

SPEEDWIRE

SYSTEMS™

NITROUS CONTROLLER INSTRUCTIONS

FEATURES:

- EACH STAGE CAN DRIVE UPTO 70 AMPS OF POWER
- UPTO 4 STAGES OF DELAY
- LED STATUS FOR FUSES AND OUTPUTS, WHEN OUTPUTS ARE ACTIVATED LED WILL LIGHT UP GREEN, FOR FUSE STATUS YELLOW LED WILL LIGHT UP WHEN FUSE IS GOOD, WHEN FUSE BLOWS LED WILL TURN RED, INDICATING BLOWN FUSE.
- ALL STAGES ARE INDEPENDENT OF EACHOTHER, MEANING YOU SELECT ANY STAGE TO COME ON BEFORE THE OTHER BASED ON YOUR TIME SELECTED, FOR EXAMPLE IF YOU HAVE 4 STAGES AND YOU WANT THE 3RD STAGE TO COME ON BEFORE THE 1ST DUE TO A BAD TRACK, SELECT THE TIME FOR THE THIRD STAGE TO EXPIRE BEFORE THE 1ST. 3RD STAGE CAN BE SELECTED TO COME ON AT .1 SECONDS AND THE 1ST STAGE AT .5 SECONDS.
- THIS WILL GIVE YOU THE ABILITY TO ACTIVATE ANY STAGE AT ANY TIME WITH OUT CHANGING WIRES AROUND.
- BUILT IN TRANS BRAKE INTERUPT FEATURE WHEN STAGING

HOW TO CHANGE TIME SETTING

Press and release red square button (top left) of screen, then press any of the blue buttons (bottom) of screen for 3-5 seconds and release to enter programming mode (as indicated on screen) . You will be prompted as default starting with STAGE 1. You can only set programming mode if controller is not set to nitrous arm, if controller is armed it will not go into programming mode.

Press EDIT to change time on this stage or (NEXT) button to proceed to next stage, or DONE to initialize chip and END to Exit

Note....you can make all your changes for all your stages and press DONE to exit; you do not have to press the END button for every stage if you have changed your time settings. Make all your necessary changes then you can select END.

When in desired stage press EDIT then TIME button to change time, you have a choice to select seconds, tenths, or hundredths of delay press corresponding blue button to select desired time, once finished always press DONE to initialize chip and program your time settings.

When in programming mode in any stage you also have the option of selecting that particular stage to be turned off, delayed, or instant. This is set by pressing MODE button when in programming mode; the screen will display the selected MODE. If desired stage is set to instant (no time delay) the time will not be displayed on the screen for that particular stage. Once all your setting are completed, (Remember) to always select END button to initialize chip.

For example if you have 4 stages connected but wish only to turn on 3 stages, you can select the 4th stage to be turned off.

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Example of time sequence:

STAGE 1 INSTANT
STAGE 2 .5 SEC
STAGE 3 .5 SEC
STAGE 4 .5 SEC

Above is an example that stage 2,3,4 will all come on at the same time .5 seconds. If you desire to stagger these stages .5 seconds after each other the time sequence must be as follows:

STAGE 1 INSTANT
STAGE 2 .5 SEC
STAGE 3 1.0 SEC
STAGE 4 1.5 SEC

Above, all 4 stages will be on in 1.5 seconds .5 seconds apart from each other. The time of delay selected for any given stage is when that relay will activate regardless of number of stage.

Below is an example if you want the 3rd stage to come on before the 2nd stage.

STAGE 1 INSTANT
STAGE 2 1.0 SEC
STAGE 3 .5 SEC
STAGE 4 1.5 SEC

ALL 4 stages will be on in 1.5 seconds as in the previous example but stage 3 will be on before stage 2. This feature can be useful if the track cannot hold the power of the second stage and your third stage has a milder tune up allowing you to get proper traction.

HOW TO RESET TIMERS WHEN THROTTLE LIFTED

To reset timers when throttle is lifted press and release RED button and then press any BLUE button 3-5 seconds and release to enter in programming mode. Once In programming mode press NEXT 4 times until screen for SETTINGS appear. You have the option that in the event you lift the throttle on and off you can have the timers start time delay when throttle is re applied. This is done by selecting to (RESET TIMERS) prompt on screen with MODE button

Once selection has been made press the DONE button to initialize chip with your new settings. Once on main screen and system is armed there will be a (R) icon on top right of screen to indicate and verify that it is in (RESET) configuration

HOW TO SET HOLD AND WAIT FEATURE WHEN THROTTLE LIFTED

To hold and wait when throttle is lifted press and release RED button and then press any BLUE button for 3-5 seconds and release to enter in programming mode. Once In programming mode press NEXT 4 times until screen for SETTINGS appear. You have the option that in the event you lift the throttle on and off you can have timers hold the expired time and start off when you left off when throttle in activated again. Press EDIT to change to (HOLD TIMERS) then press DON

Once your selection is made press the END button to initialize chip with your settings. Once on main screen and system is armed there will be an "H" icon on top right of screen to indicate and verify that it is in (HOLD) configuration

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MOTOR PURGE FEATURE

You can motor purge up to 4 stages providing 16v signal to corresponding pin on connector as shows in picture. Motor purge will only operate if controller is on and that it is in ARMED mode, motor purge will not work if controller is not armed.

For switch panels using data cable from switch panel to nitrous controller all line purges, nitrous arm, and motor purges are done through the data cable communication, no other external connection is needed.

THROTTLE SWITCH

When a positive 16v signal is applied to the carb switch input labeled (WOT) , and the nitrous controller is armed the sequence of stages will activate. You can see the status on the screen when activated.

TRANS BRAKE INTERRUPT

When a positive 16 v signal is applied to the trans brake interrupt input labeled (TBR), and the carb switch is activated, it will pause until the trans brake signal is removed, this would normally be done thru a relay when staging, however this function is now done thru the micro controller giving you nano second reaction time once the trans brake signal is removed. You can also see the status of the input on the screen when activated

LINE PURGE OPTION

You can have up to 2 line purges operate when you provide 16v signal to corresponding pins on connector as shown in picture. Line purge will always be functional regardless if controller is armed. For systems that have line purges on main relay controller, line purges on nitrous controller will not be used.

MASTER RESET BUTTON

The red button is used as a master reset, it will not change the setting but in the event of a brown out (screen display lock up) it will clear and reset the screen.

WIRING INSTALLATION RECCOMENDATIONS SUGGESTIONS

DO NOT MOUNT CLOSE TO IGNITION SOURCES OR IGNITION COIL

- **WITH A 4 STAGE SYSTEM 6 GAUGE WIRE SHOULD BE USED ON THE MAIN POWER POST**
- **CONNECT ALL DATA CABLES FIRST BEFORE TURNING POWER ON**
- **WITH A 2 STAGE SYSTEM 8 GAUGE SHOULD BE USED ON THE MAIN POWER POST**
- **DO NOT PUSH OR PRESS AGAINST LED SCREEN**
- **10 GAUGE WIRE IS RECCOMENDED FOR EACH OUTPUT STAGE TO SOLENOIDS.**
- **WHEN WELDING ON VEHICLE REMOVE ALL CONNECTIONS, OR REMOVE CONTROLLER FROM VEHICLE AS WITH ALL SENSITIVE ELECTRONICS**
- **WHEN USING THIS NITROUS CONTROLLER AND MAIN 12 RELAY CONTROLLER THE TRANS BRAKE CIRCUIT MAY OR MAY NOT BE USED ON THE 12 RELAY CONTROLLER, SEE DIAGRAM.**

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