



# P64 LED PLUS

*American DJ*



## *User Instructions*

### P64 LED Plus

### Introduction

**Unpacking:** Thank you for purchasing the P64 LED Plus by American DJ®. Every P64 LED Plus 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 fixture for any damage and be sure all accessories necessary to operate the unit has arrived intact. In the case damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Do not return this unit to your dealer without first contacting customer support.

**Introduction:** The P64 LED Plus is part of American DJ's continuing pursuit for creating high quality affordable intelligent fixtures. The P64 LED Plus is a DMX intelligent LED Par Can. This Par Can is light weight and compact which makes it a great piece for mobile DJ's and clubs. The P64 LED Plus has 4 operating modes; sound-active, auto mode, RGB mode, or controlled via DMX controller. It can be used as a stand alone unit or in a master-slave configuration.

**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 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 manufactures warranty. In the unlikely event your unit may require service please contact American DJ®.

**PLEASE recycle the shipping carton when ever possible.**

## P64 LED Plus

## General Instructions

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of 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.

## P64 LED Plus

## Features

- Multi-Colors
- Color Strobe
- Electronic Dimming 0-100%
- Built in Microphone
- 4 Operating Modes; Sound Active, Auto, RGB, DMX Control
- Uses 6 DMX Channels
- Stand Alone or Master-Slave Configuration

## P64 LED Plus

## Warranty Registration

The P64 LED Plus carries a 3 year (1095 days) limited warranty. Please fill out the enclosed warranty card to validate your purchase and warranty. You may also register your product online at [www.americandj.com](http://www.americandj.com). 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.

## P64 LED Plus

## Safety Precautions

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- Do not spill water or other liquids into or on to your unit.
- Be sure that the local power outlet match that of the required voltage for your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken. 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 cover under any conditions. There are no user serviceable parts inside.
- Never operate this unit when it's cover is removed.
- 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.
- 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-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the point they exit from the unit.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 13 for cleaning details.
- Heat -The appliance 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 appliance does not appear to operate normally or exhibits a marked change in performance.

## P64 LED Plus

## 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® P64 LED Plus. The American DJ® P64 LED Plus is available in a 120v and 220v version. Because line voltage may vary from venue to venue, you should be sure your unit voltages matches the wall outlet voltage before attempting to operate you fixture.

**DMX-512:** DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “OUT” XLR terminals located on all DMX fixtures (most controllers only have a DATA “OUT” terminal).

**DMX Linking:** DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

**Dipswitches in DMX mode:** This unit uses dipswitches to assign a DMX address. Each dipswitch represents a binary value.

- Dipswitch 1 address equals 1
- Dipswitch 2 address equals 2
- Dipswitch 3 address equals 4
- Dipswitch 4 address equals 8
- Dipswitch 5 address equals 16
- Dipswitch 6 address equals 32
- Dipswitch 7 address equals 64
- Dipswitch 8 address equals 128
- Dipswitch 9 address equals 256

*Dipswitch 10 - Some units omit dipswitch 10. When a unit does include dipswitch #10, it is usually used for special functions such as sound activation.*

## P64 LED Plus

## Set Up

**Assigning DMX Address:** Each dipswitch has a preset value. A specific DMX address is set by combining the dipswitches that sum your desired value. For example: To achieve a DMX address of 7, combine dipswitches 1, 2, and 3. Since dipswitch 1 has a value of 1, dipswitch 2 has a value of 2, and dipswitch 3 has a value of 4, the combination of the three create a DMX value of 7. (See example below).

Set DMX address 1:	Set DMX address 7:
Dip-switches # 1 = 1	Dip-switches # 1 = 1
	2 = 2
	3 = 4
	= 7

### Data Cable (DMX Cable) Requirements (For DMX Operation):

The P64 LED Plus can be controlled via DMX-512 protocol. The P64 LED Plus is a six channel DMX unit. The DMX address is set on the back panel of the P64 LED Plus. Your unit and your DMX controller require a approved DMX-512 110 Ohm Data cable for data input and data output. We recommend Accu-Cable DMX cables. If you are making your own cables, be sure to use standard 110-120 Ohm shielded cable (This cable may be purchased at almost all professional 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 cannot be split.



