par LED 200
SH-LED358IP

USER MANUAL
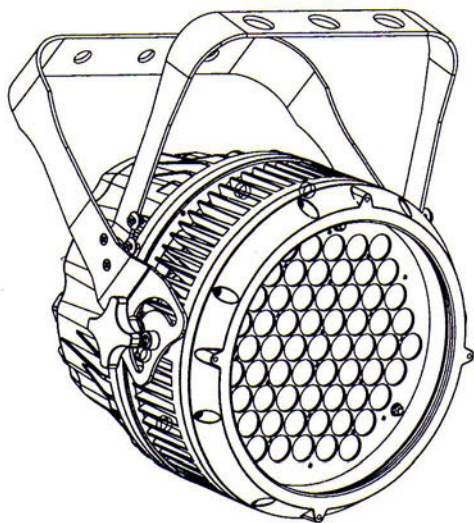
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1.1 TECHNICAL SPECIFICATIONS

LED MODULE

LED MODULE:	IP2X	IP 66
Voltage	100~240V...50/60Hz	100~240V...50/60Hz
Power	180W	180W
RED	3W x 17	3W x 17
GREEN	3W x 17	3W x 17
BLUE	3W x 17	3W x 17
WHITE	3W x10	3W x10
IP RATING	IP 2X	IP 66
Operation Temperature	-40℃~45℃ (operating)	-40℃~45℃ (operating)
	-20℃~40℃ (startup)	-20℃~40℃ (startup)
Dimensions	357x302x237mm	311x302x237mm
Weight	8.42Kg	8.34Kg

IP2X

237mm

357mm

302mm

IP 66

237mm

311mm

302mm
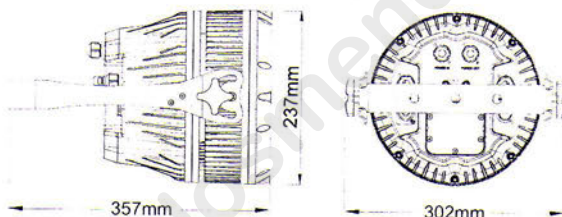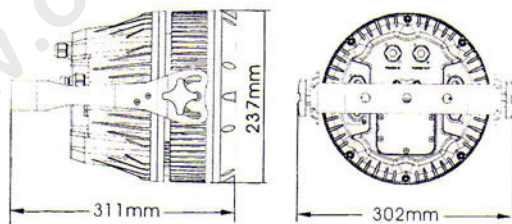
1.2 SAFETY WARNING

IMPORTANT

【ALWAYS READ THE USER MANUAL BEFORE OPERATION.】
【PLEASE CONFIRM THAT THE POWER SUPPLY STATED ON THE PRODUCT IS THE SAME AS THE MAINS POWER SUPPLY IN YOUR AREA.】

- This product must be installed by a qualified professional.
- Always operate the equipment as described in the user manual.
- A minimum distance of 0.5m must be maintained between the equipment and combustible surface.
- The product must always be placed in a well ventilated area.
- Always make sure that the equipment is installed securely.
- DO NOT stand close to the equipment and stare directly into the LED light source.
- Always disconnect the power supply before attempting maintenance.
- Always make sure that the supporting structure is solid and can support the combined weight of the products.
- The earth wire must always be connected to the ground.
- Do not touch the power cables if your hands are wet.

ATTENTION

⚠ ATTENTION ⚠

- This product left the place of manufacture in perfect condition. In order to maintain this condition and for safe operation, the user must always follow the instructions and safety warnings described in this user manual.
- Avoid shaking or strong impacts to any part of the equipment.
- Make sure that all parts of the equipment are kept clean and free of dust.
- Always make sure that the power connections are connected correct and secure.
- If there is any malfunction of the equipment, contact your distributor immediately.
- When transferring the product, it is advisable to use the original packaging in which the product left the factory.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- It is important that the power cable is frequently inspected to ensure that there is no damage in any position. If the power cable is damaged in any way, it should be replaced by a qualified electrical technician.
- The lamp (LED) shall be changed if it has become damaged or thermally deformed.

