



TRI PHASE



User Manual



©2021 ADJ Products, LLC all rights reserved. Information, specifications, diagrams, images, and instructions herein are subject to change without notice. ADJ Products, LLC logo and identifying product names and numbers herein are trademarks of ADJ Products, LLC. Copyright protection claimed includes all forms and matters of copyrightable materials and information now allowed by statutory or judicial law or hereinafter granted. Product names used in this document may be trademarks or registered trademarks of their respective companies and are hereby acknowledged. All non-ADJ Products, LLC brands and product names are trademarks or registered trademarks of their respective companies.

ADJ Products, LLC and all affiliated companies hereby disclaim any and all liabilities for property, equipment, building, and electrical damages, injuries to any persons, and direct or indirect economic loss associated with the use or reliance of any information contained within this document, and/or as a result of the improper, unsafe, insufficient and negligent assembly, installation, rigging, and operation of this product.



DOCUMENT VERSION

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

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

Date	Document Version	Software Version	DMX Channels	Notes
05/2010	1.0	1.0	4 Channels	Initial Release
09/15/2021	1.1	N/C	No Change	Updated DMX Traits, added Installation and RGBW Values

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!

GENERAL INFORMATION

Unpacking: Thank you for purchasing the Tri Phase by ADJ. Every Tri Phase 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 be damaged, carefully inspect your fixture for any damage and be sure all equipment necessary to operate the unit has arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return this unit to your dealer without contacting customer support first.

Introduction: The Tri Phase is a four channel, DMX intelligent LED fixture. The fixture can operate as a stand alone fixture or in a Master/Slave configuration. The Tri Phase has two operating modes: sound active and DMX Control. For best results, use fog or special effects smoke to enhance the beam projections.

Customer Support: ADJ provides a toll free customer support line, to provide help and to answer any questions that may arise during initial set up or operation. You may also visit us on the web at www.adj.com for any comments or suggestions. Service Hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice:	(800) 322-6337
Fax:	(323) 582-2941
E-mail:	support@adj.com

To purchase parts online visit <http://parts.adj.com>

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! This may cause eye damage. Avoid looking directly into the light source. Use sensible precaution.

To optimize the performance of this product, please read these operating instructions carefully and familiarize yourself with the basic operations 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.

FEATURES

- DMX-512 Protocol Compatible (Four DMX Channels)
- Multiple Colors
- Bright 10 Watt LED
- 2 Operating Modes: Sound Active & DMX Control
- Internal Microphone
- Digital Display for Address and Function Setting
- UC3 Controller (Not Included)
- Power Cord Daisy Chain

WARRANTY RETURNS

The Tri Phase carries a 3 year (1095 day) limited warranty. Please fill out the enclosed warranty card to validate your purchase and warranty. You may also register your product online at www.adj.com. All returned service items, whether under warranty or not, must be freight pre-paid and accompanied by a return authorization (R.A.) number. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Please contact ADJ customer support for an R.A. number.

HANDLING PRECAUTIONS

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 Service.

During operation the housing may become extremely hot. Avoid touching the unit with bare hands while in use.

ADJ will not accept any liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to this unit.

SAFETY GUIDELINES

For Your Own Personal Safety, Please Read and Understand This Manual Completely Before You Attempt To Install Or Operate This Unit!

- To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
- Do not spill water or other liquids into or on to your unit.
- Be sure that the voltage of the power outlet matches the voltage required by the device.
- Do not attempt to operate this unit if the power cord is frayed or broken.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Never operate this unit with the cover removed.
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Do not attempt to operate this unit if it has been damaged in any way.
- This unit is intended for indoor use only. Use of this product outdoors voids all warranties.
- Always mount this unit in safe and stable matter.
- Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- **Cleaning** - The fixture should be cleaned only as recommended by the manufacturer. See the **Cleaning** section of this manual for details.
- **Heat** - This fixture should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
 - A. Objects have fallen onto, or liquid has been spilled into, the appliance.
 - B. The appliance has been exposed to rain or water.
 - C. The appliance does not appear to operate normally or exhibits a marked change in performance.

