150W BEAM,SPOT,WASH 3 IN 1

LED MOVING HEAD

User Manual

Please read the instruction carefully before use

CONTENTS

1. Safety Instructions

Please read the instruction carefully which includes important information about the installation, usage and maintenance.

WARNING

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction manual.

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

- Unpack and check carefully that there is no transportation damage before using the unit.
- The unit is for indoor use only. Use only in a dry location.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots are blocked, otherwise the unit will be overheated.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Maximum ambient temperature TA: 40℃. DO NOT operate it when the temperature is higher.
- DO NOT connect the device to any dimmer pack.
- During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, and it will decrease gradually within 15 minutes.
- Make sure there are no flammable materials close to the unit while operating to avoid fire hazard.
- Examine the power wires carefully; replace them immediately if there is any damage.
- Unit's surface temperature may reach up to 85℃. DO NOT touch the housing bare-handed during its operation, and allow about 15 minutes for cooling the unit down before replacing bulb or maintenance as it could be very hot.
- Avoid any inflammable liquids, water or metal objects entering the unit. Once it happens, cut off

the mains power immediately.

- DO NOT operate in dirty or dusty environment, do clean fixtures regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid power wires together twist other cables.
- The minimum distance between light output and the illuminated surface must be more than 12 meters.
- Disconnect mains power before fuse/lamp replacement or servicing.
- Replace fuse/lamp only with the same type.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the unit as there are no user serviceable parts inside.
- Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect the mains power if the fixture is has not been used for a long time.
- DO use the original packing materials before transporting it again.

Cautions:

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- Hot lamp explosion hazard. DO NOT open the unit within 15 minutes after switching off.
- DO replace the bulb once it is damaged, deformed or life-expired.
- DO NOT look directly at the light while the bulb is on.
- Never touch bulb with bare fingers, as it is very hot after using.
- DO NOT start on the unit without bulb enclosure or when housing is damaged.

Installation:

The unit is fully operational in three different mounting positions, hanging upside-down from a ceiling or set on a flat level surface. To avoid internal damage to the unit, never mount the unit on its side as illustrated above. Be sure this fixture is kept at least 0.5m away from any flammable materials (decoration etc.). Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

2. Technical Specifications

Power supply

- AC 100~240V 50/60Hz

Power Consumption

- 189W

Light Source

- 1 X 150W LED

Angle

-Beam Angle: 11°(on full open)

2°/4°/6°/8°/10° (with beam reducer)

3°/6°/9°/12°/15° /20° (with zoom lens)

-Spot Angle: Fix Gobo: 2° → 15° (with zoom lens)

Rotating Gobo: 10° → 17° (with zoom lens)

-Wash Angle: 15° → 28°

Movement

- Pan: 540°
- Tilt: 270°
- Pan/Tilt moving speed adjustable.
- Automatic Pan/Tilt correction.
- Easy calibration and maintenance by magnetic home positioning.

Dimmer/Shutter

- Blackout, 0~100% smooth dimming, independent shutter and various strobe effect.
- Integrated three features: beam, spot and wash

Color wheel

- 8 fixed colors plus white
- Rainbow effect in both directions.

Gobo wheel

- 1 Static gobo wheel with 7 gobos plus open

  1 Rotating gobo wheel with 6 gobos plus open

Prism

- Prism : 3 facet prism rotating in both directions

Frost

- Independent frost effect

Focus

- Motorized focus

Zoom

- Motorized linear zoom system

Protocols

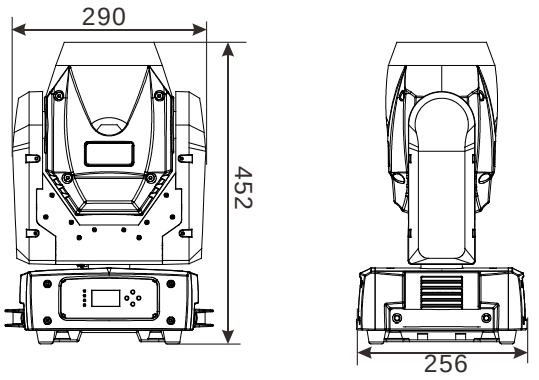
- DMX 512
- Date input/output: 3⁄5 Pin XLR socket

