

# American DJ®

## RADD



## User Instructions

*American DJ*  
4295 Charter Street  
Los Angeles Ca. 90058  
www.americandj.com

### RADD™ Introduction

#### Introduction:

Thank you for purchasing the American DJ Radd™. 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® Radd™ is a unique moon flower effect. This unit has several multi-colored gobo combinations. This unit has been designed to compliment the American DJ® DJ Scan™ and DJ Roller™. 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](http://www.americandj.com) for any comments or suggestions.

Service Hours are Monday through Friday 10:00 a.m. to 5:00 p.m. Pacific Time.

Voice: (800) 322-6337  
Fax: (323) 582-2610  
E-mail: [support@americandj.com](mailto: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 manufacturer's warranty. In the unlikely event your unit may require service please contact your nearest American DJ dealer.

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

#### **HALOGEN LAMP WARNING!**

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

## **RADD™ Warnings**

- Do not spill water or other liquids in to or on to your unit.
- Be sure that the local power outlet matches the required voltage for your fixture.
- 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.
- Never block the ventilation holes.
- Do not attempt to operate this unit, if it becomes damaged in any way.
- Never operate this unit when it's cover is removed.

## **RADD™ General Instructions**

Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this unit. These instructions contain important information regarding safety during use and maintenance. Please keep this manual with the unit for future reference.

## **RADD™ Features**

Congratulations and thank you for purchasing the American DJ "RADD," one of the finest pieces of its kind on the market today! The RADD is a great inexpensive, light weight, mini intelligent fixture. Due to it's physical specifications, it's a great piece for mobile DJ's, roller rinks, small clubs, bars, and bowling centers. When used in multiples of two (2) or more, these units create an effect that rivals that of units that can cost up to three times the price. The RADD™ was designed to run in master/slave mode but can be used with a standard dmx controller. The RADD features a bright 150 watt/500 Hr lamp life halogen bulb with a separate gobo and color wheel. The color wheel features seven brilliant colors plus white and the gobo wheel features 9 gobos plus a large and small spot. This units is ready to be installed or hung and powered right out of the box. There is no assembly required. This fixture incorporates the use of high quality stepper motors for a more accurate mirror movement. Mirror movement allows for a full 90 degree tilt (vertical) and a full 90 degree pan (horizontal). An internal built in microphone allows the fixtures to run in Stand Alone mode so there is no need for an external controller. The RADD™ may also be set-up to run in a Master-Slave mode when used in multiples, up to 16 units. When used in the Master-Slave mode, the unit will chase to several internal programs. The RADD™ 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 gobo and color wheel as well as the mirrors pan and tilt movements.

Note: The built in programs in the RADD are so good you may never need a DMX controller.

## RADD™ Set Up

### Unpacking:

Every Radd 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® Radd.™ The American DJ® Radd 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

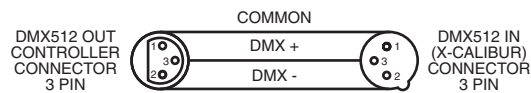
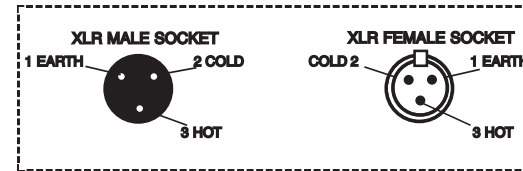


Figure 3

## RADD™ Set Up Cont.

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

Figure 1

### Linking:

The Radd 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.

## Radd™ Operating Instructions

For best results use fog or special effects smoke to enhance the beams projections. The Radd™ comes with a protective transportation cover. Be sure to remove it before attempting any operation!

### Stand-Alone Operation (Sound Active):

1. To operate as a stand alone unit, via its internal chases and microphone, turn all dip switches off.
2. Adjust the sensitivity knob on the rear of the unit so the unit will react to sound.
3. The Radd™ 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 to run on the master units internal programs.
2. In Master-Slave operation 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.
3. Daisy chain your units via the XLR connector on the bottom 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 all the master units dip switches to the off position.
7. Please follow chart on page 4 for all slave dipswitch settings. Note only one fixture may use the master units dip switch settings.
8. After all the units settings have been set and are plugged in, adjust the sensitivity knob on the bottom of the master unit to make them react to sound.