2 INSTALLATION

2.1 MOUNTING

HANGING

The fixture can be mounted in a hanging position using the supporting bracket. The bracket should be secured to the mounting truss or structure using a standard mounting clamp. Please note that when hanging the unit a safety cable should also be used.
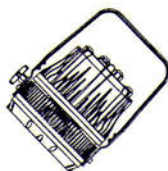
UPRIGHT

The fixture can be mounted in an upright or sitting position using the supporting brackets.

⚠ **NOTE** The LED MODULE can be mounted at any angle and in any position. It is possible to further adjust the angle of the LED MODULE using the two adjustment knobs located on the side of the fixture.

2.2 POWER CONNECTIONS

@ 220V: 14 units may be connected in series

@ 120V: 7 units may be connected in series

Note:
If the signal cable is over 60m between the DMX512 controller and fixture or beween two fixtures, then a DMX signal amplifier is needed as well.

3 DISPLAY PANEL OPERATION

3.1 BASIC

【MENU】 scroll through the main menu or return to the main menu.

【ENTER】 enter the currently selected menu or confirm the current function value.

【UP】 scroll 'UP' through the menu list or increase the value of the current function.

【DOWN】 scroll 'DOWN' through the menu list or decrease the value of the current function.

MENU ENTER UP DOWN

3.2 MENU

MENU → STAT → RED → R.(0~255)
GREN → G.(0~255)
BLUE → B.(0~255)
WHIT → W.(0~255)
ZOOM → Z.(0~255)
STRB → S.(0~20)

AUTO → AT.01
AT.02
⋮
AT.10
PR.01
PR.02
⋮
PR.10

RUN → DMX
SLAV

DMX → D.(001~512)

PERS → TOUR
ARC.1
AR1.D
ARC.2
AR2.D
AR2.S
HSV
HSVZ

EDIT → PR.01 → SC.01 → RED → R.(0~255)
PR.02 → SC.02 → GREN → G.(0~255)
⋮ → BLUE → B.(0~255)
PR.10 → SC.30 → WHIT → W.(0~255)
ZOOM → Z.(0~255)
STRB → S.(0~20)
TIME → T.(0~255)
FADE → F.(0~255)

SET → UPLD → PASS → **** → SEND → END
REST → PASS → **** → REST → END

COLOR → UC
OFF
RGBW

DIM → DIM4
DIM3
DIM2
DIM1
OFF

DERR → SAVE
BLAK

ZOOM → POS1
POS2
BASE

KEY → ON
OFF

CAL → ****

WT → WT.01 → RED → R.(0~255)
WT.02 → GREN → G.(0~255)
⋮ → BLUE → B.(0~255)
WT.11 → WHIT → W.(0~255)

RGBW → RED → R.(0~255)
GREN → G.(0~255)
BLUE → B.(0~255)
WHIT → W.(0~255)

ZOOM → POS1 → 1.(0~255)
POS2 → 2.(0~255)

3.3 EDIT STATIC COLOUR

```
MENU ─→ STAT ─→ Red    ─→ (0~255)
                Green  ─→ (0~255)
                Blue   ─→ (0~255)
                White  ─→ (0~255)
                ZOOM   ─→ (0~255)
                Strob  ─→ (0~20)
```

【STATIC COLOUR】

● Combine 【Red】, 【Green】, 【Blue】 and 【White】 to create an infinite range of colors (0-255)
● Set the value of the 【Strobe】 (0-20Hz)
● Set the projection angle by using the 【ZOOM】