Weight

- 12 Kg

Dimension

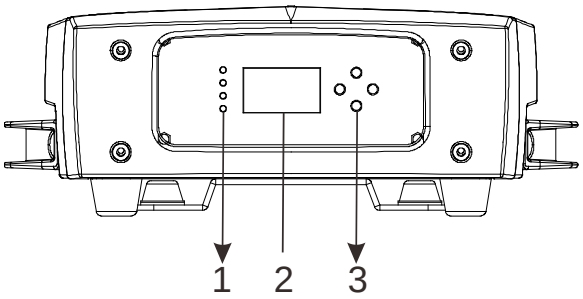
- 452× 290×256mm



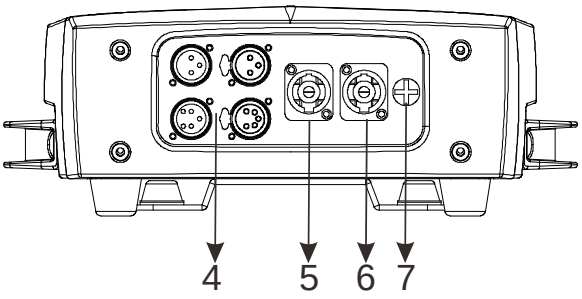
3. Description

3.1 Control Panel

Front view



Rear view



1. LED:

MASTER	On	Master mode
SLAVE	On	Slave mode
SOUND	On	Sound activation
DMX	On	DMX input present

2. Display: To show the various menus and the selected function.

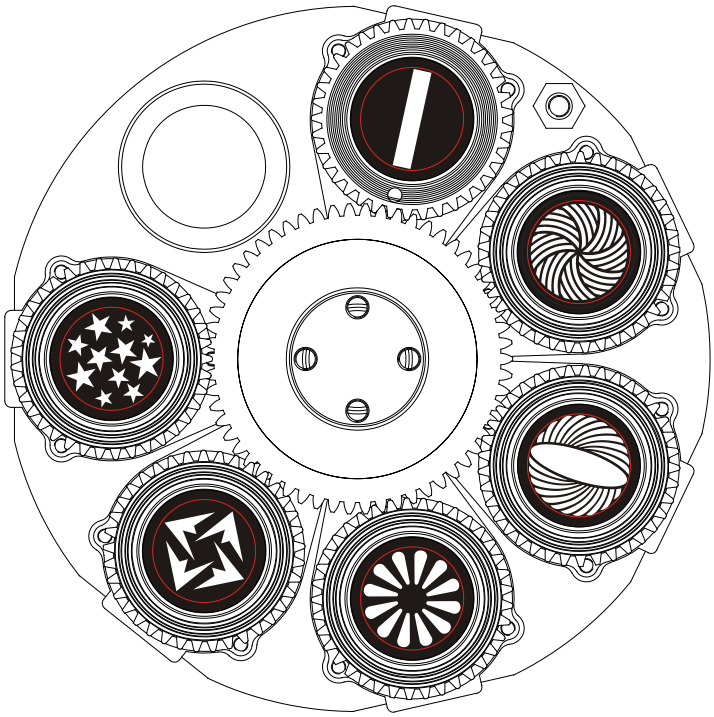
3. Button:

MENU	To enter into move backward or leave the menu
UP	To go backward to move up in the menu
DOWN	To go to move down in the menu
ENTER	To perform the desired functions

4. **DMX input/output:** For DMX 512 operation, use 3/5-pin XLR plug cable to link the units together
5. **Power In:** Used to connect to supply power.
6. **Power out:** Used to connect to next unit.
7. **Fuse (T 5A):** Protect the unit from damage of over current.

4. Gobo and Lamp

4.1 Gobos



DANGER!
Install the gobos with the device switched off only.
Unplug from mains before changing gobos!

CAUTION: Never unscrew the screws of the rotating gobo as the ball bearing will otherwise be opened!

