

POWER SEQUENCER & CONDITIONER



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Thank you for choosing our products, please read this user's manual carefully before use.

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IMPORTANT SAFETY INSTRUCTIONS

WARNING FOR YOUR PROTECTION READ THE FOLLOWING

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

The apparatus shall not be exposed to dripping or splashing liquid and no object filled with liquid, such as vases, shall be placed on the apparatus.

CLEAN ONLY WITH A DRY CLOTH.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ACCESSORIES SPECIFIED BY THE MANUFACTURER.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs convenience receptacles, and the point where they exit from the apparatus.

Use only with the cart stand, tripod bracket, or table specified by the manufacture, or sold with the apparatus. When a cart is used, use caution when moving the ear apparatus combination to avoid injury from tip-over.



IMPORTANT SAFETY INSTRUCTIONS

WARNING FOR YOUR PROTECTION READ THE FOLLOWING:

Refer all servicing to qualified service personnel only. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

POWER ON/OFF SWITCH: If the equipment has a Power switch, the Power switch used in this piece of equipment DOES NOT break the connection from the mains.

MAINS DISCONNECT: The plug shall remain readily operable. For rackmount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated into the electrical installation of the rack or building.

FOR UNITS EQUIPPED WITH EXTERNALLY ACCESSIBLE FUSE RECEPTACLE: Replace fuse with same type and rating only.

MULTIPLE-INPUT VOLTAGE: This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. Connect this equipment only to the power source indicated on the equipment rear panel. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel only.

If connected to 240V supply, a suitable CSA/UL certified power cord shall be used for this supply.

IMPORTANT SAFETY INSTRUCTIONS

WARNING FOR YOUR PROTECTION READ THE FOLLOWING:



The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel only. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

IMPORTANT SAFETY INSTRUCTIONS

WARNING FOR YOUR PROTECTION READ THE FOLLOWING:

NOTICE FOR CUSTOMERS IF YOUR UNIT IS EQUIPPED WITH A POWER CORD.

WARNING: THIS APPLIANCE SHALL BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION.

The cores in the mains lead are coloured in accordance with the following code:
GREEN and YELLOW - Earth / BLUE Neutral / BROWN Live

As colours of the cores in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The core which is coloured green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, or coloured green, or green and yellow.
- The core which is coloured blue must be connected to the terminal marked N or coloured black.
- The core which is coloured brown must be connected to the terminal marked L or coloured red.

This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. If the attachment plug needs to be changed, refer servicing to qualified service personnel who should refer to the table below. The green/yellow wire shall be connected directly to the unit chassis.

CONDUCTOR		WIRE COLOR	
		Standard	Alternate
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH	GREEN/YELLOW	GREEN

WARNING

This device is equipped with high voltage elements. Do not open the chassis if not necessary. Pay attention to the risk of electric shock when checking or modifying the device.

The responsibility of decline of quality or burn down of the device caused by owner's modification or disoperation is not included in the warranty.

If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.

Section 1 - Introduction

1.1 Brief Introduction

Congratulations on your purchase of this Power Sequencer & Conditioner, it is a powerful and intelligent time sequencer controller, designed specifically for pro-audio systems. The device can power on and off different kinds of devices by sequence, avoiding system damage causing by current surge of error operation and switchgear order.

It's very easy and convenient to use this multifunctional device with TFT touch screen which shows the operation status.

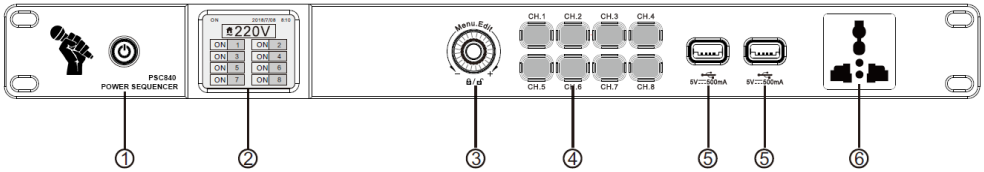
Thank you for your trust and choosing on it, hope you enjoy on using the device.

1.2 Product Features

- Equipped with a 2.2" TFT-LCD touch screen showing the current voltage, date, time, and status of each channel (on/off).
- 8 channels output with delay timer ranged 0 to 999sec for each channel separately.
- Independently power on/off any channel.
- Built-in RTC "Real Time Clock" for scheduled automation.
- Under-voltage protection can be defined.
- Over-voltage protection can be defined.
- Cascading operation, external control or central control using RS232 and RS485.
- For open-end power cable model, up to 40A current of total rated output. Individual channel up to 20A current rated output.
- For UK 13A plug model, up to 13A when used under 220V.

