ALAXALA AX6700S

Quick Start Guide

AX67S-Q001-40X

Please read the entire manual, and then properly store it.
• Before using the product, be sure to read and understand all the safety precautions.
• Keep the manual somewhere where it can be readily accessed.

AlaxalA

■Target product

This manual is for AX6708S model.

■Exporting

When you export this product, take the appropriate actions to comply with all applicable laws and regulations, such as the foreign exchange law, the foreign trade law, and US Export Administration Regulations. If you need more information, contact our sales representatives.

■Trademarks

- Ethernet is a product name of Xerox Corporation.
- Windows is a registered trademark of Microsoft Corporation.
- Other company names and product names are trademarks or registered trademarks.

■Read “Quick Start Guide” thoroughly and keep it accessible

Read and understand “To Handle the Device Safely” section thoroughly before using the device.
Keep this manual accessible.

■Note

Alaxala Incorporated reserves the right to make changes in specifications and other information contained in this document without prior notice.

■Statement on EN55022 Compliance

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

■Harmonic current regulations

Devices compliant to Harmonic current regulations EN61000-3-2:

AX6708S

■History

Edition 5 (AX67S-Q001-40X): April 2009

■Copyright

Preface

This manual provides unpacking instructions, hardware installation procedures, and procedures to set up the basic connections for AX6700S series Multi-layer switches.
This manual also includes how to use other manuals for AX6700S series for you to use this device effectively.

■ Installation Procedure

To set up this device, follow the steps explained below.

Safety Information

▼▼ This section contains safety precautions for you to use AX6700S series equipment safely. Read this section thoroughly before using the device.

Chapter 1: Preparations

▼▼ This chapter describes the preparations necessary for using AX6700S series switches. It also describes the manual organization for AX6700S, what purpose this manual serves in the manual family, and when to refer to each manual.

Chapter 2: Installing the Device

▼▼ This chapter provides the installation instructions to connect the power cable and interface cable to the device and power up the device.

Chapter 3: Operations Required for Initial Setup

▼▼ This chapter describes basic setup operations for time setting, password setting in the administrator mode, addition and deletion of user IDs, etc.

Chapter 4: Other Operations

▼▼ This chapter describes the manuals to be referenced when setting other configurations, checking the status of the device, and troubleshooting problems.

■ Intended Readers

This document is intended for the technical personnel responsible for setting up and handling AX6700S series switches. Readers are therefore required to have knowledge of electric circuits, wire connections, and network systems.

Contents

⚠ Safety Information

■ Using AX6700S series devices correctly and safely

- This guide provides important information for ensuring safe use of AX6700S series devices. Please read this guide completely before using your device.
- Keep this guide handy after finishing it, so that it is available for later reference.
- Operate the device according to the instructions and procedures provided in this guide.
- Heed all warnings and cautions regarding the device in this guide. Failure to do so could result in injury or damage to the device.

■ Before using the device

- Caution labels

  Caution information in this guide and on the device is marked by using the labels below. These labels are for ensuring safe and correct use of the device and to prevent serious injury, as well as equipment and property damage. Make sure that you fully understand the meaning of the labels before continuing with the main body of this guide.

⚠ WARNING	Ignoring instructions marked with this label and using the switch incorrectly could result in death or serious injury to yourself and others.
⚠ CAUTION	Ignoring instructions marked with this label and using the switch incorrectly could result in serious injury to yourself and others.
CAUTION	Ignoring instructions marked with this label and using the switch incorrectly could result in serious damage to the device or nearby property.
NOTE	Information preceded by this indication is supplementary information that, even if ignored, will not result in physical injury or serious damage to the device.

■ Unauthorized operations

- Do not attempt to perform any operations that are not described in this guide.

  In the event of a device failure, take the following actions and call for maintenance personnel.

  ・For the device using AC power supply, turn off the device and unplug the power cord.

  ・For the device using DC power supply, turn off the device and set the breaker on the power supply facility side to OFF.

■ Always use common sense.

The warnings and cautions attached to the device and in this guide have been selected after careful consideration. Nevertheless, there is always the possibility of something unexpected occurring. Therefore, whenever using the device, stay alert and use common sense in addition to following all instructions.

⚠WARNING

■ If anything seems wrong, immediately turn off the power.

● If smoke or an unusual smell is coming from the device, or if liquid is spilled into the device or a foreign object falls into the device, immediately turn off power to the device as described below. Continuing operation could result in a fire or electric shock.

・For the device using AC power supply, turn off the device and unplug the power cord.

・For the device using DC power supply, as the device is connected to a terminal, turn off the device and set the breaker on the power supply facility side to OFF.

■ Do not install the device on an unstable surface.

● Install the device on a level platform such as a workbench, which is able to withstand the device weight. If the device is set onto an unstable platform such as a wobbly or tilted table, the device may fall over or down and this may result in serious injury.

■ Do not remove the device cover.

● Do not remove the device cover. It may cause electric shock.

■ Do not allow any foreign objects to get into the device.

● Do not insert or drop any foreign objects, such as anything metallic or flammable, through the device's ventilation slots. Doing so could result in a fire or electric shock.

■ Do not alter the physical makeup of the device.

● Do not alter the physical makeup of the device. Doing so could result in a fire or electric shock.

■ Do not subject the device to shocks.

● In the event that the device is dropped or any of its components damaged, turn off the power, unplug the power cable, and contact maintenance personnel. Continuing operations could result in a fire or electric shock.

■ Do not place anything on the device.

● Do not place any metal object such as a small pin or a paper clip or any container with a liquid, such as a vase or a flower pot, on the device. Liquid or metallic objects falling into the device could result in a fire or electric shock.

■ Use the device only with the indicated power supply setting.

● Do not use the device at any voltage other than the indicated voltage. Doing so could result in a fire or electric shock.

⚠WARNING

■ The current capacity of a distribution panel must be greater than that of the operating current fed to the circuit breaker.

