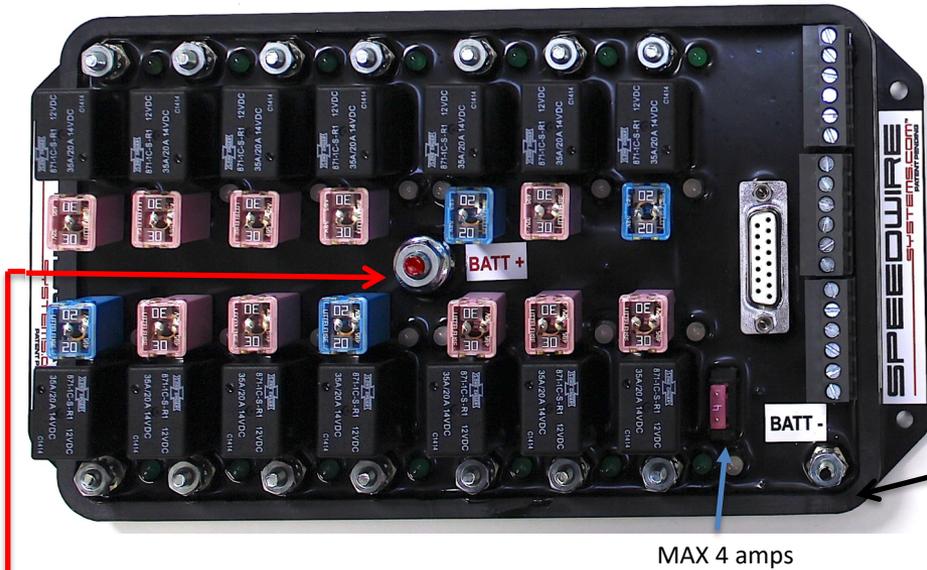


BATTERY CABLE SIZE AND ROUTING



POWER TO MAIN 14 RELAY BOARD

REFER TO AWG CHART FOR AMPERAGE AND GAUGE OF WIRE NEEDED. 6-4 GAUGE IS MOSTLY USED FOR AVERAGE RACE VEHICLES

NOTE: DO NOT WIRE THE MAIN FUSE INLINE WITH STARTER WIRE

2 GAUGE TO STARTER

MAX 4 amps

150 A FUSE
optional

ON/OFF SWITCH

GROUND FOR CONTROLLER CAN BE 14-10 GAUGE

ALL MAIN BATTERY CABLES MUST BE 1-2 GAUGE WIRE

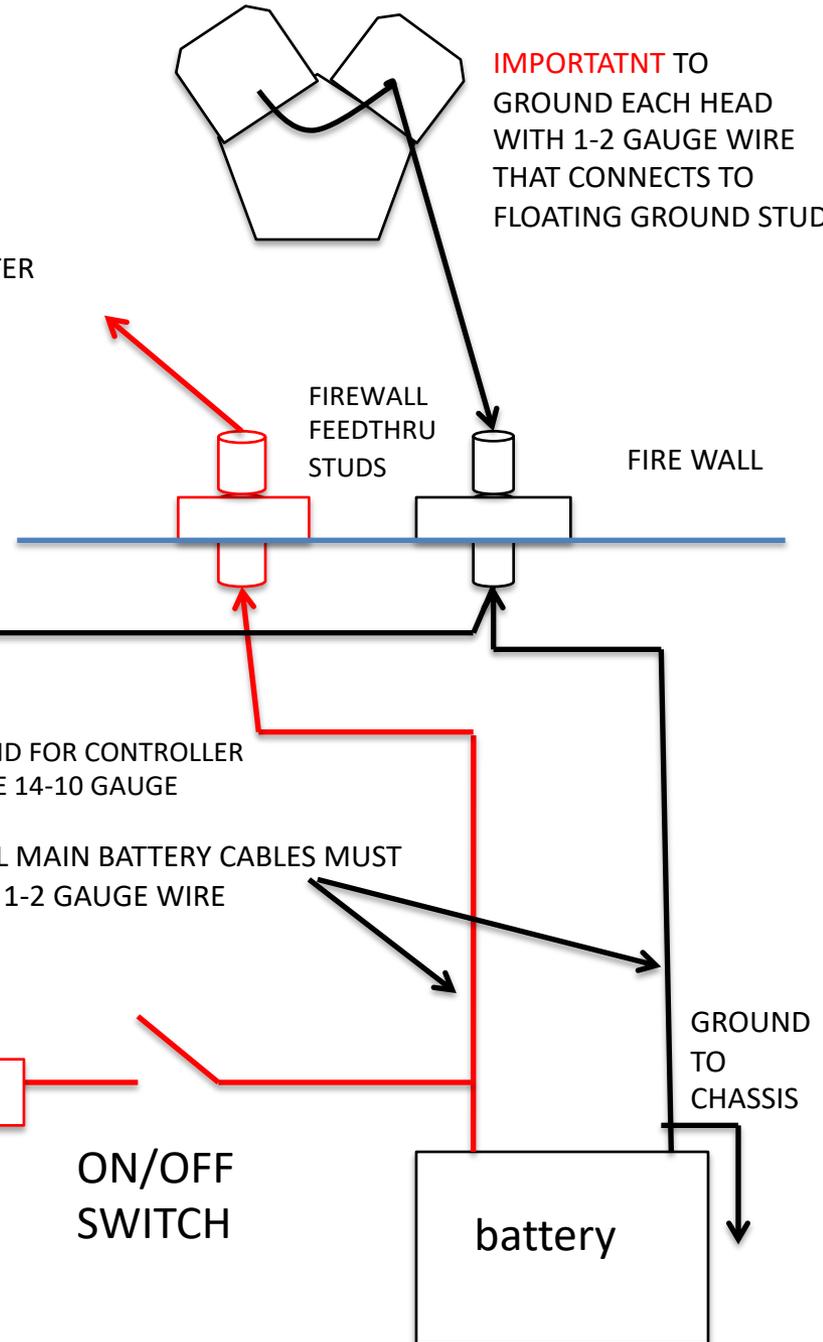
IMPORTANT TO
GROUND EACH HEAD WITH 1-2 GAUGE WIRE THAT CONNECTS TO FLOATING GROUND STUD

