



# **Thunder Soft Light**

User Manual v1.2

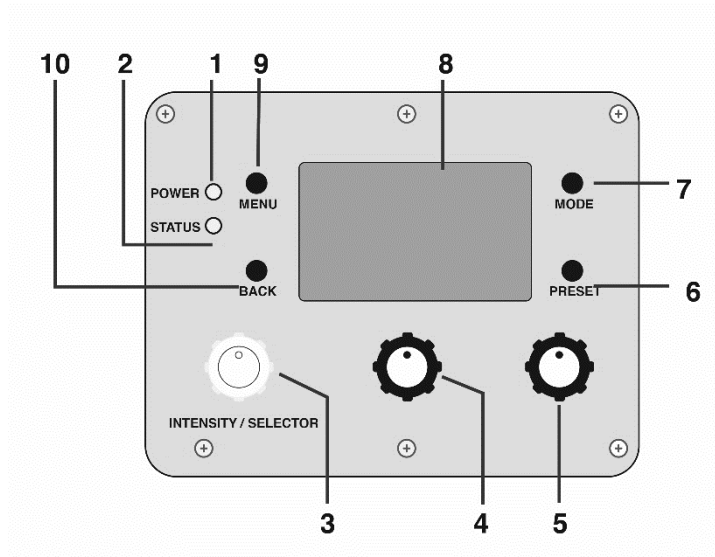
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# Table of Contents

1. Fixture Menu .....	3
1.1 Control Interface .....	3
1.2 Communication Interface .....	5
1.3 Power ports .....	6
1.4 Thunder remote controller .....	7
2. Lighting modes .....	7
2.1 CCT mode .....	7
2.2 Skin Tone mode .....	7
2.3 HSI mode .....	7
2.4 Gel mode .....	7
2.5 Source Matching mode .....	8
2.6 Light Effect mode .....	8
2.7 RGBWA mode .....	8
3. Lighting settings .....	8
3.1 CCT mode .....	8
3.2 Skin Tone mode .....	8
3.3 HSI mode .....	8
3.4 Gel mode .....	9
3.5 Source Matching mode .....	9
3.6 Light Effect mode .....	9
3.7 RGBWA parameter tuning .....	10
4. System Settings .....	10
4.1 Dimming Curve .....	10
4.2 Fan setting .....	11
4.3 Save, call up and delete preset lights .....	12
4.4 Firmware upgrade .....	12
4.5 Factory reset .....	12
4.6 Time setting .....	12
4.7 System temperature .....	13
4.8 Fixture information .....	13
5. DMX Setting .....	13
5.1 DMX Master/Slave mode .....	13
5.2 DMX protocols .....	13

# 1. Fixture Menu

## 1.1 Control Interface



### Power LED (1)

Status	Indication
Red and Green flashing	Error: firmware is not found in the product.
Green	Fixture switched on. No error

### Status LED (2)

Status	Indication
Green flashing	Fixture is running. No error.

### INTENSITY/SELECTOR, (I/S, 3)

The I/S button has two functions:

#### *Scan and select*

When any menu is shown on the screen, such as main menu or preset list, tuning the I/S button to scan the list. Pressing the I/S button confirms selection and opens sub menus.

### ***Change light intensity***

When any menu is not shown on the screen, the I/S button sets the intensity of the light output.

### **Central Knob (4)**

Use this knob to set the first parameter of the light output, such as CCT, Hue, or Speed. The corresponding parameter is shown on the LCD screen.

### **Right Knob (5)**

Use this knob to set the second parameter of the light output, such as the green/magenta deviation or color saturation. The corresponding parameter is shown on the LCD screen.

### **Preset button (6)**

This button has three functions:

#### ***To store a preset***

Long press the button to save the current lighting parameters to the preset list

#### ***To call up a preset***

Press the button to call out the preset list. Turn and press the I/S (3) button to select and call up a preset.

#### ***To delete a preset***

On the preset list interface, long press the button to enter the deleting interface. Turn and press the I/S (3) button to select and delete a preset.

### **MODE (7)**

Press the MODE button to switch among CCT, Skin tone, HSI, Gel, Source Matching, Lighting effects and RGBWA modes.

### **LCD full color screen (8)**

It displays key parameters of the current working mode.

## BACK (9)

### *Back to the previous menu*

When any menu is shown on the LCD screen, press the button to direct back to the previous menu.

