SP-1500 DMX MK II Strobe

Operation Manual

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INTRODUCTION

Thank you for purchasing the American DJ SP-1500 DMX MKII Strobe. To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit.

Customer Support:
American DJ® 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.americandj.eu for any comments or suggestions.
E-mail: service@americandj.eu
To purchase parts online visit www.adjparts.eu
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 manufactures warranty. In the unlikely event your unit may require service please contact your American DJ reseller.
• Do not obstruct the air vents.
• Do not touch the unit while it's hot.

Do not discard the shipping carton in the trash. Please recycle whenever possible.

FEATURES

• Includes hanging bracket
• Sound-Active
• DMX-512, Master/Slave
• Electronic Dimmer 0-100%
• Built-in microphone
• Compatible with UC3-Series controllers

INSTALLATION

1. **POWER INPUT:** AC 230V 50Hz
2. **FUSE:** 20A/15A
3. **DMX IN:** XLR 3 Pole male socket.
4. **DMX OUT:** XLR 3 Pole female socket.
5. **UC3 Remote input:** connect the UC3 to the ¼" microphone Jack to control the unit for Speed, Blackout and Brightness.
6. **DMX DIP SWITCH:** Dip switch 1-9 are used to set the DMX address of the unit.
7. **DIMMER:** This knob is used to adjust the brightness of the units.
8. **SPEED:** This knob is used to adjust the strobing speed.

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Use a safety chain to secure the strobe. The equipment must be fixed by professionals. And it must be fixed at a place where is out of reach of people.

Power Supply: Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® SP-1500 DMX MK II STROBE. The American DJ® SP-1500 DMX MK II Strobe is only available in a 230v 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 you fixture. Also be sure to only use the included I.E.C. power cable supplied with the unit, 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 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 SP-1500 DMX MK II can be controlled via DMX-512 protocol. The SP-1500 DMX MK II is controlled by 2 DMX channels : 1 channel for strobe speed and 1 channel for intensity. The DMX address is set electronically using the dipswitches on the back of the unit. Your unit and your DMX controller require a standard 3-pin XLR connector for data input and data output (Figure 1). If you are making your own cables, be sure to use standard two conductors 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

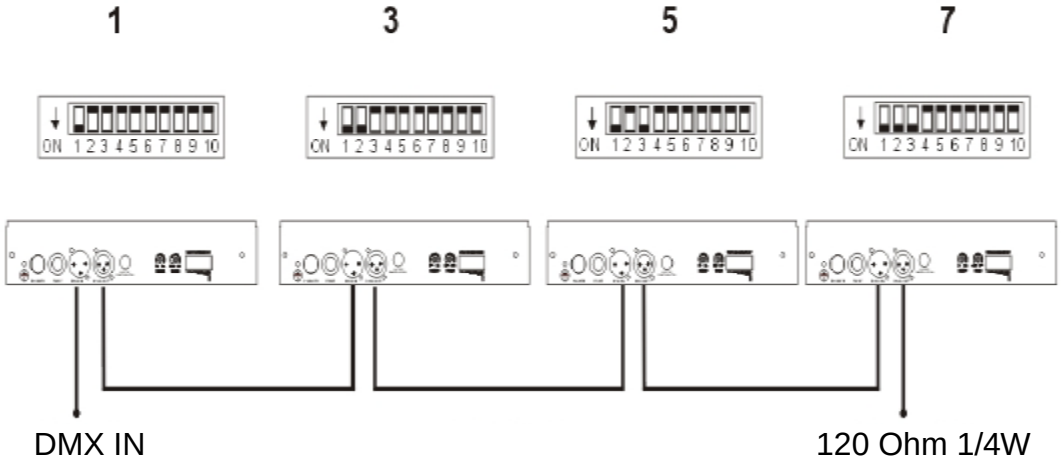
Special Note: Line Termination. When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 90-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number 1613000030) 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 of 120 Ohm 1/4 W) between PIN 2 (DMX-)and PIN 3 (DMX +) of the last fixture.

5-Pin XLR DMX Connectors. Some manufactures 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 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

DMX ADRESSING



If you use a universal DMX controller to control the units, you have to set dip switches from 1 to 9 of the channel so that all the units will receive its DMX signal. Please refer to the following diagram to know how to address your DMX512 system in the binary code.

