

Information specifically for:  
SE-WINDIGIFAN

V1.0

This manual contains important information.  
Please read before operating fixture.



© 2011 Techni-Lux Inc.

# **IMPORTANT INFORMATION**

**Save original packing and documentation for warranty, service and return issues.**

Limited Warranty: This warranty covers defects or malfunctions in this equipment. This warranty lasts for a period of one year from date of purchase. It is the owner's responsibility to provide invoices for proof of purchase, purchase date and dealer or distributor. If purchase date can not be provided, warranty period will start at manufacture date. It is the sole discretion of Techni-Lux to repair or replace parts or equipment. All shipping will be paid by purchaser. This warranty does not cover lamps, fuses, belts, power semiconductors, relays, cleaning, standard maintenance adjustments or normal wear items or any problem resulting from the following: improper wiring, incorrect voltage (including low or over voltage conditions and lightning), abuse, misuse, improper maintenance or an act of God or damage resulting from shipping. Warranty will be null and void if the product is altered, modified, misused, damaged, or subjected to unauthorized repairs. Lamps are covered by relevant manufacturer warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Any liability for consequential and incidental damages is expressly disclaimed. No other warranty, expressed or implied is made. Techni-Lux liability in all events is limited to, and shall not exceed, the purchase price paid.

Returning equipment and Repairs: All returns must be accompanied by a Return Merchandise Authorization (RMA) number and sent pre-paid. Contact the dealer or Techni-Lux directly to obtain an RMA. The RMA number must be clearly listed on the shipping label. Due care must be exercised in packing all merchandise to be returned. All repairs must be accompanied by a written explanation of the claimed problem or error encountered. Techni-Lux is solely responsible for determining a product's eligibility for coverage under warranty. If returning for consideration of credit, all accessories and documentation, original protective material and cartons must be included and the equipment, packing and carton must be in new resalable condition. Credit for returned merchandise will be issued at the lowest current price and is subject to a restocking fee. No returns accepted on discontinued items. Techni-Lux is not responsible for merchandise damaged in transit and reserves the right to refuse any return that is damaged by the carrier, not accompanied by a Return Authorization Number (RMA#) or sent by freight collect.

Claims: All claims must be made within seven (7) days of receipt of merchandise. Any physical damage must be reported to carrier upon receipt of merchandise.

**Please record the following information for future reference:  
Model Number: SE-WINDDIGIFAN**

Serial Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

www.Techni-Lux.com  
10900 Palmbay Drive  
Orlando, FL 32824  
U.S.A.

# Table of Contents

<b>Specifications</b> .....	<b>5</b>
<i>Fixture Overview</i> .....	5
<i>Physical</i> .....	5
<i>Environmental</i> .....	5
<i>Electrical</i> .....	5
<i>Control</i> .....	5
<i>Rigging</i> .....	5
<i>Output</i> .....	5
<b>Unit Parts</b> .....	<b>6</b>
<b>Unpacking</b> .....	<b>6</b>
<b>Unpacking</b> .....	<b>7</b>
<b>Power</b> .....	<b>7</b>
<b>Mounting</b> .....	<b>8</b>
<b>Use with Fog or Haze</b> .....	<b>8</b>
<b>Multi Function Controller (MFC) Operation</b> .....	<b>9</b>
<i>Manual Fader Control</i> .....	9
<i>Running Programs (1-5 preset, 6-9 programmable)</i> .....	9
<i>Customize Programs (6-9)</i> .....	9
<i>Erase Programs (6-9)</i> .....	9
<i>Linking Master / Slave with MFC</i> .....	10
<i>Setting DMX-512 Start Address</i> .....	10
<i>DMX-512 Control</i> .....	10
<b>DMX-512 Operation</b> .....	<b>11</b>
<i>Calculating DMX Start Address</i> .....	11
<b>Data Link DMX-512</b> .....	<b>12</b>
<i>Data Terminator</i> .....	12
<i>Adapter 5-to-3 pin</i> .....	12
<b>DMX-512 Background</b> .....	<b>13</b>
<b>Maintenance</b> .....	<b>14</b>
<b>Troubleshooting</b> .....	<b>14</b>
<b>Accessory Items</b> .....	<b>15</b>

# Specifications

## *Fixture Overview*

- Creates focused wind effect - Variable Air Volume up to 1000 ft<sup>3</sup>/min at 37 MPH
- Operating modes: DMX-512, Scene Memory, Chases, Master/Slave
- Detachable Remote with XLR 3-pin and 9' cable
- TURBO FAN Button for instant full power
- Preset and User Programmable velocity profiles
- Single channel DMX control
- Rugged Frame
- Yoke doubles as Floor Stand
- Standard Clamp mount and TVMP 5/8" Female Baby Spud or 1 1/8" Junior Coupling

