

## Installation Guide

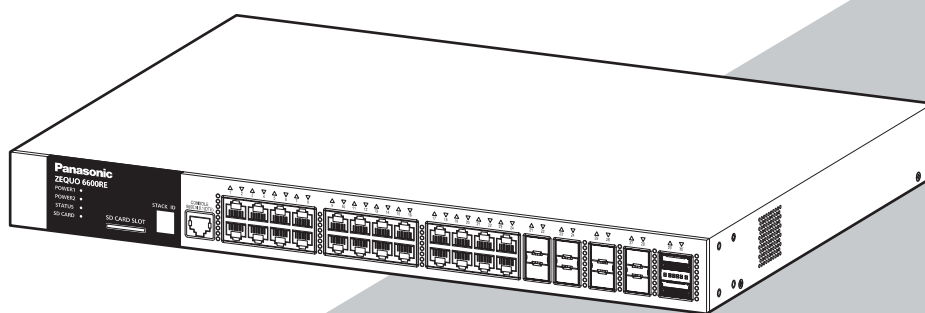
## ZEQUO 6600RE

Model No. PN36241E-TH  
PN36241E-MY  
PN36241E-ID  
PN36241E-SG  
PN36241E-NZ

- Thank you for purchasing our product.
- This manual provides important information about safe and proper operations of this Ethernet Switch.
- Please read the **"Important Safety Instructions"** on pages 3 to 5.
- Any problems or damages resulting from disassembly of this Ethernet Switch by customers are not covered by the warranty.
- The instruction manuals (Web Version and CLI Version), latest firmware and SDN application (ZEQUO assist Plus) can be downloaded from the following URL.



<https://panasonic.co.jp/ew/pewnw/english/datadownload/index.html>



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# Important Safety Instructions

This chapter contains important safety instructions for preventing bodily injury and/or property damage. Please read carefully, and follow them at all times.

- Severity of bodily injury and/or property damage, which could result from incorrect use of the Ethernet Switch, are explained below.



This symbol indicates a potential hazard that could result in serious injury or death.



This symbol indicates safety instructions. Deviation from these instructions could lead to bodily injury and/or property damage.

- The following symbols are used to classify and describe the type of instructions to be observed.



This symbol is used to alert users what they must not do.





This symbol is used to alert users what they must do.

## WARNING



- Do not use power supply other than AC 100 - 240 V.  
Deviation could lead to fire, electric shock, and/or equipment failure.
- Do not handle this Ethernet Switch and connection cables during a thunderstorm.  
Deviation could lead to electric shock.
- Do not disassemble and/or modify this Ethernet Switch.  
Deviation could lead to fire, electric shock, and/or equipment failure.
- Do not damage the power cord. Do not bend too tightly, stretch, twist, bundle with other cord, pinch, put under a heavy object and/or heat it.  
Damaged power cord could lead to fire, short, and/or electric shock.
- Do not unplug nor plug in the power plug with wet hands.  
Deviation could lead to electrical shock, and/or equipment failure.
- Do not insert or drop any foreign objects such as metal or readily combustible things into Ethernet Switch through the openings.  
Deviation could lead to fire, electrical shock, and/or equipment failure.
- Do not store or use the Ethernet Switch in places where it might get splashed with liquids such as water, in places with a lot of humidity, in places with conductive dust, or in places where there are corrosive and combustible gases.  
Deviation could lead to fire, electrical shock, and/or equipment failure.
- Do not use the Ethernet Switch in dusty environments such as on floors, underneath floors, the backside of ceilings, or boards.  
Do not use the Ethernet Switch in very dusty areas such as on floors, underneath floors, the backside of ceilings, or boards. Deviation could lead to fire, electrical shock, and/or equipment failure. It is recommended that the Ethernet Switch be operated in environments such as the inside of racks where it is difficult for dust to be generated.
- Do not store or use the Ethernet Switch in places where it will be exposed to direct sunlight or high temperatures.  
The temperature inside will rise, which may cause fire.
- Do not store or use the Ethernet Switch in places where there are lots of vibrations and impacts, or in unstable areas.  
It might fall, which may cause injuries and/or equipment failure.
- Do not put the Ethernet Switch into fire.  
Deviation could lead to explosion and/or fire.

# CAUTION



	<ul style="list-style-type: none"> <li>● <b>Do not connect any other devices except for 10BASE-T/100BASE-TX/1000BASE-T devices to the twisted pair ports.</b> Deviation could lead to equipment failure.</li> <li>● <b>Do not insert any other modules except for our optional SFP module (PN54021K/PN54023K) and the SFP+ module (PN59021/PN59023) to the SFP+ extension slots.</b></li> <li>● <b>Do not insert any other modules except for our optional SFP module (PN54021K/PN54023K), SFP+ module (PN59021/PN59023), or 40G direct-attach cable (OP 40G-T01/OP 40G-T02) to the stacking ports (Port29-30).</b> Check out our website for the latest information on supported SFP modules.</li> <li>● <b>Do not insert nor use any other modules except for our optional FAN02 Module (PN73002) into the fan module slots.</b> Deviation could lead to electric shock, malfunction, and/or equipment failure.</li> <li>● <b>Do not insert nor use any other modules except for our optional RP02-200W Module (70002) into the power module slots.</b> Deviation could lead to electric shock, malfunction, and/or equipment failure.</li> </ul>
	<ul style="list-style-type: none"> <li>● <b>Be sure to check the precautions which are printed on the product labels before using.</b> Deviation could lead to electric shock.</li> <li>● <b>Use the bundled power cord (AC 100 – 240 V specifications).</b> Deviation could lead to electric shock, malfunction, and/or equipment failure.</li> <li>● <b>Unplug the power cord in case of equipment failure.</b> Deviation, such as keep connecting for a long time, could lead to fire.</li> <li>● <b>Be sure to connect the ground cable.</b> Otherwise this might cause electrical shocks, misoperations and malfunctions. Connect the Ethernet Switch via the supplied power cord to the outlet which is connected to the ground. If the outlet is not connected to a ground, connect the ground cable to the ground terminal screw.</li> <li>● <b>Connect the power cord firmly to the power port.</b> Deviation could lead to electric fire, shock, and/or malfunction.</li> <li>● <b>If the STATUS LED is blinking in orange (systemt fault), check for the cause via the system log, since it might be a malfunction if it is not the temperature, loop detection and shutoff, unplug the power plug.</b> Deviation, such as keep connecting for a long time, could lead to fire.</li> <li>● <b>Handle the Ethernet Switch carefully to prevent fingers and hands from being damaged by twisted pair port, SFP extension slot, Stacking port, console port, SD card slot, or power cord hook block.</b></li> </ul>

