

C1US Quick Start



- Picture in Picture Operation
- Audio and Video Sync
- Seamless Switching
- Fade-in and Fade-out Switch
- User-defined Output Resolution Adjustment
- Output test Pattern Generator
- EDID Management
- Support Optional Module Selection

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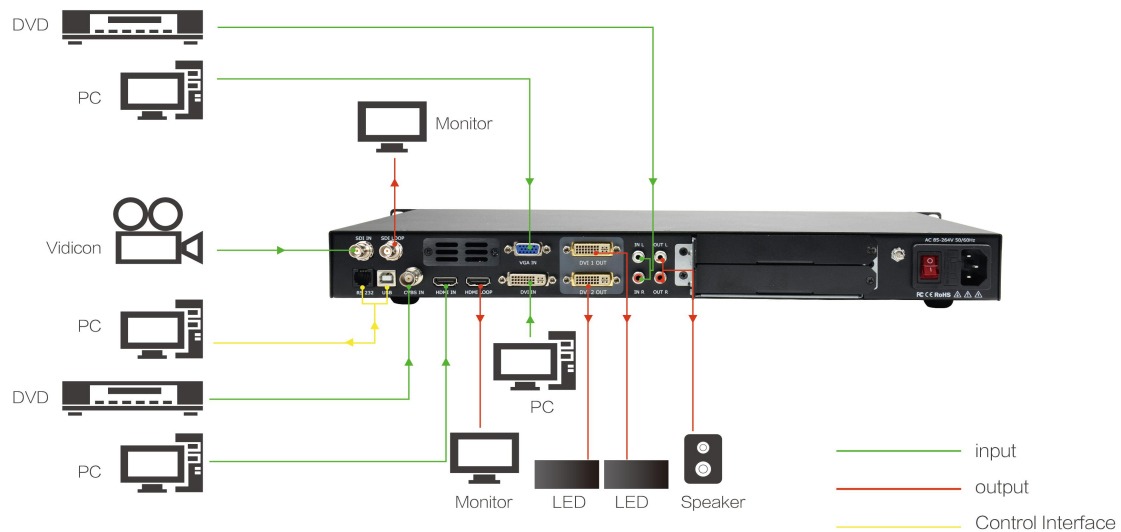


Overview

C1US is a video processor that can do seamless switching of high resolution digital video and audio inputs . The supported standard of inputs include CVBS,VGA,DVI , HDMI (DVI compatible) and 3G-SDI and it also support an optional input module. Maximum 3G-SDI input can be up to 2 paths. Front panel is easy for users to do quick operation. Built-in broadcast level motion adaptive deinterlacing technique, color reality restoration technique, dynamic range adjustment technique, true seamless switching and anti-alias function, provide the users with high quality video display.

System Connection

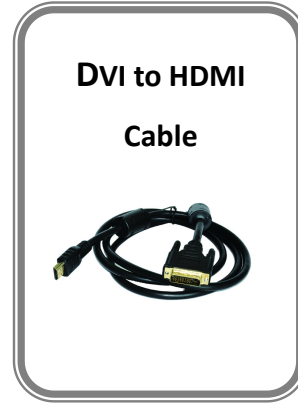
RGBlink offers solutions to demanding technical problems. Any application questions, or required further information, please contact with our customer Support Engineers.



C1US SYSTEM CONNECTION DIAGRAM



Packing Configuration

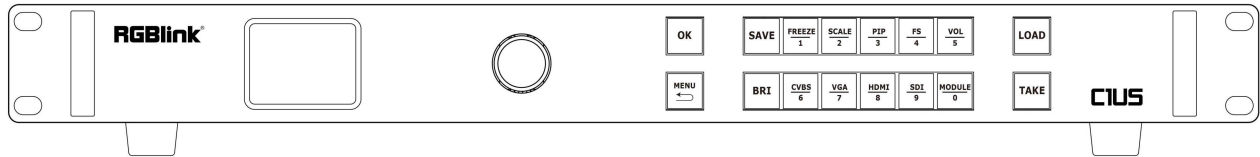


Note:

AC Power Cable supplied as standard according to destination market.