## *Physical*

Color	Black
Size	19" x 18" x 22" (48 x 46 x 56 cm)
Weight	27.6 lbs (12.5 kgs)
Housing Material	Steel Frame / ABS Plastic Body

## *Environmental*

Location	Indoor
Max. ambient temperature	105°F (40°C)
Min. distance to flammable surface	3.3ft (1m)
Min. distance to solid surface	1ft (0.3m)

## *Electrical*

Selectable Voltages	Automatically Adjusting: 100-120Vac or 200-240Vac, 50-60Hz
Rated Power	1200W
Fuses	T10A 5x20mm (Time Delay)

## *Control*

Modes	DMX512 or Stand-Alone with Multi Function Controller (MFC)
Remote Connection	3-pin XLR (Cannon), 9' cable hardwired to unit.
Digital Protocol	Single channel of USITT DMX512 (1990)
Digital Connection	5 Pin XLR (Cannon) In and Out

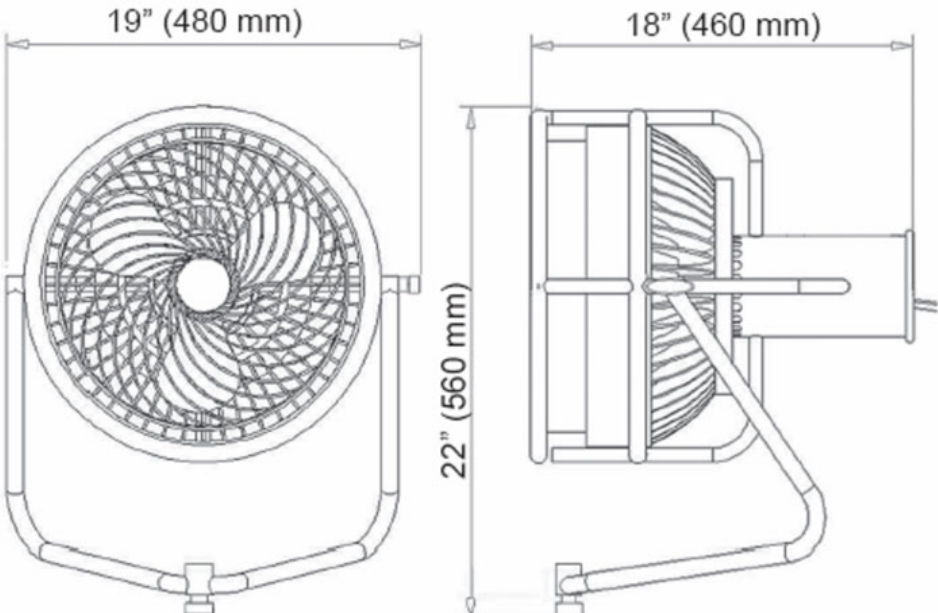
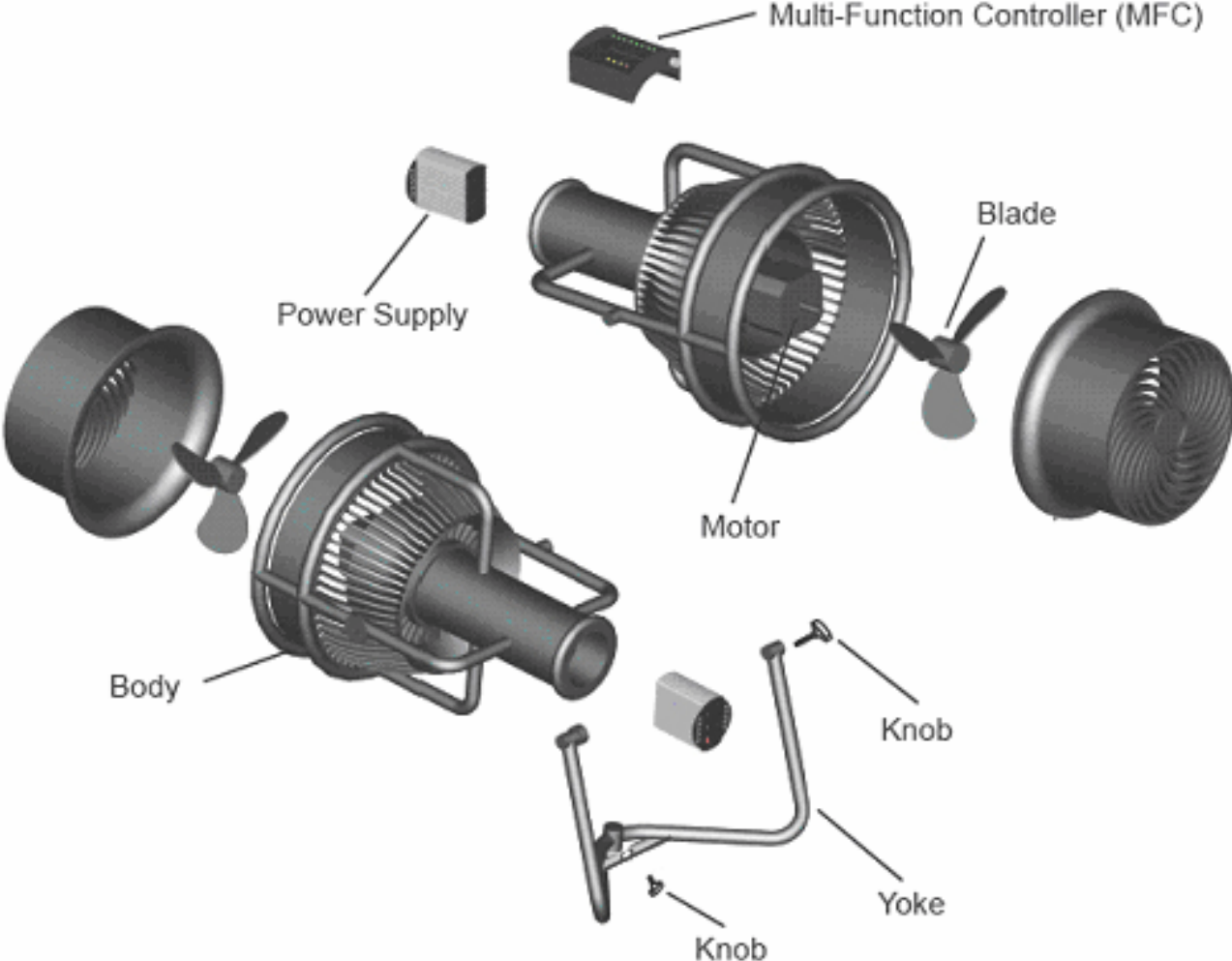
## *Rigging*

