

MX-1

user manual

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Introduction	4
Safety precautions	4
Unpacking	5
Parts key	6
Lamp installation	7
<i>To install a lamp in the MX-1</i>	7
AC power connection	8
<i>To change the voltage setting</i>	8
<i>To install a plug on the mains lead</i>	9
Installation	10
<i>To rig the MX-1</i>	10
DIP-switch settings	11
DMX address selection	11
<i>To set the DMX address</i>	11
Special settings	13
Data connection	14
Recommended cable	14
Connections	14
<i>To connect the data link</i>	15
Operation	16
Full DMX operation	16
1-channel DMX operation	16
Stand-alone operation	17
<i>To connect units for master / slave operation</i>	17
Basic service	18
Cleaning	18
<i>To clean optical components</i>	18
<i>To clean the fan and air vents</i>	19
Replacing fuses	19
<i>To replace the main fuse</i>	19
<i>To replace the secondary fuse</i>	19
Troubleshooting	20
DMX protocol	21
Specifications	22

INTRODUCTION

1

Thank you for selecting the Martin MX-1. The MX-1 is an automated profile spotlight that employs a 250 watt halogen lamp. It provides strobe effects, continuous electronic dimming, 18 color/gobo effects, a moving-mirror with 230° of pan and 76° of tilt, adjustable focus, a 16° beam angle, and a variety of control options.

The MX-1 is not for household use. It is not for children: it presents risks of injury due to electric shock, burns, falls, high-intensity light, and fire. For safe operation, read this manual before powering or installing the fixture, follow the safety precautions listed below, and observe all warnings printed in this manual and on the fixture. If you have questions about how to operate the fixture safely, please contact your Martin dealer or call the Martin 24-hour service hotline for assistance.

SAFETY PRECAUTIONS

- **ALWAYS disconnect the fixture from AC power before opening the fixture or removing any part.**
- **ALWAYS keep combustible materials (for example fabric, wood, paper) at least 10 centimeters (4 inches) away from the fixture.**
- **ALWAYS ground (earth) the fixture electrically.**
- **ALWAYS allow the lamp to cool at least 5 minutes before removing the lamp assembly.**
- **ALWAYS, when suspending the fixture above ground level, secure it with an approved safety cable.**
- **ALWAYS refer service to a qualified technician.**
- **ALWAYS provide a minimum clearance of 10 centimeters (4 inches) around the fan and air vent.**
- **ALWAYS block access below the work area when rigging, derigging, or servicing fixtures.**
- **NEVER place flammable materials anywhere near the fixture.**
- **NEVER expose the fixture to rain or moisture.**

- NEVER illuminate surfaces within 0.3 meters (12 inches) of the fixture.
- NEVER operate the fixture if the ambient temperature (T_a) exceeds 40° C (104° F).
- NEVER place filters or other objects over the lens or mirror.
- NEVER stare directly into the light.
- NEVER operate the fixture without all parts installed.
- NEVER modify the fixture or install other than genuine Martin parts.

UNPACKING

The packing material is carefully designed to protect the fixture during shipment - always use it to transport the fixture.

