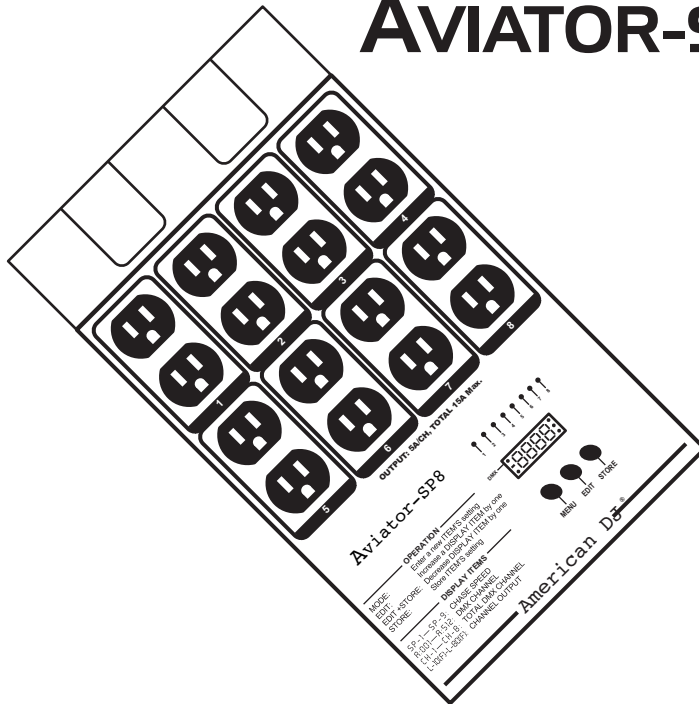# American DJ®

AVIATOR-SP8

User Instructions

Introduction:

Thank you for purchasing the American DJ AVIATOR SP-8.™ To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. The American DJ® AVIATOR SP-8™ is a unique four channel DMX intelligent scanner. This unit has been tested at the factory before being shipped to you, there is no assembly required.

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.com for any comments or suggestions.

Service Hours are Monday through Friday 8:00 a.m. to 4:30 p.m. Pacific Time.

Voice:	(800) 322-6337
Fax:	(323) 582-2941
E-mail:	support@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 manufactures warranty. In the unlikely event your unit may require service please contact your nearest American DJ dealer.

Do not discard this cartoon in the trash. Please recycle when ever possible.

WARNINGS:

- Do not spill water or other liquids in to or on to your unit.
- Be sure that the local power outlet match that or the required voltage for your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken. Please route your power cord out of the way of foot traffic.
- 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 top cover under any conditions. There are no user serviceable parts inside.
- Disconnect the unit's main power when left unused for long periods of time.
- Never connect this unit to a dimmer pack
- Always be sure to mount this unit in 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 in any any way.
- Never operate this unit when it's cover is removed.

FEATURES:

Congratulations and thank you for purchasing the American DJ® AVIATOR SP-8. The AVIATOR SP-8 is a DMX dimmer/switcher pack. This unit can be programmed to operate as a 1, 2, 4, or 8 channel dimmer or switcher pack. This unit is perfect for contractor, installers, and professional light companies. The Aviator SP-8™ features include:
- 3-pin XLR IN and OUT jacks
- Linkable
- Back up memory protection
- 4 digit LCD display

Unpacking:

Every AVIATOR SP-8™ has been thoroughly tested and has been shipped in perfect operating order. 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. In the case damage has been found please contact our toll free customer support number for further instructions.
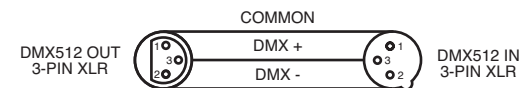
Power Supply:

Before plugging your unit in be sure the source voltage in your area matches the required voltage for your American DJ® AVIATOR SP-8.™ The American DJ® AVIATOR SP-8™ is available in a 115v and 230v version. Because line voltage may vary from venue to venue, you should be sure to plug your power supply into a matching wall outlet before attempting to operate you controller.

Data Cable (DMX Cable) Requirements:

Your fixture and your 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 conductor shielded cable (This cable may be purchased at almost all pro 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 can not be "Y"ed or split.

Notice: 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.
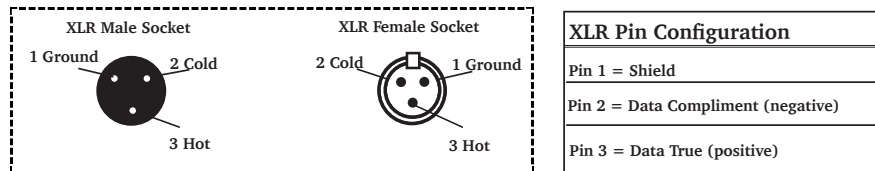
Notice: Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's

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.

