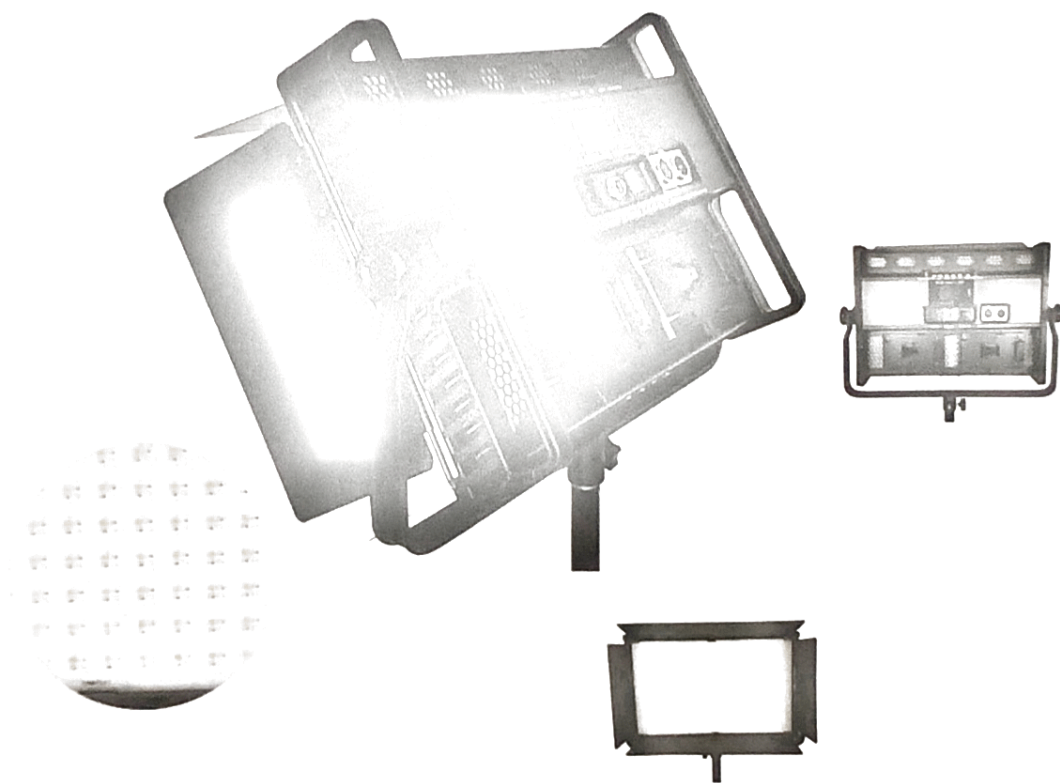


Kala Plus 3000 RGBWW  
Kala Plus 4000 RGBWW  
Kala Plus 5000 RGBWW

# OPERATING INSTRUCTIONS



# TABLE OF CONTENTS

INTRODUCTION .....	4
I TECHNICAL PARAMETERS AND SPECIFICATIONS .....	5
II LIGHT PANEL CONTROLS .....	6
MENU DIAGRAMS .....	8
Main Menu .....	8
Effect Menu .....	9
Cycle Menu .....	10
Set Menu .....	11
IV LIGHT MODES .....	12
1) CCT Mode .....	12
2) HSI Mode .....	12
3) RGBW Mode .....	12
4) CIE1931 Mode .....	12
5) GEL Mode .....	12
6) Effect Mode .....	12
7) Cycle Mode .....	12
8) Master/Slave Control Mode .....	12
9) APP Control Mode .....	12
10) DMX Control Mode .....	12
V FUNCTIONS AND OPERATION .....	12
1) CCT Mode .....	12
2) HSI Mode .....	13
3) RGBW Mode .....	13
4) CIE1931 Mode .....	13
5) GEL Mode .....	13
6) Effect Mode .....	13
Start /Stop .....	13
Candle .....	13
Cop Car .....	13

Fire .....	13
Fireworks.....	13
KTV .....	13
Lightning.....	13
SOS .....	13
Strobe.....	13
TV .....	13
(7) Cycle Mode.....	14
Start/Stop.....	14
Slow Cycle .....	14
Fast Cycle .....	14
User Defined Cycle.....	14
(8) SET Mode.....	14
Master/Slave Control.....	14
APP Control .....	15
DMX Control.....	15
Frequency.....	15
Dimming Curve.....	15
Buzzer.....	16
Display.....	16
About (includes Factory Reset) .....	16
VI POWER AND SOFTWARE.....	16
Overheat Protection.....	17
Low Power Protection .....	17
Software Upgrade.....	17
VII PACKING LIST.....	17
VIII WARNINGS.....	18

# INTRODUCTION

Thank you for choosing the Kala Plus LED RGBW full-color lights. The Kala Plus RGBW Series is a relatively small, lightweight, powerful, silent, professional quality video light. It is more efficient and accurate in color reproduction, and more convenient than traditional colored light sources.

The Kala Plus RGBW Series has three models: Large (500W), Medium (400W), and Small (300W). These can meet the needs of very different shooting scenes, and all models support DMX 512 control, app control, Master/Slave control, or direct manual control.