FIREWALL FEEDTHRU STUDS

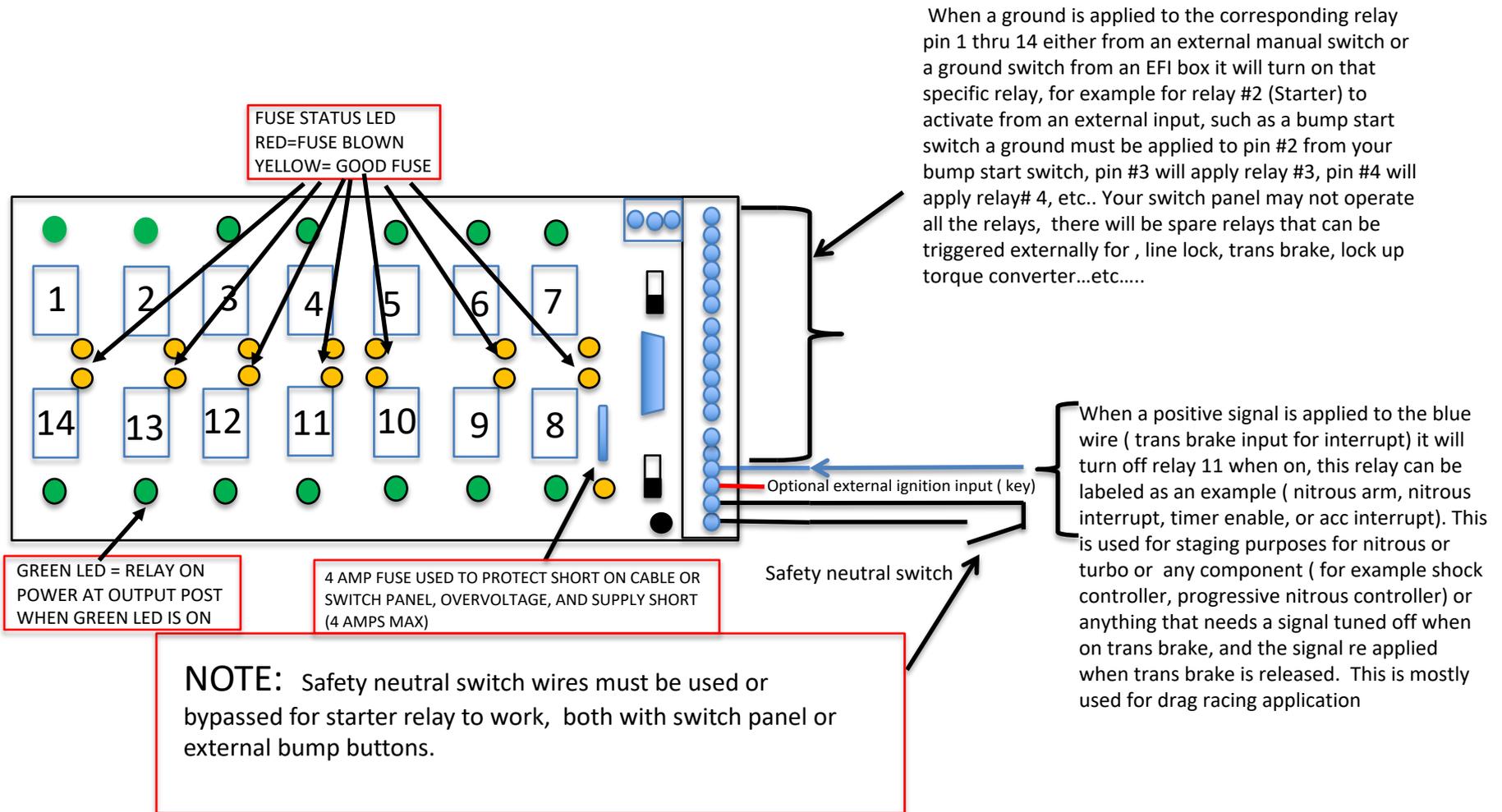
FIRE WALL

GROUND TO CHASSIS

battery

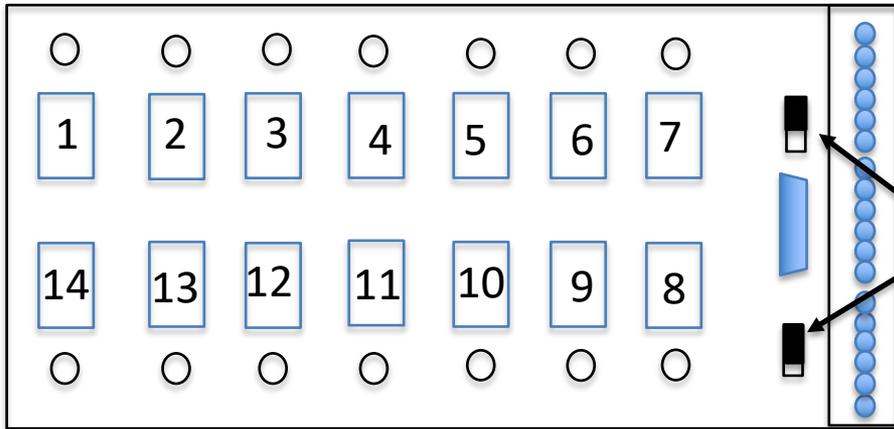


EXTERNAL INPUTS FOR 14 RELAY CONTROLLER LED FUNCTIONS



SELECTOR SWITCH POSITION AND FUNCTIONS

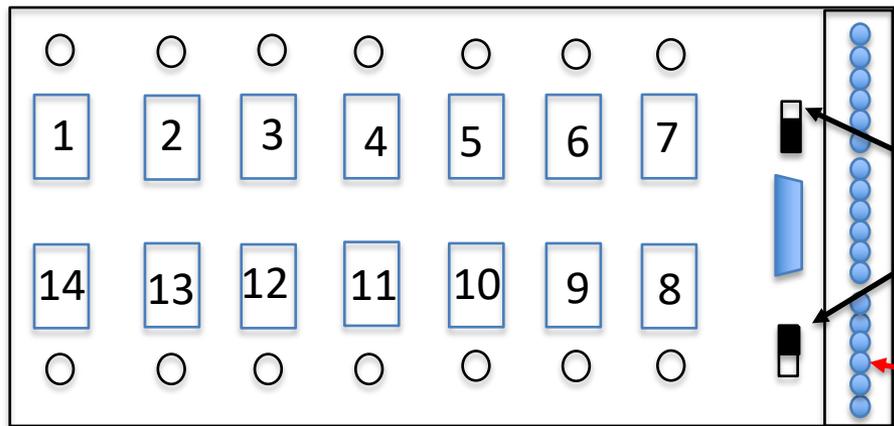
IN MOST CASES MODE 1 WOULD BE THE MORE COMMON SETTING AND IS THE FACTORY SETTING



MODE 1

When selector switches are in this position the relay controller will function as normal (factory setting), when power and ground is applied to the relay board it will activate