

ML-180

USER MANUAL



SAFETY INFORMATION

PROTECTION FROM ELECTRIC SHOCK

Warning! *This product is for professional use only. It is not for household or residential use.*

This product presents risks of lethal or severe injury due to fire and heat, electric shock, and falls. Read this manual before powering or installing the fixture, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture. If you have any question about how to use this fixture safely, please contact your Entar dealer.

Warning! *Always disconnect from mains supply before replacing the lamp.*

Disconnect the fixture from AC power before removing or installing the fuse, or any part, and 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.

Do not expose the fixture in rain and moisture.

Refer any service operation not described in this manual to a qualified technician.

Never operate the fixture with missing or damaged lenses and/or covers.

Do not stare directly into the light.

PROTECTION FROM BURNS AND FIRE

Never attempt to bypass the thermostatic switch or fuses. Always replace defective fuses with ones of the specified type and rating.

Keep all combustible materials (for example fabric, wood, paper) at least 1 meter away from the fixture.

Keep flammable materials well away from the fixture.

Do not illuminate surfaces within 1 meters (3 feet) of the fixture.

Provide a minimum clearance of 0.1 meters around fans and air vents.

Never place filters or other materials over the lens.

INTRODUCTION

MAIN FEATURES

540°pan and 270° tilt at 8/16 bit

DMX channels: 12

Light sources: 18 3 Watt blue LED, 21 3 Watt red LED, 21 3 Watt green LED

Power consumption: 220W

Dimmer: Smooth dimming 0-100%

Strobe: 1~10 f.p.s.

Color: RGB color mixing

Speed: pan and tilt speed adjustment

Pan and tilt position correction

SETUP

UNPACKING

The ML-180 comes with:
User manual
Power cable
2x XLR connectors

AC POWER

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

RIGGING OR MOUNTING THE ML-180

Warning! *Attach an approved safety cable to the attachment point provided in the base. Never use the carrying handles for secondary attachment. Always use an approved safety cable.*

CONNECTING THE SERIAL DATA LINK

The ML-180 has locking 3-pin data input and output sockets that are wired for use with DMX devices with pin 1 to shield, pin 2 to cold(-) and pin 3 to hot(+).

1. Connect the controller's output to the fixture's data input.
2. Connect the output of the fixture closest to the controller to the input of the next fixture. If connecting a fixture with pin 3 hot to a fixture with pin 3 cold, use a phase-reversing adaptor.
3. To terminate the link, insert a male 120Ω XLR termination plug in the output of the last fixture.

TIPS FOR BUILDING A SERIAL LINK

- Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit DMX data reliably over long runs. For links up to 300 meters (1000 ft.) long, you can use 24 AWG, low capacitance, 85-150 ohm characteristic impedance, shielded cable with 1 or more twisted pairs. For runs up to 500 meters (1640 ft.) use 22 AWG cable. Use an amplifier if the serial link exceeds 500 meters.
- Never use a "Y" connector to split the link. To split the serial link into branches use a splitter.
- Do not overload the link. Up to 32 devices may be connected on a serial link.
- Terminate the link by installing a termination plug in the output socket of the last fixture on the link. The termination plug, which is simply a male XLR connector with a 120 ohm, 0.25 watt resistor soldered between pins 2 and 3, "soaks up" the control signal so it does not reflect back down the link and cause interference. If a splitter is used, terminate each branch of the link.

CONTROL PANEL

MENU NAVIGATION

The DMX address is displayed after the fixture resets. To enter the menu, press [mode]. Use the [up] and [down] keys to select an option.

SETTING THE DMX MODE

1. Apply power to the ML-180. Press [mode] to enter the Addr mode.
2. Select a DMX starting address by using the [up] and [down] keys.
3. Store the DMX starting address by pressing the [mode].

MOVEMENT

The ML-180 provides 2 menus with options for optimizing movement to suit different applications.

(PAN->YES) allows you to reverse pan movement.

(Tilt->YES) allows you to reverse tilt movement.

RESET

The ML-180 can be reset without switching off the power supply (RSET).

1. Press [mode] to enter the (rset) mode.
2. Press [up] or [down] key to reset the fixture.

OPERATING MODES

The ML-180 can run in 3 modes: DMX, sound activation and auto. The fixtures can run in master/slave mode with sound activation.

To activate sound trigger, press [mode] to enter (RUN), then press [up] or [down] key to select (PRG0).

To run the built-in sequences, press [mode] to enter (RUN), then press [up] or [down] key to select (PRG1).

To set a fixture run as a slave unit, press [mode] to enter (RUN), then press [up] or [down] key to select (FOLL).

DMX PROTOCOL

DMX channel	Value	Function
1	0-7	Switch, Strobe, reset Blackout
	8-215	Strobe, slow → fast
	216-231	Blackout
	232-255	Full light output
2	0-255	Dimming Bright → dark
3	0-7	Macro White
	8-247	Macro effects 1
	248-255	Macro effects 2
4	0-255	Macro
5	0-255	Pan (127 = neutral)
6	0-255	Tilt (127 = neutral)
7	0-255	Pan 16 bit
8	0-255	Tilt 16 bit
9	0-255	Pan / tilt speed Fast → slow
10	0-255	Red Dark → bright
11	0-255	Green Dark → bright
12	0-255	Blue Dark → bright