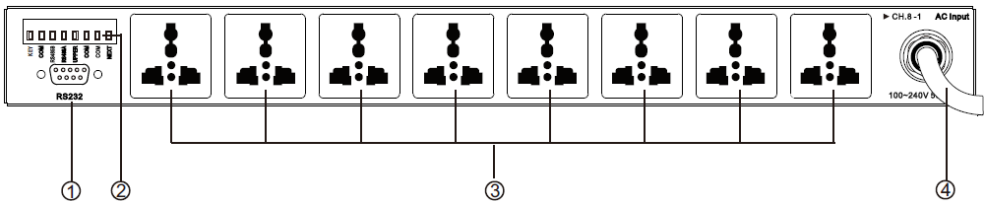
Section 2 – Quick Start

2.1 Front Panel



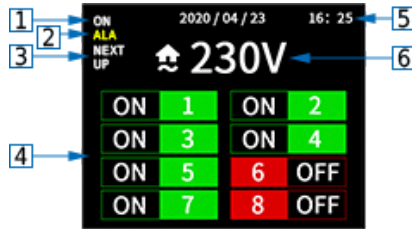
- 1. SEQUENCE BUTTON**
Sequence on/off button.
- 2. LCD Touch Screen**
LCD show current voltage, date, time and status of each channel (on/off). Touch screen to be used for editing the on-screen settings.
- 3. MENU EDIT**
Rotating knob for editing settings and press to confirm.
- 4. Channel Switch**
On/Off specific channel.
- 5. USB LED Port**
USB port for USB LED (5V 500mA).
- 6. AUXILIARY AC OUTPUT**
Auxiliary AC output “not managed”.

2.2 Rear Panel



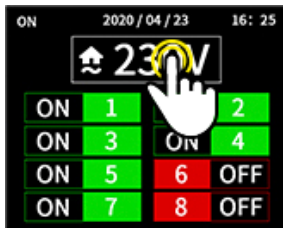
- 1. RS232**
For remote control using RS232.
- 2. External control, RS485 and cascading ports**
Pin 1,2: External switch
Pin 3,4: RS485 port
Pin 5~8: Cascading ports (please check cascading diagram on page 13)
- 3. CH1 to 8**
Universal power sockets.
- 4. AC INPUT 100~240V 50/60Hz**
Power cable.

2.3 Main Interface



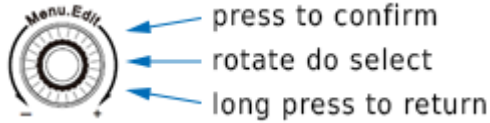
- 1. ON/OFF**
On/Off status
- 2. Schedule Timer activated**
- 3. Cascading connection activated**
- 4. The on/off status of each independent Channel 1 to 8**
Independent Channel 1 to 8 on/off status is shown in green when channel is powered on and show in red when channel is off.
- 5. Date and Time**
- 6. To enter the MENU, please touch the voltage shown on screen**
Active voltage is shown in white while in normal condition and it turns into red when voltage is found over-voltage or under-voltage.

2.4 Functions and Operation

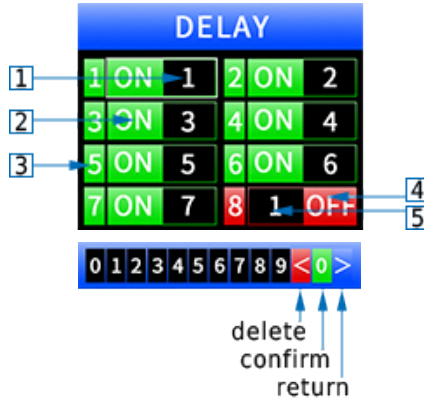


- Enter the menu to adjust parameters by touching the on-screen voltage or by clicking the rotating Menu Edit knob.
- Adjusting parameters by rotating the Menu Edit knob left or right and press the rotating knob to confirm.
- To return to the previous screen, please long press the rotating Menu Edit knob or touch the top menu bar.
- Parameters can only be used next time when it is saved after being adjusted (Please check SAVE setting on page 12)

Rotating Menu Edit knob usage example



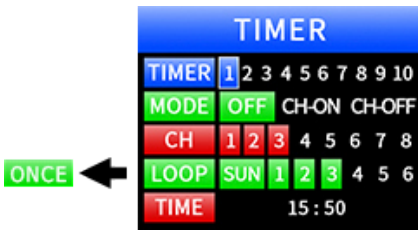
DELAY SETTING



In DELAY setting menu, users can set delay time for powering on and/or powering off each channel independently by using the touch screen or rotating the Menu Edit knob from a range between 0 to 999 seconds.

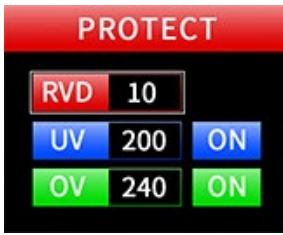
1. Channel Power On delay time in seconds
2. Touch to toggle Off delay (On in green / Off in red)
3. Remove channel control from schedule timer, channel will turn to black when removed from schedule timer
4. Power Off delay time in seconds
5. Touch to toggle On delay (On in green / Off in red)

TIMER SETTING



In TIMER setting menu, users can set up to 10 timers to power on and/or power off. Please use the touch screen or rotate the Menu Edit knob to set parameters. ALA symbol will be shown screen when schedule timer is activated.

