

American DJ®

Rainbow-250



User Instructions

American DJ
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Introduction:

Thank you for purchasing the Rainbow 250™ color changer from American DJ®. To optimize the performance of this product, please read these operating instructions carefully and familiarize yourself with the basic operations of this unit. The American DJ® Rainbow 250,™ is a dual channel, DMX, intelligent color changer. This unit has been shipped with a lamp installed and tested at the factory before being shipped to you. There is no assembly required.

The American DJ® Rainbow 250™ has sound active capabilities so you can use this unit without a controller. This unit can also be controlled via a standard DMX controller such as the American DJ Show Designer,™ or the American DJ® DMX Operator,™ giving the user independent control over the color wheel and dimmer.

Customer Support:

American DJ® provides a toll free customer support line, to provide set up and installation 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. Toll free customer service hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice: (800) 322-6337
Fax: (323) 582-2610
E-mail: support@americandj.com

Set Up:

Power Supply:

Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® Rainbow 250.™ The American DJ® Rainbow 250™ is available in a 120v and 220v 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.



Figure 1

Notice: Be sure to follow figure 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.

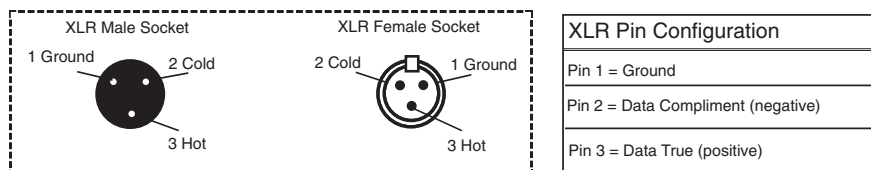


Figure 2

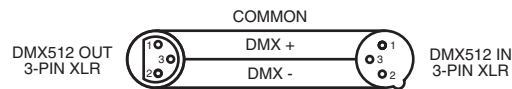


Figure 3

Special Note: 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 ZDMX/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

Operation Modes:

For best results use fog or special effects smoke to enhance the beam projections.

Stand-Alone Operation (Sound Active):

1. To operate as a stand alone unit via its internal chases and microphone, turn all dip switches off (See page 6/figure 5).
2. Adjust the sensitivity knob on the rear of the unit so the unit will react to sound.
3. Turning the sensitivity knob in the clockwise direction will increase the sensitivity to sound. Turning the knob in the counter clockwise direction will decrease the fixture's sensitivity to sound.
4. The American DJ® Rainbow 250™ will now react to the bass sound of music via the internal microphone.

Master-Slave Operation (Sound Active):

1. This function will allow you to link up to 16 units together. The units will run as a synchronized light show.
2. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling unit's program. Any unit can act as a Master or as a Slave.
3. Daisy chain your units via the XLR connectors on the rear of the units.
4. Use standard XLR microphone cables to link your units together. Remember that the Male XLR connector is the input and the Female XLR connector is the output.
5. 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.
6. Turn the master unit's dip switch 10 to the on position. Be sure all other dip switches are set to the off position (See page 6/figure 5).
7. Turn all dip switches to the off position on the slave units. Please see the chart on page 6 for all slave dipswitch settings. Note only one fixture may use the master units dip switch settings (See page 6/figure 5)
8. After all the units' dip switch settings have been set, plug the units in.
9. Adjust the sensitivity knob on the rear of the master unit to make them react to sound.

DMX Operation:

1. Operating through a DMX controller gives the user freedom to create their own programs tailored to their own individual needs. This function also allows you to use your fixtures as spots.
2. This operation will allow you to control each fixture's colors and dimmer with a standard DMX 512 controller such as the American DJ Show Designer™ or the American DJ® DMX Operator.™
3. The American DJ® Rainbow 250™ uses two DMX channel to operate; Channel 1 is the color and channel 2 is dimmer.
4. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller. - Follow the set-up specifications that come with the controller.
5. Use the chart on page 6 (figure 4) to set the DMX values for up to 16 units to be controlled by a DMX controller.

Lens Focusing:

1. To focus a American DJ® Rainbow 250 DMX,™ it is best to first turn down the music sensitivity knob to its minimum position. This will prevent the color wheel from changing during focusing.
2. Adjust the focus by manually turning the lens in and out (clockwise & counter-clockwise), until the outer edge of the beam is a sharp clear image.

Lamp Replacement:

Caution: Always replace with the exact same type lamp and fuse, unless otherwise specified by an authorized American DJ® technician. Replace with anything other than the specified part can damage your unit and will void your manufactures warranty.

Warning: If after you have replaced the lamp or fuse and you continue to blow either one, STOP using the unit. Contact customer support for further instructions, you may have to return the unit for servicing. Continuing to use the unit may cause serious damage.

1. Be sure to follow the proper procedures when handling halogen bulbs.
2. Lay the fixture flat on a stable surface.
3. Remove the three Phillips located on the top of the unit.
4. Remove the cover.
5. Remove and replace the bulb.
6. Reassemble.

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. If used heavily in clubs with lots of fog, cleaning may be required more often.
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 in.

