

Double Derby X

Snapshot

OK on Dimmer	⊘
Outdoor OK	⊘
Sound Activated	✓
DMX512	✓
Master/Slave	⊘
115V/230V Switch	⊘
Replaceable Fuse	✓
User Serviceable	⊘
Duty Cycle	⊘

USER MANUAL



Value - Innovation - Performance
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1. BEFORE YOU BEGIN

What Is Included

- Ø 1 x Double Derby X
- Ø Power Cord
- Ø Warranty Card
- Ø User Manual

Unpacking Instructions

Immediately upon receiving, carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a product must be returned to the factory, it is important that the product be returned in the original factory box and packing.

AC Power

This product has an auto-switching power supply that can accommodate a wide range of input voltages. The only thing necessary to do before powering on the unit is to make sure the line voltage you are applying is within the range of accepted voltages. This product will accommodate between 100V and 240V AC 50-60 Hz. All products must be powered directly off a switched circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.

Safety Instructions



Please read these instructions carefully, which includes important information about the installation, usage and maintenance of this product.

- Please keep this User Manual for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the product.
- This product is intended for indoor use only! (If applicable)
- To prevent risk of fire or shock, do not expose product to rain or moisture. Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least 20in (50cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect from power source before servicing or replacing lamp or fuse and be sure to replace with same lamp source.
- Secure product to fastening device using a safety chain. Never carry the product solely by its head. Use its carrying handles.
- Maximum ambient temperature (Ta) is 104°F (40°C). Do not operate product at temperatures higher than this.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- Never connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.
- Do not daisy chain power to more than 37 units @ 120V and 70 @ 230V

Caution!

There are no user-serviceable parts inside the product. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact CHAUVET® Technical Support.

2. INTRODUCTION

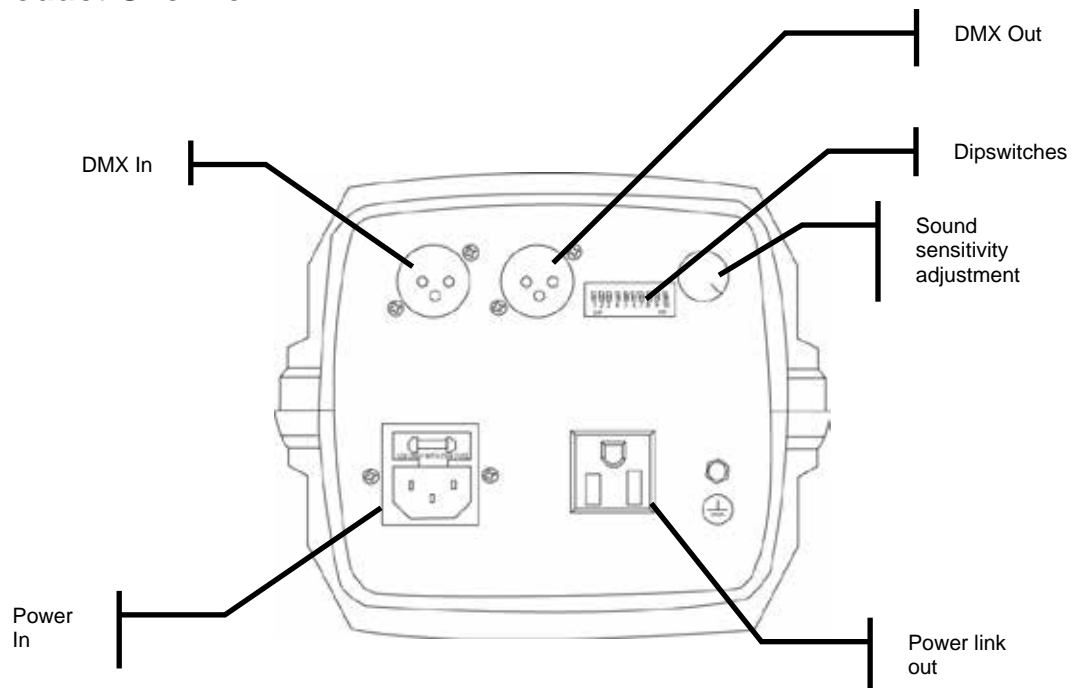
Features

- 2-channel DMX-512 LED derby effect
- Continuous rotation or back and forth motor control
- Built-in automated programs via master/slave or DMX
- Built-in sound activated programs via master/slave or DMX
- High-power, 3 W (730 mA) LEDs
- Linkable with LED Mushroom and Kinta™ X
- Mount multiple units together with adjustable, included x-bracket
- Additional power output: max 37 units @ 120V and 70 units @ 230V

