

User Instructions

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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!

Introduction:

Thank you for purchasing the Ricochet by ADJ Products, LLC. The Ricochet is a hybrid LED laser simulator. The unit has 3 operating modes; show mode, sound active mode & DMX Controlled. It can be used as a stand alone unit or in a master-slave configuration.

Unpacking:

Every Ricochet 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 units for any damage and be sure all accessories necessary to operate the system have 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 the system to your dealer without first contacting customer support.

Customer Support:

ADJ Products, LLC 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 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

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.

Please recycle the shipping carton when ever possible.

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.

- Includes Built-In Hanging Yoke
- 8 Colors Plus White & Split Colors
- 3 Operational Modes: Show Mode, Sound Active, & DMX Control
- Power Cord Daisy Chain (See page 23)
- AJD UC IR Compatible (Sold Separately)

The Ricochet carries a two year (730 days) 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. 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 and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain a R.A. number by contacting customer support at (800) 322-6337.

The unit should be mounted using a mounting clamp (not provided), affixing it 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 a weight of 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.

- 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 out doors 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 the point they exit from the unit.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 23 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.

Power Supply: The ADJ Ricochet 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 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 (For DMX Operation):

The Ricochet has two DMX channel modes; 12 channel mode and 15 channel mode. The DMX address is set on the top panel of the Ricochet. Your unit and your DMX controller require a approved DMX-512 110 Ohm Data cable for data input and data output. 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

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.

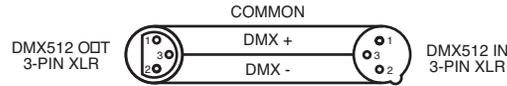


Figure 2



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.