relays with either switch panel inputs and external ground inputs. In most cases MODE 1 would be the default common setting.

MODE 2

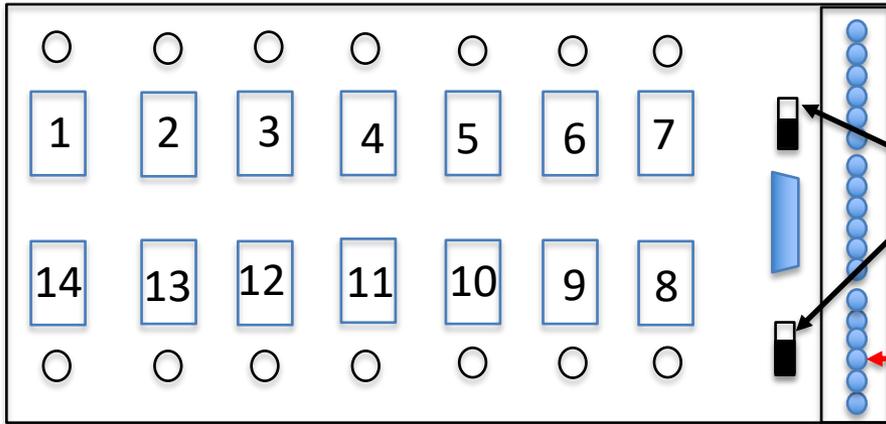


When selector switches are in this position, when power and ground are applied to the relay controller, there will be no function. This scenario the IGN input pin needs to see 12v (keyed) or (switched) for relay controller to become active. The IGN input at pin shown is the Master for all relays, once this voltage is removed all relays, and relay board will turn off.