Hardware Orientation

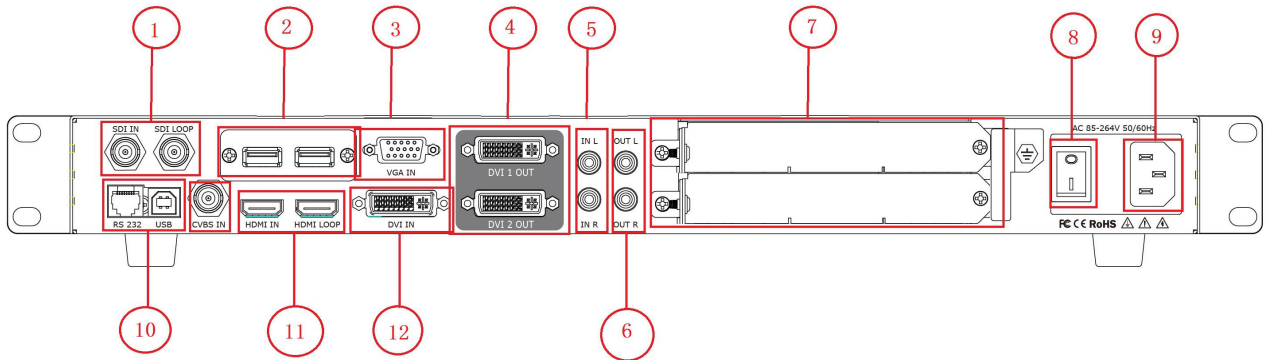
Front Panel



| FRONT PANEL | | | |
|-------------|--|--------|--|
| LCD | Show operation and menu items | MENU | Menu and back button |
| Knob | Confirm and Select button,functioned by pushing and spinning | MODULE | Optional Input module selection area |
| OK | OK button | CVBS | Select CVBS input signal |
| SAVE | Save current settings as preset | VGA | Select VGA and YPbPr input signal |
| FREEZE | Freeze current screen | HDMI | Select HDMI input signal |
| SACLE | Scale | DVI | Select DVI input signal |
| PIP | Picture in picture | SDI | Select SDI input signal |
| FS | Full screen | TAKE | Switch mode |
| BRI | Image adjustment | 0~9 | Numeral button , for scaling and self-defined resolution |
| LOAD | Load the saved setting | | |



Rear Panel



| INPUT CONNECTORS | | OUTPUT CONNECTORS | |
|------------------|----------------------------|---------------------|-----------------------|
| 1 | SDI in and SDI loop | 4 | DVI output DVI-I port |
| 2 | Optional input module area | 6 | Audio output |
| 3 | VGA/YP Input DB15 port | CONTROL PORT | |
| 5 | Audio input | 10 | USB-A |
| 11 | CVBS input BNC port | | RS232 |
| 12 | HDMI and HDIMI loop | OTHERS | |
| 13 | DVI input | 7 | Sending card slots |
| POWER | | | |
| 8 | Power switch | | |
| 9 | Power IEC-3 | | |

Menu Tree

| INPUT | OUTPUT | TRANSITION | AUDIO | SPLIT | SYSTEM | FACTORY RESET |
|---------------|---------------|---------------|---------------------------|--------------|---------------------|---------------|
| INPUT INFO | OUTPUT INFO | MODE | MUTE | SPLIT ON/OFF | SYSTEM INFO | FACTORY RESET |
| SIZING ADJUST | OUTPUT FORMAT | DURATION | VOLUME | H TOTAL | TECH SUPPORT | |
| USB CONTROL | OUTPUT ADJUST | ALPHA | AUDIO IN | V TOTAL | WORK TIME | |
| VGA ADJUST | SCREEN | DEINTERLACE | HDMI INTERNAL/EXTERNAL | H POS | LOCK FRONT PANEL | |
| ADC ADJUST | RATIO | IMAGE ENHANCE | | V POS | LICENSE SETUP | |
| SDI ADJUST | TEXT OVERLAY | TAKE | | H SIZE | HOT BACKUP | |
| EDID MANAGE | DISPLAY MODE | | | V SIZE | DELAY RECALL | |
| | GAMMA | | | RESET | | |



USING YOUR PRODUCT

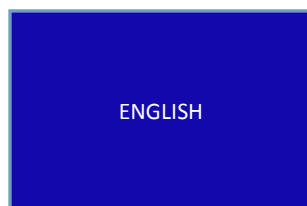
Language Switching

C1US system is default in English. Long pressing **【MENU】**and**【SCALE】**button for 3 seconds can achieve Chinese and English menu switching.