Figure 1

**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.

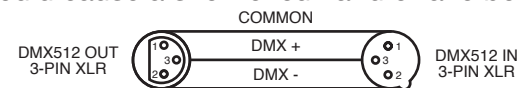


Figure 2

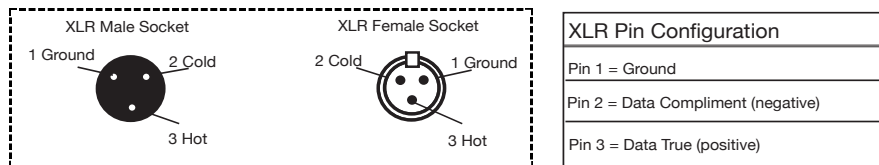


Figure 3

**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 110-120 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 Z-DMX/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

**5-Pin XLR DMX Connectors.** Some manufactures use 5-pin DMX-512 data cables for DATA transmission in place of 3-pin. 5-pin DMX fixtures may be implemented in a 3-pin DMX line. When inserting standard 5-pin data cables in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Do Not Use
Not Used		Do Not Use

**Operating Modes:**

You can use the P64 LED Plus in four ways:

- Sound-Active mode - The unit will react to sound, chasing through the built in programs.
- Auto Mode - The unit will automatically chase through the different colors.
- RGB Mode - Choose a single color or colors to stay static.
- DMX control mode - This function will allow you to control each individual fixtures traits with a standard DMX 512 controller such as the Elation® Show Designer™.

**Sound Active Mode:**

In this mode the P64 LED Plus will react to sound, and chase through the different colors.

1. Plug the fixture in and put dipswitch #10 in the “ON” postion.
2. The fixture will now change via sound.

**Auto Mode:**

1. Plug the fixture in and put dipswitches # 9 and 10 in the “ON” postion.
2. Adjust the speed by adjusting dipswitches 1-7.

**RGB Mode:**

1. Plug the fixture in and put dipswitches #8, 9, and 10 in the “ON” postion.
2. Dipswitch #1 alone will project Red at 25% intensity, dipswitch #2 alone will project Red at 50% intensity. Combine dipswitches 1 & 2 and Red will be projected at 100% intensity.

Dipswitch #3 alone will project Green at 25% intensity, dipswitch #4 alone will project Green at 50% intensity. Combine dipswitches 3 & 4 and Green will be projected at 100% intensity.

Dipswitch #5 alone will project Blue at 25% intensity, dipswitch #6 alone will project Blue at 50% intensity. Combine dipswitches 5 & 6 and Blue will be projected at 100% intensity.

**DMX Mode:**

Operating through a DMX controller give the user the freedom to create their own programs tailored to their own individual needs. This

function also allows you to use your fixtures as spot lights. To help set up DMX Control refer to the set-up specifications that come with your DMX controller as well.

1. This function will allow you to control each individual fixture's traits with a standard DMX 512 controller such as the Elation® Show Designer™ or the Elation® DMX Operator.™
2. The P64 LED Plus uses six DMX channels to operate see page 10 for the DMX traits.
3. Follow the set-up procedures on pages 5-7 as well as the set-up specifications that are included with your DMX controller.
3. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller. Set your desired DMX address following the dipswitch cart on page 12.

**Master-Slave Operation:**

This function will allow you to link units together to run in a Master-Slave mode. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling units built-in programs. Any unit can act as a Master or as a Slave however, only one unit can be programmed to act as the "Master."

