

# American DJ® RAINBOW PP II

POWER PACK CONTROLLER



## User Instructions

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### Rainbow PP II™

### Introduction

**Introduction:** Thank you for purchasing the Rainbow PP II™ by American DJ®. The Rainbow PP II™ is **only** used to control the American DJ® Rainbow Tubes II™ (not included). The Rainbow PP II™ come with 40 different programs, including static colors, and flowing chases, and strobing. The speed in which this unit chases and strobes is adjustable. You can also connect the Rainbow PP II™ to a DMX controller and design your own programs. The Rainbow Tube IIs™ are waterproof, and can be used outdoors, the Rainbow PP II™ is **NOT** waterproof. This system is great for retail stores, displays, mood, architectural, interior and exterior decoration, and clubs.

**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. For service related issue please contact American DJ®. 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](mailto:support@americandj.com)

To purchase parts online visit <http://parts.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 American DJ®.

**PLEASE do not discard the shipping carton in the trash. Please recycle when ever possible.**

## Rainbow PP II™

## General Instructions

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

## Rainbow PP II™

## Unpacking

Every Rainbow PP II™ has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return this unit to your dealer without first contacting customer support.

## Rainbow PP II™

## Features

- DMX Adjustable Interval, Speed, Dimming and Flash (Strobe) controls
- 40 Internal Programs
- Up to 1,000 Rainbow Tube IIs™ can be linked together and controlled by the Rainbow PP II™ Controller
- Light Weight, Compact Case Design.
- Built-In Mounting Plate.
- Low Power Consumption.

## Rainbow PP II™

## Warranty Registration

The Rainbow PP II™ carries a 1 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.

## Rainbow PP II™

## Precautions

- Do not spill water or other liquids into or on to your unit.
- Be sure that the local power outlet matches that of the required voltage for your unit.
- Do not attempt to operate this unit if the power supply cord has been frayed or broken. Please route your power supply cord away from foot traffic.
- Disconnect from main power before making any type of connection.
- There are no user serviceable parts inside.
- Never plug this unit in to a dimmer pack
- Always be sure to mount this unit in an 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 way.
- Never operate this unit when it's front cover is removed.
- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- This unit is intended for indoor use only, use of this product outdoors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power-Cord Protection - Power-supply cords should be routed so they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords a plugs, convenience receptacles, and the point where they exit from the fixture.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. Use a dry cloth to wipe down the Rainbow Tube.
- Heat -The fixture should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
  - A. The power-supply cord or the plug has been damaged.
  - B. Objects have fallen, or liquid has been spilled into the appliance.
  - C. The appliance has been exposed to rain or water.
  - D. The fixture does not appear to operate normally or exhibits a marked change in performance.

**Power Supply:** Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® Rainbow PP II™. The American DJ® Rainbow PP II™ are available in a 120v and 220v version. Because line voltage may vary from venue to venue, be sure to plug your fixture into a wall outlet with a matching power supply before attempting to operate.

**IMPORTANT! When you set this system up for the first time, connect all of your rainbow tubes and then plug the tubes into a power source, NOT the Rainbow PP II. If the tubes all turn white then the tube connections are okay.**

### Operating Modes and Set Up:

**Rainbow PP II™ Control:** This will allow you to control your Rainbow Tubes with the Rainbow PP II controller. You can choose one of the 30 programs to run, and control the speed and interval time of each program.

1. Start by daisy chaining the Rainbow Tubes™ together. Attached to each Rainbow Tube II™ is a Male 3-pin connector and a Female 3-pin connector. Use the attached 3-pin cables to link your units together. Remember that the Male 3-pin connector is the input and the Female 3-pin connector is the output. The first unit in the chain will use the female 3-pin connector only. The last unit in the chain will use the male 3-pin connector only.
2. You will also have to link the power cords to each other, as you did with the 3-pin cables.
3. The Rainbow Tube IIs™ connect to the Rainbow PP II™ by the 3-pin cables that are attached to the Rainbow Tube IIs™.
4. Connect your first Rainbow Tube™ in your chain to the 3-pin Output connection on the Rainbow PP II™.

**Note: You should ONLY link up to 140 Rainbow Tube IIs™ to one power source. If more Rainbow Tube IIs are being used you can continue to link them by the 3-pin cables but you should use more than one power source.**

5. After you set up your complete system, switch on the power to the Rainbow PP II™.
6. Press the MODE button to go through the different programs. See page 8 for a list of the programs. Find your desired program and press the SET UP button. To move through the various adjust-

able features press the SET UP button.

