MLight

M-Thunder M IP

User manual

This product manual contains important information about the safe installation and use of the light. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

Content

Every unit is tested completely and packed properly by the manufacturer. Please make sure the packing and / or the unit are in good condition before installation and use. Should there be any damage caused by transportation, consult your dealer and do not use the unit. Any damage caused by improper use will not be assumed by the manufacturer and / or dealer.

Please note that as part of our ongoing commitment to continuous product development, specifications are subject to change without notice.

ACCESSAORIES

These items are packed together with the light:：

Name	Quantity	Unit	Remarks
clamps	2	Pcs	
Safety cord	2	Pcs	
Using manual	1	Pcs	

Safety instructions

When unpacking and before disposing of the carton check there is no transportation damage before using the light. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

The projector is for indoor and outdoor use, IP65.

D not install the fixtures onto inflammable surfaces directly. 

The fixture is only intended for installation, operation and maintenance by qualified personnel.

Do not project the beam onto inflammable surfaces, minimum distance is 3meter. 3m

Avoid direct exposure to the light from the lamp. The light is harmful to the eye.

Do not attempt to dismantle and/or modify the projector in any way.

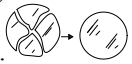
Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the fixture.

It is essential that each projector is correctly earthed and that electrical installation conforms to all relevant standards.

Do not connect this device to any other types of dimmer apparatus.

The projector should always be installed with a secondary safety fixing. A safety cord is supplied for this; it should be attached as shown in "installing the projector" section.

Shields and lens shall be changed if they have become visibly damaged to such an extent than their effectiveness is impaired, for example by cracks or deep scratches. 

Exterior surface temperatures of the luminaire after 5 minutes operation is 45℃, when steady state is achieved 70℃

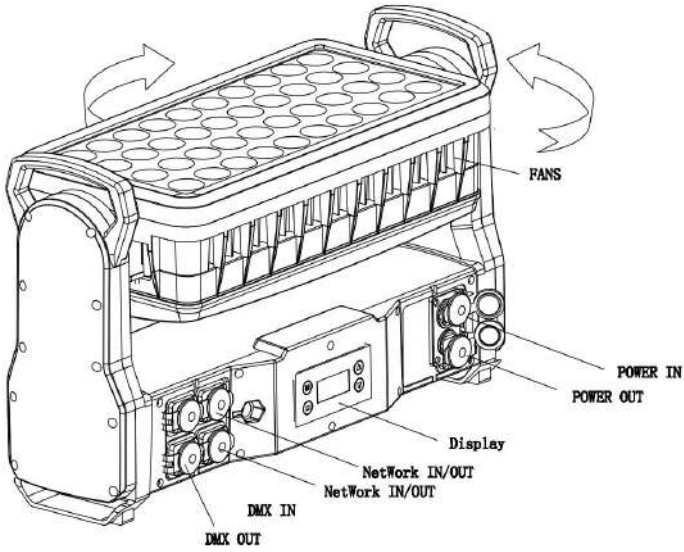
There is no user serviceable parts inside the projector, do not open the housing and never operate the fixture with the covers removed.

If you have any questions, don't hesitate to consult your dealer or manufacturer.

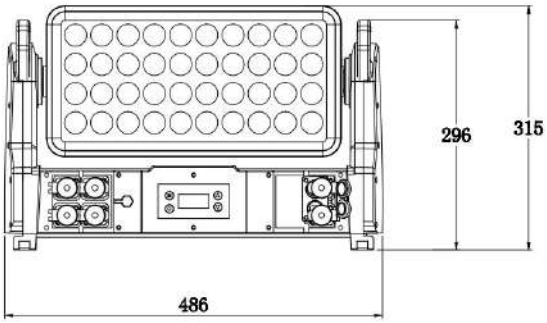
Always disconnection from Power before the device's installation, cleaning and maintenance!