**Note: Stand-Alone and Master-Slave operation require sound to activate!**

## Radd™ Operating Instructions

### DMX Operation:

This fixture will react with DMX operation. For best results use only 1 (one) motor function for each scene (or step), when programming scenes into a DMX controller. This will give you faster mirror and faster gobo/color changes. For Example:

- A. With DMX controller move the mirror up then program the step.
- B. Move the mirror down then program that step.
- C. Change the gobo/color wheel then program that step.
- D. Continue this pattern to achieve best results.

1. Operating through a DMX controller gives the user freedom to create his/her 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 individual fixtures traits with a standard DMX 512 controller such as the American DJ Show Designer™ or the American DJ® DMX Operator.™
3. The Radd™ uses four DMX channels to operate; Channel 1 is Pan, channel 2 is Tilt, channel 3 is Color, and channel 4 Gobos.
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.

### Radd™ Focusing

1. To focus a Radd,™ it is best to first turn down the music sensitivity knob to its minimum position.
2. Loosen the thumb screw on the front of the unit that hold the lens in place.
3. Adjust the focus by manually moving the lens up and down.
4. Tighten the thumb screw after you achieve your desired focus.

## Radd™ Lamp Replacement

**Lamp Replacement:** Caution! Never open the unit when in use. Always disconnect the main power and allow the unit ample time to cool before attempting to replace the lamp. Remember always replace with the same type lamp and fuse.

1. Be sure to follow the proper procedures when handling halogen bulbs.
2. Lamp replacement has been made simple by incorporating the use of a removable front cover and thumb screws.
3. Loosen the thumb screws on front cover.
4. Remove the cover.
5. Remove and replace the bulb.
6. Reassemble.

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















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. Situation may vary. 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.

## Radd™ Warranty

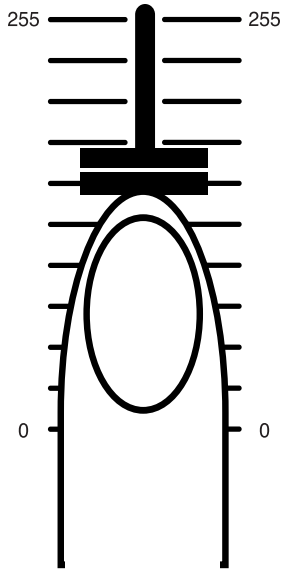
The American DJ “Radd”™ comes with a 1 year limited warranty. We recommend filling out the warranty registration card that came with your fixture to validate your warranty. For service contact your American DJ™ dealer.

## Radd™ DMX Traits

The Radd is a four channel scanner. This chart details the DMX traits of the Radd.™ Use your controller’s fader levels to scroll through the different values. Each fader value dictates the fixtures operation.

CHANNEL				
DMX512 LEVEL RANGE 0 - 255	1 NO	2 ROTATION	3 COLOR	4 GOBO
255				
200				
99			PURPLE	
95			PINK	
89			ORANGE	
85			YELLOW	
79			GREEN	
75			BLUE	
69			RED	
65			WHITE	
59			BLACKOUT	
55				
49				
45				
39				
35				
29				
25				
19				
15				
9				
5				
0				

## Radd™ DMX Traits



**Use the slider adjuster on your DMX controller to reach your desired DMX value. DMX values will always range from zero (0) to 255. The above chart breaks down the “traits” or values for Color, Gobos, and mirror movement.**

## Radd™ DMX Addressing

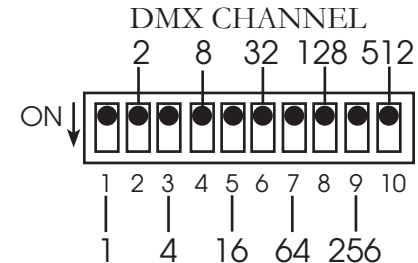
DMX is a universal binary language used to control intelligent lighting fixtures. Each dip switch represents a value based on binary code:

- Dip Switch 1 address equals 1
- Dip Switch 2 address equals 2
- Dip Switch 3 address equals 4
- Dip Switch 4 address equals 8
- Dip Switch 5 address equals 16
- Dip Switch 6 address equals 32
- Dip Switch 7 address equals 64
- Dip Switch 8 address equals 128
- Dip Switch 9 address equals 256
- Dip Switch 10 address equals 512

*Please note dip switch 10 may be omitted on some fixtures!*

Several DMX fixtures use dip switch 10 to access different function such as the Master/Slave operation. For those fixtures turning dip switch 10 on will activate it's specific function and have no bearing on the DMX value.