# CAUTION



- **Check whether the optical fiber cable connectors are contaminated with dust, etc.**  
This might cause the optical signal to not be transmitted normally, and cause misoperations and malfunctions. If they are contaminated, make sure to clean them off, then connect them to the optical fiber ports.
- **This Ethernet Switch is to be periodically serviced in order to maintain its performance.**  
Please assign a product administrator, and be sure to implement periodic maintenance. When doing maintenance, check the inspection chart that is posted on our website which has the requisite items listed on it.
- **When using this Ethernet Switch to design systems, use it after applying appropriate measures such as setting up redundant configurations.**  
Communication failures might be generated due to causes such as malfunctions or misoperations while the Ethernet Switch is being used.
- **When using this Ethernet Switch for applications which require extremely high reliability, be careful to expend all possible means to ensure safety and reliability.**  
This Ethernet Switch is not designed nor manufactured with the intention that it be used for applications (in use with railways, aviation, and medical care, etc. where the influence rate due to communication failures is extremely high in regard to systems that directly affect systems and human lives) which require extremely high reliability.
- **It is recommended that this Ethernet Switch be replaced about five years after it has been installed.**  
This may vary depending upon conditions such as utilisation rates and usage environments, but performance might decrease due to the age-related degradation, etc. of components.
- **Be careful in regards to environmental restrictions whereby the Ethernet Switch can be used.**  
Please isolate the business power lines and communication lines. Isolate distribution lines and other distribution lines, and low current power lines, optical fiber cables, metallic water conduits, and gas conduits, etc. Noise may be generated in the communication lines which might cause communication glitches.

## ■ Meaning of symbols (Described on Rating label)

	CAUTION, RISK OF ELECTRIC SHOCK
	DISCONNECT ALL POWER SUPPLY INPUTS PLUGS BEFORE SERVING

## Basic Instructions for the Use of This Product

- For inspection and/or repair, consult the shop.
- Use commercial power supply from a wall socket, which is close and easily accessible to this Ethernet Switch.
- Unplug the power cord when installing or moving this Ethernet Switch.
- Unplug the power cord when cleaning this Ethernet Switch.
- Use this Ethernet Switch within the specifications. Deviation could lead to malfunction.
- Do not touch the metal terminal of the RJ45 connector, the modular plug of connected twisted pair cable, or the metal terminal of the SFP extension slot. Do not place charged objects in the proximity of them. Static electricity could lead to equipment failure.
- Do not put the modular plug of the connected twisted pair cable on objects that can carry static charge, such as carpet. Do not place it in the proximity. Static electricity could lead to equipment failure.
- Do not put a strong shock, including dropping, to this Ethernet Switch. Deviation could lead to equipment failure.
- Before connecting a console cable to the console port, discharge static electricity, for example by touching metal appliance (do not discharge by touching this Ethernet Switch).
- Do not store and/or use this Ethernet Switch in the environment with the characteristics listed below. (Store and/or use this Ethernet Switch in the environment in accordance with the specification.)
  - High humidity. Possible spilled liquid (water).
  - Dusty. Possible static charge (such as carpet).
  - Under direct sunlight.
  - Possible condensation. High/low temperature exceeding the specifications environment.
  - Strong vibration and/or strong shock.
- Please use this Ethernet Switch in place where ambient temperature is from 0 to 45°C. Failure to meet the above conditions may result in fire, electric shock, breakdown, and/or malfunction. Please beware because such cases are out of guarantee. Additionally, do not cover the bent hole of this Ethernet Switch. Deviation could lead to high internal temperature, equipment failure and/or malfunction.
- When stacking Ethernet Switches, leave a minimum of 20 mm space between them.
- When connecting the stacks, be sure to use firmware versions that are identical for all of the devices.

Please note that operations are not guaranteed if the firmware versions are different.
- Select the appropriate cables and lay them.

Communications might be affected by how the cables are laid, and environmental noise.

1. Please note that Panasonic shall not bear any liability whatsoever for any damages (this shall include, but is not limited to, lost earnings, lost opportunities, etc.) which were generated in relation to damages caused by operations and usage, or the inability to use this Ethernet Switch, whereby the customer does not follow this Installation Guide.
2. The contents described in this document may be changed without prior notice.
3. For any question, please contact the retailer where you purchased the product.

# 1 Product Outline

The ZEQUO 6600RE is a Layer 3 all giga Ethernet Switch equipped with management functions that has 24 10/100/1000BASE-T ports, 4 SFP expansion ports, 4 SFP+ expansion ports and 2 40G stack ports.

## 1.1 Features

- Has wire-speed Layer 3 switching function.
- Ports 1 to 24 are 10BASE-T/100BASE-TX/1000BASE-T ports corresponding to autonegotiation.  
Also their speed and communication mode can be switched by configuration.
- Ports 21 to 24 are SFP extension slots.  
These ports and the 1000BASE-T twisted pair cable ports cannot be used simultaneously.
- Ports 25 to 28 are SFP+ extension slots. They are capable of 10-Gbps communications. They can be used as SFP or SFP+ ports.
- If the stacking functions have been activated, ports 29 and 30 will be stacking ports.  
By using the 40G direct attach cables, stacking connections are feasible for up to a maximum of four units whereas the ZEQUO 6700RE, or the ZEQUO 6600RE are mixed.
- Settings and firmware can be changed and saved by using an SD card.
- All twisted pair ports support straight/cross cable auto sensing function. Simply connect devices with straight cables, whether it is a terminal or a network device.  
(This function does not work if the port communication configuration is set at Fixed or Link Aggregation.)
- Embedded power saving mode detects the connection status automatically and saves power consumption to minimum.
- The ports which generated the loops give notification via LEDs, and the ports which generated the loops are automatically shut off via the loop detection and blocking functions.
- The ports which generated the loops are displayed via LEDs, and the network manager can identify the ports which generated the loops after the loop resolution via the loop history functions.
- Triple authentication which can simultaneously wait for IEEE802.1X, MAC, and WEB authentications at a single port is supported, and an authentication network can be configured which matches the kinds of connection terminals.
- Step authenticating is supported, and user authentications and terminal authentications can be implemented in phases.
- The Ring Redundant Protocol (RRP) is supported, allowing to make a redundant network via ring topology.
- A power supply redundancy can be configured via the additional purchases and mounting of power modules.
- The power modules and fan modules are hot-swappable.