12v IGN (keyed) or (switched) input as Master

SELECTOR SWITCH POSITION AND FUNCTIONS cont

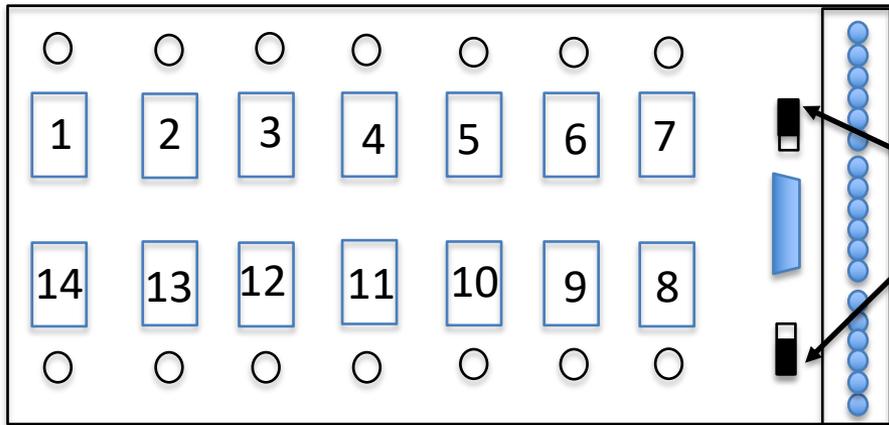
MODE 3



When selector switches are in this position, in order for the relay controller to work, once power and ground are applied, are as follows.... Relays will only activate unless you have external 12v (keyed switch) active (12v positive) connected to grey terminal as shown (ign) and relay#1 activated with either the switch panel or external ground input....ie..ECU, they both become the master of the relay controller.

