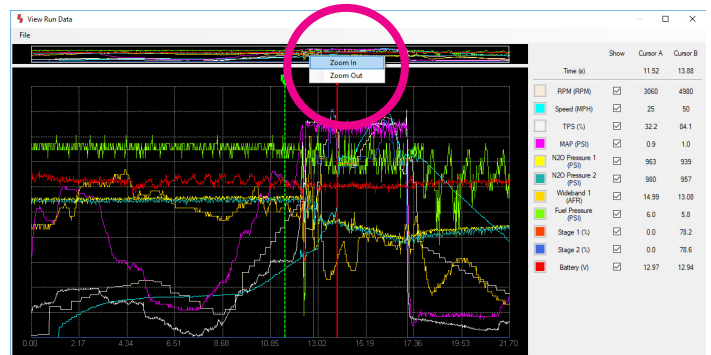
Zoom In Dialog Box
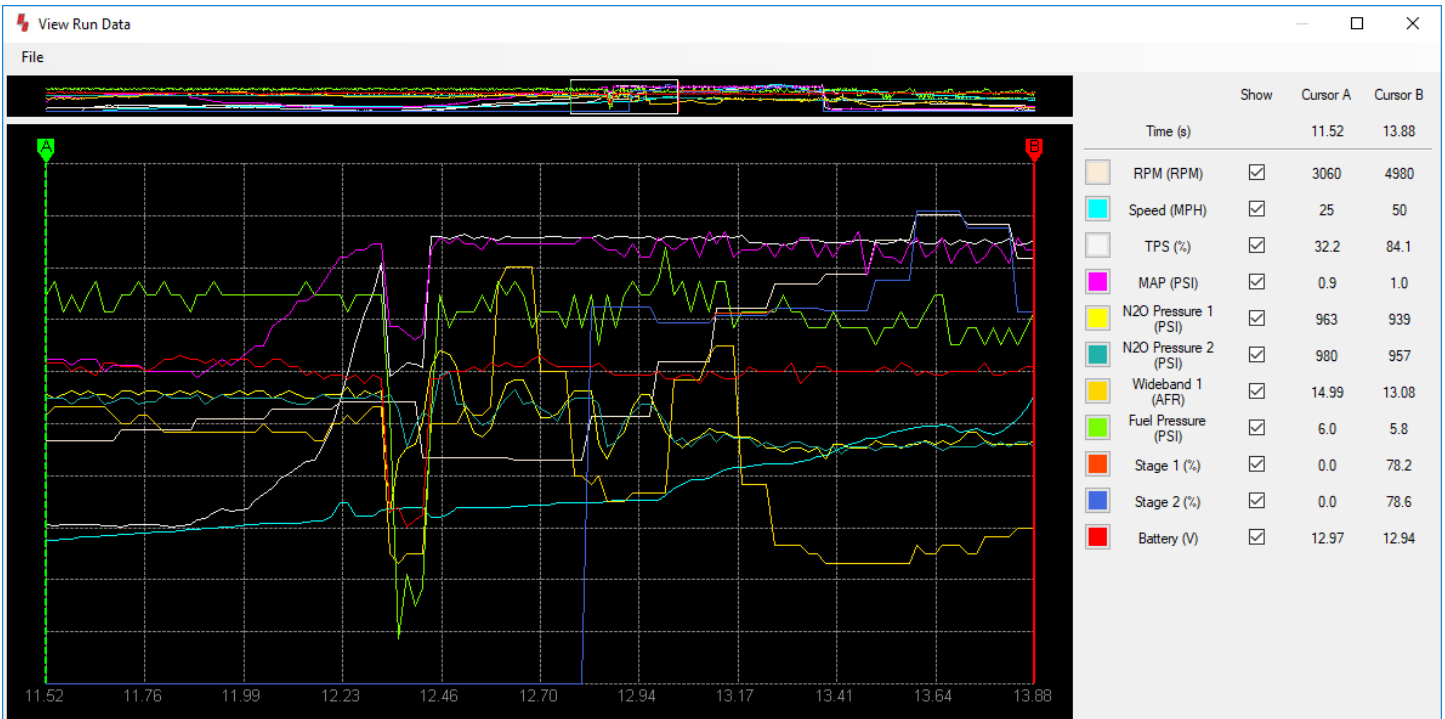
Zoom Area Screen

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

©N20101323
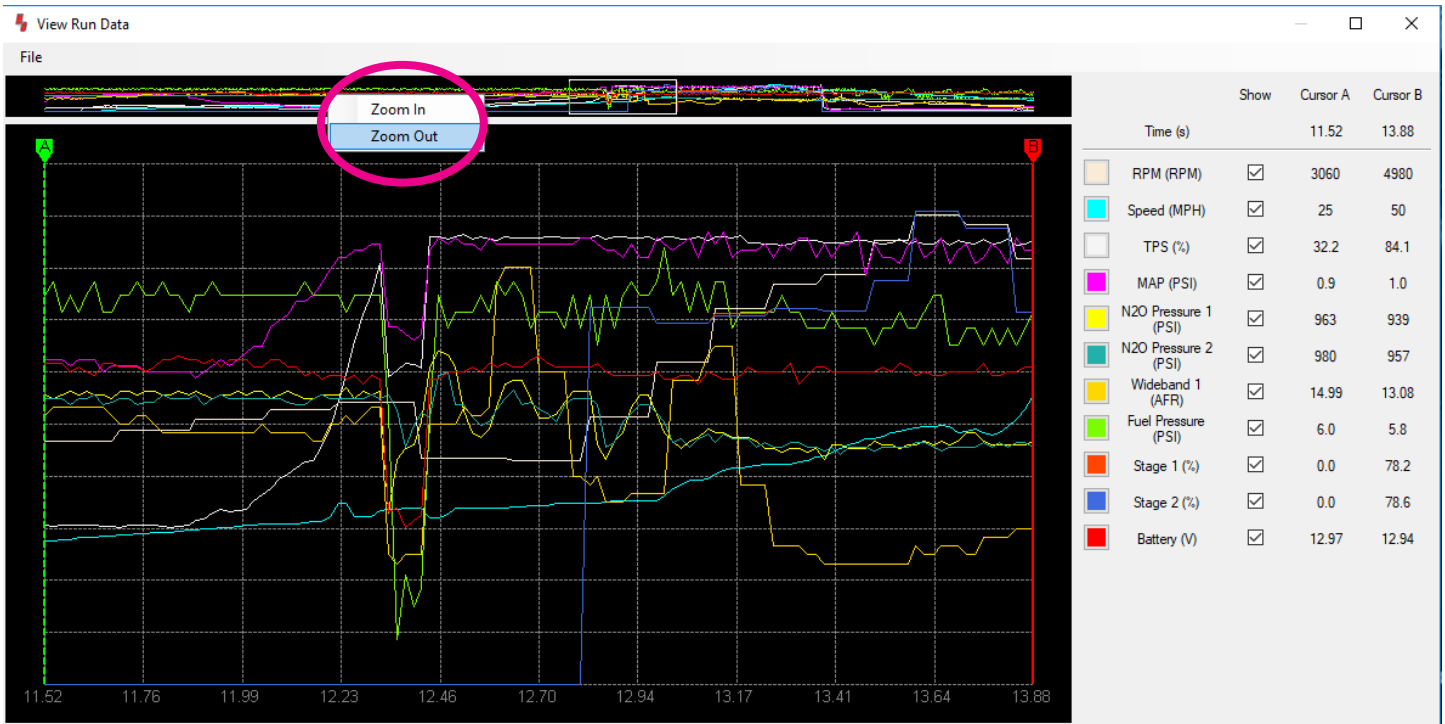
Zoom Out Dialog Box

Screen Backlighting - Section 7:

