

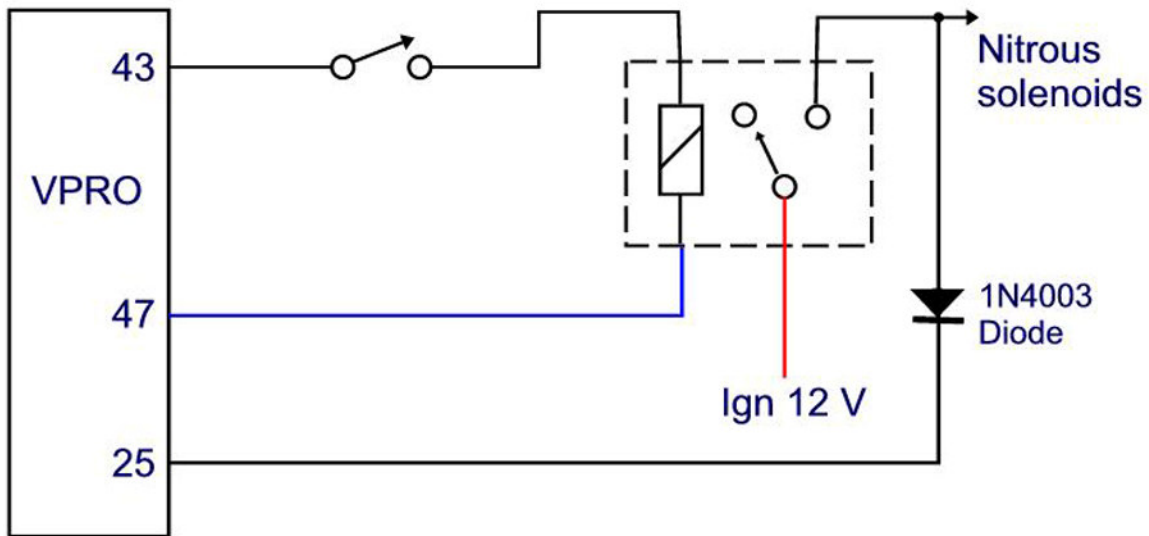
# Nitrous Control by F-CON VPRO

Nitrous control can be accomplished using the VPro outputs, based on throttle, RPM, and speed using the following setup. In addition, a separate sub map for fuel and timing can be utilized when the Nitrous is activated.

Option Voltage output map 3 is used as a switched output which will send a ground signal when TPS vs RPM conditions are met.

Option switch 3 output will send a 12 volt signal when vehicle speed and RPM conditions are met. These outputs connect to the coil of a relay. When both outputs turn on, the relay closes, activating the solenoids. This output also will send a signal back to the VPRO's Switched input, which will activate a scramble map for timing and fuel for compensation.

A main switch is placed in either output before the relay to turn off the nitrous when not used.



1. Click on PARAMETER 2 > Option Voltage/Frequency. In Option Voltage Output 3, select Map 3 (throttle Axis).
2. Click on the Option Switch 2 tab. In Option Switch 3, select RPM.

PARAMETER 2					
ISCV	Option Voltage/Frequency	Option Switch 1	Option Switch 2	Option Switch 3	Comme
Option Switch Output	3	R.P.M.	4	OFF	
Speed Threshold	5	[mile/h]			
Low Speed R.P.M.	ON	20000	[rpm]	OFF	20000 [rpm]
High Speed R.P.M.	ON	4000	[rpm]	OFF	3800 [rpm]

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3. In the Speed Threshold, input 5 mph, or whatever speed you want the nitrous to activate. In the HI Speed RPM OFF, input a rpm below the nitrous turn ON value. In the HI Speed RPM ON field, input the rpm to which nitrous will turn on. Click OK
4. Click on PARAMETER 1 > Control. In the Switch Input, SW1 field, select scramble.
5. In the same Control tab, ON=HIGH for the Scramble Switch field.

The screenshot shows the 'PARAMETER 1' control interface. At the top, there are tabs for 'Basic1', 'Basic2', 'Control', 'Fuel 1', 'Fuel 2', 'Ignition 1', and 'Ignition 2'. The 'Control' tab is selected. Below the tabs, there are several control fields:

- 'Switch Input' is set to 'OFF'.
- 'Scramble SW' is set to 'OFF'.
- 'SW1' is set to 'Scramble'.
- 'Air Conditioner' has radio buttons for 'ON=HIGH' and 'ON=LOW', with 'ON=LOW' selected.
- 'Neutral Switch' has radio buttons for 'ON=H' and 'ON=L', with 'ON=L' selected.
- 'Load 1' has radio buttons for 'ON=HIGH' and 'ON=LOW', with 'ON=LOW' selected.
- 'Load 2' has radio buttons for 'ON=H' and 'ON=L', with 'ON=L' selected.
- 'Scramble Switch' has radio buttons for 'ON=HIGH' and 'ON=LOW', with 'ON=HIGH' selected. A mouse cursor is pointing at this field.
- 'Fuel GCC Input' is set to 'OFF'.
- 'Ignition GCC Input' is set to 'OFF'.

6. Inside the VPRO, change Jumper 6 from 2-3 to 1-2, and Jumper 10 from 1-2 to 2-3.

In the map fields, click on Option output > Voltage Output 3. Input 5000 in all the cells that you want nitrous to be active. For instance, if you want nitrous to activate above 3500 rpm at 90% and higher throttle angle, then input 5000 in all cells 3500 rpm and up at 90 and higher load sites.

For timing compensation when the nitrous is activated, click on Ignition Map 2 > Scramble Compensation. -30 to +30 degrees can be added to this map which will add to the main ignition map.

For fuel compensation, click on Fuel Map 3 > Scramble Compensation. 99.9% of fuel can be added or subtracted.