Orientation	Any
Yoke	Adjustable, Converts to Floor Stand
Mounting Points	Stage Clamp 1/2" (13mm) mounting hole TVMP 5/8" Female Baby Spud or 1 1/8" Junior Coupling

## *Output*

RPM	0 to 3,500 RPM
Air Volume	0 to ~1000 ft <sup>3</sup> /min (28 m <sup>3</sup> /min)
Air Speed	0 to ~37 mph (60 kph)

# Unit Parts



# Unpacking

Immediately upon receipt, carefully unpack and inspect the fixture to verify that all parts are present and have been received in good condition. If any parts appear damaged from shipping or the shipping carton shows signs of mishandling, notify the shipper immediately. Retain carton and all packing material for inspection. In the event that the merchandise is to be returned, the original carton and packing must be used. The customer will be billed for a new carton and packing if merchandise is received without the original carton and packing.

## *Claims*

Physical damage must be reported to the Freight Carrier or Shipping Company upon receipt of merchandise. Damage incurred in shipping is the responsibility of the Freight Carrier or Shipping Company. It is the customer's obligation in the event that merchandise is received damaged, to notify the Freight Carrier or Shipping Company immediately. All other claims not related to damage incurred during shipping must be made to the Dealer or Distributor within 7 days of receiving merchandise.

## *Returns*

Returned merchandise must be in the original packing with a Return Merchandise Authorization number (RMA) clearly listed on the shipping label. Items sent by Freight Collect or without a RMA number will be refused. Call your sales person and request a RMA prior to shipping. Be prepared to provide the model number, serial number and description of the nature of the return. Shipping damage resulting from inadequate packaging is the customer's responsibility. Customer will be charged additional shipping charges to return products received in non original packing and or cartons.

# Power



Do not apply power to the fixture until input voltage setting and power source are verified. For protection against electric shock, fixture must be connected to suitable earth ground. Make sure fixture is cool and disconnected from power mains before any service.

