

# ATMOS<sup>®</sup> FEAR

TOUR HZ



Blizzard Lighting, LLC  
[www.blizzardlighting.com](http://www.blizzardlighting.com)  
Waukesha, WI USA  
Copyright (c) 2017

# 1. GETTING STARTED

## What's In The Box?

- 1 x AtmosFEAR® Tour HZ LED Haze Machine
- An Ever-So-Handy Power Cord
- Warranty Card
- This Lovely User Manual

## Getting It Out Of The Box

Congratulations! You've got yourself one pro quality, road-worthy haze machine that is ready to face the rigorous demands of life on the road! Now that you're the proud owner of a AtmosFEAR® Tour HZ (or hopefully, HZs!), you should carefully unpack the box and check the contents to ensure that all parts are present and in good condition. If anything looks as if it has been damaged in transit, notify the shipper immediately and keep the packing material for inspection. Again, please save the carton and all packing materials. If a unit must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

## Powering Up!

This unit must be powered directly off a switched circuit and **cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.**

## Getting A Hold Of Us

**If something is wrong, please just visit our website at [www.blizzardlighting.com](http://www.blizzardlighting.com) and open a support ticket. We'll be happy to help, honest.**

**Disclaimer:** The information and specifications contained in this document are subject to change without notice. Blizzard Lighting™ assumes no responsibility or liability for any errors or omissions that may appear in this user manual. Blizzard Lighting™ reserves the right to update the existing document or to create a new document to correct any errors or omissions at any time. You can download the latest version of this document from [www.blizzardlighting.com](http://www.blizzardlighting.com).

Author:	Date:	Last Edited:	Date:
J. Thomas	6/5/2015	J. Thomas	4/28/2017

# SAFETY INSTRUCTIONS



Please read these instructions carefully. They include important information about the installation, usage and maintenance of this product.

## Attention:

To keep your AtmosFEAR® Tour HZ in good working order please remember to:

- **Use only water-based, non-toxic haze fluid.**
- **Keep the machine clean.**
- **Turn the power off before adding fluid.**
- **Turn the power off when not in use.**

*And also...*

- ALWAYS make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.
- This product is intended for indoor use only.
- To prevent risk of fire or shock, do not expose this unit to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least 20in (50cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- ALWAYS disconnect from the power source before servicing or replacing fuse and be sure to replace with same fuse size and type.
- DO NOT operate at ambient temperatures higher than 104°F (40°C).
- In the event of a serious operating problem, stop using the unit immediately. NEVER try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- NEVER connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.

**Caution!** There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please visit our support website at: [www.blizzardlighting.com/tickets](http://www.blizzardlighting.com/tickets).

## 2. MEET THE ATMOSFEAR® TOUR HZ

### MAIN FEATURES:

- DMX controllable water-based haze machine
- Tour-ready all-black ATA-spec flight case
- 1,000W heat exchanger, 8,000 cubic ft./minute continuous output
- Haze output and blower speed adjustment
- Timer with interval and duration settings
- 6-button control panel with LCD display
- Optional low fluid shutdown
- Manual haze output button
- 3/5-pin DMX connectivity
- 6-position moveable haze guide for directional output control
- 3-channel DMX control (working mode, fan speed, output volume)
- Rugged and well-built (It hits the gym regularly)
- PowerCON® compatible power input connector

### SPECIFICATIONS:

- Voltage: AC110-120V 50/60Hz
- Fuse: 10A, 250V
- Warm-up time: 6 min.
- Tank Capacity: 1.9L
- Power consumption: 1,000W
- DMX channels: 3-channel
- 3/5-pin DMX input/output
- Dimensions: 17.4 x 15.6 x 9.9 in. (44 x 39.5 x 25 cm)
- Weight: 29.8lbs (13.5kg)

### DMX Reference (3-Channel Mode)

Ch.	Value	What it does
1	000 <--> 127 128 <--> 255	Fog emission off Fog emission on
2	000 <--> 255	Fan speed (0% <--> 100%)
3	000 <--> 255	Fog volume setting (0% <--> 100%)

**Figure 1: AtmosFEAR® Tour HZ Pin-Up Picture**



## Setting Up

Step 1: Place the machine on a flat surface and in a suitable large area with at least 20in (50cm) open space around the machine.

Step 2: Fill the fluid tank with quality water-based, non-toxic haze fluid. For best performance, we highly recommend using Blizzard Lighting's own **Blizz Whizz™** brand atmospheric haze fluid!

Step 3: Connect the machine to suitable rated power supply.

Step 4: The LCD menu will now display "Warming Up" in preparation for use. Warming can take up to 6 minutes.

Step 5: When it is ready, the LCD menu will display "Ready Haze", and at this point, you could manually start making haze by holding down the **<MANUAL>** button on the control panel.

Step 6: To turn off the machine, unplug the unit from its power source.

