SWIT®

LA-R960 DMX512 Console

Ver: C

USER MANUAL

SWIT Electronics Co.,Ltd.

Tel:+86-25-85805753
Fax:+86-25-85805296
http://www.swit.cc
E-mail: contact@swit.cc

Thank you for choosing our company's products. Please read this user manual carefully before use and keep it properly for future reference.

Precautions

1. Keep the device dry, and pay attention to moisture and dust prevention;
2. Do not sprinkle water on the lighting console;
3. Do not attempt to disassemble or modify this product without any authorization or permission;
4. Please keep this device away from magnetic fields during operation;
5. Do not allow any flammable liquids or metals to enter the interior of the console;
6. Any strong impact or vibration may cause malfunctions.

Packing List

No.	Description	Quantity
1	LA-R960	x 1
2	AC Power Cable	x 1
3	LED light	x 1

XLR Pin Definition

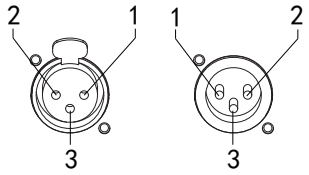

Figure 1 DMX OUTPUT Interface

XLR PIN 1: Data Link Common Terminal (Conductor Shield)

XLR PIN 2: Signal "-"

XLR PIN 3: Signal "+"

Specifications

Number of DMX512 channels	96
Number of Storable Scenes	36
Master Slider	Global master control
RS232	Connect to central control system for remote submaster recall
RDM	Supported; remotely view information of RDM-enabled fixtures and modify address codes
Scenes Backup & Download	Supported; backup and download via USB
Master/Slave Expansion	Supported; connect 2 units of LA-R960 via Ethernet cable to expand to 192 channels for master-slave operation
Rotary Dial for Channel Value Check	Supported
Dial Press to Clear All Slider Values	Supported (non-RDM mode)
Slider for Channel Value Adjustment	Supported
Slider Dimming	Supported
Restores the previous submaster settings and fader values when power is restored.	Supported
DMX Signal Output Interface	3-PIN XLR
Power Input	AC 88-256V,50/60Hz
Weight	7.3Kg
Dimensions (mm)	498 x 420 x 115
Installation Dimensions (mm)	As shown in Figure 2 Note: If the armrest needs to be removed for installation, replace the original armrest screws with M4*6 screws, or leave the screw holes empty.