# 1 Product Outline

## 1.2 Specifications

<b>Interface</b>	<p>Twisted pair ports 1–24: RJ45 connector</p> <p>Transmission system: IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T</p> <p>SFP extension slots 21-24</p> <p>Transmission system: IEEE802.3z 1000BASE-SX/1000BASE-LX</p> <p>SFF-8472 (DMI: Diagnostic Monitoring Interface)</p> <p>* Select ether of RJ45 or SFP for use.</p> <p>SFP+ extension slots 25-28</p> <p>Transmission system: IEEE802.3z 1000BASE-SX/1000BASE-LX IEEE802.3ae 10GBASE-SR/10GBASE-LR</p> <p>SFF-8472 (DMI: Diagnostic Monitoring Interface)</p> <p>Stack ports: 2 ports (ports 29-30)</p> <p>Options: 40G direct attach cable 1 m (Order model number: OP 40G-T01) 40G direct attach cable 2 m (Order model number: OP 40G-T02)</p> <p>Fan module slots: 2 slots</p> <p>Supported fan module model: PN73002 FAN02 Module</p> <p>Hot-swapping: Supported</p> <p>Power module slots: 2 slots</p> <p>Supported power module model: 70002 RP02-200W Module</p> <p>Hot-swapping: Supported</p> <p>Hot-inserting: Supported</p> <p>SD card slot: SD/SDHC, 128MB-32GB</p> <p>Console port: RJ45 connector</p>
<b>Switching mode</b>	<p>Store and Forward method: Forwarding rate</p> <p>10BASE-T: Max. 14,880 pps/port</p> <p>100BASE-TX: Max. 148,800 pps/port</p> <p>1000BASE-T/SX/LX: Max. 1,488,000 pps/port</p> <p>10GBASE-SR/LR: Max. 14,880,000 pps/port</p> <p>MAC Address table: Max. 32K entry/unit</p> <p>Buffer: 4M byte/unit</p> <p>Switching capability: 288Gbps</p>
<b>Layer 2 Features</b>	<p>STP/RSTP/MSTP</p> <p>Tag VLAN, MAC base VLAN, Subnet base VLAN, Protocol base VLAN, Dynamic VLAN, Guest VLAN, Link aggregation (STATIC/LACP), SPAN, RSPAN, Port monitoring, Multicast (IGMP Snooping, MLD Snooping)</p> <p>QoS (PQ, WRR), Authentication (IEEE802.1X, Web-based Access control, MAC-based Access control), Storm control, RRP</p>
<b>Layer 3 Features</b>	<p>IPv4/v6 routing, IP forwarding,</p> <p>Routing table size: IPv4:12K, IPv6:6K</p> <p>VRRP, OSPFv2/v3, RIPv1/v2</p> <p>Multicast (IGMPv1/v2/v3, MLDv1/v2, DVMRP (IPv4), PIM Dense mode (IPv4), PIM Sparse mode (IPv4/v6), PIM-SSM (IPv4), L2/L3 Access control</p> <p>IP filtering</p>
<b>Management</b>	<p>DHCP relay agent, DHCP server, Console, TELNET, SSH, WEB</p> <p>SNMPv1/v2c/v3, ZEUQUO assist Plus</p>
<b>Power supply</b>	<p>AC 100-240 V, 50/60 Hz, 2.5 A</p>



<b>Power consumption</b>	When either power port 1, or power port 2 is connected Normally, Max. 45.86 W, Min. 30.23 W When both power port 1 and power port 2 are connected Normally, Max. 50.37 W, Min. 34.25 W
<b>Operating environment</b>	Temperature: 0–45°C, Humidity: 20–80% RH (no condensation)
<b>Storage environment</b>	Temperature: -20–70°C, Humidity: 10–90% RH (no condensation)
<b>Fan</b>	Installed
<b>External dimensions</b>	44 mm (Height) × 440 mm (Width) × 312 mm (Depth) (Excluding protruding sections)
<b>Mass (Weight)</b>	5,000 g (One power module is mounted into either power slot 1 or 2) (default) 5,600 g (Two power modules are mounted into both power slot 1 and 2)

# 1 Product Outline

## 1.3 Accessories

Please be sure to confirm the content.

Please contact our distributor if any of the contents are insufficient.

	Quantity
● Installation Guide (this document) .....	1 (*)
● Rubber foot .....	4
● Mounting bracket (for 19-inch rack) .....	2
● Screw (for 19-inch rack) .....	4
● Power module (70002 RP02-200W Module) .....	1 (unit mounted)
● Power module blank panel .....	1 (unit mounted)
● Fan module (PN73002 FAN02 Module) .....	2 (unit mounted)
● Screw (for fixing the main unit and the mounting bracket) .....	8
● 40G Direct attach cable (OPQSFP-T01) .....	1
● Dummy SD card .....	1 (unit mounted)
● Power cord .....	1

\* Just the PN36241E-TH has 1 Installation Guide in Thai (a total of 2 guides).

[Power Cord]

The following power cords are supplied as per the intended nation of delivery.

Product Number	Locale	Power Cord Rating	FUSE Rated Current	Plug Type
PN36241E-TH	Thailand	250 VAC 6 A	-	TIS166-2549
PN36241E-MY	Malaysia	250 VAC 10 A	13 A	BS1363
PN36241E-ID	Indonesia	250 VAC 10 A	-	CEE7/7
PN36241E-SG	Singapore	250 VAC 5 A	5 A	BS1363
PN36241E-NZ	Australia New Zealand	250 VAC 10 A	-	AS/NZS 3112

[Optional accessories]

- PN54021K-XX 1000BASE-SX SFP Module
- PN54023K-XX 1000BASE-LX SFP Module
- PN59021-XX 10GBASE-SR SFP+ Module
- PN59023-XX 10GBASE-LR SFP+ Module
- PN73002 FAN02 Module
- 70002-XX RP02-200W Module

The XXs are identical to the intended nation of delivery codes.

