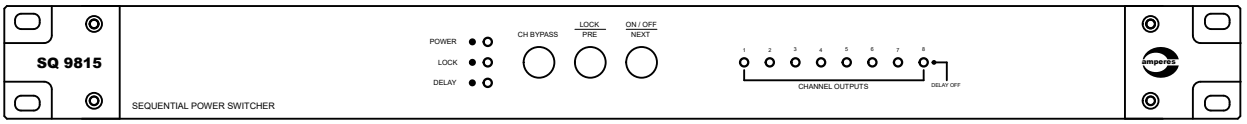
INSTRUCTION MANUAL

SQ9815

Sequential Power Switcher



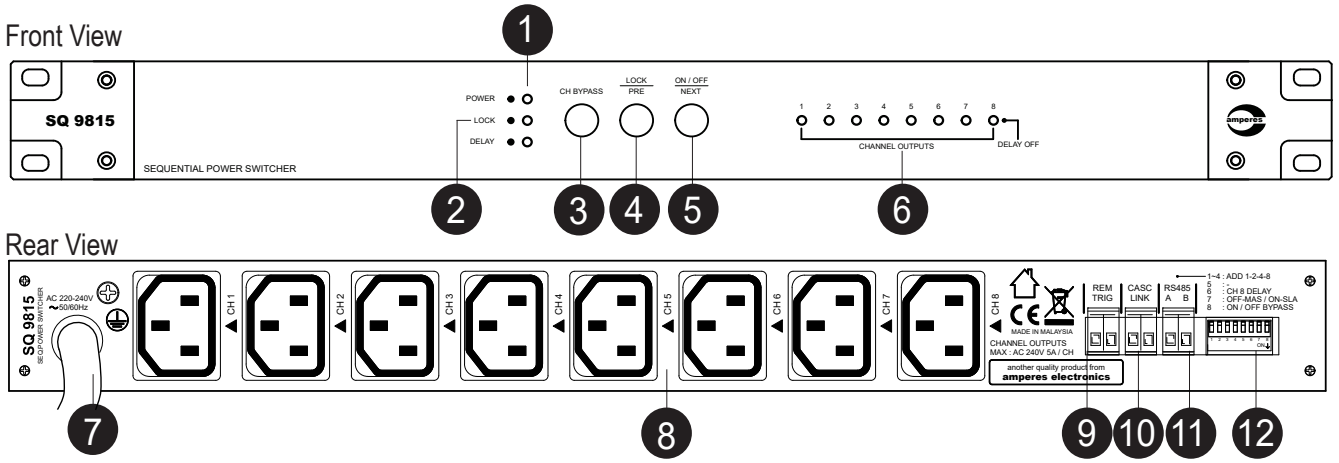
Thank you for choosing SQ9815, an upgraded product from its predecessor, which had been successfully powering various equipment since more than decade ago.

Among the upgrades are 8 channel outputs, addressable with RS485 interface.

It is an important equipment which is suitable not only for PA system but Audio Visual installations as well. Powering of array of equipment had been made simpler and safer, prolonging the life span of the delicate equipment such as projectors, amplifiers etc.

Again, thank you for trusting another appliance from Amperes and experience the countless features we have to offer.

Parts Identifications



1. POWER LED

This LED indicates the presence of incoming mains supply.

2. LOCK LED

When the unit is in LOCK mode, LED would lit.

3. CHANNEL BYPASS

Button to set channel bypass. (Refer to page 4)

4. LOCK SWITCH

Press LOCK and ON/OFF button simultaneously to disable ON/OFF switch and shall prevent accidental triggering to the unit. LOCK LED would ON when the unit is in lock mode. To unlock, press LOCK and ON/OFF simultaneously.

5. ON/OFF PUSH SWITCH

Press once to power up or shutting down your system. Each channel would be switched ON or OFF in steps of 2 seconds intervals. LED indicators for isolated channel would not lit. Please refer to item 10 on how to isolate the channel.

6. CHANNEL OUTPUT LED

Green - Active channel
Red - Channel output active
LED off - Channel bypassed

7. INCOMING POWER CORD

Connect incoming supply to the unit with appropriate fused plug top. This unit must be earthed !.

8. CHANNEL OUTPUT IEC SOCKETS

Use the male IEC plugs provided to connect the equipments to the unit. Please ensure that max load per channel does not exceed 5A with maximum 15A load in total.