- The current capacity of a distribution panel must be greater than that of the operating current fed to the circuit breaker. If it is not greater, the circuit breaker might not operate properly if a circuit abnormality is detected, which could result in a fire.

■ Ground is required

- Leak current of up to 3.5mA flows for each device. For connecting to the AC power supply, be sure to use the grounded outlet. If the power supply is used without grounding, an electric shock may be caused, and failures may occur due to electric noise.
- For connecting the DC power supply, be sure to connect the grounding terminal. If the power supply is used without grounding, an electric shock may be caused, and failures may occur due to electric noise.

■Power Supply Redundancy.

- When the device is used in redundant power supply mode, it must be supplied power from two different power lines(different power distribution panel). .
- Leak current of up to 5mA flows for each device when it is supplied power from one power line (one power distribution panel).

■Mounting and removing a DC power cable must be done by a trained engineer or maintenance personnel.

- Mounting and removing a DC power cable must be done by a trained engineer or maintenance personnel. Because DC power cables are connected to a power supply using terminals, mishandling the cables could result in a fire or electric shock.

■ Make sure that the power facility circuit breaker is set to OFF before connecting or disconnecting a DC power cable.

- Make sure that the power facility circuit breaker is set to OFF before connecting or disconnecting a DC power cable. Connecting or disconnecting the cable with the circuit breaker set to ON could result in a fire or electric shock.

⚠WARNING

■ Place an insulation cover over the 0V and -48V terminals of DC power cables.

● Place an insulation cover over the 0V and -48V terminals of DC power cables. Using the terminals without an insulation cover could result in electric shock.

■ When using the DC power supply, do not leave the terminal board uncovered.

● When using the DC power supply, be sure to attach the cover to the terminal board after connecting the power cable. Operating it without the terminal board cover may cause electric shock.

■ Do not touch the voltage measurement terminal.

● The power supply unit has terminals for voltage measurement, which are used for inspection before shipping. End users do not use these terminals. Do not insert any pointed metal, such as a pin or clip into the terminals for voltage measurement. It may result in a fire or electric shock.

■ The device should be set up or carried by trained engineers or transport specialists.

● The device weight is up to 82kg. The device should only be set up or carried by trained engineers or transport specialist. Handling the device by people other than the mentioned professionals may cause the device to fall and result in a serious injury.

Use handling equipment such as a hand lifter. Carrying the device without handling equipment may cause the device to fall and result in a serious injury.

The following warning label is on the device.

⚠ 警告	⚠ WARNING	⚠ WARNUNG	⚠ AVERTISSEMENT	⚠ 警告	⚠ 경고
重量物注意 質量：最大 82 kg けがをする恐れがあります。 装置を持ち上げるときは訓練を受けた人が作業してください。 リフター等のハンドリング装置を使用してください。 詳細はサービスマニュアルを見てください。	Heavy object. Mass:82kg (181lbs) at maximum. Risk of injury. When lifting this equipment, perform work by trained personnel only. Use lift or similar handling device. See instruction manual for details.	Schweres Objekt. Masse:82kg (181lbs) maximal. Verletzungsgefahr. Beim Heben dieser Ausrüstung die Arbeit nur mit qualifiziertem Personal durchführen. Aufzug oder ähnliche Fördereinrichtung benutzen. Zwecks Einzelheiten siehe Bedienungsanleitung.	Objets lourds. Poids: 82kg (181lbs) maximum. Risque de blessures. Soulever cet équipement uniquement du personnel formé. Utiliser un élévateur ou un dispositif de manutention similaire. Voir le mode d'emploi pour les détails.	重物。 质量：最大82公斤。 有受伤的危险。 安装此设备时，请仅由经过训练的人员执行。 请使用起重机等装置。 详细说明请参见维修说明书。	중량물 주의. 질량: 최대 82 kg. 다칠 염려가 있습니다. 장치를 들어 올릴 때는 훈련을 받은 사람이 작업해 주시기 바랍니다. 리프트 등의 핸들링 장치를 사용해 주시기 바랍니다. 자세한 것은 서비스 안내서를 보시기 바랍니다.

⚠WARNING

■ Handle power cables carefully.

- Do not place anything heavy on a power cable. Do not pull, bend, or modify a cable. Doing so could damage the cable, resulting in a fire or electric shock. If the power cable is covered by a carpet, it is easy to forget that the cable is there and to place something heavy on it.
- Use the provided or a designated power cable. Using other kinds of cables may result in a fire or electric shock. Do not use the provided power cable for other equipment. Using the cable for the equipment other than this device may result in a fire or electric shock.
- If the power cable is damaged so that the wires underneath the covering are visible or cut, stop using it, and ask maintenance personnel to replace it. Continuing to use such cord may result in a fire or electric shock.
- Make sure the power plug is free of dust, and insert the plug completely up to the base of the prongs, so that it is not loose. Using a power plug with dust on it or one that is imperfectly connected could result in a fire or electric shock.

■ Do not overload the power outlet.

- Do not overload the power outlet by connecting multiple power plugs to the same outlet. Overloading the outlet could result in fire or the circuit breaker tripping due to excessive power used, thereby affecting other equipment.

■ Before powering off, turn off all power switches on the device or circuit breakers.

- This device is equipped with more than one input power supply. Before powering off, turn off all power switches on the device (when AC power supply is mounted) or circuit breakers (when DC power supply is mounted).

  The following label is on the device for warning.

