ADJ

STINGER

User Manual

Startec® SERIES
by ADJ

Europe Energy Saving Notice
Energy Saving Matters (EuP 2009/125/EC)
Saving electric energy is a key to help protecting the enviroment. 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 Stinger by ADJ Products, LLC. Every Stinger 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 Stinger is a 10 channel, DMX intelligent LED moon-flower, strobe, & laser fixture. The fixture can operate in as a stand alone fixture or in a Primary/Secondary configuration. The Stinger has three operating modes: sound active, auto run, and DMX Control. For best results use fog or special effects smoke to enhance the beams projections.

Customer Support: ADJ Products, LLC provides a toll free customer support line, to provide help and to answer any questions that may arise during set up or initial operation. You may also visit us on the web at www.adj.com for any comments or suggestions. Service Hours are Monday through Friday 8:00 a.m. to 4:30 p.m. Pacific Standard Time.

       Voice: (323) 582-2650
       Fax: (323) 582-2941
       E-mail: support@adj.com

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

Warning! _This may cause severe eye damage. Avoid looking directly into the light source at all times!_

GENERAL INSTRUCTIONS

To optimize the performance of this product, please read these operating instructions carefully to 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 (10 DMX Channels)
• RGBWAP Hex LED's
• Green & Red Lasers
• 3 Operating Modes - Sound Active, Auto Run, & DMX Control
• Internal Microphone
• Digital Display for Address and Function Setting
• Power Cord Daisy Chain

WARRANTY REGISTRATION

The Stinger carries a 1 Year 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, doing so will void your manufacturer's warranty. In the unlikely event your unit may require service, please contact ADJ Products, LLC.

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

ADJ Products, LLC 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 PRECAUTIONS

DANGER

LASER RADIATION - AVOID
DIRECT EYE EXPOSURE

Maximum output < 5 mW
Wavelength: 405,532 nm
Class IIIa laser product

This device complies with 21 CFR chapter 1,
subchapter J, or CFR 1040.10 and 1040.11

Safety Issues: *This unit may "pop" the fuse if the maximum allotted load of 2 amps is reached.*

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture.
- Do not spill water or other liquids into or on to your unit.
- 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. Do not attempt to operate this unit if the power cord has been frayed or broken.
- 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.
- 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.
- This unit is intended for indoor use only. Use of this product outdoors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power cords should be routed so they are not likely to be walked on, pinched by items placed upon or against them.
- Cleaning - The fixture should be cleaned only as recommended by the manufacturer. See the **Cleaning** section of this manual for cleaning details.
- Heat - The appliance 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. The power-supply cord or the plug has been damaged.
  B. Objects have fallen, or liquid has been spilled into, the unit.
  C. The unit has been exposed to rain or water.
  D. The unit does not appear to operate normally or exhibits a marked change in performance.

LASER WARNINGS AND SAFETY

After setting up, and before public use, test laser to ensure proper function. Do not use if any defect is detected. Do not use if laser emits only one or two laser beams rather than dozens/hundreds, as this could indicate damage to the diffraction grating optic, and could allow emission of higher laser levels above Class 3R.

Do not point lasers at people or animals. Never look into the laser aperture or laser beams.

Do not point lasers in areas in which people can potentially get exposed, such as uncontrolled balconies, etc.

Do not point lasers at highly reflective surfaces, such as windows, mirrors and shiny metal. Even laser reflections can be hazardous.

Never point a laser at aircraft, this is a federal offense.

Never point un-terminated laser beams into the sky.

Do not expose the output optic (aperture) to cleaning chemicals.

Do not use laser if the laser appears to be emitting only one or two beams.

Do not use the laser if the housing is damaged, the housing is open, or if the optics appear damaged in any way.

Never open the laser housing. The high laser power levels inside of the protective housing can start fires, burn skin and will cause instant eye injury.

Never leave this device running unattended.

The operation of a class 3R laser show is only allowed if the show is controlled by a skilled and well-trained operator who is familiar with the information enclosed in this manual.

The legal requirements for using laser entertainment products vary from country to country. The user is responsible for determining the legal requirements at the location/country of use.

Always use proper lighting safety cables when hanging lights and effects overhead.

DMX SET UP

Power Supply: The ADJ Stinger contains an automatic voltage switch, which will auto sense the voltage when it is plugged into the power source. With this switch there is no need to worry about the correct power voltage, this unit can be plugged in anywhere.