9. REMOTE TRIGGERING PORT

When remote powering SQ9815 is required (Control room far away from main rack), use a dry contact switch (noiseless) and terminate it to the port. Refer to page 5 for details.

10. CASCADING LINK

In the event 2 units of SQ9815 are used in a system, link them with this port. DIP has to be set to identify which unit is either Master or Slave. Refer Details in page 5.

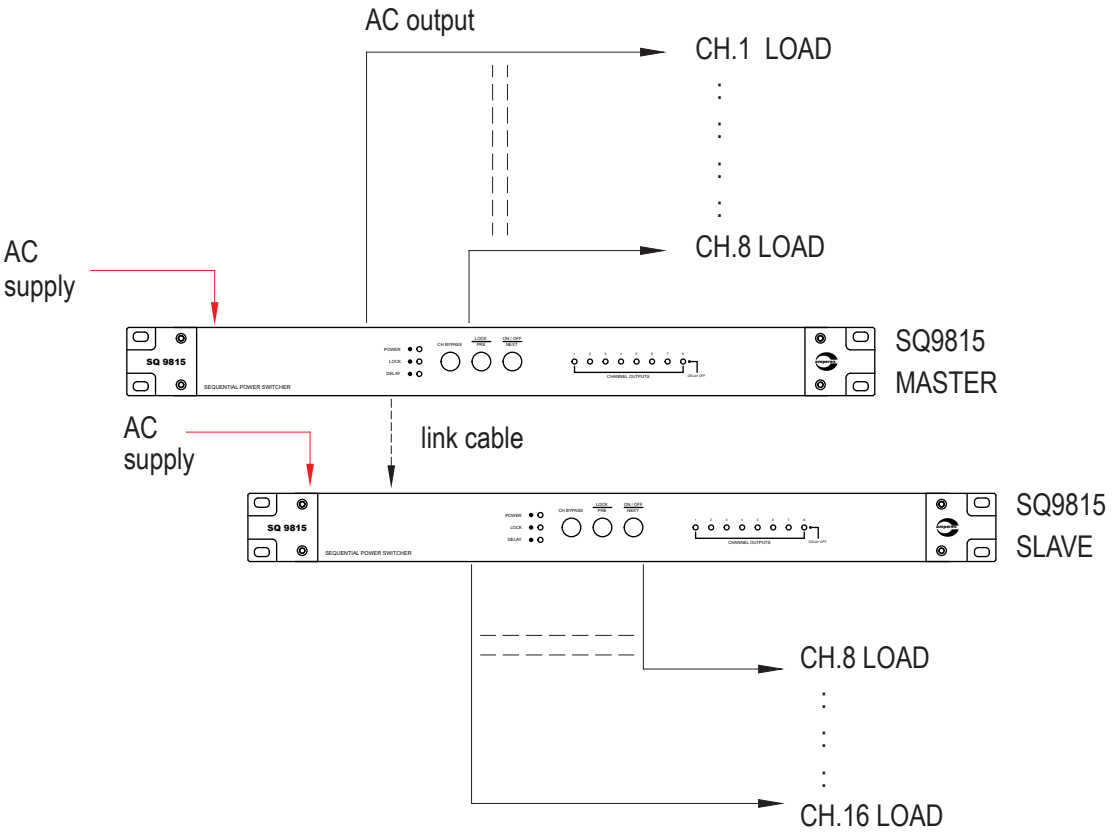
11. RS485 PORT

This is for external monitoring purpose via RS485 protocol.

12. DIP SWITCH SETTINGS

It is used to select the output functions such as channel 8 delay, unit Master or Slave setting and front ON/OFF switch bypass.

Application Schematic

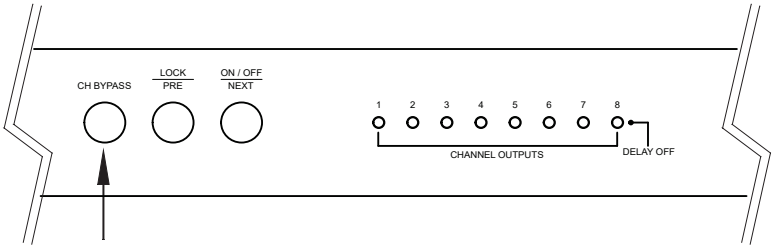


Units shown in cascade mode
with 16 channels in total.
Ch 16 is last channel with delay option
Control only at Master unit

Operating The Unit

1. Before operating the unit, check that the setting is correct according to your application or requirements.
2. Connect the output channel to your equipments. Any unused channel should be disabled using the front switch setting at the rear panel.
3. Switch on the switch of every individual equipment.
4. Connect the power supply cord to the mains and switch on the mains supply. Ensure that earthing is made.
5. To power up the system, press the ON/OFF button at front panel. Every channel will be activated in steps and is shown at the red LED indicators.
6. After the whole system has been powered up, lock the unit by pressing LOCK and ON/OFF simultaneously, Repeat the same procedure to unlock.
7. To power down, press the ON/OFF switch and system is shutting down from CH8 to CH1 in steps. Always switch off the mains if the system is not in used.

