

QSW16_24

16 and 24 Chn PoE switch



Before You Begin

Read these instructions before installing or operating this product.

Note: This installation should be made by a qualified service person and should conform to local codes. This manual provides installation and operation information. To use this document, you must have the following minimum qualifications:

- A basic knowledge of CCTV systems and components
- A basic knowledge of electrical wiring and low-voltage electrical connections

Intended use

Only use this product for its designated purpose; refer to the product specification and user documentation.

Customer Support

For assistance in installing, operating, maintaining and troubleshooting this product refer to this document and any other documentation provided. If you still have questions, please contact Norbain Technical Support and Sales:

Norbain SD, 210 Wharfedale Road, IQ Winnersh, Wokingham, Berkshire RG41 5TP, England.

UK +44 (0) 118 912 5000

Note: You should be at the equipment and ready with details before calling Technical Support.

Conventions Used in this Manual

Bo or button icons highlight command entries. The following **WARNING**, **CAUTION** and **Note** statements identify potential hazards that can occur if the equipment is not handled properly:



*** WARNING:**

Improper use of this equipment can cause severe bodily injury or equipment damage.



*** CAUTION:**

Improper use of this equipment can cause equipment damage.

Note: Notes contain important information about a product or procedure.

This apparatus is manufactured to comply with the radio interference.



A Declaration of Conformity in accordance with the following EU standards has been made. The manufacturer declares that the product supplied with this document is compliant the provisions of the EMC Directive 2004/108/EC, the CE Marking Directive 93/68 EEC and all associated amendments.



All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive: 2011/65/EU, which means our manufacture processes and products, are strictly "lead-free" and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

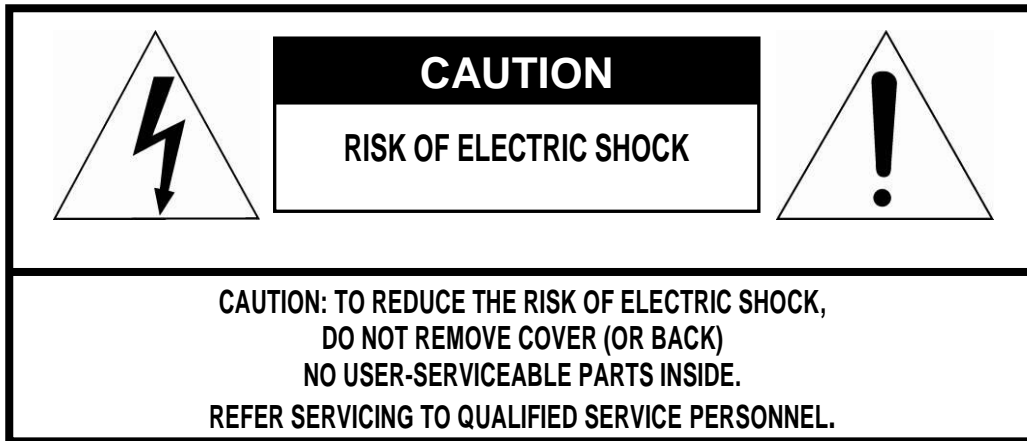
* This symbol indicates electrical warnings and cautions.

** This symbol indicates general warnings and cautions.

NORBAIN SD reserves the right to make changes to the product and specification of the product from time to time without prior notice.

WARNINGS AND CAUTIONS:

To reduce the risk of fire or electric shock, do not insert any metallic objects through the ventilation grills or other openings on the equipment.



IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with dry cloth.
6. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. 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 the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Unplug this apparatus during lightning storms or when unused for long periods of time.
12. Refer all servicing to qualified service personnel. 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.
13. **CAUTION – THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.**
14. **Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.**
15. ITE is to be connected only to PoE networks without routing to the outside plant.

CE COMPLIANCE STATEMENT

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

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1.Introduction

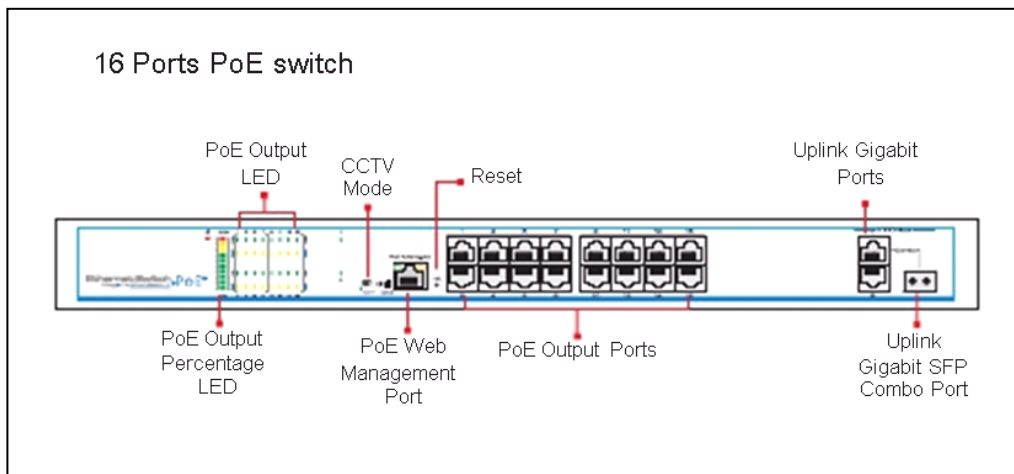
1.1 Overview

This manual covers the installation set up and use of the QSW16 and 24 PoE Switches