12v IGN (keyed) or (switched) input as Master

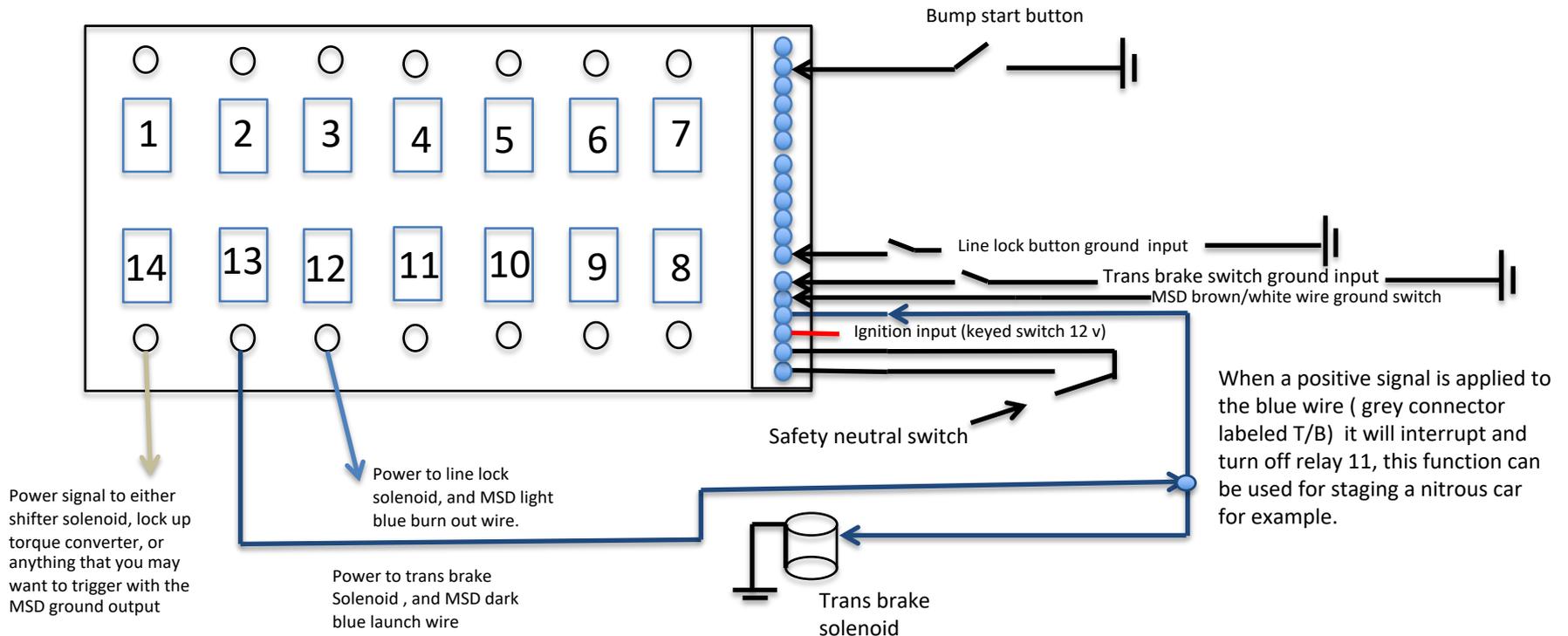
MODE 4



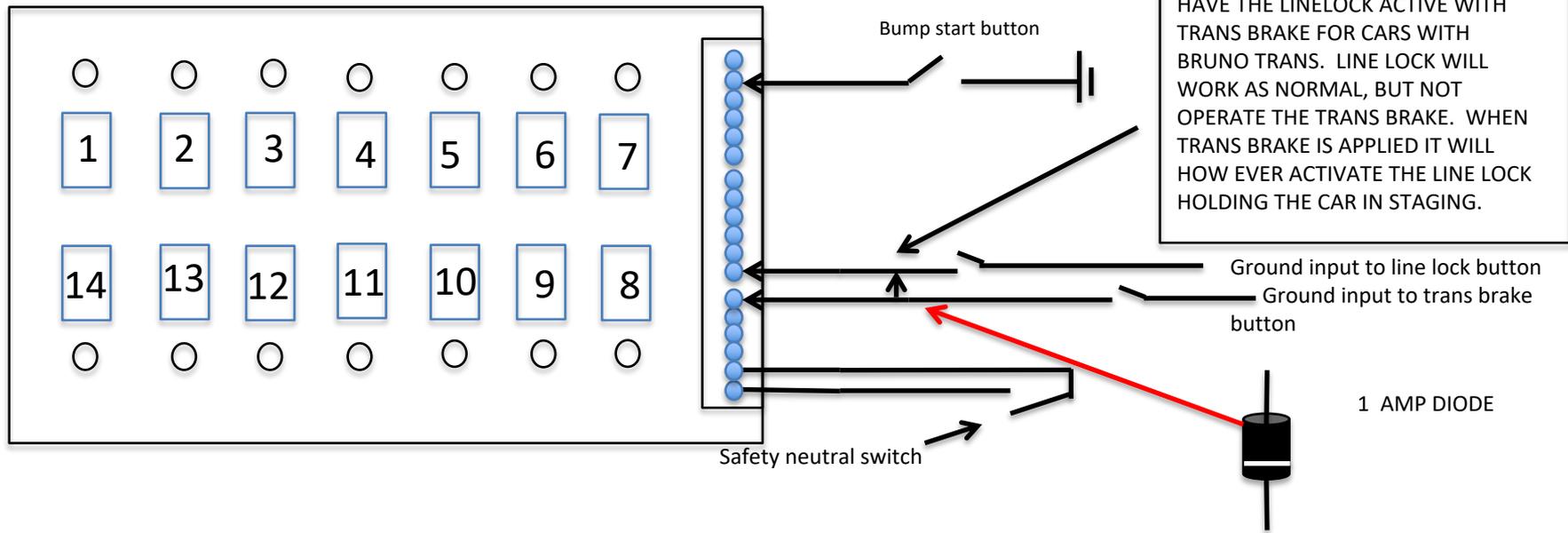
When selector switches are in this position, relays will only operate once the #1 relay is on, this relay is the Master for all the others relays to work either with the switch panel or external ground inputs.

Example of using external ground inputs for relay switching

Note: This is an example, if your controller is configured as the diagram below, this will vary per application, but will give you basic function description. For example , to activate the line lock relay a ground is supplied to your line lock button and once the button is activated it will apply a ground to pin #12 that will activate the line lock relay, which in this case is relay #12. The same applies for the trans brake circuit, if Relay 13 is labeled trans brake, and want to use this circuit you can supply a ground to your trans brake button, once the button is depressed it will apply a ground to pin #13 that will activate relay # 13.



