

MC-X

user manual



©1999 Martin Professional A/S, Denmark.

All rights reserved. No part of this manual may be reproduced, in any form or by any means, without permission in writing from Martin Professional A/S, Denmark.

Printed in Denmark.

P/N 35000081, Rev. B

INTRODUCTION

Thank you for selecting the Martin MC-X Controller. The MC-X is a remote control for the Martin Exterior 600 and Exterior 600 Compact that allows the operator to execute 7 programmable scenes, black out the light, and engage stand-alone mode on all connected fixtures.

The seven scenes are programmed using a Martin uploader such as the MPBB1.

SAFETY PRECAUTIONS

The MC-X is not for household use. For safe operation, read this manual before use and follow the safety precautions listed below. If you have questions about how to operate the controller safely, please contact your Martin distributor or dealer.

- **Disconnect the fixture from AC power when not in use.**
- **Ground (earth) the device electrically.**
- **Refer all service to a qualified technician.**
- **Do not expose the device to rain or moisture.**
- **Do not open the device or remove any part; there are no user-serviceable parts inside.**

SETUP

UNPACKING

The MC-X comes with:


- 1.5-meter IEC power cable
- 5-meter 3-pin XLR data cable
- 3-pin male XLR termination plug
- user manual

AC POWER CONNECTION

Warning! ***For protection from electric shock, the fixture must be grounded (earthed). The AC mains supply shall have overload and ground-fault protection.***

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

- **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 shows some pin identification schemes.**

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

DATA CONNECTION

A reliable data connection begins with the right cable. Microphone cable cannot transmit DMX data reliably over long runs. For best results, use only cable designed for RS-485 applications. One cable for connecting the first fixture is included; if need additional cables your Martin dealer can supply them in various lengths.

- 1 Connect a data cable to the controller’s DMX output. Lead the cable from the MC-X to the first Exterior 600 and plug it into the fixture’s DMX input, which has a male XLR plug.**
- 2 Connect the DMX output of the first Exterior 600 to the DMX input of the next Exterior 600. Continue connecting fixtures output to input; up to 32 fixtures may be connected on one data link.**
- 3 Terminate the link by inserting the male termination plug, included, into the DMX output of the last fixture. A termination plug is an XLR connector with a 120 ohm resistor soldered across pins 2 and 3.**

FIXTURE SETTINGS

To receive commands from the MC-X, which sends DMX control signals with a special start code, *the Exterior 600 must be in DMX mode 1 or 2 or have automatic protocol detection enabled.* The fixture may be set to any DMX address.

Enable automatic protocol detection

Automatic protocol detection must be enabled if the fixtures have previously been set up in Martin mode for operation with the Martin 3032 controller. If you do not know the setup, go ahead and perform this procedure.

- 1 Connect the serial link or the DMX input of the fixture to be programmed to the uploader's DMX / RS 485 output. Apply power to the fixture and the uploader.**
- 2 Turn on automatic protocol detection using the uploader and following the steps below.**

Press	Times	To	Display
up/ down	as needed	select fixture menu	FIXT
Enter	1	enter fixture menu	dMX
down	1	select Martin mode	MART
Enter	1	enter submenu	ALL
Enter	1	enter submenu	PSET
down	as needed	select special menu	SPEC

Press	Times	To	Display
Enter	1	enter special menu	dLoF
down	3	select automatic protocol detection menu	AUTO
Enter	1	enter menu	OFF
up	1	select ON	ON
Enter	1	save selection	AUTO

3 Turn the fixtures off and on again to reset them.

OPERATION

PROGRAMMING SCENES

Starting with Exterior 600 software version 1.4, and Exterior 600 Compact software version 1.0, seven scenes - combinations of colors and effects - can be programmed and stored in the Exterior's electronic memory.

These scenes are programmed using a Martin uploader such as the MPBB1. Note that the uploader must be loaded with the same software as the fixture; refer to the fixture user manual for the upload procedure. (User manuals are available online from the service and support area of the Martin web site at <http://www.martin.dk>.)

The following effects may be programmed.

Parameter	Menu	Options	Effect
Dimmer*	d I M	0 - 2 5 5	Full open → full closed
Color filter*	C O L	W H I T	Open
		C T C	CTC filter
		R E d	Red
		G R E E	Green
		B L U E	Blue
Cyan	C Y A N	0 - 2 5 5	White → Cyan
Magenta	M A G	0 - 2 5 5	White → Magenta
Yellow	Y E L	0 - 2 5 5	White → Yellow
Frost*	F R O S	O N	Frost on
		O F F	Frost off
Zoom*	Z O O M	0 - 2 5 5	Wide → narrow
Lamp	L A M P	O N	Lamp power on
		O F F	Lamp power off

*Available on the Exterior 600 only.