**NOTE: In the adjustable features menu you should skip the Interval, Run Speed, and Flash rate for now. And skip ahead to the Tube Quantity feature. This allows you to tell the controller how many Rainbow Tubes are connected. When you have set the quantity of tubes press SET UP to go back to Interval Time.**

7. You are now able to adjust the interval time, run speed, and flash rate of a program. Press the UP and DOWN buttons to adjust the features. When you are done adjusting the features

**NOTE: Programs 1-8 and 30 do not have adjustable features.**

8. **Interval Time** adjustment is 0 -100, 0 is shortest time between color changes and chases, and 100 being longest.

**Run Speed** adjustment is 0 - 100, 0 is the slowest speed and 100 is the fastest speed.

**Flash** (strobing) adjustment is 0 -100, 0 is the slowest strobe speed, and 100 is the fastest strobe speed.

**Universal DMX Control:** This mode allows you to use a universal DMX-512 controller such as the Elation® DMX Operator™ or Show Designer™. **Note: When Channel 1 is in use it will override/disable the static colors on channels two (2), three (3), and four (4). Instead when Channel 1 is in use channel two will control speed, channel three will control interval, and channel 4 will control the strobe function.**

1. To control the Rainbow Tube IIs in DMX mode, follow the set-up procedures under **Rainbow PP II Control**, as well as the set-up procedures included with your DMX controller.
2. Connect your DMX controller to the Rainbow PP II™ XLR Input connection. Find “Blackout” in the programs and press SET UP. Press SET UP until it displays “QTY TUBES”. Set the quantity of Rainbow Tube IIs™ that are connected to the Rainbow PP II by pressing the UP or DOWN buttons. Press the MODE button to exit.
3. Press the MODE button on the Rainbow PP II until the LCD screen shows “DMX 512 MODE”.
4. Press the SET UP button to enter the address setting.
5. The screen will show “DMX addr: 000”. Press the UP or DOWN buttons to find your desired address. Addressing goes up 255 only.
6. Press the SETUP button when you have set the DMX address. The screen will show “Initializing addr Waiting.” After press the

MODE button and the screen will go back to “DMX-512 MODE”.

**If you do not press the SETUP button first after setting your DMX address, the controller will reset back to the factory address setting when the controller is turned “on” again.**

- Press the MODE button on the Rainbow PP II until the LCD screen shows “ADDRESS MODE”. Press SET UP and “Initlizing Addr” will be displayed. Wait for it to finish and press MODE. Press the MODE button to return to “DMX512 MODE.”

**NOTE: If you do not follow these procedures, DMX control will not work.**

- The Rainbow Tube IIs use four DMX channels. See pages 9 - 10 for detailed description of the DMX traits. Use your DMX controller to activate the programs and chases.

Listed below are a few common problems and solutions you should try before contacting customer support.

**The beginning of the Rainbow Tube IIs™ work but the end tubes do not work;**

- Check the tube quantity setting on the Rainbow PP II™.
- Check the connection of the first blacked out Rainbow Tube II™.
- Change the blacked out Rainbow Tube II™, it could be dead.

**Some Rainbow Tubes™ do not work but others do;**

- Go to the Test Mode in the programs menu and press SETUP to run this program to make sure the lines are fine.
- Change the blacked out Rainbow Tube™.

**Certain parts of a Rainbow Tube™ do not work;**

- Change the Rainbow Tube™.

**The Rainbow Tubes™ cannot be controlled by the Rainbow PP II™;**

- Change the Rainbow PP II™.
- The area might have a strong interference signal.
- Reduce the the Rainbow Tube quantity that are linked to a single power socket. Seperate and use more power outlets.

**Neither the Rainbow Tubes™ or Rainbow PP II™ are working;**

- Change power outlets.
- Change the Rainbow PP II™

**The Rainbow Tubes™ are not functioning properly using a DMX Controller;**

- Turn the Rainbow PP™ off and then back on.