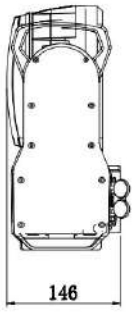
INSTALLATIONS

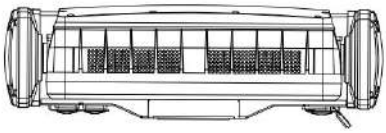
Product Overview



Product Dimensions







Safety Informations

WARNING! *Read the safety precautions in this section before unpacking, installing, powering or operating this product.*

This luminaries are multi-environmental fixtures with an IP-rating of 65, intended for professional use only. They are not suitable for household use.

Review the following safety precautions carefully before installing or operating the fixture. This fixture must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the fixture and the hazards involved.

Preventing electric shock

WARNING! *Risk of electric shock.*

Always power off/unplug the fixture before removing any covers.

Ensure that the power is turned off when connecting the fixture to the AC mains supply.

Ensure that the fixture is electrically connected to earth (ground).

Do not apply power if the fixture is in any way damaged.

Do not immerse the fixture in water or liquid.

Preventing burns and fire

WARNING! *Take measures to prevent burns and fire.*

Install in a location that prevents accidental contact with the fixture.

Install only in a well-ventilated space.

Install at least 0.3 m (12 in.) away from objects to be illuminated.

Install only in accordance with applicable building codes.

Ensure a minimum clearance of 0.1 m (4 in.) around the cooling fans.

Do not paint, cover or modify the fixture.

Keep all flammable materials away from the fixture.

Allow the fixture to cool for 15 minutes after operation, before touching it.

CAUTION: Exterior surface temperature after 5 min. operation = 45 °C (113 °F). Steady state = 60 °C (140 °F).

Avoid personal injury

WARNING! *Take measure to prevent personal injury.*

Do not look directly at the light source from close range.

Take precautions to prevent injury due to falls when working at height.

For permanent installation, ensure that the fixture is securely fastened toa load-bearing surface with suitable corrosion-resistant hardware.

For temporary installation with clamps, ensure that the quarter-turn fasteners are turned fully and secured with a suitable safety cable. The cable must be approved for a safe working load (SWL) of 10 times the weight of the fixture, and it must have a minimum gauge of 3 mm.

Preparing for installation

Unpack the fixture and inspect it to ensure that it has not been damaged during transport.

The fixture is shipped with two quarter-turn brackets, that can be used to mount the fixture at elevation.

The fixture is IP65-rated, and is designed for use in wet locations. This means that it is protected from:

Dust, to the degree that dust cannot enter the fixture in sufficient quantities as to interfere with its operation.

Lower pressure jets of water from any direction.

When selecting a location for the fixture, ensure that:

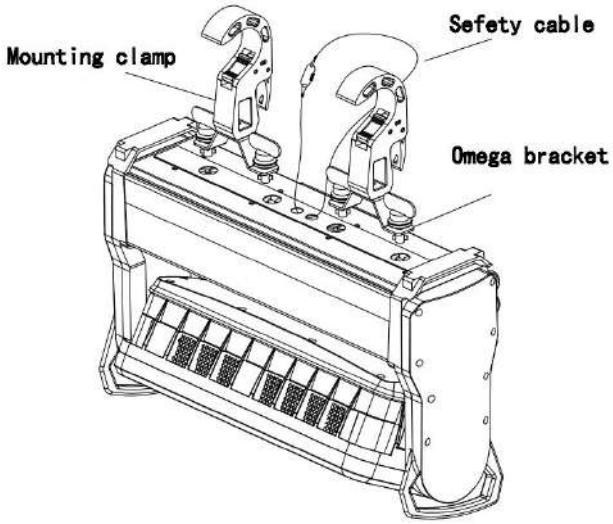
It is situated away from public thoroughfares and protected from contact with people.

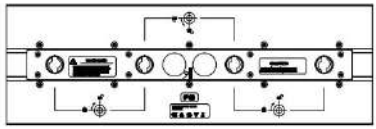
It is not immersed in water or exposed to high-pressure water jets.

It has adequate ventilation.

