



# User Manual

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# **DOCUMENT VERSION**



Due to additional product features and/or enhancements, an updated version of this document may be available online.

Please check <u>www.adj.com</u> for the latest revision/update of this manual before beginning installation and/or programming.

Date	Document Version	Software Version	DMX Channels	Notes
04/26/2022	1.0	1.0	5 / 8 / 10 / 13 / 16 / 30 / 33 / 38 / 41 / 60 / 71 Ch.	Initial Release.

Europe Energy Saving Notice

Energy Saving Matters (EuP 2009/125/EC)

Saving electric energy is a key to help protecting the environment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!

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# INTRODUCTION

**Unpacking:** Thank you for purchasing the Ultra LB18 by ADJ Products, LLC. Every device has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to have been damaged, carefully inspect your fixture for any damage and be sure all accessories necessary to operate the unit have arrived intact. In the event that damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Do not return this unit to your dealer without first contacting customer support.

*Introduction:* The ADJ Ultra LB18 is a DMX intelligent, indoor-rated RGBAL LED linear bar. To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operation of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit for future reference.

*Customer Support:* Contact ADJ Service for any product related service and support needs. Also visit forums.adj.com with questions, comments or suggestions.

Parts: To purchase parts online visit: http://parts.adj.com (US) http://www.adjparts.eu (EU)

ADJ SERVICE USA - Monday - Friday 8:00am to 4:30pm PST Voice: 800-322-6337 | Fax: 323-582-2941 | support@adj.com

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**WARNING!** This unit is intended for indoor use only! Do not expose to rain or moisture!

**CAUTION!** There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, as doing so will void your manufacturer's warranty. In the unlikely event your unit may require service, please contact ADJ Products, LLC.

Do not discard the shipping cartoon in the trash. Please recycle when ever possible.

# LIMITED WARRANTY (USA ONLY)

- A. ADJ Products, LLC hereby warrants, to the original purchaser, ADJ Products, LLC products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.
- B. For warranty service, you must obtain a Return Authorization number (RA#) before sending the product back—please contact ADJ Products, LLC Service Department at 800-322-6337. Send the product only to the ADJ Products, LLC factory. All shipping charges must be prepaid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, ADJ Products, LLC will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, ADJ Products, LLC shall incur no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.
- C. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which ADJ Products, LLC concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the ADJ Products, LLC factory unless prior written authorization was issued to purchaser by ADJ Products, LLC; if the product is damaged because it was not properly maintained as set forth in the product instructions, guidelines and/or user manual.
- D. This is not a service contract, and this warranty does not include maintenance, cleaning, or periodic checkup. During the period specified above, ADJ Products, LLC will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of ADJ Products, LLC under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of ADJ Products, LLC. All products covered by this warranty were manufactured after August 15, 2012, and bear identifying marks to that effect.
- E. ADJ Products, LLC reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.
- F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by ADJ Products, LLC in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And all warranties, whether expressed or implied, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And all warranties, whether expressed or implied, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall ADJ Product, LLC be liable for any loss and/or damage, direct and/or consequential arising out of the use of, and/or inability to use this product.
- G. This warranty is the only written warranty applicable to ADJ Products, LLC products, and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

#### MANUFACTURER'S LIMITED WARRANTY PERIODS:

- Non-LED Lighting Products = 1-Year (365 Days) (Including Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands, Power/Data Distribution, etc. excluding LED and lamps)
- Laser Products = 1-Year (365 Days) (excluding laser diodes which have a 6-Month Limited Warranty)
- LED Products = 2-Year (730 Days) (excluding batteries which have a 180 Day Limited Warranty)
- NOTE: 2-Year (730 Days) Limited Warranty ONLY applies to product purchased within the United States. StarTec Series = 1-Year (365 Days) (excluding batteries which have a 180 Day Limited Warranty)
- ADJ DMX Controllers = 2 Year (730 Days)
- American Audio Products = 1 Year (365 Days)

# WARRANTY REGISTRATION

The Ultra LB18 carries a 2 year limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items, whether under warranty or not, must be freight pre-paid and accompanied by a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain an R.A. number by contacting our customer support team on our customer support number. All packages returned to the service department not displaying an R.A. number on the outside of the package will be returned to the shipper.

# FEATURES

The ADJ Ultra LB18 is a versatile LED bar with fifteen (18) ultra-bright 10W 5-in-1 LEDs (Red, Green, Blue, Amber & Lime) with pixel-grouping control capability, and a 17x40-degree beam angle. It is rated for indoor usage only. It offers smooth RGBAL color mixing, 11 DMX channel modes, and linear color temperature control from 2300K - 9900K.

#### **INCLUDED ITEMS**

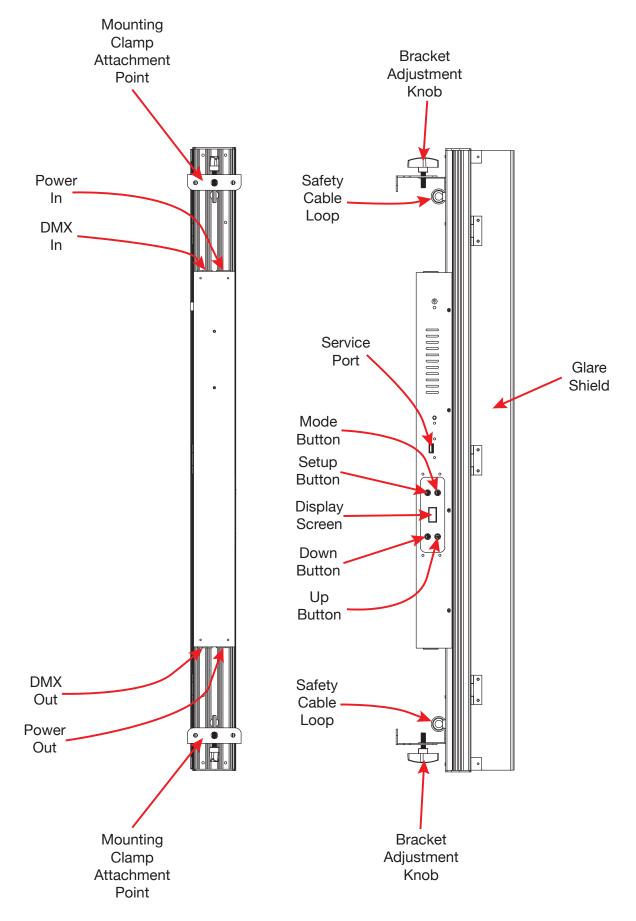
- Glare Shield (x1)
- UC IR Controller (x1)
- Power Cable (x1)