DRAWING EXAMPLE FOR ACTIVATING LINE LOCK WHEN ON TRANS BRAKE FOR CARS THAT NEED TO HOLD THE LINELOCK FOR STAGING



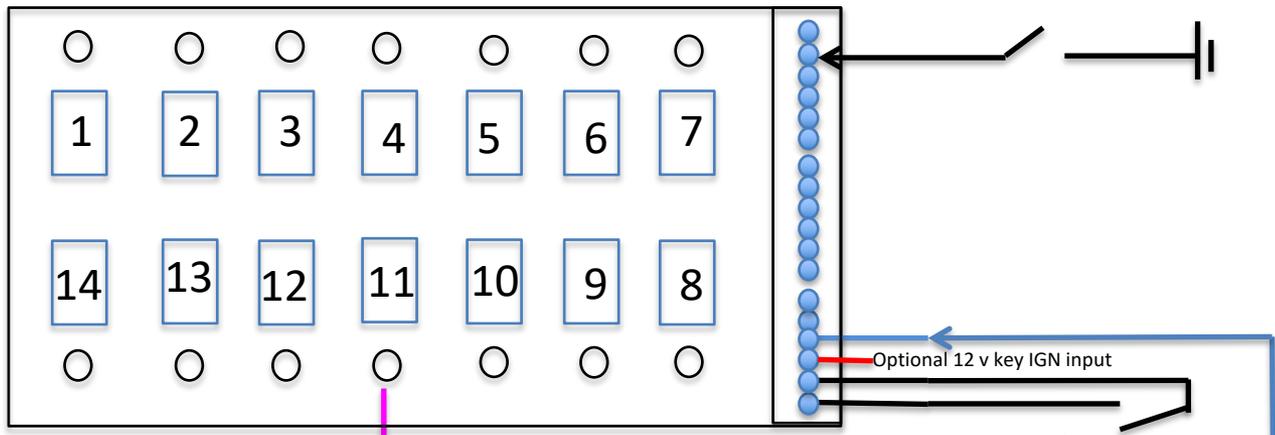
IF FOR EXAMPLE YOUR LINE LOCK INPUT IS PIN 12 AND THE TRANS BRAKE INPUT IS PIN 13 , IF YOU PLACE A DIODE INBETWEEN THE INPUTS WITH THE LINE ON THE DIODE FACING AWAY FROM THE LINE LOCK INPUT, YOU CAN ALSO HAVE THE LINELOCK ACTIVE WITH TRANS BRAKE FOR CARS WITH BRUNO TRANS. LINE LOCK WILL WORK AS NORMAL, BUT NOT OPERATE THE TRANS BRAKE. WHEN TRANS BRAKE IS APPLIED IT WILL HOW EVER ACTIVATE THE LINE LOCK HOLDING THE CAR IN STAGING.

EXTERNAL INPUTS FOR EFI or CARB NITROUS (INTERRUPT FUNCTION)

Note : For this function to work, you must wire the trans brake output circuit to have a positive input at (grey connector pin labeled T/B) for the interrupt function to work for relay #11. Refer to the specific relay labels to your particular system, as the controllers outputs will vary depending on configuration. The system can be built with the NITROUS arm relay on another relay output, please follow your specific labels on your controller. Relay #11 will always be the interrupt relay as described.

Note: For nitrous cars your relay controller may be configured to have a (NITROUS ARM) relay on # 11, when arming the switch. This relay # 11 may be used for an interrupt function when on trans brake, for shocks, traction control nitrous interrupt or others

Note: If using our nitrous controller for non EFI cars, this function interrupt function will all be done with our nitrous controller. For Nitrous EFI cars the interrupt function will also be done within the EFI configuration and you will not need to have the Nitrous arm relay interrupted , it will work as a on/off nitrous signal.



For external bump start switch to activate starter relay, a ground is wired into the switch and when switch is activated it will supply a ground to Pin #2 activating the starter relay