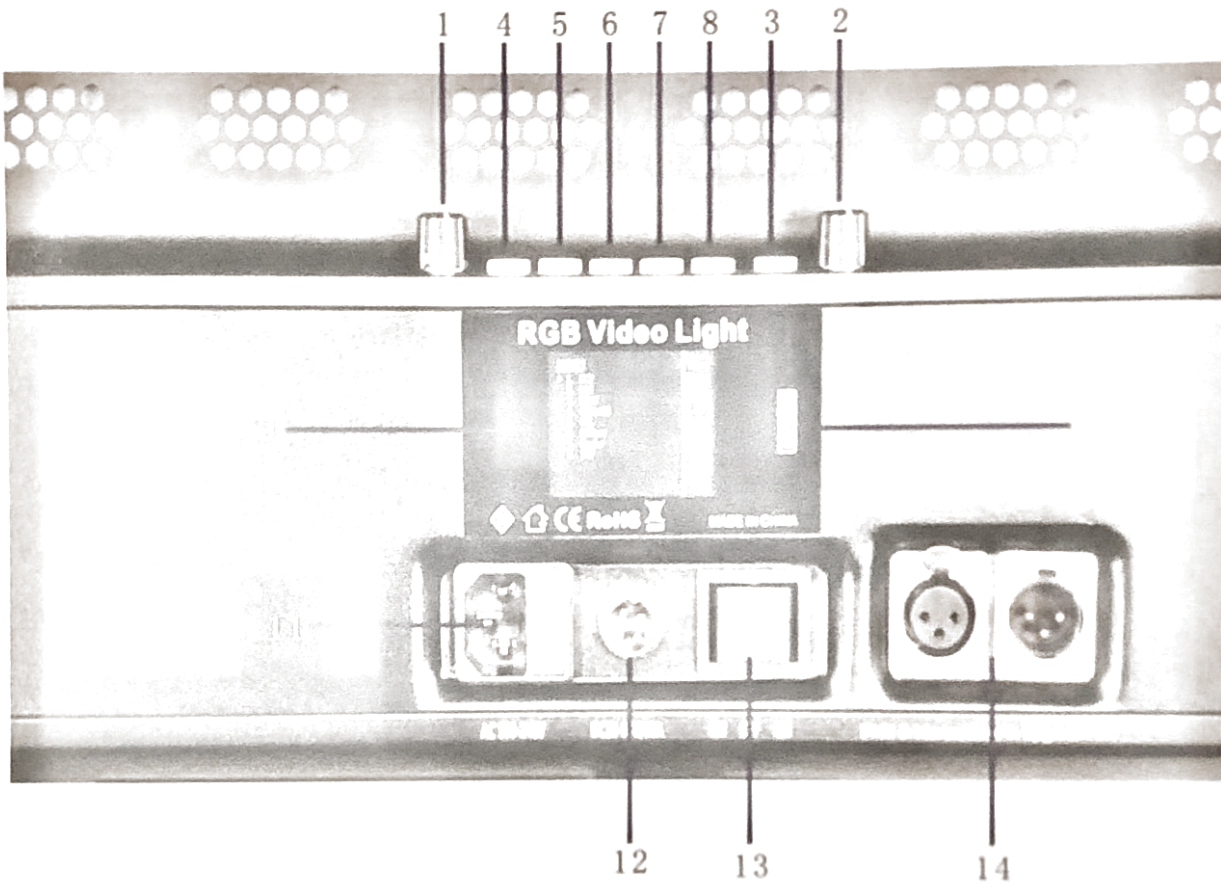
## CHARACTERISTICS

- Can flexibly adjust white light output according to different skin colors, camera image sensors, and mixed light environments – from 2000K to 10,000K – with very high accuracy ( $Ra \geq 96$ ,  $Qa \geq 96$ ).
- Contains a wide variety of common gel color preset options.
- Many lighting effects are available, which lets you avoid spending a lot of time or money on effects systems, and allows you to put more energy into the shooting process.
- Supports special light effect user customization.
- Supports two ways of remote program upgrades, with lifetime free firmware upgrade support.
- Three available power modes (direct A/C power, D/C power with power adapter, V-mount batteries) allow you to use whatever method is most convenient.
- Supports easy Factory Reset, so novice users can feel free to change settings and experiment. If the desired shooting effect is not achieved, the factory default settings can be restored easily.
- Controls are arranged in such a way that most controls can be understood and mastered without referring to the instructions.
- Key Parameter values are often displayed on the right side of the display screen, making it convenient to check when adjusting complex settings.
- Has aluminum alloy construction which transfers internal heat to the outer shell and dissipating the heat with high efficiency, eliminating the need for noisy fans.
- Advanced high-precision power supply technology ensures an extraordinary degree of color reproduction accuracy.
- Each light is independently calibrated when it leaves the factory, ensuring that different LED batches do not affect the quality or precision of the light output.