DMX SET UP

Power Supply: Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your device. The ADJ Tri Phase is available in a 120-volt and 220-volt version. Because line voltage may vary from venue to venue, you should be sure your unit voltage matches the wall outlet voltage before attempting to operate your fixture. Also be sure to only use the included I.E.C. power cable supplied with the unit, as this cable matches the voltage and current requirements of the unit.

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used by most lighting and controller manufacturers 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 linking several DMX fixtures together. 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: The Tri Phase can be controlled via DMX-512 protocol. The Tri Phase is a four channel DMX unit. The DMX address is set electronically using the controls on the back panel of the unit. Your unit and your DMX controller require an approved DMX-512 110 Ohm data cable for data input and data output (see Figure 1). We recommend Accu-Cable DMX cables. 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 sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and cannot be split.



Figure 1

DMX SET UP

Notice: Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and lead to erratic behavior.



Figure 2

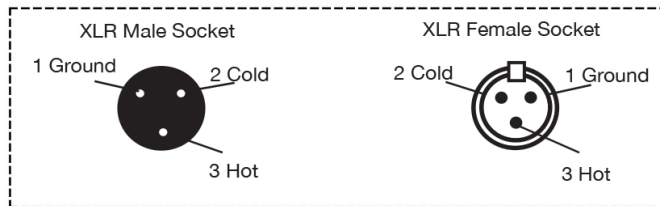
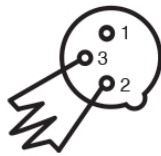


Figure 3

XLR Pin Configuration	
Pin 1 =	Ground
Pin 2 =	Data Compliment (negative)
Pin 3 =	Data True (positive)

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 warr 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 reduce the risk of erratic behavior.



Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

Figure 4

5-Pin XLR DMX Connectors. Some manufacturers use 5-pin XLR connectors for DATA transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors into a 3-pin line, a cable adaptor must be used. These adaptors are readily available at most electronics stores. The chart below details a proper cable conversion.

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Do Not Use
Not Used		Do Not Use

