## T-1500 Mini

## EVAPORATIVE SNOW MACHINE



## New and Improved Machine



## * DMX WILL NOT WORK UNLESS TERMINATOR IS PLUGGED IN

* The Rotary settings are controlled by a flat head screw driver.



## Important Information About your T-1500 Mini Snow Machine

## THE T-1500 Mini

Congratulations on your purchase of this Global Special Effects snow machine. With your snow machine you will dazzle and entertain audiences in large or small venues. Your T-1500 Mini snow machine is loaded with advanced features, but at the same time it is very easy to use.

The T-1500 Mini is a modernized design in a family of special effects snow machines used for years in Movie Productions, Theatres, Malls, and Presentations. This futuristic modeled "work-horse" sprays evaporative snow from its nozzle section and creates a realistic snowfall effect without residue or cold air. With its reliable and efficient design, the T-1500 Mini is a marvel for stage productions, fancy presentations or unique weddings. The tethered remote and the DMX give the use control over snow flake size and instant activation

IMPORTANT PRODUCT AND SAFETY INFORMATION<br>Failure to follow these instructions can cause serious bodily injury or property damage.

## CAUTION: YOU MUST READ THE FOLLOWING BEFORE OPERATING THE T-1500 Mini

The T-1500 Mini 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.

The T-1500 Mini generates evaporative snow ${ }^{\top M}$ that normally disipates completely when dispensed from the ground to 20-30 ft in the air. Mounting the T-1500 Mini at the specified elevation, relative to the generated flake size, is key to creating a "residue free" floor below the snow machine (See Chart 2). A wet floor or incorrectly mounted snow machine could allow a build-up of snow residue. Since the residue is slippery, it is important to follow all the directions in this manual to avoid this type of problem.

Never operate the T-1500 Mini without Global Special Effects evaporative snow ${ }^{\text {TM }}$ in the solution bottle. Do not run the T-1500 Mini when the Gallon Solution bottle is holding less than a pint of solution If you do not follow these directions. the T-1500 Mini can be damaged and warranty voided.

Always mount the T-1500 Mini using the secured "C" Clamp (Not included) that is attached to the steel yoke or secure it on a flat stable platform. Wrap a safety cable (Not included) around the yoke brackets for secondary protection.

Never leave the T-1500 Mini 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. Never add flammable liquids (oil, gas, alcohol, perfume) to the snow solution.

## T－1500 Mini Snow Machine Features and Specifications

## Features

The best Evaporative Snow Machine in the world．

## 潾 4－channel DMX control

粦 Remote control（rented／sold separately）
深 Variable stand alone features
料 Lifetime warranty－（As long as global special effects snow fluid is used）
粦 24－Hour Technical Service
落 Repeat Cycle Timer（ 5 min ．and 15 min．cycles）

## Specifications

Voltage：11060 Hz or 220 v
220 v
100 v
Current：$\quad 20$ Amps

Size：$\quad 22.5^{\prime \prime}$ Wide，22．5＂Long and 22．5＂Tall（without the yoke and＂C＂Clamp）
Weight：$\quad 52 \mathrm{lbs}$
Materials：Predominately：Polyethylene Exterior with steel covers，bracket and yoke．
Color：Black
Snow Solution： 1 oz Solution Mixture per minute（approximate） Usage Rate of 1 to 1.5 hrs per gallon of solution．

Solution Contains： 1 gallon or 4.3 liters
Power Cable
Length：$\quad 7 \mathrm{ft}$
Tether Length
To Remote：
30 ft
Sound：$\quad 74 \mathrm{db}$＠ 9.8 feet

## Evaporative Snow ${ }^{\text {TM }}$ Solution Mixture

## Solution Mixture:

Global Special Effects Labs are constantly inventing and reformulating solutions in order to improve the snow from the T-1500 Mini. Please contact Global Special Effects at 800-745-8599 for more information. In order to prevent operation problems and observe the Warranty guidelines, always use a Global Special Effects approved solution. The FG-100 Snow Solution comes premixed and ready to use. You will have to pour the solution into the plastic bottle that comes with the T-1500 Mini.