REMEMBER: Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew).

Warranty: The American DJ® Rainbow 250 DMX™ comes with a one year (365 days) limited warranty. We recommend you 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 American DJ® customer support for a R.A. number.

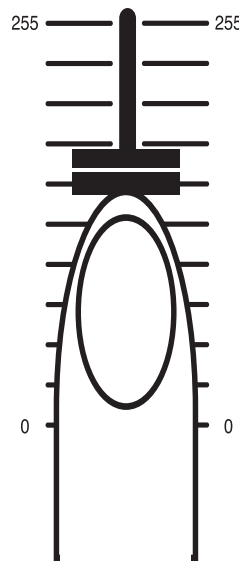
DMX Traits:

Channel 1:

DMX Value:	Color:
0-16	Blackout
17-33	SLOW Strobe
34-50	White
51-68	Red
69-84	Blue
85-101	Green
102-118	Light Orange
119-135	Dark Orange
136-152	Yellow
153-169	Magenta
170-179	Light Green
180-255	Color Scroll
255	Fastest Color Scroll

Channel 2:

DMX Value:	Trait:
00	Blackout
01-254	Dimmer
255	Full Intensity



Use your controller's slider to adjust the DMX value to reach your desired setting

SPECIFICATIONS:

Model - Rainbow 250™

Weight:	16 Lbs
Dimensions:	12.75" x 11.75" x 8.5"
Fuse:	4 Amp
Voltage:	120v 60Hz
Bulb:	ELC-3 24v/250w Long Life
Duty Cycle:	Several Hours
Colors:	8 Colors plus white
• Fan Cooled	
• Sound Active	
• DMX 512	

HALOGEN LAMP WARNING!

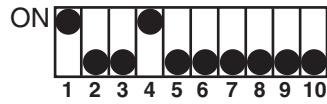
This fixture is fitted with halogen lamps which are highly susceptible to damage if improperly handled. Never touch lamp with bare fingers as the oil from your hands will shorten lamp life. Also, never move fixture until lamp has had ample time to cool. Remember, lamps are not covered under warranty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

Rainbow 250™ Universal DMX Settings for the first 16 fixtures

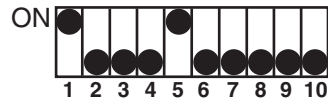
(If you will not be starting from channel one please follow standard DMX protocol for binary addressing)



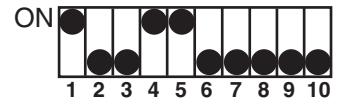
Fixture 1 - Address 1



Fixture 5 - Address 9



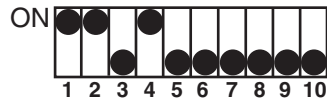
Fixture 9 - Address 17



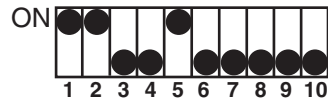
Fixture 13 - Address 25



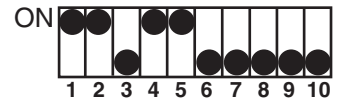
Fixture 2 - Address 3



Fixture 6 - Address 11



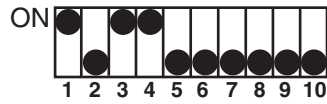
Fixture 10 - Address 19



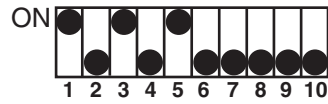
Fixture 14 - Address 27



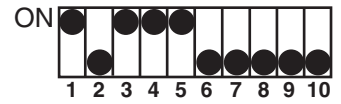
Fixture 3 - Address 5



Fixture 7 - Address 13



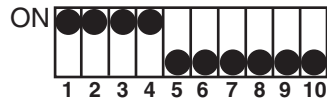
Fixture 11 - Address 21



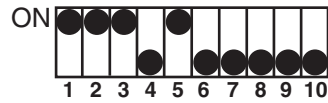
Fixture 15 - Address 29



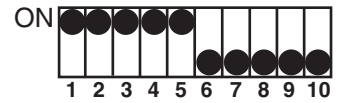
Fixture 4 - Address 7



Fixture 8 - Address 15



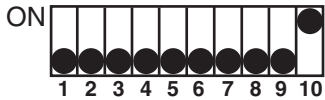
Fixture 12 - Address 23



Fixture 16 - Address 31

Rainbow 250™ Master/Slave Settings - SYNC Mode

Please note: You may connect up to 16 units together in master/slave mode. All off for the master and all slave units will have dip switch one on). This function will sync all your fixtures together.



Master Unit



Slave 1



Slave 2



Slave 3 etc...,

Rainbow 250™ Master/Slave Settings - Chase Mode

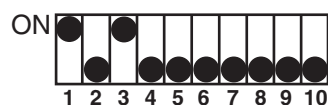
For a more dramatic light show you may set-up your fixtures to run in a four-channel chase pattern. This function will run through a random built in pattern.



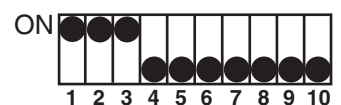
Master Unit



Slave 1



Slave 2



Slave 3