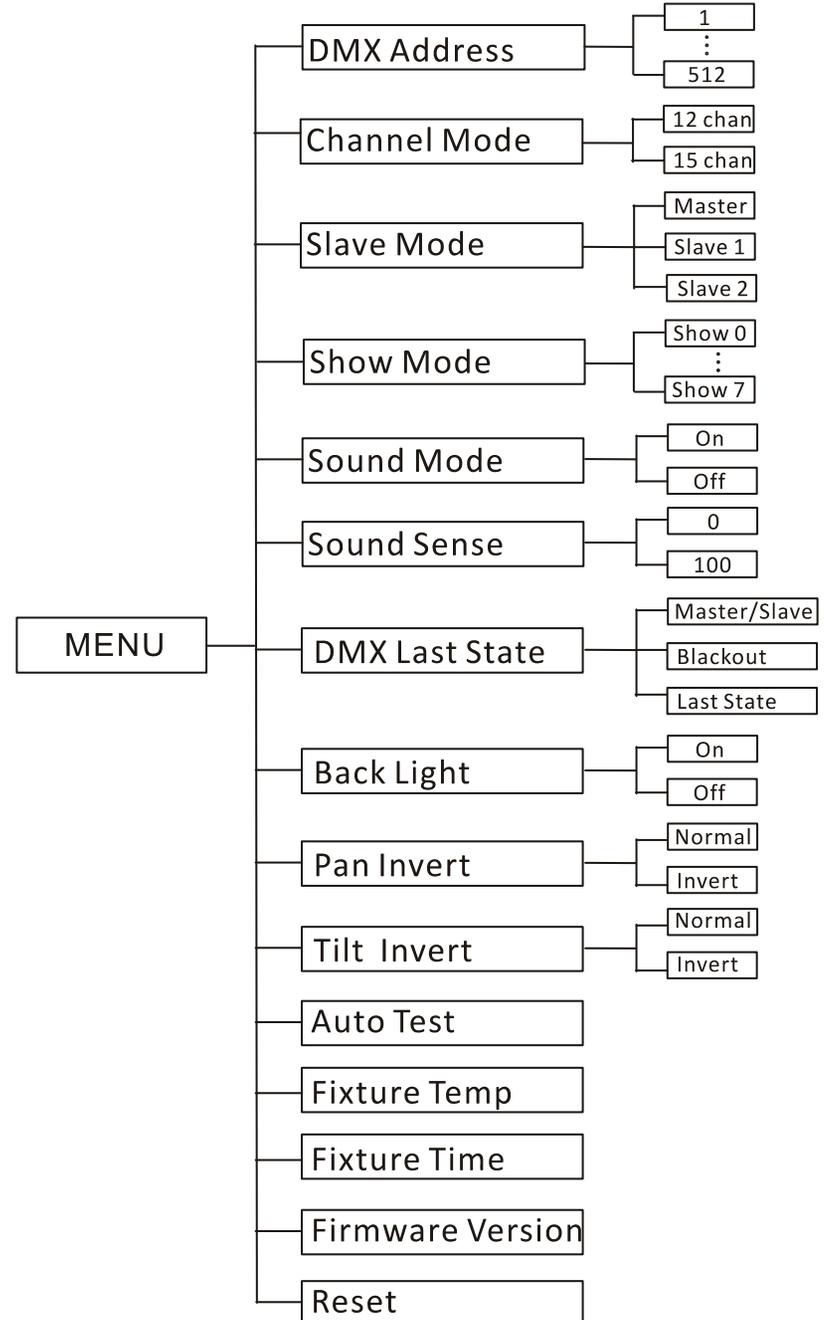


Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

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		Do Not Use
Not Used		Do Not Use



On-Board System Menu. The Ricochet comes with an easy to navigate system menu. This next section will detail the functions of each command in the system menu. ***Please read the next section thoroughly!***

To access the main menu press the MENU button. Press the UP or DOWN buttons until you reach function you wish to change. When you reach the function you wish to change press the ENTER button. When a function is selected use the UP or DOWN buttons to change the function settings. Once your changes are made press the ENTER button, and then press and hold the MENU button for at least three seconds to confirm and lock the change into the system memory. If the MENU button is not pressed and held within eight seconds the fixture will automatically confirm and lock the change into the system memory. To exit without making any changes press the MENU button.

DMX Address - This will let you set your desired DMX address.

1. Press the MENU button until “**DMX Address**” is displayed, press ENTER.
2. The current DMX address will be displayed. Press the UP or DOWN buttons to find your desired address.
3. Press ENTER to confirm, then connect your DMX controller.

Channel Mode - This will let you select your desired DMX Channel mode.

1. Press the MENU button until “**Channel Mode**” is displayed, press ENTER.
2. “X Chan” will now be displayed, “X” represents the displayed DMX channel mode. Press the UP or DOWN buttons to find your desired Channel mode.
3. Press ENTER to confirm.

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

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

Show Mode - Show modes 0-7 (Factory programs). Show mode can run with or without sound active mode active.

1. Press the MENU button until “**Show Mode**” is displayed, press ENTER.
2. “**Show X**” will now be displayed, “X” representing a number between 0-7. Show’s 1-7 are factory set shows, while “Show 0” is random show mode. Use the UP or DOWN buttons to find your desired show.
3. When you have found your desired show press ENTER, then press and hold the MENU button for at least 3 seconds to activate. After you have set your desired show, it can be changed at any time using the UP or DOWN buttons.

Sound Mode - In this mode the unit will run in sound active mode.

1. Press the MENU button until “**Sound Mode**” is displayed, press ENTER.
2. Either “**On**” or “**Off**” will now be displayed. Use the UP or DOWN buttons to toggle between “**On**” and “**Off**”.
3. Press ENTER to confirm your selection, then press and hold the MENU button to activate.

Sound Sense - In this mode you can adjust the sound sensitivity of the sound active mode.

1. Press the MENU button until “**Sound Sense**” is displayed, press ENTER.
2. Press the UP or DOWN buttons to adjust the sensitivity level. The sensitivity level can be adjusted between 0 (the lowest) and 100 (most sensitive).
3. Press ENTER to set you desired level.

DMX Last State - 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 “**DMX Last State**” is displayed, and press ENTER. The current last state setting will be displayed.
2. Use the UP or DOWN buttons to find a mode you would like the unit to go into in case the DMX signal is lost.
 - **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.
 - **Blackout** - If the DMX signal is lost or interrupted, the unit will automatically go into stand by mode.
 - **Last State** - 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.
3. Press ENTER to confirm your desired set up.

