

WELCOME

Important Information About your Zig Oscillator Machine The Zig Oscillator

Congratulations on your purchase of this SnowMasters Zig

Oscillator. With your machine you will dazzle and entertain audiences in large or small venues. Your Zig Oscillator is Loaded with advanced features, but at the same time it is very Easy to use.

The Zig Oscillator is a modernized design in a family of special effects machines used for years in Movie Productions, Theatres, Malls, and Presentations. This machine is designed to extend the coverage of an average SnowMasters snow machine by 70%. This will reduce the need for multiple machines in most scenarios. The 90 degree rotation of the oscillator gives you the perfect coverage for almost any application. The clamps are perfect for attaching to 2" trussing.

****IMPORTANT PRODUCT AND SAFETY INFORMATION****

Failure to follow these instructions can cause serious bodily injury or property damage.

CAUTION: YOU MUST READ THE FOLLOWING BEFORE OPERATING THE ZIG OSCILLATOR

The Zig Oscillator is an Electric Product – not a toy. To avoid the risk of fire, burns, personal injury, and electric shock, ***it should not be played with and should be placed out of the reach of small children.*** Adult supervision is continuously necessary to avoid the risk of electric shock or personal injury. Never remove the covers or open the enclosures.

Always mount the Zig Oscillator using a secured "C" clamp. Wrap a safety chain around the yoke brackets for secondary protection.

Never leave the Zig Oscillator unattended while operating. Do not operate it in the rain or near standing water. Always use an outlet with an earth grounding receptacle and a Ground Fault Circuit Interrupt (GFCI).

Never use this product for any activity other than for what it is intended to use.

General Operating Instructions

Operating Instructions:

The Zig Oscillator has some simple instructions that must be carefully followed in order to create the desired effect, ensure the safety of the operators/participants and to protect the equipment from damage.

PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY.

- 1) Connect the "C" Clamps from the top or bottom of the machine to the trussing or certain area where you are securing the device.
- 2) Tighten all screws and hardware to be sure the oscillator is securely connected to the trussing.
- 3) Connect the power cord to the power source.
- 4) Not recommended to use more than 20 feet of power cord.
- 5) Set the thumb dial to DMX or Stand alone.

*see chart

The DMX interface is compliant with DMX-512 standards and electrically isolated to 1000VAC. The start address is selectable from 1 to 509. The DMX protocol occupies 4 channel positions defined as Mode, Cycle Time, Duration, and Speed. The Mode channel defines the overall operation of the oscillator with modes defined as Off, On, and Momentary. The Mode Channel will correspond to the selected start address, with the Cycle Time, Duration, and Speed Channels following in order.

When mode is set to one of the Momentary modes (5 or 15 min cycle), the Cycle Time and Duration variables shall become active and actuate the oscillator for relative times of the Cycle Time and Duration DMX channel values. The Cycle Time has a rate ranging from 10 seconds to 5 minutes in the 5 minute cycle and 10 seconds to 15 minutes in the 15 minute cycle. The Duration channel acts as a percentage of the total Cycle Time.

* Selected Start Address			
Mode	Cycle Time	Duration	Speed
255	255	255	255
:	:	:	:
0	0	0	0

255	Always On
:	
192	
191	15 Min Cycle
:	
128	
127	5 Min Cycle
:	
64	
63	Off
:	
0	

General Operating Instructions- cont'd

The tables on the next two pages show the all settings that can be attained with the use of the 3 rotary switches located on the back of the device. An 'X' in a position indicates that the number in that position does not matter for the required result to be attained. Switch A is in the hundreds position, Switch B is in the tens position, and Switch C is in the ones position.

Table 1

A	B	C	State
0	0	0	Idle
0	0	1	DMX
:	:	:	
5	0	9	
5	1	0	Idle
:	:	:	
5	9	9	
6	X	X	5 Min Cycle
7	X	X	15 Min Cycle
8	X	X	Always On
9	X	X	Remote

Table 1 shows that there are six states in which the device may operate: Idle, DMX, 5 minute cycle, 15 minute cycle, always on, and remote.

Tables 2 and 3 show what occurs in the Momentary 5 minute and 15 minute cycle states. Within these states the device cycles on and off based on the B switch setting. The cycle time is the total time between cycles and the "on time" is the time during that cycle when the device is running. It is in an idle, wait state otherwise

Table 2

A	B	C	On Time
6	0	X	25 Sec On
6	1	X	50 Sec On
6	2	X	75 Sec On
6	3	X	100 Sec On
6	4	X	125 Sec On
6	5	X	150 Sec On
6	6	X	175 Sec On
6	7	X	200 Sec On
6	8	X	225 Sec On
6	9	X	250 Sec On

Table 3

A	B	C	On Time
7	0	X	75 Sec On
7	1	X	150 Sec On
7	2	X	225 Sec On
7	3	X	300 Sec On
7	4	X	375 Sec On
7	5	X	450 Sec On
7	6	X	525 Sec On
7	7	X	600 Sec On
7	8	X	750 Sec On
7	9	X	825 Sec On

Table 4

A	B	C	Speed
6,7	X	0	Speed %
6,7	X	1	Speed %
6,7	X	2	Speed %
6,7	X	3	Speed %
6,7	X	4	Speed %
6,7	X	5	Speed %
6,7	X	6	Speed %
6,7	X	7	Speed %
6,7	X	8	Speed %
6,7	X	9	Speed %

Table 4 shows the use of switch C during one of the Momentary cycle states (Switch A is 6 or 7). Switch C controls the speed as a percentage of total speed.

General Operating Instructions- cont'd

Table 5 shows the use of switches B and C when switch A is set to 8 (Always on state). Switches B and C work similarly to Switch C when Switch A is set to either 6 or 7 (Momentary states), in that it controls the speed as a percentage of the total speed. This enables the user more precise speed control.

Table 5

A	B	C	Speed
8	0	0	Speed %
:	:	:	
8	9	9	

The DMX interface is also provided as a pass thru connection. The remote interface attempts to use the standard pin 2 and 3 of the XLR5 connector to supply power to the remote control. Pins 4 and 5 are pass thru when used in a DMX configuration. Pins 4 and 5 have power applied to them only when the DMX selector is set to the 900s and this power is used to power the remote.

The user should avoid configuring the A selector to the 9 position while the DMX connection is being used

2.1.2 Remote Control

The remote control provides a tethered, remote control connection to the Oscillator machine. The only control the remote has over is on and off and speed. The speed knob shall be notched to provide 5 distinct settings, Off, 1 – 4. There is also a status led to inform the user that the unit is on and powered. It also flashes to show the status of operation the 3 rotary switches must be at 900 for remote function to be enabled.

When the unit is powered and the Speed knob is set to the Off position the red LED with flash constantly to tell the user that the unit is in standby. When the user turns the knob to another setting the LED will go to a solid red.



Limited Lifetime Warranty

SnowMasters™ provides a limited lifetime warranty for the “Zig Oscillator” machine from any manufacturing defects. Any misuse, abuse, or negligence automatically voids our warranty. SnowMasters™ is not responsible for loss of income, labor, or business as a result of a Zig Oscillator malfunction. SnowMasters™ is not responsible for physical damage or scratching damage after shipping from SnowMasters™ Manufacturing facility. For safety reasons, SnowMasters™ will repair damaged electrical wires per the warranty. There is a lifetime warranty on the circuit board and other electronics to the oscillator. Direct all questions and claims to the SnowMasters™ customer service at 800-745-8599 from 8-5 Central time or the 24 hr tech support line at 888-391-SNOW.