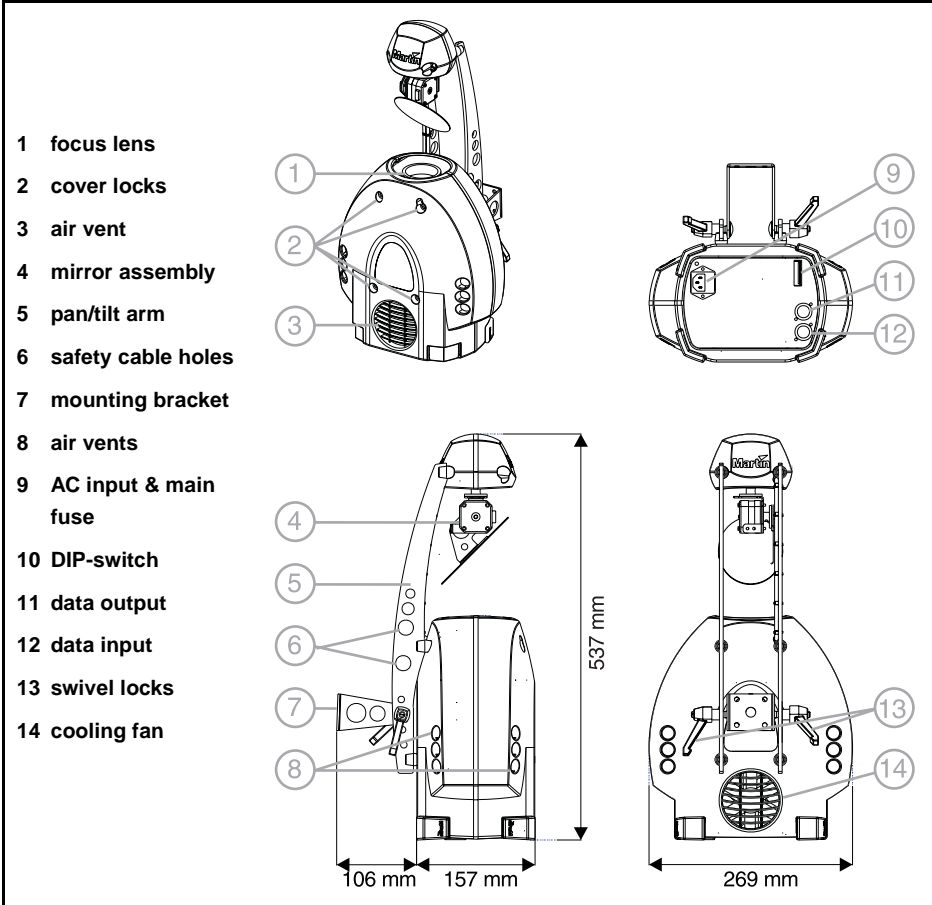
The MX-1 comes with:

- 1 3-meter, 3-wire IEC power cable
- 1 user manual

Important! The mirror assembly is secured for transport with a plastic tie. Cut and remove the tie before use.

PARTS KEY

2



LAMP INSTALLATION

The MX-1 uses a 24V, 250W ELC halogen lamp. Two models are available, an economical 300 hour lamp from Philips and a high-output 50 hour lamp from Osram. Installing any other lamp may damage the fixture.

Allow the lamp to cool for at least 5 minutes before packing and moving the fixture. To avoid possible damage, remove the lamp when shipping the fixture.

Warning! ***Always disconnect the fixture from AC power and allow it to cool for 5 minutes before installing the lamp.***

To install a lamp in the MX-1

- 1 **Disconnect the fixture from AC power. If replacing a hot lamp, allow it to cool for 5 minutes before removing the cover. The lamp cools faster with the cover in place.**
- 2 **Release the 4 cover locks by turning them a quarter-turn counterclockwise. Lift the cover straight off.**
- 3 **To remove the lamp, grasp it by the reflector and pull it out of the holder. Pull the socket straight back off the metal pins. Do not pull the wires.**
- 4 **Push the socket fully onto the pins of the new lamp.**
- 5 **Gently push the lamp into the holder until it snaps into place.**
- 6 **Replace the top cover. To lock the 4 cover locks, turn them a half to a quarter turn clockwise until you feel them click. *Do not overtighten.***

4

AC POWER CONNECTION

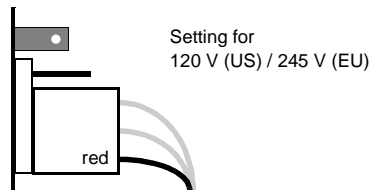
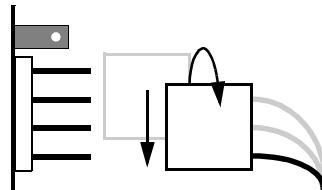
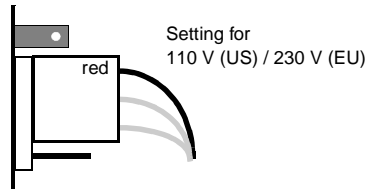
Warning! For safe operation, the fixture must be grounded (earthed).

Important! Check voltage setting before applying power. Do not connect the MX-1 to an electrical dimmer system: doing so can damage the electronics.