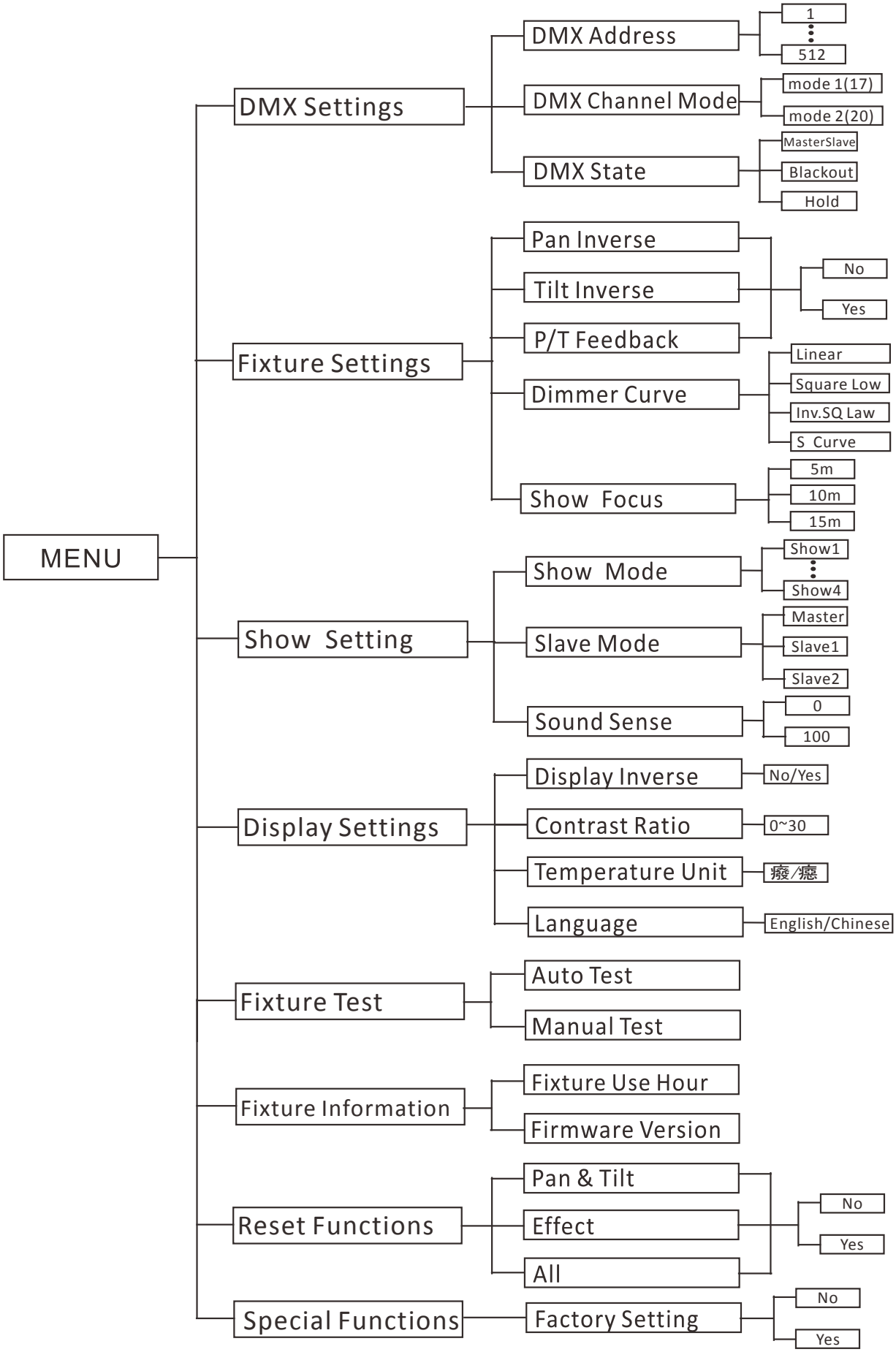
5. How To Set The Unit

5.1 Main Function

Turn on the unit, press the **MENU** button into menu mode, and press the **UP**/**DOWN** button until the required function is shown on the monitor. Select the function by the **ENTER** button. Use the **UP**/**DOWN** button to choose the submenu, press the **ENTER** button to store and automatically return to the last menu. Press the **MENU** button or let the unit idle one minute to exit menu mode.

In the event of disconnecting with mains power, press the **UP** button for one minute to enter into menu mode. Press MENU button or let the unit idle one minute to exit.

The main functions are shown below（the grayed boxes are preset settings）:


MENU
DMX Settings
DMX Address
1
512
DMX Channel Mode
mode 1(17)
mode 2(20)
DMX State
MasterSlave
Blackout
Hold
Fixture Settings
Pan Inverse
Tilt Inverse
No
Yes
P/T Feedback
Dimmer Curve
Linear
Square Low
Inv.SQ Law
S Curve
Show Focus
5m
10m
15m
Show Setting
Show Mode
Show1
Show4
Slave Mode
Master
Slave1
Slave2
Sound Sense
0
100
Display Settings
Display Inverse
No/Yes
Contrast Ratio
0~30
Temperature Unit
癈/癒
Language
English/Chinese
Fixture Test
Auto Test
Manual Test
Fixture Information
Fixture Use Hour
Firmware Version
Reset Functions
Pan & Tilt
Effect
All
No
Yes
Special Functions
Factory Setting
No
Yes

DMX Settings

To select ***DMX Settings*** press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select ***DMX Address***, ***DMX Channel Mode*** or ***DMX State.***

DMX Address —DMX512 address setting

To select **DMX Address**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to adjust the address from **001** to **512**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

DMX Channel Mode — channel mode

To select **DMX Channel Mode**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Mode1 (17)** or **Mode2 (20)** channels mode, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

DMX State — fixture state while DMX single stops

To select **DMX State**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Master Slave**(fixture enters to master slave mode),**Blackout** (fixture blacks out if DMX signal stops) or **Hold** (fixture continues to obey the last command it received Via DMX if DMX signal stops), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Fixture Settings

