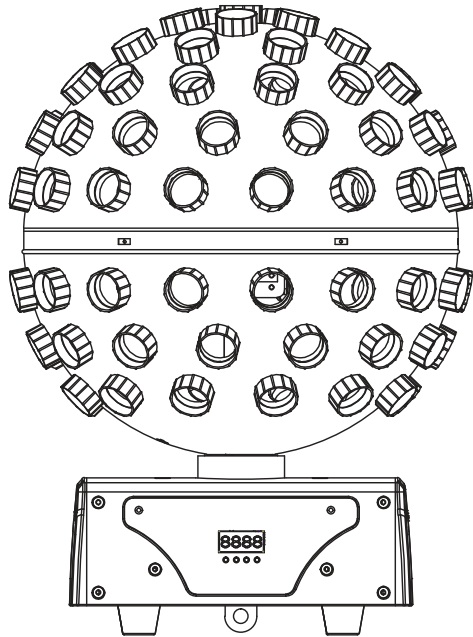


# ADJ<sup>®</sup>

## STARBURST



## User Instructions

***Startec***<sup>®</sup>  
**SERIES**  
by ADJ

Rev. 9/15

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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!

## Starburst

## General Information

**Unpacking:** Thank you for purchasing the Starburst by ADJ Products, LLC®. Every Starburst 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. Do not return this unit to your dealer without first contacting customer support.

**Introduction:** The Starburst is part of ADJ's continuing pursuit for creating and upgrading affordable intelligent fixtures. The Starburst is an DMX intelligent centerpiece. This fixture can be used as a stand alone piece or connected in a Master/Slave configuration. The Starburst has 3 operating modes; Sound Active, Show Mode, and DMX controlled. When using DMX control the fixture has 12 DMX channels.

**Customer Support:** ADJ provides a toll free customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at [www.adj.com](http://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: (800) 322-6337

Fax: (323) 582-2941

E-mail: [support@americandj.com](mailto:support@americandj.com)

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

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

**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.

## Starburst

## General Instructions

Please carefully read and understand the instructions in this manual thoroughly before attempting to operate 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.

## Starburst

## Product Registration

The Starburst carries a 1 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 accompany 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 a R.A. number.

## Starburst

## Main Features

- Bright 15W 5-in-1 LED RGBWYP
- DMX-512 Compatible: 12 DMX Channels
- Stand Alone or Master-Slave Set Up
- 3 Operating Modes - Sound Active, Show Mode, & DMX Controlled
- Power Cord Daisy Chain up to 20 Fixture (See page 16)

## Starburst

## Safety Precautions

- 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 operate this unit if the power cord has been 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 when it's cover is removed.
- Never plug this unit in to a dimmer pack
- 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 becomes 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-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 page 16 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 appliance.
  - C. The appliance has been exposed to rain or water.
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance.

## Starburst

## Set Up

**Power Supply:** The ADJ Starburst contains a 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 manufactures 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. Therefore, the first fixture controlled by the controller could be the last fixture in the chain. 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 and Master/Slave Operation):**

The Starburst can be controlled via DMX-512 protocol. The Starburst has 12 DMX channels. The DMX address is set electronically using the controls on the front panel of the unit. Your unit and your DMX controller require a 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



Figure 1

DMX cable must be daisy chained and cannot be split.cable.

**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.

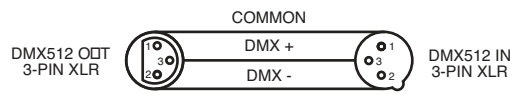


Figure 2



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 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 possibilities of erratic behavior.

