MIGHTY SCAN™

Thank you for purchasing this American DJ® product. Some setup required.
Please read the following instructions before installing or using your new unit.

HALOGEN LAMP WARNING!

This fixture is fitted with a halogen lamp which is highly susceptible to damage if improperly handled. Never touch lamp with bare fingers as the oil from your hands will shorten lamp life. Also, never move fixture until lamp has had ample time to cool. Remember, lamps are not covered under warranty conditions.

THE MIGHTY SCAN™ Features

- 20 Dichroic Colors + White
- 20 Gobos plus Spot
- High speed Shutter
- Strobes in every Color
- 16 flashes per second
- Variable Speeds
- DMX-512 Protocol
- Separate color and gobo wheels
- Split colors
- Full DMX capabilities
- Build in programs

*** At first start-up, this unit may smoke for a few minutes until the excess paint can be burned off lamp socket assembly.**

Important Notice:
This fixture follow the European DMX standard. When operating this fixture with a standard DMX controller, the fixture's DMX value will start on one (1) with all the dip switches in the off position. For example: To get a DMX value of one (1) you would have to flip dip switch one (1) to the on position. In the case of the Mighty Scan™ however, dip switch one (1) on, would give the Mighty Scan™ a DMX value of two (2). To get a value of one (1), all the dip switches would have to be in the off position. To get a DMX value of two (2) set the DMX value to one (1), for thee (3) set the DMX value for two (2) and so on.

THE MIGHTY SCAN™ Specifications

Voltage: 120v/220v 50/60 Hz
Dimensions: 14.25" x 5.75" x 7.5"
Lamp: ZB-ELC-3 250W 24V
Weight: 28 lbs.
Fuse: Dual 6.3A

Packing list:

1. The MIGHTY SCAN™ Projector
2. IEC power cord
3. Operating manual

Precautions:

1. Never operate unit when case is open.
2. Never cover unit as this may block air vents and cause overheating and possible fire hazard.
3. Never operate unit in the rain or in damp moist conditions as this could cause electric shock.
4. Follow standard electrical safety precautions when installing, operating or servicing the unit to prevent electrical shock, fire, or equipment damage.
5. Make sure head and yoke rotate freely
6. These units are for commercial use and contain no user-serviceable parts inside.
7. Refer servicing to an authorized American DJ service center.

Make sure to clean the fan
openings, air channels and fan gratings regularly.

Getting Started

Inspection

Every Mighty Scan™ has been thoroughly tested and lamped before leaving the factory. Carefully unpack the fixture and inspect the unit for damage that may have occurred during shipping.

Projector Installation

1. After removing the Mighty Scan™ from the shipping container, remove the hanging brackets knobs that have been inserted in the styrofoam packing material. The knobs are used to hold the fixtures' angle. Without the knobs the weight of fixture will not allow the unit to hold your desired operating angle.
2. This unit can be hung or placed in any safe, secure position.
3. To securely mount the fixture to truss, be sure to use a minimum 35Kg rated clamp and always try to use a safety cable when ever possible.
4. Try not to mount the fixture too close to walls or other fixtures, this will allow for proper cooling.
5. Connect the IEC power cord into the top of the unit (See diagram 10).
6. Set the dip switches according to your desired operation mode [See Operation Mode on pages three (3), four (4), and five (5)].
7. Plug the power cord into a properly grounded electrical socket. Do not attempt to brake off or by-pass the ground prong on the power cord, this is used for safety to reduce the risk of fire in case of an electrical short.
8. After plugging the unit in, the lamp will ignite and the unit will reset to the home position making a clicking noises and returning the mirror to center home position.