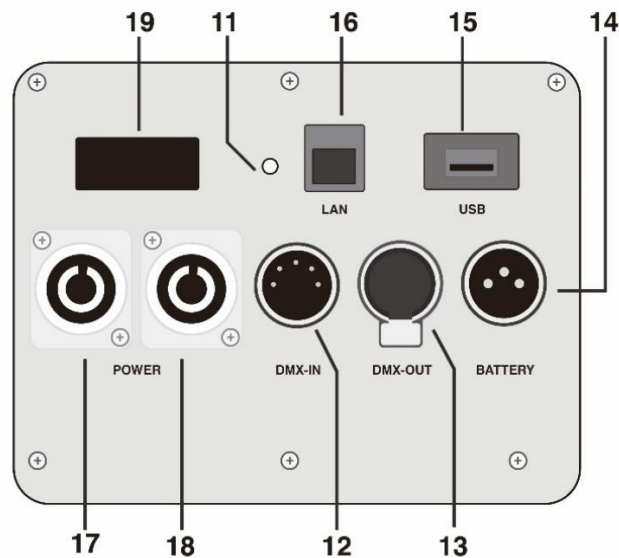
### *Call up the sub lighting list*

There is a sub lighting list for the following modes: Gel, HSI, Source Matching, and Lighting effect. When the system is running on the above modes, press the BACK button to enter the sub lighting list.

## MENU (10)

Press the MENU button to enter the main menu of the fixture. The users are able to change system settings or view system information.

## 1.2 Communication Interface



### Data LED (11)

Status	Indication
Red and green flashing	This fixture communicating with other devices, and it is sending data.
Green flashing	This fixture communicating with other devices, and it is receiving data.

Off	This fixture is not communicating with other devices.
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### **DMX Input (12)**

Upstream DMX signal input port. This interface allows access to the DMX console or to the DMX output of the previous device.

### **DMX Out (13)**

Downstream DMX signal output port, which can be connected to the DMX input port of other products to downstream data to the other fixture in the DMX universe.

### **BATTERY (14)**

Batter power supply input port. The system runs with half of the normal power when it is powered by batteries.

### **USB port (15)**

#### ***Firmware upgrade***

Plug a flash drive to upgrade the firmware of the system.

#### ***Connect a remote controller***

Plug a Chromatech remote controller to control the fixture remotely.

### **LAN port (16)**

Reserved for future usage.

## **1.3 Power ports**

### **AC power port (17, 18)**

AC power input interface. The fixture can be powered using 110VAC to 240VAC, 50/60 Hz AC power supply. The power supply must not be less than 500W. The first power port is used when the fixture is separately powered. The second power port is used when multiple fixtures are powered in a chain, using daisy chain power cords (see in accessory guide).

## **Power switch (19)**

The master power switch of the fixture.

## **1.4 Thunder remote controller**

Thunder lighting fixtures can be controlled by remote controllers. The remote control shall be connected to the USB port of the fixture. The remote controller can be used either to control one fixture or multiple fixtures in the DMX universe.

# **2. Lighting modes**

## **2.1 CCT mode**

CCT mode is a white light mode. User can change the intensity, the correlated color temperature (CCT) and Green/Magenta deviation of the light output. This is a high color quality mode: the color rendering index (CRI) and Television Lighting Consistency Index (TLCI) are optimized to ensure best color rendering.

## **2.2 Skin Tone mode**

Skin tone mode is a white light mode. This mode makes object colors appear fresher and preferred than they are under sunlight. Advanced controls allow users to adjust the skin tone saturation level with a fixed white light appearance, thus to edit the object colors in reality, without changing the white balance settings in cameras.

## **2.3 HSI mode**

HSI mode is a color mode. The user can control the Hue, Saturation and Intensity of the color light. The default CCT of the central white point is 6500K, while user can customize from 2700K to 10,000K.

## **1.4 Gel mode**

Gel mode is a color mode. The users are able to call up ~ 250 types of Gels, each of the gel has two CCT options, 3200K and 5600K.

## **2.5 Source Matching mode**

Source matching mode supports spectrum matching of more than 40 natural or artificial illuminant. The illuminants are divided into four categories: incandescent, fluorescent, discharge and others.

## **2.6 Light Effect mode**

Thunder supports more than 10 lighting effects matching, including fire, candle, cop car, lightning, club and etc. The intensity, speed, phase, frequency of the effects can be adjusted to fit various lighting needs.

## **2.7 RGBWA mode**

Separately control the light out put of each color channel, including Red, Green, Blue, White and Amber. The user can customize the color mixing of the fixture.

# **3.Lighting settings**

## **3.1 CCT mode**

Turn the I/S knob to change the intensity, the central knob to change the CCT, the right knob to change the Green/Magenta deviation.

## **3.2 Skin Tone mode**

Turn the I/S knob to change the intensity, the central knob to change the CCT (Softness), the right knob to change the saturation level of the object (Freshness).