DMX Channel Summary

- Channel 1: Control/operating mode
- Channel 2: Motor rotation

Product Overview



4. SETUP

Fuse Replacement

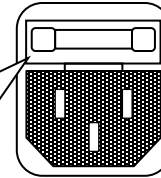


Disconnect the power cord before replacing a fuse and always replace with the same type fuse.



With a flat-head screwdriver wedge the fuse holder out of its housing. Remove the damaged fuse from its holder and replace with exact same type fuse. Insert the fuse holder back in its place and reconnect power.

The fuse is located inside this compartment. Remove using a flat head screwdriver.



Product Linking

You will need a serial data link to run light shows of one or more products using a DMX-512 controller or to run synchronized shows on two or more products set to a master/slave operating mode. The combined number of channels required by all the products on a serial data link determines the number of products the data link can support.

Important: Products on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard no more than 32 devices should be connected on one data link. Connecting more than 32 products on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.

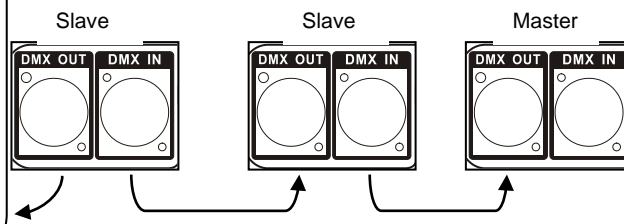
Maximum recommended serial data link distance: 1,640 ft (500 m).

Maximum recommended number of products on a serial data link: 32 products

Master/Slave Product Linking

1. Connect the (male) 3-pin connector side of the DMX cable to the output (female) 3-pin connector of the first product.
2. Connect the end of the cable coming from the first product which will have a (female) 3-pin connector to the input connector of the next product consisting of a (male) 3-pin connector. Then, proceed to connect from the output as stated above to the input of the following product and so

Often, the setup for Master-Slave and Standalone operation requires that the first product in the chain be initialized for this purpose via either settings in the control panel or DIP-switches. Secondly, the products that follow may also require a slave setting. Please consult the "Operating Instructions" section in this manual for complete instructions for this type of setup and configuration.



on.

Mounting

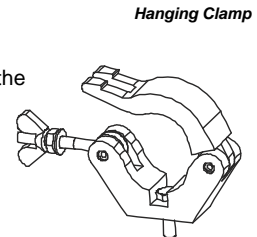
Orientation

This product may be mounted in any safe position, provided there is adequate room for ventilation.

Rigging

It is important never to obstruct the fan or vents pathway. Mount the product using a suitable "C" or "O" type clamp. Adjust the angle of the product by loosening both knobs and tilting the product. After finding the desired position, retighten both knobs.

- When selecting installation location, take into consideration lamp replacement access and routine maintenance.
- Safety cables must always be used.
- Never mount in places where the product will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.
- Do not mount more than 3 products using the X-bracket.



Note!
Clamp is sold separately.

Note: The X-bracket is compatible with linking DerbyX, Double Derby X, and Kinta™ X.



5. OPERATING INSTRUCTIONS

Standalone Mode (Sound-Active, Auto Mode):

This mode allows a single unit to run to the beat of the music.

- 1) Set dipswitches position to Sound Active or Auto Mode.

Mode	Dipswitches
Sound Active	1-10= Off

- 2) The unit will react to the low frequencies of music via the internal microphone in Sound Active mode
- 3) Use the audio sensitivity knob on the back of the unit to make the unit more or less sensitive in Sound-Active mode. Turning the knob counterclockwise decreases the sensitivity; turning the knob clockwise increases the sensitivity.

DMX Mode

If you are unfamiliar with DMX, download the **DMX Primer** from the www.chauvetlighting.com website.

- 1) Set dipswitches position to DMX mode.

Mode	Dipswitches
DMX	10= On

- 2) Use dipswitches 1-9 to set the DMX address.