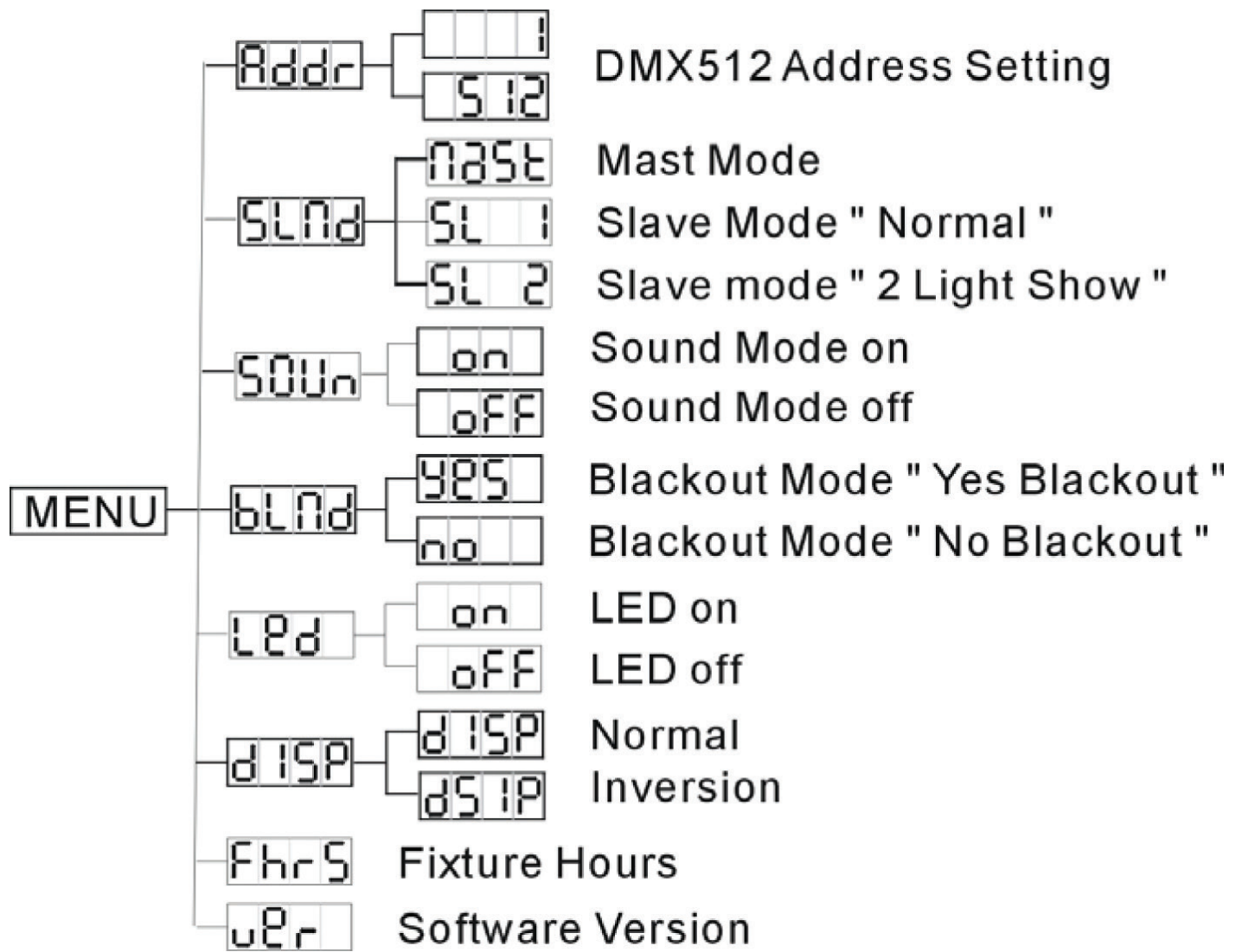
INSTALLATION

The unit should be mounted using a mounting clamp (not provided), affixing the clamp to the mounting bracket that is provided with the unit. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Always ensure that the structure to which you are attaching the unit is secure and is able to support at least 10 times the unit's weight. Also, always use a safety cable that can hold 12 times the weight of the unit when installing the fixture. The equipment must be installed by a professional, and it must be installed in a place where it is out of the reach of people's grasp.



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.

SYSTEM MENU



SYSTEM MENU

ADDR - DMX Address Setting.

1. Tap the either the MENU, UP, or DOWN buttons until “ADDR” is displayed, then press ENTER.
2. “1” will now be displayed and flashing. Press the UP or DOWN buttons to find your desired address. Press ENTER to set your desired DMX address.

SLND - This will let you set the unit as a master or a slave in a master/slave configuration.

1. Tap the either the MENU button until “SLND” is displayed, then press ENTER. “MSTR”, “SL 1” or “SL 2” will be displayed.
2. Tap the UP or DOWN buttons until your desired setting is displayed, then press ENTER to confirm and exit.

SOUN - Sound Active mode.

1. Tap the MENU button until “SOUN” is displayed, then press ENTER.
2. The display will show either “ON” or “OFF”. Press the UP or DOWN buttons to select “ON” to activate sound active mode, or “OFF” to deactivate sound active mode.
3. Press ENTER to confirm.

BLND - Blackout or Standby mode.

1. Tap the either the MENU button until “BLND” is displayed, then press ENTER. Either Yes or No will be displayed.
2. To activate Blackout, tap the UP or DOWN buttons until Yes is displayed, then press ENTER to confirm and exit. The fixture will now be in Blackout mode. To deactivate Blackout mode, select No and press Enter.

LED - With this function, you can switch the lamp on or off via the control board.

1. Tap the MENU button until “LED” is displayed, then press ENTER.
2. The display will show either “ON” or “OFF”. Press the UP or DOWN buttons to select “ON” to switch on the LED, or “OFF” to switch off the LED.
3. Press ENTER to confirm and exit.

IDSP - Inverts the display 180°.

1. Tap the either the MENU button until “I DSP” is displayed, then press ENTER.
2. Press the UP button to select “DSP i” to activate this function, or “I DSP” to deactivate this function.
3. Press ENTER to confirm.