## FG-100 Evaporative Snow ${ }^{\text {TM }}$ premixed. Recommended

Global Special Effects premixed solutions are designed with the highest grade of available water based surfactants. The surfactant-based solution is mixed with de-ionized water to leave no residue when using the snow machine properly. The use of de-ionized water is necessary to create a bright . uffy snow flake. Global Special Effects Laboratories have researched and developed the driest available snow solution on the market today. FG-100 premixed weight: 9.8 pounds.

## Using Evaporative Snow ${ }^{\text {TM }}$ concentrate solution FG-100C

Global Special Effects Labs have designed a concentrated version of FG-100 premixed in an attempt to save shipping cost to our customers. The ratio mix for this snow solution is 8 oz . of solution per one gallon of water. It is important to remember that the kind of water used will affect the quality of snow. The recommended water to use is de-ionized water or distilled water. This form of water has no minerals, hard properties or chlorine. De-ionized water is the base ingredient in our formulation, because it makes the best foam and leaves no water stains. It was originally used for the movie industry, so if the snow landed on a camera lens, it would not leave a water ring. Since this formulation has no chemical, it dries and leaves no film. Be aware that if you use tap water, it may have hard agents that can cause poor looking snow. In this case, order FG-100 premix. The use of tap water, city water or well water can be used with the following warnings: Certain tap waters contain high mineral content and will produce a minimal amount of snow. These minerals will not produce a bright white flake.

See chart below (Chart 1) for some examples of common water/solution ratios. Please read before mixing this product with water. Make sure you adhere to the mixing proportions.
Warning if you mix water with FG-100 premixed (non-concentrate), you will not be able to generate snow. FG-100C Concentrate 8 oz bottle weight: 0.5 lb .

## Chart 1

WATER
FG-100 CONCENTRATE
Tablespoons or Pints or Fluid Ounces

| $1 / 2$ gallon | 8 | $1 / 4$ | 4 |
| :---: | :---: | :---: | :---: |
| 1gallon | 16 | $1 / 2$ | 8 |
| $\mathbf{2}$ gallons | 32 | 1 | 16 |
| $\mathbf{5}$ gallons | 80 | $21 / 2$ | 40 |

Lightly Shake or Stir the solution in the container before operating the T-1500 Mini.


## General Operating Instructions

## Operating Instructions:

The T-1500 Mini has some simple instructions that must be carefully followed in order to create the desired evaporative snowfall, ensure the safety of the operators/participants and to protect the equipment from damage.

## PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY.

1) Prepare the area you intend to direct your snowfall. Review "Diagram 1" on page 12 which shows approximate spread of the evaporative snow. Always prepare your snowfall area making sure it is dry and free of obstructions. Note that if the snowfall surface area is linoleum or smooth, and if the T-1500 Mini is mounted too low (See Chart 2), some flakes can create a slippery floor. Always locate the T-1500 Mini in a well-ventilated area. Never block or cover the intake or nozzle discharge of the T-1500 Mini or the internal blower can be damaged.
2) Mount the T-1500 Mini on a secure, dry and level platform. Since the larger the flake size the slower it will be to evaporate, Chart 2 recommends Rotary Switch or Remote settings to minimize residue on the ground. For safety reasons, the T-1500 Mini should be unplugged from the electrical outlet while placing it in your desired location. The Nozzle should be pointed in the direction you want it to spray snow. Hang or route the 30 ft . tethered remote as required to the desired operating location without pinching the wire. Do not operate the T-1500 Mini in the rain. The T-
1500 Mini is not waterproof. If it gets wet, unplug the snow machine and contact "Global Special Effects" ${ }^{\text {m" }}$ technical support $\llcorner$ 1-800-745-8599.

Rain Covers are available, but not included
Chart 2
Approximate Rotary Switch or Dial Remote Settings
Relative to Mounting Height to Minimize Residue

| Rotary Switch <br> Setting | or Remote <br> Setting <br> 900 s | Snowflake Size | Mounting <br> Height |
| :---: | :---: | :---: | :---: |
| $880-899$ | 5 | $1 / 4-1 / 2$ inch | 30 ft |
| $879-860$ | 4 | $3 / 16-3 / 8$ inch | 25 ft |
| $859-840$ | 3 | $1 / 8-1 / 4$ inch | 20 ft |
| $839-820$ | 2 | $1 / 16-3 / 16$ inch | 15 ft |
| $819-800$ | 1 | $0-3 / 16$ inch | $10 \mathrm{ft} *$ |