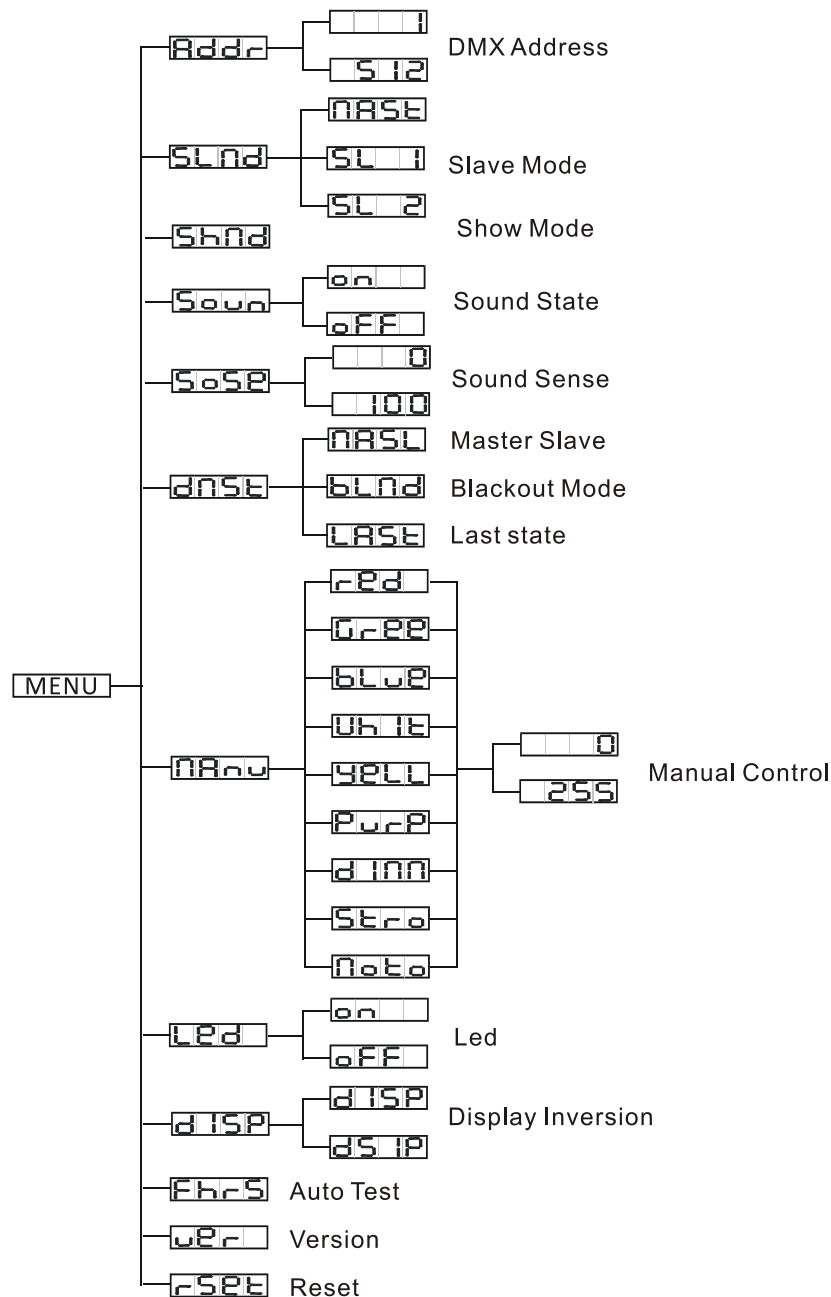


Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

Figure 4

**5-Pin XLR DMX Connectors.** Some manufactures use 5-pin DMX-512 data cables for DATA transmission in place of 3-pin. 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 electric 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



**System Menu:** When making adjustments press **ENTER** to confirm your setup then press and hold the **MENU** button for at least 3 seconds. To exit without making any adjustments press the **MENU** button. The display will lock after 30 seconds, press the **MENU** button for 3 seconds to unlock.

### ADDR - DMX Address Setting.

1. Press the either the MENU, UP, or DOWN buttons until “**ADDR**” is displayed, press ENTER.
2. The current address 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 unit as a master or slave in a master/slave configuration.

1. Press the MENU button until “**SLND**” is displayed, press ENTER. Either “**MAST**”, “**SL 1**”, or “**SL 2**” will be displayed.
2. Press the UP or DOWN buttons until your desired setting is displayed, press ENTER to confirm.

**NOTE:** In a Master/Slave configuration you can set one fixture to Master and then set the next fixture to “**SL 2**”, the fixtures will now have contrast movement to each other.

### SHND - Show mode. Show mode can run with or without sound active mode active. With sound active mode active, the fixture will move faster at times.