⚠ 警告	⚠ WARNING	⚠ WARNUNG	⚠ AVERTISSEMENT	⚠ 警告	⚠ 경고
感電注意 複数の入力電源が供給されているため、感電又は火傷による死亡・けがの危険があります。 装置の電源を切断する場合は、本装置の全ての電源スイッチまたはブレーカをOFFにして下さい。	Risk of electric shock. This equipment has multiple power sources, and failure to disconnect all of them can cause death or severe injury due to electric shock or burns. When disconnecting power to the equipment, turn off all power switches or breakers on the equipment.	Elektroschockgefahr. Da diese Ausrüstung mehrfache Stromquellen hat, kann es, wenn nicht alle abgeschaltet werden, infolge von elektrischem Schlag oder Verbrennungen zu Tod oder schwerer Verletzung kommen. Beim Abschalten der Netzversorgung dieses Gerätes, schalten Sie alle Netzschalter oder Unterbrecher an diesem Gerät aus.	Risque de décharge électrique. Cet appareil a plusieurs sources d'alimentation, et la non-déconnexion de toutes peut entraîner des blessures graves ou mortelles dues à une décharge électrique ou des brûlures. A la déconnexion de l'équipement de la source d'alimentation, mettre sur OFF tous ses interrupteurs ou disjoncteurs d'alimentation.	有触电危险。 此装置有多处电源，若不全部切断则会因触电或起火而造成死亡或严重伤害。 要切断设备电源时，请关闭该设备所有的电源开关或者断开该设备所有的断路器。	감전 주의. 복수의 입력 전원이 공급되고 있어 감전 및 화상으로 인한 사망 또는 상처를 입을 위험이 있습니다. 장치의 전원을 절단할 경우에는 본 장치의 모든 전원스위치 또는 브레이커를 OFF로 해주세요.

■ Adding or replacing an optional unit should only be done by trained engineers or maintenance personnel.

- Adding or replacing optional units should only be done by trained engineers or maintenance personnel. Adding or replacing a power supply unit involves installing and uninstalling power cables. Mishandling the operation by people other than the above mentioned professionals may result in a fire, electric shock, or equipment damage. Mishandling other optional units may also result in injury or equipment damage.

⚠WARNING

■ Do not use any pointed objects that easily break, or any pins or paper clips that could get in and stuck inside the device when pressing the switch of the control and switching unit.

- Do not use any pointed objects that easily break, or any pins or paper clips that could get in and stuck inside the device when pressing the switch on the main panel of the control and switching unit. This may result in a fire or electric shock.

■ Remove the power cable when installing or removing a power supply.

- When installing or removing a power supply, remove the power cable from the power supply. If the power cable is connected and the power switch is turned off, power is still supplied to some circuits. Because of this, if you install or remove a power supply with the power cable connected, a fire or electric shock could result.

■ Do not use an air duster close to an open flame.

- Do not use an air duster that contains flammable gas close to an open flame when cleaning optical connectors. This may result in a fire.

⚠CAUTION

■ Do not install the device in a dusty or humid location.

- Do not install the device in a dusty or humid location. Doing so could result in a fire or electric shock.
- Condensation might form on the surfaces and the inside of the device if it is moved from a cold location to a warm location. Using the device in this condition could result in a fire or electric shock. After moving the device between two locations with a large temperature variation, let the device stand a few hours before using it.

■ Do not stack devices.

- Do not stack devices. This may result in damaging devices. Further, the device may be dropped due to off-balance, resulting in injury.

■ Do not step on the device, lean against it, or place anything on it.

- Do not step on the device, lean against it, or place anything on it. Doing so might damage the device. Further, the device might fall or cause a loss of balance, resulting in injury.

■ Use a guide rail or shelf when installing the device in a rack.

- The rack mount brackets provided with the device are for fixing the device to a rack but not for supporting the weight of the device. In addition to the rack mount brackets, use a guide rail or shelf when installing the device in a rack:

  Use the guide rails and shelf that are provided with a rack and that are capable of supporting the weight of the device (including the weight of the maximum optional units).

■ Do not block the air vents.

- Do not block the air vents. Blocking the air vents causes the inside of the device to warm up and may result in a fire. Keep more than 70 mm free space around the air vents.

⚠CAUTION

■ Do not put hair or any objects close to the air vents.

- This device has a cooling fan unit mounted. Do not put hair or any objects close to the air vents. Doing so may raise the temperature of the device, resulting in device failure. Further, these objects may be caught in the fan and cause injury.

■ Do not hold the handle of an optional unit to move the device.

- Do not hold the handle of the fan unit or power supply unit when moving the device. This may break the handle or drop the device, and result in injury. This may also deform the fan unit or power supply unit, and result in a fire or electric shock.

■ Remove cables when moving the device.

- Turn off the power and remove all cables from the device before moving the device. Moving the device with the cables connected may deform or damage the device or cables, and result in a fire or electric shock.

■ Do not drop optional units.

- Handle an optional unit carefully not to drop it. Dropping may result in injury.
- The weight and depth of the DC power supply are 5.6kg and 163mm respectively. When removing the DC power supply, hold it securely. If pulling it forward carelessly, it may drop and cause an injury. The label below is attached to the DC power supply.

■ Do not touch the inside of the device.

- Do not put your hand inside the device carelessly. Touching the mechanical section may result in injury.

■ Be careful about high temperature when removing the basic control unit and network interface unit.

- The basic control unit and network interface unit may be hot. Do not touch the mounted parts. You may burn yourself.

⚠CAUTION

■ Keep your hands away from a running fan unit when removing the unit.

● The fan may still be running immediately after removing the fan unit. Keep your hands or fingers away from the fan unit. Failure to keep your hands or fingers away from the fan unit may result in injury. The following label is on the unit.

■ Handle the power cable with care.

● Keep the power cable away from heat. Melting the cable coating may result in a fire or electric shock.

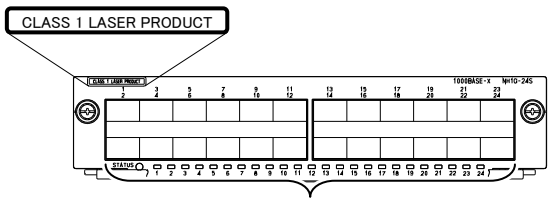
● Hold the plug when plugging or unplugging the power cable. Pulling the cable may damage the cable.

■ The person allergic to metal should not touch the device.