The mains voltage and frequency of this fixture is automatically set. It can either be set to 120v or 230v AC 50/60Hz. The listed power rating is its average wattage under normal conditions. All fixtures must be powered directly from a switched circuit. This fixture cannot be run on a rheostat or dimmer circuit even if used solely for a 0% to 100% switching. Before applying power to a fixture, check that the fixture's input voltage matches the power source voltage. Consult a qualified electrician if there are any concerns about proper connection to power.

Cable (EU)	Cable (US)	Pin	International
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Green	Earth	⊕

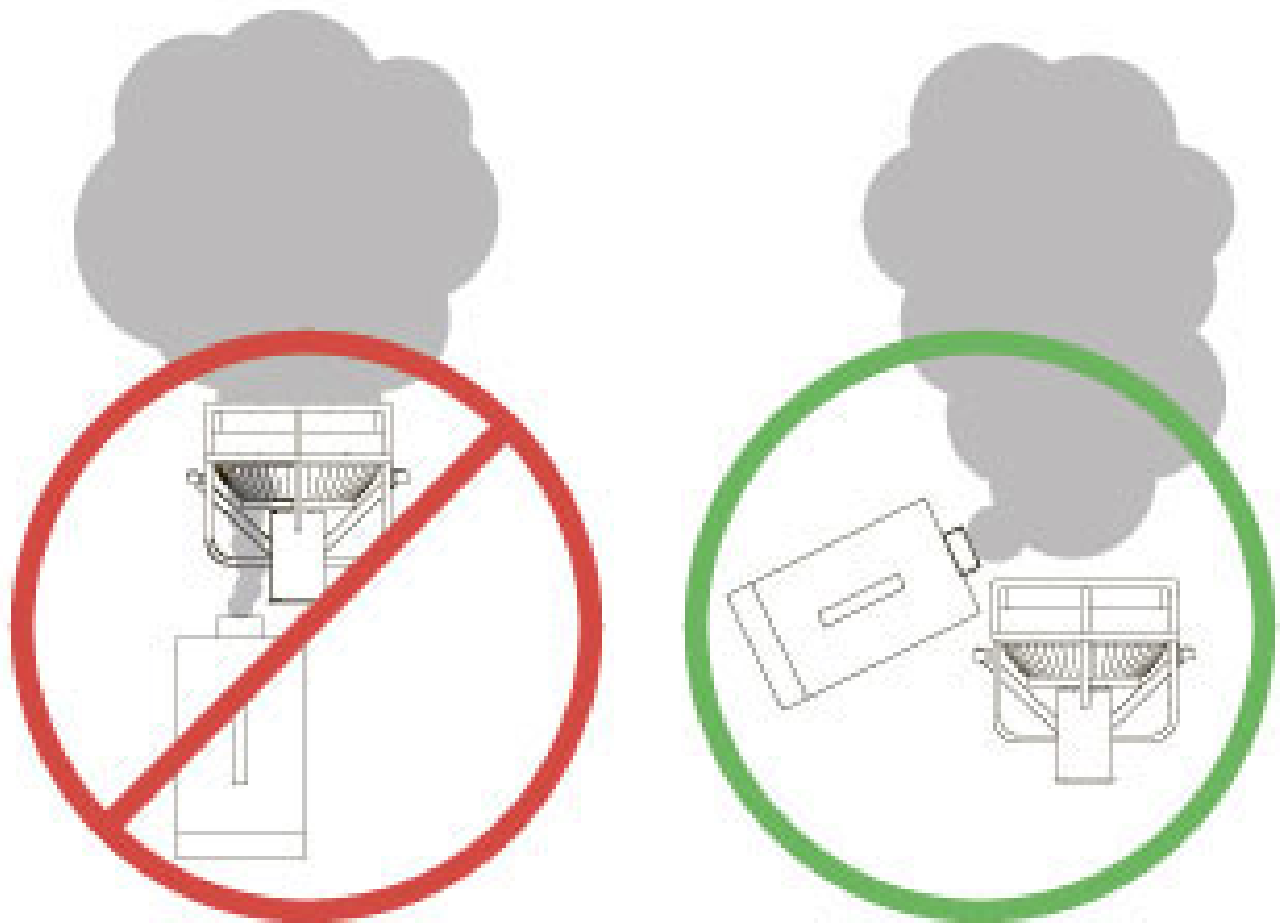
## Mounting

Always consult a qualified professional when rigging. Consider access for routine maintenance when selecting a mounting position. This fixture may be mounted in any position provided there is adequate room for movement and ventilation. Mount the fixture securely using a mounting clamp and a safety cable. This fixture features a multi-function yoke making it useful for floor standing at different angles or hanging. Always keep cords out of the way, thus preventing any trip hazards. Secure all cables properly. Do not mount where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation. Do not obstruct any vents.