# SAFETY GUIDELINES

THIS FIXTURE IS COMPOSED OF SOPHISTICATED ELECTRONIC COMPONENTS. TO GUARANTEE SMOOTH OPERATION, IT IS IMPORTANT TO FOLLOW ALL INSTRUCTIONS AND GUIDELINES IN THIS MANUAL. ADJ PRODUCTS, LLC IS NOT RESPONSIBLE FOR INJURY AND/OR DAMAGES RESULTING FROM THE MISUSE OF THIS FIXTURE DUE TO THE DISREGARD OF THE INFORMATION PRINTED IN THIS MANUAL. ONLY QUALIFIED AND/OR CERTIFIED PERSONNEL SHOULD PERFORM INSTALLATION OF THIS FIXTURE AND ONLY THE ORIGINAL RIGGING PARTS INCLUDED WITH THIS FIXTURE SHOULD BE USED FOR INSTALLATION. ANY MODIFICATIONS TO THE FIXTURE AND/OR THE INCLUDED MOUNTING HARDWARE WILL VOID THE ORIGINAL MANUFACTURER'S WARRANTY AND INCREASE THE RISK OF DAMAGE AND/OR PERSONAL INJURY. ONLY CERTIFIED PERSONNEL SHOULD PERFORM INSTALLATION OF THIS FIXTURE.

- PROTECTION CLASS 1 FIXTURE MUST BE PROPERLY GROUNDED.
- THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT.
- DO NOT ATTEMPT ANY REPAIRS YOURSELF; DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.
- DO NOT PLUG FIXTURE INTO A DIMMER PACK!
- NEVER OPEN THIS FIXTURE WHILE IN USE!
- UNPLUG POWER BEFORE SERVICING FIXTURE!
- NEVER TOUCH FIXTURE DURING OPERATION, AS IT MAY BE HOT!
- KEEP FLAMMABLE MATERIALS AWAY FROM FIXTURE!
- NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE!
- RETINA INJURY RISK MAY INDUCE BLINDNESS!
- SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK!
- MINIMUM DISTANCE TO OBJECTS/SURFACES IS 6.6 FEET (2 METERS)
- AMBIENT OPERATING TEMPERATURE RANGE IS -4°F TO 113° F (-20°C TO 45°C). DO NOT OPERATE THE DEVICE WHEN AMBIENT TEMPERATURE FALLS OUTSIDE OF THIS RANGE.
- MINIMUM DISTANCE TO FLAMMABLE MATERIALS FROM THE SURFACE IS 1.6 FEET (0.5 METER).
- DO NOT TOUCH the fixture housing during operation. Turn OFF the power and allow approximately 60 minutes for the fixture to cool down before servicing.
- DO NOT shake fixture, and avoid brute force when installing and/or operating fixture.
- DO NOT operate fixture if the power cord is frayed, crimped, damaged and/or if any of the power cord connectors are damaged and do not insert into the fixture securely with ease. NEVER force a power cord connector into the fixture. If the power cord or any of its connectors are damaged, replace it immediately with a new one of the same power rating.
- DO NOT block any air ventilation slots. All fan and air inlets must remain clean and never blocked. Allow approx. 6" (15cm) between fixture and other devices or a wall for proper cooling.
- When installing fixture in a suspended environment, always use mounting hardware that is no less than M10 x 25 mm, and always install fixture with an appropriately rated safety cable.
- Always disconnect fixture from main power source before performing any type of service and/or cleaning procedure.
- Only handle the power cord by the plug end. Never pull out the plug by tugging the wire portion of the cord.
- Consistent operational breaks will ensure fixture will function properly for many years.
- ONLY use original packaging and materials to transport the fixture for service.

### **OVERVIEW**



# INSTALLATION



#### FLAMMABLE MATERIAL WARNING

Keep fixture minimum 5.0 feet (1.5m) away from flammable materials and/or pyrotechnics.



#### **ELECTRICAL CONNECTIONS**

A qualified electrician should be used for all electrical connections and/or installations.



#### MINIMUM DISTANCE TO OBJECTS/SURFACES IS 6.6 FEET (2 METERS). MINIMUM DISTANCE OF FLAMMABLE MATERIALS FROM THE SURFACE IS 1.6 FEET (0.5 METER)



THIS DEVICE IS DESIGNED FOR INDOOR USE ONLY! DO NOT USE OUTDOORS OR EXPOSE TO RAIN OR MOISTURE! FAILURE TO FOLLOW THIS GUIDELINE WILL DAMAGE THE FIXTURE AND VOID YOUR MANUFACTURER'S WARRANTY!

#### DO NOT INSTALL THE FIXTURE IF YOU ARE NOT QUALIFIED TO DO SO!

- Fixture MUST be installed following all local, national, and country commercial electrical and construction codes and regulations.
- Before rigging/mounting a single fixture or multiple fixtures to any metal truss/structure or placing the fixture(s) on any surface, a professional equipment installer MUST be consulted to determine if the metal truss/structure or surface is properly certified to safely hold the combined weight of the fixture(s), clamps, cables, and accessories.
- Ambient operating temperature range is -4°F to 113°F (-20°C to 45°C). Do not use or operate the fixture when ambient temperature falls outside of this range!
- Fixture(s) should be installed outside walking paths, seating areas, or areas were unauthorized personnel might reach the fixture by hand.
- NEVER stand directly below the fixture(s) when rigging, removing, or servicing.
- Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable.
- Allow approximately 60 minutes for the fixture to cool down before servicing.