● This device is coated with zinc, nickel, gold, etc. A person allergic to these metals should not touch the device directly. It may result in eczema or rash.

■ Be careful with laser beam.

● The network interface unit with the following label uses laser beam. Do not stare directly into the laser transmitter and receiver ports.



Optical Transmitter and Receiver Ports

■ Lithium battery

● This device uses a lithium battery for real-time clock. Mishandling the lithium battery may cause heat generation, rupture, or ignition, and result in injury or a fire. Do not remove the battery from the device, tear it down, heat it higher than 100ºC, throw it into the fire, or put water over it.

⚠CAUTION

■ Cleaning

● Remove dust on and around the device regularly. In addition to causing the device to stop, accumulated dust could result in a fire or electrical shock.

CAUTION

■ Do not power off the device during software upgrade (running the ppupdate command).

- When the ppupdate command is executed, the device is automatically rebooted. Do not power off the device when the device is rebooting (until the green STATUS LED of the basic control unit turns from flashing to solid green), otherwise device failure may be caused.

■ While the ACC LED is on, do not remove a memory card or turn off the power.

- When the ACC LED of the basic control unit is on, the memory card is being accessed. Do not remove the memory card or power off the device while the memory card is being accessed. It may damage the memory card.

  Some commands require a certain amount of time after being entered for the access to be completed. Make sure the access is completed before removing a memory card or turning off the power.

■ Handle the memory card with care.

- Do not push the memory card forcefully, or flick your fingers at the card when installing the card.

  Do not pull the memory card forcefully without unlocking when uninstalling the card. It may damage the connecting portion of the memory card slot.

- Remove the memory card before moving the device. External force on the memory card may damage the connecting portion of the memory card slot.

■ Do not attach labels to the transceiver.

- The transceiver has a label to indicate that it is our or another company's standard qualified product. The label is attached to the area that does not block heat dissipation from the transceiver, or interfere the mechanism to prevent the transceiver from coming out of the port.

  Applying labels onto these areas may damage the transceiver or the network interface unit.

■ Take necessary precautions not to cause voltage drop due to inrush current.

- Inrush current flows in as the device is turned on. Take necessary precautions not to cause voltage drop of the power source due to inrush current. Voltage drop affects other equipment connected to the same power source as well as this device.

■ Turn off the power switch when connecting or disconnecting power cables.

- Turn off the power switch of the power supply unit when connecting or disconnecting the power cables.

CAUTION

■ Keep to the time limit when replacing the fan unit with the power on.

● When replacing the fan unit with the power on, remove the old unit and install the new unit within one minute. Taking more than one minute may affect other equipment due to temperature increase inside the device.

■ When carrying or packaging the device or optional units, wear an anti-static wrist strap.

● Wear an anti-static wrist strap to protect against static electricity. Handling the device or optional units without the wrist strap may result in equipment damage due to static electricity.

■ Be sure to install blank panels after removing optional units.

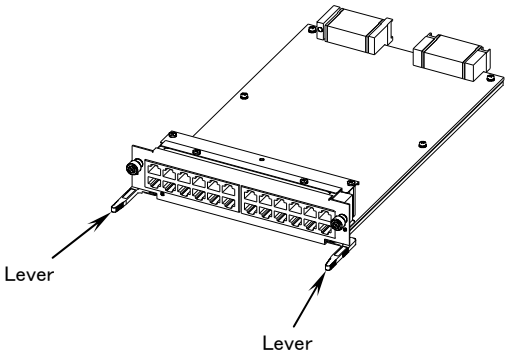
● Be sure to install blank panels after removing optional units. The device with vacant slots cannot keep the proper air flow. Improper air flow may result in device failure due to temperature increase inside the device.

CAUTION

■ Install optional units carefully.

● Follow the steps below to install an optional unit. Installing without proper steps may result device failure or equipment damage.

1. Open the levers shown in the figure.



2. Hold the levers and slide the optional unit slowly into the device until the levers touch the device.
3. Push the unit all the way using the levers. When using the levers, move them slowly (taking more than 1 second) without too much force.

■ Uninstall an optional unit after unfastening the screws completely.

● Use levers when removing the basic control unit, basic switching unit and network interface unit. Failure to unfasten the screws incompletely may damage the optional unit when opening the levers.

■ Carry or package optional units carefully.

● Do not touch the parts on board and soldered surface when carrying and packaging an optional unit, such as basic control unit, basic switching unit, network interface unit, memory card, transceiver, or power supply unit. Put them in anti-static bags when storing them.

■ Do not place the device in a high-temperature location.

● Do not place the device in direct sunlight or near heating appliances. Doing so may result in adverse effect on the parts of the device.

CAUTION

■ Do not place a TV or radio near the device.

- When the device is set up near a TV or radio, they may affect each other. Do the following when the device generates noise into the TV or radio.
  - ・ Move the device away from the TV or radio.
  - ・ Change the direction of the TV or radio antenna.
  - ・ Use separate outlets.

■ Do not place the device in geographic locations where hydrogen sulfide is generated or the salt level is high.

- Using the device in geographic locations where hydrogen sulfide is generated such as hot springs, or a location where the salt level is high such as the coast may shorten the device's life.

■ Select and use an air duster properly.

- Select an air duster specific to cleaning optical connectors. Using an air duster for other than cleaning optical connectors may contaminate the ferrule end.
- Do not touch the ferrule end with the nozzle or container of the air duster. Touching the ferrule end may damage the connector.

■ Select and use a cleaner for optical connectors properly.

- Use a cleaner for optical connectors. Using a cleaner for other than optical connectors may contaminate the ferrule end.
- Inspect the tip section of the optical-connector cleaner to make sure that there is no tear in cloth, stain, contaminants before cleaning the optical connector. Using the cleaner with a problem at the tip section may damage the connector.
- Do not apply too much force when cleaning the connector. This may damage the ferrule end.
- Turn the optical-connector cleaner (stick type) only in a clock-wise direction. Turning the cleaner in both clock-wise and counter clock-wise directions may damage the ferrule end.