Backlight Screen Brightness:

Within the Setup Menu Window choose Backlight. This will bring up the Backlight Screen Brightness adjustment window. Use the minus symbol (-) to reduce the brightness or use the Plus symbol (+) to brighten the display. This adjustment can only be viewed on the handheld display, **NOT** on the PC. When complete use the Back Arrow in the lower right to return to the Setup Menu and again to the main display.
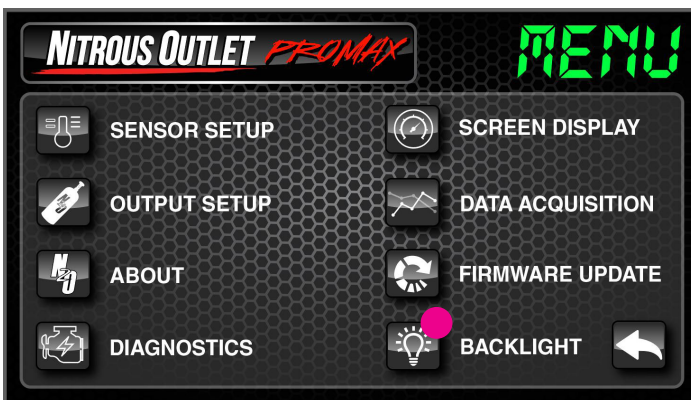
Menu Screen
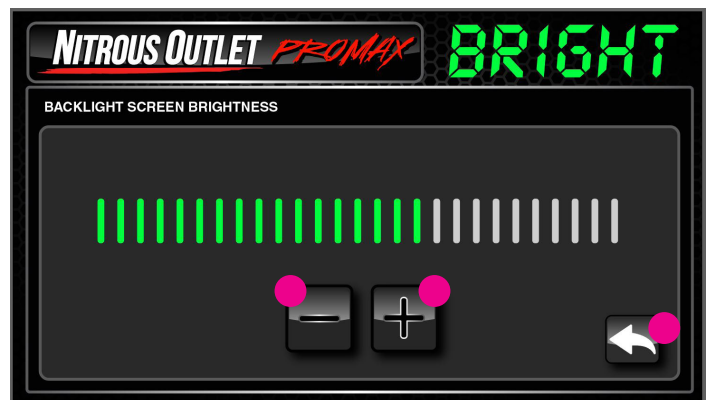
Backlight Brightness Adjustment Screen

PROMAX PROGRESSIVE CONTROLLER
N2O Setup - Section 1
2-STAGE MODE

2-Output Mode allows the ProMax to independently and progressively control two separate stages of nitrous. The controller will handle up to 70 amps per stage. You can select from five different Ramp Types:

- **Time** (Recommended for most setups)
  Time is the most popular ramp type. Not only does it allow you to set your progression over a specific time frame, it allows you an option to HOLD or RESET. Should you have to pedal the car and the TPS/WOT goes out of range, the HOLD option will start the ramp where it left off once the TPS/WOT comes back in range, or the RESET option will start the ramp over at the beginning.

- **RPM**
  An RPM based ramp allows you to set your ramp to spray less nitrous at lower RPM and more at higher RPM.

- **TPS**
  A TPS based ramp should not be used with a WOT switch. The TPS ramp will allow you to set your ramp to spray less nitrous at lower throttle opening/TPS percentage and increase along with throttle opening/TPS percentage.

- **MAP** (Common for diesels)
  The MAP based ramp is most popular with Boost, especially turbos and centrifugal superchargers. It allows you to spray more nitrous at low/no boost and progressively remove nitrous as boost pressure comes up.

- **Speed**
  The Speed based ramp allows you to spray less nitrous at lower speeds where traction is limited and more at higher speeds.

N2O Setup - Section 1:

2-Stage Mode

1. To set up the Nitrous operation parameters, click the N2O icon on the top right of the main display screen. Under the Stage 1 setup column, go to the bottom and click the wrench icon for Stage Setup.
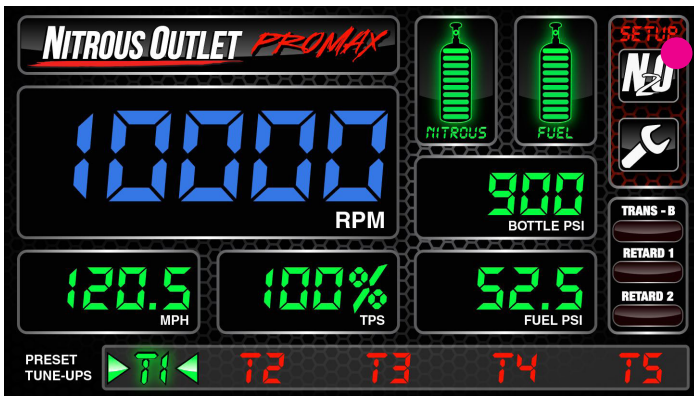
Main Screen
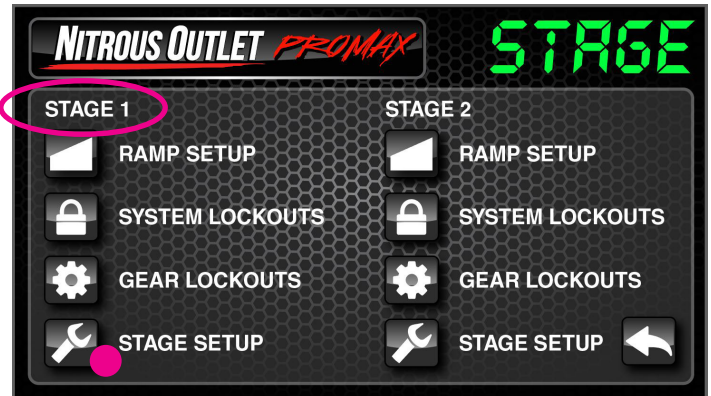
Stage Screen

On the right you'll see T1 thru T5; these are five different Progressive Tunes you can set up independently of each other. Make sure you are on the Progressive Tune you wish to be working with, we start at T1. Check the Stage 1 enable checkbox to enable the stage within your selected Progressive Tune. Then move to the right and select the Ramp Type. Each Progressive Tune can have a different Ramp Type if you desire. Once selected, choose your Start and Stop Point for the Ramp. The Ramp Type and Start/Stop Points are the beginning and end of the ramp you'll build for solenoid duty cycle in Step 2.