## Use with Fog or Haze

- **Always place fan behind Fog / Smoke / Haze machines.**

When using the SE-WINDDIGIFAN with Fog / Smoke / Haze machines, place the fan behind the machine's output. Failing to do so can allow fluid residue to damage the electronics and condense on the low pressure side of the blades causing fluid to pool in the area under the fan.





# Multi Function Controller (MFC) Operation

There is a small amount of built in hysteresis for the response. It may happen that small changes going to OFF could still leave the fan running slowly, Manual Fader all the way down or DMX=0. Clear this condition by briefly raising the channel up then back down.

## *Manual Fader Control*

1. Tap the MENU button until the yellow LED labeled "Slider" is blinking...
2. Press ENTER to select.
3. The slider will now set the fan output level.
4. The green LED bar graph indicates output level.

## *Running Programs (1-5 preset, 6-9 programmable)*

1. Tap the MENU button until the yellow LED labeled "Program" is blinking...
2. Press ENTER to select.
3. The selected Program is indicated by the blinking green LED.
4. Tap the ↑ or ↓ buttons to select one of 9 Programs, press ENTER to select and run.
  - If the green LED continues to blink, program location is empty (6-9).
5. The Slider adjusts the Program step speed and the green LED bar graph indicates output level.
6. Press MENU to stop the Program, ENTER to start again.

## *Customize Programs (6-9)*

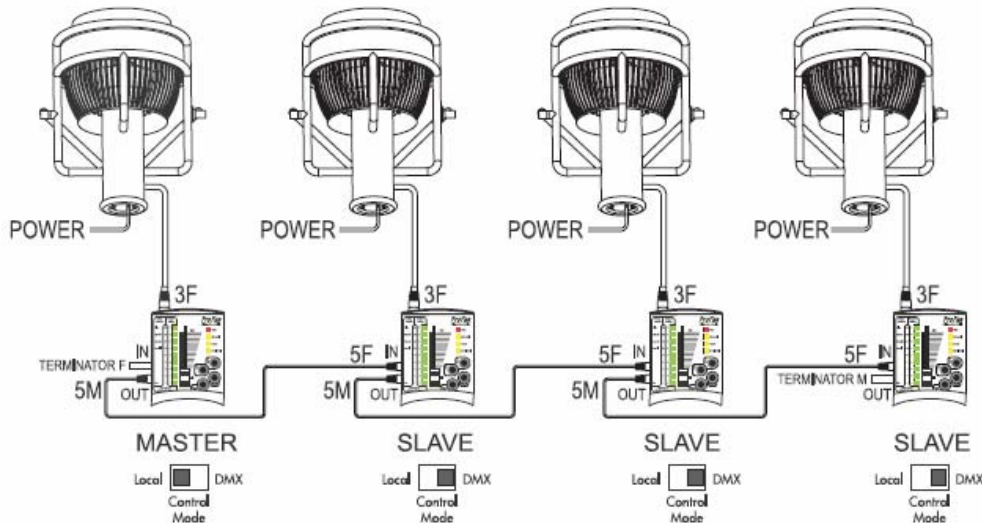
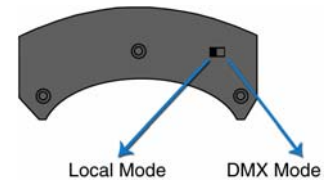
1. Tap the MENU button until the red LED labeled "Setting" is blinking...
2. Press ENTER to select.
3. The solid green LED indicates the activation of "Setting" mode.
4. The blinking green LED indicates the function to be selected.
5. Tap the ↑ or ↓ buttons to select yellow LED labeled "ProgEdit", press ENTER to confirm.
6. The blinking green LED indicates Program to be selected (only 6-9 are user programmable).
7. Tap the ↑ or ↓ buttons to select a Program to edit, press ENTER to confirm.
8. Use the Slider to set desired fan speed for first step, press ENTER to save.
  - The green LED bar graph will scroll down to confirm saving the step.
  - On slowest program step speed, each step is approximately 2 seconds.
9. If more steps are desired, repeat step above, pressing ENTER to save each step.
10. After saving the last step, press MENU to save the Program and exit.