When LCD displays 中文, the system is switched to Chinese.



When LCD displays English, the system is switched to English.



【TAKE】 Button

When CIUS power on, system default is HDMI input signal. To switch signal, press CVBS,VGA,DVI or SDI. For example, to switch to VGA, push 【VGA】 button and the button flashes. Keep pressing 【TAKE】 button for 3s, enter switch mode as follows. Press 【TAKE】 again, it will bring the VGA signal to output.

```
INPUT: HDMI
TAKE: VGA
OUTPUT: 1920X1080@60
```

```
INPUT: VGA
TAKE: HDMI
OUTPUT: 1920X1080@60
```

【TAKE】 is default 1s duration of FADE. To adjust the duration time, push 【MENU】 , turn the knob to select <TRANSITION> menu. Press the knob and turn to select DURATION. Press the knob again and turn the knob to select time. DURATION time range from 0.1s to 1.0s. Press 【TAKE】 again, it will bring the adjusted FADE mode to screen.

```
MODE          FADE
>DURATION      1s
ALPHA          0
DEINTERLACE    ON
IMAGE ENHANCE  OFF
```

By 【TAKE】 , users can preview on LCD the signal format and resolution of the picture about to show on the big screen therefore the accuracy of picture can be ensured.

【PIP】 Picture in Picture

Push **【PIP】** button and button light is on. LCD shows the <PIP> menu.

LAYOUT:

There are 7 layouts available in the menu. PIP L+T, PIP R+T, PIP L+B, PIP R+B, PIP CENTER, PBP L+R and PBP T+B.
Here are 3 examples:



SWAP IMAGE:

Select on or off to switch the main picture and secondary picture (the small one).

ALPHA:

Image transparency setting, the adjustment range is 0 to 16.

SECLECT:

Select IMAGE A or IMAGE B.

SPLIT Function

C1US can be used in multiple cascade mode to finish split. When do cascade, connect the signals to the signal distributor first, and then connect from the outputs of the signal distributor to each input of C1US. User can also do cascade via HDMI LOOP port.

Quick split can be finished as follows:

1. Push **【MENU】** , turn the knob to select <SPLIT> and press **【OK】** .

| | |
|------------|----|
| INPUT | >> |
| OUTPUT | >> |
| TRANSITION | >> |
| AUDIO | >> |
| >SPLIT | >> |

2. Turn the knob to ON and press **【OK】** or the knob again.

| | |
|---------|------|
| >SPLIT | ON |
| H TOTAL | 1920 |
| V TOTAL | 1080 |
| H POS | 0 |
| V POS | 0 |

H TOTAL: set the total horizontal pixels of the LED screen

V TOTAL: set the total vertical pixels of the LED screen

H POS: select the total number of horizontal screens

V POS: select the total number of vertical screens

H SIZE: set the horizontal pixels this device will provide.

V SIZE: set the vertical pixels this device will provide.

Reset: If image quality distorts by improper operation, it can be recover by reset.

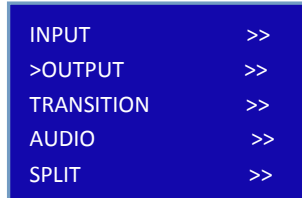
| | |
|---------|------|
| >H SIZE | 1920 |
| V SIZE | 1080 |
| RESET | |

When doing equal splitting, set H SIZE and V SIZE of each device with same resolution, and then set H POS and V POS of each device correspondingly. When doing unequal splitting, set and save H SIZE and V SIZE of each device according to actual needs.