# TECHNICAL PARAMETERS AND SPECIFICATIONS

Model No.	Kala Plus 3000	Kala Plus 4000	Kala Plus 5000
	300	400	500
Maximum Power (W)	R: 45	R: 60	R: 75
	G: 80	G: 105	G: 135
	B: 80	B: 105	B: 135
	W: 105	W: 132	W: 165
LED (pcs)	1536	2048	2560
	R: 384	R: 512	R: 640
	G: 384	G: 512	G: 640
	B: 384	B: 512	B: 340
Luminus Flux (LM)	W: 384	W: 512	W: 640
	R: 4200	R: 5600	R: 7000
	G: 7500	G: 10,000	G: 12,500
	B: 1500	B: 2000	B: 2500
	W: 21,000	W: 28,000	W: 35,000
CCT	2000K - 10,000K		
CRI	Ra≥96		
TLCI	Qa≥96		
Hue	1-360		
Saturation	0-100%		
Radiant Angle	≈ 120°		
LED Lifespan	≈ 50,000 hours		
A/C Power	100-260 V		
D/C Power	25-34V/12A	28-34V/15A	28-34V/18A
V-Mount Battery	14.8V/12A (x2)	14.8V/15A (x2)	14.8V/18A (x2)
Control Mode	Direct Control / Master-Slave / Phone App / DMX512		
Dimensions (mm)	490x380x95	620x380x95	750x380x95
Weight (kg)	4.6	5.3	6.1

# LIGHT PANEL CONTROLS



- |               |                   |                                       |
|---------------|-------------------|---------------------------------------|
| 1. Left Knob  | 6. RGBW Key       | 11. AC Socket                         |
| 2. Right Knob | 7. CIE Key        | 12. DC Socket                         |
| 3. MENU Key   | 8. SET Key        | 13. Power Switch                      |
| 4. CCT Key    | 9. Display Screen | 14. DMX / Master-Slave / Upgrade Port |
| 5. HSI Key    | 10. Upgrade Port  |                                       |

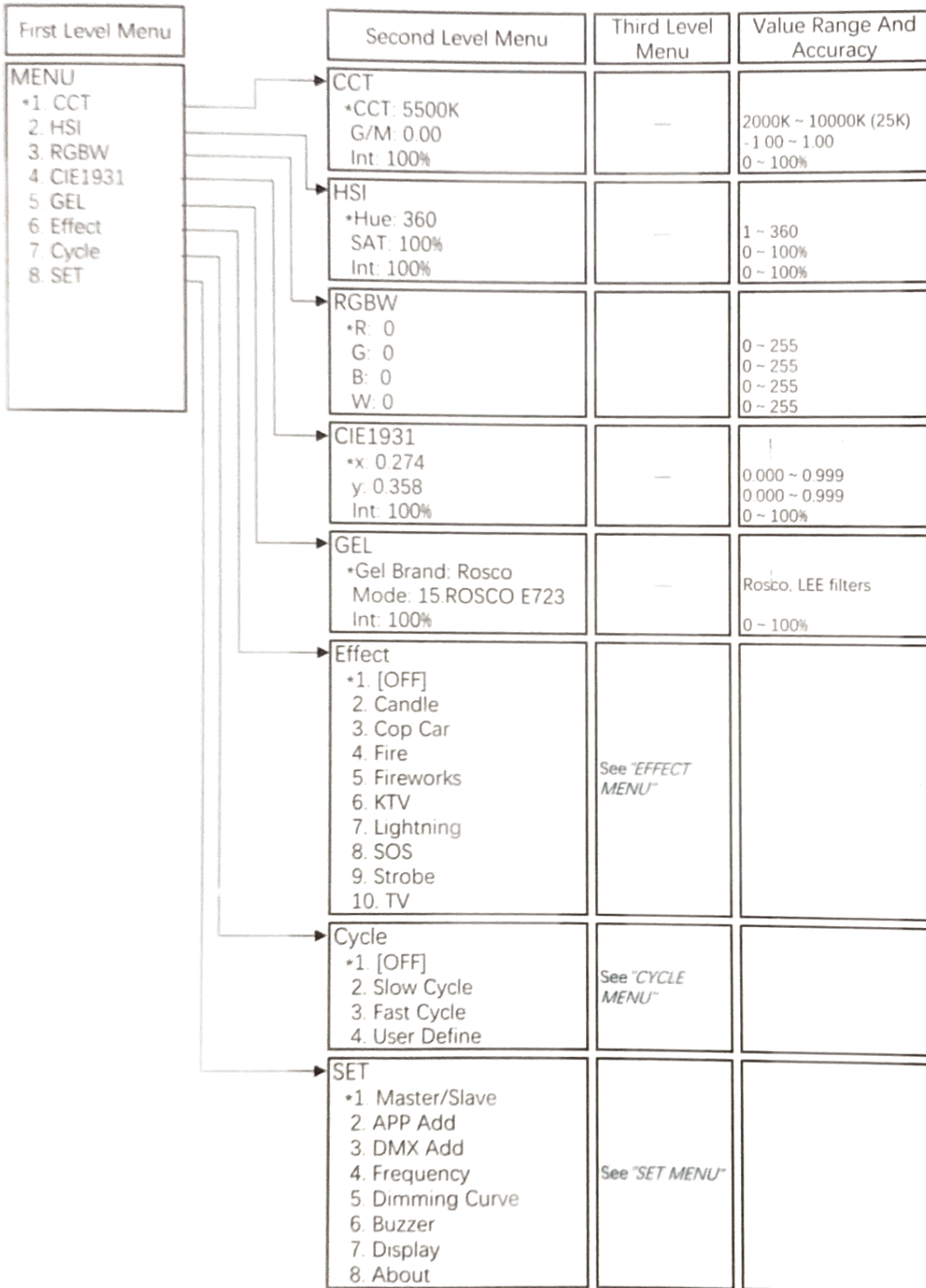
- (1) Left Knob  
Turning the Left Knob will change the parameters indicated by the cursor. Turning slowly will adjust at normal speed. Turning quickly will adjust at 10X-100X speed.
- (2) Right Knob  
Turning the Right Knob will move the cursor position  
Press the Right or Left Knob to confirm the change.
- (3) Menu Key  
Press the Menu Key to enter the first menu level on the main menu.
  - DMX address can only be modified when in the DMX mode.
  - *Menu Key will not work when in Slave mode (Slave-Master function)*