## * 10 ft is probably too low to prevent some residue on the ground.

3) If the snow solution is a concentrate, prepare the snow solution in the empty plastic gallon bottle provided (located in the T-1500 Mini solution bottle well) per the "Solution Mixture" section of this manual (See Chart 1). If the correct water/concentrate mix is not blended properly, the T-1500 Mini may not create the ideal evaporative snowflakes. Place the clear tube in the container with the "Solution Mixture" and push it down so that the open end reaches the bottom of the filled container. The pump in the T-1500 Mini is self-priming.
4) In order to start the T-1500 Mini, plug the Snow Machine power cord into an outlet with a $3^{\text {rd }}$ lead grounded conductor (preferably a Ground Fault Circuit Interrupt -GFCI). Next, turn the power

## General Operating Instructions

## Operating Instructions:

switch "ON" in the back of the T-1500 Mini. If you are using the DMX features, read the section on DMX settings to get the proper response. If you are using the remote, set the DMX display on the side of the T-1500 Mini unit to any number between 900-999. Press the "ON" switch on the tethered remote to start the snowfall. Adjust the dial on the remote to set the desired snowflake size (See Chart 2). Rotate the dial clockwise to obtain larger flakes and counterclockwise for smaller flakes. If the flakes are sticking to the ground during an initial run, adjust the dial counterclockwise, after drying off the ground surface (snowflakes accumulate more easily on a wet surface). Press "OFF" to turn off the snow on the tethered remote. Do not operate the T-1500 Mini without the clear tube submerged in the filled solution container.
5) If the solution has drained out of the clear tube during a rest period for the T-1500 Mini, it may take a minute or two for the pump to selfprime itself from the solution container liquid.
6) On the tethered remote, a blinking light signifies that the Power is "ON". A constant light from the LED signifies that the T-1500 Mini is blowing evaporative snow. If the light on the remote is completely off, the unit is not powered up and cannot be controlled from the remote.

7) To turn the power OFF, push down on the red " O " button on the back of the unit.

## DMX Settings T-1500 Mini

The DMX settings are key to the operation of the T-1500 Mini. The three-digit number on the side of the T-1500 Mini panel determines the operation mode for the T-1500 Mini. Warning: there are DMX settings where the T-1500 Mini will appear not to operate, so always review the tables below during setup and operation .
***THE DMX TERMINATOR MUST BE


PLUGGED IN FOR DMX FUNCTIONALITY TO WORK PROPERLY

| RANGE |  | ACTIVITY |
| :---: | :---: | :--- |
| $\mathbf{0 0 1}$ | $\mathbf{5 0 0}$ | DMX Address- Outside Interface |
| $\mathbf{5 0 1}$ | 599 | Standby- No Activity |
| $\mathbf{6 0 0}$ | 699 | Short Cycles of ON/OFF Activity |
| $\mathbf{7 0 0}$ | $\mathbf{7 9 9}$ | Long Cycles of ON/OFF Activity |
| $\mathbf{8 0 0}$ | $\mathbf{8 4 9}$ | Zero to Minimal Snow-Blower Operates |
| $\mathbf{8 5 0}$ | $\mathbf{8 5 9}$ | Snow Flurry- Lowest Outputs |
| $\mathbf{8 6 0}$ | $\mathbf{8 7 9}$ | Light Snowfall- Smallest Flakes |
| $\mathbf{8 8 0}$ | $\mathbf{8 8 9}$ | Sub-Blizzard- Larger Snow Flakes |
| $\mathbf{8 9 0}$ | $\mathbf{8 9 5}$ | Ideal Range of Operation at 30 ft height |
| $\mathbf{8 9 6}$ | $\mathbf{8 9 9}$ | Maximum Snow Output- Largest Flakes <br> $\mathbf{9 0 0}$ |
| 999 | Remote Control Activated (Note: 5 Pin DMX <br> must be disconneted.) |  |



DMX TERMINATOR

## Using the Controller

## Snow Machine Controller

The snow machine controller consists of one fan relay, a pump controller and control interface capable of receiving a DMX signal or a proprietary remote control signal. The DMX address is set via a three digit rotary switch located on the side of the device. The DMX address is set in a decimal fashion.

| *SELECTED START ADDRESS |  |  |  |
| :---: | :---: | :---: | :---: |
| Cycle |  |  |  |
| Time |  |  |  | Flake | Size |
| :---: |
| $\mathbf{1 0 0}$ |
| $\mathbf{1 0 0}$ |
| $\mathbf{0}$ |
| $\mathbf{0}$ |

order.