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

Figure 2

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 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.
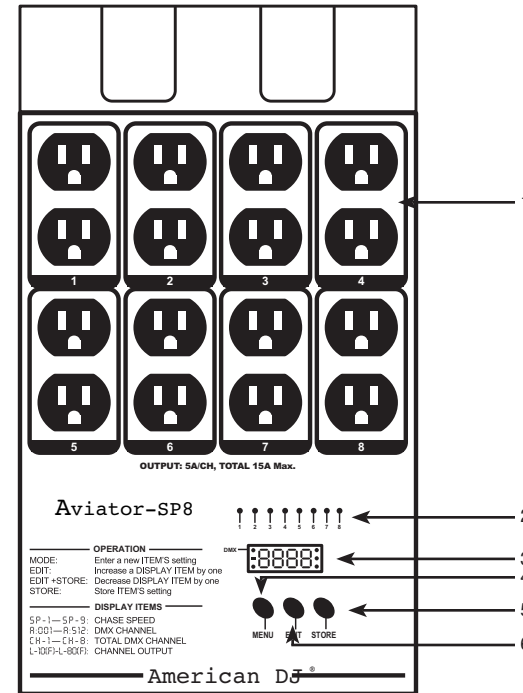
Figure 4

Linking:

The AVIATOR SP-8™ is a DMX intelligent scanner and must follow standard DMX protocol. A DMX signal cannot be split or "Y-ed" unless you are using an approved DMX splitter such as the American DJ® DMX Branch 4.™ Link your scanners together using standard DMX cable as described on page 5 of this manual. Be sure that each fixture follows an "IN"/"OUT" pattern starting from you DMX controller. Your controller will always be the first output in a DMX chain. Link all your DMX devices together regardless of their brand or type.

Figure 5 on page 7 details the proper linking procedure.
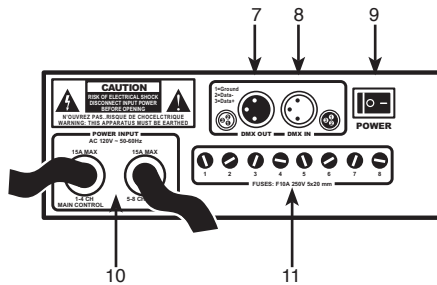
Front Panel:

1. Channels 1-8, standard grounded 3-prong Edison electrical outlets. Channel output is 10 amps maximum per channel. Channels 1-4 have a total maximum output capacity of 15 amps. Channels 5-8 have a total maximum output capacity of 15 amps. Total output capacity is 30 amps maximum.
2. Channel LED Indicators - These indicator display channel activity, when an indicator is on it's respective channel has power output. These indicators will also dim to indicate channel intensity.
3. LCD Display - This display indicates the unit's current activity and menu function state.

Front Panel:

4. Menu Button - This button is used to select the different menu options.
5. Edit Button - This button is used to increase the current display value in by a factor of one. Each tap will change the value once. Holding down the Edit Button will increase the value rapidly.
6. Store Button - This button will serve two functions. When used with the Edit Button (5), this button can be used to decrease the current display value by a factor on one. This button is also used to lock your desired settings in to the unit's memory.

Rear Panel:

7. DMX XLR Output Jacks - This jack is used to send the DMX input signal through to the next DMX device.
8. DMX XLR Input Jack - This jack is used to receive the incoming DMX signal.
9. Power Switch - This switch controls the unit's main power.
10. Power Cords - These cords are used to supply your unit's main power. Plug these cords in to a standard 110V Edison wall socket.
   Both cords must be plugged in for proper operation.
11. Channel Fuses - Each channel has its' own protective fuse. Only replace with the exact same type fuse, 6A GMA.
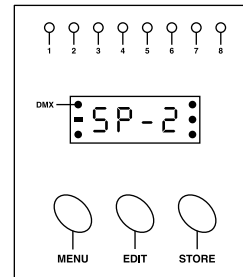
General Instructions:

The Aviator-SP8 is a 8 channel DMX switch pack, consisting of a Segment Display and several push buttons that can be used easily. The Aviator-SP8 is controlled via a standard DMX controller, which allows you to control special affect lighting.
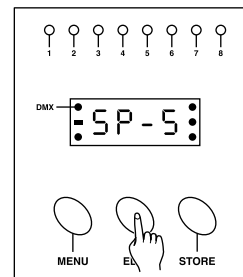
The Aviator-SP8 has two different operating modes: Self Test mode and DMX mode. Please follow the instructions below to operate the unit in your desired mode.
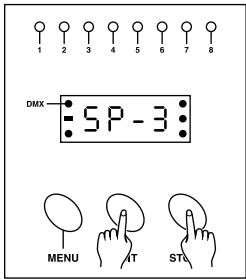
Self Test Mode:

This function serves two functions. This function can be used to run the Aviator SP-8™ as a simple 8 channel chaser. You can also use this mode to perform a unit self test. This function will run through a simple progressive eight channel chase. You may only control the speed of the chase, there no built-in patterns.
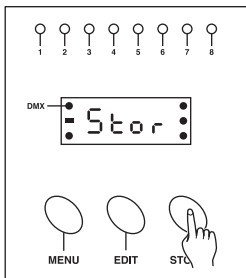

1. Turn the unit's main power on , the LCD will detail the last adjusted speed setting. Speed is indicated by "SP" followed by a number value of 1-9. A value of 1 will give the slowest speed (a chase interval of 10 minutes), and the value of 9 will give the fastest speed (a chase interval of 1/10th of a second).

2. Use the Edit button to increase the speed. Each tap will change the speed by a value of one. Pressing and holding down the Edit button will increase the speed value rapidly.
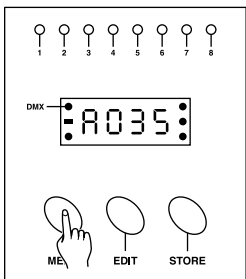
3. To decrease the speed value, use the Edit and Store button in conjunction with each other. While pressing and holding down the Edit button, tap the Store button to decrease the speed. Each tap of the Store button will decrease the speed value by a factor of one. Holding down the Store button will decrease the speed value rapidly.

4. Once you have completed your adjustments, tap the Store button. The LCD will display " Stor" for approximately 2 seconds. This will store your speed settings in to the unit's built-in memory.
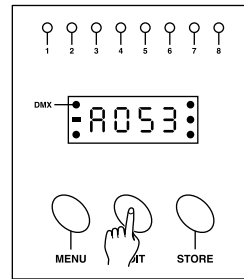
DMX Mode:

This function allows you to control each channels by a standard DMX controller such as the American DJ Show Designer™ or the American DJ Scene Setter.™ In DMX mode you can use the Aviator SP-8 as channel dimmer pack or as a channel switching power pack.
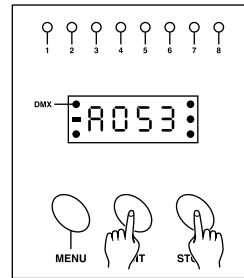
1. To control the Aviator SP-8™ by a DMX controller use the menu button to enter the unit's DMX mode. Pressing the Menu button selects the different menu options.
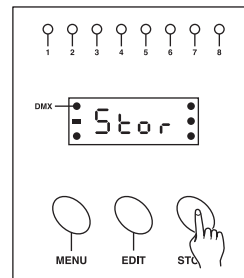
The DMX address is indicated by an "A" followed by three numbers in the LCD. The address tells the DMX controller what channel to activate the pack's functions.

2. Use the Edit button to increase the DMX address. Each tap will change the speed by a value of one. Pressing and holding down the Edit button will increase the DMX address value rapidly.

3. To decrease the DMX address, use the Edit and Store button in conjunction with each other. While pressing and holding down the Edit button, tap the Store button to decrease the DMX address. Each tap of the Store button will decrease the DMX address by a factor of one. Holding down the Store button will decrease the DMX address rapidly.

4. Once you have completed your adjustments, tap the Store button. The LCD will display " Stor" for approximately 2 seconds. This will store your DMX address in to the unit's built-in memory.
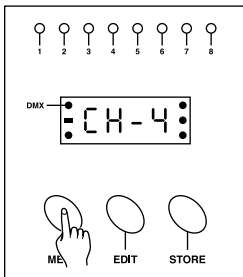
DMX Channel Mode:

This function allows you to use the Aviator SP-8 as a 1, 2, 4, or 8 channel dimmer/switcher pack.

When "CH-1" is selected, all 8 channel are controlled by one DMX channel.

When "CH-2" is selected, CH. 1-4, and CH. 5-8 are each controlled by one DMX channel. Total of two DMX channels to operate the pack.
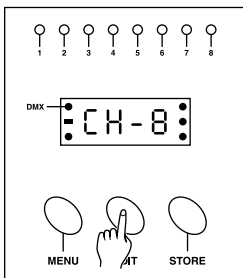
When "CH-4" is selected, every two channel(CH. 1-2, CH. 3-4, CH. 5-6 and CH.7-8) will be controlled by one DMX channel. Total of 4 DMX channels.