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 manufactures 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, when using several DMX fixtures try to use the shortest cable path possible. 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 Stinger can be controlled via DMX-512 protocol. The Stinger is a 10-channel DMX device. The DMX address is set electronically using the controls on the rear 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 (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 erratic behavior.
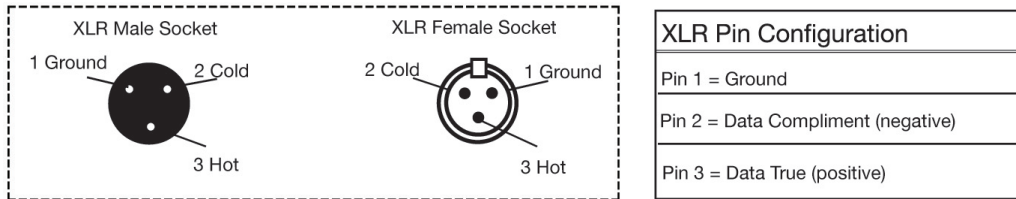
COMMON
DMX +
DMX512 OUT
3-PIN XLR
DMX -
DMX512 IN
3-PIN XLR

Figure 2

XLR Male Socket
1 Ground
2 Cold
3 Hot

XLR Female Socket
2 Cold
1 Ground
3 Hot

XLR Pin Configuration

Pin 1 = Ground

Pin 2 = Data Compliment (negative)

Pin 3 = Data True (positive)

Figure 3

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.

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. This unit use 5-pin DMX-512 data cables for DATA transmission. 5-pin DMX fixtures may be implemented in a 3-pin DMX line. When inserting standard 5-pin data cables in to 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		Pin 4 - Do Not Use
Not Used		Pin 5 - Do Not Use

INSTALLATION

The unit should be mounted using a mounting clamp (not provided), which should be affixed 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 at least 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.