Installation

The fixture may be installed in any orientation, but if installed horizontally with a downward beam-angle, water can potentially pool in the fan wells. Under normal operation the moisture will evaporate. However, in locations with high rainfall, you may wish to fabricate a rain shield above the fixture, or modify the position and orientation of the fixture to minimize pooling.





Two quarter-turn brackets are supplied with the fixture if it is to be flown above the ground. Rig the fixture to a support truss or structure using the supplied brackets and suitable clamps.

Fasten a safety cable (not shown) between the support structure and the attachment point on the fixture. The safety cable must be able to bear at least 10 times the weight of the fixture.

Connecting AC Power

The fixture can operate on any 100–240 V, 50/60 Hz AC mains power supply. It draws approximately 2 amps at full power. For permanent installation, have a

qualified electrician wire the mains cable directly to a suitable branch circuit.
The junction's ingress protection (IP) rating must be suitable for the location. For temporary installation, the mains cable may be fitted with a grounded connector intended for exterior use.

When installing standard type C circuit breakers there will be no limitations due to the fixture in-rush current. Due to the nominal current of the fixture, ensure that no more than:

4 fixtures are connected through the same type C, 10A circuit breaker.
7 fixtures are connected through the same type C, 16A circuit breaker.
The fixture must be grounded/earthed and be able to be isolated from AC power. The AC power supply must incorporate a fuse or circuit breaker for fault protection.
After connecting the fixture to power, run the on-board test, using the "Fixture Text" menu, to ensure that the fixture and each LED are functioning correctly.
See "Control menu" on page 13.

CAUTION: Do not open the fixture to replace the supplied power cable, or connect the fixture to an electrical dimmer system, as this can damage i

Configuring the fixture

Set up the fixture using the control panel and LCD display at the arm side of the fixture.
Navigate the menus and options using the arrow buttons and select items using the Enter button. The options available are listed in "Control menu" on page 13.
After powering on, the display shows the currently selected operating mode and other information.
The fixture is set by default to be controlled in DMX mode.

Master/Slave configuration

You can set a fixture to operate as master fixture to another fixture (which then becomes a slave fixture), or an entire group of fixtures (which then becomes slave fixtures). The assigned slave fixture(s) will mimic the settings of the master fixture. Use the "Auto Program -> Auto Color / Auto Fade" menu to set your fixture as master fixture, then other fixtures set to DMX mode as slave fixture.

Setting a static color manually

The fixture can be configured to display a predefined and static color using the "Manual Color" (see "Control menu" on page 13).
It may suit your needs when you without a DMX controller to do the color mixing.

Using stand-alone operation

Stand-alone operation is where the fixture is not connected to a control device, but is preprogrammed with 2 modes (Auto Color, Auto Fade), that play continuously in a loop, the run speed of "Auto Color", "Auto Fade" are adjustable.
To define a stand-alone program, use the "Auto Program" menus (see "Control menu" on page 13).

Connecting to a DMX control device

The fixture is controllable using a DMX control device and it can be connected using a DMX cable.
If using a cabled DMX system, connect the DMX in cable (with male 3-pin XLR plug) and out cable (with female 3-pin XLR plug) to the DMX data link.
Terminate the DMX out cable of the last fixture in the data link. For outdoor installations, use only IP-rated XLR connectors suitable for outdoor use.

The DMX512 is widely used in intelligent lighting control, with a DMX 512 controller. connect several lights together, DMX in and DMX out, 3 pin XLR connectors: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

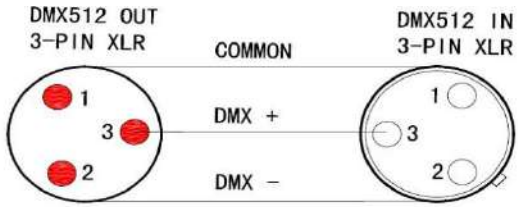
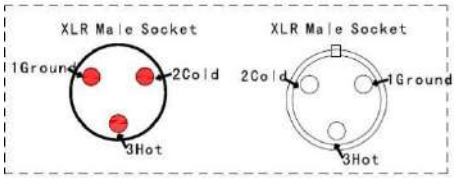


Figure2



XLR Pin Configuration
pin1=Ground
pin2=Data Compliment(negative)
pin3=Data true(positive)

Configuring the fixture for DMX control

About DMX

The fixture can be controlled using signals sent by a DMX controller on a number of channels (which varies depending on the DMX mode that has been set).