## 1.4 Basic operation

This Product does not have a power ON/OFF switch. Connect the supplied power cord to this Ethernet Switch and connect the other end into an electric outlet.

This Ethernet Switch operates at AC 100 - 240 V (50/60 Hz).

1 or 2 power cords may be mounted, and if the AC power supply is normally being supplied to the power ports, the POWER 1 LED, or the POWER 2 LED, or both of the LEDs light up green, the STATUS LED lights up orange, and the hardware's self-diagnostic is implemented.

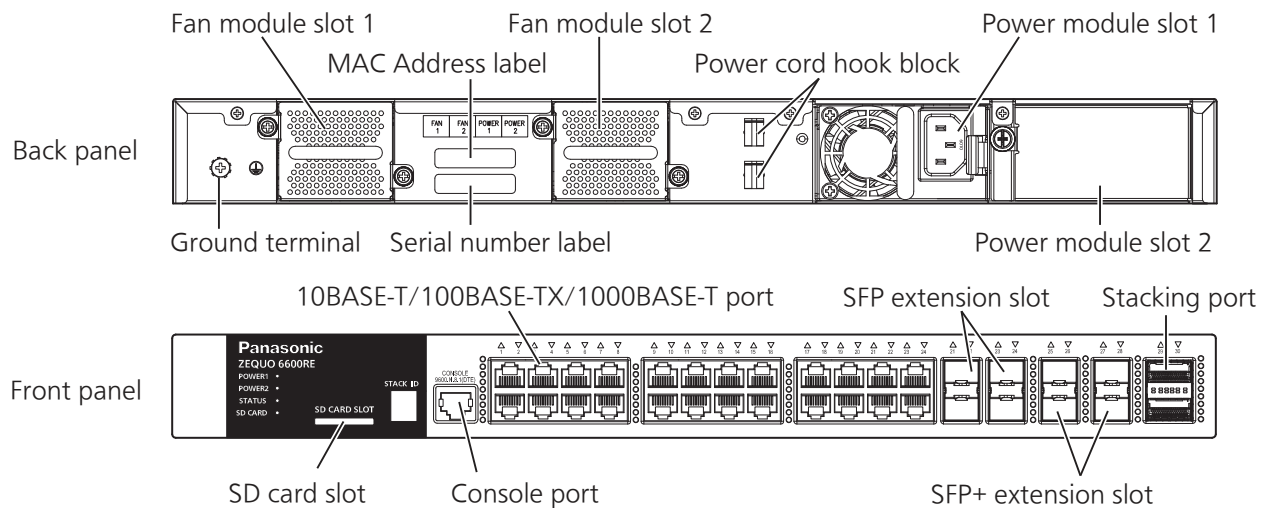
On completion of self-diagnosis, STATUS LED light in green, and the Ethernet Switch starts operation as a Ethernet Switch.

When this Ethernet Switch successfully communicates with a terminal connected to a port, the Port LED lights up.

When the terminal is not operating normally, for example when power is not supplied to the terminal, the Port LED does not light up.

**\* For configuration and management method, please see the PDF version Operating Instructions on Panasonic's website.**

## 2 Part Names and Functions



- **Power module slots (POWER 1, POWER 2)**

Power supply redundancy can be realized by using additional power modules. Connect the supplied power cord, and connect it to the power outlet.

- **Fan module slots (FAN 1, FAN 2)**

The fan modules are replaceable. Normal operating requires 2 fan modules.

- **Power cord hook block**

If the supplied power cord is hanged to this block, the cord becomes hard to pull out from the power port.

- **Ground terminal**

Only qualified personnel should install minimum 18AWG green-and-yellow stranded copper wire to Ground terminal screw.

- **SD card slot**

Insert an SD card into this slot to change/save settings and firmware.

- **10/100/1000BASE-T port (ports 1–24)**

Devices such as 10/100/1000BASE-T terminal, hub, repeater, bridge, and Ethernet Switch can be connected to this port. Install the device so that the length of twisted pair cable (CAT5e or above) becomes 100 m or less.

- **SFP extension slot (ports 21-24)**

Install SFP module. (It becomes exclusive usage with twisted pair port.)

When SFP extension slot is linked, the port is automatically switched to SFP extension mode.

SFP port supports only the full duplex communication.

- **SFP+ extension slot (ports 25-28)**

An SFP or SFP+ module can be connected.

- **Stacking port (ports 29,30)**

Up to four units can be stacked by 40G direct attach cables.

- **Console port**

Connect a VT100 compatible terminal, etc. with this port to configure or manage this Ethernet Switch.

Transmission mode : RS-232C

Transmission speed : 9,600 bps

Stop bit : 1 bit

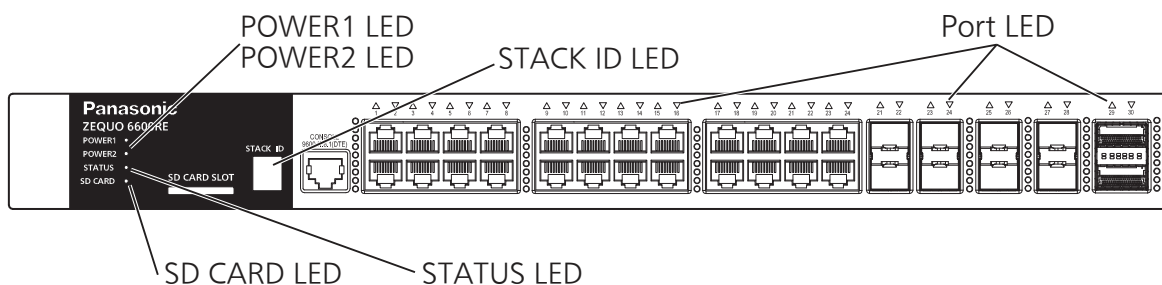
Flow control : None

Emulation mode : VT100

Data length : 8 bits

Parity control : None

Transmission connector : RJ45



- **POWER1 LED and POWER2 LED**

- Green Light : Power is ON.
- Off : Power is OFF. Or, an internal power fault.