3.4 ACTIVATING AUTO PROGRAMS

```
MENU ─→ AUTO ─→ AT.01
                AT.02
                ....
                AT.10
                PR.01
                PR.02
                ....
                PR.10
```
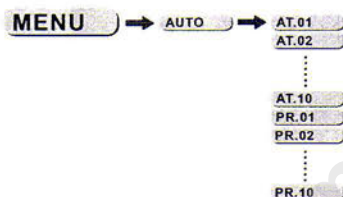
【AUTO】

● Select the target 【AUTO】 program and press 【ENTER】.
● Programs 【AT.01】 to 【AT.10】 are fully pre-programmed and will not be altered by changes in 【EDIT】 mode.
● Programs 【PR.01】 to 【PR.10】 are fully pre-programmed and can be edited in 【EDIT】 mode.

3.5 RUN MODE

```
MENU ─→ RUN ─→ DMX
               SLAV
```

【RUN】

● Enter the 【RUN】 mode to set working mode.
● 【DMX】 mode is for using the DMX512 controller to control the fixtures.
● 【SLAV】 mode is for Master -- Slave operation.

3.6 DMX512 SETTINGS

MENU → DMX → D(001~512)

【DMX】

● Enter the 【DMX】 mode to set the DMX ADDRESS.

3.7 PERSONALITY

MENU → PERS → TOUR
ARC.1
AR1.D
ARC.2
AR2.D
AR2.S
HSV
HSVZ

【PERSONALITY】

● Enter the 【PERSONALITY】 mode to select DMX mode: 【TOUR】, 【ARC.1】,
【AR1.D】, 【ARC.2】, 【AR2.D】, 【AR2.S】, 【HSV】 【HSVZ】.

3.8 EDITING CUSTOM PROGRAMS

MENU → EDIT → PR.01 → SC.01 → Red → (0~255)
PR.02 SC.02 Green (0~255)
Blue (0~255)
White (0~255)
PR.10 SC.30 Zoom (0~255)
Strobe (0~20)
Time (0~255)
【EDIT CUSTOM】 Fade (0~255)

● Enter the 【EDIT 】 mode to edit the custom programs 【PR.01】 to 【PR.10】.
● Each custom program has 30 steps that can be edited.
● Each step allows the creation of a scene using RED 【Red】, GREEN 【Green】,
BLUE 【Blue】, WHITE 【White】, ZOOM 【ZOOM】, STROBE 【Strobe】,
TIME 【Time】 & FADE 【Fade】.

3.9 SPECIAL SETTINGS

```
MENU  →  SET  →  UPLD  →  PASS  →  ••••  →  SEND  →  END
                 REST  →  PASS  →  ••••  →  REST  →  END
                 DIM   →  DIM4
                          DIM1
                          DIM2
                          DIM3
                          OFF
                 COLOR →  OFF
                          RGBW
                          UC
                 DERR  →  BLAK
                          SLAV
                 ZOOM  →  POS1
                          POS2
                          BASE
```
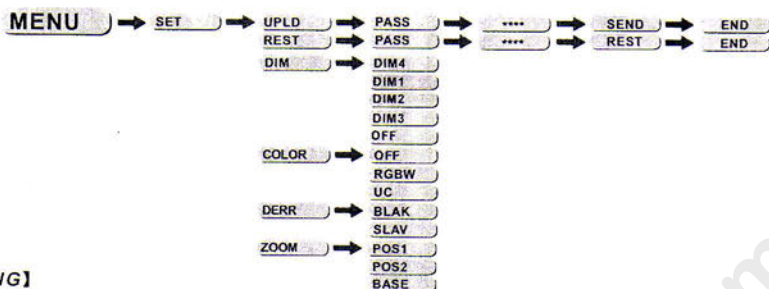
【SETTING】

● Select 【UPLD】 to upload the custom programs from the current MASTER unit to the SLAVE units.
● In order to activate the upload function the password must be entered.
● Password is the same as the main access password.
● When uploading the MASTER and SLAVE units will display YELLOW.
● If an error occurs when uploading the MASTER and/or SLAVE units will display RED.
● On successful uploading of the custom programs the MASTER and SLAVE units will display GREEN.
● In order to reset custom modes to default values select 【REST】.
● 【COLOR】 is for activate/unactivate the color calibration functions.

