

American DJ® COLOR_{250D}



User Instructions

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

Rev. 4/05

Color 250D™

Introduction

Unpacking: Thank you for purchasing the Color 250D™ by American DJ®. Every Color 250D™ 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 Color 250D™ is part of American DJ's continuing pursuit for creating high quality affordable intelligent fixtures. The Color 250D™ is a DMX intelligent color changer. This unit is light weight and compact which makes it a great piece for mobile DJ's and clubs. This unit can be used as a stand alone, sound-active unit or in a Master/Slave configuration. The unit can also be controlled via DMX controller. For best results use this unit with a fog machine to enhance the output of the beams.

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 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

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.

Color 250D™

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.

Color 250D™

Features

- 7 colors plus white
- Two Color Strobe
- Electronic Dimming 0-100%
- Built in Microphone
- Run up to 16 heads without controller
- DMX-512 protocol
- Fan cooled
- Uses three DMX Channels
- Optional MINI/C or Wireless/C (Not Included)
- Easy Lamp Replacement

Color 250D™

Warranty Registration

The Color 250D™ carries a 1 year (365 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. 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.

Color 250D™

Safety Precautions

Safety Issue: This unit may blow the breaker if the maximum allotted load of 5 amps is reached. If the breaker needs resetting, please see the breaker reset guidelines on page 11.

- 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 12 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.

Power Supply: Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® Color 250D.™ The American DJ® Color 250D™ 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.

Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation):

The Color 250D™ can be controlled via DMX-512 protocol. The Color 250D™ is a three channel DMX unit. The DMX address is set on the back panel of the Color 250D™. Your unit and your DMX 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 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.

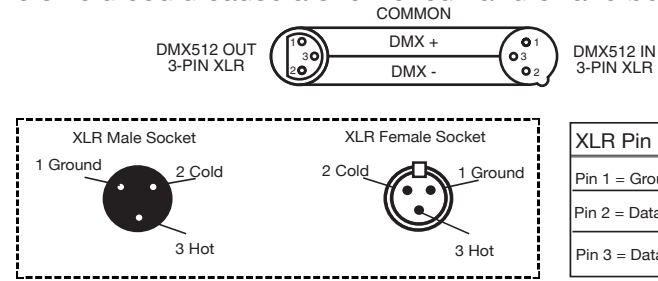


Figure 2

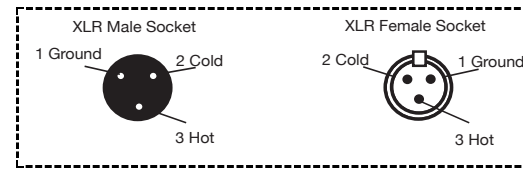


Figure 3

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 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 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 XLR connectors for DATA transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors 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 Color 250D™ in four ways:

- Sound-Active mode - The unit will react to sound, chasing through the built in programs.
- Master/Slave mode - You can daisy chain up to 16 units together to get a synchronized light show that will react to sound, chasing through built in programs.
- 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 Color 250D will react to sound, and chase through the different colors.

1. Switch dipswitch #10 to the “ON” position.
2. Plug the fixture in and it will chase through its colors via sound.

Master-Slave Operation:

This function will allow you to link up to 16 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.”

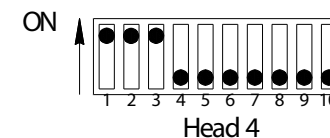
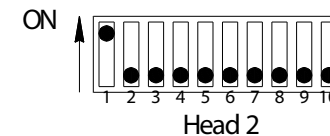
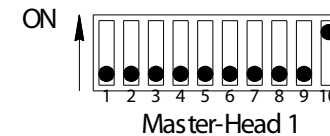
Master-Slave Connections and Settings:

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. Switch dipswitch #10 to the “ON” position, on the “Master” unit.
3. For the “Slave” units, follow the chart on the next page.
4. Connect the “Slave” unit or units and they will automatically start to follow the “Master.”

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.

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 Color 250D™ uses three DMX channels to operate; Channel 1 is dimming, channel 2 is color, and channel 3 is color strobe.
3. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller. Switch dipswitch #1 to the “ON” position. - Follow the set-up specifications that come with your DMX controller.