1. Press the MENU button until “**SHND**” is displayed, press ENTER.

### SOUN - Sound Active mode.

1. Press the MENU button until “**SOUN**” is displayed, 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.

## **SENS** - In this mode you can adjust the sound sensitivity.

1. Press the MENU button until “**SENS**” is displayed, press ENTER.
2. A number between 0-100 will be displayed. Press the UP or DOWN buttons to adjust the sound sensitivity. 0 being the least sensitive, and 100 being the most sensitive.
3. When you have found your desired setting press ENTER to confirm.

## **DNST** - This mode can be used as a precaution mode, that in case the DMX signal is lost, interrupted, or power is lost, the operating mode chosen in the setup is the running mode the fixture will go into when the DMX signal is lost. You can also set this as the operating mode you would like the unit to return to when power is applied.

1. Press the MENU button until “**DNST**” is displayed, and either “**MASL**”, “**BLND**”, or “**LAST**” will be displayed beneath.
2. Press ENTER and the bottom choice will begin to flash. Use the UP or DOWN buttons to choose an operating mode you would like the unit to start up in when power is applied or the DMX signal is lost.
  - **LAST** - If the DMX signal is lost the fixture will stay in the last DMX setting. If power is applied and this mode is set, the unit will automatically go into the last DMX set up.
  - **MASL** (Master Slave) - If the DMX signal is lost or power is applied, the unit will automatically go into Master Slave mode and run a built-in show.
  - **BLND** (Blackout) - If the DMX signal is lost or interrupted, the unit will automatically go into stand by mode.
3. Press ENTER to confirm your desired set up.

## **MANU** - In this submenu you are able to test the different functions; LEDs, dimmer, strobe, and motor.

1. Press the MENU button until “**MANU**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to scroll through the various functions able for testing. Once you have found your desired function you would like to test press ENTER.
3. After you have pressed ENTER, use the UP and DOWN buttons to adjust the values and test the function. To exit press the MENU button.

## **LED** - With this function you can have the LED display turn off after 10 seconds.

1. Press the MENU button until “**LED**” is displayed, press ENTER.
2. The display will show either “**ON**” or “**OFF**”. Press the UP or DOWN buttons to select “**ON**” to keep the LED display on at all times, or “**OFF**” to switch to have the LED display switch off after 10 seconds.

## **DISP** - This function will reverse the display 180°.

1. Press the MENU button until “**DISP**” is displayed, press ENTER.
2. Press ENTER to “flip” the display. Press ENTER to “flip” it again. Press ENTER when you have made your desired setup.
3. Press ENTER to confirm. To make you LED display reappear again press any button.

## **FHRS** - With this function you can display the running time of the unit.

1. Press the MENU button until “**FHRS**” is displayed, press ENTER.
2. The running time of the fixture will now be displayed. Press MENU to exit.

**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.

**RSET** - This function will reset the unit.

1. Press the MENU button until “**RSET**” is displayed. Press the ENTER button and the unit will reset itself.

**Universal DMX Control:** This function allows you to use a universal DMX-512 controller to create unique programs tailored to your individual needs.

1. The Starburst is a 12 channel DMX fixture. See pages 13-14 for a detailed description of the DMX values and traits.
2. To control your fixture in DMX mode, follow the set-up procedures on pages 6-8 as well as the set-up specifications that are included with your DMX controller.
3. Use the controller’s faders to control the various DMX fixture traits.
4. This will allow you to create your own programs.
5. Follow the instructions on page 9 to set the DMX address.
6. For longer cable runs (more than a 100 feet) use a terminator on the last fixture.
7. For help operating in DMX mode consult the manual included with your DMX controller.

**Master-Slave Operation** This function will allow you to link up to 16 units together and operate without a controller. In a Master-Slave 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 Master or as a Slave.

1. Using approved DMX data 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 (master) will use the female XLR connector only - The last unit in the chain will use the male XLR connector only. For longer cable runs we suggest a terminator at the last fixture.
2. For the Master unit press the MENU button until “**SLND**” is displayed, and press ENTER. Set the unit to “**MAST**” and press ENTER.
3. Next set the Master to your desired operating mode.
4. For the slave units press the MENU button until “**SLND**” is displayed, and Press ENTER. Set the slave units to either “**SL 1**” or “**SL 2**”.
5. The slave units will now follow the Master unit.