Before use verify that the fixture's power supply is correctly tapped for the local AC voltage. The default voltage setting is printed on the serial number label near the AC input. The "EU" version may be set to 230 or 245 V AC and the "US" version may be set to 110 or 120 V AC. Use the setting that is closest to the local supply voltage.

To change the voltage setting

- 1 Disconnect the fixture from AC power. Release the 4 cover locks by turning them a quarter-turn counterclockwise. Lift the cover straight off.
- 2 Locate and disconnect plug PL124 on the back edge of the printed circuit board. It has red, yellow, and blue wires.
- 3 To select 230 V AC (EU version) or 110 V AC (US version), flip and move the plug *up* so that the *red* wire connects to the *top* pin.
- 4 To select 245 V AC (EU version) or 120 V AC (US version), flip and move the plug *down* so that the *red* wire connects to the *bottom* pin.
- 5 Replace the top cover before applying power.




To install a plug on the mains lead

The fixture's mains lead must be fitted with a grounding-type cord cap that fits your power distribution cable or outlet. Consult a qualified electrician if you have any doubts about proper installation.

Important! *Verify that the feed cables are undamaged and rated for the current requirements of all connected devices before use.*

- Following the cord cap manufacturer's instructions, connect the yellow and green wire to ground (earth), the brown wire to live, and the blue wire to neutral. The table below shows some pin identification schemes.

Wire	Pin	Marking	Screw color
brown	live	"L"	yellow or brass
blue	neutral	"N"	silver
yellow/green	ground		green

INSTALLATION

5

The MX-1 can be fastened directly to a suitable surface or to a rigging clamp by means of its adjustable mounting bracket and it can be placed at an angle directly on the stage or floor using the mounting bracket as a floor stand.

Do not lay the fixture flat on its pan/tilt arms. For maximum lamp life, do not place the fixture directly on or beside a speaker cabinet or other source of strong vibrations.

Warning! Block access below the work area before proceeding.

Warning! Always use a secure means of secondary attachment.

To rig the MX-1

- 1 Verify that the clamp is undamaged and can handle the weight of the fixture. Bolt the clamp securely to the bracket with a grade 8.8 (minimum) M12 bolt and lock nut, or as recommended by the clamp manufacturer, through the 13 mm hole in the center of the mounting bracket.
- 2 If fastening the bracket directly to the structure, make sure that the attachment hardware is adequate to hold the fixture securely. The four 6.2 mm holes and/or the 13 mm hole in the mounting bracket may be used.
- 3 Verify that the structure can support the weight of all installed fixtures, clamps, cables, auxiliary equipment, etc.
- 4 Working from a stable platform, clamp or fasten the fixture to the structure.
- 5 Install a safety cable that can hold at least 10 times the weight of the fixture through/over the support and through a hole in the pan/tilt arm.
- 6 Loosen the swivel locks and tilt the fixture to the desired angle. Turn the swivel locks clockwise to tighten.
- 7 If a swivel lock does not tighten fully, pull the handle out, turn it counterclockwise, and retighten. Repeat as necessary.
- 8 Verify that the fixture is located at least 0.3 meters (12 in.) away from the surface to be illuminated and at least 0.1 meters (4 in.) from any combustible materials. Verify that the clearance around the fan and air vents is at least 0.1 meters (4 in.).

DIP-SWITCH SETTINGS

This section describes how to select the control address and special settings using the DIP-switch on the end panel.

DMX ADDRESS SELECTION

If the MX-1 is to be used with a DMX protocol controller, then the DIP-switch must be set to the DMX control address. The address, also known as the start channel, is the first channel used to receive instructions from the controller. The MX-1 uses 6 channels for full DMX operation. For independent control, each fixture must be assigned its own address and non-overlapping control channels. Two MX-1s may share the same address only if they are to respond identically: they will receive the same instructions and individual control will not be possible.

To set the DMX address

- 1 Select an address for the fixture on your controller.**
- 2 Look up the DIP-switch setting for the address on page 12.**
- 3 Set pins 1 through 9 to the ON (1) or OFF (0) position as listed in the table.**
- 4 Set pin 10 to the OFF position.**
- 5 Set pin 11 to the OFF position for full 6-channel DMX operation or to the ON position for 1-channel DMX operation.**

DIP-SWITCH ADDRESS TABLE

Find the address in the table below. Read the settings for pins 1 - 5 to the left and read the settings for pins 6 - 9 above the address. "0" means OFF and "1" means ON.