Your Start and Stop points are not how long the nitrous will stay engaged! The ending point on the ramp graph is where the stage will remain for the remainder of the pass. For example, if you set up a time ramp starting at 0.0 and stopping at 10.0 and you are at 100% by 1.8 seconds, you are wasting 2/3 of your available graph! If you plan to be at 100% before 2 seconds, set your start point at 0.0 and the end point at 2.0 and now you have 12 points in that 2 second window to really fine tune your progressive ramp.

Stage 1 Setup Screen

Your Choices for Ramp Type Are:

- **RPM**
  - Start RPM can be as low as 1000rpm, but we do not suggest starting the nitrous below 3000rpm if you are not enabling the RPM Lockout in Step 3.
  - Stop RPM can be as high as 10,000rpm.

- **Time**
  - Start Time can be as low as 0 seconds.
  - Stop Time can be as high as 60 seconds.
  - You can choose if your Time Ramp Resets to the beginning if the TPS goes out of range (example: you have to pedal the car due to traction issues) or if the Time Ramp Holds and restarts where it left off.

- **TPS**
  - Start TPS can be as low as 0 percent, but we do not suggest starting the nitrous below 80 percent if you are not enabling the TPS Lockout in Step 3.
  - Stop TPS can be as high as 100 percent.

- **MAP**
  - MAP will display in the units you selected in sensor setup.

- **Speed**
  - Start Speed can be as low as 10 MPH.
  - Stop Speed can be as high as 400 MPH.

After Ramp Type and Start/Stop have been set, set the Trans Brake option. This determines whether the 12v input from the Trans Brake Button will Enable the stage of nitrous or Disable the stage of nitrous. We suggest Disable. If you don't have a Trans Brake, simply leave the setting on the 3 dots (⋯). Repeat these steps for T2 thru T5 if desired. Click the back arrow in the lower right to return to the Stage Setup Screen.

Stage 1 Setup Screen

©N20101323

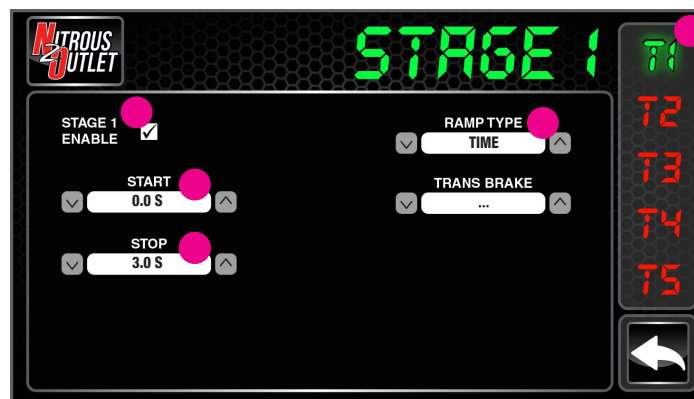2. Select Ramp Setup from the Stage 1 column on the Stage Setup Screen. On the right you'll see T1 thru T5; these are five different Progressive Tunes you can set up independently of each other. Make sure you are on the Progressive Tune you wish to be working with, we start at T1. You have 12 independently adjustable points on the graph to completely customize the progressive ramp for the stage. We give several Progressive Tune options so that you can have Ramps set up for both high and low traction situations. Once you have the ramp built, you can smooth it by clicking the button with the two "waves" on it at the top of the screen.

   Repeat the above for T2 thru T5 if desired. Click the back arrow in the lower right to return to the Stage Setup Screen.
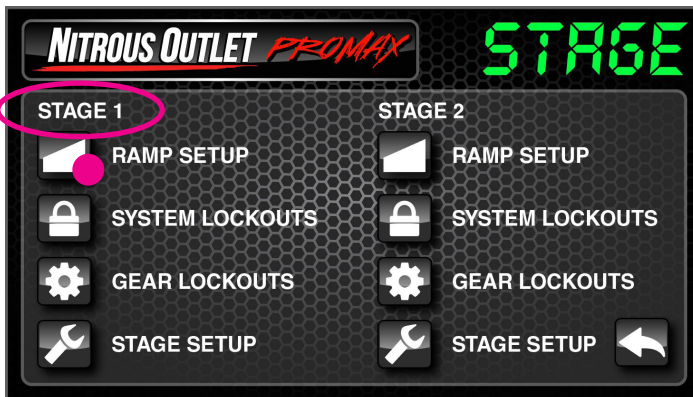
Stage 1 Setup Screen
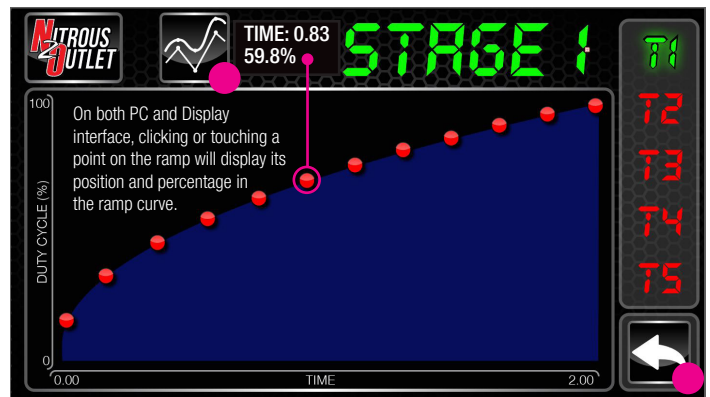
Stage 1 Setup Screen

3. Select System Lockouts from the Stage 1 column on the Stage Setup Screen. These are your parameters that will allow activation or deactivation of the nitrous stage. For each Lockout type (RPM, TPS, etc.) you will need to check the Lockout Enable Checkbox if you want that particular lockout to be active. You can have as many lockouts enabled as you wish – the more you have active, the safer you'll be. The Low Limit and High Limit are the "window in which the lockout will allow the system to operate. Your Lockout choices are on the next page.

Stage 1 Setup Screen

Stage 1 System Lockouts Screen

Your Lockout choices are:

- **RPM**
  - Low Limit can be as low as 0 RPM, but we do not suggest starting the nitrous below 3000rpm.
  - High Limit can be as high as 10,000rpm. We suggest stopping the nitrous a few hundred RPM before your rev limiter.

- **Speed**
  - Low Limit can be as low as 0 MPH/KPH.
  - High Limit can be as high as 400mph (644 KPH).

- **N2O Press 1**
  - Low Limit can be as low as 0 PSI/KPA. Your setting will be dependent on the bottle pressure your tuneup is built around. A good starting point for an off the shelf application would be 800 PSI (5516 KPA).
  - High Limit can be as high as 4,000 PSI (27,579 KPA). Your setting will be dependent on the bottle pressure your tuneup is built around. A good starting point for an off the shelf application would be 950 PSI (6550 KPA).

- **N2O Press 2**
  - Low Limit can be as low as 0 PSI/KPA. Your setting will be dependent on the bottle pressure your tuneup is built around. A good starting point for an off the shelf application would be 800 PSI (5516 KPA).
  - High Limit can be as high as 4,000 PSI (27,579 KPA). Your setting will be dependent on the bottle pressure your tuneup is built around. A good starting point for an off the shelf application would be 950 PSI (6550 KPA).

- **MAP**
  - MAP will display in the units you selected in sensor setup.