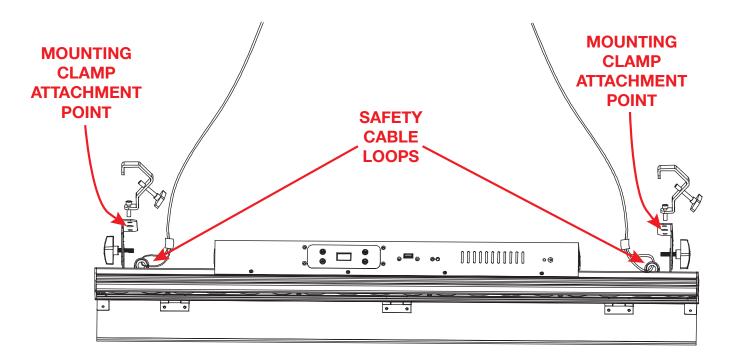
#### RIGGING

Overhead rigging requires extensive experience, including calculating working load limits, knowledge about installation materials being used, and periodic safety inspection of all installation material and the fixture, among other skills. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

# INSTALLATION

#### CLAMP INSTALLATION

This fixture features a mounting point on the foot of each bracket for the attachment of a mounting clamp. There is also a loop for the attachment of a safety cable located near the base of each bracket (see the illustration below). When mounting the fixture to a truss or any other suspended or overhead installation, be sure to secure an appropriately rated clamp (not included) to each bracket, and attach a separate **SAFETY CABLE** of the appropriate weight rating to each safety cable loop. *Please note that this fixture requires the use of TWO mounting clamps and TWO safety cables that are secured to independent attachment points at all times.* 





SAFETY CABLE: ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THAT THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS.

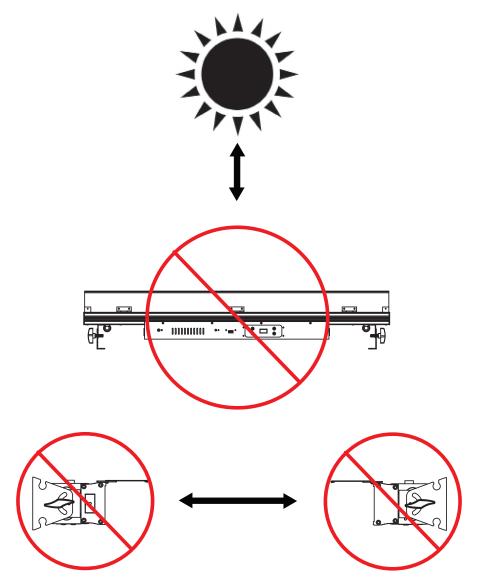
# INSTALLATION

#### POTENTIAL INTERNAL FIXTURE DAMAGE FROM EXTERNAL SOURCES OF LIGHT BEAMS

External sources of light beams from direct sunlight, lighting moving head fixtures, and lasers which are focused directly towards the exterior housing and/or penetrate the front lens opening of ADJ lighting fixtures can cause severe internal damage, including burning of optics, dichroic color filters, glass and metal gobos, prisms, animation wheels, frost filters, irises, shutters, motors, belts, wiring, discharge lamps, and LEDs.

This issue is not unique to ADJ lighting fixtures, but rather it is a common issue with lighting fixtures from all manufacturers. Although there is no true way to completely prevent this issue from happening, the guidelines below can reduce the risk of any potential damage if followed. Contact ADJ Service for more details.

DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING OR MOVING HEAD FIXTURES, AND LASERS DURING UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.



# **REMOTE DEVICE MANAGEMENT (RDM)**

# NOTE: In order for RDM to work properly, RDM enabled equipment must be used throughout the entire system, including DMX data splitters and wireless systems.

Remote Device Management (RDM) is a protocol that sits on top of the DMX512 data standard for lighting, allowing the DMX systems of the fixtures to be modified and monitored remotely. This protocol is ideal for instances in which a unit is installed in a location that is not easily accessible.

With RDM, the DMX512 system becomes bi-directional, allowing a compatible RDM enabled controller to send out a signal to devices on the wire, as well as allowing the fixture to respond (known as a GET command). The controller can then use its SET command to modify settings that would typically have to be changed or viewed directly via the unit's display screen, such as the DMX Address, DMX Channel Mode, and Temperature Sensors.

Please be aware that **not all RDM devices support all RDM features**, and therefore it is important to check beforehand to ensure that the equipment that you are considering includes all of the features that you require.

The following parameters are accessible in RDM on this device:

Device Info
Manufacturer Label
Device Label
Software Version Label
DMX Personality
DMX Personality Description
DMX Start Address
Sensor Definition
Sensor Value
Curve (Dim Curve)
Curve Description
Modulation Frequency (Led Refresh Rate)
Modulation Frequency Description
Output Response Time (Dim Mode)
Output Response Time Description

# **REMOTE CONTROL GUIDELINES**

#### **REMOTE USAGE**

This device can be operated wirelessly using the ADJ UC IR remote unit. In order to control the device, the IR Remote setting in the system menu's Personality sub-menu must be set to the "On" configuration, and the handheld remote must be aimed at the front of the fixture. Maximum effective range is 30 feet (9 meters).

NOTE: The unit can only be controlled remotely when it has been set to Primary mode. The unit will NOT respond to commands when it has been set to Secondary mode.

NOTE: In order to control multiple units with the remote, the user should set one unit as the primary unit, with all other units set as secondary units. The DMX and channel modes must also match for all units. Refer to Personality section of System Menu.