Important! Pins 10 and 11 must be OFF for full DMX control. Pin 10 must be OFF and pin 11 must be ON for 1-channel DMX control.

DIP-Switch Setting 0 = OFF 1 = ON					#9	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1			
					#8	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	
					#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
					#6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
#1	#2	#3	#4	#5																					
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	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					

SPECIAL SETTINGS

The DIP-switch is used to select special personality options when the fixture is operated in stand-alone and master/slave mode.

Lamp life can be extended beyond the stated average hours by reducing the lamp voltage slightly. Set DIP-switch pin 12 to ON for longer lamp life, or OFF for full output intensity.

Important! Pin 10 must be ON to enable special settings on pins 1 - 9.

Pin	Setting	Effect
1	ON	Music trigger
	OFF	Automatic trigger
2	ON	Stand-alone “master” fixture
	OFF	Stand-alone “slave” fixture
3	ON/OFF	Reserved, no effect
4	ON	Slow mirror movement (set on master fixture)
	OFF	Fast mirror movement
5	ON	Wide mirror movement (set on master fixture)
	OFF	Narrow mirror movement
6	ON	Random effect wheel position (set on slave fixture)
	OFF	Effect wheel position same as master
7	ON	Inverted effect wheel position (set on slave fixture)
	OFF	Normal effect wheel position
8	ON	Inverted tilt (set on slave fixture)
	OFF	Normal tilt
9	ON	Inverted pan (set on slave fixture)
	OFF	Normal pan
10	ON	Enable special settings with pins 1 - 9
	OFF	Enable DMX address with pins 1 - 9
11	ON	1-channel mode on
	OFF	1-channel mode off
12	ON	Reduced power / longer lamp life
	OFF	Full power / maximum intensity

DATA CONNECTION

This section describes how to connect fixtures to a controller.

RECOMMENDED CABLE

A reliable data connection begins with the right cable. Standard microphone cable cannot transmit DMX data reliably over long runs. For best results, use cable specifically designed for RS-485 applications. Your Martin dealer can supply high quality cable in various lengths.

CONNECTIONS

The MX-1's XLR data sockets are wired with pin 1 to ground, pin 2 to signal - (cold), and pin 3 to signal + (hot). This is the standard pin assignment for DMX devices.

One or more adaptor cables may be required to connect the MX-1 to the controller and/or other lights because many devices have 5-pin connectors and others may have reversed signal polarity, that is, pin 2 hot and pin 3 cold.



5-pin to 3-pin Adaptor	
Male	Female
1	1
2	2
3	3
4	
5	
P/N 11820005	

3-pin to 5-pin Adaptor	
Male	Female
1	1
2	2
3	3
	4
	5
P/N 11820004	

3-pin to 3-pin Phase-Reversing Adaptor	
Male	Female
1	1
2	2
3	3
P/N 11820006	

To connect the data link

- 1 Connect a data cable to the controller's data output. If controller has a 5-pin female data output, use a 5-pin male to 3-pin female adaptor cable (P/N 11820005).
- 2 Lead the data cable from the controller to the first fixture. Plug the cable into the fixture's data input.
- 3 Connect the output of the fixture closest to the controller to the input of the next fixture. If connecting to a fixture with reversed-polarity (pin 3 cold), insert a phase-reversing cable between the two fixtures.
- 4 Continue connecting fixtures output to input. Up to 32 devices may be connected on a serial link.
- 5 Terminate the link by inserting a male termination plug (P/N 91613017) into the data output of the last fixture. A termination plug is simply an XLR connector with a 120 ohm, 0.25 W resistor soldered across pins 2 and 3.

Male Termination Plug	Female Termination Plug
Male XLR 1 2 3  120	Female XLR 1 2 3  120
P/N 91613017	P/N 91613018

FULL DMX OPERATION

For DMX operation, the MX-1 must be connected to a DMX controller as described under “Data connection” on page 14 and its DIP-switch must be set to the control address as described on page 11.