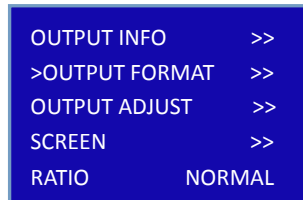
Select And Customize Output Resolution

1. Select output resolution:

Push **【MENU】** , select <OUTPUT>, press **【OK】** ;



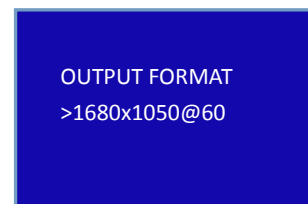
Select <OUTPUT FORMAT>, press **【OK】** ;



Select <STANDARD>, press **【OK】** ;



Select the resolution needed press **【OK】** to confirm .

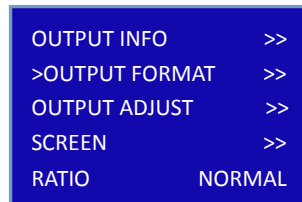


2. Customize output resolution:

Push **【MENU】** , select <OUTPUT>;



press **【OK】** , select <OUTPUT FORMAT>



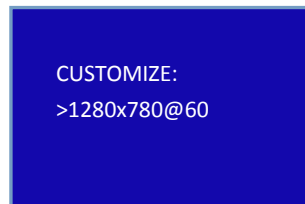
press **【OK】** , select <CUSTOMIZED>.



Key in the needed horizontal pixels of resolution by using the numeral buttons on front panel and then press **【OK】** ;

key in the needed vertical pixels of resolution in the same way and **【OK】** ;

key in the needed refresh rate and **【OK】** .



Screen Setting And 【FS】 Button

The setting of <SCREEN> is based on the resolution of the LED screen, applicable under single picture mode. For example to display picture on a LED screen with resolution 1408x832, first of all, a resolution close to or bigger than 1408x832 shall be selected. In this case, 1440x900 or resolution above will be proper choice. The closer to the LED screen resolution, the better the display will be.

Push 【MENU】, select <OUTPUT>;

| | |
|------------|----|
| INPUT | >> |
| >OUTPUT | >> |
| TRANSITION | >> |
| AUDIO | >> |
| SPLIT | >> |

Press 【OK】, select <SCREEN>, press 【OK】 again or the knob.

| | |
|---------------|--------|
| OUTPUT INFO | >> |
| OUTPUT FORMAT | >> |
| OUTPUT ADJUST | >> |
| >SCREEN | >> |
| RATIO | NORMAL |

Then enter the menu of <SCREEN>

H SIZE: turn knob or press numeral button to set the horizontal pixels of the LED screen, e.g 1408;

V SIZE: turn knob or press numeral button to set the vertical pixels of the LED screen, e.g 832

H POS: initial parameter is 0, if the picture is not skew, do not set.

V POS: initial parameter is 0, if the picture is not skew, do not set.

Mode: Turn knob to select <SCREEN SIZE> or <FULL SIZE>

If operation is not proper, turn knob to <RESET> and start over.

| | |
|--------|-----------|
| H SIZE | 1408 |
| V SIZE | 832 |
| H POS | 0 |
| V POS | 0 |
| MODE | FULL SIZE |

Note: Users can also set <SCREEN> by 【FS】. Press 【FS】 and button light is on, Led display image in screen size, press 【FS】 again, button light goes off, Led display image in full size.

Input Sizing Adjustment

Push **【MENU】** , select <INPUT>;

| | |
|------------|----|
| >INPUT | >> |
| OUTPUT | >> |
| TRANSITION | >> |
| AUDIO | >> |
| SPLIT | >> |

press **【OK】** , select <SIZING AJUST>, press **【OK】**

| | |
|----------------|----|
| INPUT INFO | >> |
| >SIZING ADJUST | >> |
| USB CONTROL | >> |
| VGA ADJUST | >> |
| ADC AJUST | >> |

Then enter <SIZING ADJUST> MENU.