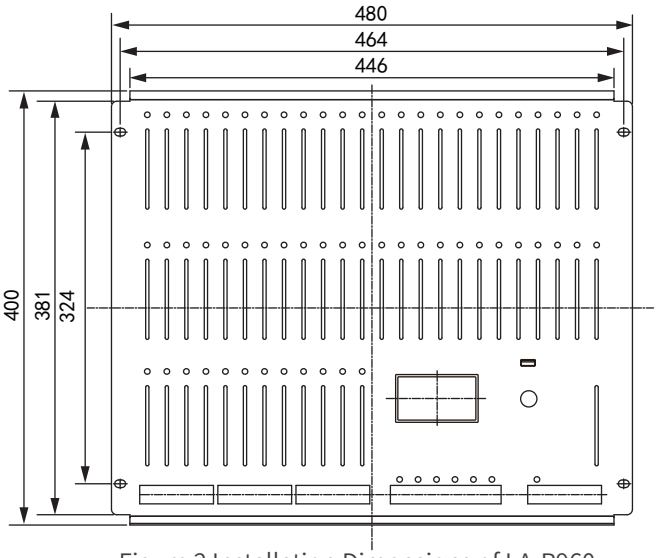

Figure 2 Installation Dimensions of LA-R960

Parts and Functions Description

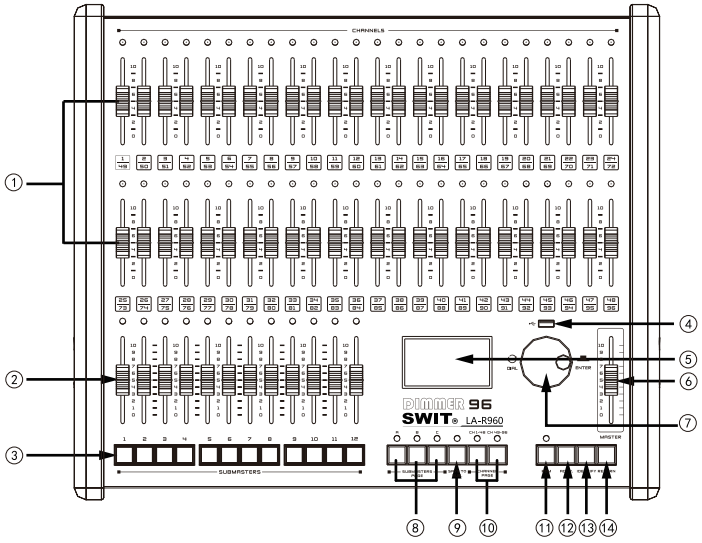

Figure 3 Top view of LA-R960

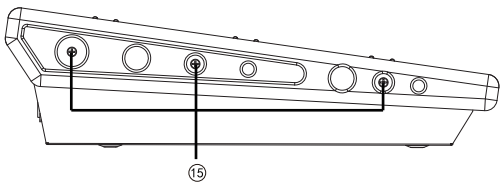

Figure 4 Left view of LA-R960

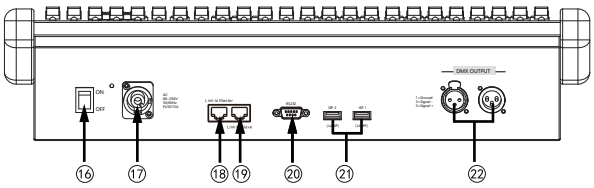

Figure 5 Rear view of LA-R960

① **Channel Sliders 1-96:** Directly control the parameter values of each channel
② **Submaster Sliders 1-12:** Directly adjust the brightness ratio of each dimming scene
③ **Submaster 1-12 Buttons:**
Press and hold a numbered button to set the corresponding channel parameters to their maximum values; release the button to return to the parameter values set by the current fader positions.
④ **USB-A Port**: Allows scenes to be backed up to and downloaded from a USB flash drive.
⑤ **LCD Screen:** Display parameter values of each channel
⑥ **Master Slider**: Global master control for all channels
⑦ **DIAL/ENTER Knob**:
- Rotate the DIAL Knob:
Switch among all channels to view their parameter values (select or modify items in RDM mode);
- Press the ENTER Knob:
Reset all slider parameter values to 0 (confirm selected items in RDM mode)

⑧ **SUBMASTERS PAGE(A/B/C)**: Page up/down to switch between submaster storage pages A, B, and C
⑨ **SAVE TO SUB (Submaster Save Button):**
Save current parameter values of all channels to the user-specified submaster slider
⑩ **CHANNEL PAGE**:
- CH1-48: When the button indicator is on, the channel sliders control DMX channels 1-48
- CH49-96: When the button indicator is on, the channel sliders control DMX channels 49-96

⑪ **RDM Button**: Turn on/off RDM mode (corresponding LED lights up when activated)
⑫ **ADDR. Button:**
After identifying the RDM device, press this button to quickly enter the device address modification item, and modify the device DMX address through the DIAL/ENTER Knob
⑬ **IDENTIFY Button:**
Lamp identification button. After identifying the RDM device, press this button to quickly identify the current device.
⑭ **RETURN Button:** Return to the upper-level menu when in the RDM function menu
⑮ **Armrest Fixing Screws**
⑯ **Power Switch**
⑰ **AC INPUT Interface**
⑱ **Submaster slider buttons:**
When this unit operates as a slave, connect it to the master through this port. The slave unit's submaster faders and buttons are inactive; its submasters are controlled entirely by the master unit's submaster faders and buttons.
⑲ **Slave Connection Port:**
When this unit operates as a master, connect it to the slave using this port; the expanded channels are 97-192.
⑳ **RS232 Interface**
㉑ **ISP 1 / ISP 2:** Software Update, LED Work Light Socket
㉒ **DMX OUTPUT Interface**

Manual Dimming

1.Push the Master Slider to the maximum position;
2.Use Channel Sliders 1-96 to adjust the parameter values of each DMX channels;
3.Rotate the DIAL Knob to switch among channels 1-96 and view their current parameter values;
4.Press the ENTER Knob to clear all slider values to 0.