LASER WARNING LABELS
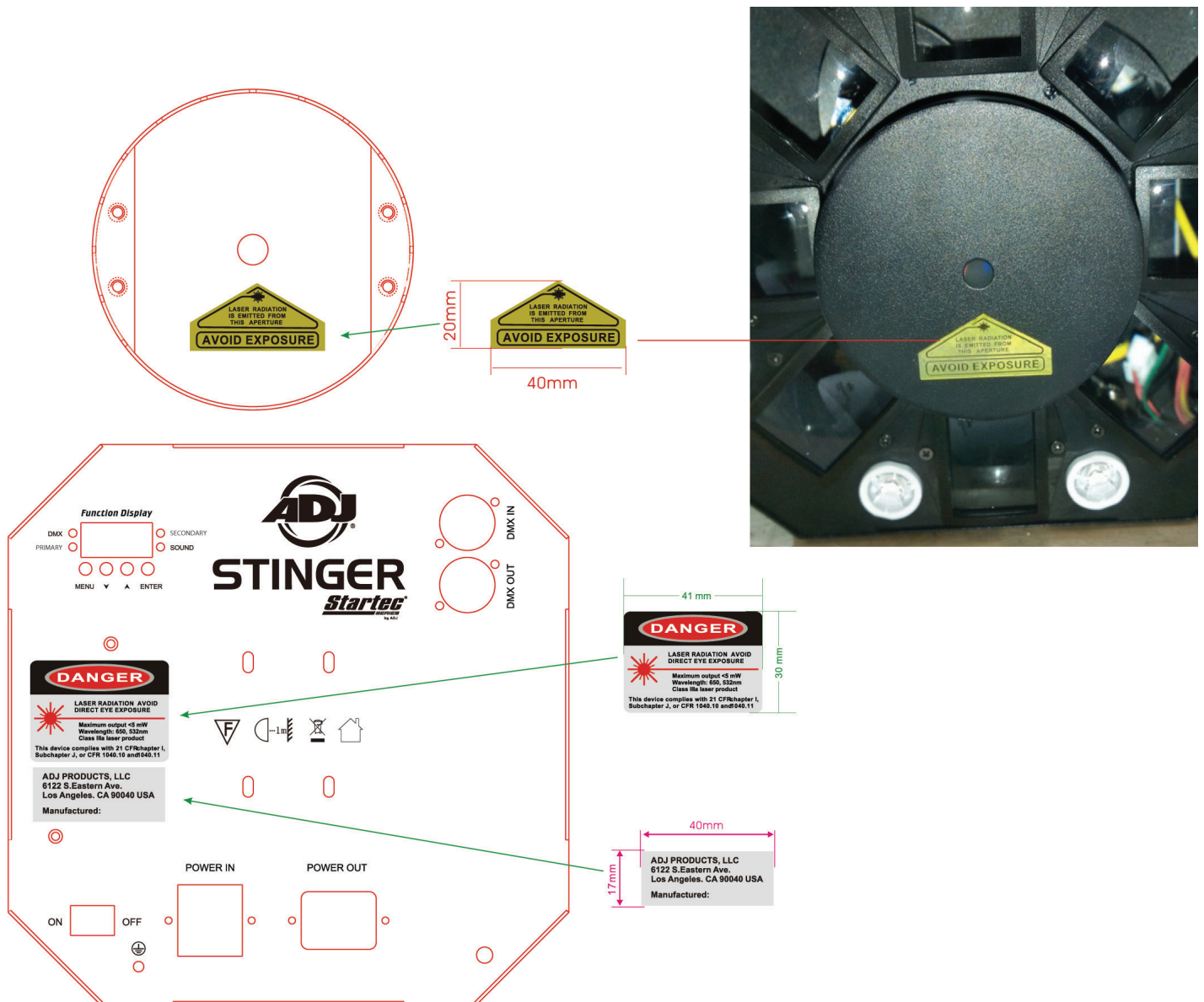
SYSTEM MENU

NUMBER	MENU	FUNCTION
1	Addr	Address setting, press DOWN/UP to choose 1-512
2	Show	Sh_1: LED show only
		Sh_2: Strobe show only
		Sh_3: Laser show only
		Sh_4: LED + Laser mixed show
		Sh_5: LED + Strobe mixed show
		Sh_6: Laser + Strobe mixed show
		Sh_7: LED + Strobe + Laser mixed show
3	Sens	0-99 sound sensitivity from low to high
4	Soun	ON: Sound mode ON, run Sound mode
		OFF: Sound mode OFF, run auto mode
5	Vers	Ve1.4 software version

SYSTEM MENU

LCD DISPLAY LOCK:
The display will lock after 30 seconds. Press and hold the MENU button for at least 10 seconds to unlock the display and access the menu.

ADDR - DMX Address Setting.
1. Press the either the MENU button until "ADDR" is displayed, press ENTER.
2. The current DMX address will now be displayed. Press the UP or DOWN buttons to find your desired address. Press ENTER to set your desired DMX address.

SHOW - Show mode. There are 7 show modes to choose from.
1. Press the MENU button until "Show" is displayed, press ENTER.
2. The display will show one of seven auto show modes. Use the UP or DOWN buttons to find your desired show and press ENTER to activate. See the table in this section for details regarding the different show modes.

SENS - Sets the sensitivity in Sound Active mode.
1. After switching on Sound Active mode, press the MENU button until "Sens" is displayed. Press ENTER.
2. Press UP or DOWN to adjust the sensitivity between 0 and 99. 0 is the least sensitive, and 99 is the most sensitive.
3. Press ENTER to confirm your selection.

SOUN - Sound Active mode.
1. Press the MENU button until "Soun" is displayed, press ENTER.
2. Use the UP or DOWN buttons to either turn sound activity "On" or "Off", and press ENTER.

VER - Use this function to display the Software version of the unit.
1. Press the either the MENU button until "VER" is displayed, 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 patterns, rotation and strobing. A DMX controller allows you to create unique programs tailored to your individual needs.

1. The Stinger is a 10 DMX channel DMX fixture. See the ***DMX Traits*** section of this manual for detailed description of the DMX values and traits.
2. To control your fixture in DMX mode, follow the set-up procedures described in the ***Set Up*** section of this manual, as well as the set-up specifications that are included with your DMX controller.
3. Follow the instructions in the ***System Menu*** section of this manual to set the DMX address.
4. For longer cable runs (more than a 100 feet) use a terminator on the last fixture.
5. 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. Press the MENU button until "Soun" is displayed, and press ENTER.
2. Press the UP or DOWN buttons to either activate sound active mode or deactivate, and press ENTER. The unit will now run to the beat of the music.
3. The sound sensitivity can be adjusted by pressing the MENU button until "Sens" is displayed, and then press ENTER. Use the UP or DOWN buttons to adjust the sound sensitivity, 0 being the least sensitive, and 99 being the most sensitive.

Show Mode: This mode allows a single unit or several units linked together, to run to a built-in program.

1. Press the MENU button until "Show" is displayed, and press ENTER.
2. Press the UP or DOWN buttons to find your desired show and press ENTER. The unit will now run your chosen built-in program.

PRIMARY-SECONDARY SET UP

Primary-Secondary Set Up: This function will allow you to link up to 16 units together and operate without a controller. In a Primary-Secondary set-up one unit will act as the controlling unit and the others will react to the controlling units programs. Any unit can act as a Primary or as a Secondary.

1. Using stand XLR microphone cables, daisy chain your units together via the XLR connector on the rear of the units. Remember the Male XLR connector is the input and the Female XLR connector is the output. The first unit in the chain (Primary) 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, it is advisable to use a terminator on the last fixture.
2. Set the Primary to your desired operating mode.
3. Set the Secondary unit(s) to address "001".
4. The Secondary unit(s) will now follow the Primary.

POWER CORD DAISY CHAIN

With this feature you can connect the fixtures to one another using the IEC input and output sockets.