- **Fuel Press**
  - Low Limit can be as low as 0 PSI/KPA. Your setting will be dependent on the fuel pressure your tuneup is built around. A good starting point would be 5 PSI (34 KPA) lower than your engine running flowing fuel pressure for high pressure applications and 1 PSI (7 KPA) lower than your engine running flowing fuel pressure for low pressure applications.
  - High Limit can be as high as 100psi (689.5 KPA). Your setting will be dependent on the fuel pressure your tuneup is built around. A good starting point would be 5 PSI (34 KPA) higher than your engine running flowing fuel pressure for high pressure applications and 1 PSI (7 KPA) higher than your engine running flowing fuel pressure for low pressure applications.

- **Wideband 1**
  - Low Limit can be as low as 0 AFR/Lambda. Your setting will be entirely dependent on your current engine operating tuneup.
  - High Limit can be as high as 44.1 AFR (3 Lambda). Your setting will be entirely dependent on your current engine operating tuneup. For example, if your AFR on nitrous is 12.8:1, your high limit will need to be slightly above that for the system to engage.

- **Wideband 2**
  - Low Limit can be as low as 0 AFR/Lambda. Your setting will be entirely dependent on your current engine operating tuneup.
  - High Limit can be as high as 44.1 AFR (3 Lambda). Your setting will be entirely dependent on your current engine operating tuneup. For example, if your AFR on nitrous is 12.8:1, your high limit will need to be slightly above that for the system to engage.

Once complete, hit the back arrow in the lower right corner to return to the Stage Setup Screen.

4. Select Gear Lockouts from the Stage 1 column on the Stage Setup Screen. This option will keep the nitrous from activating for up to 3 gears. The controller is looking for an RPM sweep up to or over the set shift RPM and a minimum of at least the set RPM drop. On the right you'll see T1 thru T5; these are five different Progressive Tunes you can set up independently of each other. Make sure you are on the Progressive Tune you wish to be working with, we start at T1. Check the Gear Lockout Enable checkbox if you wish to make gear lockouts active. You can choose to have up to 3 Active Gears. The Shift RPM is the RPM at which your shift takes place. The RPM Drop is the RPM difference from the shift point to the engagement of the next gear. You can determine this by simply watching the tach on a gear change. It just needs to be close, not exact. Repeat this for T2 thru T5 if desired. Once complete, hit the back arrow in the lower right corner to return to the Stage Setup Screen.

5. Repeat Steps 1 thru 4 for Stage 2 if desired. Once finished, your controller setup is complete!
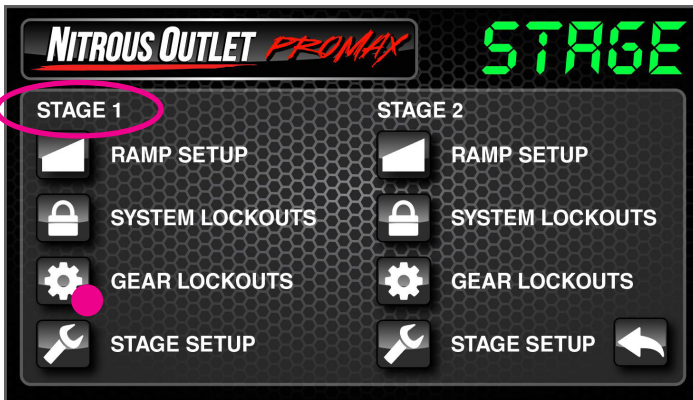
Stage 1 Setup Screen
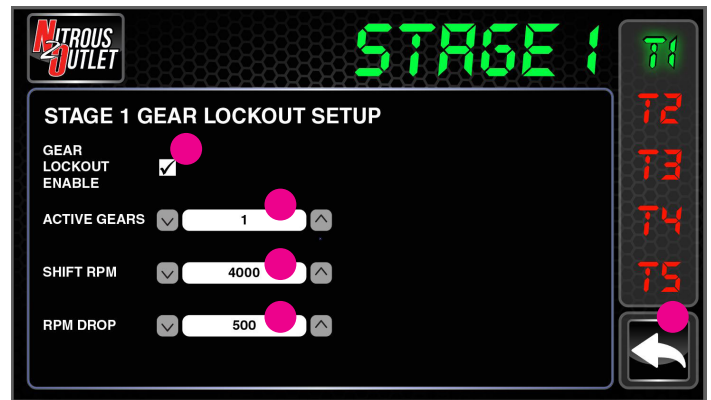
Stage 1 System Lockouts Screen

How to Control Stage 2 on a Button 2-Output Mode

If you wish to have your 2nd Stage activated by a push button, but still have all the safety and functionality of the ProMax, we have a solution.

The wiring diagram below illustrates how to wire the button. One side of the button will connect to the Light Green/Black 5v Sensor Supply from the ProMax. The other side of the button will connect to the Light Blue/Black MAP Input to the ProMax.

CONTROLLER

BUTTON

LT. GREEN/BLACK   5v SENSOR SUPPY

LT. BLUE/BLACK   MAP INPUT
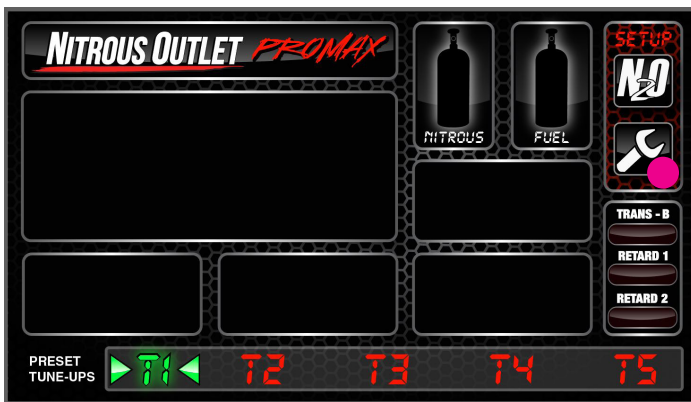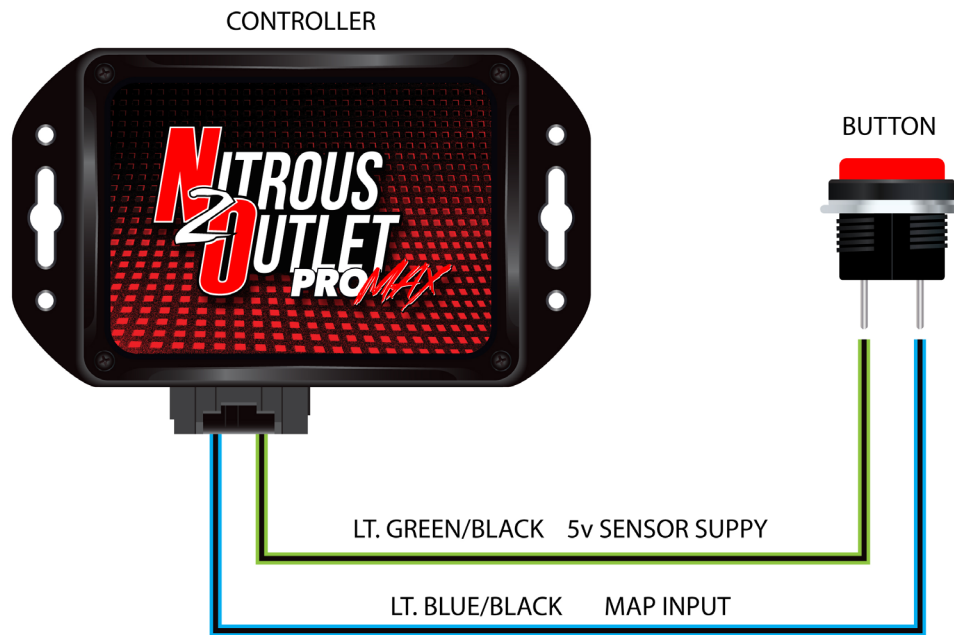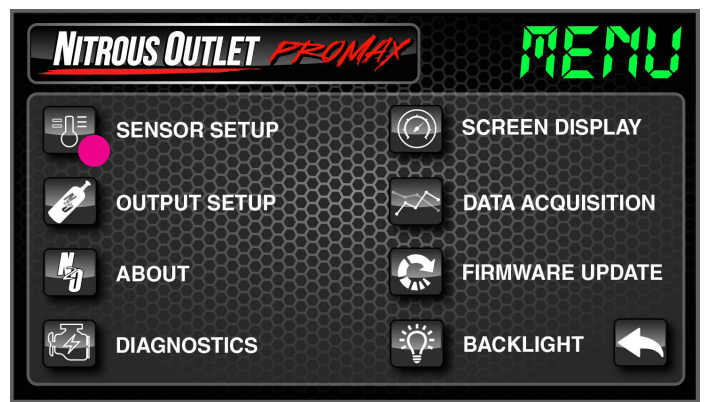
Main Screen