Starburst		DMX Values & Traits
Channel	Value	Function
1	0 - 255	RED 0% - 100%
2	0 - 255	GREEN 0% - 100%
3	0 - 255	BLUE 0% - 100%
4	0 - 255	WHITE 0% - 100%
5	0 - 255	YELLOW 0% - 100%
6	0 - 255	PURPLE 0% - 100%
7	0 - 7 8 - 15 16 - 131 132 - 139 140 - 181 182 - 189 190 - 231 232 - 239 240 - 247 248 - 255	STROBING OFF LED ON STROBING SLOW - FAST LED ON SLOW OPEN - FAST CLOSE LED ON FAST OPEN - SLOW CLOSE LED ON RANDOM STROBE LED ON
8	0 - 255	MASTER DIMMER 0% - 100%
9	0 - 30 31 - 140 141 - 145 146 - 255	ROTATION NO ROTATION CLOCKWISE ROTATION FAST - SLOW STOP COUNTER-CLOWISE ROTATION SLOW - FAST
10	0 - 25 26 - 205	COLOR MACROS NO FUNCTION COLOR MACROS

Starburst		DMX Values & Traits
Channel	Value	Function
10	206 - 255	COLOR MACROS COLOR CHANGING FAST - SLOW
11	0 - 55 56 - 75 76 - 105 106 - 135 136 - 165 166 - 195 196 - 225 226 - 255	PAN/COLOR MACROS NO FUNCTION SOUND ACTIVE RED CLOCKWISE ROTATION BLUE COUNTER-CLOCKWISE 7 COLOR CHANGE CLOCKWISE 7 COLOR CHANGE COUNTER-CLOCKWISE ROTATION 7 COLOR CHANGE WITH STROBE CLOCKWISE ROTATION 7 COLOR CHANGE WITH STROBE COUNTER-CLOCKWISE ROTATION
12	0 - 69 70 - 85 86 - 255	RESET NO FUNCTION RESET NO FUNCTION

## Starburst

## Power Cord Daisy Chain

***With this feature you can connect the fixtures to one another using the IEC input and output sockets. The quantity that can be connected is 20 fixtures maximum. After the maximum fixtures has been reached you will need to use a new power outlet. They must be the same fixtures. DO NOT mix fixtures.***

## Starburst

## Fuse Replacement

The fuse holder is located next to the I.E.C. plug input. Using a philips head screwdriver, unscrew the fuse holder and remove it from the unit. Remove the bad fuse and replace it with a new identical fuse. Insert the fuse holder back into the unit and screw the holder in so that is secure.

## Starburst

## 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.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Use a brush to wipe down the cooling vents and fan grill.
3. Clean the external optics with glass cleaner and a soft cloth every 20 days.
4. Clean the internal optics with glass cleaner and a soft cloth every 30-60 days.
5. Always be sure to dry all parts completely before plugging the unit back in.

## Starburst

## 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 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 warranty). Only the L.E.D.s carry a 2-year warranty (excluding StarTec Series which carries a 1 Year Limited Warranty) **Note: 2 Year Warranty only applies to purchases within the United States.**
- **ADJ DMX Controllers = 2 Year (730 Days) Limited Warranty** (excluding faders and tact switches)

<b>Model:</b>	<b>Starburst</b>
<b>Voltage:</b>	100v~240v/ 50~60Hz
<b>LEDs:</b>	5 x 15W 6-in-1 HEX LED
<b>Power Consumption:</b>	55W
<b>Power Cord Daisy Chain:</b>	20 Fixtures Max.
<b>Colors:</b>	RGBWYP
<b>Beam Angle:</b>	1 Degree
<b>Dimensions:</b>	12.5”(L) x 12.5”(W) x 16.25”(H) 318mm x 318mm x 412.5mm
<b>Weight:</b>	8 Lbs. / 3.65 Kgs
<b>Fuse:</b>	2 Amp
<b>Duty Cycle:</b>	None
<b>DMX:</b>	12 DMX Channels
<b>Working Position:</b>	Any Safe, Secure Position
<b>Warranty:</b>	1 Year (365 Days)

**Auto Sensing Voltage:** This fixture contains a automatic voltage switch, which will auto 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.

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