### 3. SETUP



Before replacing a fuse, disconnect power cord. ALWAYS replace with the same type and rating of fuse.

#### Fuse Replacement

With a phillips head screwdriver, unscrew the fuse holder out of its housing. Remove the damaged fuse from its holder and replace with exact same type fuse. Reattach the fuse holder, and then reconnect power.

#### Connecting A Bunch of AtmosFEAR® Tour HZs

You will need a serial data link to run shows using a DMX-512 controller or to run shows on two or more units set to sync in master/slave operating mode. The combined number of channels required by all the units on a serial data link determines the number of units the data link can support.

Units on a serial data link must be daisy chained in one single line. Also, connecting more than 32 units on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal. The maximum recommended cable-run distance is 500 meters (1640 ft). The maximum recommended number of units on a serial data link is 32.

#### Data/DMX Cabling

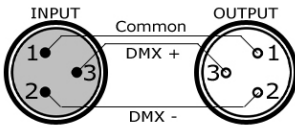
To link units together you'll need data cables. You should use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

For instance, Belden© 9841 meets the specifications for EIA RS-485 applications. Standard microphone cables will "probably" be OK, but note that they cannot transmit DMX data as reliably over long distances. In any event, the cable should have the following characteristics:

*2-conductor twisted pair plus a shield*  
*Maximum capacitance between conductors – 30 pF/ft.*  
*Maximum capacitance between conductor & shield – 55 pF/ft.*  
*Maximum resistance of 20 ohms / 1000 ft.*  
*Nominal impedance 100 – 140 ohms*

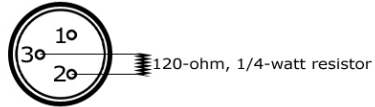
## Cable Connectors

Cables must have a male XLR connector on one end and a female XLR connector on the other end. (Duh!)



**A Word on Termination:** DMX is a resilient communication protocol, however errors still occasionally occur. Termination reduces signal errors, and therefore best practices include use of a terminator in all circumstances. If you are experiencing problems with erratic fixture behavior, especially over long signal cable runs, a terminator may help improve performance.

**To build your own DMX Terminator:**  
Obtain a 120-ohm, 1/4-watt resistor, and wire it between pins 2 & 3 of the last fixture. They are also readily available from specialty retailers.



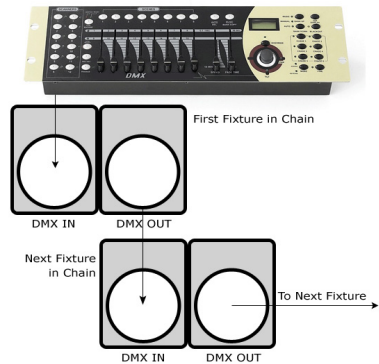
**CAUTION:** Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

## Take It To The Next Level: Setting Up DMX Control

**Step 1:** Connect the male connector of the DMX cable to the female connector (output) on the controller.

**Step 2:** Connect the female connector of the DMX cable to the first unit's male connector (input).  
*Note:* It doesn't matter which unit address is the first one connected. We recommend connecting them in terms of their proximity to the controller, rather than connecting the lowest fixture number first, and so on.

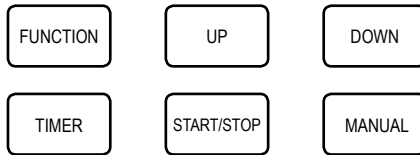
**Step 3:** Connect others in the chain from output to input as above. Place a DMX terminator on the output of the final unit to ensure best communication.



# 4. OPERATING ADJUSTMENTS

## The Control Panel

All the settings possible with the AtmosFEAR® Tour HZ are accessed by using the control panel on the front of the fixture. There are 6 control buttons below the LCD display which provide functionality and allow you to navigate through the various control panel menus.



Button	Function
<FUNCTION>	Enters the programming mode.
<UP>	Value adjustment upward.
<DOWN>	Value adjustment downward.
<TIMER>	Starts the timer controlled operation.
<START/STOP>	Starts or stops all operation.
<MANUAL>	Press and hold for manual haze output.

To navigate the LCD control menu options, use the <FUNCTION> button to scroll through the various menu options. Then to scroll through a menu options selectable values, use the <UP/DOWN> buttons. Press <FUNCTION> button to save any changes made and return to navigation the menu.

**Note:** Once a DMX signal is received, manual mode is deactivated and the buttons **TIMER**, **START/STOP** and **MANUAL** are locked.

**Tip:** If the interval duration in timed operation is set for a very short time (less than 20 seconds), it is possible that fog fluid left in the fog nozzle will still be evaporating during the pause. This may make it difficult to recognize any break in the fog output.