H SIZE:set the horizontal pixels of input image to zoom or scale the input signal

V SIZE:Set the vertical pixels of input image to zoom or scale the input signal

H POS:set the horizontal position of image;

V POS:set the horizontal position of image;

RESET SIZE:if the size is not proper, turn knob to RESET SIZE and press **【OK】**

| | |
|------------|------|
| H SIZE | 1024 |
| V SIZE | 768 |
| H POS | 0 |
| V POS | 0 |
| RESET SIZE | |

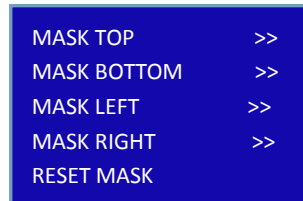
MASK TOP:crop the top of image

MASK BOTTOM:crop the bottom of image

MASK LEFT:crop the left part of image

MASK RIGHT:crop the right part of image

RESET MASK:If the crop not proper, turn knob to RESET MASK and press **【OK】** .



VGA Input Adjustment

Non-standard VGA input signal can cause the input image shifting or not in full screen, therefore, users need to adjust VGA input as follows:

Push **【MENU】** , select <INPUT>, press **【OK】** ;

| | |
|------------|----|
| >INPUT | >> |
| OUTPUT | >> |
| TRANSITION | >> |
| AUDIO | >> |
| SPLIT | >> |

select <VGA AJUST>, press **【OK】** ;

| | |
|---------------|----|
| INPUT INFO | >> |
| SIZING ADJUST | >> |
| USB CONTROL | >> |
| >VGA ADJUST | >> |
| ADC AJUST | >> |

select<AUTO AJUST>, press **【OK】** .

After selecting <AUTO AJUST> the device will automatically adjust the H POS,V POS, CLOCK and PHASE to make input image no shifting and full screen.

| | |
|--------------|---|
| H POS | 0 |
| V POS | 0 |
| CLOCK | 0 |
| PHASE | 0 |
| >AUTO ADJUST | |

Note:If one <AUTO AJUST> cannot meet the needs, users can do <AUTO AJUST> many times. The system can automatically save the ADJUST parameter. Users can also go to <AUTO AJUST> by pressing **【VGA】** button for 10s.

【SCALE】 Scaling Funtion

To scale the output image, users can press 【SCALE】 button and set the parameters by turning knob or pressing numeral buttons.

After user press 【SCALE】 , LCD shows the menu items as follows:

H SIZE: set the horizontal pixels of output image

V SIZE: set the vertical pixels of output image

H POS: set the horizontal position of image

V POS: set the horizontal position of image

RESET: If operation is not proper, turn knob to <RESET> and start over.

| | |
|--------|------|
| H SIZE | 1920 |
| V SIZE | 1080 |
| H POS | 0 |
| V POS | 0 |
| RESET | |

【FREEZE】 Button

To freeze current output image, users can press 【FREEZE】 on the front panel.

LCD shows “FREEZE IMAGE” and the 【FREEZE】 button light is on.



INPUT: CVBS
OUTPUT: 1920X1080@60
DISPLAY MODE:
FREEZE IMAGE

To exit FREEZE mode, press 【FREEZE】 again and the button light goes out.

Text Overlay

Text overlay function is to add subtitle on output image, more often used on such fields as live broadcasting, live concert, live commentary, and advertisement.

Before text overlay, the subtitle input channel need to be ensured, e.g subtitle input channel VGA

And the overlaid channel need to be decided, e.g overlay text on DVI channel.

Set as follows:

1. Push **【VGA】** to check VGA input, LCD shows the VGA input.
2. Push **【DVI】** to check DVI input, LCD shows the DVI input.
1. Push **【PIP】** , make sure VAG is the small picture and DVI the big picture, if not, turn the <SWAP PICTURE> "ON" in **【PIP】** menu.
4. Select <SELECT> in **【PIP】** menu, Press <OK> turn Knob to select "IMAGE B", press <SCALE> to set the size and position of "IMAGE B" which the VGA picture in this case.
If there is black rim on top, bottom, left or right of the VGA picture, use <MASK TOP>,<MASK BOTTOM>,<MASK LEFT><MASK RIGHT> to crop the black rim.

```
>PIP          ON
LAYOUT        PIP L+T
SWAP IMAGE    ON
ALPHA         0
SELECT        IMAGE B
```