Back Light - With this function the display back light will turn off after 2 minutes.

1. Press the MENU button until “**Back Light**” is displayed, press ENTER.
2. Either “**ON**” or “**OFF**” will now be displayed. Press the UP or DOWN buttons to select “**ON**” to keep the LED display on at all times, or “**OFF**” to allow the LED display to turn off after 2 minutes. Press any button to turn on the LED display again.
3. Press ENTER, and then press and hold the MENU button for at least three seconds to confirm.

Pan Invert - Pan Inversion

1. Press the MENU button until “**Pan Invert**” is displayed, press ENTER. Either “**Normal**” or “**Invert**” will be displayed.
2. To activate the Pan inversion press the UP or DOWN buttons until “**Invert**” is displayed, press ENTER to confirm. To deactivate Pan inversion, select “**Normal**” and press Enter.

Tilt 1 Invert - Tilt Inversion

1. Press the MENU button until “**Tilt 1 Invert**” is displayed, press ENTER. Either “**Normal**” or “**Invert**” will be displayed.
2. To activate the Tilt inversion press the UP or DOWN buttons until “**Invert**” is displayed, press ENTER to confirm. To deactivate Tilt inversion, select “**Normal**” and press Enter.

Auto Test - This function will run a self test program.

1. Press the MENU button until “**Auto Test**” is displayed, press ENTER.
2. The fixture will now run a self test. Press the MENU button to exit.

Fixture Temp - With this function you can display the running temperature of the unit.

1. Press the MENU button until “**Fixture Temp**” is displayed, press ENTER.
2. The current running temperature of the unit will now be displayed. Press the MENU button to exit.

Fixture Time - With this function you can display the running time of the unit.

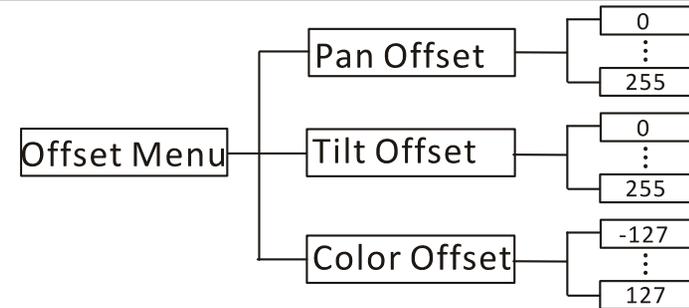
1. Press the MENU button until “**Fixture Time**” is displayed, press ENTER.
2. The running time of the unit will now be displayed. Press the MENU button to exit.

Firmware Version - This will display the software version

1. Press the MENU button until “**Firmware Version**” is displayed. Press the ENTER button and the software version will be displayed.
2. Press the MENU button to exit.

Reset - This function will reset the unit.

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



To enter the offset adjustment submenu, press the ENTER button for at least 5 seconds. In this submenu you are able to adjust the original position of the pan, tilt, gobo wheel, and color wheel.

Pan Offset - Adjustment of the Pan position.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Pan Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

Tilt Offset - Adjustment of the Tilt position.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Tilt Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

Color Offset - Adjustment of the color wheel.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Color Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

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

1. The Ricochet has 2 DMX channel modes; 12 & 15 channels. See pages 15-22 for detailed description of the DMX values and traits.
2. To control your fixture in DMX mode, follow the set-up procedures on pages 5-6 as well as the set-up specifications that are included with your DMX controller. Follow the instructions on page 8 to set the DMX address.
3. Use the controller's faders to control the various DMX fixture traits.
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.

Master-Slave Configuration 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. Set the Master unit to your desired show. Next, press the MENU button until "**Slave Mode**" is displayed, and press ENTER. Press the UP or DOWN buttons so that "**Master**" is displayed and press ENTER.
3. On the slave units press the MENU button until "**Slave Mode**" is displayed, and press ENTER. Press the UP or DOWN buttons so that either "**Slave 1**" or "**Slave 2**" is displayed and press ENTER.
4. The slave units will now follow the Master unit.

The **UC IR (sold separately)** infrared remote gives you control of various functions (See below). To control the fixture you must aim the remote at the front of the fixture and be no more than 30 feet away.