# **REMOTE CONTROL GUIDELINES**

#### **REMOTE FUNCTIONS**

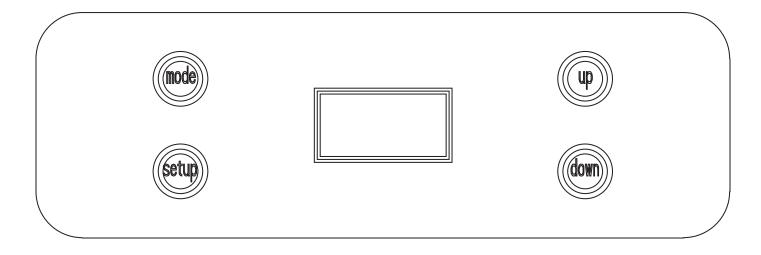
The functions available on the ADJ UC IR remote unit are detailed below:

- **Standby** Press once to black out the fixture, and press again to return the fixture to the original state.
- Full On Press to fully illuminate the device.
- Fade/Gobo Press to cycle between Color Fade, Color Change, and Auto Run Mode.
- "Dimmer+" and "Dimmer-" Use to adjust color output intensity when running in Color Mode.
- **Strobe** Press to activate the strobing function, then use the number keys 1-4 to select strobe speed. 1 is the slowest speed, and 4 is the fastest.
- **Color** Press to activate Color Mode, then use numbered buttons to enter to number of the color macro you wish to use. Press the "Show 0" button for 0.
- Number Keys (1-9)
  - In Strobe Mode, buttons 1-4 are used to select strobe speed.
  - In Color Mode, buttons 1-9 are used to select the desired color.
  - In Show Mode, buttons 1-9 are used to select the desired show.
- Sound On and Sound Off Activate or deactivate sound active mode.
- **Show 0** Press to activate Show Mode, then use the number keys to select the desired show. Shows 1-9 are selected by pressing buttons 1-9, Show 10 by pressing button 1 followed by the Show 0 button, and Show 11 by pressing button 1 twice.

# CONTROL PANEL

The fixture includes an easy to navigate system menu control panel display where all necessary settings and adjustments are made. (See image below)

- **MODE:** Cycles through the main menu options and/or return to previous menu without making changes.
- **DOWN/UP:** Scroll through options in the selected menu.
- **SETUP:** Select highlighted option and/or confirm selection.



#### DISPLAY SCREEN LOCK

When the Display Lock setting is set to 30s~10min, the display screen will automatically lock if there is no activity for the specified length of time. To unlock the display screen, simply press and hold the MODE button for 3 seconds.

	Address	<b>001</b> - 512		Set DMX address
		5ch		
		8ch		
		10ch		
		13ch		
		16ch		
	Ch. Mode	30ch		Select DMX channel mode
		33ch		
		38ch		
		41ch		
DMX SET		60ch		
		71ch		
		Hold		Unit holds last values received if DMX signal is lost
		Blackout		All channels go to zero (0) if DMX signal is lost
	No DMX	Manual		Unit reverts to Manual settings if DMX signal is lost
		Int. Prog		Unit reverts to last inter- nal program selected if DMX signal is lost
	Primary/ Sec- ondary Mode	Primary / <b>Secondary</b>		
	IR Remote	<b>On</b> / Off		
	RDM	On / <b>Off</b>		
	Divel Elin	Off = 1-6		
	Pixel Flip	On = 6-1		
		Standard		
		Stage		
PERSONALITY		TV		
	Dim Mode	Archi.		
		Theatre		
		Stage 2		
		Dim Speed	0.1s - 10.0s	
		Linear		
	Dim Curve	Square		
		Inv. Squa.		
ļ		S. Curve		
		CONTINU	JED ON NEXT PAGE	
1			10	

	LED Rfrsh		1100 Hz, <b>1200 Hz,</b> Hz, 4000 Hz, 5000 Hz		
		SaveDlay	1 - <b>10</b>		Set inactive time before unit reverts to home screen
		Lock	<b>Off,</b> 30s - 10min		Set inactive time before screen locks
	Display		Yes		
		Rotate Display	No		
		180	Auto		Screen automatically flips to keep display in upright orientation
				All Red 000 - 255	
				All Green 000 - 255	
				All Blue 000 - 255	
				All Lime 000 - 255	
PERSONALITY (continued)				Red1 000 - 255	
				Green1 000 - 255	
			Calibrat	Blue1 000 - 255	
	Service	Passcode = 050		Lime1 000 - 255	
				 Red18 000 - 255	
				Green18 000 - 255	
				Blue18 000 - 255	
				Lime18 000 - 255	
			USB Powr	On / <b>Off</b>	
			S. Update	Yes / <b>No</b>	
			Restore	Yes / <b>No</b>	Restore unit to factory settings, passcode = 011
			Edit RDM UID	xxxxxx	
		CONTINUE	D ON NEXT PAGE		

	Red Green	000 - 255			Manually adjust red Manually adjust green					
	Blue	000 - 255			Manually adjust blue					
	Amber	000 - 255			Manually adjust amber					
	Lime	000 - 255			Manually adjust lime					
	ClrMacro	000 - 255			Select color macro					
	ClrTemp	000 - 255			Set color temperature					
MANUAL	ClrTempPr	000 - 255			Select color tempera- ture program					
	Strobe	000 - 255		Manually adjust strobe						
	MastrDim	000 - 255			Manually adjust dim- ming					
	AutoProg	000 - 255		Select auto program						
	ProgSpd	000 - 255	000 - 255							
	ProgFade	000 - 255			Manually adjust pro- gram fade					
		Speed	000 - 255							
	Prog 0	Fade	000 - 255							
		Sound	On / <b>Off</b>	000 - 255						
		Speed	000 - 255							
INT PROGS	Prog 1	Fade	000 - 255							
		Sound	On / <b>Off</b>	000 - 255						
		Speed	000 - 255							
	Prog 13	Fade	000 - 255							
		Sound	On / <b>Off</b>	000 - 255						
		PwrOnHr1	xxxxxx Hrs		Total run hours, non- resettable					
	Hours	PwrOnHr2	xxxxxx Hrs		Run hours since last reset					
		PowerOnRst	Passcode = 05	0	Reset run hours					
INFO		xxx F / xxx C			Current temp					
	Temp	MaxTemp1	xxx F / xxx C		Max temp since last reset					
	Temp	MaxTemp2	xxx F / xxx C		All time max temp, non- resettable					
		TempRst	Yes / <b>No</b>	Passcode = 050	Reset temp					