■ Maintenance

- Remove any stains on the device surface with a clean, dry cloth or a cloth damp with (but not soaked with) water or neutral detergent. Do not use volatile organic solvents or chemicals such as benzene, paint thinner, or pesticides as this may deform, discolor, or break down the device.

■ If the device will not be used for a long time

- Unplug the power cable for safety when not using the device for a long period of time due to out-of-office or a long vacation. If you are using a DC power supply, turn off the circuit breaker at the supply of power.

CAUTION

■ Disposing of the device

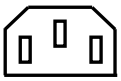
● When disposing of the device, discard the device by following local ordinances or regulations or by contacting a waste disposal facility in your area.

■ AC Power Supply Facility

(1) AC Power Cable

Prepare the power cable which complies with the specifications below.

Table 1: AC Power Cable Specifications

Item	Connector (on This Device)	Cable	Plug (on Outlet)
Rating	125V 15A or 250V 15A	125V 15A or 250V 15A	125V 15A or 250V 15A
Shape	IEC-320-C13 	3 core twisted	Prepare the cable with a plug Complying with the outlet.

⚠ WARNING

When connecting the device to the AC power supply, use only grounded power outlets. Failing to use grounded outlets creates a shock hazard. Furthermore, you could introduce unwanted electrical noise into the device, which could degrade performance.

(2) Outlet

Use the power outlet meeting the following specifications.

• 125V 15A or 250V 15A

⚠ WARNING

Be sure to use the grounded outlet. If the power supply is used without grounding, an electric shock may be caused, and failures may occur due to electric noise.

(3) Power distribution panel

Install a fuse-free breaker (FFB) on the branching circuit that supplies power to the device. For theFFB rating and the number of necessary FFBs and outlet, see the table below.

Table 2: Breaker Rating

FFB Rating	Power Supply Redundancy	Number of Necessary FFBs	Number of Necessary outlets
15AT, single-phase 100VAC (for 15A circuit)/ 15AT, single-phase 200VAC (for 15A circuit)	None	4	4
	Yes	8	8

⚠ WARNING

When the device is used in redundant power supply mode, it must be supplied power from two different power lines (different power distribution panel).
Leak current of up to 5mA flows for each device when it is supplied power from one power line (one power distribution panel).

NOTE

To facilitate the operation, you are recommended to install the power distribution panel in the same room with the device or in an adjoining room.

(4) Condition for power supply to the power distribution panel
The capacity of current to be supplied to the power distributing panel must be higher than the operation current of the breaker shown in "(3) Power distribution panel".

⚠ WARNING

The current capacity supplied to the power distribution panel must be larger than the operating current of the breaker. Otherwise, the breaker may not work in the event of a failure and cause fire disasters.

NOTE

Generally, the operating current of a breaker is larger than the rated current. Check the specifications of the breaker to be used.

If this device is powered on, a rush current shown below flows. Considerations must be given to prevent a voltage drop due to such a rush current.

Table 3: Rush Current

Current	Time
30A	150ms

CAUTION

When this device is powered on, a rush current flows. Considerations must be given to prevent a voltage drop due to such a rush current. The voltage drop affects not only this device but other devices connected to the same power supply facility.

NOTE

The above rush current is the value per power supply.

1 Preparations

This chapter describes the preparations necessary for using AX6700S series switches. It also describes the manual organization for AX6700S, what purpose this manual serves in the manual family, and when to refer to each manual.

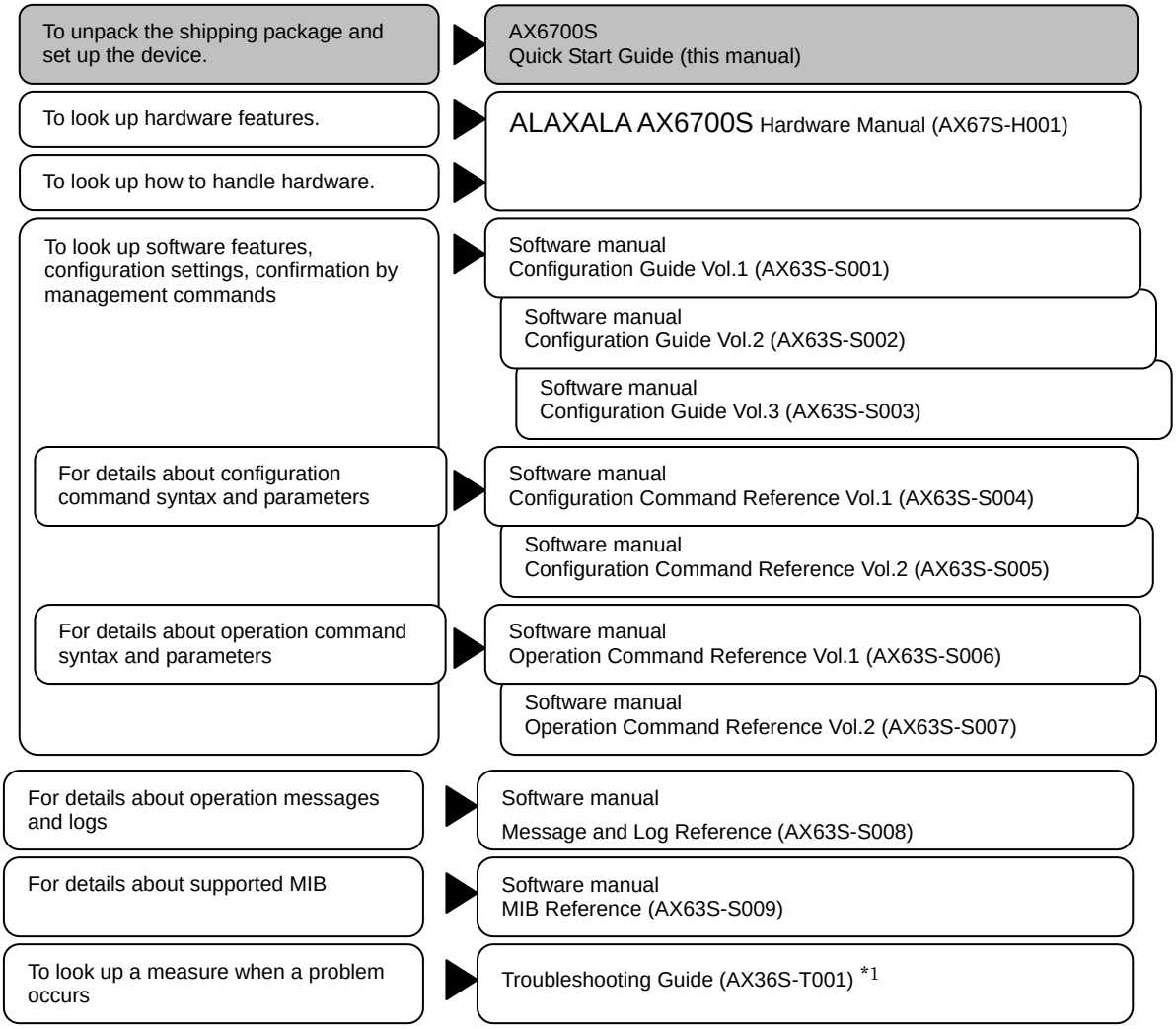
1.1 Organization of AX6700S Series Manuals