## DMX Mode Channel Level

| 100 | Always On |
| :---: | :---: |
| $\vdots$ |  |
| 75 |  |
| 74 | Min Cycle |
| $\vdots$ |  |
| 51 |  |
| 50 |  |
| $\vdots$ | 5 Min Cycle |
| 25 |  |
| 24 |  |
| $\vdots$ | Off |
| 0 |  |

The DMX interface is compliant with DMX-512 standards and electrically isolated to 1000 VAC. The starting address can be set from 1 to 509. The DMX protocol requires 4 dimmers defined as Mode, Cycle Time, Duration and Flake Size. The Mode dimmer defines the overall operation of the snow machine - Off, On, and Momentary. The Mode dimmer will correspond to the selected start address, with the Cycle Time, Duration, and Flake Size channels in the following

When the mode channel is set to one of the Momentary positions (either 5 or 15 min cycle), the Cycle Time and Duration channels become active. The cycle time channel establishes the time it takes for the entire event. Duration channel is the length of time of snow output. The minimum time of one cycle is 18 seconds with a ten second ON time, a four second SNEEZE, and a four second WAIT. A sneeze is when the blower remains on without the pump and dries the sock, preventing postnasal drip.

The following tables show all the settings that can be attained with the use of the three digit rotary switch located on the side of the device. An ' $X$ ' 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- Mode Settings

| A | B | C | Mode |
| :---: | :---: | :---: | :---: |
| 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 <br> Cycle |
| 8 | $X$ | $X$ | Always On |
| 9 | $X$ | $X$ | Remote |

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

## Using the Controller

## Snow Machine Controller

Table 2-5 Minute Cycle

| A | B | C | ON Time | WAIT Time |
| :---: | :---: | :---: | :---: | :---: |
| 6 | 0 | X | 15 Seconds | 4 Minutes 45 Seconds |
| 6 | 1 | X | 30 Seconds | 4 Minutes 30 Seconds |
| 6 | 2 | X | 1 Minute | 4 Minutes |
| 6 | 3 | X | 1 Minute 30 Seconds | 3 Minutes 30 Seconds |
| 6 | 4 | X | 2 Minutes | 3 Minutes |
| 6 | 5 | $X$ | 2 Minute 30 Seconds | 2 Minutes 30 Seconds |
| 6 | 6 | $X$ | 3 Minutes | 2 Minutes |
| 6 | 7 | X | 3 Minute 30 Seconds | 1 Minute 30 Seconds |
| 6 | 8 | $X$ | 4 Minutes | 1 Minute |
| 6 | 9 | $X$ | 4 Minute 30 Seconds | 30 Seconds |

Table 2 displays the settings for the 5 minute cycle. Within this mode, the device cycles are dependent on the B switch setting. The cycle time is the total time of the event, and the "on time" is the length of time of snow output, similar to the duration in the "DMX mode". Otherwise, the machine is in a WAIT state

## Table 3-15 Minute Cycle

| A | B | C | ON Time | WAIT Time |
| :---: | :---: | :---: | :---: | :---: |
| 7 | 0 | X | 45 Seconds | 14 Minutes 15 Seconds |
| 7 | 1 | X | 1 Minute 30 Seconds | 13 Minutes 30 Seconds |
| 7 | 2 | X | 3 Minutes | 12 Minutes |
| 7 | 3 | $X$ | 4 Minutes 30 Seconds | 10 Minutes 30 Seconds |
| 7 | 4 | $X$ | 6 Minutes | 9 Minutes |
| 7 | 5 | $X$ | 7 Minute 30 Seconds | 7 Minutes 30 Seconds |
| 7 | 6 | $X$ | 9 Minutes | 6 Minutes |
| 7 | 7 | $X$ | 10 Minute 30 Seconds | 4 Minute 30 Seconds |
| 7 | 8 | $X$ | 12 Minutes | 3 Minutes |
| 7 | 9 | $X$ | 13 Minute 30 Seconds | 1 Minute 30 Seconds |

Table 3 displays the settings for the 15 minute cycle. Within this mode, the device cycles are dependent on the B switch setting. The cycle time is the total time of the event, and the "on time" is the length of time of snow output, similar to the duration in the "DMX mode". Otherwise, the machine is in a WAIT state

Table 4 shows the use of switch C during 5 minute or 15 minute cycle modes (Switch A is 6 or 7). Switch C controls the flake size.