The maximum number of fixtures that can be connected is 10 fixtures. After exceeding this value, a new power outlet must be used in order to accommodate additional fixtures.

All daisy chained fixtures should be of the same model type. DO NOT mix fixtures.

DMX TRAITS

Channel	Value	Function
1		AUTO RUN/SOUND ACTIVE
	0 - 9	BLACKOUT
	10 - 39	SIX COLORS LED AUTO RUN
	40 - 69	WHITE LEDS AUTO RUN
	70 - 99	LASER AUTO RUN
	100 - 129	AUTO RUN MIXING
	130 - 159	SIX COLORS & STROBING
	160 - 189	LASER & STROBING
	190 - 219	LEDS, LASER, & STROBING
	220 - 255	DMX MODE
2		RGBWAP
	0 - 9	BLACKOUT
	10 - 198	COLOR MACROS
	199 - 225	COLOR CHASE 1
	226 - 255	COLOR CHASE 2
3		AUTO RUN
	0 - 255	AUTO RUN SPEED SLOW - FAST
4		LED STROBE
	0 - 9	NO STROBE
	10 - 244	LED STROBE SLOW - FAST
	245 - 255	SOUND ACTIVE STROBING
5		WHITE LEDS
	0 - 9	BLACKOUT
	10 - 135	WHITE OUTPUT POSITION
	136 - 255	WHITE OUTPUT CHASE
6		WHITE LED STROBE
	0 - 127	CHASE SLOW - FAST (NO STROBE)
	128 - 255	CHASE SLOW - FAST (STROBING)
7		LASERS
	0 - 9	BLACKOUT
	10 - 49	RED LASER
	50 - 89	GREEN LASER
	90 - 129	RED & GREEN LASERS

DMX TRAITS

Channel	Value	Function
7		LASERS
	130 - 169	RED & GREEN LASERS FLICKER
	170 - 209	GREEN & RED LASERS FLICKER
	210 - 249	RED & GREEN LASERS FLICKER SYNC
	250 - 255	RED & GREEN LASERS ALTERNATE FLICKER
8		LASER STROBE CONTROL
	0 - 9	NO STROBE
	10 - 244	STROBING SLOW - FAST
	245 - 255	SOUND ACTIVE STROBING
9		LED ROTATION
	0 - 8	NO ROTATION
	9 - 127	CLOCKWISE ROTATION SLOW - FAST
	128 - 255	COUNTER-CLOCKWISE ROTATION SLOW - FAST
10		LASER ROTATION
	0 - 127	LASER PATTERNS
	128 - 255	PATTERN CHASE SLOW - FAST

FUSE REPLACEMENT

Disconnect the unit from its power source. Remove the power cord from the unit. Once the cord has been removed, you will find that the fuse holder is located inside the power socket. Insert a flat-head screw driver into the power socket and gently pry out the fuse holder. Remove the bad fuse and replace with a new one. The fuse holder also has a holder for a spare fuse.

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, cleaning on a monthly basis is recommended. 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 with glass cleaner and a soft cloth every 20 days.
- 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 solutions.

No light output from the unit;
- 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 other quiet or high pitched sounds may not activate the unit.
- Check the sound sensitivity level, and adjust if necessary.

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 maintnance, 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 indentifying 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
*   **Lighting Products = 1-year (365 days) Limited Warranty** (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, 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)
*   **L.E.D. Products = 2-year (730 days) Limited Warranty** (excluding motors, PCB boards, and power supplies, which have a 1-year (365 day Limited Warranty) batteries which have a 180 day limited war-ranty). Only the L.E.D.s carry a 2-year warranty **(excluding StarTec Series which a carries a 1 Year Limited Warranty)**
*   **ADJ DMX Controllers = 2 Year (730 Days) Limited Warranty** (excluding faders and tact switches)

SPECIFICATIONS

Model: **Stinger**
Voltage: 100V ~ 240V 50/60 Hz
LED: 6 x 5W RGBAWP Hex LEDs
                                         8 x 3W White LEDs
Laser: 4.9mW Red & Green Laser Diodes
Power Draw: 70W
Fuse: 2A
Power Cord Daisy Chain: 10 Fixtures Max
Dimensions: 12" (L) x 9" (W) x 9.75" (H)
                                         304mm x 230.5mm x 247.7mm
Weight: 11 lbs. / 5 kgs.
Colors: RGBAWP
Duty Cycle: None
DMX Channels: 10
Sound Active: Yes
Working Position: Any Safe, Secure Position
Warranty: 1 Year (365 days)
Laser Accession Number: 1510707-000

Auto Sensing Voltage: This fixture contains an automatic voltage switch, which will automatically sense the voltage when it is plugged into a 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.

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