- (4) CCT Key  
CCT shortcut key. Pressing this will enter the CCT secondary menu interface
- *This will not work in either the Slave mode, or in DMX mode.*
- (5) HSI Key  
HSI shortcut key. Pressing this will enter the HSI secondary menu interface
- *This will not work in either the Slave mode, or in DMX mode.*
- (6) RGBW Key  
RGBW shortcut key. Pressing this will enter the RGBW secondary menu interface
- *This will not work in either the Slave mode, or in DMX mode.*
- (7) CIE Key  
CIE shortcut key. Pressing this will enter the CIE secondary menu interface
- *This will not work in either the Slave mode, or in DMX mode.*
- (8) SET Key  
SET shortcut key. Pressing this will enter the SET secondary menu interface
- *This will not work in either the Slave mode, or in DMX mode.*
- (9) Display Screen  
The Kala Plus RGBW Series are equipped with a 2.4-inch TFT display, and all parameters and functions can be adjusted or modified through the menu. Key parameters such as Master/Slave, APP address, DMX address, Frequency, Dimming Curve, Fadetime, and Battery Power are often displayed on the right side of the Display Screen. This allows for convenient viewing of those parameters at any time, so they do not need to be checked one by one.
- (10) Upgrade Port  
The Kala Plus RGBW Series have two upgrade ports. This upgrade port is mainly used by professional maintenance personnel. It is recommended that users will use the (14) Upgrade Port.
- (11) A/C Socket  
A/C power cord plugs in here.
- (12) DC Socket  
This is the interface to D/C power. The input requires D/C 29-34V, and the wiring is 4+ and 1-.
- NOTE: The D/C power supply voltage shall not be higher than D/C 36V*  
*The total power or rated current shall not be lower than the nominal value.*
- (13) Power Switch  
A/C power is |  
D/C power is ||
- (14) DMX & Master-Slave & Upgrade Port (3-pin XLR Connections)
- In the DMX control mode, DMX signals are received through this port to realize remote control function.
  - In the Master/Slave mode, the Master light transmits signals to the Slave light through this port, and the two lights will synchronize in real time.
  - The Kala Plus RGBW Series lights have two upgrade ports. This 3-pin XLR port is mainly reserved for users. Professional maintenance/repair technicians will typically use

# MENU DIAGRAMS

## MAIN MENU



\* The value displayed in the menu is the default value, which can be restored by Factory Reset function.