Submaster Storage

1.Push the Master Slider to the maximum position;
2.Use Channel Sliders 1-96 to adjust the parameter values of each DMX channels;
3.Press the SUBMASTERS PAGE button to select the target storage page (A, B, or C);
4.Press and hold the SAVE TO SUB button, then press the Submaster Button (1-12), and release both buttons simultaneously. The LED at the lower part of the console will flash several times to indicate successful submaster storage;
5.Repeat steps 2-4 to store 2-36 submasters (scenes) as needed.

Submaster Deletion

1.Press the SUBMASTERS PAGE button to select the page (A/B/C) where the submaster to be deleted is stored;
2.Press and hold the SAVE TO SUB button, double-press the number button of the target submaster, and release both buttons simultaneously. The LED at the lower part of the console will flash several times to indicate successful submaster deletion.

Language Switching (Chinese/English)

1.Press and hold the ENTER knob, then power on the device to enter the LCD menu list;
2.Select between Chinese and English as needed.

USB Flash Drive Backup and Import

1.Insert a USB flash drive into the USB-A port of this unit;
2.Press and hold the ENTER button, then power on the device to enter the LCD menu list;
3.Rotate the DIAL/ENTER knob and follow the on-screen prompts to perform USB backup and import.

RDM

1.Press the RDM button (corresponding LED lights up) to enter RDM mode;
2.Press the ENTER Knob, and the console will search for connected RDM devices, then display the number and names of detected devices;
3.Rotate the DIAL Knob to select the device you want to look for;
4.Press the IDENTIFY button; the symbol "∧"appears in front of the corresponding device's UID, and the corresponding fixture's display screen flashes. Press the IDENTIFY button again; the "∧"symbol disappears, and the corresponding fixture's display screen returns to normal.
5.Press the ADDR. button to enter the device DMX address menu item
1) Get the real-time DMX address of the device
Rotate the DIAL Knob to move the ">"symbol to "Get", then press the ENTER Knob to display the device's real-time DMX address
2) DMX address modification
►Rotate the DIAL Knob to move the ">"symbol to the device address value item.
►Press the ENTER Knob; the ">"symbol changes to the "= ="symbol.
►Rotate the DIAL Knob to modify the current address.
►Press the ENTER Knob; the"= ="symbol changes back to">"symbol.
►Rotate the DIAL Knob to select "all OK" or "only OK". Select "all OK" to apply the change to all devices, or "only OK" to apply it only to the current device.
►Press the ENTER Knob; it displays "ACKOK", and the device DMX address modification is successful.
6.Press the "RETURN" button to return to the previous menu
7.Rotate the DIAL Knob to select the target function item:

RDM UID
Identify device
Device Model
DMX Address
DMX 512 Footprint
DMX 512 Personality
Reset Device
Software Ver

Press the **ENTER Knob** to view or modify the selected item.
8.Repeat steps 5-7 to view or modify other items.
9.Press the RDM button, the corresponding LED will turn off, exiting RDM operation.

Note: When using the RDM function, fixtures without RDM support may respond unintentionally. This is normal.

Central Controller Remote Control

1. Connection Method: Connect the RS232 interface of the console to the central control system using an RS232 cable;
2. Central Control Command Code Specifications: Baud Rate 9600