Output Channel Bypass Setting



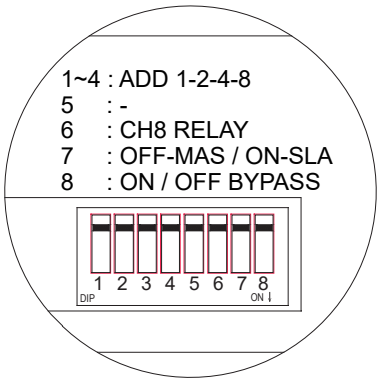
Output channel can be bypassed if required. Follow the sequence below:-

1. Press “Channel Bypass” button and till LEDs blink momentarily to enter Channel Bypass mode.
2. Press “Channel Bypass” once and the first LED shall turn orange.
3. Press Next / Prev button to shift to the required channel.
4. Press “Channel Bypass”, orange LED indicates channel to be “ON” and red “channel to be OFF”
5. Repeat step 3 and 4 for other channel; and to same and exit the Channel Bypass mode, press “Channel Bypass” button till all the LED blinks.

Bypassed channel shall have its LED OFF otherwise shall be green.

On operation, powered channel shall be in red color.

DIP Switching



DIP Switch 1 ~ 4
Unit address in binary code (1,2,4,8) for PC interface unit identification.

DIP Switch 6
Select ON to enable channel 8 into delay OFF mode for 2 minutes

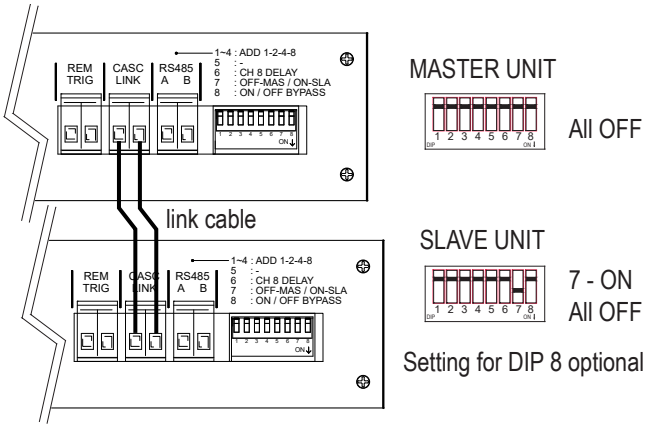
DIP Switch 7
For use in Cascading mode. For master unit (Ch 1 to 8), select OFF position and for slave unit (Ch 9 to 16) switch to ON. The ON/OFF and lock switch would be disabled in the Slave unit.

DIP Switch 8.
Select OFF to allow the front ON/OFF switch active whereas ON will disable it. This is applicable in remote switching mode.

Cascading SQ9815

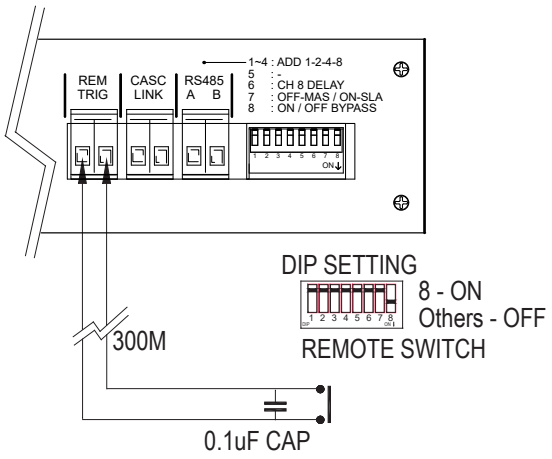
2 units of SQ9815 can be linked to form a 16 channel power distribution setup. Setting has to be made to make one of them as Master (Ch 1 to 8) and the other (Ch 9 to 16) as slave. In cascading mode, the ON or OFF function is done through the Master unit.