DMX CHANNEL DESCRIPTION

See also the DMX protocol on page 21.

Channel 1 controls the light intensity and the strobe rate. It also allows you to execute a “stand-alone” program with random pan/tilt movement using automatic or music trigger.

All mechanical effects are reset to a home position when the fixture is powered up; they can also be reset from the controller by sending a reset command on channel 1.

Channel 2 is not used by the MX-1.

Channel 3 controls the position of the color/gobo effect wheel. When set to full (DMX 255, 100 percent), the wheel moves to random positions using the trigger selected on channel 1.

The mirror position, pan and tilt, is controlled on channels 4 and 5.

Channel 6 controls pan and tilt speed, allowing you to vary the movement speed with controllers without cross-fade times. If your controller has cross-faders, and you use them, then set channel 6 to the “tracking” speed (DMX 0, 0 percent).

1-CHANNEL DMX OPERATION

The MX-1 may be operated in single-channel mode with the optional MC-1 or any DMX controller connected as described on page 14. If using the MC-1 controller, set the DMX address to channel 1. If using a DMX controller, any channel may be assigned and set using DIP-switch pins 1 - 9.

The DIP-switch must be set with pin 10 off and pin 11 ON. Lamp power can be set with pin 12 (see page 13).

The single-channel controllable functions are shown below.

DMX value	Percent	Function
0 - 10	0 - 4	Blackout (light off)
11 - 20	5 - 7	Open (light on)
21 - 80	8 - 31	Strobe
81 - 115	32 - 45	Random action with slow music trigger
116 - 140	46 - 55	Random action with medium music trigger
141 - 175	56 - 68	Random action with fast music trigger
176 - 210	69 - 82	Random action with random music trigger
211 - 255	83 - 100	Manual trigger area, crossover at 240 (94%)

STAND-ALONE OPERATION

The MX-1 automatically begins to operate in stand-alone mode with music trigger - regardless of the DIP-switch settings - if there is no control signal.

The operation of single and “slave” units can be modified using the special DIP-switch settings as described under “Special settings” on page 13.

MASTER / SLAVE OPERATION

Multiple MX-1s can be connected together for synchronized “master/slave” operation in which the slaves mimic the behavior of the master.

In order to operate in this mode, the MX-1s must be connected together. One fixture must be selected to be the master (DIP-switch 2 ON) and the others must be set as slaves (DIP-switch 2 OFF).

Important! Only 1 fixture can be the master: errors and damage can occur if there is more than 1 control signal on the data link.

To connect units for master / slave operation

- 1 Connect the output of one MX-1 to the input of the next MX-1.
- 2 Connect additional MX-1s output to input. Up to 32 may be connected.
- 3 Terminate the link on both ends by inserting a female termination plug into the data input of the first fixture and a male termination plug into the data output of the last fixture. A termination plug is simply an XLR connector with a 120 ohm, 0.25 W resistor soldered across pins 2 and 3.

The MX-1 requires simple routine maintenance. The maintenance schedule depends heavily on the operating environment; please consult a Martin service technician for recommendations.

Any service procedure not described here should be referred to a qualified technician.

Important! ***Excessive dust, grease, and smoke fluid buildup degrades performance and causes overheating and damage to the fixture that is not covered by the warranty.***

Warning! ***Disconnect the fixture from AC power before removing any cover.***

CLEANING

To clean optical components

Use care when cleaning optical components. The surface of the color filters is fragile and small scratches may be visible.

- 1 **Disconnect the fixture from AC power and allow the components to cool completely.**
- 2 **Release the 4 cover locks by turning them a quarter-turn counterclockwise. Lift the cover straight off.**
- 3 **Blow or vacuum away loose dust. Remove residues from lenses and filters with a soft cloth or cotton swabs wetted with isopropyl alcohol. Regular glass cleaner may also be used, but no residues may remain.**
- 4 **Rinse with distilled water. Mixing the water with a small amount of wetting agent such as Kodak Photoflo will help prevent streaking and spotting.**
- 5 **Dry with a clean, soft and lint-free cloth or blow dry with compressed air.**
- 6 **Replace the top cover. To lock the 4 cover locks, turn them a half to a quarter turn clockwise, until you feel them click. *Do not overtighten.***

To clean the fan and air vents

To maintain adequate cooling, dust must be cleaned from the fan and air vents periodically.