## Using the Controller and the Remote

## Snow Machine Controller

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 in the 5 minute and 15 minute cycle modes. It controls the flake size. The user then has 100 choices of flake size.

Table 5 -Always on Flake size setting.

| A | B | C | Flake Size |
| :---: | :---: | :---: | :---: |
| 8 | 0 | 0 | $1 \%$ |
| 8 | $:$ | $:$ | $:$ |
| 8 | 9 | 9 | $100 \%$ |

The DMX interface is also provided as a pass through connection. The remote interface utilizes standard pins 4 and 5 of the 5 pin XLR connector to supply power to the remote control. Pins 4 and 5 are pass through when used in a DMX configuration. Pins 4 and 5 have power applied to them only when the DMX selector is set to the 900 s and this power is used to power the remote.

Note: The user should avoid configuring the 'A' selector to the 9 position while a DMX connection is being used.

There is a provision on the controller board for an additional fan control relay rated at 10 amps . This relay has a completely separate power interface.

## Remote Control NOT INCLUDED, SOLD SEPARATELY

The remote control provides a tethered remote control connection to the snow machine. The 3 rotary switches must be at 900 or greater for remote function to be enabled. The remote has control over the on/off and flake size functions. The flake size knob provides variable settings from small (0) to large (5) flakes. There is also a status LED to inform the user that the unit is on and powered.

When the unit is powered and the power switch on the remote is set to the off position, the red LED on the remote will slowly pulse to inform the user that the unit is in standby. When the user changes the switch to on, the LED will go to a solid red.

While in "remote mode", Rotary Switch controls the flake size. The "remote mode" also allows for the use of a quick on/off switch located on the remote control.


## Maintenance Information and Precautions

## General Maintenance

## The T-1500 Mini is a low maintenance unit.

## Cleaning and Storing the T-1500 Mini

In order to clean the T-1500 Mini, fill another plastic container half full with water and run the unit for 3-5 minutes with the nozzle tilted downward into another container (if possible). You may clean the plastic exterior of the T-1500 Mini with detergent and water. Do not stack other boxes or items on top of the T-1500 Mini. Store the T-1500 Mini in a cool, dry environment between 40-80 degrees F. If electrical wires are frayed, contact the factory at 800-745-8599 for service. Never operate the T-1500 Mini with a frayed electrical wire.

Caution: Never remove the cover or housing screws on the Snow Machine. This action will nullify the warranty, Unless you have been trained by a certified techniation. Contact customer service at 800-745-8599.

General Repair: The T-1500 Mini Snow Machine has a lifetime warranty and should never require you to disassemble the unit. Please contact Global Special Effects service at 800-745-8599 if you have questions on its operation or warranty.

## Always use Global Special Effects approved snow solutions or the Lifetime Warranty will be nullified

## Types of Trouble and Their Solutions

## Symptoms and Cause and/or Corrective Actions

1 If the T-1500 Mini does not generate snow, review the following checklist.
a) When turned "ON", is the Fan Operating? (Air is shooting out the nozzle of the T-1500 Mini).

Yes: Move on to (b)
No: Check the electric plug interface at the outlet connection, and make sure the remote connector is connected to the main unit. Check to see if the power switch is "ON" on the main unit. A red LED light should be illuminated on the back of the T-1500 Mini when power is "ON". Make sure that the DMX settings meet your desired criteria (see the DMX section of this manual-the unit should always be operating with settings between 880-899). Also, the LED light on the remote should be illuminated (blinking) if the main power is "ON" and the DMX setting is in the 900s. A constant light will illuminate on the remote if snow is being generated. If the lights are not illuminated, call customer service at 800-745-8599 or the 24 hr tech line at 888-391-SNOW.
b) Is the Pump Operating?

Yes: If you feel the clear plastic tube vibrating, then the pump is operating. Go to (c)

No: Recheck the DMX settings per the DMX settings in the manual. The unit should always operate and blow snow with settings between 880 and 899 .