When 【RGBW】 is selected, on RGB = 255,255,255, the color is displayed as calibrated in CAL2 -- RGBW. When 【COLOR】 is set 【OFF】, on RGB = 255,255,255, the RGB values are not adjusted and the output is most powerful.

When [UC] is selected, the RGB output are adjusted to a standard preset universal color which balances fixtures from different generations.
● 【DERR】 Choose 【Save】 in order to save the last DMX data incase of DMX signal error. Choose 【Black】 in order to blackout in case of DMX signal error.
● 【ZOOM】 Calibrate the position of POS1&POS2.Set position as 0 for smallest zoom position. selecf BASE for defaulf zoom position (zoom=0)

3.10 ACTIVATE THE PASSWORD

```
MENU  →  KEY  →  ON
                 OFF
```

【KEY】

● Enter the 【KEY】 mode to select whether the access password is on or off.
● When the fixture is set as PASS 【ON】, after 30 seconds or turn on the fixture next time, the fixture will need an access password to enter the display menu control.

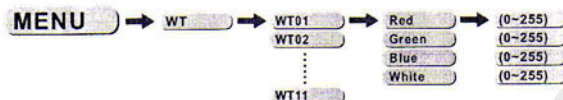Note: The factory access password is 【UP】 + 【DOWN】 + 【UP】 + 【DOWN】, then press 【ENTER】 to confirm the access.

3.11   EXTRA

MENU ⟶ CAL ⟶ 0000

◆ When the user enter 【 CAL 】 and input the correct password, the
hidden menu 【 Cablid 】 , 【 default 】 will appear on display panel, and
the user is able to reset the 【 DEFAULT 】 values of all functions.

The default access code is UP + DOWN + UP + DOWN..

3.12   WHITES CALIBRATION

MENU ⟶ WT ⟶ WT01 ⟶ Red ⟶ (0~255)
                    WT02   Green   (0~255)
                      ⋮   Blue   (0~255)
                    WT11   White   (0~255)

【WT】

● Enter the 【CAL1】 to select white color of different color temperature.
● There are 11 pre-programmed White colors can be edited by using 【Red】 ,
  【Green】 , 【Blue】 & 【White】 .

3.13   RGB CALIBRATION

MENU ⟶ RGBW ⟶ Red ⟶ R.(0~255)
                     Green   G.(0~255)
                     Blue   B.(0~255)
                     Whit   W.(0~255)

【RGBW】

● Enter the 【MENU】 to adjust the RGWB parameter to make different whites.
● When the new setting is activated, the DMX controller choose
  RGBW = 255,255,255, 255, the white color will be made by the actual
  RGBW values on
  the 【RGBW】 .

3.14   ZOOM RANGE

MENU ⟶ ZOOM ⟶ POS1 ⟶ 1.(0~255)
                     POS2   2.(0~255)

【ZOOM】

● Select the 【ZOOM】 range. 【POS1】 & 【POS2】 set the small position for the
  zoom function.Note that when using DMX to control the fixture, the user will only
  be able to access upto the set ZOOM position.It is not possible to adjust beyond
  the set position.

4 USING A DMX512 CONTROLLER

4.1 BASIC ADDRESSING

- Connect all of the units in series using standard DMX512 signal cable or the IP65 rated cable provided.
- Set the DMX512 address in the 【DMX】 menu.
- It is possible to have the same DMX address or independent addresses for each fixture.