- **STATUS LED**

- Green Light : The system is normally operating.
- Green Blink : There're one or some ports which are within 3 days after a loop resolution
- Orange Light : Starting up
- Orange Blink : Malfunction (Contact the seller.)
- Off : Power is OFF.

- **SD CARD LED**

- Green Light : SD card inserted
- Green Blink : Reading/writing data
- Orange Light : SD card error
- Off : No SD card

- **STACK ID LED**

- Indicating "H" and the STACK ID alternately : Master switch
- Indicating "h" and the STACK ID alternately : Backup master switch
- Indicating the STACK ID : Slave switch

\*The following information is also displayed depending upon the device's state.

- "P" : Power failure
- "11" : Fan1 failure
- "12" : Fan2 failure
- "13" : Fan1 or Fan2 failure
- "L" : Within 3 days after a loop resolution

- **Port LED (Port 1-24)**

- Green Light : Link is established at 10/100/1000 Mbps.
- Green Blink : Transmitting and receiving data at 10/100/1000 Mbps.
- Orange Light : Shutting off due to loop detection and shutoff functions/storm controls/BPDU guard
- Orange Blink : Transmitting and receiving just the administration packets
- Off : No devices are connected.

- **Port LED (SFP Port 21-24)**

- Green Light : Link is established at 1000 Mbps.
- Green Blink : Transmitting and receiving data at 1000 Mbps.
- Orange Light : Shutting off due to loop detection and shutoff functions/storm controls/BPDU guard
- Orange Blink : Transmitting and receiving just the administration packets
- Off : No devices are connected.

## 2 Part Names and Functions

- **Port LED (SFP+ port 25-28)**

Green Light	: Link is established at 1000 Mbps or 10 Gbps.
Green Blink	: Transmitting and receiving data at 1000 Mbps or 10 Gbps.
Orange Light	: Shuts off due to loop detection and shutoff functions/storm controls/ BPDU guard
Orange Blink	: Transmitting and receiving just the administration packets
Off	: No devices are connected.

- **Port LED (STACK port 29-30)**

Green Light	: Link is established at 40 Gbps.
Green Blink	: Transmitting and receiving data at 40 Gbps.
Orange Light	: Shuts off due to loop detection and shutoff functions/storm controls/ BPDU guard
Orange Blink	: Transmitting and receiving just the administration packets
Off	: No devices are connected.

## 3 Installation and Configuration

### 3.1 Removing, Mounting, and Replacing the Power Modules

When the redundant power configuration (2 power modules) is operating, the power module can be replaced with the switching unit being continuously operated via the redundant power compatible switches. (Hot-swappable)

In addition, when the redundant power configuration (1 power module) is operating, power modules can be added on with the switching operations being continuously operated. (Hot-insertable)

#### WARNING

- **For the power modules, be sure to use stipulated power modules (70002 RP02-200W Module) which are sold by the Panasonic Electric Works Networks Co., Ltd.**  
If stipulated power modules are not used, the unit will be included as being not covered by the warranty, furthermore, that might cause the unit to malfunction.
- **Except for when the power modules are being mounted, always attach the blank panels**  
If the product is handled without them being attached, that might cause injuries via the mechanical parts, malfunctions due to the incursion of foreign objects, breakage due to temperature rises in the internal components, the misoperations of other devices due to the effects of electronic interference from this product, the misoperations of other devices due to the effects of electronic interference, etc.
- **When removing, mounting, and replacing the power modules, be sure to remove the power cord from the power modules which are going to be replaced**  
If the power cord is connected, the power module circuit is energized. If the power module is removed, mounted, replaced, or left unattended with the power cord connected to the power module, that might cause fires or electrical shocks.
- **Identify the power modules which are to be replaced via the ZEQUO 6600RE unit's CLI, and power status LEDs, then replace them**  
If replacing is done without identifying them, unintended modules might be replaced.
- **When removing, mounting, and replacing the power modules, be sure to eliminate static electricity**  
Might cause misoperations or malfunctions.



## 3 Installation and Configuration

### ◆ Removing the power module

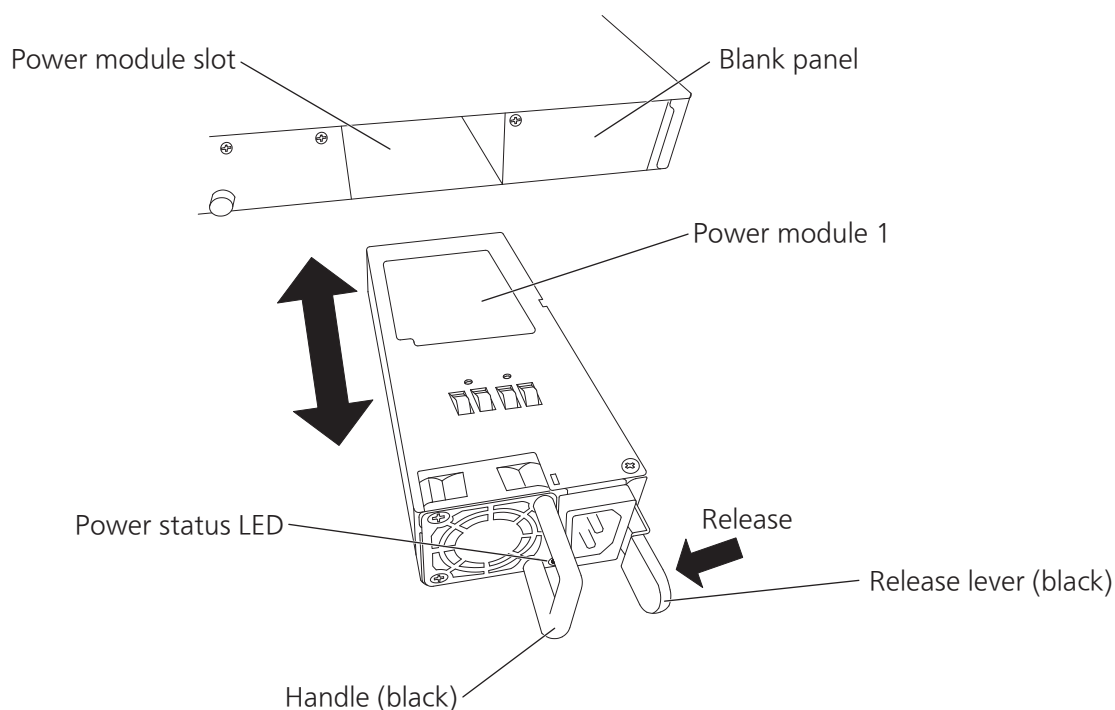
- Step 1. Unplug the power cord from the power module which is going to be replaced and removed, and shut off the power.
- Step 2. Make sure that the power status LED of the power module and the POWER1 LED, the POWER2 LED or both LEDs of the Ethernet switch itself are turned off.
- Step 3. Push the power module's release lever (black) in to the left side, and release the retainer.
- Step 4. Hold the power module's handle (black), and slowly pull out the power module while supporting it.