The first channel used to receive data from a DMX control device is known as the DMX start address. Each fixture must have a DMX start address set. For example, if a fixture has a DMX address of 10 and it is in 4-channel DMX mode, then it uses channels 10, 11,12 and 13. The following fixture in the DMX chain could then be set to a DMX address of 14. If two or more DMX fixtures of the same type have the same DMX address, then they will mimic each other's behaviour. Incorrect settings will result in unpredictable responses to the lighting controller.

Setting the DMX address

The DMX address can be seen on the main screen. To change the address setting, press the up arrow to increase the address, or the down arrow to decrease the setting. When the desired address is displayed, press Enter to save the setting.

Note that channel spacing is determined by the DMX mode.

See the "DMX protocols" on page 11 for specific DMX control values.

Setting the DMX mode

Using the "DMX Channel Mode" menu available from the control panel, specify the DMX mode that provides the fixture controls that you require, confirm chosen mode by pressing 'Enter'.

Cleaning

To maintain optimal performance, regular cleaning is essential. Cleaning schedules will vary depending on the operating environment, and the installation should therefore be checked at frequent intervals within the first few weeks of operation to see whether cleaning is necessary. This procedure will allow you to assess cleaning requirements in your par- ticular situation. Clean the fixture using a soft cloth dampened with a solution of water and a mild detergent. Do not use products that contain solvents, abrasives or caustic agents for cleaning, as they can cause damage to both hardware, cables and connectors.

DMX protocols

5 Channel

Channel	Name	DMX Value	DMX Percentage	Description	
1	**Coarse Tilt (MSB)**	0-185°	0-255		
2	**Special / Control**	No function	0-4	Closed	
		Atomization	5-69	atomization	
		CH1	70-74	CH1	
		CH2	75-79	CH2	
		CH3	80-84	CH3	
		CH4	85-89	CH4	
		Turn Off	90-94	No DMX =Turn off the light	
		Turn On	95-99	No DMX = Turn on the light	
		hold	100-104	No DMX = hold	
		No DMX=menu	105-109		
		No DMX=Auto	110-114		
		Fan mode = High	115-119		
		Fan mode = Auto	120-124		
		Fan mode = Low	125-129		
		Shutter-time	130-134		
		Shutter-HZ	135-139		
		Dimming speed	140-144	Auto	

		Dimming speed 1	145-149	1	
		Dimming speed 2	150-154	2	
		Dimming speed 3	155-159	3	
		LED 1200 HZ	160-164		
		LED 2400 HZ	165-169		
		LED 4800 HZ	170-174		
		LED 9600 HZ	175-179		
		19200 HZ	180-184		
		RGBW 1-2	185-189		
		RGBW 1↔2	190-194		
		RGBW 1 →	195-199		
		RGBW 1 ←	200-204		
		RGBW 2 →	205-209		
		RGBW 2 ←	210-214		
		Tilt	215-219		
		Tilt Invert	220-224		
		Tilt sensor/yes	225-229		
		Tilt sensor/no	230-234		
		Tilt reset/ yes	235-239		

		Tilt reset/ no	240-244		
		No function	245-249		
		Reset	250-255		
3	Dimmer	0-255	0-100%	0-100%Intensity	
4	Shutter	0-7	0-2.7%	Closed	
		8-15	3.1%-5.9%	Open	
		16-151	6.3%-59.2%	Variable Strobe	
		152-175	59.6%-68.6%	Pulse-Open	
		176-199	69%-78%	Pulse- Closed	
		200-244	78.4%-95.7%	Variable Random Strobe	
		245-255	96.1%-100%	Shutter Open	
5	Macro	0-255	0-100%	0-100%Intensity	