4.2 CHANNEL ASSIGNMENT

- Note: This product have three DMX512 channel configuration: 【TOUR】, 【Arc.1】, 【Ar1.d】, 【Arc.2】, 【Ar2.d】, 【Ar2.s】 and 【HSV】

TOUR

CHANNEL	VALUE	FUNCTION
1	0⟺255	MASTER DIMMER
2	0⟺255	RED (or STEP TIME when CUS.01-CUS.10 in CH8 is activated)
3	0⟺255	GREEN (or FADE TIME when CUS.01-CUS.10 in CH8 is activated)
4	0⟺255	BLUE
5	0⟺255	WHITE
6		COLOR MACRO
	0⟺5	NO FUNCTION
	11⟺30	RED100%/GREEN UP/BLUE0%
	31⟺50	RED DOWN/GREEN 100%/BLUE0%
	51⟺70	RED 0%/GREEN 100%/BLUE UP
	71⟺90	RED 0%/GREEN DOWN/BLUE 100%
	91⟺110	RED UP/GREEN 0%/BLUE100%
	111⟺130	RED100%/GREEN 0%/BLU EDOWN
	131⟺150	RED100%/GREEN UP/BLUE UP
	151⟺170	RED DOWN/CREEN DOWN/BLUE 100%
	171⟺200	RED100%/GREEN 100%P/BLUE100%/WHITE 100%
	201⟺205	WHITE1: 3200K
	206⟺210	WHITE2: 3400K
	211⟺215	WHITE3: 4200K
	216⟺220	WHITE4: 4900K
	221⟺225	WHITE5: 5600K
	226⟺230	WHITE6: 5900K

CHANNEL	VALUE	FUNCTION
6	231⟺235	WHITE 7. 6500K
	236⟺240	WHITE 8. 7200K
	241⟺245	WHITE 9: 8000K
	246⟺250	WHITE 10: 8500K
	251⟺255	WHITE 11: 10000K
7		STROBE
	0⟺10	NO FUNCTION
	11~255	1~20Hz
8		AUTO
	0⟺20	NO FUNCTION
	21⟺30	AUTO 1
	31⟺40	AUTO 2
	41⟺50	AUTO 3
	51⟺60	AUTO 4
	61⟺70	AUTO 5
	71⟺80	AUTO 6
	81⟺90	AUTO 7
	91⟺100	AUTO 8
	101⟺110	AUTO 9
	111⟺120	AUTO 10
	121⟺130	CUSTOM 1
	131⟺140	CUSTOM 2
	141⟺150	CUSTOM 3
	151⟺160	CUSTOM 4
	161⟺170	CUSTOM 5
	171⟺180	CUSTOM 6
	181⟺190	CUSTOM 7
	191⟺200	CUSTOM 8
	201⟺210	CUSTOM 9
	211⟺220	CUSTOM 10
	221⟺255	NO FUNCTION
9		AUTO SPEED ADJUSTMENT
	0⟺255	When using CH8,AUTO01-AUTO10, this function activated
10		DIMMER SPEED
	0⟺9	PRESET DIMMER SPEED FROM DISPLAY MENU
	10⟺29	LINEAR DIMMER
	30⟺69	NON LINEAR DIMMER 1 (fastest)
	70⟺129	NON LINEAR DIMMER 2
	130⟺189	NON LINEAR DIMMER 3
	190⟺255	NON LINEAR DIMMER 4 (slowest)
11	0⟺255	ZOOM
12	000⟺200	NO FUNCTION
	201⟺220	ZOOM RESET
	221⟺255	NO FUNCTION