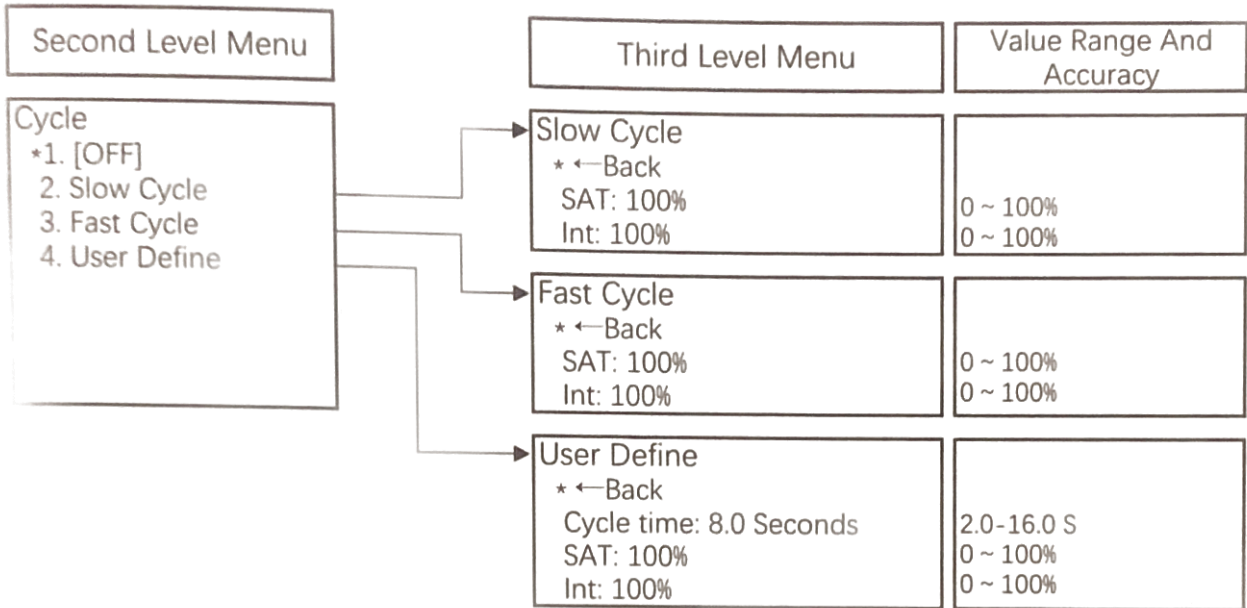


# EFFECT MENU

Second Level Menu	Third Level Menu	Value Range And Accuracy	Note
<b>Effect</b> *1. [OFF] 2. Candle 3. Cop Car 4. Fire 5. Fireworks 6. KTV 7. Lightning 8. SOS 9. Strobe 10. TV	<b>Candle</b> * ←Back Mode: Warmre N SPD: 60 Changes/M Int: 100%	(See Note) 0 ~ 120 0 ~ 100%	Mode: Warmre L Warmre N Warmre H
	<b>Cop Car</b> * ←Back Mode: 2. Double Int: 100%	(See Note) 0 ~ 100%	Mode: 1. Single 2. Double 3. Quint All 4. Quint 5. Quad 6. Cycle
	<b>Fire</b> * ←Back Mode: Warmre Ne SPD: 90 Changes/M Int: 100%	(See Note) 0 ~ 180 0 ~ 100%	Mode: Warmre Lo Warmre Ne Warmre Hi
	<b>Fireworks</b> * ←Back C. Combination: Colors SPD: 2.0 S Int: 100%	(See Note) 0.5 ~ 10.0 (0.5) 0 ~ 100%	C. Combination: Colors White C. & W.
	<b>KTV</b> * ←Back C. Variety: 9 Colors SPD: 60 Changes/M Int: 100%	(See Note) 0 ~ 120 0 ~ 100%	C. Variety: 3 Colors 6 Colors 9 Colors 12 Colors 15 Colors 18 Colors 21 Colors 24 Colors
	<b>Lightning</b> * ←Back Mode: Double Int: 100%	(See Note) 0 ~ 100%	Mode: Double Triple
	<b>SOS</b> * ←Back Int: 100%	0 ~ 100%	
	<b>Strobe</b> * ←Back SPD: 12 Changes/S Int: 100%	1-25 0 ~ 100%	
	<b>TV</b> * ←Back Mode: Cooler SPD: 12 Changes/M Int: 100%	(See Note) 4 ~ 24 0 ~ 100%	Mode: Warmre Neutral Cooler

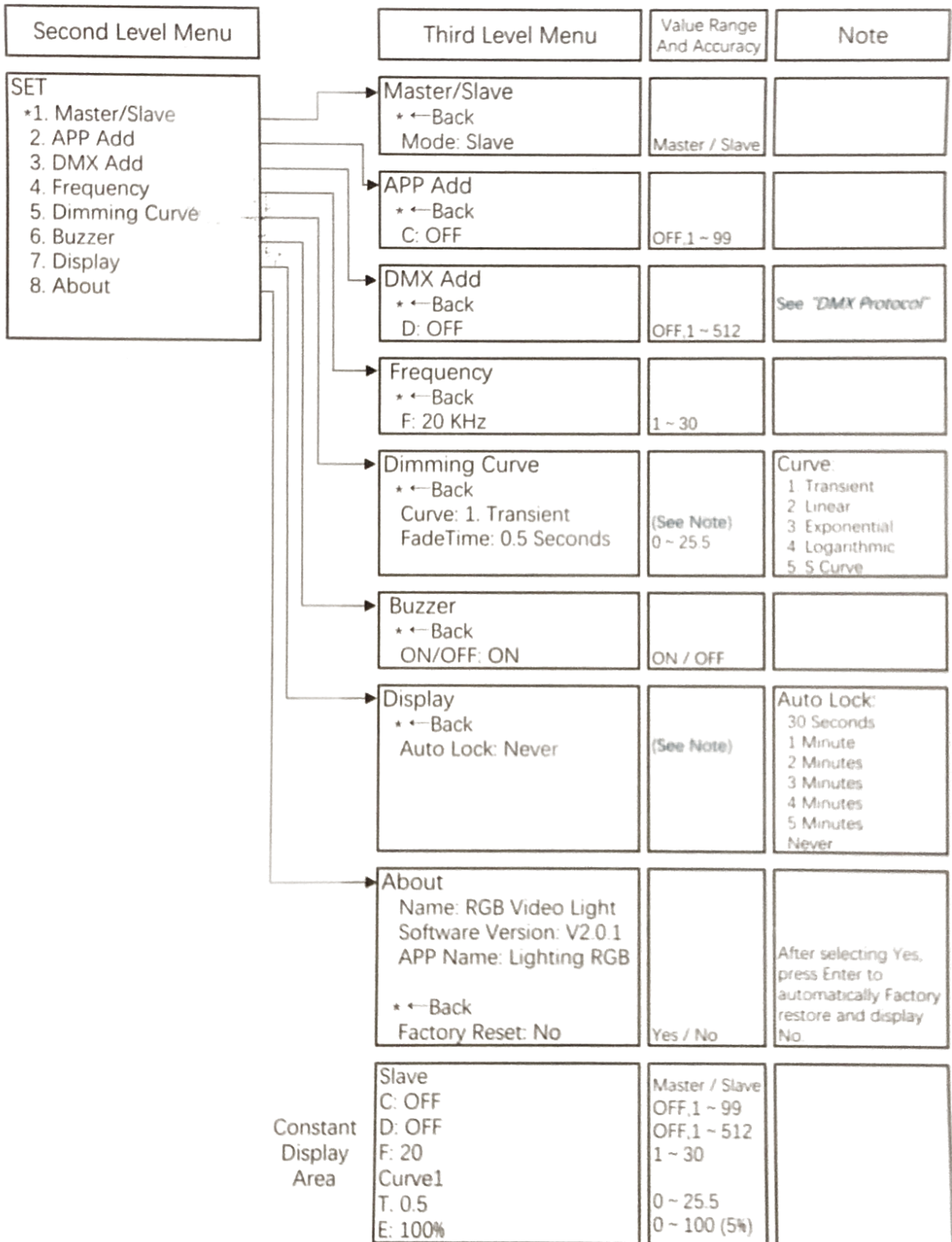
\* The value displayed in the menu is the default value, which can be restored by Factory Reset function.