Note : Both units must have common body grounding

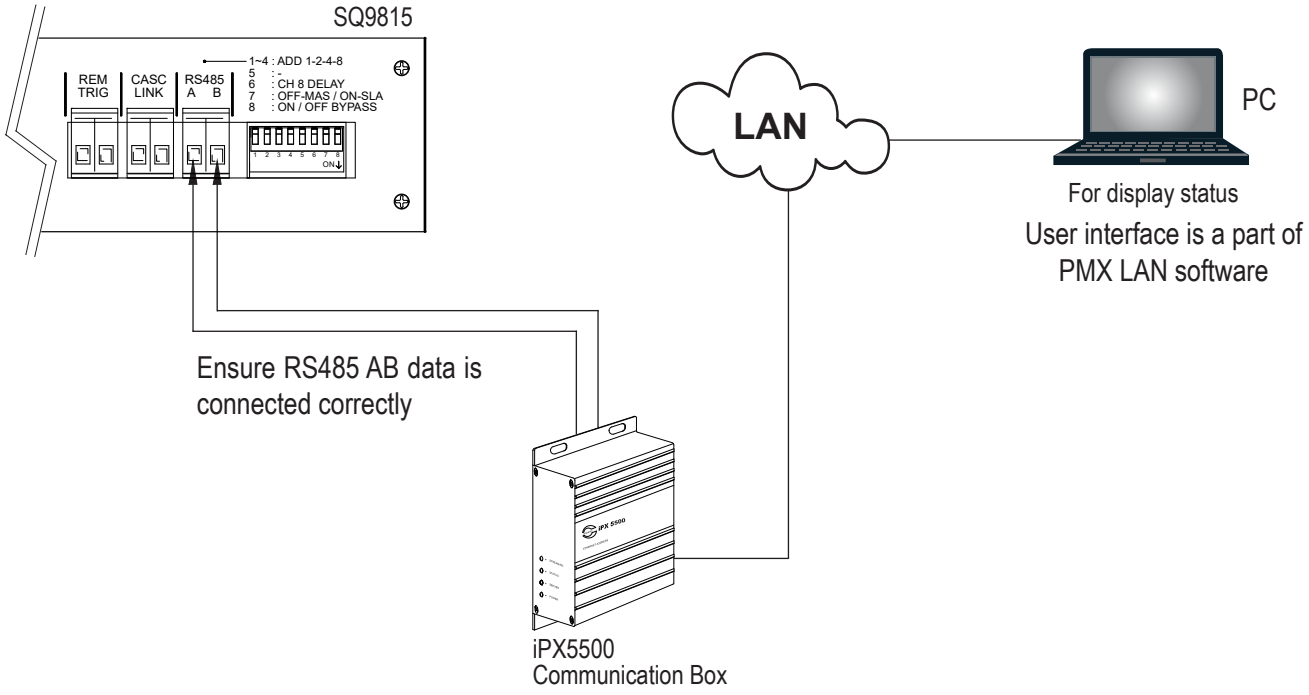


To Trigger SQ9815 Remotely

When it is necessary to power up the equipments from a remote location (ie control room located a distance away from main equipment), a simple connection with a noiseless switch is all it requires. The maximum distance shall not exceed 300m. For far distance, please connect a capacitor of 0.1 uF across the contact point of the switch as shown.



PC Interface



Summary of Features

- 8 channel with 6A per channel ; total load 15A maximum
- Cascade two units to form 16 channel setup
- Incremental switching from Ch. 1 to 8 (or Ch. 1 to 16 in cascade mode)
- Decremental switching from Ch. 8 to 1 (or Ch. 16 to 1 in cascade mode)
- Remote switching port via external noiseless contact
- AC output via IEC connectors
- Channel isolation via front switch setting
- Ch. 8 with delay Off option for 2 min ; suitable for video projector powering
- Lock mode to avoid incidental switching (Press LOCK and ON/OFF to active)
- Built in surge protection
- Unit is addressable for interfacing with Amperes PMX LAN software for remote monitoring and switching

Technical Specifications

Operating voltage	230 / 240V AC
Power consumption	50 mW (without load)
Output voltage	230 / 240V AC
Max load / channel	6A
Max total load	15A
Output connection	IEC female socket
Max cascade	2 uts : total 14 channels
Surge protection	L-N, L-E, N-E.
Clamping voltage	870V AC
Turn on sequence	Step 1 to 8 incremental
Turn off sequence	Step 8 to 1 decremental
Step timing	2 seconds
Delay off option	Channel 8 via DIP switch
Delay off timer	2 minutes
Switch lock	Via front switch
Indicators	AC mains, Ch. ON, Lock
Dimensions (WxHxD)	482 x 44 x 180 mm
Weight	2.82 kg excl. accessories

Important Safety Instructions

The lightning flash symbol with arrowhead within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure, that may be sufficient magnitude to be a risk of electric shock to persons.