This Quick Start Guide explains only the operations from unpacking the switch to setting it up for basic operations.

Note that this guide provides only a minimum amount of information. To take advantage of the wealth of functions provided by AX6700S series switches, see the following manuals.

Figure 1-1 shows the organization of the AX6700S series manuals.

Figure 1-1 Organization of AX6700S manual family



*1 Troubleshooting Guide is common for the AX2400S, AX3600S, AX6300S, AX6600S and AX6700S series switches.

1.2 Verifying Supplied Components

Make sure that all items are included in your package by using the item list included in the shipping package.

1.3 Preparing Setup Terminal and Cables

Prepare the following items as well as the main device and optional units.

● Setup terminal
Have a PC or workstation supporting the items as shown in Table 1-1 Specifications of the setup terminal l.

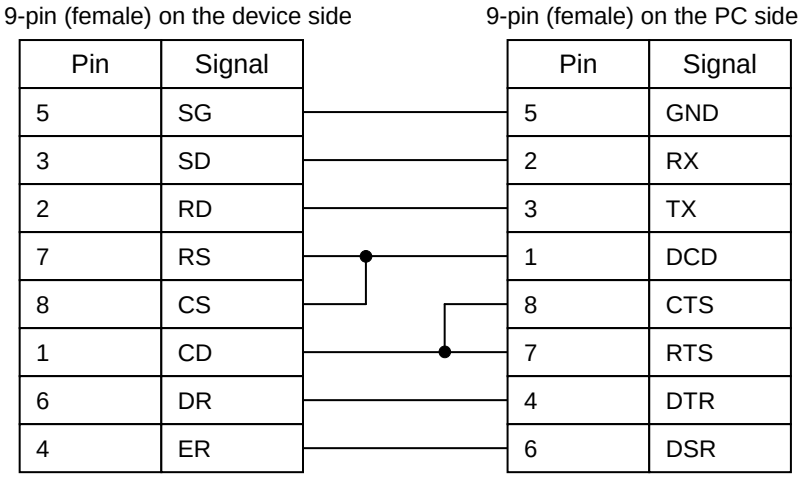
Table 1-1 Specifications of the setup terminal l

Item		Specifications
Serial port		RS-232C port
Communication software		Tera Term Pro (Version 2.3) or communication software that supports the following communication settings.
Communication settings	Parameter	8 bit, 1 stop bit, non-parity
	Speed*1	19200, 9600, 4800, 2400, 1200 bps

*1 The Console port on this device is set to 9600 bps by factory default.

● RS-232C crossover cable
Use an RS-232C standard crossover cable (D-sub female 9-pin on both ends with 4-40 screws) to connect the setup terminal to the Console port on the device. The AX6700S switch does not come with an RS-232C cable. Purchase a cable with the pin assignments in Figure 1-2 RS-232C crossover cable pin assignments from a local merchant or build a cable.

Figure 1-2 RS-232C crossover cable pin assignments



● Interface cables
Use interface cables to connect to other equipment. See the “AX6700S Hardware Manual” for details.

- AC200V power cable
  When using AC200V, use the AC200V power cable with the specified specifications.
  See the AC200V power cable specifications in the "AX6700S Hardware Manual" for details.

- DC-48V power cable
  When using DC-48V, use the DC-48V power cable with the specified specifications. See the DC-48V power cable specifications in the "AX6700S Hardware Manual" for details.

2 Installing the Device

This chapter provides the installation instructions to connect the power cable and interface cable to the device and power up the device.

2.1 Installing the Device

This section explains the steps to install the device.