To select ***Fixture Settings***, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select ***Pan Inverse, Tile Inverse, P/T Feedback, Dimmer Curve*** or ***Show Focus.***

Pan Inverse

To select **Pan Inverse**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **No** (normal) or **Yes** (pan inverse), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Tilt Inverse

To select **Tilt Inverse**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **No** (normal) or **Yes** (tilt inverse), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

P/T Feedback

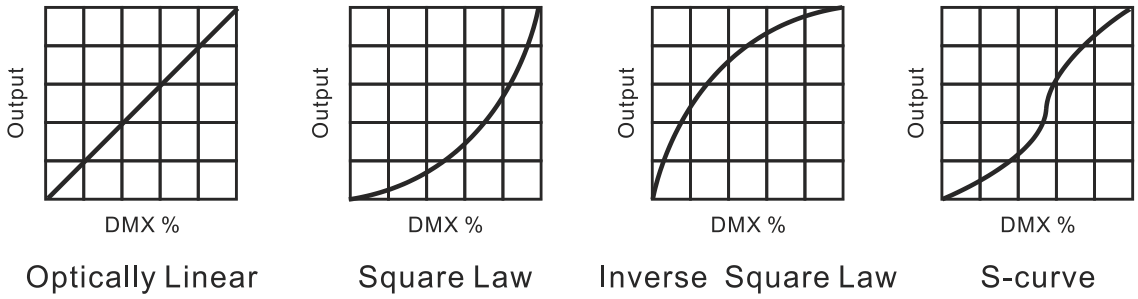
To select **P/T Feedback**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select

No (Pan or tilt's position will not feedback while out of step) or **Yes** (Feedback while pan/tilt out of step), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Dimmer Curve

To select **Dimmer Curve**, press the **ENTER** button to show the **DIMMER CURVE** on the display. Use the **DOWN**/**UP** button to select the **Mode1** or **Mode 2** or **Mode 3** or **Mode 4**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

Dimmer Modes



Mode 1(Optically Linear):

The increase in light intensity appears to be linear as DMX value is increased.

Mode 2(Square Law):

Light intensity control is finer at low levels and coarser at high levels.

Mode 3(Inverse Square Law):

Light intensity control is coarser at low levels and finger at high levels.

Mode 4(S-cure):

Light intensity control is finger at low levels and high levels and coarser at medium levels.

Show Focus

To select **Show Focus**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **5m,10m** or **15m**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Show Setting

To select ***Show Setting***, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select ***Show Mode, Slave Mode*** or ***Sound Sense.***

Show Mode

To select **Show Mode**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **show1, show 2, show 3** or **show 4**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Slave Mode

To select **Slave Mode**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **master, slave 1** or **slave 2**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Sound Sense

To select ***Sound Sense***, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to adjust the value from **0** to **100**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Display Settings

Enter menu mode, select ***Display Setting***, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select ***Display Inverse, Contrast Ratio, Temperature Unit*** or ***Language*****.**

Display Inverse

Select **Display Inverse**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP**/**DOWN** button to select **No** (normal display) or **Yes** (inverse display), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Contrast Ratio

Select **Contrast Ratio**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP**/**DOWN** button to adjust value from **0** to **30**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Temperature Unit

Select **Temperature Unit**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP**/**DOWN** button to select ℃ or ℉, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Language

Select **Language**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP**/**DOWN** button to select **English** or **Chinese**. Press the **MENU** button back to the last menu

or let the unit idle one minute to exit menu mode.

Fixture Test

Enter menu mode, select ***Fixture Test***, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select ***Auto Test*** or ***Manual Test***

Auto Test

Select **Auto Test**, press the **ENTER** button to confirm, the unit will run built-in programs to automatically test pan, tilt, shutter, color, CMY, gobo, gobo rotation, prism, prism rotation, iris, frost, zoom, focus, dimmer and lamp on/off. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Manual Test

Select **Manual Test**, press the **ENTER** button to confirm, the present channel will show on the display, use the **UP**/**DOWN** button to select channel, press the **ENTER** button to confirm, then use the **UP** and **DOWN** button to adjust the value, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the **MENU** button back to the last menu or exit menu mode idling one minute.

(All channels value will become 0 after exiting Manual Test menu)

Fixture Information

Enter menu mode, select ***Fixture Information***, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select ***Fixture use time*** or ***Firmware Version.***

Fixture use hour

Select **Fixture use hour**, press the **ENTER** button to confirm, fixture use time will show on the display, press the **MENU** button to exit.

Firmware Version

Select **Firmware Version**, press the **ENTER** button to confirm, firmware version will show on the display, press the **MENU** button back to exit.