## Contact customer service at 800-745-8599.

c) Check to see if the tube is fully submerged in solution and is not pinched. A hole in the hose would require replacement. It sometimes takes up to 2 minutes for the self-priming pump to saturate the nozzle sock with liquid.
d) Set the Rotary Switch between 880 and 899 to prove that the unit operates.
e) Create a new "Solution Mixture", per the instructions, if the nozzle sock is saturated with liquid but no snow is being made.

2 Is the Snow generated very wet or light in volume? Always allow two minutes or so for the T-1500 Mini to come to full operation after an extended storage or for the first time operating.
f) Remake another batch of your recipe solution, and check your water to solution ratio carefully.
g) Make sure the clear tube is completely submerged in the solution.
h) Contact customer service at 800-745-8599.

3 Technical Service or Purchasing Global Special Effects Liquid Solutions:
Use customer service at 800-745-8599

24 Hour Technical Service - 1-800-745-8599, 1-256-229-5551

## Incorporating Evaporative Snow ${ }^{\text {TM }}$ In Your Production Design

Global Special Effects is a pioneer of the "evaporative snow" proccess. In order to help you incorporate "evaporative snow" in your production design, we are providing you the following explanations as to exactly what it is and how a snow machine works.

The "snow flake" starts as a clear fluid in a reservoir or bottle usually found at the back of the machine. A small plastic feed tube takes the fluid from the reservoir to a small nylon sock at the front of the machine by means of a pump. The sock is mounted to the front end of a high output blower. The sock material is a very fine mesh weave and acts like hundreds of very tiny bubble wands, producing clusters of bubbles appearing as "flakes". The "flake" size varies according to the speed of the pump, and the amount of fluid reaching the sock. More fluid results in more and larger clusters of bubbles or "flakes".

The "flake" size is the key to making any evaporative snow truly evaporative and residue free. Ideally you want to set the flake size so that the snow evaporates just as the snow hits the ground. Imagine for a moment blowing a traditional soap and water bubble with a bubble wand. The air pressure in the bubble is greater than the surrounding air pressure, and keeps the bubble inflated, much like a latex balloon. As air currents keep it aloft, it will remain intact until enough water evaporates from it's surface, the thinned film can no longer maintain surface cohesion and the bubble's internal air pressure causes it to burst. Evaporative snow fluid contains an advanced evaporative solution to make the "flakes" disintegrate more rapidly. The combination of air presure and solution mixture produces a very esthetically pleasing, moderate snow fall. While you can certainly create a blizzard effect with these machines, additional safety precautions must be considered, as the snow will build up on the floor or stage, resulting in a slippery surface.

Air flow and evaporative snow in your production design. First, all snow machines produce a "cone" of snow which is smallest near the machine and disperses as you get farther away creating a "curtain effect" (see the Overhead View diagram next page). You can increase the overall effected area through the use of judiciously placed fans, both near the machine and on the ground. Fans near the machine (some larger machines have these incorporated into their design) will help disperse the snow into a larger area. Fans on the ground will also help with dispersion, as well as provide beautiful updrafts and swirls. Often these machines are used in ballrooms for holiday parties and occasionally in arenas. The key to coverage in a larger venue (or when you want to make it snow on the audience at a theatre) is not determined as much by the number of machines as it is by the air handler's circulation in the room itself. Air handlers in arenas and many modern ballroom facilities are designed to re-circulate thousands of cubic feet of air per minute. Experiment with air handler's currents to circulate snow around the venue. Staggering the placement and alternating the direction of the snow machines so that the edges of the air streams from the machines interact in opposing directions is another technique for creating a swirling effect.

Back lighting and to some extent side lighting is vital to the audience's visual experience. If lit from the front only, the effect's visibility will be poor at best. Lighting can be especially challenging in a ballroom or other "total environment" setting or venue, when your audience will be viewing the snow from multiple angles and positions. Ideally you want your lighting to come from above, yet below the snow machines. Obscuring the snow machines in the dark above the light sources allows the snow to capture light, adding a sense of wonder to your event.

Noise reduction is another factor to be considered in your production design. To a large extent it can be covered with music. Global Special Effects engineers have developed the quietest snow machines using better sound insulation, and quieter blowers such as the T-1600 Snow Machines series.

