

**JSH1600R/2400R**  
**16/24 Port Nway switch**

**User's manual**

- **FCC Class A Appliance**

This equipment generates and uses radio frequency energy .If it is not installed and used properly in strict accordance with the manufactures , it may cause interference to radio and television reception .It has been type-tested and found to comply the specifications in sub-part J of Part 15 of FCC Rules ,which are designed to provide reasonable protection against such interference in a residential installation .There is no guarantee that interference will not occur in a particular installation .If this equipment does cause interference to radio or television reception which can be determined by turning the equipment off and on ,the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Re-orient the receiving antenna
- ◆ Relocate the computing device with respect to the receiver
- ◆ Move the computer away from the deceiver
- ◆ Plug the computer into a different outlet so that compute and receiver are on different electrical circuits.

If necessary the user should consult the dealer or an experienced radio or television technician for additional suggestions.

The information in this manual is subject to change without notice .All the brand names are registered trademarks of their respective companies.

- **Checklist**

Check the contents of your package for following parts:

- ◆ 16/24 port 10/100M NWAY Switch
- ◆ Power Cord and Accessory
- ◆ User's Manual
- ◆ 2 pcs 19 mount brackets

If any of these pieces are missing or damaged ,please contact your dealer immediately ,if possible ,retain the carton including the original packing material ,and use them against to repack the product in case there is a need to return it to us for repair.

- **Introduction**

The 16/24 port Ethernet Switch are designed to allow simultaneous transmission of multiple packets via an internal high-speed data channel .This means that it can partition a network more efficiently than bridges or routers in most environments .This 16/24 port Ethernet Switch is a highly reliable network Switch and is the ideal device for bridging Ethernet to Fast Ethernet workgroups or networks .Simple and cost-effective, the 16/24 port Switch Ethernet supports IEEE802.3 10Base-T Ethernet and IEEE802.3u 100Base-TX Fast Ethernet. The 16/24 port Switch is therefore fast being recognized as one of the most important building blocks for today networking technology.

The front panel of the 16/24 port Ethernet Switch provides LEDs for easy recognition of the Switch operation status and for troubleshooting .These LEDs display the power status for the system and link status speed ,collision ,full-duplex and receives status for each port.

With 16/24 port Ethernet Switch designed specifically for connecting workgroup devices

and desktops, companies no longer have to invest in expensive and inflexible switches engineered primarily for backbone implementations. Instead, companies can deploy scaleable, affordable Switch that increase the aggregate bandwidth of the network by boosting throughput to the workgroups that need it most.

- **Features and Specifications**

- **Features**

- Complies with the IEEE802.3 10Base-T Ethernet and IEEE802.3u 100Base-TX Fast Ethernet standard

- 16/24 ports 10/100Mbps TX Auto-Negotiation Ethernet Switch

- Full/Half-Duplex capability on every TX port

- Supports TP interface Auto MDIX function for auto TX/RX swap

- Automatic Source MAC Address Learning and Aging

- Support up to total 4096 MAC address

- Support up to 2Mbit buffers

- Supports Store & Forward architecture and performs forwarding and filtering

- Broadcast Storming Filter function

- IEEE802.3x flow control for Full-duplex operation

- Back Pressure function for Half-duplex operation

- Runt and CRC Filtering eliminates erroneous packets to optimize the network bandwidth

- Support to handle up to 1522 bytes packet

- LED indicators for simple diagnostics and management

- Internal power supply

- Plug and Play

- **Specifications**

- Standard:

- IEEE802.3 10Base-T Ethernet

- IEEE802.3u 100Base-TX Fast Ethernet

- Network Media:

- 100Base-TX - UTP/STP category 5 cable

- 10Base-T - UTP/STP category 3 or 5 cable

- Connector: STP RJ-45 port for 10/100Mbps TX

- LED indicators:

- System - Power LED.