Reset Functions

Enter menu mode, select ***Reset Function***, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select ***Pan/Tilt, Effect*** or ***All.***

Pan & Tilt —Reset Pan/Tilt

Select **Pan & Tilt**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Yes** (the unit will run built-in program to reset pan and tilt to their home positions) or **No**(normal), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Effect —Reset Effect

Select **Effect,** press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Yes** (the unit will run built-in program to reset effect to their home positions) or **No**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode

All — Reset All

Select **All,** press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Yes** (the unit will run built-in program to reset all motors to their home positions) or **No**, press **ENTER** button to store. Press the **MENU** button to exit.

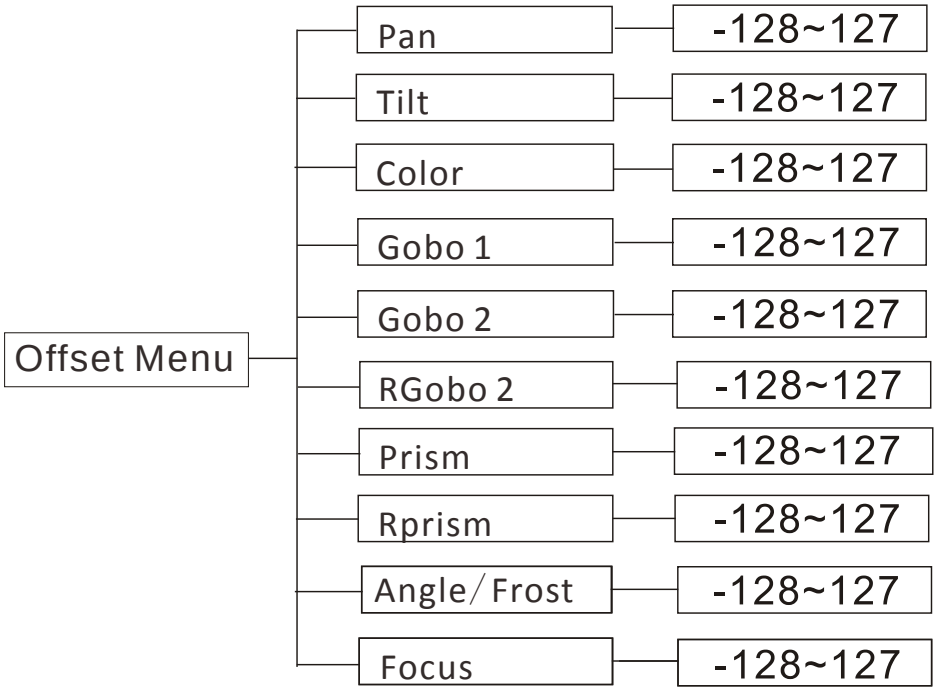
Special Functions

Factory Settings

Select **Factory Settings,** press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Yes** (the fixture will reset to factory settings) or **No** (normal), press **ENTER** button to store. Press the **MENU** button to exit.

5.2 Home Position Adjustment

Press the **MENU** button into menu mode, then press the **ENTER** button for about 3 seconds into offset mode to adjust the home position. Select the function by the **ENTER** button. Use the **UP**/**DOWN** button to choose the submenu, press the **ENTER** button to store and automatically return to the last menu. Press MENU button to exit.



Pan—pan home position adjustment

Enter offset mode, Select **Pan**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Tilt—Tilt home position adjustment

Enter offset mode, Select **Tilt**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Color 1—Color 1 home position adjustment

Enter offset mode, Select **Color 1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Gobo 1—Gobo 1 home position adjustment

Enter offset mode, Select **Gobo 1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Gobo 2—Gobo 2 home position adjustment

Enter offset mode, Select **Gobo 2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

R-Gobo 2—Gobo 2 rotation home position adjustment

Enter offset mode, Select **R-Gobo 2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Prism—Prism home position adjustment

Enter offset mode, Select **Prism**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

R-Prism—Prism rotation home position adjustment

Enter offset mode, Select **R-Prism**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Beam/Frost—Beam/Frost home position adjustment

Enter offset mode, Select **Beam/Frost**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Focus—Focus home position adjustment

Enter offset mode, Select **Focus**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

5.3 Error Information

Lamp Startup Fail

It appears when there is no lamp or some wires are damaged.

Temperature Sense Error

It appears when temperature check board is damaged.

Lamp Too Hot Power Off

It appears when temperature is detected higher than 110℃. Check if the unit is properly ventilated, or fans or temperature check board may is damaged.

Lamp Too Hot Low Power

It appears when detected temperature is higher than 105℃. the unit will run on a low power level.

Lamp On Over 700 Hour

It appears when the lamp always has been on over 700 hours, please turn off the lamp.

Memory Initial Fail

It appears when the memory IC is damaged.