Color 250D™		DMX Values and Functions
Channel	Value	Function
1 ↓	0 - 255	DIMMER DIM → BRIGHT
2 ↓	0 - 139	COLOR
	0 - 29	WHITE
	30 - 59	RED
	60 - 89	BLUE
	90 - 119	GREEN
	120 - 149	YELLOW
	150 - 179	ORANGE
	180 - 209	MAGENTA
	210 - 239	PURPLE
	240 - 255	RAINBOW EFFECT SLOW → FAST
3	0 - 255	TWO COLOR STROBE SLOW → FAST

Color 250D™ Dipswitch Chart

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

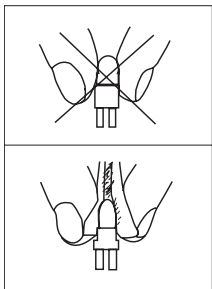
DMX Address Quick Reference Chart

DIP SWITCHES		Dip Switch Position																				
DMX DIP Switch Settings X = OFF O = ON		#9	X	X	X	X	X	X	X	O	O	O	O	O	O	O						
		#8	X	X	X	X	O	O	O	O	X	X	X	O	O	O						
		#7	X	X	O	O	X	X	O	O	X	X	O	O	X	X						
		#6	X	O	X	O	X	O	X	O	X	O	X	O	X	O						
		#1	#2	#3	#4	#5																
X	X	X	X	X	X		32	64	96	128	160	192	224	256	288	320	352	384	416	448	480	
O	X	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	X		2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482
O	O	X	X	X	X		3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483
X	X	O	X	X	X		4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484
O	X	O	X	X	X		5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485
X	O	O	X	X	X		6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486
O	O	O	X	X	X		7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487
X	X	X	O	X	X		8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488
O	X	X	O	X	X		9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489
X	O	X	O	X	X		10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490
O	O	X	O	X	X		11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491
X	X	O	O	X	X		12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492
O	X	O	O	X	X		13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493
X	O	O	O	X	X		14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494
O	O	O	O	X	X		15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495
X	X	X	X	O	X		16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496
O	X	X	X	O	X		17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497
X	O	X	X	O	X		18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498
O	O	X	X	O	X		19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499
X	X	O	X	O	X		20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500
O	X	O	X	O	X		21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501
X	O	O	X	O	X		22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502
O	O	O	X	O	X		23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503
X	X	X	O	O	X		24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504
O	X	X	O	O	X		25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505
X	O	X	O	O	X		26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506
O	O	X	O	O	X		27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507
X	X	O	O	O	X		28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508
O	X	O	O	O	X		29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509
X	O	O	O	O	X		30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510
O	O	O	O	O	X		31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511

The center 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.

Color 250D™

Halogen Lamp Warning



This fixture is fitted with halogen lamps which are highly susceptible to damage if improperly handled. Never touch the inside 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.

Color 250D™

Lamp Replacement

Lamp Replacement: Caution! *Never open the unit when in use. Always disconnect the main power 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. Unscrew the two thumb screws on the bottom of the unit.
3. Remove the lamp cover.
4. Remove and replace the bulb.
5. Reassemble.

Color 250D™

Breaker Reset

Breaker Reset: This unit is equipped with a built-in safety breaker. This breaker is designed to close the power circuit in the event of an internal short or power surge. This will reduce the risk of electrical shock or fire and protect the circuitry. To reset the breaker, push the breaker button in until you hear it “pop” back in to place. If the breaker continues to pop, stop using the unit and contact our customer support team, the unit may need to be returned for service.

Color 250D™

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.
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 back in.

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

Color 250D™

Trouble Shooting

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

No light from the unit:

1. Check if the (green) LED (on the back) is lit and the fan is running.
2. Check the breaker in the back panel.
3. Check if lamp is lit. If power is present but the lamp is not lit, the lamp may need to be replaced.

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

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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: Color 250D™SPECIFICATIONS:

Working Position:	Any safe working position
Voltage:	120V
Lamp:	ZB ELC10 24V 250W
Weight:	7.5lbs./ 3.4Kgs.
Dimensions:	11" (L) x 9" (W) x 9.5" (H)
Breaker:	5 Amp
Colors:	7 colors + white
Cooling:	Fan Cooled
Warranty:	1 Year (365 days)

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

©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 / E-mail: info@americandj.com