Program scenes

- Connect the serial link, or the DMX input of the fixture to be programmed, to the uploader's DMX / RS 485 output. Apply power to the uploader first and then the fixtures.
- To program all connected fixtures, or to program a single connected fixture at an unknown address, follow the steps in the table below. *If programming a single fixture with this method, disconnect any other identical fixtures from AC power and/or the data link.*

Press	Times	To	Display
Menu	as needed	go to top of menu (display stops changing)	varies
up/ down	as needed	select fixture menu	FIXT
Enter	1	enter menu	dMX
Enter	1	enter menu	ALL
Enter	1	enter menu	PSET

- **To program a single fixture with a known DMX address, use the following procedure. The uploader user manual describes how to find an address.**

Press	Times	To	Display
Menu	as needed	go to top of menu (display stops changing)	varies
up/ down	as needed	select fixture menu	FIXT
Enter	1	enter menu	dMX
Enter	1	enter menu	ALL
down	1	select single fixture mode	SING
Enter	1	enter address selection menu	001
up/ down	as needed	scroll to the fixture's DMX address	varies
Enter	1	set uploader to fixture's DMX address	PSET

- **Select a scene to program.**

Press	Times	To	Display
up/ down	as needed	select MC-X menu	MC-X
Enter	1	enter menu	PRE1
up/ down	as needed	select scene from 1 to 7	varies
Enter	1	enter effect menu	dIM

- **Program the dimmer level. (Exterior 600 only)**

Press	Times	To	Display
up/ down	as needed	select dimmer level menu	dIM
Enter	1	enter menu	0
up/ down	as needed	adjust dimmer level	0-255
Enter	1	save setting and continue	dIM

- **Program the color wheel color. (Exterior 600 only)**

Press	Times	To	Display
up/ down	as needed	select color wheel menu	COL
Enter	1	enter menu	WHIT
up/ down	as needed	select color	varies
Enter	1	save setting and continue	COL

- **Set CMY color.**

Press	Times	To	Display
up/ down	as needed	select cyan menu	CYAN
Enter	1	enter menu	0
up/ down	as needed	set cyan level	0-255
Enter	1	save setting and continue	CYAN
down	1	select magenta menu	MAG
Enter	1	enter menu	0
up/ down	as needed	set magenta level	0-255
Enter	1	save setting and continue	MAG
down	1	select yellow menu	YEL
Enter	1	enter menu	0
up/ down	as needed	select yellow level	0-255
Enter	1	save setting and continue	YEL

- **Turn frost on/off. (Exterior 600 only)**

Press	Times	To	Display
up/ down	as needed	select frost menu	FROS
Enter	1	enter menu	OFF
up/ down	as needed	turn frost on or off	ON/OFF
Enter	1	save setting and continue	FROS

- **Set zoom. (Exterior 600 only)**

Press	Times	To	Display
up/ down	as needed	select zoom menu	ZOOM
Enter	1	enter menu	0
up/ down	as needed	select zoom level	0-255
Enter	1	save setting and continue	ZOOM

- **Program a lamp off command in one scene if you want to control lamp power with the MC-X. Otherwise, set the lamp command to ON in each scene.**

Press	Times	to	Display
down	1	select lamp menu	LAMP
Enter	1	enter menu	ON
up/ down	as needed	program lamp on or lamp off command	ON/OFF
Enter	1	save setting and continue	LAMP

- **Repeat steps as necessary to program scenes 1 to 7. When finished, turn off and disconnect the uploader.**

EXECUTING SCENES

Once programmed, scenes may be executed using the MC-X. Scenes have a 1-second fade-in time.

- 1 Set up the fixtures as described earlier.**
- 2 Apply power to the MC-X and then to the Exteriors. Allow the fixtures to reset.**
- 3 To execute scenes, simply press and release the buttons labelled “Preset 1” to “Preset 7.”**

Executing any scene with a lamp on command will cause the lamp to strike if the automatic lamp on (ALON) feature is not enabled. After the lamp is on, the lamp on command has no effect.

- 4 To black out the fixture(s), press and release the button for the currently selected scene.**
- 5 To engage stand-alone mode, press and release the button labelled “Auto.”**

Stand-alone mode is engaged with the programmed clock and light settings. If the fixture is programmed to operate from 8 to 11 pm and you press “Auto” at 7:30 pm, the fixture waits for 30 minutes before starting stand-alone operation. Execute a scene to cancel stand-alone mode operation.

- 6 To turn off the lamp with the MC-X, execute the scene (if any) programmed with the lamp off command. *Note: The lamp must cool for at least 8 minutes before it can restrike.***

TROUBLESHOOTING

Problem	Probable cause(s)	Remedy
MC-X LEDs fail to light.	No power.	Check that power is switched on and cables are plugged in.
	Internal circuit breaker open.	Disconnect the controller for several minutes to reset the circuit breaker. Consult service technician if problem reoccurs.
Fixtures fail to respond to MC-X.	Bad data connection.	Inspect data cables and connections, repair or replace damaged cables.
	The data link is not connected.	Connect data link.
	Missing termination.	Insert termination plug in output of last fixture.
	Fixtures set to Martin mode.	Enable automatic protocol detection.
No light.	No “lamp on” command.	Program “lamp on” commands in 6 or 7 scenes.
	Defective lamp.	See fixture user manual.

SPECIFICATIONS

PHYSICAL

- Size 140 x 110 x 62 mm (5.5 x 4.3 x 2.4 in)
- Weight..... 0.5 kg (1lb)

CONTROL

- Data output connection.....3-pin XLR, female
- Pin-out pin 1 shield, pin 2 cold (-), pin 3 hot (+)
- Control protocol..... DMX-512
- Start code 223
- Output channel..... 1

AC POWER

- Input..... 3-prong IEC male socket
- Maximum power and current..... see serial number label
- Overload protectioninternal circuit breaker

CONSTRUCTION

- Housing..... aluminum
- Face plate anodized aluminum
- Protection factor IP 20

