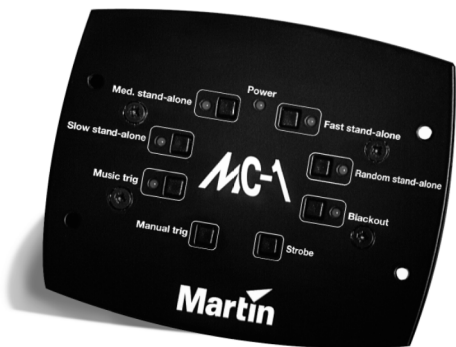


MC-1 user manual




Martin

INTRODUCTION

Thank you for selecting the Martin MC-1 DMX Controller. The MC-1 is a remote-control device for operating selected Martin fixtures in their 1-channel mode. Designed for the Martin Acrobat, MX, CX and future products, it can be used with the Martin Destroyer, Punisher, and SynchroZap as well.

SAFETY PRECAUTIONS

The MC-1 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.**
- **Always ground (earth) the fixture electrically.**
- **Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.**
- **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.**

UNPACKING

The MC-1 comes with:

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

SETUP


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 a qualified electrician if you have any doubts about proper installation.

To install a plug on the mains lead

- 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; you will need additional cables to connect additional fixtures. Your Martin dealer can supply suitable cable in various lengths.

The MC-1's XLR data output is wired with pin 1 to ground, pin 2 to signal - (cold), and pin 3 to signal + (hot). The pin assignment is the same on all supported fixtures.

To connect the data link

- 1 Connect a data cable to the controller's DMX output. Lead the cable from the controller to the first fixture and plug it into the fixture's DMX input.**
- 2 Connect the DMX output of the first fixture to the DMX input of the next fixture. Continue connecting fixtures output to input; up to 32 fixtures may be connected.**
- 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.**

To set fixture DIP-switch

For proper operation, the DIP-switch on each fixture must be set for 1-channel operation on channel 1. Refer to the fixtures' user manuals for other settings and options.

MARTIN CX, MX, AND ACROBAT

- 1 Disconnect fixture from power.
- 2 Flip DIP-switch pins 1 and 11 on.
- 3 Flip pins 2 - 10 off.
- 4 Set pin 12 on or off as desired.



MARTIN DESTROYER, PUNISHER, AND SYNCHROZAP

- 1 Disconnect fixture from power.
- 2 Flip DIP-switch pins 1, 9, and 10 ON.
- 3 Flip all other pins OFF.



OPERATION

To control lights with the MC-1

- 1 Set up the equipment as described in the previous section.
- 2 Apply power to the controller and the fixtures. Allow the fixtures to reset.
- 3 With “Blackout” off, select “Fast stand-alone” and adjust the music until all fixtures respond. Select other functions as described below.
- 4 Disconnect the controller and fixtures from AC power when not in use.

CONTROL FUNCTIONS

The control functions of the Martin Acrobat, MX, and CX are described here. The functions of the Martin Destroyer, Punisher, and SynchroZap are different and are shown in the table below.

Pressing the “Stand-alone” keys causes fixtures to execute random programs at different speeds using their own built-in microphones. When “Music trigger” is selected, fixtures respond instead to trigger pulses coming from the MC-1. The MC-1 sends the command until another function is selected.

Pressing the “Manual trig” key sends a single trigger pulse that may be used to supplement stand-alone and music trigger execution.

Pressing the “Strobe” key causes the light to flash as long as the key is held down. Operation returns to the previous function when the key is released.

Pressing the “Blackout” key stops all action and blacks out the light. Pressing it again causes operation to return to normal.

Key	DMX	Function
Blackout	5	Punisher, Destroyer, SynchroZap: Blackout
Strobe	21	Punisher, Destroyer, SynchroZap: Blackout
Slow stand-alone	100	Punisher, Destroyer, SynchroZap: Slow stand-alone
Med. stand-alone	125	Punisher, Destroyer, SynchroZap: Med. stand-alone
Fast stand-alone	160	Punisher, Destroyer, SynchroZap: Fast stand-alone
Random stand-alone	206	Punisher, Destroyer: Random stand-alone SynchroZap: Fast stand-alone
Music trig	230/250	Punisher, Destroyer: Random stand-alone SynchroZap: Fast stand-alone
Manual trig	230/250	Punisher, Destroyer: Random stand-alone SynchroZap: Fast stand-alone

Punisher, Destroyer, and SynchroZap 1-channel functions

TROUBLESHOOTING

Problem	Probable cause(s)	Remedy
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 controller.	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.
	Incorrect address or mode setting.	Check and correct DIP-switch settings.
Fixtures respond to blackout and manual trig but not to music.	Volume is too low.	Place speakers closer to fixtures or increase volume.
	Damaged microphone or other component.	Refer fixture for service if problem occurs in stand-alone modes. Refer MC-1 to service if it occurs in Music trig mode.

SPECIFICATIONS

PHYSICAL

- Size 142 x 113 x 75 mm (5.6 x 4.4 x 3.0 in)
- Weight..... 1 kg (2.2 lbs)

CONTROL

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

AC POWER

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

ACCESSORIES

- 3U 19 inch rack mount kit for MC-1P/N 91613019



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