1. From the Home Screen, click the Wrench Icon

Menu Screen

2. Click Sensor Setup
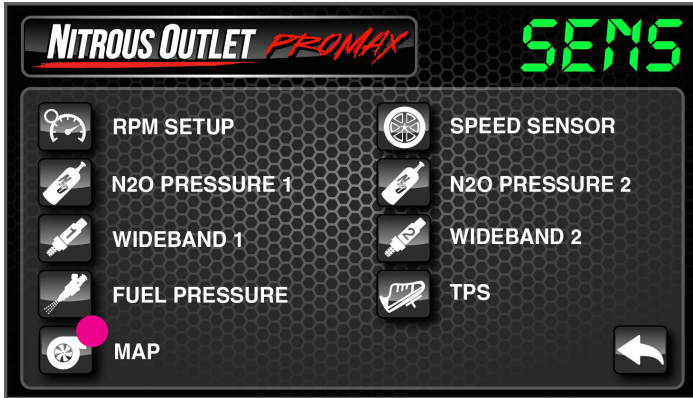
Sensor Screen

3. Click MAP
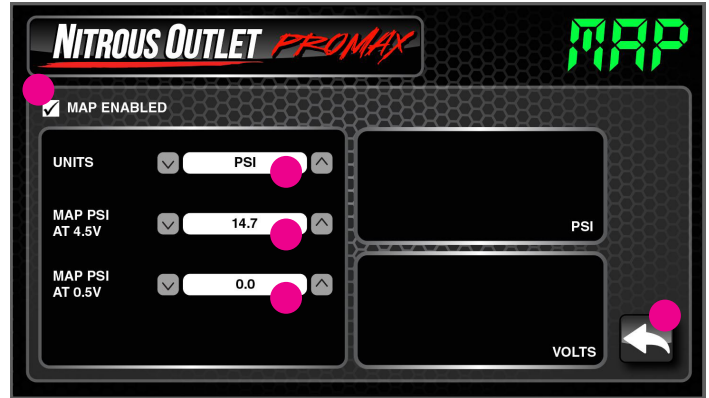
Map Screen

4. Make sure the MAP Enabled Box is checked. Set the Units to PSI, set the MAP at 4.5v to 14.7, and set MAP at 0.5v to 0.0.

5. Back out to the Home Screen
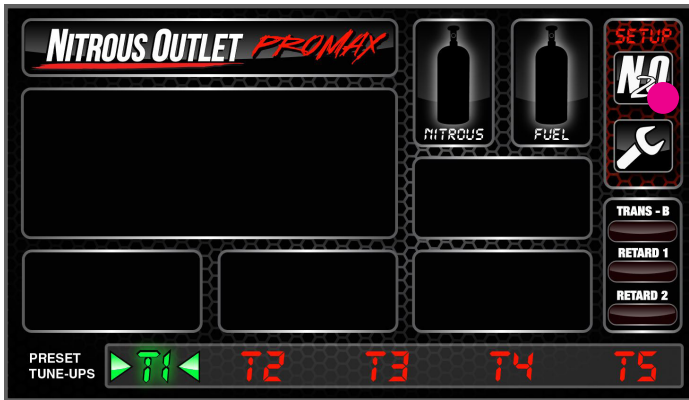
Main Screen

6. Click the N2O Icon
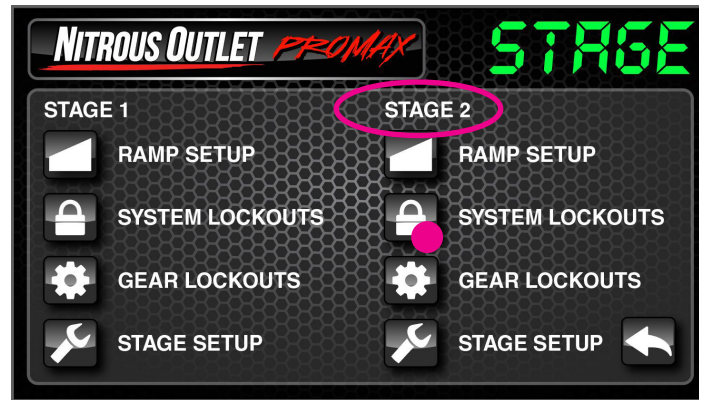
Stage 2 Setup Screen

7. Click System Lockouts in the Stage 2 column
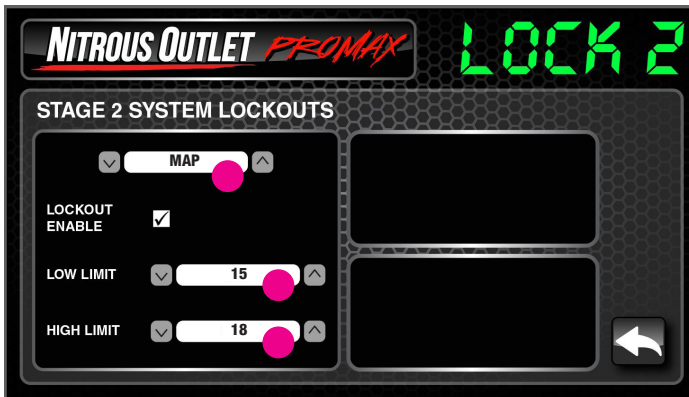
8. Select MAP and click the Lockout Enable box.

9. Set the Low Limit to 15 and the High Limit to 18.

The setup above will allow the 2nd Stage to only activate when you push the button.

