

# INSTALLATION AND OPERATING INSTRUCTIONS

## for STROBE RUNNER and STROBE RUNNER II

### 1. Introduction

The **Strobe Runner** control console is a powerful microprocessorbased unit designed to operate as many as 126 Diversitronics DMX strobes via DMX control.

The **Strobe Runner** eliminates having to program patterns on a DMX console. Instead pre-programmed Patterns and Effects are called up simply from front panel push-buttons. In installations where strobe effects need to be activated from a DMX system, it can be controlled from a single DMX channel via the **DMX** input. This allows the Strobe Runner to be operated stand alone or part of a total DMX system. You can also change Programs and Effects from DMX. This, however, requires two additional DMX channels. (See sect. 9 External DMX control) .

Other features include audio chase activation with sensitivity control, speed and intensity control, LCD display, ability to activate one sequence or continue to repeat sequences, ability to activate programs from an external contact closure.

The **Strobe Runner** also features nonvolatile memory allowing it to return to its last operating state after a power interruption .

### 2. Power supply

The **Strobe Runner** comes with its own 120 volt (also available in 240 volt) wall mount style power supply that plugs into a connector at the rear of the console. It supplies 12 volts AC at 250ma .

### 3. Connections

All connections are made at the rear of the console.

**PWR** - Connect wall mount transformer to this jack then plug into appropriate power receptacle.

**DMX - OUT** All strobes are connected to this line. (5-pin femaleXLR)

**EXT BUMP** - 1/4" phone jack used to activate programs from an external switch (n.o).

**DMX IN / THRU** - Used to activate programs from an external DMX source (5-pin XLR's).

**AUDIO INPUT** - RCA jack used to input an audio signal.

DMX connector wiring (5-pin XLR) : Pin1= common; Pin2= neg signal; Pin3= pos signal; Pin4&5= n/c

### 4. Setting up the strobe fixtures

Any **Diversitronics** strobe fixtures with DMX inputs will operate with the Strobe Runner. Using the **Strobes push button** on the front panel, select a number corresponding to the number of fixtures you have in your system. (You can select increments of 4 from 4 to 126) .

You don't have to set the controller to match the number of strobe fixtures, for effect you can select a higher number to get a pause before the next sequence starts. If you select a lower number the strobes above that number won't flash.

Set the **DIP switch** on the strobe fixtures in your system to odd channels in the firing sequence, eg. 1,3,5,7,9,.....253.

Connect the DMX line coming from strobes to the **DMX OUT** connector on the rear of the console.

### 5. Audio Input

You can run chase programs to music simply by connecting an audio source to the **Audio Input** jack at the rear of the console and adjusting the **Audio Gain** slider upward until the **Audio LED**

lights . When no audio signal is present or the slider is set all the way down the chase speed reverts back to the **Speed slider** setting. Audio with a strong bass component works best .

## 6. Programs and Effects

There are 7 modes of operation that can be selected by the **Program push button**. They are shown in the LCD display and play as follows (N= the number of strobes selected):

**Chase** Strobes flash in sequence one to N.

>**Rev**< Strobes flash in sequence one to N then back to one .

**AllOn** Strobes flash in unison .

<**Alt**> Flash alternately between adjacent strobes .

**Merge** Strobes flash in sequence from first and last converging in the middle.

**Whirl** Strobes flash in sequence from one to N, reducing intensity each pass .

**Explode** All strobes selected flash (in Burst mode) at four different (increasing) intensity levels pausing at each level for a time set by the speed slider, then a hyperflash is activated ending the sequence.

In any of the above programs there are 7 different ways the strobes can flash. These are selected by the **Effects push button** and are shown in the LCD display as follows :

**Burst** Strobes flash at 15 flashes / sec for duration of sequence step.

**Flash** Strobes flash once per sequence step.

**Hyper** Hyperflash effect one blast each sequence step.

**Xfade** Strobes do an up /down intensity fade once per sequence step.

**Fadwn** Strobes fade intensity down once per sequence step.

**Litng** Strobe flash to a simulated lightning pattern once per sequence step.

**Solid** Strobes operate in the continuous light mode for the duration of the step.

### SR-II additional effects:

**Rapid Fire** Simulates gun fire.

**Emergency Vehicle** Simulates an ambulance flasher.

**ArcWeld** Simulates arc welding or electrical arcing.

**Auto Lightning** Each time activated a different lightning pattern is produced.

In **Whirl** program only **Burst** and **Flash** effects can be selected .

The **Explode** program is fixed in **Burst** only.

## 7. Bump and Run push button control

Programs can be activated by pressing the **Bump push button** or closing an external contact on the **Bump jack**. Playing will continue as long as the button or contact is held. When released, the program will play until the end of the chase sequence before stopping. The **Run LED** will signify this by blinking until the chase sequence ends.

Programs can be set to recycle continuously by pressing the **Run push button** (locked mode). This is indicated by the **Run LED** being in a steady on condition. This state is remembered during power down and will be reactivated upon power up. To deactivate the locked condition momentarily press the **Bump push button**.

## 8. Speed and Intensity slide controls

The **Intensity control slider** allows the user to vary the intensity of the strobe fixtures. This only works when the console is set to Burst or Flash Effect. (Hyper effects have fixed intensities).

The **Speed control slider** sets the chase rate of the program being played. When in the **AllOn mode**

and **Burst effect**, the **Speed control slider** sets the flash rate of the strobes selected. You will see a visual indication of speed in the first character of the LCD display (△) .

## 9. External DMX control

To control the Strobe Runner from an external DMX source, connect the source to the **DMX Input** connector at the rear of console. The **DMX Thru** connector allows for daisy chaining.

Now set the front panel DIP switch to the desired DMX channel (DMX channel = the sum of binary switches set to the on position, ( ie. if 128, 32, 4, & 1 are set on, the DMX channel is 165 ) .

The DMX channel setting will now control activation or deactivation of the Strobe Runner program. A setting of 50% or greater will activate the program, a setting less than 40% will deactivate the program.

Setting the first channel to 45% will allow the second DMX channel to change the Program settings and the third DMX channel to change the Effects settings according to the following table:

### 2<sup>nd</sup> DMX Channel Program, 3<sup>rd</sup> DMX Channel Effects

95% Chase 100% Burst  
85% >Rev< 90% Flash  
75% AllOn 80% Hyper  
65% <Alt> 70% RapidFire  
55% Merge 60% EmergencyVehical  
45% Whirl 50% Xfade  
35% Explode 40% Weld  
30% Fadwn  
20% Autolitng  
10% Litng  
0% Solid

## 10. Nonvolatile memory

The Strobe Runner features EEPROM memory, and will remember the last operating state when powered down. So when powered back up, you won't have to reset the programs or effects. It will automatically return to its last operating state.

## 11. Specifications

Mechanical : Height = 3" ; Width = 8" ; Depth = 7" ; Weight = 3Lbs

Electrical : Power Supply = Operates on 12 Volts AC from 120 V wall mount transformer supplied with unit . ( 240 V wall mount is available ) .

Display = LCD .

Chase Speed Range = 30 flashes/sec to 30 flashes/min .

Audio Input Range = 100 millivolt to 10 Volt RMS , Input impedance = 2K ohm .

External Bump Jack = Contact closure @ 1ma, open circuit voltage = 5 Vdc .

Output = DMX 252 frame packet, refreshed 35 times per second .

DMX Input channels = 512 set by binary DIP switch (9-position) .

DMX Thru = passive .