1.2 Product Features

- 16 /24 100Mbps downlink PoE Ethernet ports, 2 x gigabit uplink ports and 1 gigabit fibre port
- PoE ports support PoE+ (Max 30W per channel , total budget 180/270 W)
- CCTV Mode – Allows extended PoE and Data (up to 250M of cat5e cable)
- LED indication of Power consumption
- Standards: IEEE802. 3、 IEEE802. 3u、 IEEE802. 3ab、 IEEE802. 3af/at
- 4K MAC address, 2.75Mb cache
- Quick installation, easy operation, wall mount, desk or racks mount.

1.3 Front panel



2 Installation

2.1 Contents

Please ensure that all items are present when un-packing the switch

Item	Name	Quantity	Unit
1	Switch	1	Set
2	AC Power Lead	1	Piece
3	Accessories	1	Set
4	User Manual	1	Piece

2.2 Installation requirements

The switch should only be installed in an indoor environment , either in a rack mount cabinet, secured to a wall or desk mounted. The following requirements should be observed:

- Leave a minimum of a 10cm air gap to allow sufficient ventilation
- The wall or cabinet should be of sufficient strength to support the switch
- The Cabinet should be well grounded

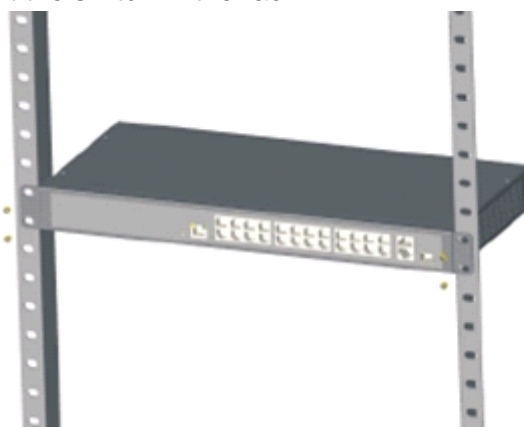
2.3 Rack mount

Installation process:

1. Check rack grounding and stability
2. Use the provided screws to fit the connection ears to the switch



3. Use the provided screws to fit the switch in the rack



2.4 Desk mount

The Switch can simply be mounted on a desk or table top, please ensure the environment is stable and clean.

If required the rack mount ears can be used to secure the switch to the desk top.



2.5 Wall mounting

The switch can be hung on a wall, please ensure the wall is of sufficient strength to support the switches weight, and that the correct fixings are used for the wall construction.

Procedure:

1. Use the provided screws to fit the connection ears to the switch



2. Use the correct fixings for the wall construction to mount the switch to the wall



2.6 Cable connections

2.6.1 Power connection

The switch requires 230VAC mains connection. Ensure the power supply conforms to this.



The AC power connection LED will show when power is applied.

3.0 Technical spec

Item	QSW16	QSW24
Downlink Ethernet Ports	16xRJ45,PoE+ 10/ 100Base-TX	24xRJ45,PoE+ 10/ 100Base-TX
Uplink Ethernet Ports	2* 10/ 100/ 1000Base-T+ 1* 1000Base-X (combo)	2* 10/ 100/ 1000Base-T+ 1* 1000Base-X (combo)
Power Input	1xAC Female Terminal	1xAC Female Terminal
Grounding Terminal	1xGrounding Terminal	1xGrounding Terminal
Power Input	Mains on load,100~240VAC 50/ 60Hz	Mains on load,100~240VAC 50/ 60Hz
PoE Power Supply	End- span(1/ 2, 3/ 6),IEEE802. 3 af/ at	End- span(1/ 2, 3/ 6),IEEE802. 3 af/ at
PoE Max. Power budget	180W	270W
Single Port Power Output&	Single Port PoE Power Output≤30W, Voltage 54VDC	Single Port PoE Power Output≤30W, Voltage 54VDC
One-key CCTV	CCTV Mode	CCTV Mode
	1. Downlink ports only communicate with uplink ports; 2. Restrain network storm under 2Mbps:	1. Downlink ports only communicate with uplink ports; 2. Restrain network storm under 2Mbps:
Network Standard	IEEE 802. 3, IEEE 802. 3u, IEEE 802. 3 ab	IEEE 802. 3, IEEE 802. 3u, IEEE 802. 3 ab
Transmission Distance	250m in CCTV mode	250m in CCTV mode
Exchange Capacity	7. 2Gbps	7. 2Gbps
Packet Transfer Rate	5.36Mpps	6. 55Mpps
MAC Address	4K	4K
Packet Data Cache	2. 75Mb	2. 75Mb
Protection	ESD	ESD
	6KV/ 8KV, Per:IEC61000- 4- 2	6KV/ 8KV, Per:IEC61000- 4- 2
	Surge Protection	Surge Protection
	6KV, Per: IEC61000- 4- 5	6KV, Per: IEC61000- 4- 5
Operation	Operation Temperature	Operation Temperature
Environment	- 10℃~45℃	- 10℃~45℃