



2036 Fillmore Street
Davenport, Ia. 52804
563-324-1046
www.racedigitaldelay.com

MEGA PANEL

with

Elite Relay Board

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The Mega Panel consists of two units, the Switch Panel and a Relay Power Board. The Switch Panel is typically mounted within easy reach of the driver, while the Relay Board is mounted anywhere that is convenient, as long as cable from the Switch Panel will reach.

To keep up with the ever expanding use of electronics in drag race vehicles the Relay Power Board has been designed to handle 80 Amps continuously and has been tested at currents over 100 Amps. This far exceeds all other brands of switch panels. The high power capability of the Relay Power Board ensures that all electrical devices in the vehicle receive full power from the battery. The Relay Power Board also has an Emergency Off feature that when activated turns power off to electrical devices controlled by the Relay Power Board while turning on only the Tail Light for safety at night.

Switch Panel Wiring:

Plug the cable for the Switch Panel into the connector on the Relay Power Board. This is all the wiring that is required to allow the Switch Panel to function. However there are some outputs on the back of the Switch Panel that can be used if desired. The "Tail" terminal will supply battery power when ever the Tail Light switch is turned on. This would typically be used to supply power to backlights for gauges. The "Ign." terminal will supply battery power when ever the Ignition switch is turned on. This would typically be used to supply power to a digital tachometer, electric gauges, or any other low current device(s) to be turned on when the Ignition is on. There is also a "GND" terminal to supply a ground reference for devices connected to the "IGN" and "Tail" terminals. Also there is a 2 Amp capacity "Pass Through" terminal that can be used to pass a signal between the Relay Power Board and the Switch Panel. This is nothing more than a piece of wire with a terminal at each end. One possible use would be to pass the Tach signal to a digital tachometer on the dash. Finally there is a fused un-switched +12Volt source capable of providing up to 2 Amps of power.

Elite Relay Power Board Wiring:

For proper operation of Elite Relay Power Board use the supplied 6 gauge wire. Cut wire to length and strip ½ inch of insulation and insert bare wire into the high current connector. The end with the eyelet connects to the master cut-off switch or the Starter solenoid which ever is closer. The Ground lug on the Elite Relay Board must be connected to ground on the vehicle for the Elite Relay Power Board to work. All the rest of the terminals on the Relay Power Board are labeled on the board as their intended use. If outputs are used to control devices other than intended just make sure the current for the device is less than the fuse rating for that output.

Warning: The large 6 gauge power wire must be secured to the Relay Power Board with the supplied tie wrap. This is to prevent the large 6 gauge power wire from causing a direct short across the battery by coming in contact with the frame, if the high current connector was to come lose.

The Elite Relay Power Board

The Elite Relay Board is sold with the most commonly used fuse value for each output. If more current is required for any output, replace the fuse with a higher current fuse. The Elite Relay Board can handle up to 40 Amps. on any output. In the very unlikely event that even more current is required, two outputs can be connected together for up to 80 Amps. If more than 80 Amps is desired, please contact Digital Delay to purchase a 4 Gauge power cable which boost overall current capability to a 110 Amps.

The LEDs

The Relay Power Board has an LED indicator for each fuse, each output, and the Emergency Off feature. The green LEDs, when lit, are used to indicate that the fuses are good. The yellow LEDs, when lit, are used to indicate when outputs are on and the red LED, when lit, indicates the Emergency Off is activated.

Dual Select Feature

The Elite Relay Power Board's Dual Select Feature allows two outputs to be turned on by a single panel switch. There are three Dual Select switches on the Relay Power Board labeled A, B, and C. Use the list below to see which outputs turn on together.

When **Dual Select** is turned on:

A, will turn on both Headlight & Taillight outputs at the same time when switch on control panel is set to headlight.

B, will turn on both Aux. 1 & Aux. 2 outputs at the same time when switch on control panel is set to Aux. 2.

C, will turn on both Water Pump & Fan outputs at the same time when switch on control panel is set to fan.

When **Dual Select** is turned off, the Switch Panel switches will work each output independently.

Emergency Off

The Relay Power Board also has an Emergency Off feature that when activated turns power off to electrical devices controlled by the Relay Power Board while turning on only the Tail Light for safety at night. To use this feature a push button must be wired to the Relay Power Board as follows, one wire from the push button goes to ground. The other wire from the push button goes to the Emergency Off Terminal on the Relay Power Board. When the button is pressed the Emergency Off is activated. The only way to reset or deactivate the Emergency Off feature is to turn off the master cutoff for a short period of time. When the master cutoff switch is turned back on and power is restored to the Relay Power Board the Emergency Off feature will be automatically reset.

The Shift Output Controller (Only Active When Ignition Switch Is On)

The Elite Relay Power Board also has a Shift Output Controller. The Shift Output Controller allows the driver to select whether to shift on time or RPM using a remotely mounted Select Switch (usually mounted on the dash). The Select Switch is a simple on/off toggle switch, with +12 Volts connected to one side and the other side connected to the Select terminal on the Elite Relay Board. When the Select Switch is in the off position RPM is selected and when the Select Switch is turned on Time is selected.

Note: If the vehicle is going to be shifted only by RPM or only by Time a Select Switch is not necessary.

When shifting by RPM only, no connection is made to the Select terminal on the Elite Relay Board.

When shifting by Time only, +12 Volts must be connected to the Select terminal on the Elite Relay Board.

The Elite Relay Board also has three slide switches that need to be set. The Output Control Switch is used to control whether the shift output will apply +12 volts (N.O.) to shift or remove +12 Volts (N.C.) to shift. The two Input Selector Switches, one for Time and one for RPM, are used to tell the Elite Relay Board whether +12 Volts or ground is coming from the Shift Controllers. For example, if an Elite 500 is used for the Time Shift Controller the Time Input Selector Switch would be set to +12 Volts to match the +12 volts that the Elite 500 will send out from its shift terminal. Additionally if an MSD RPM Switch is going to be used for the RPM Shift Controller, the RPM Input Selector Switch would be set to ground to match the MSD RPM Switch output.

The Switch Panel

The Switches

The switches are labeled as to their intended use, however they can be used to turn on any device as long as the current does not exceed the fuse rating for that output on the Relay Power Board. The Fuel switch will only turn on when the Ignition switch is on. This is a safety feature required in some classes by NHRA.

If both lights on any of the double throw switches come on together, when pressing the switch down, they indicate that the Power Relay Board's Dual Select Feature is turned on for that switch and that both outputs for the switch are turned on.

Press the center section of the Start Engine button for operation.