## CYCLE MENU



\* The value displayed in the menu is the default value, which can be restored by Factory Reset function.

# SET MENU



\* The value displayed in the menu is the default value, which can be restored by Factory Reset function.

# LIGHT MODES

- (1) CCT  
(Corrected Color Temperature)  
Basic bi-color mode – adjusts color temperature from 2000K to 10,000K.
- (2) HSI  
(Hue + Saturation + Intensity)  
Preset algorithm control of the full RGBW color range.  
Hue, Saturation, and Intensity all can be controlled individually.
- (3) RGBW  
Individual control of Red, Green, Blue, and White percentages, with separate intensity control, to generate custom colors.
- (4) CIE1931  
Controls intensity, as well as the x-value / y-value on the CIE1931 colorimetric chart.
- (5) GEL  
40 different Rosco and Lee filter colors, preset for easy convenience.
- (6) Effects  
Provides a variety of light effects – Candle, Fire, Cop Car, Fireworks, and more.
- (7) Cycle  
Preset special effect functions, based on HSI Modes & Effect Modes.  
Three speeds: Slow, Fast, User Defined
- (8) Master/Slave Control  
Allows one light to control other lights when wired together and in the correct mode.
- (9) App Control  
Allows control of the light with an app installed on your phone.
- (10) DMX Control  
Allows control of the light on channels 1-512, with any standard DMX board,

# FUNCTIONS & OPERATION

- (1) CCT Mode
  - Method to enter CCT Mode
    - Press (3) MENU Key to enter main menu, turn (2) Right Knob to move cursor to [1. CCT], then press either Knob (1: Left, or 2: Right) to enter the CCT menu.
    - Press shortcut key (4) CCT Key to go directly to the CCT menu.
  - Turn (2) Right Knob to move the cursor position, turn the (1) Left Knob to adjust parameters
  - Press (3) MENU Key to exit CCT Mode

## (2) HSI Mode

- Method to enter HSI Mode
  - Press (3) MENU Key to enter main menu, turn (2) Right Knob to move cursor to [2. HSI], then press either Knob (1: Left, or 2: Right) to enter the HSI menu.
  - Press shortcut key (5) HSI Key, to go directly to the HSI menu.
- Turn (2) Right Knob to move the cursor position, turn the (1) Left Knob to adjust parameters
- Press (3) MENU Key to exit HSI Mode

## (3) RGBW Mode

- Method to enter RGBW Mode
  - Press (3) MENU Key to enter main menu, turn (2) Right Knob to move cursor to [3. RGBW], then press either Knob (1: Left, or 2: Right) to enter the HSI menu
  - Press shortcut key (6) RGBW Key, to go directly to the RGBW menu
- Turn (2) Right Knob to move the cursor position, turn the (1) Left Knob to adjust parameters
- Press (3) MENU Key to exit RGBW Mode

## (4) CIE1931 Mode

- Method to enter CIE1931 Mode
  - Press (3) MENU Key to enter main menu, turn (2) Right Knob to move cursor to [4. CIE1931], then press either Knob (1: Left, or 2: Right) to enter the CIE1931 menu
  - Press shortcut key (6) CIE Key, to go directly to the CIE menu
- Turn (2) Right Knob to move the cursor position, turn the (1) Left Knob to adjust parameters
- Press (3) MENU Key to exit CIE1931 Mode

## (5) GEL Mode

- Press (3) MENU Key to enter main menu, turn (2) Right Knob to move cursor to [5. GEL], then press either Knob (1: Left, or 2: Right) to enter the GEL menu
- Turn (2) Right Knob to move the cursor position, turn the (1) Left Knob to adjust parameters
- Press (3) MENU Key to exit GEL Mode