Arc.1

CHANNEL	VALUE	FUNCTION
1	0⟺255	RED
2	0⟺255	GREEN
3	0⟺255	BLUE

Ar1.d

CHANNEL	VALUE	FUNCTION
1	0⟺255	MASTER DIMMER
2	0⟺255	RED
3	0⟺255	GREEN
4	0⟺255	BLUE

Arc.2

CHANNEL	VALUE	FUNCTION
1	0⟺255	RED
2	0⟺255	GREEN
3	0⟺255	BLUE
4	0⟺255	WHITE

Ar2.d

CHANNEL	VALUE	FUNCTION
1	0⇔255	MASTER DIMMER
2	0⇔255	RED
3	0⇔255	GREEN
4	0⇔255	BLUE
5	0⇔255	WHITE

Ar2.s

CHANNEL	VALUE	FUNCTION
1	0⇔255	MASTER DIMMER
2	0⇔255	RED
3	0⇔255	GREEN
4	0⇔255	BLUE
5	0⇔255	WHITE
6	0⇔255	STROBE

HSV

CHANNEL	VALUE	FUNCTION
1	0⇔255	HUE(0~100%)
2	0⇔255	SATURATION(0~100%)
3	0⇔255	VALUE(0~100%)

5.1 MAINTENANCE
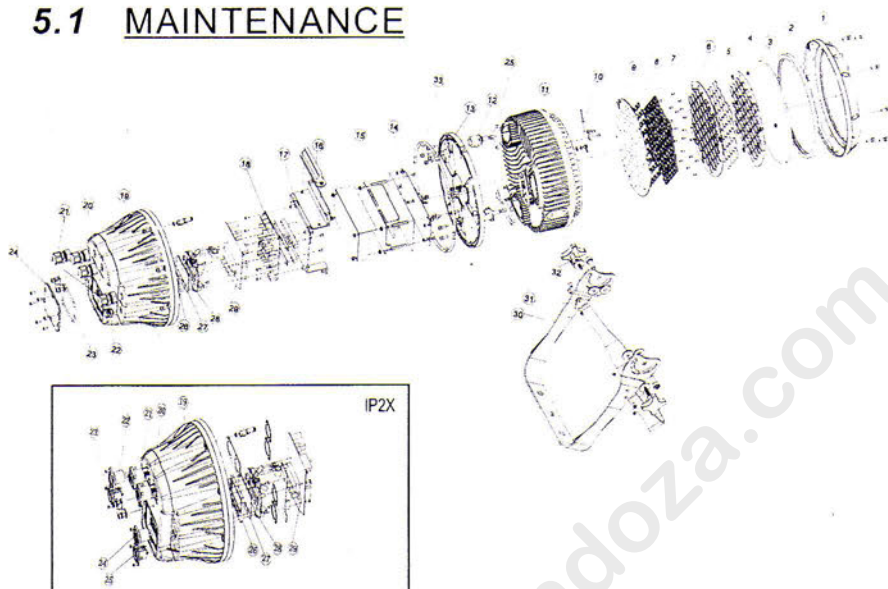
IP2X

No	ITEM(IP2X)	ITEM(IP 66)
1	Head cover	Head cover
2	Rubber seal	Rubber seal
3	Clear glass	Clear glass
4	Lens holder up	Lens holder up
5	Zoom lens	Zoom lens
6	Lens holder down	Lens holder down
7	Lens base	Lens base
8	Capture lens	Capture lens
9	LED board	LED board
10	Thermal protection device	Thermal protection device
11	Head structure	Head structure
12	Motor	Motor
13	Connection disk	Connection disk
14	Power supply support	Power supply support
15	Power supply	Power supply
16	Connection boardd	Connection boardd
17	Drive support	Drive support
18	Prive PCB	Prive PCB
19	Casing2	Casing1
20	Power adaptor	Waterproof button
21	Power adaptor	Waterproof button
22	3 XLR socket(male)	Waterproof dustproof film
23	5 XLR socket(male)	Seal for display metal plate
24	3 XLR socket(female)	Waterproof coverboard
25	5 XLR socket(female)	Connection disk waterproof
26	Button seal	Button seal
27	Display lens	Display lens
28	Button board	Button board
29	Display PCB	Display PCB
30	Abracket2	Abracket2
31	Secondary bracket	Secondary bracket
32	Adjusting stainless steel knob	Adjusting stainless steel knob
33		Weather -proof base section