PROTECT SETTING



RVD means Voltage Return Differential threshold. The device will be back to work after protected in following situation:

1. The protection is caused by lower voltage, and then the voltage goes up to between UV+RVD to OV.
2. The protection is caused by over voltage, and then the voltage goes down to between UV to OV-RVD.
 - UV means Under Voltage. The protection will be on state when the voltage is lower than the UV value.
 - OV means Over Voltage. The protection will be on state when the voltage is higher than the OV value.

SETTING SETTING

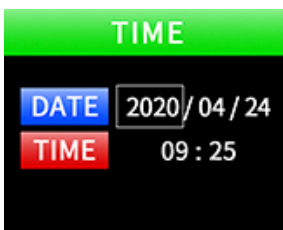


SLEEP means screen idle time. Parameter can be set from OFF or from 1 to 30 minutes, screen will resume by touching the screen, pressing, or rotating the knob.

IP ADDR means device address.

REST means factory reset.

TIME SETTING



Users can set the device date and time.

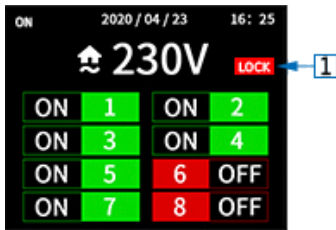
SAVE SETTING



PSW: Password. Users need to type in password, then set a new password.

SAVE: Parameters need to be saved after adjusting, so that the setting can be used next time the device boots up.

LOCK SETTING

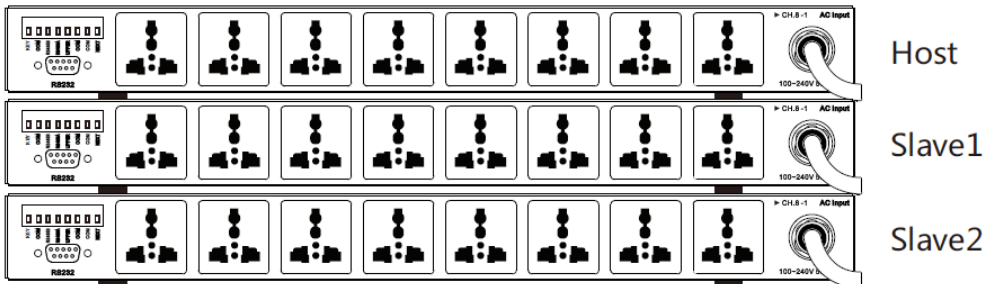


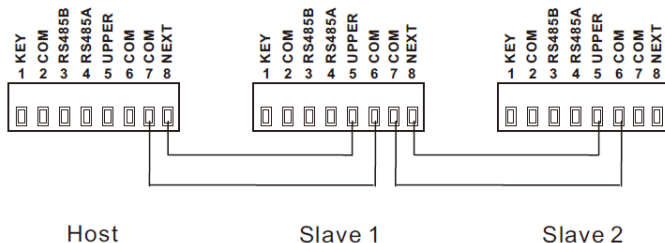
press twice to lock or unlock

1. When device is locked

2.5 Multiple Devices Cascading Diagram

Users can cascade devices as below diagram shows. The first device will be default as host under the cascading system, the sequence of slave devices will be on-state when the host's is on, and the please be noted that slave devices should have the schedule timer turned off.





2.6 Power Cable

For UK 13A plug model:

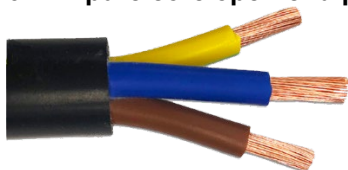
The device is equipped with a UK 13A power Plug.
Be sure not to exceed 2860W when used under 220V.

For open-end power cable model:

The device IS NOT EQUIPPED WITH POWER PLUG. Users should choose the desired plug to use with the device to suit the installation site or connect the open-end power cable directly to a breaker switch.

Be sure to use a 40A power plug or breaker switch if you would like to make use of the 40A total rated output.

6mm² pure core open-end power cable



Section 3 – Appendix

3.1 Technical Specifications

- Supply voltage: AC 100V~240V 50~60Hz
- Interval time of each sequence: 1 to 999 seconds
- USB power supply: DC 5V 500mA
- Power output sockets: 8 controllable outputs & 1 front auxiliary output
- Product dimensions (W × L × H): 480 × 225 × 47 mm
- Up to 13A total rated output current for UK 13A plug model
- Up to 40A total rated output current for open-end power cable model with up to 20A current rated output per channel

3.2 Packing List

- Power Sequencer & Conditioner x 1
- Owner's Manual x 1

NOTES



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