## (6) Effect Mode

- Press (3) MENU Key to enter main menu, turn (2) Right Knob to move cursor to [6. Effect], then press either Knob (1: Left, or 2: Right) to enter the Effect menu
- To control individual Effects, turn (2) Right Knob to move cursor position to desired Effect, then press either Knob (1: Left, or 2: Right) to select that Effect.
  1. On / Off – Start / Stop
  2. Candle – faint flicker of warm light: slower and weaker than the flickering of fire
  3. Cop Car – alternate red and blue flashing light
  4. Fire – flickering sparks
  5. Fireworks – big colorful flash that appears quickly and then fades completely
  6. KTV – random pulsing lights that gradually brighten and fade away
  7. Lightning – random flashing white light
  8. SOS – flashing light frequency according to international SOS standards
  9. Strobe – flashing light: either white or colored
  10. TV – simulates TV by varying the intensity of cool light, every few seconds
- Press (3) MENU Key to exit Effect Mode



## (7) Cycle Mode

- This mode provides special effect functions, based on HIS Modes & Effect Modes.
- To enter Cycle Mode, press (3) MENU Key to enter main menu, turn (2) Right Knob to move cursor to [7. Cycle], then press either Knob (1: Left, or 2: Right) to enter the Cycle menu.
- To select a Cycle function, use the (2) Right Knob to move the cursor to the desired position, and then press either Knob (1: Left, or 2: Right) to select that item.
  1. Start or Stop the Cycle
  2. Slow Cycle
    - Fixed period of 12 seconds
    - Saturation and Intensity can be adjusted
  3. Fast Cycle
    - Fixed period of 4 seconds
    - Saturation and Intensity can be adjusted
  4. User Defined Cycle
    - Period can be set between 2 and 16 seconds
    - Saturation and Intensity can also be adjusted
- Press (3) MENU Key to exit Cycle Mode

## (8) SET Mode

- Used to “set” various parameters
  - To enter SET Mode
    - Press (3) MENU Key to enter main menu, turn (2) Right Knob to move cursor to [8. SET], then press either Knob (1: Left, or 2: Right) to enter the SET mode
    - Press (8) SET Key to go directly to the SET mode
  - To select the various functions, turn (2) Right Knob to move cursor position to desired function, then press either Knob (1: Left, or 2: Right) to select that Function.
  - For all functions below, the (2) Right Knob, when turned, will only move the cursor. And the (1) Left Knob, when turned, will change whatever parameter is available at that cursor location.
1. Master/Slave
    - When in Master mode, the light will operate normally, and will control any other light that is set in the Slave mode, and is wired to the Master light via the (14) 3-pin XLR connections.
    - When in Slave mode, the light cannot be controlled directly, but only by a light that is in the Master mode, provided the two lights are connected via the (14) 3-pin XLR connections.
    - Multiple lights can be “daisy-chained” together into one network, so that one Master light can control more than one additional light.
    - Only one light in any Master/Slave network can be set to the Master mode at one time.
    - Master/Slave Operation
      - To enter Master/Slave Mode from the SET Menu, use (2) Right Knob to move cursor to [1] Master/Slave, and press either Knob (1: Left, or 2: Right) to select that option.
      - To select either Master or Slave setting, use (2) Right Knob to move cursor to Mode:, and use (1) Left Knob to change desired setting.
      - Press (3) MENU Key to exit Master/Slave Mode.
    - Either “Master” or “Slave” will show up on the right side of the display screen, if this is enabled.

## 2. APP Control

- The App can control up to 99 individual lights, or groups of lights.
- If APP has been selected, the App channel will show as C: on the right side of the display, showing the channel number.
- To enter APP Add from the SET Menu, use (2) Right Knob to move cursor to [2] APP Add, and press either Knob (1: Left, or 2: Right) to select that option.
- Use (2) Right Knob to move cursor to [C:], and use (1) Left Knob to change desired setting.
- Press (3) MENU Key to exit APP Add.

## 3. DMX Control

- The light can be set on any DMX channel location from 1–512.
- If DMX has been selected, the DMX channel will show as D:, on the right side of the display, showing the channel number.
- To enter DMX Add from the SET Menu, use (2) Right Knob to move cursor to [3] DMX Add, and press either Knob (1: Left, or 2: Right) to select that option.
- Use (2) Right Knob to move cursor to [D:], and use (1) Left Knob to change channel number.
- Press (3) MENU Key to exit DMX Add.

## 4. Frequency

**WARNING: [F: 20KHz] is the factory default setting. Modification will directly change the technical parameters of the light source. DO NOT modify the Frequency if there is no specific purpose for doing so!**

- Frequency will show as F:, on the right side of the display, with the Frequency number.
- To enter Frequency from the SET Menu, use (2) Right Knob to move cursor to [4] Frequency, and press either Knob (1: Left, or 2: Right) to select that option.
  - Use (2) Right Knob to move cursor to [F:], and use (1) Left Knob to change desired setting.
  - Frequency can be set between 1–30KHz.
- Press (3) MENU Key to exit Frequency.