Stage 2 Syatem Lockout Screen

IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
Nitro Dave's LLC accepts NO responsibility for injuries or damages resulting during and/or from the installation of any product(s). Nitrous oxide is for off-road use only.

PROMAX PROGRESSIVE CONTROLLER
N2O Setup - Section 2
AFR MODE

IMPORTANT DISCLAIMER: AFR Mode is not a substitute for a correct tuneup. It is solely intended to help maintain a target AFR by helping compensate for slight variations in bottle pressure and flowing fuel pressure.

AFR Mode allows the ProMax to independently and progressively control the Nitrous and Fuel solenoids for one single stage of nitrous. It will also allow optional Closed Loop operation based on optional Wideband O2 inputs. The controller will handle up to 70 amps per channel. You can select from five different Ramp Types:

- **Time**
  Time is the most popular ramp type. Not only does it allow you to set your progression over a specific time frame, it allows you an option to HOLD or RESET. Should you have to pedal the car and the TPS/WOT goes out of range, the HOLD option will start the ramp where it left off once the TPS/WOT comes back in range, or the RESET option will start the ramp over at the beginning.

- **RPM**
  An RPM based ramp allows you to set your ramp to spray less nitrous at lower RPM and more at higher RPM.

- **TPS**
  A TPS based ramp should not be used with a WOT switch. The TPS ramp will allow you to set your ramp to spray less nitrous at lower throttle opening/TPS percentage and increase along with throttle opening/TPS percentage.

- **MAP**
  The MAP based ramp is most popular with Boost, especially turbos and centrifugal superchargers. It allows you to spray more nitrous at low/no boost and progressively remove nitrous as boost pressure comes up.

- **Speed**
  The Speed based ramp allows you to spray less nitrous at lower speeds where traction is limited and more at higher speeds.
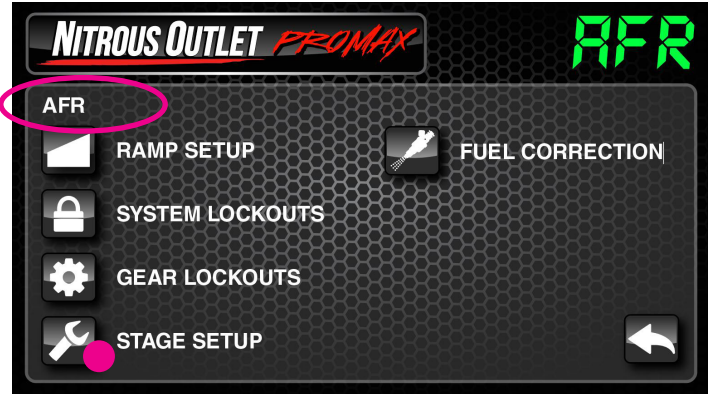
N2O Setup - Section 2:

AFR Mode

1. To set up the Nitrous operation parameters, click the N2O icon on the top right of the main display screen. Go to the bottom and click the wrench icon for Stage Setup.

Main Screen

AFR Screen

On the right you'll see T1 thru T5; these are five different Progressive Tunes you can set up independently of each other. Make sure you are on the Progressive Tune you wish to be working with, we start at T1. Check the AFR enable checkbox to enable the stage within your selected Progressive Tune. Then move to the right and select the Ramp Type. Each Progressive Tune can have a different Ramp Type if you desire. Once selected, choose your Start and Stop Point for the Ramp. The Ramp Type and Start/Stop Points are the beginning and end of the ramp you'll build for solenoid duty cycle in Step 2.

Your Start and Stop points are not how long the nitrous will stay engaged! The ending point on the ramp graph is where the stage will remain for the remainder of the pass. For example, if you set up a time ramp starting at 0.0 and stopping at 10.0 and you are at 100% by 1.8 seconds, you are wasting 2/3 of your available graph! If you plan to be at 100% before 2 seconds, set your start point at 0.0 and the end point at 2.0 and now you have 12 points in that 2 second window to really fine tune your progressive ramp.
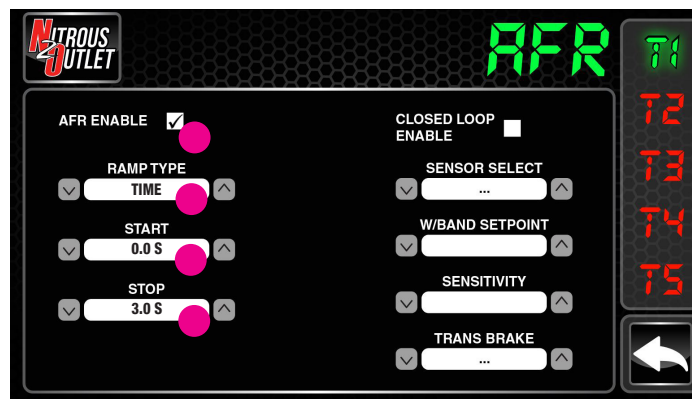

Stage 1 Setup Screen

On the right you'll see T1 thru T5; these are five different Progressive Tunes you can set up independently of each other. Make sure you are on the Progressive Tune you wish to be working with, we start at T1. Check the AFR Enable checkbox and the Closed Loop Enable checkbox to enable the stage within your selected Progressive Tunes. Now, select the Ramp Type. Each Progressive Tune can have a different Ramp Type if you desire. Once selected, choose your Start and Stop Point for the Ramp. The Ramp Type and Start/Stop Points are the beginning and end of the ramp you'll build for solenoid duty cycle in Steps 2 and 3. This is not a window switch function - that will be set in the Lockout Section Step 4. Your choices for Ramp Type are:

- **RPM**
  - Start RPM can be as low as 1000rpm, but we do not suggest starting the nitrous below 3000rpm if you are not enabling the RPM Lockout in Step 3.
  - Stop RPM can be as high as 10,000rpm. We suggest stopping the ramp a few hundred RPM before your rev limiter if you are not enabling the RPM Lockout in Step 3.

- **Time**
  - Start Time can be as low as 0 seconds.
  - Stop Time can be as high as 20 seconds.
  - You can choose if your Time Ramp Resets to the beginning if the TPS goes out of range (example: you have to pedal the car due to traction issues) or if the Time Ramp Holds and restarts where it left off.

- **TPS**
  - Start TPS can be as low as 0 percent, but we do not suggest starting the nitrous below 80 percent if you are not enabling the TPS Lockout in Step 3.
  - Stop TPS can be as high as 100 percent.

- **MAP**
  - MAP will display in the units you selected in sensor setup.

- **Speed**
  - Start Speed can be as low as 10 MPH.
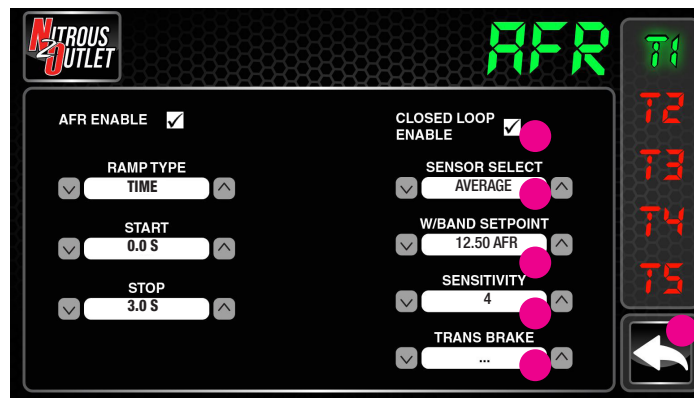 - Stop Speed can be as high as 400 MPH.