### ◆ Mounting the power module

- Step 1. Remove the blank panel on the power module slot. Carefully store the removed blank panel.
- Step 2. Insert the power module into the power module slot until a "clunk" is heard.
- Step 3. Attach the power cord on to the power module.
- Step 4. Make sure that the power status LED of the power module and the POWER1 LED, the POWER2 LED or both LEDs of the Ethernet switch itself are turned off.

### ◆ Replacing the power module

After removing the power module, then mount the power module.



## 3.2 Removing, Mounting, and Replacing the Fan Modules

The fan modules can be removed and mounted with the switching units continuously being operated via the hot-swappable fan compatible switches.

### **WARNING**

- **For the fan modules, be sure to use stipulated fan modules (PN73002 FAN02 Module) which are sold by the Panasonic Electric Works Networks Co., Ltd.**  
If stipulated fan modules are not used, the unit will be included as being not covered by the warranty, furthermore, that might cause the unit to malfunction.
- **If the fan module is going to be replaced with the unit switching in operation, remove and mount the fan module within 3 minutes**  
Since the air flow cannot be assured, the internal temperatures will rise, and that might cause malfunction.
- **When the fan module is not mounted, prevent foreign objects from incurring inside, as well as operators from getting inside of the product unit through the fan slots**  
Might cause injuries via the mechanical components, etc., or malfunctions due to the incursion of foreign objects, etc.
- **Identify the modules which are to be replaced via the console, and power module LEDs, then replace them**  
If replacing is done without identifying them, unintended modules might be replaced.
- **When removing, mounting, and replacing the fan modules, be sure to eliminate static electricity**  
Might cause misoperations or malfunctions.

## 3 Installation and Configuration

### ◆ Removing the fan module

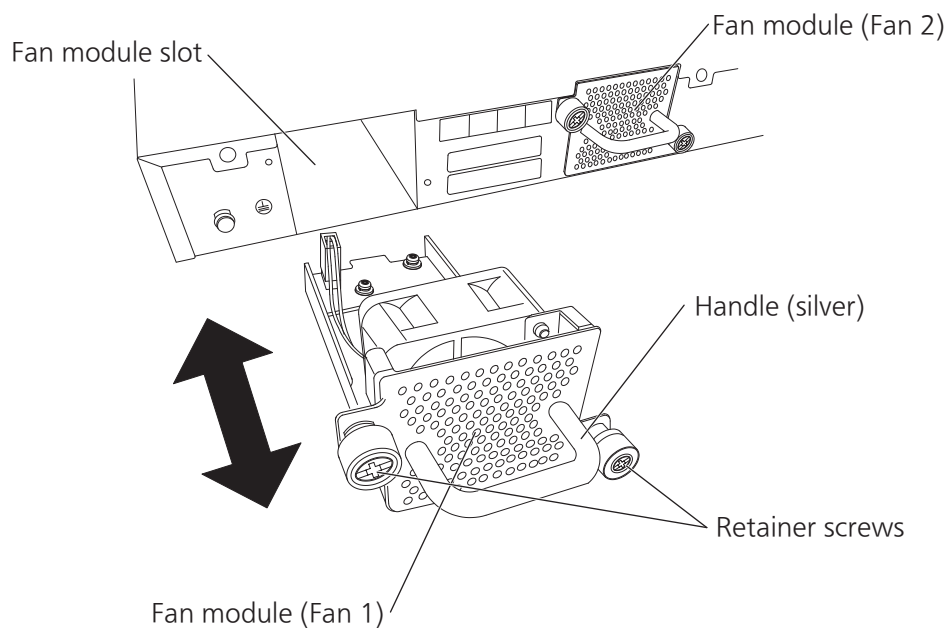
- Step 1. Loosen the retainer screws on the fan modules which are going to be replaced and removed.
- Step 2. Hold the fan module's handle (silver), and slowly pull out fan module while supporting it.

### ◆ Mounting the fan module

- Step 1. Slowly insert the fan module into the fan module slot.
- Step 2. Tighten the retainer screws.
- Step 3. Make sure that the status LED is NOT blinking in orange, and the STACK ID LED is NOT displaying any of the followings.
  - "11": Fan 1 failure
  - "12": Fan 2 failure
  - "13": Fan 1 and Fan 2 failures

### ◆ Replacing the fan module

After removing the fan module, then mount the fan module.