12 Channel

Channel	Name	DMX Value	DMX Percentage	Description	
1	**Coarse Tilt (MSB)**	0-185°	0-255		
2	**Special / Control**	No function	0-4	Closed	
		Atomization	5-69	atomization	
		CH1	70-74	CH1	
		CH2	75-79	CH2	
		CH3	80-84	CH3	
		CH4	85-89	CH4	
		Turn Off	90-94	No DMX =Turn off the light	
		Turn On	95-99	No DMX = Turn on the light	

		hold	100-104	No DMX = hold	
		No DMX=menu	105-109		
		No DMX=Auto	110-114		
		Fan mode = High	115-119		
		Fan mode = Auto	120-124		
		Fan mode = Low	125-129		
		Shutter-time	130-134		
		Shutter-HZ	135-139		
		Dimming speed	140-144	Auto	
		Dimming speed 1	145-149	1	
		Dimming speed 2	150-154	2	
		Dimming speed 3	155-159	3	
		LED 1200 HZ	160-164		
		LED 2400 HZ	165-169		
		LED 4800 HZ	170-174		
		LED 9600 HZ	175-179		
		19200 HZ	180-184		
		RGBW 1-2	185-189		
		RGBW 1↔2	190-194		

		RGBW 1 →	195-199		
		RGBW 1 ←	200-204		
		RGBW 2 →	205-209		
		RGBW 2 ←	210-214		
		Tilt	215-219		
		Tilt Invert	220-224		
		Tilt sensor/yes	225-229		
		Tilt sensor/no	230-234		
		Tilt reset/ yes	235-239		
		Tilt reset/ no	240-244		
		No function	245-249		
		Reset	250-255		
3	Dimmer	0-255	0-100%	0-100%Intensity	
4	Shutter	0-7	0-2.7%	Closed	
		8-15	3.1%-5.9%	Open	
		16-151	6.3%-59.2%	Variable Strobe	
		152-175	59.6%-68.6%	Pulse-Open	
		176-199	69%-78%	Pulse- Closed	
		200-244	78.4%-95.7%	Variable Random Strobe	
		245-255	96.1%-100%	Shutter Open	
5	Macro	0-255	0-100%	0-100%Intensity	
6	Macro Speed	0-255	0-100%	0-100%Intensity	
7	Macro F	0-255	0-100%	0-100%Intensity	
8	Macro B				
9	Red	0-255	0-100%	0-100% R	
10	Green	0-255	0-100%	0-100% G	
11	Blue	0-255	0-100%	0-100% B	
12	White	0-255	0-100%	0-100% W	

43 Channel

Channel	Name	DMX Value	DMX Percentage	Description	
1	**Coarse Tilt (MSB)**	0-185°	0-255		
2	**Fine Tilt (LSB)**	Coarse tilt + 0-1.2°	0-255		
3	**Special / Control**	No function	0-4	Closed	
		Atomization	5-69	atomization	
		CH1	70-74	CH1	
		CH2	75-79	CH2	
		CH3	80-84	CH3	
		CH4	85-89	CH4	
		Turn Off	90-94	No DMX =Turn off the light	
		Turn On	95-99	No DMX = Turn on the light	
		hold	100-104	No DMX = hold	
		No DMX=menu	105-109		
		No DMX=Auto	110-114		
		Fan mode = High	115-119		
		Fan mode =	120-124		

		Auto			
		Fan mode = Low	125-129		
		Shutter-time	130-134		
		Shutter-HZ	135-139		
		Dimming speed	140-144	Auto	
		Dimming speed 1	145-149	1	
		Dimming speed 2	150-154	2	
		Dimming speed 3	155-159	3	
		LED 1200 HZ	160-164		
		LED 2400 HZ	165-169		
		LED 4800 HZ	170-174		
		LED 9600 HZ	175-179		
		19200 HZ	180-184		
		RGBW	185-189		