Closed Loop Control REQUIRES the use of at least one Wideband O2 input! Checking the Closed Loop Enable Checkbox allows the ProMax to pulse the solenoids to target a set AFR or Lambda based on wideband input. This is a safety feature and not a bandaid for a bad tune! We strongly suggest not enabling this function until your engine tuneup on nitrous is good to go. Then you use the Closed Loop Control to adjust for drops in bottle pressure, fuel pressure fluctuations, etc.

Once the checkbox is enabled, use the Sensor Select to determine how the ProMax will use the input data. You can select Wideband 1, Wideband 2, Minimum reading of 2 widebands, Maximum reading of 2 widebands, or the Average of 2 widebands. If using both wideband inputs, we suggest using Average.

Then select Wideband Setpoint. This is the AFR or Lambda you want the controller to target on nitrous. You should monitor your AFR while tuning so you know where to set it at.

The Sensitivity selection allows you to set how fast the controller reacts to the changes in AFR input. We've found 4 to be a good starting point.

After Ramp Type and Start/Stop have been set, set the Trans Brake option. This determines whether the 12v input from the Trans Brake Button will Enable the stage of nitrous or Disable the stage of nitrous. We suggest Disable. If you don't have a Trans Brake, simply leave the setting on the 3 dots (···). Repeat these steps for T2 thru T5 if desired. Click the back arrow in the lower right to return to the AFR Setup Screen.

AFR Setup Screen
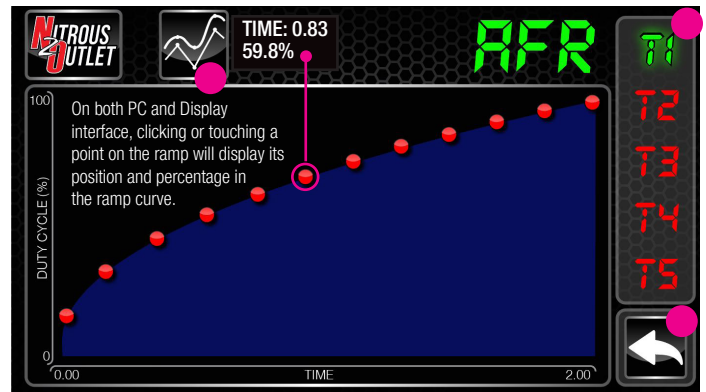
2. Select Ramp Setup from AFR Setup Screen. This is the ramp that controls the nitrous solenoid. On the right you'll see T1 thru T5; these are five different Progressive Tunes you can set up independently of each other. Make sure you are on the Progressive Tune you wish to be working with, we start at T1.   You have 12 independently adjustable points on the graph to completely customize the progressive ramp for the stage. We give five Progressive Tune options so that you can have Ramps set up for both high and low traction situations. Once you have the ramp built, you can smooth it by clicking the button with the two "waves" on it at the top of the screen.

Repeat the above for T2 thru T5 if desired. Click the back arrow in the lower right to return to the AFR Setup Screen.
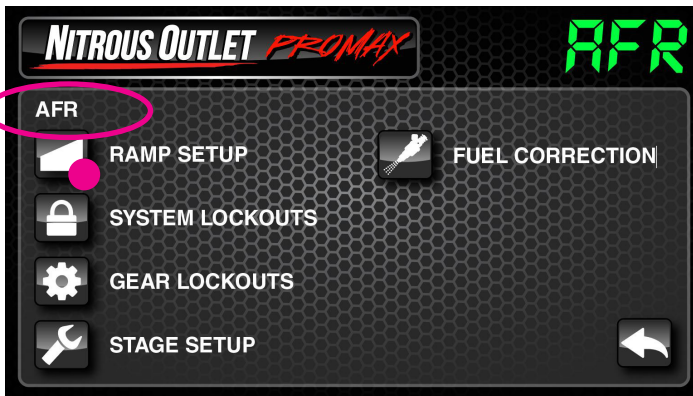
AFR Screen

Fuel Correction Screen

3. Select Fuel Correction from AFR Setup Screen. This is the ramp that controls the fuel solenoid. It is set up as a percentage of correction in reference to the Nitrous Ramp (Fuel Ramp = N2O Ramp x Fuel Correction Factor Ramp).   For example, if you have the first point on the nitrous ramp set to 20% and the first point of the Fuel Correction ramp set to 100%, then the fuel solenoid will match the same 20% ramp of the nitrous solenoid. On the right you'll see T1 thru T5; these are five different Progressive Tunes you can set up independently of each other. Make sure you are on the Progressive Tune you wish to be working with, we start at T1. You have 12 independently adjustable points on the graph to completely customize the progressive ramp for the stage. Once you have the ramp built, you can smooth it by clicking the button with the two "waves" on it at the top of the screen. Repeat the above for T2 thru T5 if desired. Click the back arrow in the lower right to return to the AFR Setup Screen.
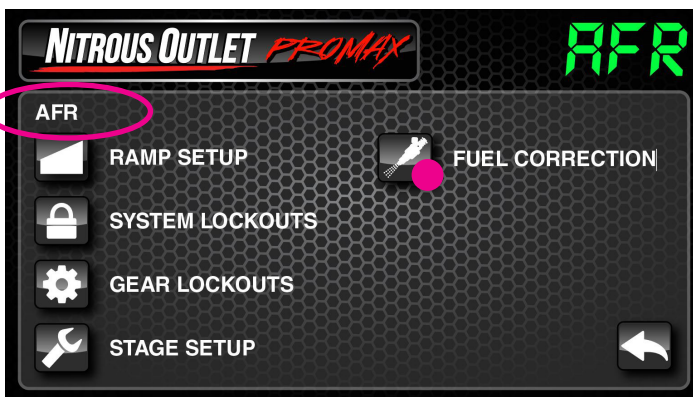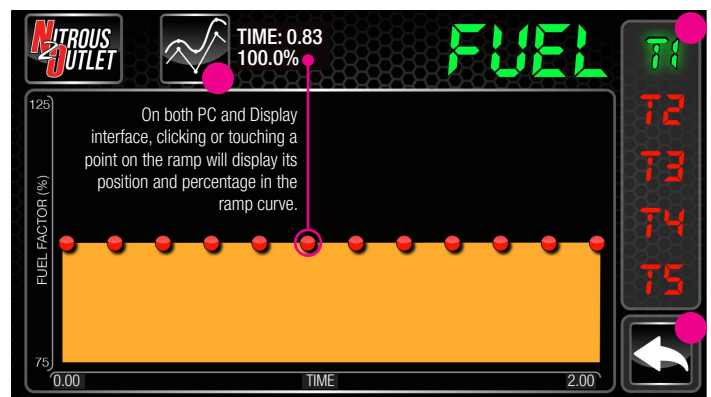

AFR Screen

Fuel Correction Screen

©N20101323

4. Select System Lockouts from the AFR Setup Screen. These are your "window switches" and define the parameters that will allow activation or deactivation of the nitrous stage. For each Lockout type (RPM, TPS, etc.) you will need to check the Lockout Enable Check box if you want that particular lockout to be active. You can have as many lockouts enabled as you wish – the more you have active, the safer you'll be. The Low Limit and High Limit are the "window in which the lockout will allow the system to operate. Your Lockout choices are:

- **RPM**
    - Low Limit can be as low as 0 RPM, but we do not suggest starting the nitrous below 3000rpm.
    - High Limit can be as high as 10,000rpm. We suggest stopping the nitrous a few hundred RPM before your rev limiter.