FHRS - Displays the running time of the unit.

1. Tap the either the MENU button until “FHRS” is displayed, then press ENTER.
2. The display shows the running time of the unit. Press MENU to exit.

VER - Displays the software version of the unit.

1. Tap the either the MENU button until “VER” is displayed, then press ENTER.
2. The display will show the software version.

OPERATION

Universal DMX Control: This function allows you to use a universal DMX-512 controller to control the chases and patterns, dimmer and strobe. A DMX controller allows you to create unique programs tailored to your individual needs.

- The Tri Phase is a four DMX channel fixture. See the **DMX Traits** section of this manual for detailed information.
- To control your fixture in DMX mode, follow the procedures shown in the **Set Up** section of this manual, as well as the set-up specifications that are included with your DMX controller.
- Use the controller's faders to control the various DMX fixture traits. This will allow you to create your own programs.
- Follow the instructions shown in the **System Menu** section of this manual to set the DMX address.
- For longer cable runs (more than a 100 feet) use a terminator on the last fixture.
- For help operating in DMX mode, consult the manual included with your DMX controller.

Sound Active Mode: This mode allows a single unit or several units linked together to run to the beat of the music.

1. Tap the MENU button until "SOUN" is displayed, and press ENTER.
2. Press the UP or DOWN button so that "On" is displayed. The unit will now run to the beat of the music.
3. The optional UC3 Controller (not included) may be used to control different functions, including blacking out the fixture.

Master-Slave Operation (Sound Active): This function will allow you to link up to 16 units together and operate without a controller. The units will be sound activated. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling units programs. Any unit can act as a Master or as a Slave.

1. Using standard XLR microphone cables, daisy chain your units together via the XLR connectors on the rear faces of the units. Remember that the male XLR connector is the input, and the female XLR connector is the output. The first unit in the chain (master) will use the female XLR connector only, and the last unit in the chain will use the male XLR connector only. For longer cable runs, the use of a terminator on the last fixture is highly recommended.
2. On the Master unit, find your desired show, and select that show by pressing the ENTER button.
3. On the slave units, tap the MENU button until "SLND" is displayed, then select your desired slave mode and Press ENTER.
4. The slave units will now follow the Master unit.
5. The optional UC3 Controller (not included) may be used to control different functions, including blacking out the fixture.

DMX TRAITS

Channel	Value	Function
1		<i>Color Selection</i>
	0-16	Red
	17-33	Green
	34-50	Blue
	51-67	White
	68-84	Red+Green
	85-101	Red+Blue
	102-118	Red+White
	119-135	Green+Blue
	136-152	Green+White
	153-169	Red+Blue+White
	170-186	Red+Green+Blue
	187-203	Red+Green+White
	204-220	Red+Blue+White
	221-237	Green+Blue+White
	238-255	Red+Green+Blue+White
2		<i>Rotation</i>
	0-9	No Rotation
	10-120	Clockwise, fast to slow
	121-134	No Rotation
	135-245	Counter-clockwise, slow to fast
	246-255	No Rotation
3		<i>Strobing</i>
	0	Off
	1-255	Strobing, slow to fast
4	0-255	<i>Dimming</i> , 0% to 100%

RGBW VALUES

Color	R Value	G Value	B Value	W Value
Red	255	0	0	0
Green	0	255	0	0
Blue	0	0	255	0
White	0	0	0	255
Red+Green	255	255	0	0
Red+Blue	255	0	255	0
Red+White	255	0	0	255
Green+Blue	0	255	255	0
Green+White	0	255	0	255
Red+Blue+White	255	0	255	255
Red+Green+Blue	255	255	255	0
Red+Green+White	255	255	0	255
Red+Blue+White	255	0	255	255
Green+Blue+White	0	255	255	255
Red+Green+Blue+White	255	255	255	255

UC3 CONTROL

Standby	Blackout the unit.	
Function	1. Synchronous strobe 2. Two light strobe 3. Sound control	Rotation speed, 1-8
Mode	Strobe (LED Off)	Chase (LED On)

POWER CORD DAISY CHAIN

These fixtures can be linked together using the IEC input and output sockets.