Lens Focusing

1. Hang the fixture in your final desired position.
2. If no controller is being used,
    A. Set dip switch ten (10) to the on position (See diagram 2).
    B. Turn the sensitivity to minimum position (See diagram 4).
    C. Plug the fixture in. The unit's shutter will open and the mirror will reset to the center.
3. If a controller is being used,
    A. Plug the fixture in.
    B. Use your controller to set the fixture's mirror in a center home position.
    C. Open the shutter and select a gobo.
4. Adjust lens by turning it in a clockwise and counter-clockwise direction until the projected pattern is in a sharp focus.

**Check that the voltage marked on the back of the unit is correct for your area.*

Operation Modes

Important Notice: *When setting or changing your dip switches it is best to disconnect power so the unit can reset to the new settings.*

Stand Alone Operation:

This operation is used to control one or more fixtures to the built in programs. Use this operation mode if; 1) You will not be using a DMX controller or 2) You do not wish to run your fixtures to sound or 3) You have more than one (1) Mighty Scan™ and you do not want to run them to a synchronized light show.

1. In Stand-Alone mode the fixture will run through the built in programs without the need of sound. Each Mighty Scan in your show will act as a separate unit not relying on any other unit for operation.
2. Flip dip switches one (1) and ten (10) to the on position (See diagram 1).
3. The units will now operate independently of each other to their built in programs.

Stand Alone Synchronized Operation:

This operation is used to synchronize two or more fixtures to the built in programs. Use this operation mode if; 1) You will not be using a DMX controller or 2) You do not wish to run your fixtures to sound or 3) You have more than one (1) Mighty Scan™ and you want to run them as a synchronized light show.

1. This operation will depend on a master unit to feed data instruction to other Mighty Scans.™
2. You may use 15 Mighty Scans, as slaves without the use of a controller (Total of 16; one master and 15 slaves).
3. Any unit may act as a Slave or a Master.
4. Use XLR cable to link your fixtures together. These cables must be daisy chained and can not be “Y’ed” or split.
5. Remember that the Male XLR connection on the fixture is the input and the female is the output. With this in mind, your first fixture will not have anything connected to the male XLR and the last fixture will not have any thing connected the female XLR connector.
6. Flip dip switches one (1) and ten (10), on the unit that will act as the master (the unit that has only an XLR cable coming out of female connector), to the on position (See diagram 1).
7. Be sure the dip switches from all the other units in the chain are all set to the off position.
8. The units will now run the built in programs in a synchronized light show.

Note: When running the Mighty Scans™ to the internal programs the fixture may not always be doing the same thing, this is not a malfunction, the internal programs sometimes have the lights move independent of each other for a more dramatic effect.

Sound Active Mode:

This operation is used to control one or more fixtures to the built in programs via sound. Use this operation mode if; 1) You will not be using a DMX controller or 2) You wish to run your fixtures to sound or 3) You have more than one (1) Mighty Scan™ and you do not want to run them as a synchronized light show.

1. In Sound Active mode the fixtures will run through the built in program via the beat of the music. Each Mighty Scan in your show will act as a separate unit not relying on any other unit for operation.
2. Flip dip switch ten (10) to the on position (See diagram 2).
3. The units will now runtheir built in programs independently of each other.

4. You can adjust the amount of sensitivity the fixture takes to react to the beat of music by turning the adjustment pot on the top of the unit in a clockwise or counter-clockwise position. Clockwise will increase the sensitivity while counter-clockwise will decrease the sensitivity.

Sound Active Synchronized Operation:

This operation is used to synchronize two or more fixtures to the built in programs. This operation will synchronize the programs via sound. Use this operation mode if; 1) You will not be using a DMX controller or 2) You wish to run your fixtures to sound or 3) You have more than one (1) Mighty Scan™ and you want to run them as a synchronized light show.