DMX Channel Values

CHANNEL	VALUE	FUNCTION
1	000 ∘ 014	Control/Operating Mode
	015 ∘ 100	No function
	101 ∘ 255	LED's on
		Auto
2	001 ∘ 085	Motor Rotation
	086 ∘ 170	Counter-clockwise motor rotation (Slow ~ Fast)
	171 ∘ 255	Clockwise motor rotation (Slow ~ Fast)
		Motor rotation right-to-left-to-right (Slow ~ Fast)

Note: Channel 1 will override the motor control channel (channel 2)

Setting the Starting Address

Set the start address using the group of DIP switches located usually on bottom of the product. Each dip switch has an associated value. Adding the value of each switch in the ON position will provide the start address. Figuring out which switches to toggle ON given a specific start address can be accomplished by determining which switch values will add up to the address value, and turning these switches on. Do so by doing the following:

- 1) Determine the largest value switch that is less than the start address. Turn this switch on.
- 2) Subtract the value of the switch you just turned on from the starting address number.
- 3) Determine the largest value switch that is less than the remainder from the previous subtraction. Turn this switch on.
- 4) Subtract the value of the switch you just turned on from the remainder of the previous subtraction.
- 5) Repeat steps three and four until you have a remainder of zero.

EXAMPLE STARTING ADDRESS

<p>Address 10</p> <p>Switch # 4 = 8 Switch # 2 = 2 Total = 10</p>	<p>256 128 64 32 16 8 4 2 1</p> <p>9 8 7 6 5 4 3 2 1</p>																				
<p>Address 24</p> <p>Switch # 5 = 16 Switch # 4 = 8 Total = 24</p>	<p>256 128 64 32 16 8 4 2 1</p> <p>9 8 7 6 5 4 3 2 1</p>																				
<p>Resolving address using simple math.</p> <p>Address 233</p>	<p>233 - (128) = 105, Turn ON Dip # 8 105 - (64) = 41, Turn ON Dip # 7 41 - (32) = 9, Turn ON Dip # 6 9 - (8) = 1, Turn ON Dip # 4 1 - (1) = 0, Turn ON Dip # 1</p> <table border="1" style="margin-left: auto; margin-right: 0;"> <thead> <tr> <th>DIPSWITCH</th> <th>(DMX VALUE)</th> </tr> </thead> <tbody> <tr><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>4</td><td>8</td></tr> <tr><td>5</td><td>16</td></tr> <tr><td>6</td><td>32</td></tr> <tr><td>7</td><td>64</td></tr> <tr><td>8</td><td>128</td></tr> <tr><td>9</td><td>256</td></tr> </tbody> </table>	DIPSWITCH	(DMX VALUE)	1	1	2	2	3	4	4	8	5	16	6	32	7	64	8	128	9	256
DIPSWITCH	(DMX VALUE)																				
1	1																				
2	2																				
3	4																				
4	8																				
5	16																				
6	32																				
7	64																				
8	128																				
9	256																				

DMX Quick Reference Chart

DMX Address Quick Reference Chart

Dip Switch Position

DMX DIP SWITCH SET 0=OFF 1=ON X=OFF or ON					Dip Switch Position																				
#9	#8	#7	#6		#1	#2	#3	#4	#5																
0	0	0	0	0	0	0	0	0	0	32	64	96	128	160	192	224	256	288	320	352	384	416	448	480	
1	0	0	0	0	1	0	0	0	0	1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481
0	1	0	0	0	2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482					
1	1	0	0	0	3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483					
0	0	1	0	0	4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484					
1	0	1	0	0	5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485					
0	1	1	0	0	6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486					
1	1	1	0	0	7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487					
0	0	0	1	0	8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488					
1	0	0	1	0	9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489					
0	1	0	1	0	10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490					
1	1	0	1	0	11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491					
0	0	1	1	0	12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492					
1	0	1	1	0	13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493					
0	1	1	1	0	14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494					
1	1	1	1	0	15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495					
0	0	0	0	1	16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496					
1	0	0	0	1	17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497					
0	1	0	0	1	18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498					
1	1	0	0	1	19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499					
0	0	1	0	1	20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500					
1	0	1	0	1	21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501					
0	1	1	0	1	22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502					
1	1	1	0	1	23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503					
0	0	0	1	1	24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504					
1	0	0	1	1	25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505					
0	1	0	1	1	26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506					
1	1	0	1	1	27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507					
0	0	1	1	1	28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508					
1	0	1	1	1	29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509					
0	1	1	1	1	30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510					
1	1	1	1	1	31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511					

Dip Switch Position

DMX Address

6. APPENDIX

General Maintenance

To maintain optimum performance and minimize wear products should be cleaned frequently. Usage and environment are contributing factors in determining frequency. As a general rule, products should be cleaned at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced lamp life and increased mechanical wear. Be sure to power off product before conducting maintenance.