## 5. Dimming Curve

**WARNING: [Curve: 1. Transient] and [FadeTime: 0.5 Seconds] are the factory default settings. Modification will directly change the technical parameters of the light source. DO NOT modify these values if there is no specific purpose for doing so!**

- To enter Dimming Curve from the SET Menu, use (2) Right Knob to move cursor to [5] Dimming Curve, and press either Knob (1: Left, or 2: Right) to select that option.
  - Use (2) Right Knob to move cursor to [Curve], and use (1) Left Knob to change desired setting.
- There are five Dimming Curves, and the effects are global – all control methods will have the same Dimming Curve.
  1. Transient – the colors change instantaneously
  2. Linear – the colors change linearly
  3. Exponential – the colors change exponentially
  4. Logarithmic – the colors change on a logarithmic curve
  5. S Curve – the colors change in an S Curve

- Use (2) Right Knob to move cursor to [FadeTime], and use (1) Left Knob to change desired setting.
  - The Kala Plus RGBW Series supports FadeTime from 0 to  $\approx$  25.5 seconds. The FadeTime is also global, manifesting in all control methods.
  - Press (3) MENU Key to exit Dimming Curve.
6. Buzzer
- The Buzzer function emits a “drip” sound when making changes to the light.
  - To enter Buzzer from the SET Menu, use (2) Right Knob to move cursor to [6] Buzzer, and press either Knob (1: Left, or 2: Right) to select that option.
    - To turn this feature on or off, use (2) Right Knob to move cursor to [ON/OFF], and use (1) Left Knob to change desired setting.
  - Press (3) MENU Key to exit Buzzer.
- Display
- This feature is for how long the display will remain lit, before it times out.
  - To enter Display from the SET Menu, use (2) Right Knob to move cursor to [7] Display, and press either Knob (1: Left, or 2: Right) to select that option.
    - To change the Display parameter, use (2) Right Knob to move cursor to [Auto Lock], and use (1) Left Knob to change desired setting.
    - You can choose between 30 seconds, 1-5 minutes, or Never.
  - Press (3) MENU Key to exit Display.
8. About
- This will display information about the light, and includes a factory reset option.
  - To enter About from the SET Menu, use (2) Right Knob to move cursor to [8] About, and press either Knob (1: Left, or 2: Right) to select that option.
    - To reset all settings to the factory default, use (2) Right Knob to move cursor to [Factory Reset], and use (1) Left Knob to change it to “Yes”.
    - Press either Knob (1: Left, or 2: Right) to confirm that you want to reset all settings to the factory presets.
  - Press (3) MENU Key to exit About.

## POWER AND SOFTWARE

### 1. Overheat Protection

When the internal temperature of the Kala Plus RGB exceeds the set protection value, the system will automatically enter into the Overheat Protection mode and automatically turn off the light. The screen will prompt with “Overheat Off.”

If the “Overheat Off” is red, the light will not turn back on. When the temperature drops down below the set protection value, the “Overheat Off” will change to white. The light can then be turned back on by pressing any key.

2. Low Power Protection

When using battery power, if the battery power is lower than the set protection value, the system will automatically enter the Low Power Protection mode, and automatically turn off the light. The screen will display a prompt reading “Please Replace Battery! OR Turn Down Intensity!”

If the “Please Replace Battery! OR Turn Down Intensity!” is red, the light will not turn back on. When the light intensity is reduced, or the proper battery is installed, the “Please Replace Battery! OR Turn Down Intensity!” message will turn white. The light can then be turned back on by pressing any key.

3. Software Upgrade

Use the (14) Upgrade Port to upgrade the software. The upgrade port can download available software from a USB flash drive, computer, or other terminal device. You will need a DMX to USB dedicated cable (not included) to perform this function.

The (10) Upgrade Port should have a sticker, label, or other cover over it. **Do Not Remove this!** This upgrade port is a “stealth upgrade port,” and is reserved for professional production and maintenance personnel only.

## PACKING LIST

	Name	QTY	Notes
1	Light w/Yoke	1	
2	Diffusion Panel	1	Removeable
3	Soft Cloth	1	Removeable
4	A/C Cable (4 m)	1	
5	DMX Cable (1.5 m)	1	
6	Portable Carry Bag	1	
7	Operating Instructions	1	
8	App Instructions	1	
9	Honeycomb Grid	—	Optional Accessory
10	Beam Grid (Cloth)	—	Optional Accessory
11	DMX to USB Cable	—	Optional Accessory
12	V-Mount Battery (High Power)	—	Optional Accessory
13	Battery Charger	—	Optional Accessory
14	Light Stand	—	Optional Accessory
15	Hook for Hanging Light	—	Optional Accessory
16	Safety Cable	—	Optional Accessory

# WARNINGS

Do not store the light in an environment which will become excessively damp or hot.

Do not get the light wet, or use it in any rainfall or precipitation.

Keep battery away from any heat source.

Remove battery when not using light for more than one hour.

In case of any faults, turn off power to the light, unplug the power cord, and contact the manufacturer.

Unauthorized personnel are not allowed to disassemble or repair this product.

Disassembly, unauthorized repair of any kind, misuse, or abuse of this light will void warranty.