- 1 Remove the data and power cables and stand the fixture on end.
- 2 Remove dust and dirt from the fan blades and vent grills using a soft brush, cotton swab, vacuum, or compressed air.

REPLACING FUSES

The MX-1 has 2 fuses. The main fuse holder is built in to the mains input socket. The secondary fuse is located on the printed circuit board.

Warning! *Never replace fuses with ones of a different rating!*

To replace the main fuse

- 1 Unplug the mains cable from the input socket. Pry open the fuse holder and remove the fuse.
- 2 Replace the fuse with one of the same type. The fuse rating is listed on serial number label.

To replace the secondary fuse

- 1 Disconnect the fixture from AC power. Release the 4 cover locks by turning them a quarter-turn counterclockwise. Lift the cover straight off.
- 2 The fuse is located right behind the data input connector. Pry out the defective fuse and replace it with one of the same rating.
- 3 Replace the cover before applying power.

TROUBLESHOOTING

10

Problem	Probable cause(s)	Remedy
One or more of the fixtures is completely dead.	No power to fixture.	Check that power is switched on and cables are plugged in.
	Primary fuse blown.	Replace fuse.
	Secondary fuse blown.	Replace fuse.
Fixtures reset correctly but all respond erratically or not at all to the controller.	The controller is not connected.	Connect controller.
	XLR pin-out of the controller does not match pin-out of the first fixture on the link (i.e. signal is reversed).	Install a phase-reversing cable between the controller and the first fixture on the link.
Fixtures reset correctly but some respond erratically or not at all to the controller.	Bad data link connection	Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.
	Data link not terminated with 120 Ω termination plug.	Insert termination plug in output jack of the last fixture on the link.
	Incorrect addressing of the fixtures.	Check DIP-switch settings.
	One of the fixtures is defective and disturbs data transmission on the link.	Bypass one fixture at a time until normal operation is regained: unplug both connectors and connect them directly together. Have the defective fixture serviced by a qualified technician.
An effect fails to reset correctly.	The effect requires mechanical adjustment.	Contact Martin technician for service.
No light.	Lamp missing or blown	Disconnect fixture and replace lamp.
Lamp cuts out intermittently.	Fixture is too hot.	Allow fixture to cool.
	The transformer setting does not match local AC voltage.	Check AC setting.

DMX PROTOCOL



Channel	Value	Percent	Function
1	0 - 4	0 - 1	Dimmer, Strobe, Reset Light off
	5 - 154	2 - 60	Dimmer, closed to open
	155 - 169	61 - 66	Dimmer full open
	170 - 229	67 - 89	Strobe, fast to slow
	230 - 239	90 - 93	Stand-alone, music trigger
	240 - 249	94 - 97	Stand-alone, auto trigger
	250 - 255	98 - 100	Reset
	2	0 - 255	0 - 100
3	0 - 11	0 - 4	Color / Gobo Wheel Open
	12 - 23	5 - 8	Position 2
	24 - 35	9 - 13	Position 3
	36 - 47	14 - 18	Position 4
	48 - 59	19 - 23	Position 5
	60 - 71	24 - 27	Position 6
	72 - 83	28 - 32	Position 7
	84 - 95	33 - 37	Position 8
	96 - 107	38 - 41	Position 9
	108 - 119	42 - 46	Position 10
	120 - 131	47 - 51	Position 11
	132 - 143	52 - 55	Position 12
	144 - 155	56 - 60	Position 13
	156 - 167	61 - 65	Position 14
	168 - 179	66 - 70	Position 15
	180 - 191	71 - 74	Position 16
	192 - 203	75 - 79	Position 17
	204 - 215	80 - 84	Position 18
216 - 227	85 - 88	Position 19	
228 - 239	89 - 96	Closed	
240 - 255	97 - 100	Random "stand-alone" position w/ music or auto trigger	
4	0 - 255	0 - 100	Pan Left to right (127 = neutral)
5	0 - 255	0 - 100	Tilt Up to down (127 = neutral)
6	0 - 2	0 - 1	Pan/Tilt Speed Tracking (speed function off)
	3 - 255	2 - 100	Fast to slow

See also "1-channel DMX operation" on page 16.