1. This operation will depend on a master unit to feed data instruction to other Mighty Scans.™
2. You may use 15 Mighty Scans as slaves without the use of a controller (Total of 16; one master and 15 slaves).
3. Any unit may act as a Slave or a Master.
4. Use XLR cable to link your fixtures together. These cables must be daisy chained and can not be “Y’ed” or split.
5. Remember that the Male XLR connection on the fixture is the input and the female is the output. With this in mind, your first fixture will not have anything connected to the male XLR and the last fixture will not have any thing connected the female XLR connector.
6. Flip dip switch ten (10), on the unit that will act as the master (the unit that has only an XLR cable coming out of female connector), to the on position (See diagram 2).
7. You can adjust the amount of sensitivity the fixture takes to react to the beat of music by turning the adjustment pot on the top of the unit in a clockwise or counter-clockwise position. Clockwise will increase the sensitivity while counter-clockwise will decrease the sensitivity.
8. Be sure the dip switches from all the other units in the chain (the slaves) are all set to the off position (See diagram 3).
9. The units will now run the built in programs in a synchronized light show.

Diagram 1
Stand Alone Mode

Diagram 2
Sound Active Mode

Diagram 3
Slave Mode or
DMX Address Channel 1
(see DMX adressing page 8)

DMX Operation:

This operation is used to control one or more Mighty Scans™ with a standard DMX controller. Using a DMX controller will allow you to build and customize your own programs. Use this operation mode if you will only be using a DMX controller.

1. If you will be using your Mighty Scans™ with a DMX controller, use the dip switches on the top of the unit to set your DMX ADDRESS. (See the chart on page 8)
2. Connect The MIGHTY SCAN™ fixture to a DMX controller. Each unit will use 6 DMX channels (See you controller instruction manual for more information on this subject).
3. Use XLR cable to link your fixtures together. These cables must be daisy chained and can not be “Y’ed” or split.
4. Remember that the Male XLR connection on the fixture is the input and the female is the output.

Your first fixture will not have anything connected to the male XLR input connector and the last fixture will not have any thing connected the female XLR output connector.

5. During DMX operation the Mighty Scan will use 6 DMX channels to operate properly;
   CH1: Pan, CH2: Tilt, CH3: Pan & Tilt Speed, CH4: Color, CH5: Gobo, CH6: Shutter
6. For all other DMX operation, please refer to the instruction that were included with your controller.
7. We recommend using a 10k resitor terminator for cable runs of more than 100ft.

• You must select the proper DMX-512 address for each MIGHTY SCAN™ projector (see page 8).
• Follow the settings on the top of the The MIGHTY SCAN™
• On The Following pages you will see the approximate values required to control the various functions of The MIGHTY SCAN™

Servicing

Lamp Replacement

1. Disconnect the unit's main power supply.
2. Unscrew the thumb screw on the front of unit and remove the cover.
3. Gently pull out the lamp/socket assembly.
4. Remove the socket from the lamp by gently pulling out the bulb from the socket. Always hold the socket from the base of the unit and not the wires. When pulling out the bulb it is best to hold it from the base and not the reflector end.
5. Replace the lamp and carefully replace the lamp/socket assembly.
6 Replace the cover and thumb screw.

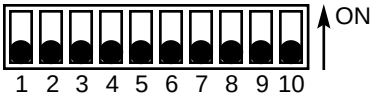
Fuse Replacement

1. Disconnect the unit's main power supply.
2. Remove the IEC cord from the socket (See Diagram 7).
3. With a flat head screw driver, insert the head of the screwdriver in the socket and gently prop up the fuse holder.
4. Remove the old fuse and replace with a new one.
5. Replace the fuse holder and reconnect main power.

Caution: Always remember to replace with the exact same type lamp and fuse, unless otherwise instructed by an authorized American DJ service technician.

Due not attempt to open or service this unit there are no user serviceable parts inside.

For repairs or service please contact your nearest American DJ dealer.