STAND BY - Pressing this button will blackout the fixture.

FULL ON - Press this button for full intensity. Once the button is released it will return normal intensity.

FADE/GOBO - This button is invalid for this fixture.

"DIMMER +" and "DIMMER -" - Use these buttons to adjust the output intensity.

STROBE - This button is invalid for the fixture.

COLOR - Press this button and use buttons 1-9 to adjust speed and direction.

1-9 - When Show 0 is pressed, buttons 1-6 will allow you to select a show mode to run. When the Color button is pressed, buttons 1-9 will control speed and direction.

SOUND ON & OFF - Use the buttons to activate and deactivate sound active mode.

SHOW 0 - This activates the show mode. Use buttons 1-6 to select your desired show.

Ricochet		12 Channel Mode
Channel	Value	Function
1	0 - 127	PAN
	128 - 255	PAN MOVEMENT SHAKING SLOW - FAST
2	0 - 255	PAN FINE 0-100%
3	0 - 127	TILT
	128 - 255	TILT MOVEMENT SHAKING SLOW - FAST
4	0 - 255	TILT FINE 0-100%
5	0 - 3	COLOR
	4 - 7	OPEN
	8 - 11	OPEN & COLOR 1
	12 - 15	COLOR 1
	16 - 19	COLOR 1 & 2
	20 - 22	COLOR 2
	23 - 26	COLOR 2 & 3
	27 - 30	COLOR 3
	31 - 34	COLOR 3 & 4
	35 - 38	COLOR 4
	39 - 42	COLOR 4 & 5
	43 - 45	COLOR 5
	46 - 49	COLOR 5 & 6
	50 - 53	COLOR 6
	54 - 57	COLOR 6 & 7
	58 - 61	COLOR 7
	62 - 63	COLOR 7 & 8
64 - 128	COLOR 8	
129 - 190	COLORS 1 - 8 COLOR GRADUAL	
191 - 193	COLOR ROTATION FAST - SLOW	
194 - 255	STOP COLOR ROTATION SLOW - FAST	
6	0 - 8	PATTERN MACRO
	9 - 16	OFF
	17 - 25	PATTERN 1
		PATTERN 2

Ricochet		12 Channel Mode	
Channel	Value	Function	
6	26 - 33	PATTERN MACRO	
	34 - 42	PATTERN 3	
	43 - 50	PATTERN 4	
	51 - 59	PATTERN 5	
	60 - 67	PATTERN 6	
	68 - 76	PATTERN 7	
	77 - 84	PATTERN 8	
	85 - 93	PATTERN 9	
	94 - 101	PATTERN 10	
	102 - 110	PATTERN 11	
	111 - 118	PATTERN 12	
	119 - 127	PATTERN 13	
	128 - 135	PATTERN 14	
	136 - 144	PATTERN 15	
	145 - 152	PATTERN 16	
	153 - 161	PATTERN 17	
	162 - 169	PATTERN 18	
	170 - 178	PATTERN 19	
	179 - 186	PATTERN 20	
	187 - 195	PATTERN 21	
	196 - 203	PATTERN 22	
	204 - 212	PATTERN 23	
	213 - 220	PATTERN 24	
	221 - 229	PATTERN 25	
	230 - 237	PATTERN 26	
	238 - 246	PATTERN 27	
	247 - 255	PATTERN 28	
	7	0 - 9	PATTERN 29
		10 - 120	PATTERN ROTATION
121 - 134		STOP	
135 - 245		CLOCKWISE ROTATION FAST - SLOW STOP COUNTER CLOCKWISE ROTATION SLOW - FAST	