Unplug product from power. Use a vacuum or air compressor and a soft brush to remove dust collected on external vents and internal components. Clean all glass when the product is cold with a mild solution of glass cleaner or Isopropyl Alcohol and a soft lint free cotton cloth or lens tissue. Apply solution to the cloth or tissue and drag dirt and grime to the outside of the lens. Gently polish optical surfaces until they are free of haze and lint.

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the product operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics. Clean with soft cloth using normal glass cleaning fluid. - Always dry the parts carefully. - Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will be refused. Call CHAUVET® and request RMA # prior to shipping the product. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack product, any shipping damage resulting from inadequate packaging is the customer's responsibility. CHAUVET® reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper FedEx packing or double-boxing are recommended.

Note: If you are given an RMA #, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) The RMA #
- 5) A brief description of the symptoms

Claims

Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise. It is the customer's responsibility to notify and submit claims with the shipper in the event that a product is damaged due to shipping. Any other claim for items such as missing component/part, damage not related to shipping, and concealed damage, must be made within seven (7) days of receiving merchandise.

Troubleshooting Guide

Symptom	Possible Solution
Auto shut off	Check fan thermal switch reset
Beam is very dim or not bright	Clean optical system or replace lamp Check 220/110v switch for proper setting
Chase is too slow	Check speed adjustment
Device has no power	Check for power on Mains. Check device's fuse. (internal and/or external)
Product is not responding	Check DMX Dip switch settings for correct addressing Check DMX cables Check polarity switch settings
Product is on but there is no movement to the audio	Make sure you have the correct audio mode on the control switches. If audio provided via ¼" jack, make sure a live audio signal exists Adjust sound sensitivity knob
Lamps cuts off sporadically	Possible bad lamp or product is overheating. Lamp may be at end of its life.
Light will not come on after power failure	Some discharge lamps require a cooling off period before the electronics in the product can kick start it again, wait 5 to 10 minutes before powering up
Loss of signal	Use only DMX cables Install terminator Note: Keep DMX cables separated from power cables or black lights.
Moves slow	Check 220/110v switch for proper setting
No flash	Re-install bulb, may have shifted in shipping
No laser output	Bounce mirror motor may have shifted during shipping, readjust
No light output	Check slip ring & brushes for contact Install bulb Call service technician
Remote does not work	Make sure connector is firmly attached to device
Standalone mode not working	Stand-alone functions do not require additional settings, once powered up, the product should automatically enter this mode

If you still have a problem after trying these solutions, please contact CHAUVET® Technical Support.

Technical Specifications

WEIGHT & DIMENSIONS

Length..... 11.1 in (283 mm)
Width..... 11.7 in (297 mm)
Height..... 10.4 in (264 mm)
Weight..... 6 lbs (2.7 kg)

POWER

Autoswitching..... 100-240VAC 50/60Hz
Fuse..... F1A 250V
Power Consumption24W (0.2A) max @ 120V
Inrush Power..... (0.6A) @ 120V
Power Output.....37 units max @ 120V, 70 units max @ 230V

LIGHT SOURCE

LED..... 3 x 3W (730mA) (1 Red, 1 Green, 1 Blue) 50,000 hrs

PHOTO OPTIC

Coverage Angle 132°

THERMAL

Maximum ambient temperature 104°F (40°C)

CONTROL & PROGRAMMING

Data input..... locking 3-pin XLR male socket
Data output locking 3-pin XLR female socket
Data pin configuration pin 1 shield, pin 2 (-), pin 3 (+)
Protocols DMX-512 USITT
DMX Channels..... 2

ORDERING INFORMATION

Double Derby X..... DOUBLEDERBYX
Included bracket..... XBRACKET

WARRANTY INFORMATION

Warranty 2-year limited warranty

CONTACT Us

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CHAUVET®

General Information

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