5. Push **【MENU】** , select<OUTPUT>, press **【OK】** ;

Select <TEXT OVERLAY>, press **【OK】** and enter <TEXT OVERLAY> menu as follows.

```
>TEXT OVERLAY  ON
PRESET         WhOnBk1
BLEND MODE     MODE1
BLEND LEVEL    12
STAND          ABOVE
```

Select <TEXT OVERLAY> press **【OK】** and turn the knob to "ON" and press **【OK】** again

6. Select <PRESET>press **【OK】** and turn the knob to “WhOnBk1”or “WhOnBk2” and press **【OK】** again

```
TEXT OVERLAY    ON
>PRESET        WhOnBk2
BLEND MODE      MODE1
BLEND LEVEL     12
STAND           ABOVE
```

Note:TEXT OVERLAY only support monochrome subtitles.

7.Push **【SAVE】** to save the TEXT OVERLAY as preset. Next time to use, just **【LOAD】** the save, the preset TEXT OVERLAY setting can be used directly.

```
SAVE TO
>SAVE1

KEY ON FOR EMPTY
FLASH IS FOR USED
```

TRANSITION Setting

Transition is used to set the switching mode between different input sources.

Push **【MENU】** , select<TRANSITION>, press **【OK】**

| | |
|-------------|----|
| INPUT | >> |
| OUTPUT | >> |
| >TRANSITION | >> |
| AUDIO | >> |
| SPLIT | >> |

Enter the menu as below

| | |
|---------------|------|
| >MODE | FADE |
| DURATION | 0.5S |
| ALPHA | 16 |
| DEINTERLACE | ON |
| IMAGE ENHANCE | OFF |

MODE: Special effects switching modes, including FADE, CUT, WIPE SQUARE IN, WIPE SQUARE OUT, WIPE TOP LEFT IN, WIPE TOP LEFT OUT, WIPE TOP RIGHT IN, WIPE TOP RIGHT OUT, WIPE BOTTOM LEFT IN, WIPE BOTTOM LEFT OUT, WIPE BOTTOM RIGHT IN, WIPE BOTTOM LEFT OUT, WIPE LEFT IN, WIPE LEFT OUT, WIPE RIGHT IN, WIPE RIGHT OUT, WIPE TOP IN, WIPE TOP OUT, WIPE BOTTOM IN and WIPE BOTTOM OUT

DURATION:set the transition time ranging from 0 to 1S by rotating the knob and pressing **【OK】** .

ALPHA:set the image transparency ranging from 0 to 1S by rotating the knob and pressing **【OK】** .

DEINTERLACE:select ON or OFF to enable or shut down the deinterlacing function

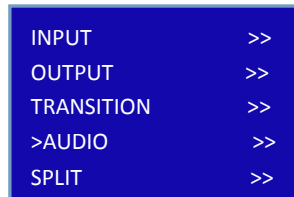
IMAGE ENHANCE:image enhancement function, for image edge sharpening, color reduction and image scaling.

Select ON or keep pressing **【TAKE】** button 3s to enable the function. The selected input signal will be switched to output as the TRANSITION set.

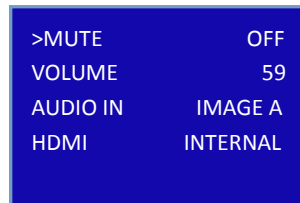
| | |
|-------|----|
| >TAKE | ON |
|-------|----|

AUDIO Setting

Push **【MENU】** , select<AUDIO>, press **【OK】**



Enter the menu as below:



MUTE:select ON or OFF

Volume:adjustment range from 0 to 100

AUDIO IN:select the source of the input audio from IMAGE A or IMAGE B

HDMI:select internal or external audio for HDMI input

【BRI】 Image Adjustment

Push 【BRI】 button and enter the image adjustment menu where users can adjust brightness, contrast, saturation, sharpness, color temperature of red, green and blue.

BRIGHTNESS:range from 0 to 100.

CONTRAST:range from 0 to 100.