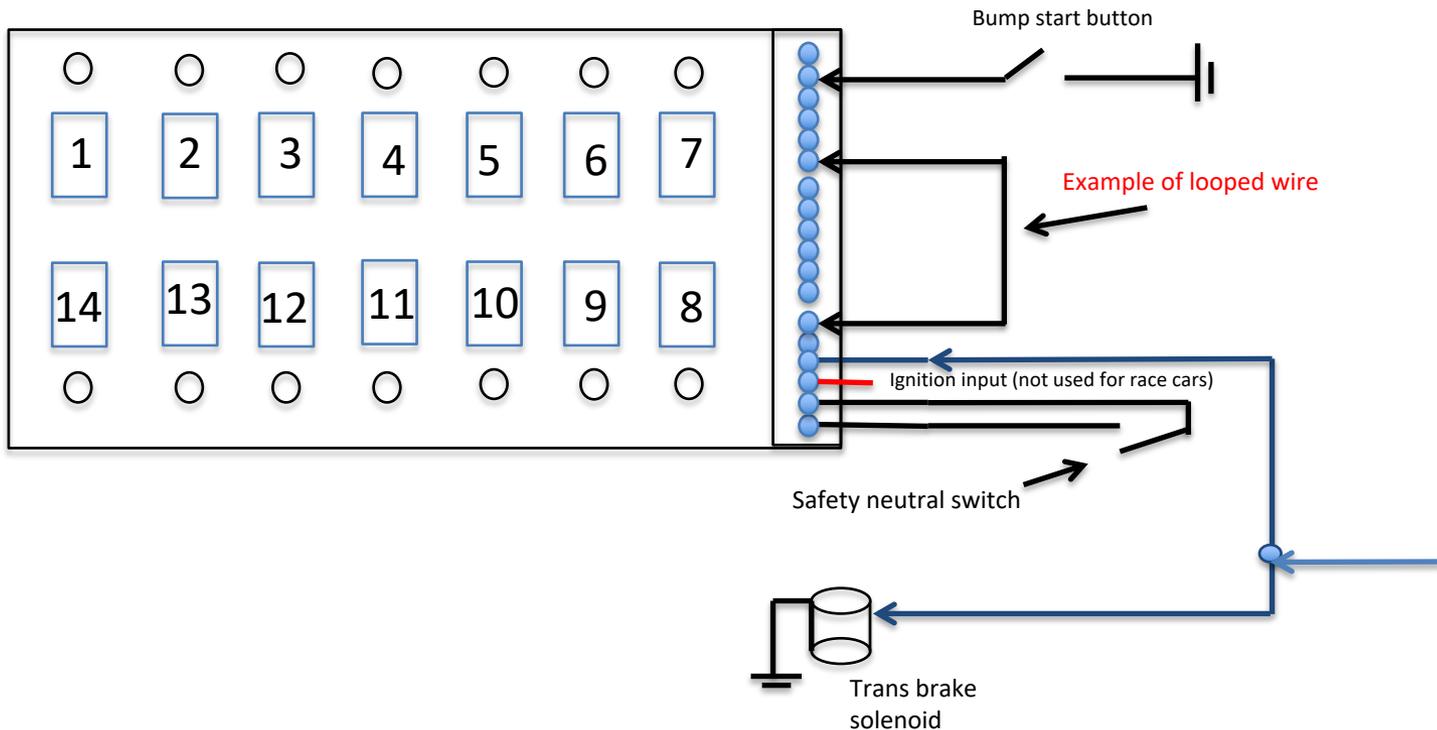
When a positive signal is applied to the blue wire and connected to grey connector pin (T/B) it will interrupt and turn off relay 11, this function can be used for staging a nitrous car where the circuit needs to be interrupted when on trans brake.

Positive signal from trans brake output from relay controller or other device such as delay box

Nitrous arm signal 16v output, can be interrupted when on trans brake as described above, this positive signal will also be wired to arm wire positive input on our 8 relay controller for EFI cars, for non EFI cars this can be wired to throttle switch.

Example of using external ground inputs for relay switching

Note: This is an example, if your controller is configured as the diagram below, this will vary per application, but will give you basic function description. For example, if your controller is labeled with relay 12, 13, or 14 as a spare or aux, and do not have any use for them for external triggering as in previous diagrams, and want to have another relay turn on with a desired switch on your switch panel, you can loop the ground wire from the relay pin that you choose, to the spare relay pin. For example, if your relay #6 is computer or ignition and want to have another relay turn on when the switch is on, loop a wire from pin #6 (as shown) and pin #13. This will turn on relay #13 and relay #6 giving you two relays turning on at the same time. This will allow you to divide any power needed with electrical consumers or give you another output as needed.



EXAMPLE:
12 v power from trans
brake button or delay
box, if using interrupt
function for relay #11