## *Erase Programs (6-9)*

1. Tap the MENU button until the red LED labeled "Setting" is blinking...
2. Press ENTER to select.
3. The solid green LED indicates the activation of "Setting" mode.
4. The blinking green LED indicates the function to be selected.
5. Tap the ↑ or ↓ buttons to select yellow LED labeled "EraseAll", press ENTER to confirm.
6. Press ENTER to erase user programs 6-9, the green LEDs on the bar graph will briefly chase downward to confirm.

## Linking Master / Slave with MFC

A maximum of 32 SE-WINDDIGIFAN units can be linked using a single Multi Function Controller (MFC) for control. The first unit must have the Control Mode switch set to “Local” and all slave units must be set to “DMX.” Use 5-pin XLR cables to connect the units together making sure the Master unit (or “Local”) is first in the group



## Setting DMX-512 Start Address

Digi Fan uses a single channel of DMX: 0% to 100% is OFF to FULL. DMX In/Out is connected to the Multi Function Controller (MFC) with 5-pin XLR.

1. Tap the MENU button until the red LED labeled “Setting” is blinking...
2. Press ENTER to select.
3. The solid green LED indicates the activation of “Setting” mode.
4. The blinking green LED indicates the selected function.
5. Tap the  $\uparrow$  or  $\downarrow$  buttons to select “DMX Add”, press ENTER to confirm.
6. The green LED bar graph displays current DMX Start Address.
7. Tap the  $\uparrow$  or  $\downarrow$  buttons to choose the desired DMX Start address.
  - **Note:** The DMX Address is the displayed value +1. Each LED has the decimal equivalent binary value printed next to it. Add the values of each lit green LED then add 1 to determine the DMX Address. If no green LEDs are lit, DMX Start Address is 1. Similar to common DIP Switch interface addressing methods.
8. Press ENTER to confirm displayed Address, the DMX Control mode will automatically activate.

## DMX-512 Control

1. Ensure the unit has the Control Mode switch set to “DMX.”
2. Tap the MENU button until the yellow LED labeled “DMX512” is blinking...
3. Press ENTER to select.
4. The green LED bar graph indicates DMX Channel / output level.
5. The ENTER button can be used to manually activate the fan to full.

# DMX-512 Operation

Fixtures require a "Start Address" from 1 to 512, setting the first DMX channel containing data for the fixture (see DMX Background). Before addressing fixtures, consult the manual of the system's DMX controller to select a desirable addressing scheme. Valid Start Addresses range from 1 to 512. Fixtures requiring more than one channel for control will read subsequent channels up to the total number of channels required. Since this fixture requires only a single channel of DMX, the Start Address and the channels used are the same. Choose Start Addresses so the channels used do not overlap with other fixtures. In some cases, it may be desirable to set two or more same type fixtures to the same Start Address. In this case, the fixtures will respond to the same data. Because all fixtures see the same data, fixtures may be set to any address without concern for the order they are physically connected by DMX cables

**Note:** For DMX to operate on this unit, LOCAL MODE option must not be set.

## *Calculating DMX Start Address*

More than one fixture may have the same start address, but they will behave the same. Giving a unique start address that does not overlap with any other units allows you to individually control that fixture's features fully. In general, never allow channels to overlap with other fixtures.

### **Example:**

Select Start Addresses for 4 fixtures each requiring a single channel of DMX:

For this example, start with the first unit set to the first possible Start Address=1. This fixture occupies DMX channel 1. The next DMX channel available for a Start Address is found by adding the previous fixture's Start Address to its channel requirement:  $1+1=2$ . To maximize channel usage, we will leave no empty channels between fixtures so the second Start Address is set to DMX channel 2 and that fixture occupies channel 2. The third fixture will be addressed  $2+1=3$  and occupy channels 3. The last fixture is addressed  $3+1=4$  and will occupy channel 4. Thus, 4 fixtures using 1 channel each have Start Addresses of 1, 2, 3 and 4 and the next free channel in the system is  $4+1=5$ .

The DMX Start Address is the displayed value +1. Each LED has the decimal equivalent binary value printed next to it. Add the values of each lit green LED then add 1 to determine the DMX Address. If no green LEDs are lit, DMX Start Address is 1. This is similar to the common DIP SW interface addressing method.

So, to set a unit to DMX Start Address = 4, first subtract 1,  $4 - 1 = 3$  (remember: The DMX Start Address is the displayed value +1). Since the first LED has a value of 1 and the second LED has the value of 2, to set the unit to DMX Start Address 4, LEDs 1 and 2 must be lit.