SATURATION:range from 0 to 100

SHARPNESS:range from 38 to 62

RED:range from 0 to 100

GREEN:range from 0 to 100

BLUE:range from 0 to 100

RESET:If image quality distorts by improper operation, it can be recover by reset

| | |
|-------------|----|
| *BRIGHTNESS | 50 |
| CONTRAST | 55 |
| SATRUATION | 50 |
| SHARPNESS | 50 |
| RED | 50 |

| | |
|-------|----|
| GREEN | 50 |
| BLUE | 50 |
| RESET | |

BLACK OUT Setting

Black out descriptions:

Black signal realizes one-key-touch to a black screen.

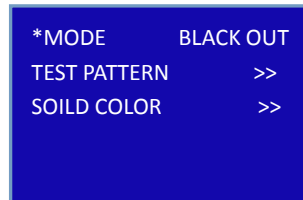
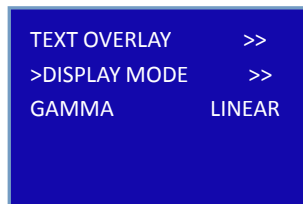
C1US provides black effect processing for output with cut black effect. Operation is as below:

Push **【MENU】** ,select <OUTPUT>, press **【OK】** .

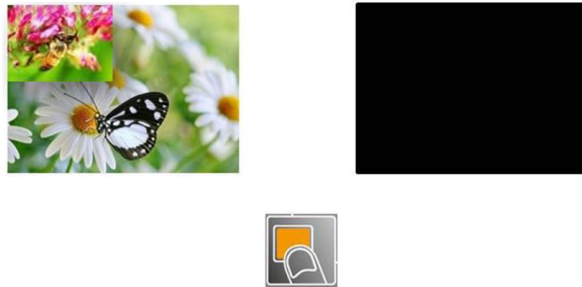
Turn knob to select<DISPLAY MODE>, press **【OK】** or the knob.

Select<MODE>, press **【OK】** .

Turn knob to select BLACK OUT, press **【OK】** .



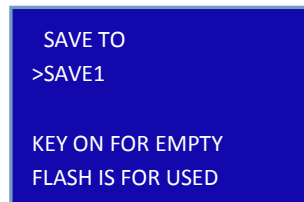
After BLACK OUT, the LED screen show black , the process is as below:



【SAVE】 Save Settings

Push the [SAVE] button, the button light is on, and enable the SAVE function.

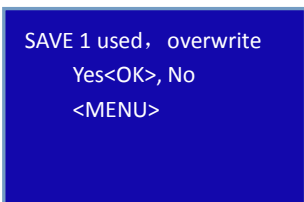
LCD shows [SAVE] instruction info to assist users complete operation. Meanwhile, part of numeral buttons 0~9 lights are on and parts flash. Buttons with lights on are empty, flashing buttons are used. LCD shows as below



SAVE TO
>SAVE1

KEY ON FOR EMPTY
FLASH IS FOR USED

Saving to flashing positions will overwrite previously saved settings. For example, button 1 is flashing, after pressing button 1, LCD shows



SAVE 1 used, overwrite
Yes<OK>, No
<MENU>

Push 【OK】 to confirm, 【MENU】 to cancel.

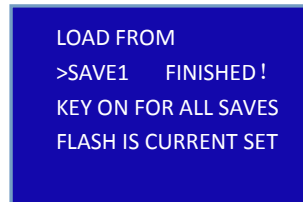
【LOAD】 Recall Saved Settings

Push **【LOAD】** LCD shows the instruction information to assist users complete LOAD operation.

Meanwhile, among numeral buttons 0-9, some buttons lights are on, some flash and perhaps some lights go off.

Buttons with light on indicate the <SAVE> ready to load, flash indicate the <SAVE> is currently loaded, light off indicate no <SAVE> to load. For example button 1 light is on, press button 1 to load <SAVE1>

LCD shows below:



Push **【MENU】** to exit LOAD, the button lights go out.

CONTACT INFORMATION

Warranty:

All video products are designed and tested to the highest quality standard and backed by full 3 years parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

The customer shall pay shipping charges when unit is returned for repair.

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