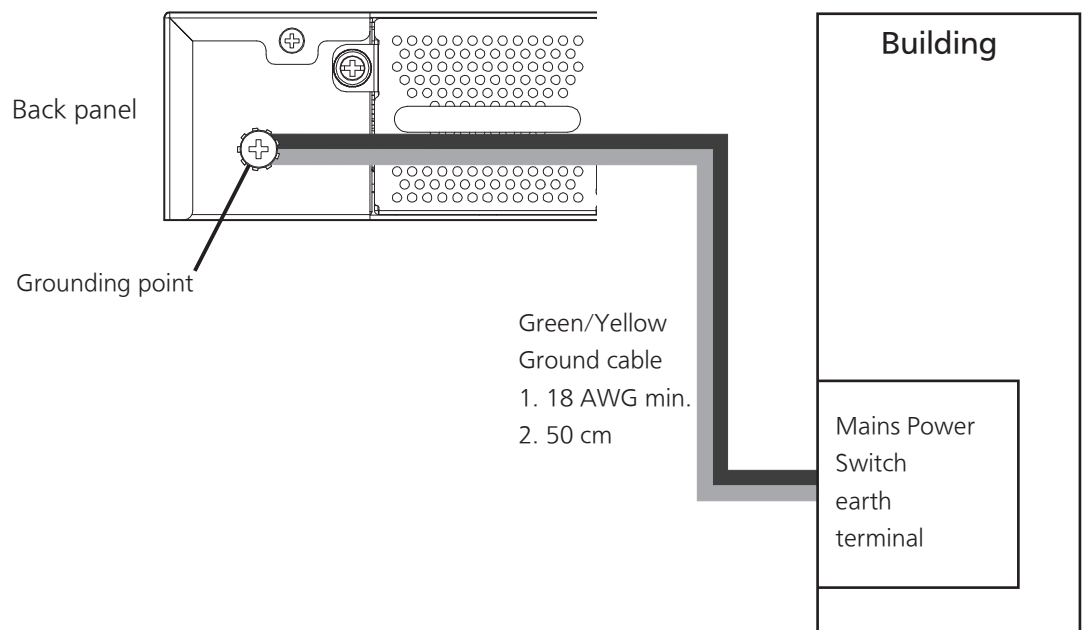


### 3.3 Grounding Cable Connection

The chassis of the equipment must be grounded properly so that the lightning can flow to the ground, which improves the capability of the chassis for resisting the electromagnetic interference.

1. Ensure that the grounding cable is connected correctly so that the equipment is protected against lightning and interference. The correct connection of the grounding cable is an important measure to ensure the human safety.
2. Connect the chassis to the ground by using a grounding cable. The grounding resistance must be smaller than 0.10 ohms and the gauge of the grounding cable must be no less than 18 AWG and the length is 50 cm.
3. The ground installed screw shall comply with 3.5mm minimum in nominal thread diameter, and engage at least two complete threads into metal chassis with appropriate fixing hardware like washer.
4. The grounding cable shall not be removed during normal operation, servicing or maintenance.
5. Installation steps:  
Step 1: Ensure the detachable power supply cord is removed.  
Step 2: Use the screwdriver to turn the screws on the earth ground screw point.  
Step 3: Strip one end of the ground wire to the ground hole of system.  
Step 4: Connect the other end of the ground wire to a suitable grounding point of building at your side.

Figure shows the grounding points.



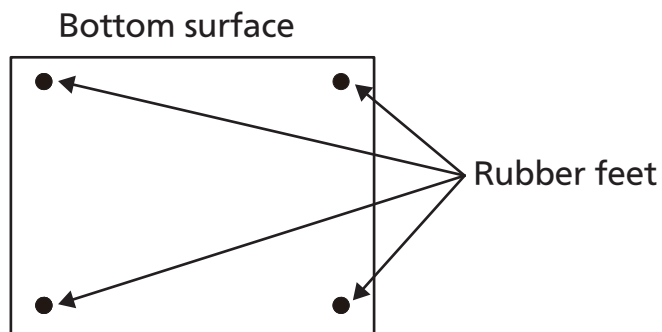
## 3 Installation and Configuration

### 3.4 Installing on level shelves

- (1) Apply the supplied rubber feet onto the bottom surface of the unit.
- (2) Install in a level area.

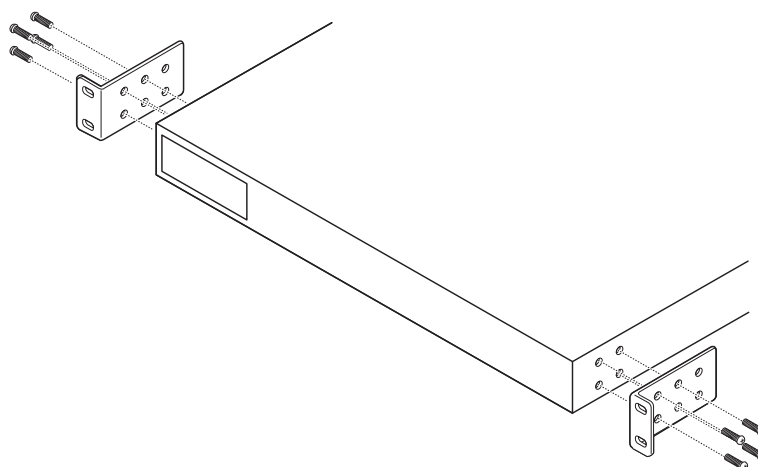
#### Caution

- Do not stack and use.
- Set up with a clearance of 20 mm or more.

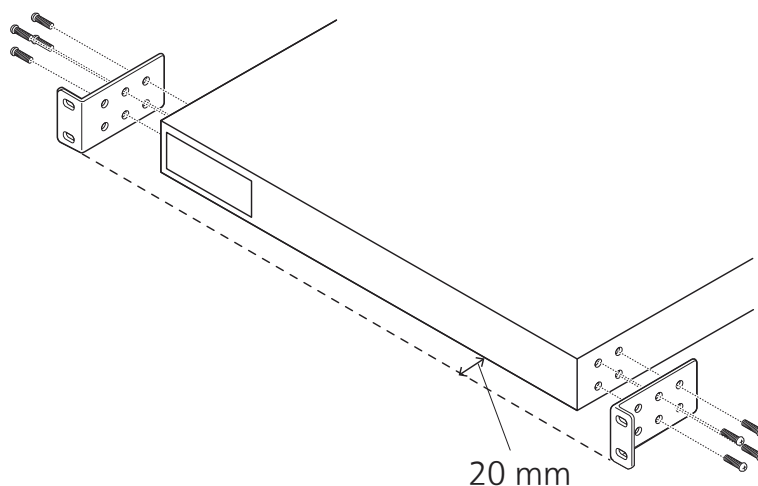


### 3.5 Mounting to rack

Take out the supplied 2 mounting brackets (for 19-inch rack) and 8 screws (for fixing the main unit and the mounting bracket), and fix the brackets to the main unit by tightening screws into 4 holes located at the sides. Then, mount this Ethernet Switch firmly to the rack using the supplied 4 screws (for 19-inch rack) or screws furnished at the rack.