## **3.3 HSI mode**

Turn the I/S knob to change the intensity, the central knob to change the Hue, the right knob to change the Saturation of output color. Press the BACK button to activate the advanced mode, the user is able to customize the CCT of central white point.



### 3.4 Gel mode

Turn the I/S knob to change the intensity, the central knob to switch between 3200K and 5600K CCT. Press the BACK button to enter the gel list. Use the I/S button to select and confirm gel type. Use the right knob to switch between Rosco and LEE database.

### 3.5 Source Matching mode

Turn the I/S knob to change the intensity. Press the BACK button to enter the source list. Use the I/S button to select and confirm source type. Use the central knob to switch among source categories.

### 3.6 Light Effect mode

Turn the I/S knob to change the intensity. Turn the central knob to change the speed. Turn the right knob to control start/pause/stop the dynamic effect. This mode provides both lighting effect list and advanced parameter setting. On the main lighting effect interface, press the BACK button to enter the lighting effect list, or press the I/S button to activate advanced parameter settings.

Listed following are advanced parameters of each lighting effect.

Effects	Advanced parameters					
	1	2	3	4	5	6
<b>Fire</b>	CCT					
<b>Candle</b>						
<b>Paparazzi</b>	CCT	Green/Magenta	Phase	Pulse type		
<b>Lightning</b>	CCT	Green/Magenta	No. of long pulses	No. of short pulses	Pulse type	
<b>Club</b>	Color	No. of colors	Saturation	Pulse type		
<b>Cop care</b>	Color combination	No. of flashes				
<b>Fireworks</b>	Color type	No. of colors	Saturation	CCT	Phase	
<b>Light strobe</b>	Color type	No. of colors	Saturation	CCT	Phase	Gel

<b>Television</b>	Warm	Neutral	Cool	Phase		
<b>AR</b>	CCT					
<b>Party</b>	Saturation					
<b>CCT sweep</b>	Starting CCT	Ending CCT				

**To adjust advanced parameters:**

1. Press the I/S button to enter the advanced setting interface.
2. Turn the I/S button to switch among different parameters.
3. Turn the central knob to tune each selected parameter.

### 3.7 RGBWA parameter tuning

Turn the I/S knob to change the intensity of the selected color channel, the central knob to select among five colors

## 4. System Settings

### 4.1 Dimming Curve

Thunder provides four different dimming curves. Each curve supports 0% to 100% flicker-free smooth dimming.

**Dimming curve setting**

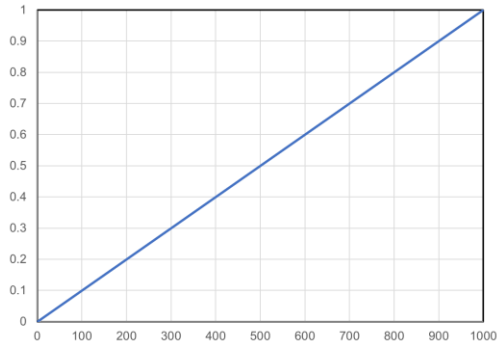
1. Press the menu button to open the main menu
2. Turn and press the I/S button and navigate to *Main menu/Light Control/Dimming Curve*
3. Turn and Press the I/S button to select the Dimming Curve

The four dimming curves are:

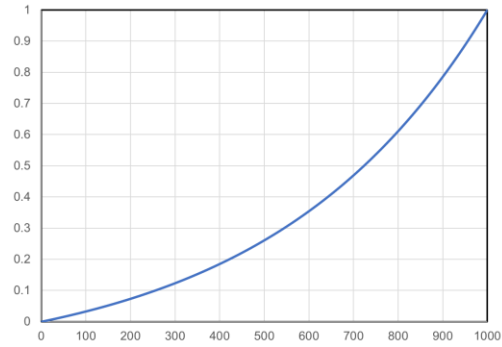
1. Linear: Linearly dim the light (Factory default)
2. Exponential: Exponentially dim the light, suitable for fine tune the light at low intensity.
3. Logarithmic: Logarithmically dim the light, suitable for fine tune the light at high intensity.
4. S Curve: dim the light as a “S” curve, suitable for fine tune the light at both low and high intensity.