When "CH-8" is selected, each channel will be controlled by one DMX channel. Total of 8 DMX channels
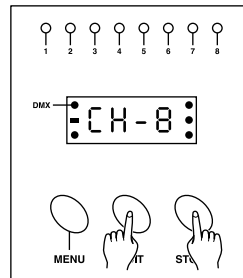
1. To change the operating channel mode, press the Menu button to access the channel selector function.
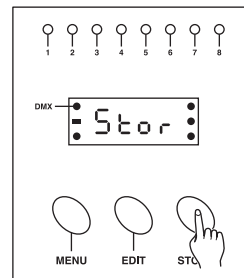
Channel mode is signified by " CH-" followed by either 1, 2, 4, or 8.

2. Use the Edit button to increase the DMX channel value. Each tap will change the DMX channel value by a factor of one. Pressing and holding down the Edit button will increase the DMX channel value rapidly.
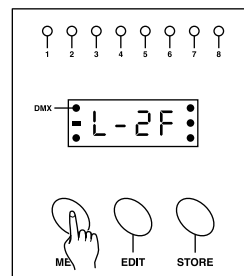
3. To decrease the DMX channel value, use the Edit and Store button in conjunction with each other. While pressing and holding down the Edit button, tap the Store button to decrease the DMX channel value. Each tap of the Store button will decrease the DMX address by a factor of one. Holding down the Store button will decrease the DMX channel value rapidly.

4. Once you have completed your adjustments, tap the Store button. The LCD will display "Stor" for approximately 2 seconds. This will store your DMX channel value in to the unit's built-in memory.

Channel Override Function:

This function allows you to manually override a channels function regardless of the operating mode. With this function you can set a channel to remain "on" or remain "off" during any function.

1. To access this function use the menu button to access the units menu. The override function will be indicated by a "L" in the first character in the LCD.

2. Use the Edit button to select the channel you wish to make adjustments to. Each tap will increase the channel by a factor of one. Pressing and holding down the Edit button will scroll through the channels rapidly.

3. While pressing and holding down the Edit button tap the Store button to change channel state between "Off" and "Full On". Each tap of the Edit button changes the state from "Off" to "Full On."

When a channel is set to "Off," the LCD will read "o" in the last character of the LCD. When a channel is set to "Full On," the LCD will read " F" in the last character.

"Full On" ("F") will give a channel full output (intensity) regardless of any contradicting DMX signal. "Off" ("o") will cut all output voltage to a selected channel regardless of DMX signal.
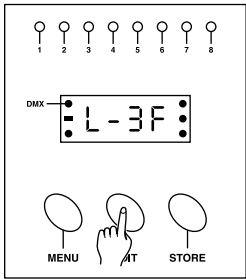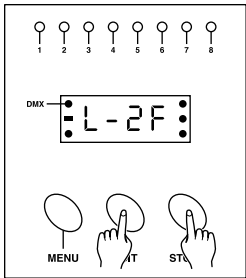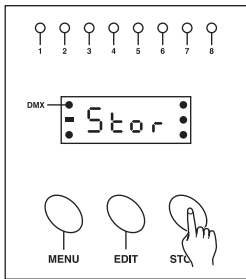
4. Once you have completed your adjustments, tap the Store button. The LCD will display "Stor" for approximately 2 seconds. This will store your DMX channel value in to the unit's built-in memory.

Power Input..AC120v~50/60Hz
Channel Output...10A per a channel
Total Channel Output...30A Maximum
DMX Output..3 pin female XLR
DMX Input...3 pin male XLR
Channel Fuse...6 Amp GMA
Dimensions...330mm x 192mm x 65mm
Weight..2.9kg/6.5Lbs

Fuse Replacement:

To reduce the risk or electric shock: Be sure to only replace with the exact same type fuse, unless otherwise instructed to do so by an authorized American DJ® service technician.

Warranty

1-YEAR LIMITED WARRANTY

A. American DJ® hereby warrants, to the original purchaser, American DJ® products to be free of manufacturing defects in material and workmanship for a period of 1 Year (365 days) from the date of purchase. 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, send the product only to the American DJ® factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, American DJ® 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, American DJ® 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 American DJ® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American DJ® factory unless prior written authorization was issued to purchaser by American DJ®; 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, American DJ® will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of American DJ® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of American DJ®. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. American DJ® 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.

F. 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 American DJ® 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 American DJ® be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

G. This warranty is the only written warranty applicable to American DJ® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

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