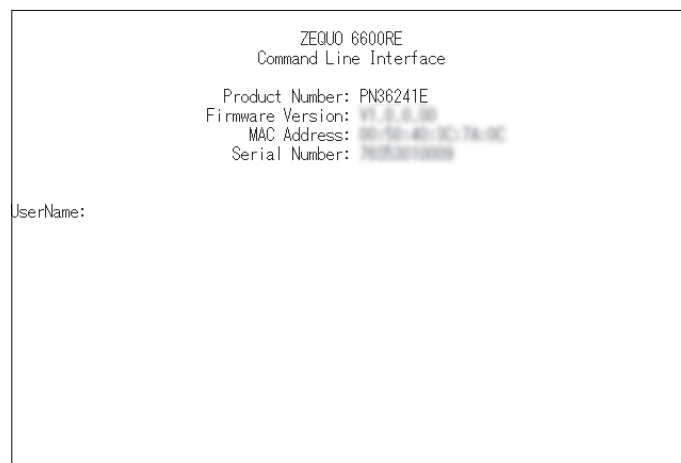


The main unit can be placed 20 mm back on the rack by changing the bracket fixing position.



## 3.6 Configuration of IP address (Basic)

- (1) Connect this Ethernet Switch and PC with a RJ45–DSub 9-pin console cable and start up the terminal emulator (ZEUQUO assist Plus, etc.).
- (2) Pressing Enter key 1 time opens Login screen. Enter UserName and Password (the default is "manager" for both). **(Screen 1)**
- (3) The command input screen is displayed. **(Screen 2)**
- (4) Enter the IP address and subnet mask using the following command. **(Screen 3)**  
>enable  
#configure  
(config)#interface vlan1  
(config-if)#ip address 192.168.1.254 255.255.255.0
- (5) Enter the following command to save the setting. Since the following screen is displayed, enter "Y" and the settings will be saved. **(Screen 4)**  
(config-if)#exit  
(config)#exit  
#copy running-config startup-config
- (6) From terminals connected to network, confirm that the settings are reflected correctly by executing PING test for entered address.



Screen 1

## 3 Installation and Configuration

```
ZEQUO 6600RE
Command Line Interface

Product Number: PN36241E
Firmware Version: V1.0.0.00
MAC Address: 00-50-40-00-7A-0C
Serial Number: 7A05010000

UserName:manager
Password:*****

ZEQUO6600RE>
```

Screen 2

```
ZEQUO 6600RE
Command Line Interface

Product Number: PN36241E
Firmware Version: V1.0.0.00
MAC Address: 00-50-40-00-7A-0C
Serial Number: 7A05010000

UserName:manager
Password:*****

ZEQUO6600RE>enable
ZEQUO6600RE#configure
ZEQUO6600RE(config)#interface vlan1
ZEQUO6600RE(config-if)#ip address 192.168.0.1 255.255.255.0
ZEQUO6600RE(config-if)#
```

Screen 3

```
ZEQUO 6600RE
Command Line Interface

Product Number: PN36241E
Firmware Version: V1.0.0.00
MAC Address: 00-50-40-00-7A-0C
Serial Number: 7A05010000

UserName:manager
Password:*****

ZEQUO6600RE>enable
ZEQUO6600RE#configure
ZEQUO6600RE(config)#interface vlan1
ZEQUO6600RE(config-if)#ip address 192.168.0.1 255.255.255.0
ZEQUO6600RE(config-if)#exit
ZEQUO6600RE(config)#exit
ZEQUO6600RE#copy running-config startup-config

Destination filename startup-config? [y/n]:
```

Screen 4

- \* For detailed settings and administration methods, please see the PDF version of the Operating Instructions on Panasonic's website.
- Detailed configuration and management methods using the CLI.
- Configuration and management method from ZEQUO assist Plus.



# Troubleshooting

If you find any problem, please take the following steps to check.

## ◆ LED

**The POWER 1 LED, or POWER 2 LED is not lit.**

- Is the power plug connected?  
Check that the power plug is firmly connected, so the connection is not loose at the power port.
- Is the Ethernet Switch used in a place where operating temperature is between 0 and 45°C?  
Use the Ethernet Switch within the range of operating temperature.
- If the AC power supply is normal, there might be an internal power fault.  
Remove the power cord which is connected to the corresponding power port, and request repairs.

**If the STATUS LEDs are blinking orange**

- Are power modules 1 and 2 properly mounted?  
If they are malfunctioning, or not properly mounted, the STACK ID LED will display "P".  
Check whether or not the power modules are securely connected.
- Are the fan modules properly mounted?  
If they are malfunctioning, or not properly mounted, the STACK ID LED will display any one of "11", "12", or "13".  
Check whether or not the fan modules are securely mounted.
- Are loops being generated? The orange blinking will go out depending upon the loop resolutions.

**If the STATUS LEDs are blinking green**

- There will be ports indicating within 3 days after the loops are resolved.

**The SD CARD LED is not lit.**

- Is the SD card installed?  
Check that the SD card is firmly inserted.

## ◆ Communication Failure

- Is the UTP/fiber cable connected to the correct port?
- Are the SFP modules complied with the same standard each other?
- Is the fiber cable correct the fiber mode (single or multi)?
- Attempt to disable “EEE conforming to IEEE802.3az (LPI)” function at target port.
- Are the communication speed and mode settings correct?  
If the communication mode signal cannot be properly obtained, the Ethernet Switch operates in half-duplex mode. Check the auto negotiation setting again.  
Do not fix the speed/duplex mode of the connected terminal to full-duplex mode.
- Is the usage rate of the network to which this Ethernet Switch is connected excessively high?  
Try separating this Ethernet Switch from the network.
- Are the port LEDs lit up orange?  
If the port LEDs are lit up orange, the ports will be blocked via the loop detection and blocking functions. After the port controlled loop connections are resolved, release the port blocking from the settings screen as to whether the standby time will be longer than the recovery time until the auto-recovery of the loop detection and blocking.

## ◆ Stacking Failure

- Is the stacking function enabled?
- Is the 40G direct attached cable connected to stacking port (port 29 or 30) correctly?
- Is the STACK ID LED displayed the correct ID?
- Are all of the firmware versions for the devices that are connected to the stacks identical?

**\* Please refer to the instruction manual on the ZEQUO assist Plus on Panasonic’s website in regard to settings and management methods.**