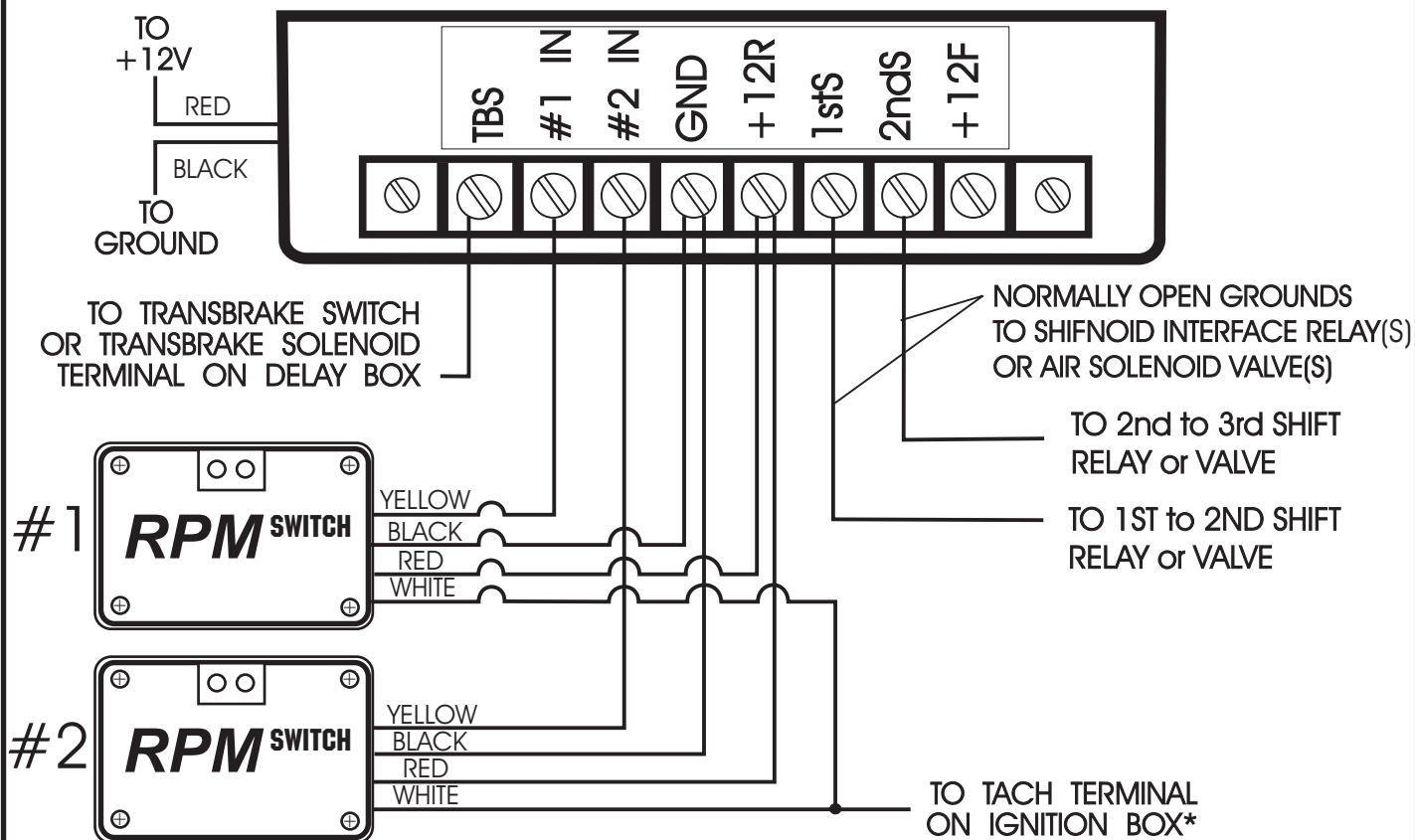
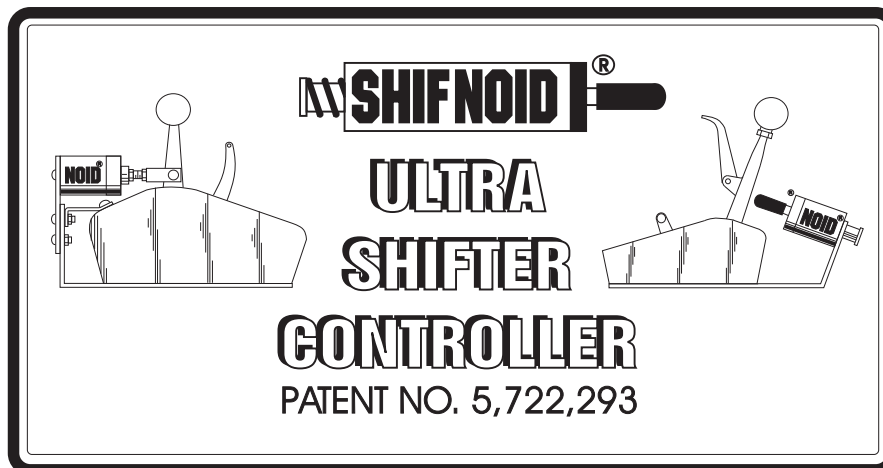