2.1.1 Overview of Installation Steps

● AX6708S (using the AC power supply)

Figure 2-1 AX6708S Front Illustration

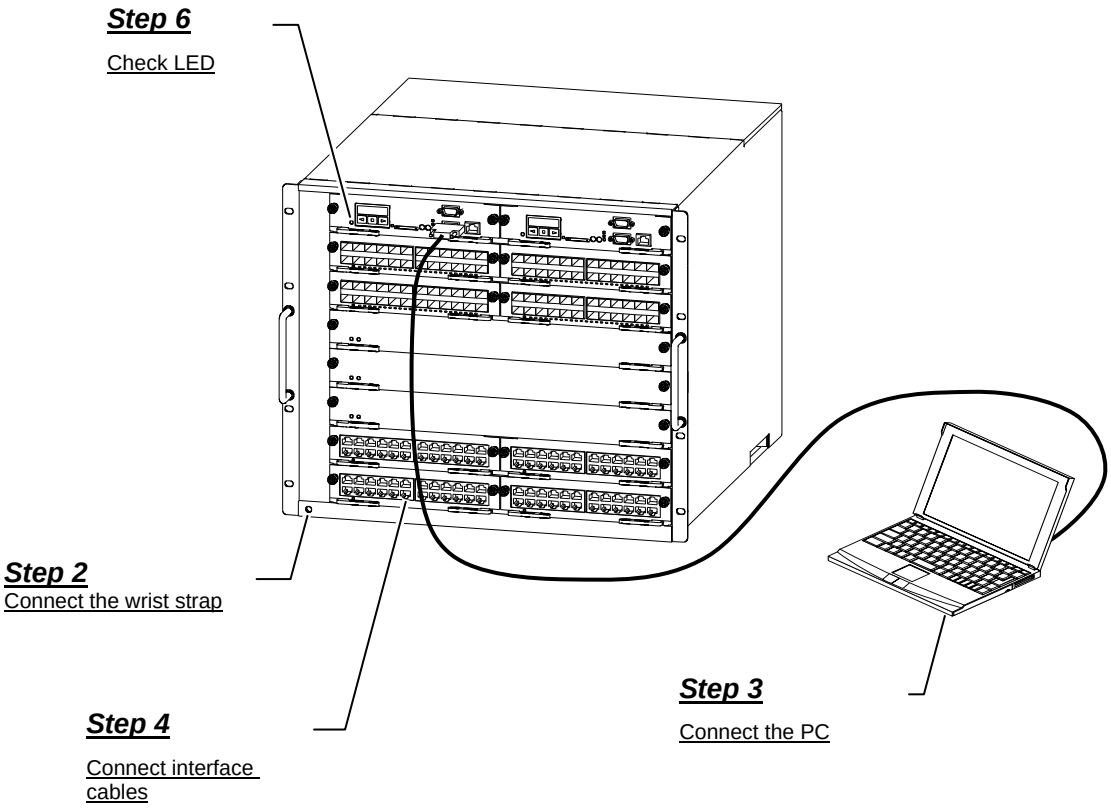
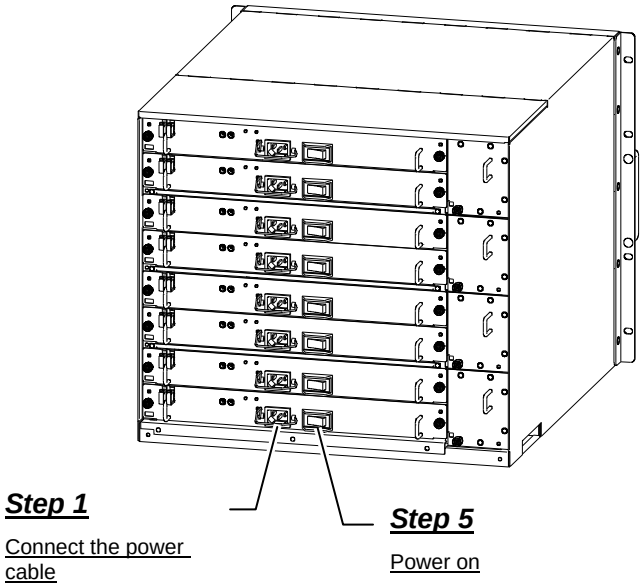


Figure 2-2 AX6708S Rear Illustration



AX6708S (using the DC power supply)

Figure 2-3 AX6708S Front Illustration

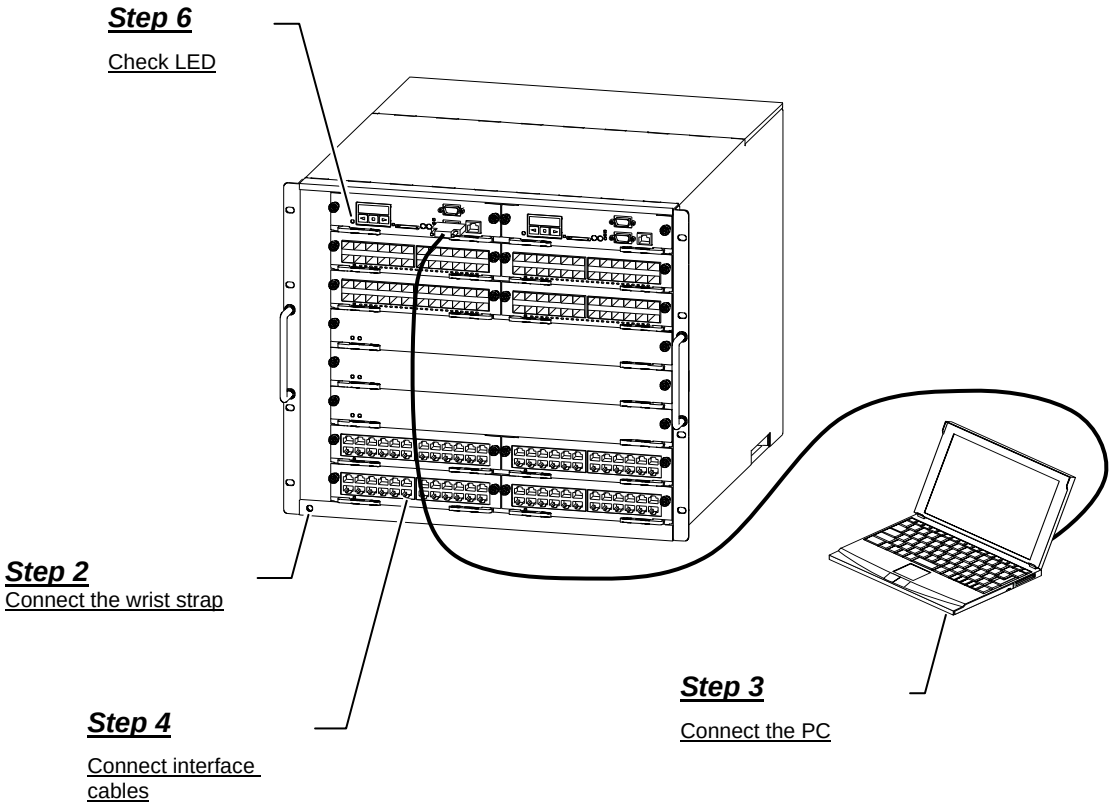
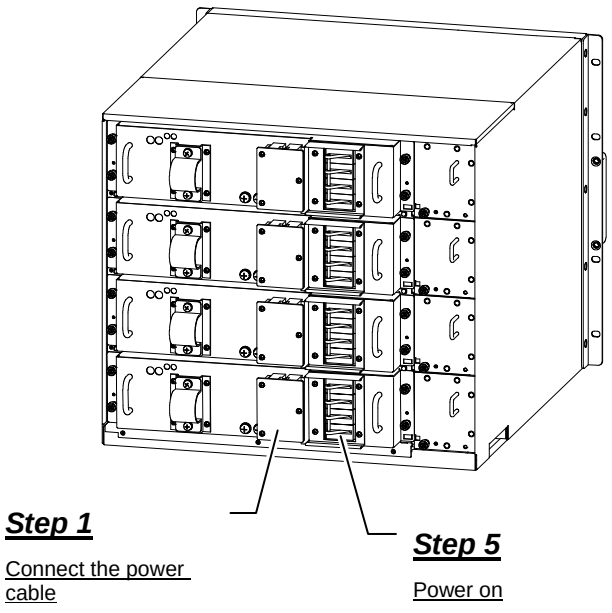