**Master-Slave Connections and Settings:**

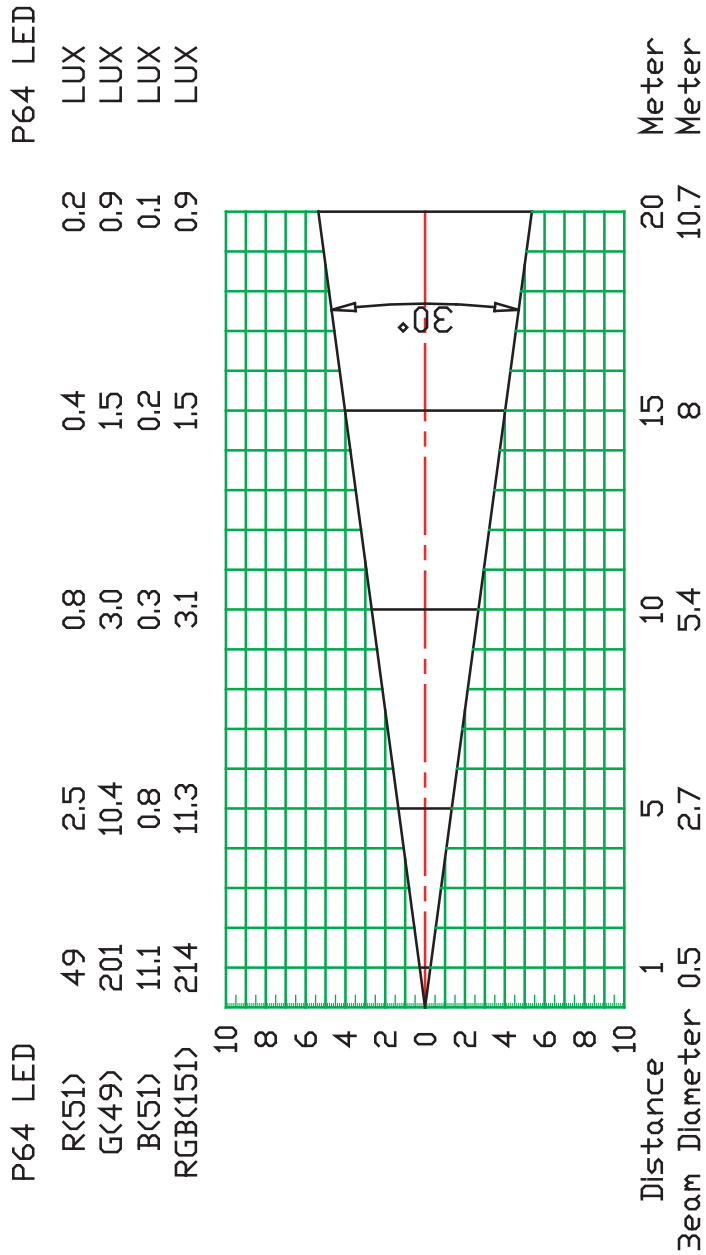
1. Daisy chain your units via the XLR connector on the rear of the unit. Use standard XLR microphone cables to link your units together. Remember that the Male XLR connector is the input and the Female XLR connector is the output. The first unit in the chain (master) will use the female XLR connector only. The last unit in the chain will use the male XLR connector only.
2. Using the Master unit, choose your desired mode of operation and connect the "Slave" unit or units.
3. Set all the dipswitches on the "Slave" unit(s) to the "Off" position. The "Slave" unit(s) will now follow the "Master" unit.

Channel	Value	Function
1	0 - 255	RED 0% → 100%
2	0 - 255	GREEN 0% → 100%
3	0 - 255	BLUE 0% → 100%
4	8 - 255	COLOR MACRO
5	0 - 15 16 - 255	NOTHING STROBING
6	0 - 31  32 - 63 64 - 95 96 - 127 128 - 159 160 - 191 192 - 223 224 - 255	NOTHING DIMMING CONTROL DIM → BRIGHT BRIGHT → DIM DIM → BRIGHT → DIM COLOR MIXING 3 COLOR CHANGE 7 COLOR CHANGE SOUND ACTIVE

Channel 1, 2, and 3 will not work, when Channel 4 is being used. When units are daisy chained together in DMX Mode, channels 1, 2, and 3 must be **"OFF"** for units to sync together when using Channel 4.

When the value of Channel 6 is between 32 and 127, you must be using Channels 1, 2, 3, or all three combined.

When using Channel 6, Channel 5 will control the speed of the color changing.



This chart list the DMX dipswitch setting for DMX address 1 through 511. Follow the instructions below to configure fixture dipswitches with your desired DMX address.