SHIFNOID WIRING DIAGRAM

SHIFNOID NC5300 ULTRA SHIFTER CONTROLLER



WHEN USING THIS CONTROLLER WITH A SHIFNOID SN5070, SN5055B, SN5055H, SN5057, SA4070 OR SA4075 SHIFT KIT CONNECT BOTH THE 1stS AND THE 2ndS TERMINALS ON THE CONTROLLER TO THE SHIFNOID INTERFACE RELAY, POST 86 IN YOUR SHIFT KIT.

ANY RPM SWITCH USED WITH THE ULTRA SHIFTER CONTROLLER MUST SUPPLY A NORMALLY OPEN GROUND (N.O. GROUND). DO NOT USE ANY RPM SWITCH THAT SENDS VOLTAGE.

ULTRA SHIFTER CONTROLLER PART # NC5300

The Ultra Shifter Controller will take 12 volts and regulate this power to your RPM switch(s), giving you a consistent activation signal every time. It will also “clean” this power, filtering Radio Frequency Interference, (RFI). It will allow you to shift at the same or two different RPM settings with your RPM switches, and shut your shifter off after it is in high gear, preventing unnecessary reactivation.

This unit will send a GROUND signal each time you reach your target RPM setting, activating your relay or valve. As soon as your RPMs drop sufficiently, or after 1/2 second even if your RPMs don't drop off, this signal will go away and the next shift will be set to activate if connected.

WIRING

It is necessary to use a relay on any RPM shifting device drawing more than one amp. When connecting the wire from TBS to your transmission brake or roll control switch you are resetting the switch. If you do not use a Transbrake or Roll control switch you will need to install a switch that will supply power momentarily to reset this box for the next run. The best way to do this is to install a momentary contact, normally open, push button switch, connected from 12V+ to the TBS terminal on this controller and push this button before each run to reset. This controller can be used to control two speed and three speed transmissions with one or two solenoids, relays or air valves. If you are controlling a two speed shifter, connect your shifter device to the 1stS terminal, and your RPM switch to #1 IN only. If you are controlling a three speed shifter with one or two shifter devices and want to shift at the same RPM both shifts, connect one RPM switch in the #2 position as shown and your shifter device on the 1stS and 2ndS (jumper) terminal if your shifter has only one actuator. If you have two actuators connect the 1st and 2nd shift actuator to the 1stS and connect the 2nd to 3rd shift actuator to the 2ndS terminal. If you are using a three speed shifter that you want to activate at two different RPM settings, you will use two RPM switches and wire as per the drawing and as above for shift actuator(s).

THE ULTRA SHIFTER CONTROLLER CAN BE USED FOR MANY DIFFERENT APPLICATIONS.

FOR THIS REASON INSTALLATION CONFUSION IS COMMON. PLEASE CONTACT SHIFNOID TECH DEPARTMENT AT 740-927-0060 FOR EXPLANATION AND ASSISTANCE.