The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



WARNING - When using electric products, basic precautions should always be followed including the followings :

1. Read all the SAFE INSTRUCTIONS before using the product.

2. This product must be earthed. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce risk of electric shock.

This product is equipped with a cord having an equipment grounding conductor and a grounding plug.
The plug must be plugged into an appropriate outlet that is properly installed and earthed in accordance with all local codes and ordinance.

DANGER - Improper connection of the equipment-grounding connector can result in a risk of electric shock. Check with a qualified electrician or servicemen if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product, It it will not fit the outlet, have a proper outlet installed by a qualified electrician.

3. To reduce the risk of injury, close supervision is necessary when the product is used near children.

4. Do not use this product near water, for example, near a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool or the like.

5. This product should be located so that its location or position does not interfere with its proper ventilation.

6. This product should be located away from heat sources such as radiators, heat registers or other products that produce heat.

7. This product should be connected to a power supply only of the type described on the operating instructions or as marked on the product.

8. This product may be equipped with a polarised line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.

9. The power supply cord of the product should be unplugged from the outlet when left unused for a long period of time. When unplugging the power supply cord, do not pull on the cord, but grasp it by the plug.

10. Care should be taken so that object do not fall and liquid are not spilled into the enclosure through openings.

11. The product should be serviced by a qualified service personnel when :
    a. The power supply cord or the plug has been damaged or,
    b. Objects has fallen, or liquid has been spilled into the product, or
    c. The product has been exposed to rain, or
    d. The product does not appear to operate normally or exhibits a marked change in performance, or
    e. The product has been dropped or the enclosure damaged.

12. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other serving should be referred to qualified service personnel.

13. WARNING - do not place objects on the products' power cord or place it in a position where alone could trip over, walk on or roll anything over it. Do not allow the product to rest on or to be installed over power cords of any type. Improper installations of this type create the possibility of fire hazard and / or personal injury.

Warranty Conditions

Only Amperes Electronics Service Centres are allowed to make warranty repairs : a list of Amperes Electronics Service Centres may be asked for by the purchaser or send directly to Amperes Electronics Sdn Bhd at 70 Jalan Industri PBP 3, Tmn Perindustrian Pusat Bandar Puchong, 47100, Puchong, Selangor, Malaysia or its authorized dealers. This warranty is not valid if repairs are performed by unauthorized personnel or service centres.

This warranty covers only repairs and replacement of defective parts ; cost and risks of transportation as well as removal and installation of the product from the main system are for the account of the purchaser. This warranty shall not extend to the replacement of the unit.

This warranty does not cover damages caused by misuse, neglect, accident of the product as well as using the product with power supply voltage other than shown on the product, or any other power supply source / adaptor not recommended by the manufacturer.

This warranty does not cover damages caused by fire, earthquakes, floods, lightning and every cause not directly related to the unit.

This warranty does not include any indemnity in favor of the purchaser or the dealer for the period out of use of the unit; moreover the warranty does not cover any damages which may be caused to people and things when using the product.

This warranty certificate is valid only for the described product, and is not valid if modifications are made on this certificate or on the identification label applied on the product.

This warranty covers all the material and manufacturing defects and is valid for a period of 36 months from the date of purchase or for a specified period in countries where this is stated by a national law. In this case, the extension is valid only in the country where the product is purchased.

Amperes Electronics Sdn Bhd is not obliged to modify previously manufactured products under warranty if the design changes or improvements are made.

Disclaimer

Information contained in this manual is subject to change without prior notice and does not represent a commitment on the part of the vendor. AMPERES ELECTRONICS SDN BHD shall not be liable for any loss or damages whatsoever arising from the use of information or any error contained in this manual.

It is recommended that all services and repairs on this product be carried out by AMPERES ELECTRONICS SDN BHD or its authorized service agents.

AMPERES series must only be used for the purpose they were intended by the manufacturer and in conjunction with this operating manual.

AMPERES ELECTRONICS SDN BHD cannot accept any liability whatsoever for any loss or damages caused by service, maintenance or repair by unauthorized personnel, or by use other than that intended by the manufacturer.

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