# Data Link DMX-512

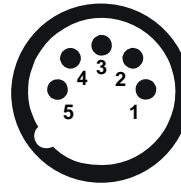
For data, this fixture uses 3 pin XLR (Cannon) type connectors and shielded twisted pair cable approved for EIA-422/EIA485 use. Fixtures are connected in Daisy Chain topography with only one data source and no branching is allowed. Systems using 5 pin DMX interfaces can be accommodated by purchasing 3-to-5 pin adapters or building adapter cables.

## DMX-IN XLR Connector - Plug:



- 1 - Ground
- 2 - Signal (-)
- 3 - Signal (+)
- 4 - (Unused)
- 5 - (Unused)

## DMX-OUT XLR Connector - Socket:



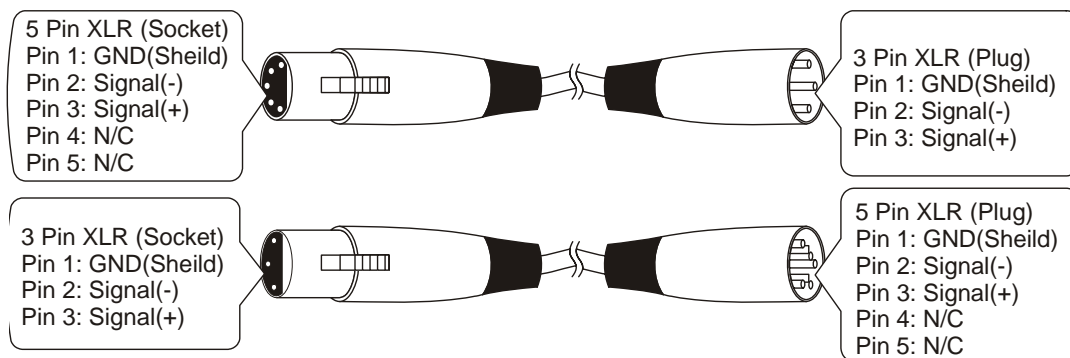
- 1 - Ground
- 2 - Signal (-)
- 3 - Signal (+)
- 4 - (Unused)
- 5 - (Unused)

### *Data Terminator*

A Data Terminator can be connected to the DATA OUT connection of the last fixture to reduce the effects of noise in the signal; it is not required for all installations. To make a Data Terminator, connect a 120-ohm ¼ watt resistor across pin 2, Data Negative (S-) and pin 3, Data positive (S+). A qualified technician can determine if a Data Terminator is needed.

### *Adapter 5-to-3 pin*

Numbers designating each pin can be found on connectors. Converting between the two XLR types is done in a pin-to-pin fashion. Connect the shields to pin 1, then connect pin 2 to pin 2 and pin 3 to pin 3. This is true for converting either 5 to 3 pin or 3 to 5 pin regardless of either connector's gender. Pins 4 and 5 are not used on the 5 pin XLR connectors.



## DMX-512 Background

DMX-512 is a digital data transmission standard developed by the United States Institute for Theater Technology (USITT). It is designed to enable control of lighting equipment. DMX deals solely with the formatting of data for transmission and does not dictate how the data is created or used.

Under DMX, signals are transmitted in much the same way a computer modem transmits data. The Data, divided into channels, is "Framed" using a start bit, high (1), eight data bits and finally, two stop bits, both high (1). DMX uses no parity to check the integrity of the signal. Instead, DMX relies on the ultra low probability of an error occurring in the same place when the data is resent. The rate at which data is sent is fixed at 250k bps, almost four and a half times faster than a 56k modem. This speed allows all data on a DMX chain to be updated more than 44 times every second.

The transmitted data follows a specific format. DMX allows for 512 channels each with eight data bits, giving each channel the possibility of 256 values. When a data "Packet" is sent, all channels are transmitted one after another. Even if the data on a specific channel has not been changed, it must be sent. In a packet, a "start code" of all zeros is sent before the data to identify the signal as a Standard DMX transmission. This start code is transparent to the user and is handled by the controller.

The physical signals are transmitted using a twisted pair of wires and a common shield, a configuration called Balanced. The controller and all receiving equipment are connected using a "Daisy Chain" connection. The signal is jumped from the controller to a piece of DMX equipment. From there, the signal is jumped to the next piece of equipment and so on until the last piece of equipment is connected. No branches are allowed and the signal does not come back to the controller. The final piece of equipment will have only one cable connection. As a result, all equipment connected to the chain will see exactly the same signal whether it is first or last. When connecting equipment, no particular attention needs to be paid to the order in which the equipment is connected. Depending on the conditions and equipment, a line terminator may be required. If there is any question, in most circumstances the addition of a terminator will not degrade the signal. To make a terminator, attach a 120-ohm resistor between the Signal Data Negative and Signal Data Positive pins of a connector in the last piece of equipment in the chain.