## What is Evaporative Snow ${ }^{\text {TM }}$

## Distance of Throw and Coverage of Snowfall for The T-1500 Mini

## What is Evaporative Snow ${ }^{\text {TM }}$ \& Diagram 1

## T-1500 Mini Diagram 1

Below Diagram is of the distance of throw of the
T-1500 Mini Snow Machine.
(The T-1500 Mini distance of throw Chart is measured in a room, with no obstruction of airflow or conflicting air streams).


At 0-5 feet
5 feet wide


The above diagram shows overhead view of snowfall coverage. The T-1500 Mini snow machine at ground level with no obstruction of airflow or conflicting air streams.

## Limited Lifetime Warranty

Global Special Effects provides a limited lifetime warranty for the T-1500 Mini from any manufacturing defects. Any misuse, abuse, or negligence automatically voids our warranty Running any other liquids/materials other than the Global Special Effects solutions through the pump automatically voids our warranty. Global Special Effects is not responsible for loss of income, labor, or business as a result of a T-1500 Mini's malfunction. Global Special Effects is not responsible for physical damage, scratching or tube damage after shipping from Global Special Effects Manufacturing facility. For safety reasons, Global Special Effects will repair damaged electrical wires per the warranty. The is a lifetime warranty on the circuit board and other electronics to the fan or pump. Direct all questions and claims to the Global Special Effects customer service at 800-745-8599 from 8-5 Central Time or the 24 hr tech support line at 1-800-745-8599

## NEW SNOW BOARD

## SETTINGS FOR STAND ALONE 891 TO 899

801 TO 899 THE SNOWSTORM WILL USE 1 GALLON OF FLUID IN 16 MINS
881 TO 889-24 MIN PER GALLON.
871 TO 879-27 MIN PER GALLON.
861 TO 869-30 MIN PER GALLON.
851 TO 859-36 MIN PER GALLON.
841 TO 849-48 MIN PER GALLON.
831 TO 839-57 MIN PER GALLON.
821 TO 829-1.5 HOURS GALLON.
811 TO 819-1 HOUR AND 48 MINS PER GALLON.
801 TO 809-3 HOURS 17 MINS PER GALLON. 888-391-7669

Sales Information
800-745-8599

## Snow Machine Switch Settings

| 001-500 | Address for machine while under DMX Control (all other functions disabled) (See below for DMX Channel Control Information) |
| :---: | :---: |
| 600's Mode | Repeat Cycle Timer Stand-Alone Mode(five minute Timer) |
|  | First digit set to " 6 " |
|  | The second digit controls the percentage of time on in five minutes (10\%-90\%) |
|  | The third digit controls the flake size (0-9) |
| 700's Mode | Repeat Cycle Timer Stand-Alone Mode(fifteen-minute timer) |
|  | First digit set to " 7 " |
|  | The Second Digit controls the percentage of time on in fifteen minutes (10\%-90\%) |
|  | The Third Digit controls the flake size (0-9) |
| 800's Mode | Stand-Alone Operation Continuous (ON) |
|  | First digit set to "8" |
|  | 800-899 controls the flake size and amount of snow |
| 900's Mode | Hard Wired for Remote Controller |
|  | First Digit set to "9" |
|  | All other switches disabled |

## Control Format for all DMX Snow Machines

## Addressing

DMX starting address is manually programmed via thumb dial switches. Valid starting addresses are 001-512. The Snow Machines utilize four channels.

The first channel has four settings:
0-63 Snow Machine is "off"
64-127 Allows for a 0 to 5 minute cycle time based on the settings of the 2 nd channel (This setting turns on the short internal timer circuit)

128-191 Allows for a 0 to 15 minute cycle time based on the settings of the 2nd channel (This setting turn on the long internal timer circuit)

192-255 Snow Machine is set to "on"
The second channel: **
When Channel 1 is set from 64-127 then the second channel sets the overall duration of cycle time anywhere from zero (0) to five minutes (255).

When Channel 1 is set from 128-191 then the second channel sets the overall duration of cycle time anywhere from zero minutes (0) to 15 minutes (255).

## The third channel: **

Sets the \% of "on time" during the duration set by the second channel. This value is a range from $0(0)$ to 100\%(255)

## The fourth channel:

Sets the amount of snow output from minimum output (1) to $100 \%(255)$. This channel is effective anytime the machine is "on"
**During all timer-controlled modes, internal limits enforce a minimum on time of at least 10seconds and a minimum off time of at least four seconds.
www.globalspecialeffects.com for additional technical information