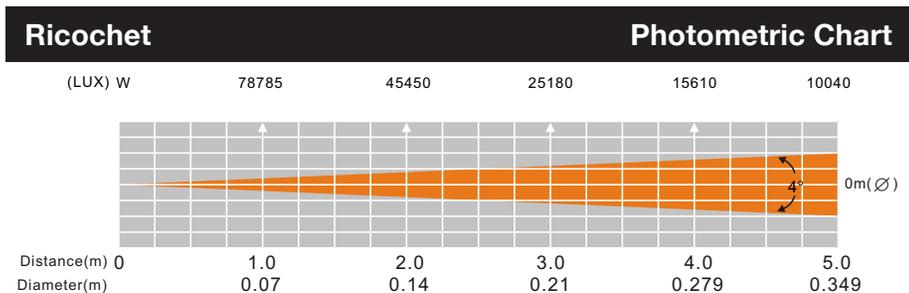
Ricochet		12 Channel Mode
Channel	Value	Function
7	246 - 255	PATTERN ROTATION STOP
8	0 - 9 10 - 120 121 - 134 135 - 245 246 - 255	PATTERN MOVEMENT STOP HORIZONTAL ROTATION FAST - SLOW STOP VERTICAL ROTATION SLOW - FAST STOP
9	0 - 127 128 - 255	PATTERN ZOOM PATTERN ZOOM MANUAL PATTERN ZOOM SLOW - FAST
10	0 - 7 8 - 15 16 - 131 132 - 139 140 - 181 182 - 189 190 - 231 232 - 239 240 - 247 248 - 255	SHUTTER BLACKOUT OPEN STROBE SLOW - FAST OPEN SLOW OPEN - FAST CLOSE OPEN FAST OPEN - SLOW CLOSE OPEN RANDOM STROBE OPEN
11	0 - 255	MASTER DIMMER 0% - 100%
12	0 - 79 80 - 84 85 - 87 88 - 90 91 - 99 100 - 109 110 - 119 120 - 255	SPECIAL FUNCTIONS NO FUNCTION ALL MOTORS RESET PAN/TILT MOTORS RESET COLOR MOTOR RESET NO FUNCTION BLACKOUT WITH PAN/TILT MOVE BLACKOUT WITH COLOR CHANGE NO FUNCTION

Ricochet		15 Channel Mode
Channel	Value	Function
1	0 - 127 128 - 255	PAN PAN MOVEMENT SHAKING SLOW - FAST
2	0 - 255	PAN FINE 0-100%
3	0 - 127 128 - 255	TILT TILT MOVEMENT SHAKING SLOW - FAST
4	0 - 255	TILT FINE 0-100%
5	0 - 3 4 - 7 8 - 11 12 - 15 16 - 19 20 - 22 23 - 26 27 - 30 31 - 34 35 - 38 39 - 42 43 - 45 46 - 49 50 - 53 54 - 57 58 - 61 62 - 63 64 - 128 129 - 190 191 - 193 194 - 255	COLOR OPEN OPEN & COLOR 1 COLOR 1 COLOR 1 & 2 COLOR 2 COLOR 2 & 3 COLOR 3 COLOR 3 & 4 COLOR 4 COLOR 4 & 5 COLOR 5 COLOR 5 & 6 COLOR 6 COLOR 6 & 7 COLOR 7 COLOR 7 & 8 COLOR 8 COLORS 1 - 8 COLOR GRADUAL COLOR ROTATION FAST - SLOW STOP COLOR ROTATION SLOW - FAST
6		PATTERN ZERO X
7		PATTERN ZERO Y

Ricochet		15 Channel Mode
Channel	Value	Function
8	0 - 63	PATTERN SPIN 0 DEGREES
	64 - 127	90 DEGREES
	128 - 191	180 DEGREES
	192 - 255	270 DEGREES
9	0 - 8	PATTERN MACRO OFF
	9 - 16	PATTERN 1
	17 - 25	PATTERN 2
	26 - 33	PATTERN 3
	34 - 42	PATTERN 4
	43 - 50	PATTERN 5
	51 - 59	PATTERN 6
	60 - 67	PATTERN 7
	68 - 76	PATTERN 8
	77 - 84	PATTERN 9
	85 - 93	PATTERN 10
	94 - 101	PATTERN 11
	102 - 110	PATTERN 12
	111 - 118	PATTERN 13
	119 - 127	PATTERN 14
	128 - 135	PATTERN 15
	136 - 144	PATTERN 16
	145 - 152	PATTERN 17
	153 - 161	PATTERN 18
	162 - 169	PATTERN 19
	170 - 178	PATTERN 20
	179 - 186	PATTERN 21
	187 - 195	PATTERN 22
	196 - 203	PATTERN 23
	204 - 212	PATTERN 24
	213 - 220	PATTERN 25
	221 - 229	PATTERN 26
230 - 237	PATTERN 27	