SPECIFICATIONS

B

PHYSICAL

- Size (L x W x H) 537 x 269 x 263 mm (21.1 x 10.6 x 10.4 in)
- Weight 6 kg (13 lbs)

THERMAL

- Maximum ambient temperature (T_a).....40° C (104° F)
- Maximum surface temperature65° C (149° F)

CONTROL AND PROGRAMMING

- Data pin-out..... 3-pin locking XLR, pin 1 shield, pin 2 cold (-), pin 3 hot (+)
- Control protocolUSITT DMX-512 (1990)
- DMX channels 1/6

AC POWER

- Input 3-prong IEC male socket
- Maximum power and current 265 W, 1.15 A @ 230 V
- Primary fuse, EU version2.5 AT / 250 V, P/N 05020010
- Primary fuse, US version5.0 AT / 250 V, P/N 05020018
- Secondary fuse2.0 AT / 250 V, P/N 05020009

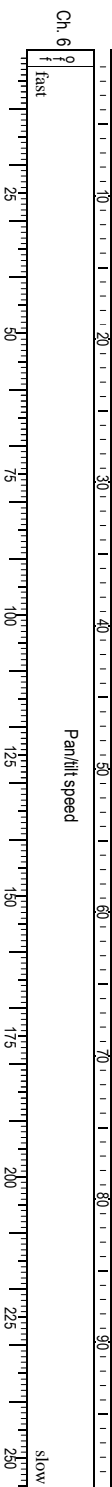
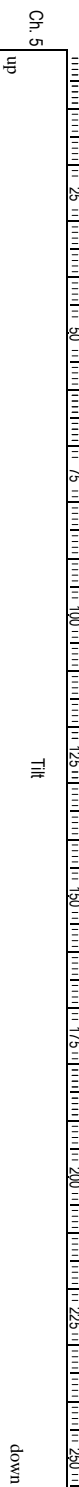
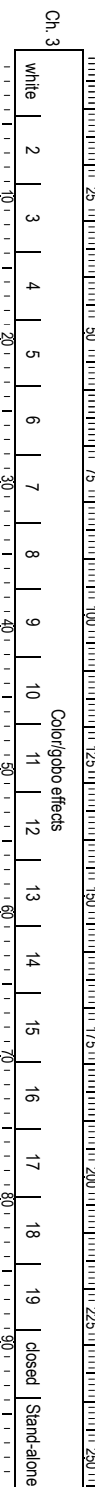
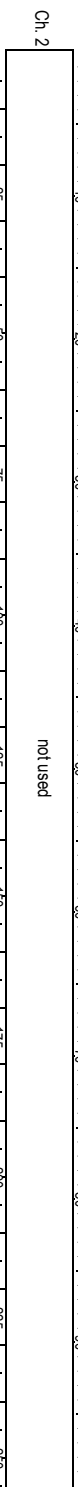
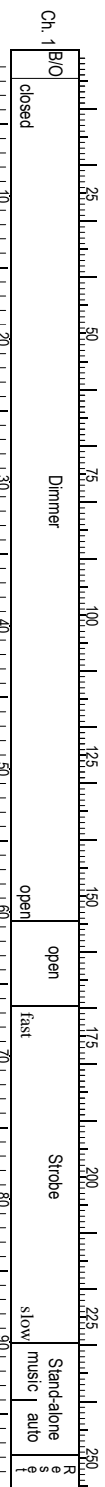
INSTALLATION

- Minimum distance to combustible materials 0.1 m (4 in)
- Minimum distance to illuminated surfaces 0.3 m (12 in)
- Minimum clearance around fan and air vents 0.1 m (4 in)

ACCESSORIES

- MC-1 controller, EU 90718000
- MC-1 controller, US..... 90718100
- Osram 24V/250W ELC 50 h halogen lamp 97000104
- Philips 24V/250W ELC 300 h halogen lamp..... 97000106
- G-clamp: 91602003
- Half-coupler clamp: 91602005

MX-1 6-Channel DMX Protocol



MX-1 1-Channel DMX Protocol