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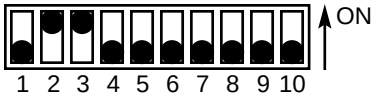

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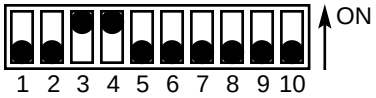
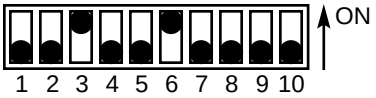


Mighty Scan™ 3

Mighty Scan™ 4

Mighty Scan™ 5

Mighty Scan™ 6



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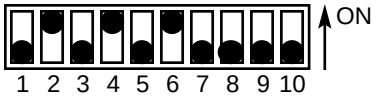

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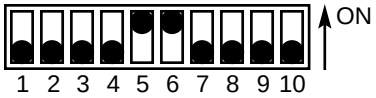

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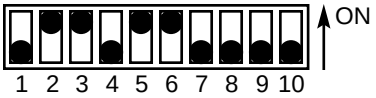

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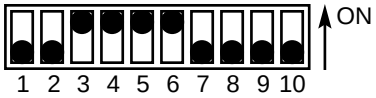

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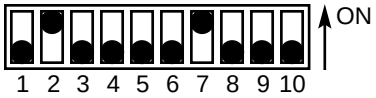

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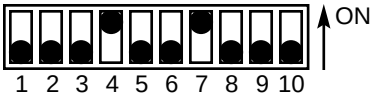

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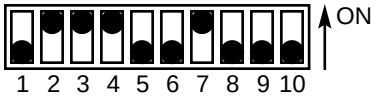

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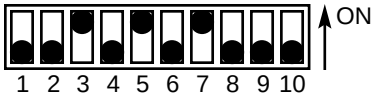
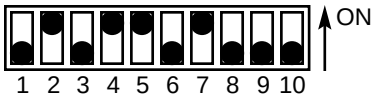


Mighty Scan™ 15



Mighty Scan™ 16

	CHANNEL	DESCRIPTION	VALUES
1	PAN	PAN (SIDE TO SIDE)	0-255
2	TILT	TILT (UP AND DOWN)	0-255
3	PAN & TILT SPEED	CONTROLS SPEED OF PAN AND TILT	0-255

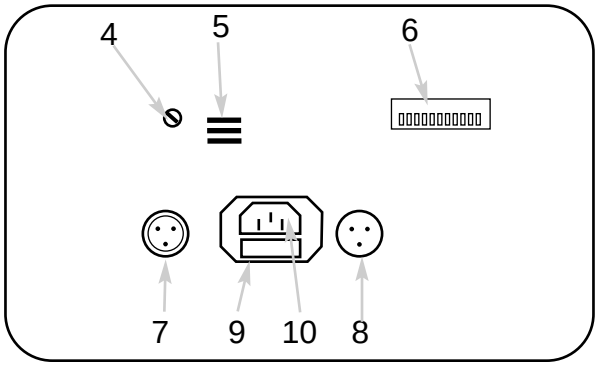
CHANNEL	DESCRIPTION	VALUES
1) PAN	Mirror Pan Position (BASE)	0-255
2) TILT	Mirror Tilt Position (HEAD)	0-255
3) SPEED	Pan/Tilt Speed (SLOW> FAST)	0-255
4) COLOR	Color Correction Filter 5600K	0-255
	Blue 107	8-11
	Blue 110	16-19
	Blue 101	24-27
	Cyan 401	32-35
	Green 201	40-43
	Green 204	48-51
	Yellow 601	56-59
	Orange 306	64-67
	Red 304	72-75
	Pink 303	80-83
	Magenta 501	88-91
	Magenta 507	96-99
	Cyan 104	104-107
	Orange 302	112-115
	Turquoise 208	120-123
	Pink 310	128-131
	Yellow 603	136-139
	UV Blue 108	144-147
	Red 301	152-155
	Open (No filter)	160-175
	Rotation 1 (fast-slow)	176-208
	Rotation Stop	209-221
	Rotation 2 (slow-fast)	222-255