DMX Address Quick Reference Chart

DIP SWITCHES					Dip Switch Position																	
DMX DIP Switch Settings					#9	X	X	X	X	X	X	X	O	O	O	O	O	O	O	O	O	O
X = OFF					#8	X	X	X	X	O	O	O	O	X	X	X	X	O	O	O	O	
O = ON					#7	X	X	O	O	X	X	O	O	X	X	O	O	X	X	O	O	
					#6	X	O	X	O	X	O	X	O	X	O	X	O	X	O	X	O	
#1	#2	#3	#4	#5																		
X	X	X	X	X	3	64	96	128	160	192	224	256	288	320	352	384	416	448	480			
O	X	X	X	X	1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481		
X	O	X	X	X	2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482		
O	O	X	X	X	3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483		
X	X	O	X	X	4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484		
O	X	O	X	X	5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485		
X	O	O	X	X	6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486		
O	O	O	X	X	7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487		
X	X	X	O	X	8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488		
O	X	X	O	X	9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489		
X	O	X	O	X	10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490		
O	O	X	O	X	11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491		
X	X	O	O	X	12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492		
O	X	O	O	X	13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493		
X	O	O	O	X	14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494		
O	O	O	O	X	15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495		
X	X	X	X	O	16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496		
O	X	X	X	O	17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497		
X	O	X	X	O	18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498		
O	O	X	X	O	19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499		
X	X	O	X	O	20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500		
O	X	O	X	O	21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501		
X	O	O	X	O	22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502		
O	O	O	X	O	23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503		
X	X	X	O	O	24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504		
O	X	X	O	O	25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505		
X	O	X	O	O	26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506		
O	O	X	O	O	27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507		
X	X	O	O	O	28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508		
O	X	O	O	O	29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509		
X	O	O	O	O	30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510		
O	O	O	O	O	31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511		

The DIP numbers of this chart (1-511) represent a DMX address. The "X"s and "O"s along the top and side of the chart represent dip switch position ("X" for off and "O" for on). Find your desired DMX address from the center chart. Identify the position for dip switches 1-5 from the chart on the left and dip switches 6-9 from the chart on the top. Adjust the dip switches on your fixture to match the position settings of the chart. For fixtures with 10 dip switches; dip switch 10 is reserved for special functions.

Listed below are a few common problems the user may encounter, with solutions.

#### **Unit not responding to DMX:**

1. Check that the DMX cables are connected properly and are wired correctly (pin 3 is “hot”; on some other DMX devices pin 2 may be ‘hot’). Also, check that all cables are connected to the right connectors; it does matter which way the inputs and outputs are connected.

#### **Unit does not respond to sound:**

1. Quiet or high pitched sounds will not activate the unit.

*If problems are not resolved; Contact American DJ® for service.  
1-800-322-6337*

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. Clean the external optics with glass cleaner and a soft cloth every 20 days.
3. Always be sure to dry all parts completely before plugging the unit back in.

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

#### MANUFACTURER’S LIMITED WARRANTY

A. American DJ, Inc. hereby warrants, to the original purchaser, American DJ and American Audio products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). 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 you must obtain a Return Authorization number (RA#) before sending back the product. Contact American DJ, Inc. Service Department at 800-322-6337. Send the product only to the American DJ, Inc. 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, Inc. 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, Inc. 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, Inc. concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American DJ, Inc. factory unless prior written authorization was issued to purchaser by American DJ, Inc.; 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, Inc. will replace defective parts at its expense with new or refurbished parts, 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, Inc. 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, Inc. 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. 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, Inc. 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, Inc. be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

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

#### MANUFACTURER’S LIMITED WARRANTY PERIODS:

- All American Audio Products = 1-year (365 day) Limited Warranty (except V-Plus Series Amplifiers)
- All American Audio V-Plus Series Amplifiers = 3-year (1095 day) Limited Warranty
- American DJ Lighting and American DJ Branded Products = 1-year (365 day) Limited Warranty (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding Laser Products and lamps)
- American DJ Laser Products = 90-Day Limited Warranty
- American DJ L.E.D. Products = 3-year (1095 day) Limited Warranty (excluding motors which have a 1-year (365 day Limited Warranty)

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**Model: P64 LED Plus**SPECIFICATIONS:

Working Position:	Any safe working position
Voltage:	120v~60Hz / 230v~50Hz
Power Draw:	0.2 Amps
Beam Angle:	30 Degree
Weight:	5lbs./ 2.2Kgs.
Dimensions:	11.5" (L) x 10.5" (W) x 13.5" (H)
Colors:	RGB Color Mixing
Warranty:	3 Years (1095 days)

**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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