GENERAL NOTES PLEASE READ

- Any RPM switch(s) being used must supply a normally open GROUND (N.O.) to the #1 IN and #2 IN terminals on the Ultra Shifter Controller. If using a MSD ignition with RPM switch built in, the RAS output is the terminal to use. This is a normally open ground.
- Do not use RPM switches that supply 12 volts. (Dedenbear/Biondo/Digital Delay). Using an RPM switch that supplies 12 volt will destroy the Ultra Shifter Controller if connected directly.
- Any MSD RPM switch being used: Do not use/connect GRAY wire to anything. This is a normally closed ground and will cause your unit to lock on.
- Any SHIFNOID RPM switch being used: If equipped, do not use/connect blue wire to anything.
- ON Ultra Box: 1stS and 2ndS supply low amperage ground. Both 1stS and 2ndS must trigger a relay. Do not connect directly to air or electric shifter solenoid.
- Do NOT connect anything except 1 or 2 RPM switches to the +12R terminal. This terminal will only supply very low amp draw appliances. Trying to supply an appliance that draws too much will immediately destroy the Ultra Box. This damage is not covered under warranty.
- Do NOT connect anything to the +12F terminal unless instructed to do so by SHIFNOID tech support. This is a specialty power supply used only in special circumstances.

NC5300 ULTRA SHIFTER CONTROLLER

TESTING

1. Turn all power systems on in vehicle.
2. Reset TBS terminal. CONFIRM the TBS terminal becomes HOT (12V+) when you reset it and then the power goes away. If the TBS terminal stays hot, the system will not function.
3. Connect test light to 1stS terminal. Connect to check for a GROUND. Connect one side of your test light to a known power (12 volt) source (NOT the Ultra Box itself) and the other side to the 1stS terminal.
4. With a wire having one end connected to a good vehicle GROUND (not GND on terminal strip), touch the other end to #1 IN terminal. When you do, your test light should come on for approximately 1/2 second.
5. Change your test light to 2ndS terminal. (same procedure as Step 3)
6. Touch a GROUND to #2 IN terminal. (light should do same as Step 4.)
7. Touch a GROUND to #2 IN again. Light should not come on.
8. Box will now have to be reset to work again.

If these steps occur as stated, Ultra Shifter Controller is working properly. Any problem may be in your RPM switches or wiring procedures.

WARNING !

RPM switches can be sensitive to RF interference. This problem can cause your RPM activated device to trigger at the wrong RPM, be inconsistent, or not work at all. This problem is normally most noticeable at higher RPMs. Although this unit is designed to filter as much RFI as possible, there can be no guarantee it can filter it all. Be Prepared! As the driver of the car, you must be aware that at any time RFI could stop your RPM switch or timer from activating. This in turn, could cause your automatic shifter to not activate and you will need to shift manually. Always pay attention to your car and be prepared to manually shift or lift off of the accelerator to prevent the over revving of your engine. One of the best ways to protect our engine under these conditions is to also install some type of over rev control so that the engine cannot reach an RPM beyond it's safe limits.

CAUTION

When charging batteries, be aware that some types of battery chargers create the potential for sending excessively high voltage through your electrical system. To prevent the possibility of component damage to this switch, as well as other parts of your car, it is necessary to turn off your vehicle master switch whenever charging. A unit damaged by excessive voltage will NOT be covered under warranty.

“SHIFNOID” WARRANTY & TECH SUPPORT

SHIFNOID warrants this product to be free from defects in material and workmanship under normal use if properly installed for a period of 90 days from the date of purchase. If found to be defective it will be repaired or replaced if returned prepaid along with proof of purchase. This shall constitute the sole remedy of purchaser and the sole liability of SHIFNOID. To the extent permitted by law, the forgoing is exclusive and in lieu of all other warranties or representations, whether expressed or implied, including warranty of merchantability or fitness. In no event shall SHIFNOID be liable for special or consequential damages.

Contact your “SHIFNOID” retailer or CONTENDER PERFORMANCE PRODUCTS INC. Phone: 740-927-0060

www.contenderperformance.com