	Hexadecimal Code	Decimal Code
	9A 00 00 00 00 00 00 34	9A 00 00 00 00 00 00 52
Submaster 1	9A +1 00 00 00 00 00 34	9A +1 00 00 00 00 00 52
Submaster 2	9A +2 00 00 00 00 00 34	9A +2 00 00 00 00 00 52
Submaster 3	9A +4 00 00 00 00 00 34	9A +4 00 00 00 00 00 52
Submaster 4	9A +8 00 00 00 00 00 34	9A +8 00 00 00 00 00 52
Submaster 5	9A +10 00 00 00 00 00 34	9A +16 00 00 00 00 00 52
Submaster 6	9A +20 00 00 00 00 00 34	9A +32 00 00 00 00 00 52
Submaster 7	9A 00 +1 00 00 00 00 34	9A 00 +1 00 00 00 00 52
Submaster 8	9A 00 +2 00 00 00 00 34	9A 00 +2 00 00 00 00 52
Submaster 9	9A 00 +4 00 00 00 00 34	9A 00 +4 00 00 00 00 52
Submaster 10	9A 00 +8 00 00 00 00 34	9A 00 +8 00 00 00 00 52
Submaster 11	9A 00 +10 00 00 00 00 34	9A 00 +16 00 00 00 00 52
Submaster 12	9A 00 +20 00 00 00 00 34	9A 00 +32 00 00 00 00 52
Submaster 13	9A 00 00 +1 00 00 00 34	9A 00 00 +1 00 00 00 52
Submaster 14	9A 00 00 +2 00 00 00 34	9A 00 00 +2 00 00 00 52
Submaster 15	9A 00 00 +4 00 00 00 34	9A 00 00 +4 00 00 00 52
Submaster 16	9A 00 00 +8 00 00 00 34	9A 00 00 +8 00 00 00 52
Submaster 17	9A 00 00 +10 00 00 00 34	9A 00 00 +16 00 00 00 52
Submaster 18	9A 00 00 +20 00 00 00 34	9A 00 00 +32 00 00 00 52
Submaster 19	9A 00 00 00 +1 00 00 34	9A 00 00 00 +1 00 00 52
Submaster 20	9A 00 00 00 +2 00 00 34	9A 00 00 00 +2 00 00 52
Submaster 21	9A 00 00 00 +4 00 00 34	9A 00 00 00 +4 00 00 52
Submaster 22	9A 00 00 00 +8 00 00 34	9A 00 00 00 +8 00 00 52
Submaster 23	9A 00 00 00 +10 00 00 34	9A 00 00 00 +16 00 00 52
Submaster 24	9A 00 00 00 +20 00 00 34	9A 00 00 00 +32 00 00 52
Submaster 25	9A 00 00 00 00 +1 00 34	9A 00 00 00 00 +1 00 52
Submaster 26	9A 00 00 00 00 +2 00 34	9A 00 00 00 00 +2 00 52
Submaster 27	9A 00 00 00 00 +4 00 34	9A 00 00 00 00 +4 00 52
Submaster 28	9A 00 00 00 00 +8 00 34	9A 00 00 00 00 +8 00 52
Submaster 29	9A 00 00 00 00 +10 00 34	9A 00 00 00 00 +16 00 52
Submaster 30	9A 00 00 00 00 +20 00 34	9A 00 00 00 00 +32 00 52
Submaster 31	9A 00 00 00 00 00 +1 34	9A 00 00 00 00 00 +1 52
Submaster 32	9A 00 00 00 00 00 +2 34	9A 00 00 00 00 00 +2 52
Submaster 33	9A 00 00 00 00 00 +4 34	9A 00 00 00 00 00 +4 52
Submaster 34	9A 00 00 00 00 00 +8 34	9A 00 00 00 00 00 +8 52
Submaster 35	9A 00 00 00 00 00 +10 34	9A 00 00 00 00 00 +16 52
Submaster 36	9A 00 00 00 00 00 +20 34	9A 00 00 00 00 00 +32 52

Example:
When recalling Scene 5, add +10 (hex) or +16 (decimal) to the second byte of the command code 00. The command sent by the central controller will be: 9A 10 00 00 00 00 00 34 (hex) or 9A 16 00 00 00 00 00 52 (decimal).

When recalling Scenes 4 and 5 together, add +8 + 10 (hex) or +8 + 16 (decimal) to the second byte of the command code 00. The command sent by the central controller will be: 9A 18 00 00 00 00 00 34 (hex) or 9A 24 00 00 00 00 00 52 (decimal).