		Red			Displays current DMX						
	DMX Value	Green	Green								
	DIVIX Value										
		Auto Prog									
INFO (continued)		RDM UID	хххххх	Displays default RDM UID							
	Error Logs	Fixture Errors	Displays errors since last error reset one by one								
		Reset Error Log	Yes / <b>No</b>	Passcode = 050							
	Soft Vers	x.xx									

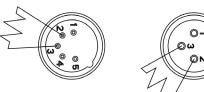
# DMX SETUP

**DMX-512:** DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a DATA "OUT" terminal).

**DMX Linking:** DMX is a language allowing all makes and models of different manufacturers to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, try to use the shortest cable path possible when using several DMX fixtures. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example, a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line: at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

**Data Cable (DMX Cable) Requirements (For DMX Operation):**The Ultra LB18 can be controlled via DMX-512 protocol, and features multiple DMX channel modes. Your unit and your DMX controller require a 5-pin XLR connector for data input and data output. If you are making your own cables, be sure to use standard 110-120 Ohm shielded cable (This cable may be purchased at almost all professional lighting stores). Your cables should be made with a male XLR connector at one end and a female XLR connector at the other. Also remember that DMX cable must be daisy chained and cannot be split.

**Special Note: Line Termination.** When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 110-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number Z-DMX/T) will decrease the chances of erratic behavior.



A DMX512 terminator reduces signal errors, avoiding most signal reflection interference. Connect PIN 2 (DMX-) and PIN 3 (DMX+) of the last fixture in series with a 120 Ohm, 1/4 W Resistor to terminate the DMX512.

### DMX SETUP

#### DMX ADDRESSING

All fixtures should be given a DMX starting address when operating with a DMX controller, in order to ensure that the correct fixture responds to the correct control signal. This digital starting address is the channel number from which the fixture starts to "listen" to the digital control signal sent out from the DMX controller. The starting DMX address is configured by setting the correct DMX address on the control panel display on the fixture.

You can set the same starting address for multiple fixtures, or set different addresses for each individual fixture. Setting multiple fixtures to the same DMX address will cause all those fixtures to react in the same way. In this case, please note that changing the settings of one channel will affect all the fixtures simultaneously.

If you set each fixture to a different DMX address, each unit will start to "listen" to the channel number you have set, based on the quantity of DMX channels of each fixture. That means changing the settings of one channel will only affect the selected fixture.

As an example, when operating this device in 5 channel mode, you should set the starting DMX address of the first unit to 1, the second unit to 6 (1 + 5), the third unit to 1 (1 + 5 + 5), and so on. (See the chart below for more details.)

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
5Ch	1	6	11	16
8Ch	1	9	17	25
10Ch	1	11	21	31
13Ch	1	14	27	40
16Ch	1	17	33	49
30Ch	1	31	61	91
33Ch	1	34	67	100
38Ch	1	39	77	115
41Ch	1	42	83	124
60Ch	1	61	121	181
71Ch	1	72	143	214

				CHAI	NNEL							
5 CH	8 CH	10 CH	13 CH	16 CH	30 CH	33 CH	38 CH	41 CH	60 CH	71 CH	DMX VALUE	FUNCTION
1	1	1	1	1							000 - 255	<b>All Red,</b> 0% to 100%
		2									000 - 255	All Red Fine
2	2	3	2	2							000 - 255	All Green, 0% to 100%
		4									000 - 255	All Green Fine
3	3	5	3	3							000 - 255	All Blue, 0% to 100%
		6									000 - 255	All Blue Fine
4	4	7	4	4							000 - 255	All Amber, 0% to 100%
		8									000 - 255	All Amber Fine
5	5	9	5	5							000 - 255	<b>All Lime,</b> 0% to 100%
		10									000 - 255	All Lime Fine
					1	1	1	1	1	1	000 - 255	<b>Red 1,</b> 0% to 100%
									2	2	000 - 255	Red 1 Fine
					2	2	2	2	3	3	000 - 255	<b>Green 1,</b> 0% to 100%
									4	4	000 - 255	Green 1 Fine
					3	3	3	3	5	5	000 - 255	<i>Blue 1,</i> 0% to 100%
									6	6	000 - 255	Blue 1 Fine
					4	4	4	4	7	7	000 - 255	<b>Amber 1,</b> 0% to 100%
									8	8	000 - 255	Amber 1 Fine
					5	5	5	5	9	9	000 - 255	<i>Lime 1,</i> 0% to 100%
									10	10	000 - 255	Lime 1 Fine
					6	6	6	6	11	11	000 - 255	<b>Red 2,</b> 0% to 100%
									12	12	000 - 255	Red 2 Fine
					7	7	7	7	13	13	000 - 255	<b>Green 2,</b> 0% to 100%
									14	14	000 - 255	Green 2 Fine
					8	8	8	8	15	15	000 - 255	<i>Blue 2,</i> 0% to 100%
									16	16	000 - 255	Blue 2 Fine
					9	9	9	9	17	17	000 - 255	<i>Amber 2,</i> 0% to 100%
									18	18	000 - 255	Amber 2 Fine
					10	10	10	10	19	19	000 - 255	<i>Lime 2,</i> 0% to 100%
									20	20	000 - 255	Lime 2 Fine
					11	11	11	11	21	21	000 - 255	<b>Red 3,</b> 0% to 100%
									22	22	000 - 255	Red 3 Fine
					12	12	12	12	23	23	000 - 255	<i>Green 3,</i> 0% to 100%
									24	24	000 - 255	Green 3 Fine
					13	13	13	13	25	25	000 - 255	<i>Blue 3,</i> 0% to 100%
							С	ONTIN	IUED	ON NE	EXT PAGE	