CPU-B Error, CPU-C Error, CPU-D Error

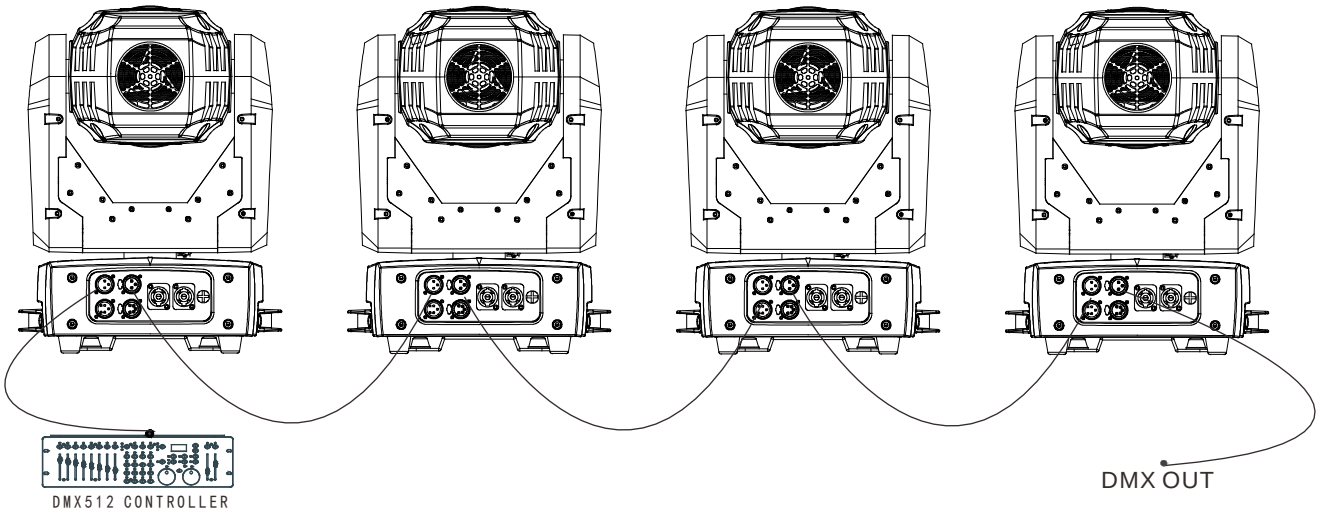
They appear when board P.C or some wires are damaged.

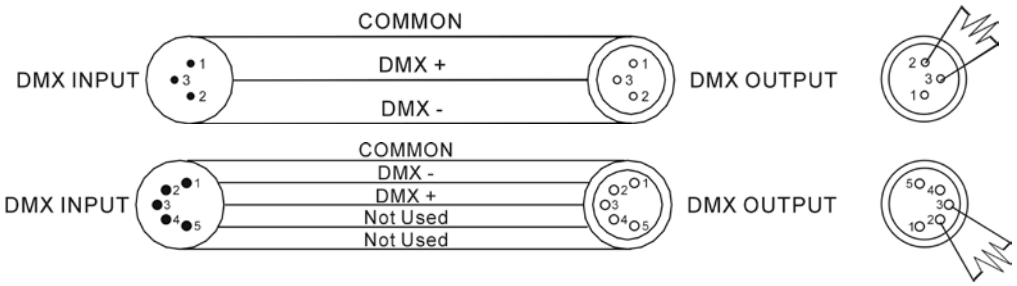
Pan Reset Error, Pan Encode Error, Tilt Reset Error, Tilt Encode Error, Shutter Reset Fail, Dimmer Reset Fail, Color Reset Fail, Cyan Reset Fail, Magenta Reset Fail, Yellow Reset Fail, Gobo1 Reset Fail, R-Gobo1 Reset Fail, Gobo2 Reset Fail, Iris Reset Fail, Effect Reset Fail, R-Effect Reset Fail, Frost Reset Fail, Flat Reset Fail, Focus Reset Fail, Zoom Reset Fail

They may appear when turning on or resetting the unit, for some parts such as board P.C are damaged. Please contact the qualified maintenance.

6. Control By Universal DMX Controller

6.1 Connection





ATTENTION

Termination reduces signal errors and to avoid signal transmission problems and interference. It is always advisable to connect a DMX terminal (Resistance 120 ohm 1/4W between pin2 (DMX-) and pin3 (DMX+) of the last fixture).

1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1⁄4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
2. Connect the unit together in a “daisy chain” by XLR plug cable from the output of the unit to the input of the next unit. The cable cannot be branched or split to a “Y” cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units’ power is disconnected.
4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address

number is between 0-511 (usually 0 & 1 are equal to 1).

5. The end of the DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pins XLR.

   3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

   5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

6.2 Address Setting

If you use a universal DMX controller to control the units, you have to set DMX address from 1 to 512 so that the units can receive DMX signal.