Ricochet		15 Channel Mode
Channel	Value	Function
9	238 - 246	PATTERN MACRO PATTERN 28
	247 - 255	PATTERN 29
10	0 - 9	PATTERN ROTATION STOP
	10 - 120	CLOCKWISE ROTATION FAST - SLOW
	121 - 134	STOP
	135 - 245	COUNTER CLOCKWISE ROTATION SLOW - FAST
11	246 - 255	STOP
	0 - 9	PATTERN MOVEMENT STOP
	10 - 120	HORIZONTAL ROTATION FAST - SLOW
	121 - 134	STOP
12	135 - 245	VERTICAL ROTATION SLOW - FAST
	246 - 255	STOP
	0 - 127	PATTERN ZOOM PATTERN ZOOM MANUAL
	128 - 255	PATTERN ZOOM SLOW - FAST
13	0 - 7	SHUTTER BLACKOUT
	8 - 15	OPEN
	16 - 131	STROBE SLOW - FAST
	132 - 139	OPEN
	140 - 181	SLOW OPEN - FAST CLOSE
	182 - 189	OPEN
	190 - 231	FAST OPEN - SLOW CLOSE
	232 - 239	OPEN
	240 - 247	RANDOM STROBE
	248 - 255	OPEN
14	0 - 255	MASTER DIMMER 0% - 100%
15	0 - 79	SPECIAL FUNCTIONS NO FUNCTION

Ricochet		15 Channel Mode
Channel	Value	Function
15		SPECIAL FUNCTIONS
	80 - 84	ALL MOTORS RESET
	85 - 87	PAN/TILT MOTORS RESET
	88 - 90	COLOR MOTOR RESET
	91 - 99	NO FUNCTION
	100 - 109	BLACKOUT WITH PAN/TILT MOVE
	110 - 119	BLACKOUT WITH COLOR CHANGE
	120 - 255	NO FUNCTION



Ricochet 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 16 fixtures maximum for 120V and 30 fixtures maximum for 230V. After the maximum amount of fixtures is connected you will need to use a new power outlet. They must be the same fixtures. DO NOT mix fixtures.

Ricochet Fuse Replacement

Fuse Replacement: Unplug the unit from any power source it may be connected to. Once the power has been disconnected, use a phillips head screw driver to unscrew the fuse holder located around the I.E.C. inputs. Remove the bad fuse and replace with a new one, and screw the fuse holder back in.

Warning: If after replacing the fuse you continue to blow fuses, STOP using the unit. Contact customer support for further instructions. Continuing to use the unit may cause serious damage.

Ricochet Cleaning

Fixture Cleaning: Due to fog residue, smoke, and dust cleaning the internal and external lenses should be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Clean the external optics with glass cleaner and a soft cloth every 20 days.
3. Always be sure to dry all parts completely before plugging the unit back in.

Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew). In heavy use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp beam output.

Ricochet Trouble Shooting

Trouble Shooting: Listed below is a problem that you may encounter, with a solution.

No light output from the unit;

1. Be sure the fuse has not blown. The fuse is located on the rear panel inside the power socket. See Fuse Replacement.

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)

MODEL:	Ricochet
VOLTAGE:	100V~240V 50/60Hz
LED:	1 X 20W LumiEngin LED
BEAM ANGLE:	4 Degrees
POWER CONSUMPTION:	41W
DIMENSIONS:	11.25"(L) x 9.75"(W) x 9.75"(H) 285 x 250 x 248mm
WEIGHT:	11 lbs/ 5 Kgs
POWER CORD DAISY CHAIN:	16 Fixtures Max. (120V) 30 Fixtures Max. (240V)
FUSE:	1 Amp
WORKING POSITION:	Any Safe Position
COLORS:	8 + White & Split Colors
DMX Modes:	2 DMX Modes: 12 & 15
WARRANTY:	2 Years (730 Days)

Auto Sensing Voltage: This fixture contains a automatic volt-age 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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