				Cŀ	ANN	EL						
5 CH	8 CH	10 CH	13 CH	16 CH	30 CH	33 CH	38 CH	41 CH	60 CH	71 CH	DMX VALUES	FUNCTION
									26	26	000 - 255	Blue 3 Fine
					14	14	14	14	27	27	000 - 255	<b>Amber 3,</b> 0% to 100%
									28	28	000 - 255	Amber 3 Fine
					15	15	15	15	29	29	000 - 255	<i>Lime 3,</i> 0% to 100%
									30	30	000 - 255	Lime 3 Fine
					16	16	16	16	31	31	000 - 255	<b>Red 4,</b> 0% to 100%
									32	32	000 - 255	Red 4 Fine
					17	17	17	17	33	33	000 - 255	<b>Green 4,</b> 0% to 100%
									34	34	000 - 255	Green 4 Fine
					18	18	18	18	35	35	000 - 255	<i>Blue 4,</i> 0% to 100%
									36	36	000 - 255	Blue 4 Fine
					19	19	19	19	37	37	000 - 255	<b>Amber 4,</b> 0% to 100%
									38	38	000 - 255	Amber 4 Fine
					20	20	20	20	39	39	000 - 255	<i>Lime 4,</i> 0% to 100%
									40	40	000 - 255	Lime 4 Fine
					21	21	21	21	41	41	000 - 255	<b>Red 5,</b> 0% to 100%
									42	42	000 - 255	Red 5 Fine
					22	22	22	22	43	43	000 - 255	<b>Green 5,</b> 0% to 100%
									44	44	000 - 255	Green 5 Fine
					23	23	23	23	45	45	000 - 255	<i>Blue 5,</i> 0% to 100%
									46	46	000 - 255	Blue 5 Fine
					24	24	24	24	47	47	000 - 255	<b>Amber 5,</b> 0% to 100%
									48	48	000 - 255	Amber 5 Fine
					25	25	25	25	49	49	000 - 255	<i>Lime 5,</i> 0% to 100%
									50	50	000 - 255	Lime 5 Fine
					26	26	26	26	51	51	000 - 255	<b>Red 6,</b> 0% to 100%
									52	52	000 - 255	Red 6 Fine
					27	27	27	27	53	53	000 - 255	<b>Green 6,</b> 0% to 100%
									54	54	000 - 255	Green 6 Fine
					28	28	28	28	55	55	000 - 255	<i>Blue 6,</i> 0% to 100%
									56	56	000 - 255	Blue 6 Fine
					29	29	29	29	57	57	000 - 255	<b>Amber 6,</b> 0% to 100%
									58	58	000 - 255	Amber 6 Fine
					30	30	30	30	59	59	000 - 255	<i>Lime 6,</i> 0% to 100%
									60	60	000 - 255	Lime 6 Fine
							С	ONTIN	IUED	ON NE	EXT PAGE	

				Cŀ	HANN	EL		DMX						
5 CH	8 CH	10 CH	13 CH	16 CH	30 CH	33 CH	38 CH	41 CH	60 CH	71 CH	DMX VALUES	FUNCTION		
			6	6			31	31		61	000 - 255	Color Macros, see Color Macros Chart section of this manual		
			7	7			32	32		62	000 - 255	<b>Color Temperature,</b> 2300K - 9900K Linear		
												Shutter, Strobe		
											000 - 031	LEDs Off		
											032 - 063	LEDs On		
											064 - 095	Strobe Effect, slow to fast		
	6		8	8		31	33	33		63	096 - 127	LEDs On		
											128 - 159	Pulse Effect in Sequences		
											160 - 191	LEDs On		
											192 - 223	Random Strobe Effect, slow to fast		
											224 - 255	LEDs On		
	7		9	9		32	34	34		64	000 - 255	Dimmer Intensity, 0% to 100%		
	8		10	10		33	35	35		65	000 - 255	Dimmer Fine		
												Auto Programs		
											000 - 010	Off		
													011 - 026	Auto Program 1
											027 - 043	Auto Program 2		
											044 - 060	Auto Program 3		
											061 - 076	Auto Program 4		
											077 - 093	Auto Program 5		
				44							094 - 110	Auto Program 6		
				11				36		66	111 - 126	Auto Program 7		
											127 - 143	Auto Program 8		
											144 - 160	Auto Program 9		
											161 - 176	Auto Program 10		
											177 - 193	Auto Program 11		
											194 - 210	Auto Program 12		
											211 - 226	Auto Program 13		
											227 - 255	No Function		
				12				37		67	000 - 255	Auto Programs Speed, slow to fast		
				13				38		68	000 - 255	Auto Programs Fade, 0% to 100%		

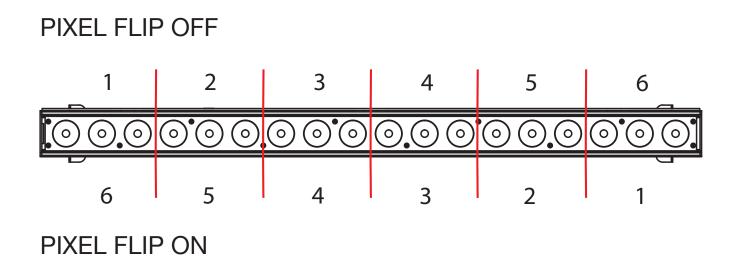
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				Cł	IANN	EL					DWY	
5 CH	8 CH	10 CH	13 CH	16 CH	30 CH	33 CH	38 CH	41 CH	60 CH	71 CH	DMX VALUES	FUNCTION
												Dim Mode
											000 - 020	Default to unit setting
											021 - 040	Standard
											041 - 060	Stage
			11	14			36	39		69	061 - 080	TV
			11	14			30	39		69	081 - 100	Architectural
											101 - 120	Theatre
											121 - 140	Stage 2
											141 - 160	Dim Speed, 0.1s to 10.0s
											161 - 255	Default to unit setting
												Dim Curves
				15							000 - 020	Square
			12		5		27	40		70	021 - 040	Linear
			12	15			37	40		70	041 - 060	Inv. Squa
											061 - 080	S. Curve
											081 - 255	No Function
												Refresh Rates
											000 - 015	Default to unit setting
											016 - 030	900 Hz
											031 - 045	1000 Hz
											046 - 060	1100 Hz
											061 - 075	1200 Hz
											076 - 090	1300 Hz
											091 - 105	1400 Hz
			13	16			38	41		71	106 - 120	1500 Hz
											121 - 135	2500 Hz
											136 - 150	4000 Hz
											151 - 165	5000 Hz
											166 - 180	10,000 Hz
											181 - 195	15,000 Hz
											196 - 210	20,000 Hz
											211 - 225	25,000 Hz
											226 - 255	No Function

