



Nitro Dave's Nitrous Outlet
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X-6100 SINGLE STAGE RPM WINDOW SWITCH

Operation

The Brand X RPM WINDOW SWITCH is a single stage RPM activated window switch (RPMWS) with an integrated throttle-position activation switch (TPAS). The unit accepts most tach signals, including low-voltage and irregular signals such as those found on many V-10s. The TPAS accepts all analog throttle-position sensor signals as well as a "hot" or "grounded" wide-open-throttle (WOT) switch.

This unit has settable ON and OFF points and multi-gear lockout feature. Multi-gear lockout delays the stage from turning ON until you have cycled through the RPM window (X times). The internal TPAS can be configured to prevent the RPMWS channel from activating until you are at WOT .

The Brand X RPM WINDOW SWITCH requires 9~18 volts to operate correctly. The output line switches HOT when activated (ON) and has a maximum current rating of 1 amp. NEVER SET THE ACTIVATION BELOW 500 RPMs THIS WILL VOID THE WARRANTY.

In run mode, the LEDs (A.B.C.) will show the unit's status.

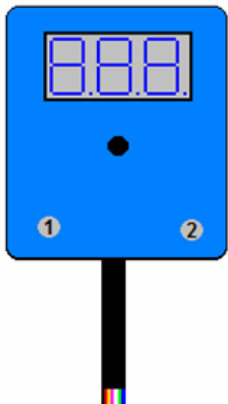
A = throttle position activation switch status [0 = OFF / 1 = ON]

B = gear lock out [0 = feature OFF / L = locked out]

C = rpm window status [0 = not in RPM range / 1 = in RPM range]

Press and hold switch #1 and the unit will display the current RPM (A.B.C). This will be very useful to verify your setting in STEP 1 of the configuration. *Example: 12.5 = 12500 RPM.*

Programming the RPM Window Switch



Switch #1 - toggles through the configuration menu. As you toggle through the configuration menu, the stored value will be displayed. Each time you push Switch #1 it will move the flashing character to the next digit. EXP. Space "B" will be flashing while making changes to this field (using switch 2), push switch 1 when you are ready to move to space "C" Each step is programmed the same way.

Switch #2 - increments the flashing value that was selected by switch #1. Push Switch #2 to get the flashing character to the number you need for programming your application. EXP. Each time switch #2 is pushed the field that is flashing will increase by a value of 1.

LED A.B.C displays the configuration step number and its setting

A: = configuration item. The Set up Number will show for a brief moment.

A B C = value for the current configuration step

To enter the programming mode, press and hold both switches until "Pro" is displayed. Now release the switches and the unit will automatically go to the first configuration step.



STEP 1. TACH set-up



You will only see this screen for a brief moment.

B C is the number of cylinders. This setting is used by the RPMWS to calculate the correct RPM.



0 0 0 = individual coil per cylinder systems where the tach wire is connected to the coil trigger wire.



0 0 1 = coil packs that fire in pairs (waste spark systems) where the tach wire is connected to the coil trigger wire.



0 0 2 ~ 0 1 2 = cylinder combinations from 2 to 12 where the tach wire is connected to the tach signal from the engine electronic controller or distributor. **EX. 002 would be for a 2 cylinder application.**
[NOTE: LS1 vehicles connecting to the tach wire at the pcm will use 004, if connecting to a coil pack use 000.](#)

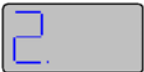
STEP 2. Gear Lockout

A = not used at this time

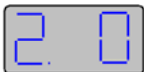
B = not shown.

C = how many times you must pass the deactivation set point before the switch will activate. 0 turns this option off.

EXAMPLES BELOW



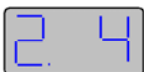
You will only see this screen with the right digit blinking.



2: 0 = NO gear lock out is selected. System will activate at the preset RPM window and TPS WOT settings.

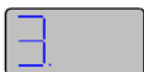


2: 1 = You must pass your deactivation RPM 1 time, before that system will activate.



2: 4 = You must pass your deactivation RPM 4 times, before that system will activate.

STEP 3. RPM set up for Channel 1 Activation.



You will only see this screen for a brief moment.

Activation RPM

A B C = RPM where 02.3 = 2300 RPM. The digit you are adjusting will be blinking. Never set below 00.5.



STEP 4. RPM set up for Channel 1 Deactivation RPM



You will only see this screen for a brief moment.

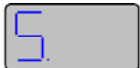
Deactivation RPM

A B C = RPM where 06.6 = 6600 RPM



STEP 5. TPAS Mode

A B C = throttle position activation switch mode.



You will only see this screen for a brief moment. Any combination other than what is listed below will force the unit into an OFF mode. EX. 1.0.0. will turned your TPAS mode off. This is not recommended see 003 for more information.



0 0 0 = "grounded" WOT switch



0 0 1 = "hot" WOT switch

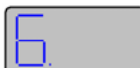


0 0 2 = TPS signal to PCM.



0 0 3 = turns this feature off if you are not connecting the blue wire.

WARNING!!! This option should only be chosen IF you have a WOT device controlling the relay. Using this feature will activate the relay anytime the system is armed and inside the Activation and Deactivation window. Primarily used for systems that are already wired and want to have features of a window switch.



STEP 6. TPS WOT setting

Note: only applies if Step 5 is configured as 002

6:B.C = WOT voltage

While at IDLE, press switch #2 to read and display the TPS signal. Pop the throttle to open it all the way – the unit only needs to see WOT for a fraction of a second. Now press switch #1 to save the displayed value. (You do not have to be at WOT when you press switch #1 to save)

Fly By Wire cars should go for a test drive for step 8. Since the throttle blade may have some delay in throttle speed vs pedal speed.

Push Switch #1 and You will see **End** this shows the programming is complete. If at any point you see **Err**, the unit has had an internal malfunction. Turn the power off and back on and try again.

Understanding LED readout.

Your window switch has an LED readout that not only is for programming but also tells you what your window switch is doing. From confirming your rpm input set up is correct, to helping you diagnose a problem if one arises.

0 = Off, 1 = Activated, L = Locked

1st LED is your TPS, 2nd LED is stage

So if you read

0. 0. 0. then all items are OFF.

1. 0. 0. you have reached your TPS activation set point. No activation of system.

0. 1. 0. you are inside your RPM window. No activation of system.

1. L. 0. you have reached your TPS activation set point, but you are in gear locked mode. No activation of system.

1. 1. 0. you have reached your TPS activation and are inside your RPM window. ACTIVATION OF SYSTEM.

DISCLAIMER:

Nitro Dave's, LLC may not be held responsible for any damages, how so ever caused, to any persons or equipment during the installation and or operation of this product. Nitro Dave's products are meant for OFF-ROAD use only, and make no claims as to this products ability to meet local safety or emissions laws.

WARRANTY:

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Nd may at its option, repair or replace without cost for parts and labor, the defective product. This warranty does not cover finishes, normal wear and tear, nor does it cover damage resulting from accident, misuse, dirt, tampering, unreasonable use, service attempted or performed by unauthorized service agencies, ACTS of Devine intervention, failure to provide reasonable maintenance, or that have been modified or used for commercial reasons.

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