Press the **MENU** button to enter menu mode, select ***DMX Functions***, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select ***DMX Address***, press the **ENTER** button to confirm, the present address will blinking the display, use the **UP**/**DOWN** button to adjust the address from 001 to 512, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling let the unit idle one minute to exit menu mode.

Please refer to the following diagram to address your DMX512 channel for the first 4 units.

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
17 channels	1	18	35	52
20 channels	1	21	41	61

6.3 DMX 512 Configuration

Please refer to below configurations to control the fixtures

Attentions:

1. The unit will maintain the last condition until reset if you cut-off the DMX signal.
2. For the channel Function, keep the value for about 5 seconds, then the corresponding function will take into effect.

17 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	**PAN** 0 ° → 540°

2	000-255	**TILT** 0 ° → 270°
3	000-255	**PAN/TILT SPEED** Fast to Slow
4		**SHOW MODE**
	000-015	Null
	016-063	Show 1
	064-127	Show 2
	128-191	Show 3
	192-255	Show 4
5		**PAN/TILT MACRO**
	000-007	Off
	008-015	Macro 1
	016-023	Macro 2
	024-031	Macro 3
	032-039	Macro 4
	040-047	Macro 5
	048-055	Macro 6
	056-063	Macro 7
	064-071	Macro 8
	072-079	Macro 9
	080-087	Macro 10
	088-095	Macro 11
	096-103	Macro 12
	104-111	Macro 13
	112-119	Macro 14
	120-127	Macro 15
	128-135	Macro 16
	136-143	Macro 17
	144-151	Macro 18
	152-159	Macro 19
	160-167	Macro 20
	168-175	Macro 21
	176-183	Macro 22
	184-191	Macro 23
	192-199	Macro 24
	200-207	Macro 25
	208-215	Macro 26
	216-223	Macro 27
	224-231	Macro 28
	232-239	Macro 29

	240-247	Macro 30
	248-255	Macro 31
6		**MACRO SPEED**
	000-255	fast to slow
7		**COLOR**
	000-015	White
	016-018	Color1
	019-021	Color2
	022-024	Color3
	025-027	Color4
	028-030	Color5
	031-033	Color6
	034-036	Color7
	037-039	Color8
	040-042	Color9
	043-045	Color10
	046-048	Color11
	049-051	Color12
	052-054	Color13
	055-057	Color14
	058-060	Color15
	061-063	Color16
	064-127	Color wheel indexing
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
8		**GOBO WHEEL 1**
	000-007	Open
	008-016	Gobo1-1
	017-025	Gobo1-2
	026-034	Gobo1-3
	035-043	Gobo1-4
	044-052	Gobo1-5
	053-061	Gobo1-6
	062-067	Gobo1-7
	068-127	Gobo1 1-7 shaking
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
9		**GOBO WHEEL 2**
	000-007	Open

	008-016	Gobo2-1
	017-025	Gobo2-2
	026-034	Gobo2-3
	035-043	Gobo2-4
	044-052	Gobo2-5
	053-061	Gobo2-6
	062-127	Gobo2 1 -6 Shaking
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
10		**R-GOBO 2**
	000-127	Index
	128~189	clockwise rotation fast to slow
	190-193	Stop
	194-255	Counter-clockwise rotation slow to fast
11		**ANGLE/FROST**
	000-007	Off
	008-128	Angle
	129-255	Frost
12		**PRISM**
	000-007	No effect
	008-255	Prism Effect
13		**R-PRISM**
	000-127	Index
	128-189	Counter-clockwise rotation fast to slow
	190-193	Stop
	194-255	clockwise rotation slow to fast
14		**FOCUS**
	000-255	0% → 100%
15		**SHUTTER**
	000-007	Off
	008-015	On
	016-131	slow to fast strobe
	132-139	open
	140-181	Slow open fast close
	182-189	open
	190-231	Slow close fast open
	232-239	open
	240-247	Random strobe
	248-255	Open
16		**DIMMER**

	000-255	0% → 100%
17		**SPECIAL FUNCTION**
	000-069	No function
	070-079	Enable blackout while Pan/Tilt Moving
	080-089	Disable blackout while Pan/Tilt Moving
	090-099	Enable blackout while Color changing
	100-109	Disable blackout while Color changing
	110-119	Enable blackout while Gobo changing
	120-129	Disable blackout while Gobo changing
	130-139	No function
	140-149	Pan/Tilt reset
	150-159	Effect reset
	160-199	No function
	200-209	All reset
	210-219	Enable blackout while Pan/Tilt Color Gobo Moving
	220-229	Disable blackout while Pan/Tilt Color Gobo Moving
	230-255	No function