**Linear**

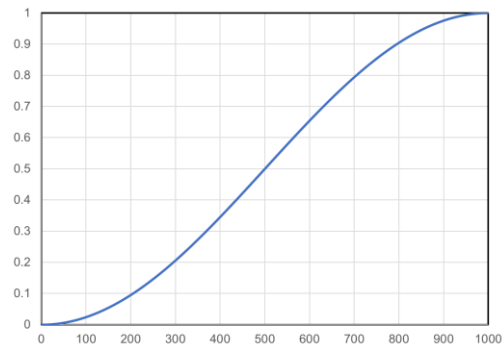
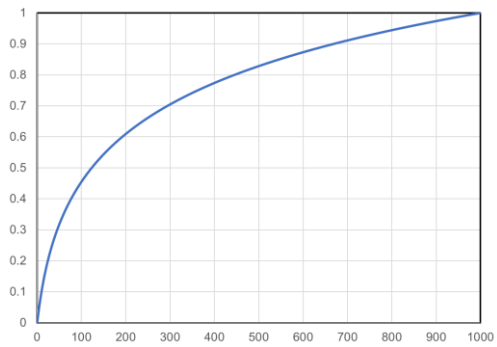
**Exponential**



**Logarithmic**



**S Curve**



## 4.2 Fan setting

To balancing between noise and heat dissipating, the current firmware supports the following four fan modes.

### **Auto**

Dynamically adjust the fan speed according to the fixture temperature

### **Off**

Complete turn off the fan. They system works with no fan noise. Be mindful to the high temperature risk. They system will automatically shut off when the system temperature is too high.

### **Middle Speed**

The fan runs with a moderate speed, suitable for normal usage.

### **High speed**

The fan runs with high speed, suitable for high temperature environment.

### **To set fan speed:**

1. Press the menu button to open the main menu
2. Turn and press the I/S button and navigate to *Main menu/System settings/ fan speed*

3. Turn and Press the I/S button to select the fan speed

### **4.3 Save, call up and delete preset lights**

#### ***Save a preset***

1. At any lighting mode, long press the preset button
2. Use the I/S button to confirm or discard in the popped-up interface.
3. The current light will be stored in the list, named after its key parameters.

#### ***Call up a preset***

1. Press the preset button to enter the preset list
2. Turn and Press the I/S button to call the preset.

#### ***Delete a preset***

1. Press the preset button to enter the preset list
2. Long press the preset button until the highlighted entry turns into red
3. Turn and Press the I/S button to confirm or discard deleting.

### **4.4 Firmware upgrade**

Thunder uses the USB port to upgrade the firmware

1. Contact Chromatech Lighting via [service@thunderone.com](mailto:service@thunderone.com) to download the latest firmware.
2. Save the firmware document to the root menu of a flash drive.
3. Plug the flash drive into the USB port of the fixture
4. Press the Menu button and navigate to *Main menu/System settings/Firmware upgrade*
5. Press the I/S button to confirm
6. The system will upgrade automatically until it reboots.
7. Unplug the flash drive

### **4.5 Factory reset**

- 1, Press the MENU button and navigate to *System Settings/Factory Reset*
- 2, Press the Intensity/selection knob and select '**Yes**' to confirm

### **4.6 Time setting**

1. Press the MENU button and navigate to *System info./System Clock*
2. Press the MODE button to switch among time units.
3. Turn the I/S button to change each time unit

4. Press the I/S button to confirm setting
5. Press the BACK button to exit

## 4.7 System temperature

Users can read the LED and driver board temperature by following steps:

1. Press the MENU button and navigate to *System info./Temperature*
2. Read the temperature of LED and driver board

## 4.8 Fixture information

1. To check if system is normally running: Press the MENU button and navigate to *System info./Fixture Status*
2. To check the fixture ID: Press the MENU button and navigate to *System info./Fixture No.*
3. To check the firmware version: Press the MENU button and navigate to *System info./Firmware version*

# 5. DMX Setting

## 5.1 DMX Master/Slave mode

When multiple Thunder fixtures are chain-wired as a DMX Universe, the fixtures can be controller either by a DMX console or any fixture in the Universe. If a DMX console exists in the Universe, the console is the master controller, all the fixtures are slave fixtures. If the universe does not have a DMX console, the user can set any of the fixture as a master controller, all the other fixtures are set as slave fixtures automatically. The following steps introduces how to set a fixture as master or slave fixture :

- 1, Press the MENU button and navigate to *Network settings/DMX settings/DMX work mode*
- 2, Turn and press the I/S button to select master or slave fixture
- 3, Press BACK button to exit

## 5.2 DMX protocols

When a DMX console is connected to the DMX universe, the LCD screen of each fixture will display the current DMX mode. Turn and Press the I/S button to switch among different DMX protocols. The selected DMX protocol will be saved in the system. Please refer to technical document '*DMX protocol specifications*' for detailed explanation of DMX protocols and DMX lost behaviors.