## Control Panel Menu Structure

<b>Interval Set</b>	0s–200s (seconds)	Pause time between timed output
<b>Duration Set</b>	0s–200s (seconds)	Duration time of timed operation
<b>DMX512 Add</b>	1–512	Set the starting DMX address
<b>Fluid Set</b>	On	Low fluid shutdown on
	Off	Low fluid shutdown off
<b>Volume Set</b>	1%–100%	Set the volume output
<b>FanSpeed Set</b>	1%–100%	Set the fan speed

### DMX Configuration

1. Press **<FUNCTION>** repeatedly until **DMX512 ADD** shows on the display.
2. Use **<UP/DOWN>** to select the starting address 1–512.

### Set the Output Volume

1. Press **<FUNCTION>** repeatedly until **Volume Set** shows on the display.
2. Use **<UP/DOWN>** to select an output volume percentage (1%–100%).
3. You can now press the **<START/STOP>** button to initiate this output.

### Set the Fan Speed

1. Press **<FUNCTION>** repeatedly until **FanSpeed Set** shows on the display.
2. Use **<UP/DOWN>** select a total speed percentage (1%–100%).

### Timer Mode

1. Press **<TIMER>** and the display will show a countdown of the interval time.
2. When the interval countdown reaches zero (0), the unit will start the duration countdown, producing haze for the amount of time set in **Duration Set**.

### Interval and Duration Settings

*Interval settings control the period of time in between timed haze outputs (in seconds), while duration settings are used to control the actual period of time of the timed haze output (in seconds) while using timer mode.*

1. Press **<FUNCTION>** repeatedly until **Interval Set** or **Duration Set** shows on the display.
2. Use **<UP/DOWN>** to select the number of seconds (0–200).
3. Press the **<TIMER>** button to try your newly configured timer settings.

## **Keeping Your AtmosFEAR® Tour HZ As Good As New**

This unit is a rugged, tough piece of professional equipment, and as long as you take care of it, it will take care of you. That said, like anything, you'll need to take care of it if you want it to operate as designed. You should absolutely keep the fixture clean, especially if you are using it in an environment with a lot of dust, haze, wild animals, wild teenagers or spilled drinks.

### **Cleaning Instructions:**

- 1.) You should follow these instructions after approximately 40 hours of use.
- 2.) Take off the nozzle before heating the Haze machine, and clean the nozzle with straight vinegar.
- 3.) To clean the tank, pour in and run a solution of 80% distilled water and 20% white vinegar through the machine. When empty turn off the machine.
- 4.) Wait for it to cool down, re-install the nozzle, and you can now add more fluid to prepare for its next use.

### **Returns (Gasp!)**

We've taken a lot of precautions to make sure you never even have to worry about sending a defective unit back, or sending a unit in for service. But, like any complex piece of equipment designed and built by humans, once in a while, something doesn't go as planned. If you find yourself with a fixture that isn't behaving like a good little fixture should, you'll need to obtain a Return Authorization (RA).

Don't worry, this is easy. Just go to our website and open a support ticket at [www.blizzardlighting.com/tickets](http://www.blizzardlighting.com/tickets), and we'll issue you an RA. Then, you'll need to send the unit to us using a trackable, pre-paid freight method. We suggest using USPS Priority or UPS. Make sure you carefully pack the fixture for transit, and whenever possible, use the original box & packing for shipping.

When returning your fixture for service, be sure to include the following:

- 1.) Your contact information (Name, Address, Phone Number, Email address).
- 2.) The RA# issued to you
- 3.) A brief description of the problem/symptoms.

We will, at our discretion, repair or replace the fixture. Please remember that any shipping damage which occurs in transit to us is the customer's responsibility, so pack it well!

### **Shipping Issues**

**Damage incurred in shipping is the responsibility of the shipper, and must be reported to the carrier immediately upon receipt of the items. Claims must be made within seven (7) days of receipt.**

## Tech Specs!

<b>Weight &amp; Dimensions</b>	
Width	17.4 in (44 cm)
Depth	15.6 in (39.5 cm)
Height	9.9 in (25 cm)
Weight	29.8 lb. (13.5 kg)
<b>Power</b>	
Operating Voltage	AC110-120V 50/60HZ
Power Consumption	1,000W
Fuse	10A, 250V
<b>Thermal</b>	
Max. Operating Temp.	104 degrees F (40 degrees C) ambient
<b>Operation/Capacity/Consumption</b>	
Warm-up Time	6 min.
Tank Capacity	1.9L
Output	8,000 cubic ft./minute continuous output
Fluid Consumption	4.3 ml/min
<b>Control</b>	
Protocol	USITT DMX-512
DMX Channels	3-channel
Input	3/5-pin XLR Male
Output	3/5-pin XLR Female
<b>Other Information</b>	
Remember, condoms prevent minivans.	
<b>Warranty</b>	2-year limited warranty



**Enjoy your product!  
Our sincerest thanks for your purchase!  
--The team @ Blizzard Lighting**