Note: The Mighty Scan™ has split color capabilities. The above chart only shows the values for solid color options. To get a split color set the DMX value to somewhere in between the the two colors you want to split. Only a pair of colors that are next to each other on the color wheel can be split. For example Blue 107 and Blue 110 are a of pair colors that next to each other. Setting the DMX value to 13 will give a split color of the two (2)

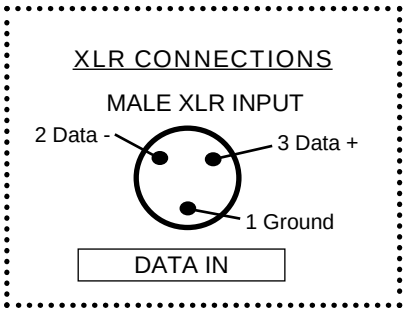
CHANNEL	DESCRIPTION	VALUES
5) GOBO WHEEL	LARGE SPOT	0-7
	TUNNEL	7-15
	TRI-TUNNEL	16-23
	SUN FLOWER	24-31
	DUAL DOTTED LINE	32-39
	SINGLE DOTTED LINE	40-47
	TRIANGLE	48-55
	SWIRL	56-63
	MULTI-STAR	64-71
	SEGMENT TUNNEL	72-79
	STAR	80-87
	SMALL SPOT	88-95
	SEGMENT SQUARES	96-103
	TWISTER	104-111
	SPLIT FOUR	112-119
	BARS	120-127
	SPLASH	128-135
	ASTERISK	136-143
	MULTI-SMALL DOT	144-151
	EURO STARS	152-159
	BUBBLES	160-175

CHANNEL	DESCRIPTION	VALUES
6) SHUTTER / DIMMER	Blackout	0-7
	Shutter Open (Lamp On)	8-15
	Shutter Closed	16-23
	Stobe (Fast-Slow)	24-127
	Strobe (Slow-Fast)	128-255

Control Panel



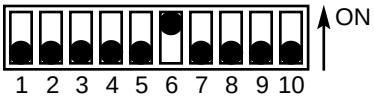
4: MIC SENSITIVITY ADJUSTMENT
5: MICROPHONE
6: DMX / MASTER SLAVE SETTINGS
7: DMX OUTPUT
8: DMX INPUT
9: FUSE HOLDER Dual 6.3A
10: POWER CONNECTION



When connecting the units together via XLR cables, please follow the chart to left to insure proper connectivity.

Mighty Scan™ 1

Mighty Scan™ 2



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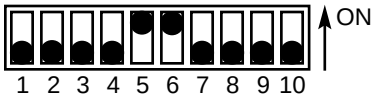

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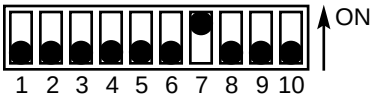

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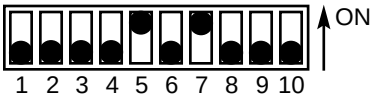

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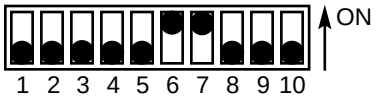

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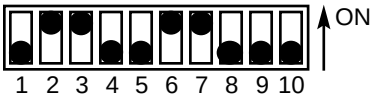

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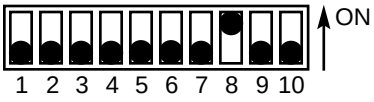

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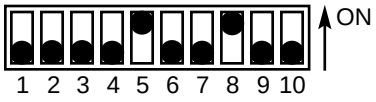
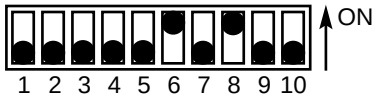
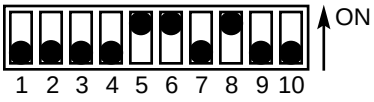


Mighty Scan™ 10



Mighty Scan™ 11



Mighty Scan™ 12