		1-2			
		RGBW 1↔2	190-194		
		RGBW 1 →	195-199		
		RGBW 1 ←	200-204		
		RGBW 2 →	205-209		
		RGBW 2 ←	210-214		
		Tilt	215-219		
		Tilt Invert	220-224		
		Tilt sensor/yes	225-229		
		Tilt sensor/no	230-234		
		Tilt reset/ yes	235-239		
		Tilt reset/ no	240-244		
		No function	245-249		
		Reset	250-255		
4	Red 1	0-255	0-100%	0-100% R	
5	Green 1	0-255	0-100%	0-100% G	
6	Blue 1	0-255	0-100%	0-100% B	
7	White1	0-255	0-100%	0-100% W	
。 。 。 。	。 。 。 。	。 。 。 。	。 。 。 。 。		
40	Red 10	0-255	0-100%	0-100% R	
41	Green 10	0-255	0-100%	0-100% G	
42	Blue 10	0-255	0-100%	0-100% B	
43	White10	0-255	0-100%	0-100% W	

49 Channel

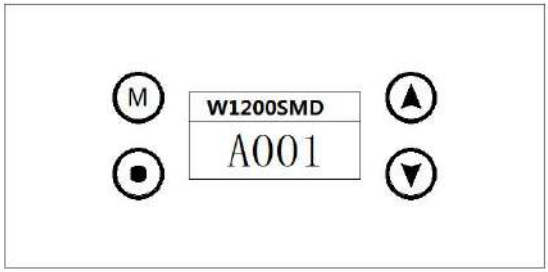
Channel	Name	DMX Value	DMX Percentage	Description	

1	**Coarse Tilt (MSB)**	0-185°	0-255		
2	**Fine Tilt (LSB)**	Coarse tilt + 0-1.2°	0-255		
3	**Special / Control**	No function	0-4	Closed	
		Atomization	5-69	atomization	
		CH1	70-74	CH1	
		CH2	75-79	CH2	
		CH3	80-84	CH3	
		CH4	85-89	CH4	
		Turn Off	90-94	No DMX =Turn off the light	
		Turn On	95-99	No DMX = Turn on the light	
		hold	100-104	No DMX = hold	
		No DMX=menu	105-109		
		No DMX=Auto	110-114		
		Fan mode = High	115-119		
		Fan mode = Auto	120-124		
		Fan mode = Low	125-129		
		Shutter-time	130-134		
		Shutter-HZ	135-139		
		Dimming speed	140-144	Auto	
		Dimming	145-149	1	

		speed 1			
		Dimming speed 2	150-154	2	
		Dimming speed 3	155-159	3	
		LED 1200 HZ	160-164		
		LED 2400 HZ	165-169		
		LED 4800 HZ	170-174		
		LED 9600 HZ	175-179		
		19200 HZ	180-184		
		RGBW 1-2	185-189		
		RGBW 1↔2	190-194		
		RGBW 1 →	195-199		
		RGBW 1 ←	200-204		
		RGBW 2 →	205-209		
		RGBW 2 ←	210-214		
		Tilt	215-219		
		Tilt Invert	220-224		
		Tilt sensor/yes	225-229		
		Tilt sensor/no	230-234		
		Tilt reset/ yes	235-239		

		Tilt reset/ no	240-244		
		No function	245-249		
		Reset	250-255		
4	Dimmer	0-255	0-100%	0-100%Intensity	
5	Shutter	0-7	0-2.7%	Closed	
		8-15	3.1%-5.9%	Open	
		16-151	6.3%-59.2%	Variable Strobe	
		152-175	59.6%-68.6%	Pulse-Open	
		176-199	69%-78%	Pulse- Closed	
		200-244	78.4%-95.7%	Variable Random Strobe	
		245-255	96.1%-100%	Shutter Open	
6	Macro	0-255	0-100%	0-100%Intensity	
7	Macro Speed	0-255	0-100%	0-100%Intensity	
8	Macro F	0-255	0-100%	0-100%Intensity	
9	Macro B				
10	Red 1	0-255	0-100%	0-100% R	
11	Green 1	0-255	0-100%	0-100% G	
12	Blue 1	0-255	0-100%	0-100% B	
13	White1	0-255	0-100%	0-100% W	
. . . .	. . . .	. . . .	. . . . .		
46	Red 10	0-255	0-100%	0-100% R	
47	Green 10	0-255	0-100%	0-100% G	
48	Blue 10	0-255	0-100%	0-100% B	
49	White10	0-255	0-100%	0-100% W	