- Individual port - link/activity and speed LEDs

- Dimension: 432mm(L) x 220mm(W) x 44mm(H)

- Temperature: Operating \_\_\_ 0 °C to 50 °C

- Storage \_\_\_ -20 °C to 70 °C

- Humidity: Operating \_\_\_ 10% to 90% RH

- Storage \_\_\_ 5% to 90% RH

- Input Power Requirement: 100 - 240VAC, 50 - 60Hz, Auto-sensing

- Registrations: FCC Part 15 Class A, CE

- **Hardware Description**

This section describes the hardware features of the 16/24-port Ethernet Switching. For easier management and control of the Switch, familiarize yourself with its display indicators, and ports. Front panel illustrations in this chapter display the unit LED indicators. Before connecting any network device to the Switch, read this chapter carefully.

**Front Panel**

The unit front panel provides a simple interface monitoring the Switch. It includes a power indicator for each port.



figure of 16port NWAY SWITCH front panel

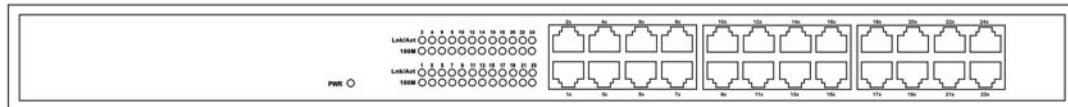


figure of 24port NWAY SWITCH front panel

**LED indicators**

| <i>LED Function</i> | <i>Color</i> | <i>Description</i>  |
|---------------------|--------------|---|
| PWR                 | Green        | Lit: Power on   |
| LNK/ACT             | Green        | Lit: Indicates the adapter is connected to Switch<br>Flash: indicates data in or out the port |
| 10/100              | Green        | Lit: 100Mbps<br>Unlit: 10Mbps   |

**Rear Panel**

The rear panel of the 16/24-port Ethernet Switch indicates a AC inlet, which accepts 100-240VAC 50-60Hz power input.



figure of 16/24port NWAY SWITCH rear panel

## ● Hardware Installation

Place the 16/24 port Switch on a smooth surface

Connect the output of power cord to the AC-inlet of 16/24 port Switch.

Connect other IEEE802.3 compatible network device (Hub ,Switch ,PC) to one port of the 16/24 port Switch using Category 3/4/5 UTP/STP cabling.

Connect another IEEE802.3 compatible network device (Hub , Switch ,PC) to another port of 16/24 port Switch by following the same process as described in Step3.

### Notice

The cable distance between 16/24 port Switch and other IEEE802.3 compatible network device should not exceed 100 meter.

Make sure the wiring is correct

It can be used Category 3/4/5 cable in 10 Mbps operation. To reliably operate your network at 100Mbps, you must use an Unshielded/Shielded Twisted-Pair (UTP/STP) Category 5 cable, or better Data Grade cabling. While a Category 3 or 4 cable may initially seem to work, it will soon cause data loss.

All kinds of IEEE802.3 compatible network device ( Hub , Switch ,PC)can connect to Switch by using straight-through wires or crossover wires because of Switch's auto MDIX function.

## ● Hardware Troubleshooting

This chapter contains information to help you solve problems. If the 16/24 port Switch is not functioning properly, make sure the 16/24 port Switch was set up according to instructions in this manual.

### The Power LED is not lit

#### Solution:

- Check if the AC power cord is well connected. Try to unplug and plug back the power cord to the LAN Switch or try another power cord.
- Check if the AC power source is in good condition.

### The Link LED is not lit

#### Solution:

- Make sure the Switch configuration is consistent with the connecting device
- Check the cable connections.
- Make sure the cable distance between 16/24 port Switch and other IEEE802.3 compatible network device should not exceed 100 meter.

**Performance is bad**

**Solution:**

- a. Check the full duplex status of the Ethernet Switching. If the Ethernet Switching is set to full duplex and the partner is set to half duplex, then the performance will be poor.
- b. Make sure the cable between the switch and other IEEE802.3 compatible network device is Category 5 UTP at 100Mbps operation.

**Some stations can not talk to other stations located on the other port**

**Solution:**

- a. Check status of the LNK LED to make sure the link is correct.
- b. Make sure that the workstation's network configuration is correct, modify the network configuration of workstation if need.
- c. Please reset the switch if need.