# PIXEL ZONES

In 30-, 33-, 38-, 41-, 60-, and 71-channel mode, the LED strip is divided into 6 separately controlled pixel zones, with each pixel zone consisting of 3 pixels as shown in the illustration below. Activating Pixel Flip in the system menu reverses the order of the arrangement of the pixel zones.

Please note that these pixel zones do not apply 5-, 8-, 10-, 13-, and 16-channel mode, as these modes effectively control all 18 pixels as a single group.



#### COLOR DMX VALUE **COLOR TEMP** RED GREEN BLUE LIME AMBER MACRO NO. Off N/A 001 - 004 N/A 005 - 008 N/A N/A 009 - 012 013 - 016 N/A 017 - 020 N/A N/A 021 - 024 025 - 028 N/A N/A 029 - 032 033 - 036 N/A 037 - 040 N/A 041 - 044 N/A 045 - 048 N/A 049 - 052 N/A N/A 053 - 056 N/A 057 - 060 061 - 064 N/A 065 - 068 N/A 069 - 072 N/A N/A 073 - 076 077 - 080 N/A N/A 081 - 084 085 - 088 N/A 089 - 092 N/A N/A 093 - 096 097 - 100 N/A 101 - 104 N/A N/A 105 - 108 109 - 112 N/A 113 - 116 N/A N/A 117 - 120 121 - 124 N/A N/A 125 - 128 129 - 132 N/A 133 - 136 N/A 137 - 140 N/A N/A 141 - 144

#### **COLOR MACROS CHART**

COLOR MACRO NO.	DMX VALUE	COLOR TEMP	RED	GREEN	BLUE	LIME	AMBER
37	145 - 148	N/A	255	215	0	1	1
38	149 - 152	N/A	5	255	190	3	11
39	153 - 156	N/A	12	255	62	95	49
40	157 - 160	N/A	5	209	255	15	170
41	161 - 164	N/A	0	5	128	5	5
42	165 - 168	N/A	255	105	180	2	1
43	169 - 172	N/A	7	255	25	70	77
44	173 - 176	N/A	147	164	212	0	2
45	177 - 180	N/A	2	255	15	3	19
46	181 - 184	N/A	0	38	86	0	0
47	185 - 188	N/A	255	0	5	121	10
48	189 - 192	N/A	5	18	209	5	19
49	193 - 196	N/A	1	255	62	93	44
50	197 - 200	2300K > 90 CRI	190	10	10	255	190
51	201 - 204	2600K > 90 CRI	180	25	25	255	180
52	205 - 208	2800K > 90 CRI	165	50	28	255	165
53	209 - 212	3100K > 90 CRI	150	35	35	255	255
54	213 - 216	3400K > 90 CRI	135	45	45	255	135
55	217 - 220	7000K > 90 CRI	80	125	125	255	80
56	221 - 224	8000K > 90 CRI	75	145	145	255	75
57	225 - 228	3800K > 90 CRI	120	55	55	255	120
58	229 - 232	4100K > 90 CRI	120	65	65	255	120
59	233 - 236	4500K > 90 CRI	110	75	75	255	110
60	237 - 240	4900K > 90 CRI	105	85	85	255	105
61	241 - 244	5500K > 90 CRI	95	95	95	255	95
62	245 - 248	6000K > 90 CRI	90	105	105	255	90
63	249 - 252	9000K > 90 CRI	75	165	165	255	75
64	253 - 255	9900K > 90 CRI	75	185	185	255	75

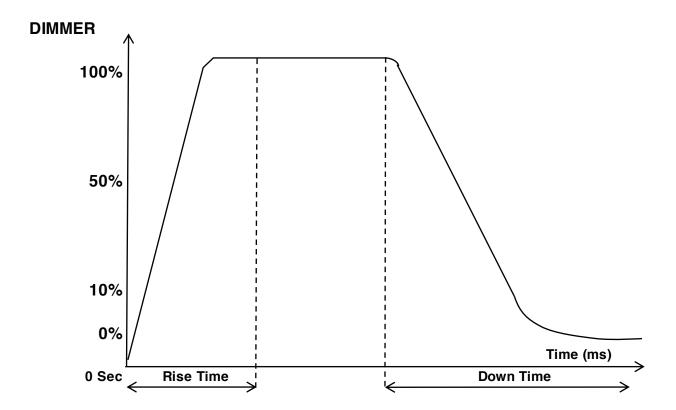
COLOR TEMPERATURE	DMX VALUES	RED	GREEN	BLUE	AMBER	LIME
N/A	000 - 015	NO FUNCTION				
2300K	016 - 031	160	10	10	160	255
2600K	032 - 047	130	15	15	130	255
2800K	048 - 063	120	20	20	120	255
3100K	064 - 079	110	25	25	110	255
3400K	080 - 095	100	30	30	100	255
3800K	096 - 111	90	40	40	90	255
4100K	112 - 127	80	40	40	80	255
4500K	128 - 143	75	50	50	75	255
4900K	144 - 159	65	55	55	65	255
5500K	160 - 175	60	65	65	60	255
6000K	176 - 191	60	75	75	60	255
7000K	192 - 207	55	90	90	55	255
8000K	208 - 223	55	108	108	55	255
9000K	224 - 239	55	120	120	55	255
9900K	240 - 255	55	132	132	55	255