Dip	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Value	1	2	4	8	16	32	64	128	256	Option

DMX512 Traits		
DMX-Value	Channel 1	Channel 2
	Strobe Speed	Dimmer
240~255	Speed 15	Dimmer 15
224~239	Speed 14	Dimmer 14
208~223	Speed 13	Dimmer 13
192~207	Speed 12	Dimmer 12
176~191	Speed 11	Dimmer 11
160~175	Speed 10	Dimmer 10
144~159	Speed 9	Dimmer 9
128~143	Speed 8	Dimmer 8
112~127	Speed 7	Dimmer 7
96~111	Speed 6	Dimmer 6
80~95	Speed 5	Dimmer 5
64~79	Speed 4	Dimmer 4
48~63	Speed 3	Dimmer 3
32~47	Speed 2	Dimmer 2
16~31	Speed 1	Dimmer 1
0~15	STOP	BLACKOUT

MASTER/SLAVE MODE

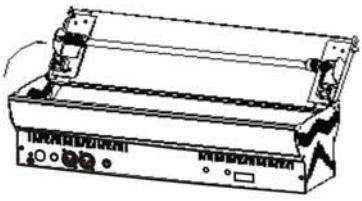
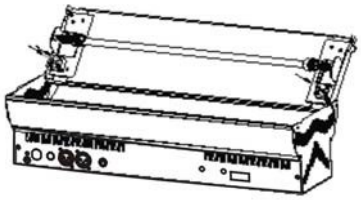
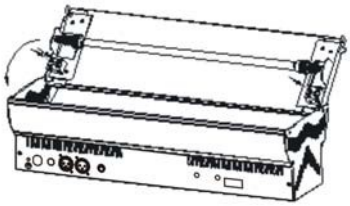
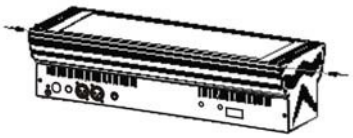
By linking the units in master/slave connection, the first unit will control the other units to give an automatic light show. You will know which unit is the master because its DMX input jack will have nothing plugged into it. The other units (slaves) will have DMX cables plugged into the DMX input jacks (daisy chain).
You can set the units in below two ways:
1. **Synchronized show:** set the first (Master) unit's dipswitches 1 and 10 to ON, now you can adjust the dimmer and strobe speed, and all the other (slave) units will follow the Master unit.
2. **4-units Lightshow:** set the dipswitch as the diagram,
the first (master) unit will run the built-in
programmer and control the other (slave) units separately like a 4 channel chaser.

Unit	Dip switches setting
Master	
Slave 1	
Slave 2	
Slave 3	

Chase pattern in the 4-units lightshow mode:

Pattern 1	Units 1,2,3,4 all Full on
Pattern 2	Chase unit 1->2->3->4 — 4->3->2->1
Pattern 3	Chase unit 1->2->3->4-4->3->2->1
Pattern 4	Chase Units1&2->3&4 — 2&3->1&4
Pattern 5	Chase 1-1&2-1&2&3-ALL-1&2&3-1&2-1-stop — 4-4&3-4&3&2-ALL-4&3&2-4&3-4-stop
Pattern 6	Chase 1->2->1->2->3->4->3->4—4->1->4->1->3->2->3->2

LAMP REPLACEMENT

	2. Open the glass base-cover.
	3. Loose the screws of the lamp wire from terminator.
	4. Take out the old lamp and place the new one into the fixture.
	5. Connect the lamp wire to the terminator.
	6. Reverse the procedures from step 2 to step 1.

FIXTURE CLEANING

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses must be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Use a brush to wipe down the fan grill.
3. Clean the external optics with glass cleaner and a soft cloth every 20 days.
5. 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). In heavy club use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity and crisp output.

FUSE REPLACEMENT

First unplug the power. The fuse holder is located at the rear of the unit 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.

TROUBLE SHOOTING

Listed below are a few common problems that you may encounter, with solutions.
No light output from the unit:
1) Be sure you have connected your unit into a standard 230v wall outlet.
2) Be sure the fuse has not blown. The fuse is located on the rear panel.
Unit does not respond to sound:
1) Low frequencies (bass) should cause the unit to react to sound. Tapping on the microphone, quiet or high pitched sounds may not activate the unit.

TECHNICAL SPECIFICATIONS

Lamp	XENON 1500W
Power	AC 230V 50Hz
Fuse	Circuit breaker 20A
Dimensions	452 x 147.5 x 116 mm
Weight	3.2 kg

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