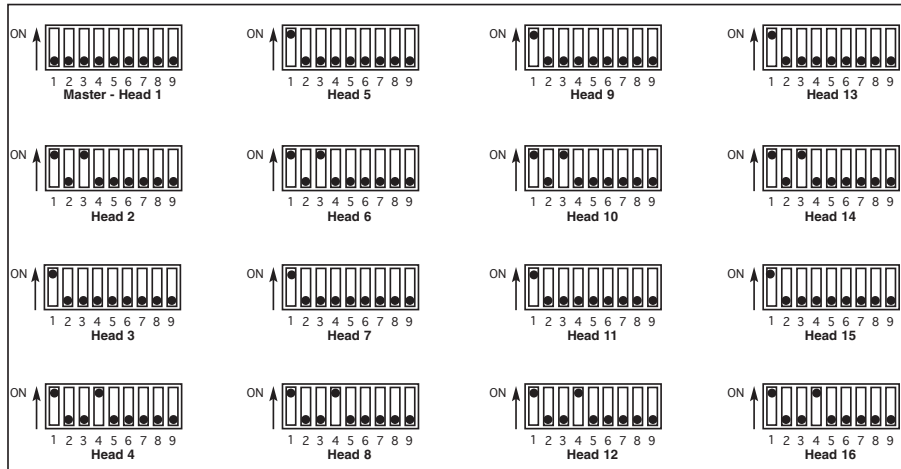
## Radd™ DMX Channel Values



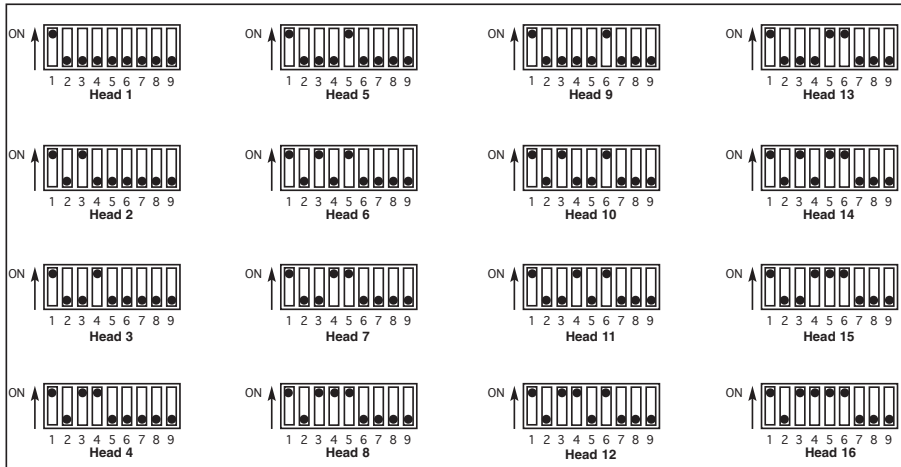
Some fixtures will omit dip switch 10 all together, for those fixtures the maximum DMX value that can be assigned to fixture will be 511.



## Radd™ Master/Slave Dip Switch Chart



## Radd™ DMX Addressing Chart



## Radd™ 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.

F. 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.

## **Model: RADD™**

### **SPECIFICATIONS:**

Lamp:	ZB-JCR/H5 15v/100w
Power:	110V/60Hz
Fuse:	3A
Optics:	High Quality Glass Lenses
Ventilation:	Fan Cooled
Working Position:	Any
Weight:	14 Lbs.
Size:	11" x 11.5" x 7"
Duty Cycle:	10 min. on 10 min. off

©American DJ Supply  
American DJ World Headquarters:  
4295 Charter Street Los Angeles, CA 90058 USA  
Tel: 323-582-2650 / Fax: 323-582-2610  
Web: [www.americandj.com](http://www.americandj.com) / E-mail: [info@americandj.com](mailto:info@americandj.com)