The maximum number of devices that can be linked together in this manner is 15 unit. Once this number has been reached, a new power outlet must be used to accommodate any additional fixtures.

All units connected in this manner must be of the same make and model type. DO NOT mixture fixtures of differing makes and model types.

CLEANING

Fixture Cleaning: Due to fog residue, smoke, and dust, cleaning the internal and external optical lenses and mirror should be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew). In heavy club use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity and crisp output.

- Use normal glass cleaner and a soft cloth to wipe down the outside casing.
- Use a brush to wipe down the cooling vents and fan grill.
- Clean the external optics and mirror periodically with glass cleaner and a soft cloth.
- Clean the internal optics with glass cleaner and a soft cloth every 30-60 days.
- Always be sure to dry all parts completely before plugging the unit back in.

TROUBLE SHOOTING

Trouble Shooting: Listed below are a few common problems that you may encounter, with potential solutions.

No light output from the unit:

- Be sure you have connected your unit to a wall outlet of the proper voltage.
- Be sure the external fuse has not blown. The fuse is located on the rear panel of the unit.
- Be sure the fuse holder is completely and properly seated.

Unit does not respond to sound:

Low frequencies (bass) should cause the unit to react to sound. Tapping on the microphone or quiet or high pitched sounds may not be sufficient to activate the unit.

FUSE REPLACEMENT

First unplug the power. The fuse holder is located next to the power cord. Using a flat-head screw driver unscrew the fuse holder. Remove the bad fuse and replace with a new one.

WARRANTY

MANUFACTURER'S LIMITED WARRANTY

- 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 back the product, 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 pre-paid. 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. No accessories should be shipped with the product. If any accessories are shipped with the product, ADJ Products, LLC shall have 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 serial number has been 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 not properly maintained as set forth in the instruction manual.
- D. This is not a service contract, and this warranty does not include maintenance cleaning or periodic check up. 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.

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 no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. 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 Products, LLC be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

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 L.E.D. Lighting Products = 1-year (365 days) Limited Warranty** (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobos, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding LED and lamps)
 - **Laser Products = 1 Year (365 Days) Limited Warranty** (excluding laser diodes which have a 6 month limited warranty)
 - **LED Products = 2-year (730 days) Limited Warranty** (excluding batteries which have a 180 day limited warranty).
- Note: 2 Year Warranty only applies to purchases within the United States**
- **StarTec Series = 1 Year Limited Warranty** (excluding batteries which have a 180 day limited warranty).
 - **ADJ DMX Controllers = 2 Year (730 Days) Limited Warranty**

SPECIFICATIONS

Model:

Tri Phase

Voltage:	100V ~ 240V, 50 ~ 60 Hz
Lamp:	One 10 Watt LED
Power Draw:	23W
Fuse:	7A (120V & 230V)
Power Cord Daisy Chain:	15 Fixtures Max.
Dimensions:	7.44" (L) x 12" (W) x 13.14" (H) 189mm x 306mm x 334mm
Weight:	8.37 Lbs. / 3.8 kgs
Colors:	Multiple
Beam Angle:	65 Degrees
Duty Cycle:	None
DMX Channels:	4
Sound Active:	Yes
Working Position:	Any Safe, Secure Position
Warranty:	3 Years (1095 days)

Auto Sensing Voltage: *This fixture contains an electronic ballast, which will automatically sense the voltage when it is plugged into the power source.*

Please Note: *Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.*

ADJ Products, LLC
6122 S. Eastern Ave. Los Angeles, CA 90040 USA
Tel: 323-582-2650 / Fax: 323-725-6100
Web: www.adj.com / E-mail: info@adj.com

Follow Us!



Facebook.com/adjlighting Twitter.com/adjlighting
YouTube.com/adjlighting [Instagram: adj_lighting](https://Instagram:adj_lighting)

A.D.J. Supply Europe B.V.
Junostraat 2
6468 EW Kerkrade
The Netherlands
service@adjgroup.eu / www.adj.eu
Tel: +31 45 546 85 00 / Fax: +31 45 546 85 99