The DMX Standard uses 5 pin XLR connectors. However, it is common to see fixtures with 3 pin XLR connectors as these types of balanced or "Lo-Z" cables are common in the audio industry. In either case, pin numbers are the same and carry the same signals

<b>Pin</b>	<b>Connection</b>
<b>1</b>	<b>Common (Shield)</b>
<b>2</b>	<b>Data Negative (S- or Cold)</b>
<b>3</b>	<b>Data Positive (S+ or Hot)</b>
<b>4</b>	<b>n/c (not used)</b>
<b>5</b>	<b>n/c (not used)</b>

# Maintenance



Make sure fixture is cool and disconnected from power mains before any service.  
Do not touch the lamp glass with bare fingers.

Weekly operating hours and environmental conditions will establish how often the fixtures need cleaning. Fixtures should be cleaned and inspected at least once a month to maintain optimum performance. Accumulation of dust and fog residue increases heat build up, can lead to malfunctions, overheating and reduction in maximum light output. This condition may cause undue stress on electronics, mechanical elements, fixture life and over all performance. Before conducting any maintenance, disconnect fixture from power mains.

- 1) Disconnect fixture from power mains.
- 2) Use a vacuum with a soft brush to remove dust collected on external vents and internal components. If using an air compressor, use low pressures and extreme care to prevent damaging any internal parts or effects.
- 3) Vacuum dust buildup from fan intakes and check that all fans function correctly.
- 4) Clean all elements when the fixture is cold. Use a soft lint free cotton cloth or tissue and cleaner safe for plastics.
- 5) Inspect clamps and safety cables to ensure fixture is secure and safe.

# Troubleshooting

Symptom	Possible Cause / Solution
No Power	Check for power on mains
	Check power switch
	Check main fuse and fuse holder
No response to DMX	Check data cables
	Check Start Address
	Check position of Control Mode Switch
Incorrectly responds to DMX  (Diagnostic technique for DMX issues: Set suspect fixture's Start Address the same as a correctly functioning fixture. If both units then function correctly, issue is programming)	Check Start Address
	Check for overlapping addresses
	Check Setting on Multi Function Controller
	Check Data cables (faults and proper wiring)
	Check position of Control Mode Switch
Erratic operation	See "Incorrectly responds to DMX"
	Check for properly wired DMX cables
	Check for broken wires inside unit
	Check for damaged Data transceiver IC.
	Check Remote settings (program running)

## Accessory Items

<b>Order Code</b>	<b>Description</b>
CLAMP-MEGA/B	Clamp-Mega Black - Heavy Duty
CLAMP-CBHALF	Coupler Half Cheeseborough
SAFETYCABLE18B	Safety Cable Black 18"
SAFETYCABLE18S	Safety Cable Silver 18"
CA-XLR3/1	Pre-made 1' 3-pin XLR Cable
CA-XLR3/5	Pre-made 5' 3-pin XLR Cable
CA-XLR3/10	Pre-made 10' 3-pin XLR Cable
CA-XLR3/20	Pre-made 20' 3-pin XLR Cable
CA-XLR3/50	Pre-made 50' 3-pin XLR Cable
CA-XLR3/100	Pre-made 100' 3-pin XLR Cable
CA-XLR5/5	Pre-made 5' 5-pin XLR Cable
CA-XLR5/10	Pre-made 10' 5-pin XLR Cable
CA-XLR5/25	Pre-made 25' 5-pin XLR Cable
CA-XLR5/50	Pre-made 50' 5-pin XLR Cable
CO-XLR3M	XLR Connector 3-pin Male
CO-XLR3F	XLR Connector 3-pin Female
CO-XLR5M	XLR Connector 5-pin Male
CO-XLR5F	XLR Connector 5-pin Female
CO-XLRTERM5	XLR 5 Pin Data Terminator
CO-XLR3MTO5F	XLR 3 Pin Male to 5 Pin Female Adapter
CO-XLR5MTO3F	XLR 5 Pin Male to 3 Pin Female Adapter



10900 Palmbay Drive • Orlando, FL 32824 U.S.A.  
[www.techni-lux.com](http://www.techni-lux.com)