# COLOR TEMPERATURE TABLE

# **DIM SPEEDS**

DMX VALUE	DELAY TIME		
141	0.1s		
142	0.2s		
143	0.3s		
144	0.4s		
145	0.5s		
146	0.6s		
147	0.7s		
148	0.8s		
149	0.9s		
150	1.0s		
151	1.5s		
152	2.0s		
153	3.0s		
154	4.0s		
155	5.0s		
156	6.0s		
157	7.0s		
158	8.0s		
159	9.0s		
160	10.0s		

# **DIM MODES**



	0 sec Fa	ide Time	1 sec Fade Time		
Dimming Curve Ramp Effect	0	255		255	
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)	
Standard (default)	0	0	0	0	
Stage	780	1100	1540	1660	
τν	1180	1520	1860	1940	
Architectural	1380	1730	2040	2120	
Theatre	1580	1940	2230	2280	
Stage 2	0	1100	0	1660	

# DAISY CHAIN POWER LINKING

These units have the capability to be daisy chained together via the power in/out ports. **The maximum number of units that can be linked together in this manner is as follows:** 

- 12 units maximum when running on 120V power.
- 25 units maximum when running on 240V power.

#### DO NOT EXCEED THE NUMBER OF UNITS LISTED ABOVE.

**DO NOT MIX MAKE AND MODEL TYPES WHEN DAISY CHAINING!** All units that are connected in this manner must be of the same make and model type.

# CLEANING AND MAINTENANCE

#### DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!

#### CLEANING

Frequent cleaning is recommended to ensure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the environment in which the fixture operates: damp, smoky, or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics. Clean the external lens surface periodically with a soft cloth to avoid dirt/debris accumulation.

**NEVER** use alcohol, solvents, or ammonia-based cleaners.

#### MAINTENANCE

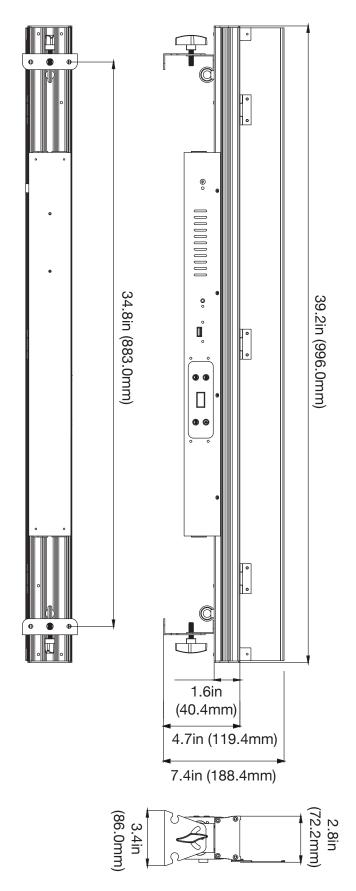
Regular inspections are recommended to ensure proper function and extended life. There are no user serviceable parts inside this fixture. Please refer all other service issues to an authorized ADJ service technician. Should you need any spare parts, please order genuine parts from your local ADJ dealer.

Please refer to the following points during routine inspections:

- A detailed electrical check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation, resulting in damage or injury as larger parts could fall.
- Check for any deformations on the housing, color lenses, rigging hardware, and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust or liquids to enter into the fixture. Damaged rigging points or unsecured rigging could cause fixture to fall and seriously injure a person(s).
- Electric power supply cables must not show any damage, material fatigue, or sediments.

**NEVER** remove the ground prong from the power cable.

# **DIMENSIONAL DRAWINGS**



# SPECIFICATIONS

- Ultra bright, 39.3-inch, indoor Linear Bar with 18 x 10W Ultra bright (Red, Green, Blue, Amber & Lime) LEDs
- 17x40 degree beam angle
- Smooth RGBAL color mixing
- 11 DMX Channel Modes: 5, 8, 10, 13, 16, 30, 33, 38, 41, 60 & 71 Channels
- 6 Groups x3 RGBAL LED pixels controllable via DMX in 30, 33, 38, 41, 60 & 71 channel modes
- 6 operational modes: Auto Run, Program Mode, Sound Trigger, RGBAL Manual, Static Color and DMX-512 Mode
- Horizontal Magnetic Alignment feature (Built-In)
- Flicker Free operation (No flickering on camera)
- Refresh Rate: Selectable 900 Hz, 1000 Hz, 1100 Hz, 1200 Hz, 1300 Hz, 1400 Hz, 1500 Hz, 2500 Hz, 4000 Hz, 5000 Hz, 10 KHz, 15 KHz, 20 KHz, 25 KHz
- 64 built-in Color Macros, including 15 white color temperature presets
- 5 selectable Dim Modes (Standard, Stage, TV, Architectural, Theatre & Stage 2)
- 4 selectable Dim Curves (Square, Linear, Inv. Square & S. Curve)
- Linear Color Temperature Control (2,300K to 9,900K)
- >90 CRI
- LED pulse and strobe effect
- OLED Display
- Built-In Microphone for sound trigger mode
- Linkable: DMX via 5-pin XLR cable
- Electronic Dimming: 0-100%
- Includes mounting brackets to set on the ground or to mount a clamp to for truss mounting
- Long Life LEDs (Rated at approximately 50,000 hrs.)
- Multi-voltage operation: AC 100V-240V 50/60Hz
- Power Draw: 130W
- Power link via power locking connectors. Daisy-chain power link (Up to 12 Ultra LB18s can be linked @120V and up to 25 Ultra LB18s can be linked @240V
- Locking Power Cord (Included)
- Compatible with the ADJ UC IR remote. Operates at a distance of up to 32.8 feet (10 meters) (Included)
- Glare shield that blocks the LEDs from glare/view and protects LEDs during transport (Included)
- Dimensions (LxWxH): 3.39" x 39.3" x 7.42" (86x996x188.4mm)
- Weight: 12.13 lbs./ 5.5kg.

#### Specifications and manual are subject to improvement without prior written notice.