Control menu



power-on password: UP - DOWN- UP - DOWN- ENTER

Press button UP or DOWN if you want to browse through the various Setup Options.

Press button ENTER to save your settings or enter the next menu.

Press button UP or DOWN to shift.

Press button Menu will return to the upper menu one by one.

Set DMX Address:

1. Press "**MENU**" to unlock screen, then select the "**DMX Address**" and press "**ENTER**".
2. Showing "**Set DMX Address 001**", Press the "**UP** or **DOWN**" key to increase or decrease the DMX address value.

3 Press "**ENTER**" to save and Exit, Press "**Cancel**" does not save and Exit.

1st LEVEL	2nd LEVEL	3rd LEVEL
DMX Address	XXX (1~499)	enter
Config	DMX channel mode	12 channel mode
		43 channel mode
		49 channel mode
		5 channel mode
	OFFLine Show	DMX 512 oFF
		DMX 512 on
		DMX 512 Hold
		Manual
		Auto
	Parameter	Yes/No
	Default	Canel / Ok
	Factory Set	000
Motor	Reset	
	Offset	
	Invert	
	feedback	
Display	Ch / En	
	Display Dir	Normal
		Reverse
	Backlight	30S
		On
Manual	Y	
	Dimmer	
	Strobe	

	macro	
	macroS	
	Red	
	Green	
	Blue	
	White	
Auto	Show	
	Speed	
	Color F	
	Color B	
Information	RDM UID	
	Version	
	DMX channel	
	Run time	
	Use time	
	Temperature	

12. Specification

LEDs

LED Type: 40W RGBW

LED Count: 40

LED Segments: 10 (2 x 5)

Movement

Resolution: 8-16 Bit

Position Feedback: yes

Tilt (Degrees): 185°

Control

Control Modes: 12CH /43CH / 49CH /5CH

Display: Illuminated graphic OLED

Protocol: USITT DMX-512, RDM

RDM: Bidirectional communication

Wireless DMX: 2.4 GHz W-DMX™ (optional)

Cooling: Temperature controlled, overheating protection

Effects
Dimmer: 0-100% electronic Shutter:
electronic, max. 20 Hz Internal
Effects: LED Macro Effects

Connectors
Signal connection: Seetronic IP65 XLR 5-Pin or 3-Pin In/Out
Power Input: Seetronic powerCON TRUE1 In/Out

Operating Condtions
Mains voltage: 100-240V AC / 50-60Hz
Power: 1200W
Maximum ambient temperature: -30°C / 86°F, 50°C / 122°F Operating
Position: any

Mounting Options
Standing: Rubber feet
Hanging:
Omega-Bracket
Safety wire attachment: foldout eyelets

Shipping
Single fixture: cardboard (inner and outer cartons)
Tourpack: 4-way Flight Case

Housing Colors
Standard colors: black

Dimensions & Weight
Length: 502 mm / 119.8 in
Width: 137 mm / 5.4 in
Height (head horizontal): 326 mm / 12.8 in

Weight

N.W: 12.2 kg

G.W: 13.8 kg

ACCESSORIES

These items are packed together with the projector:

Name	Quantity	Unit	Remark
 This manual	1	Pcs	Paper
 Power cable	1	Pcs	1.5m
 XLR cable	1	Pc	1.5m
 Safety cord	1	Pc	
	1	Pc	