20 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	**PAN** 0 ° → 540°
2	000-255	**PAN FINE**
3	000-255	**TILT** 0 ° → 270°
4	000-255	**TILT FINE**
5	000-255	**PAN/TILT SPEED** Fast to Slow
6		**SHOW MODE**
	000-015	Null
	016-063	Show 1
	064-127	Show 2
	128-191	Show 3
	192-255	Show 4
7		**PAN/TILT MACRO**
	000-007	Off
	008-015	Macro 1
	016-023	Macro 2
	024-031	Macro 3

	032-039	Macro 4
	040-047	Macro 5
	048-055	Macro 6
	056-063	Macro 7
	064-071	Macro 8
	072-079	Macro 9
	080-087	Macro 10
	088-095	Macro 11
	096-103	Macro 12
	104-111	Macro 13
	112-119	Macro 14
	120-127	Macro 15
	128-135	Macro 16
	136-143	Macro 17
	144-151	Macro 18
	152-159	Macro 19
	160-167	Macro 20
	168-175	Macro 21
	176-183	Macro 22
	184-191	Macro 23
	192-199	Macro 24
	200-207	Macro 25
	208-215	Macro 26
	216-223	Macro 27
	224-231	Macro 28
	232-239	Macro 29
	240-247	Macro 30
	248-255	Macro 31
8		**MACRO SPEED**
	000-255	fast to slow
9		**COLOR**
	000-015	White
	016-018	Color1
	019-021	Color2
	022-024	Color3
	025-027	Color4
	028-030	Color5
	031-033	Color6
	034-036	Color7
	037-039	Color8
	040-042	Color9

	043-045	Color10
	046-048	Color11
	049-051	Color12
	052-054	Color13
	055-057	Color14
	058-060	Color15
	061-063	Color16
	064-127	Color wheel indexing
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
10		**GOBO WHEEL 1**
	000-007	Open
	008-016	Gobo1-1
	017-025	Gobo1-2
	026-034	Gobo1-3
	035-043	Gobo1-4
	044-052	Gobo1-5
	053-061	Gobo1-6
	062-067	Gobo1-7
	068-127	Gobo1 1-7 shaking
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
11		**GOBO WHEEL 2**
	000-007	Open
	008-016	Gobo2-1
	017-025	Gobo2-2
	026-034	Gobo2-3
	035-043	Gobo2-4
	044-052	Gobo2-5
	053-061	Gobo2-6
	062-127	Gobo2 1 -6 Shaking
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
12		**R-GOBO 2**
	000-127	Index
	128~189	clockwise rotation fast to slow
	190-193	Stop
	194-255	Counter-clockwise rotation slow to fast

13		**ANGLE/FROST**
	000-007	Off
	008-128	Angle
	129-255	Frost
14		**PRISM**
	000-007	No effect
	008-255	Prism Effect
15		**R-PRISM**
	000-127	Index
	128-189	Counter-clockwise rotation fast to slow
	190-193	Stop
	194-255	clockwise rotation slow to fast
16		**FOCUS**
	000-255	0% → 100%
17		**SHUTTER**
	000-007	Off
	008-015	On
	016-131	slow to fast strobe
	132-139	open
	140-181	Slow open fast close
	182-189	open
	190-231	Slow close fast open
	232-239	open
	240-247	Random strobe
	248-255	Open
18		**DIMMER**
	000-255	0% → 100%
19	000-255	**DIMMER FINE**
20		**SPECIAL FUNCTION**
	000-069	No function
	070-079	Enable blackout while Pan/Tilt Moving
	080-089	Disable blackout while Pan/Tilt Moving
	090-099	Enable blackout while Color changing
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	110-119	Enable blackout while Gobo changing
	120-129	Disable blackout while Gobo changing
	130-139	No function
	140-149	Pan/Tilt reset
	150-159	Effect reset
	160-199	No function

	200-209	All reset
	210-219	Enable blackout while Pan/Tilt Color Gobo Moving
	220-229	Disable blackout while Pan/Tilt Color Gobo Moving
	230-255	No function

7. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work

1. Check the connect power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED to see if it can be light up or not.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if they are linked properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check to see if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motor's drive IC on the PCB might be out of condition.

D. The lamp is cutting out intermittently

1. The lamp is not working well. Check the mains voltage either too high or too low.
2. Internal temperature may be too high. Check if replacement of fan is needed on the head.

8. Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- Clean with soft cloth and use normal glass to clean liquid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days. Clean the internal optics at least every 30⁄60 days.

Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 89/336/EEC.

EN55103-1: 2009+A1:2012; EN55103-2: 2009;
EN61000-3-2: 2014; EN61000-3-3: 2013.

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Harmonized Standard

EN 60598-1:2015; EN 60598-2-17:1989 + A2:1991;
EN 62471:2008; EN 62493: 2010
Safety of household and similar electrical appliances
Part 1: General requirements

Innovation, Quality, Performance