- **Speed**
    - Low Limit can be as low as 0 MPH/KPH.
    - High Limit can be as high as 400mph (644 KPH).

- **N2O Press 1**
    - Low Limit can be as low as 0 PSI/KPA. Your setting will be dependent on the bottle pressure your tuneup is built around. A good starting point for an off the shelf application would be 800 PSI (5516 KPA).
    - High Limit can be as high as 4,000 PSI (27,579 KPA). Your setting will be dependent on the bottle pressure your tuneup is built around. A good starting point for an off the shelf application would be 950 PSI (6550 KPA).

- **N2O Press 2**
    - Low Limit can be as low as 0 PSI/KPA. Your setting will be dependent on the bottle pressure your tuneup is built around. A good starting point for an off the shelf application would be 800 PSI (5516 KPA).
    - High Limit can be as high as 4,000 PSI (27,579 KPA). Your setting will be dependent on the bottle pressure your tuneup is built around. A good starting point for an off the shelf application would be 950 PSI (6550 KPA).

- **MAP**
    - MAP will display in the units you selected in sensor setup.

- **Fuel Press**
    - Low Limit can be as low as 0 PSI/KPA. Your setting will be dependent on the fuel pressure your tuneup is built around. A good starting point would be 5 PSI (34 KPA) lower than your flowing fuel pressure for high pressure applications and 1 PSI (7 KPA) lower than your flowing fuel pressure for low pressure applications.
    - High Limit can be as high as 100psi (689.5 KPA). Your setting will be dependent on the fuel pressure your tuneup is built around. A good starting point would be 5 PSI (34 KPA) higher than your flowing fuel pressure for high pressure applications and 1 PSI (7 KPA) higher than your flowing fuel pressure for low pressure applications.

- **Wideband 1**
    - Low Limit can be as low as 0 AFR/Lambda. Your setting will be entirely dependent on your non-nitrous engine operating tuneup.
    - High Limit can be as high as 44.1 AFR (3 Lambda). Your setting will be entirely dependent on your non-nitrous engine operating tuneup.
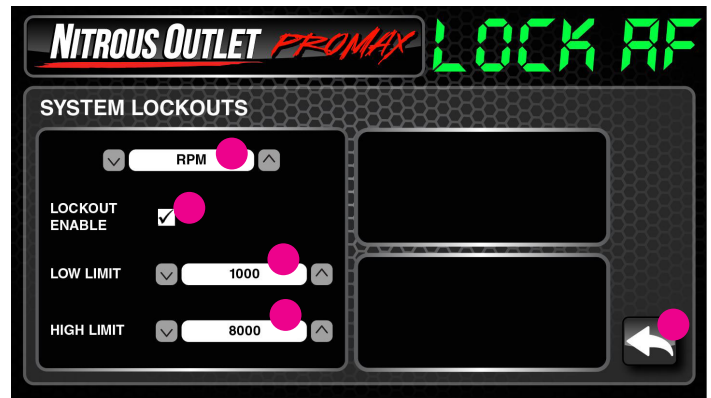
©N20101323

- **Wideband 2**
  - Low Limit can be as low as 0 AFR/Lambda. Your setting will be entirely dependent on your non-nitrous engine operating tuneup.
  - High Limit can be as high as 44.1 AFR (3 Lambda). Your setting will be entirely dependent on your non-nitrous engine operating tuneup.

Once complete, hit the back arrow in the lower right corner to return to the AFR Setup Screen.
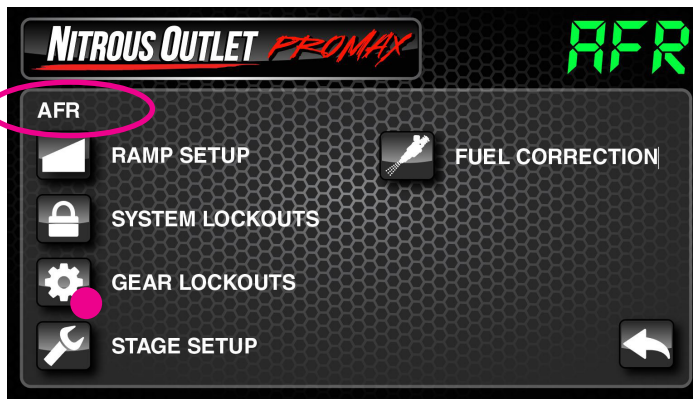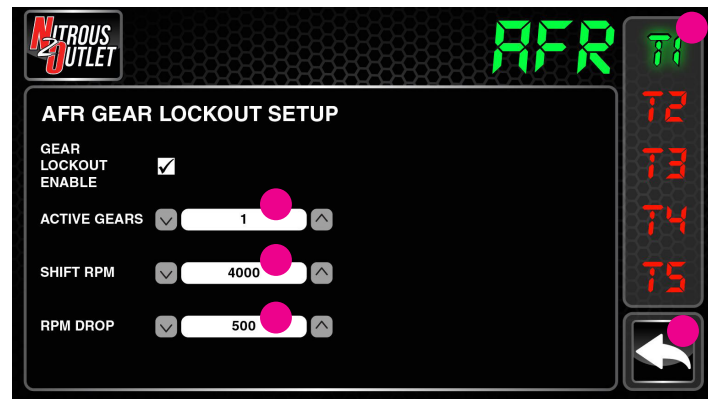

AFR Screen

AFR System Lockouts Screen

5. Select Gear Lockouts from the Stage 1 column on the Stage Setup Screen. This option will keep the nitrous from activating for up to 3 gears. The controller is looking for an RPM sweep up to or over the set shift RPM and a minimum of at least the set RPM drop. On the right you'll see T1 thru T5; these are five different Progressive Tunes you can set up independently of each other. Make sure you are on the Progressive Tune you wish to be working with, we start at T1. Check the Gear Lockout Enable checkbox if you wish to make gear lockouts active. You can choose to have up to 3 Active Gears. The Shift RPM is the RPM at which your shift takes place. The RPM Drop is the RPM difference from the shift point to the engagement of the next gear. You can determine this by simply watching the tach on a gear change. It just needs to be close, not exact. Repeat this for T2 thru T5 if desired. Once complete, hit the back arrow in the lower right corner to return to the AFR Setup Screen.

Your controller setup is complete!

AFR Screen

AFR Gear Lockout Screen

©N20101323