Rainbow PP II™		Programs	
1	BLACKOUT	23	RED & BLUE FLOW
2	STATIC RED	24	RED & GREEN CHASE 1
3	STATIC GREEN	25	RED & GREEN CHASE 2
4	STATIC YELLOW	26	RED & BLUE CHASE 1
5	STATIC BLUE	27	RED & BLUE CHASE 2
6	STATIC PURPLE	28	RED & WHITE CHASE 1
7	STATIC CYAN	29	RED & WHITE CHASE 2
8	STATIC WHITE	30	BLUE & GREEN CHASE 1
9	COLOR CHANGING	31	BLUE & GREEN CHASE 2
10	SLOW FLOW 1	32	WHITE & GREEN CHASE 1
11	FAST FLOW 1	33	WHITE & GREEN CHASE 2
12	FAST FLOW 2	34	RAINBOW CHASE 1
13	BLACK RUN 1	35	RAINBOW CHASE 2
14	ROLL CHASE	36	RAINBOW CHASE 3
15	ROLL COLOR	37	RAINBOW CHASE 4
16	COLOR 1/4	38	RAINBOW CHASE 5
17	COLOR1 1/4	39	AUTO PROGRAM
18	COLOR 1/2	40	TEST MODE
19	COLOR FLASH	41	ADDRESS MODE
20	BLUE & WHITE FLOW	42	FACTORY SETTINGS LOAD
21	RED & GREEN FLOW	43	DMX 512 MODE
22	GREEN & BLUE FLOW		

Auto Program will cycle through all 29 programs

Rainbow PP II™		DMX Traits
Channel	Value	PROGRAM SELECTION
1 ↓	0 - 5	BLACKOUT
	6 - 11	STATIC RED
	12 - 17	STATIC GREEN
	18 - 23	STATIC YELLOW
	24 - 29	STATIC BLUE
	30 - 35	STATIC PURPLE
	36 - 41	STATIC CYAN
	42 - 47	STATIC WHITE
	48 - 53	FAST COLOR CHANGING
	54 - 59	SLOW FLOW CHASE 1
	60 - 65	FAST FLOW CHASE 1
	66 - 71	FAST FLOW CHASE 2
	72 - 77	BLACK RUN 1
	78 - 83	ROLL CHASE
	84 - 89	COLOR ROLL
	90 - 95	COLOR 1/4
	96 - 101	COLOR 1 1/4
	102 - 107	COLOR 1 1/4
	108 - 113	COLOR FLASH
	114 - 119	BLUE & WHITE FLOW
	120 - 125	RED & GREEN FLOW
	126 - 131	GREEN & BLUE FLOW
	132 - 137	RED & BLUE FLOW
	138 - 143	RED & GREEN CHASE 1
	144 - 149	RED & GREEN CHASE 2
	150 - 155	RED & BLUE CHASE 1
	156 - 161	RED & BLUE CHASE 2
	162 - 167	RED & WHITE CHASE 1
168 - 173	RED & WHITE CHASE 2	
174 - 179	BLUE & GREEN CHASE 1	
180 - 185	BLUE & GREEN CHASE 2	
186 - 191	WHITE & GREEN CHASE 1	
192 - 197	WHITE & GREEN CHASE 2	

Rainbow PP II™		DMX Traits cont.
Channel	Value	Function
1 ↓	198 - 203	RAINBOW CHASE 1
	204 - 209	RAINBOW CHASE 2
	210 - 215	RAINBOW CHASE 3
	216 - 221	RAINBOW CHASE 4
	222 - 255	RAINBOW CHASE 5
2	0 - 255	SPEED SLOW → FAST
3	0 - 255	TIME INTERVAL
4	0 - 255	STROBE SPEED SLOW → FAST

**FOR THESE CHANNELS TO WORK, CHANNEL 1 HAS TO HAVE A VALUE OF "0", OR BASICALLY BE "OFF".**

Channel	Value	Function
2	0 - 255	STATIC RED 0 → 100%
3	0 - 255	STATIC GREEN 0 → 100%
4	0 - 255	STATIC BLUE 0 → 100%

**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.

H. Lamps are not covered under this or any other warranty either written or implied.

**Model: Rainbow PP II™**

<b>Voltage*:</b>	120v~60Hz or 220v~50/60Hz
<b>Dimensions:</b>	18.0 (L) X 5.08 (W) X 12.7 (H) cm 7.1" (L) X 2.0" (W) X 5.0"(H)
<b>Working Position:</b>	Any Safe Position
<b>Weight:</b>	1.0 lbs/ 0.4 Kgs.
<b>Warranty:</b>	1 Year (365 Days)

\* Voltage is preset at the factory and is not user selectable.

**Model: Rainbow Tube II™**

<b>Voltage*:</b>	120v~60Hz or 220v~50/60Hz
<b>Dimensions:</b>	100cm (L) X 5cm (W) X 7.5cm (H) 39.7" (L) X 1.96" (W) X 2.95"(H)
<b>Working Position:</b>	Any Safe Position
<b>Weight:</b>	3.9 lbs/ 1.8 Kgs.
<b>Warranty:</b>	1 Year (365 Days)

\* Voltage is preset at the factory and is not user selectable.

**Please Note:** Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

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