Figure 2-4 AX6708S Rear Illustration



2.1.2 Installation Details

【Step 1】Connecting the power cable

● Using the device with AC100V
Connect attached AC 100V power cables to all power systems on this device.

⚠WARNING	Always connect to a grounded socket outlet. Using the socket outlet not connected to the ground may result in electric shock or device failure due to electrical noise.

⚠WARNING	Use the provided power cable when using AC 100V. Using other kinds of cable may result in a fire or electric shock. Do not use the provided power cable for other equipment. Using the cable for the equipment other than this device may result in a fire or electric shock.

CAUTION	Turn off the power before installing the power cable.

● Using the device with AC200V
(With the AC200V power cable sold separately by Alaxala)

1. Replace the securing brackets attached to the power supply unit (with the securing brackets attached to AC200V power cables).
   See the “AX6700S Hardware Manual” for more details on how to replace a securing bracket.
2. Connect AC200V power cables to all power systems on the device.

⚠WARNING	When using AC200V, always connect to a grounded socket outlet. Have maintenance personnel or electricians verify that the socket is connected to the grounding plate of the building. Using the socket outlet not connected to the ground may result in electric shock or device failure due to electrical noise.

⚠WARNING	Use the power cable sold separately by Alaxala or the power cable supporting our specifications when using AC200V. Using other kinds of cables may result in a fire or electric shock. Do not use the power cable sold separately by Alaxala for other equipment. Using the cable for the equipment other than this device may result in a fire or electric shock.

CAUTION

Turn off the power before installing the power cable.

● Using the device with AC200V
(When using the AC200V power cable you prepare)

1. Remove the securing brackets attached to the power supply unit.
   See the ”AX6700S Hardware Manual” for details on how to remove the securing bracket.
2. Connect AC200V power cables to all power systems on the device.

⚠WARNING

When using AC200V, always connect to a grounded socket outlet. Have maintenance personnel or electricians verify that the socket is connected to the grounding plate of the building. Using the socket outlet not connected to the ground may result in electric shock or device failure due to electrical noise.

⚠WARNING

Use the power cable sold separately by Alaxala or the power cable supporting our specifications when using AC200V. Using other kinds of cable may result in a fire or electric shock. Do not use the power cable sold separately by Alaxala for other equipment. Using the cable for the equipment other than this device may result in a fire or electric shock.

CAUTION

Turn off the power before installing the power cable.

● Using the device with DC-48V
Connect DC-48V power cables to all power systems on the device.
See the ”AX6700S Hardware Manual” for details on how to connect a DC-48V power cable.

【Step 2】Connecting the wrist strap

Attach the anti-static wrist strap to the terminal for the wrist strap.

NOTE

The terminal for the wrist strap is designed to use banana plugs.
Use 4 mm banana plugs for the wrist straps.

【Step 3】Connecting the setup terminal

1. Connect the setup terminal[*1] to the Console port using the RS-232C crossover cable.
2. Start up the setup terminal.
3. Activate the communication software.

NOTE

For setting up communication software, see manuals for the communication software.

【Step 4】Connecting the interface cable

Connect the interface cable to the interface port.

【Step 5】Turning on power switches

Turn on all power switches (when the AC power supply is installed), or turn on the circuit breaker (when the DC power supply is installed).

NOTE

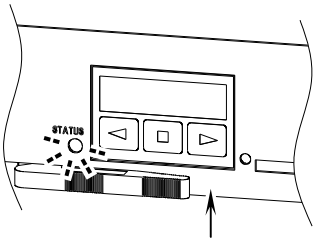
Turning on all the power switches or the circuit breaker must be done within 5 seconds. When it takes more than 5 seconds, the basic control unit detects it as failure and displays a failure message on the LCD screen.
When the failure message is displayed, take one of the countermeasures described below.

Message on LCD screen	Countermeasure
E8 PS Msg=00000001	The device is operational. Turn on all power switches or circuit breakers. (Once the problem is solved, the message disappears.)
[MD] FAULT 2200 220000aa00bb	The device is not operational due to insufficient power capacity. Turn off all power switches or circuit breakers, then turn on them again.

The values of “aa” and “bb” vary accableing to the condition.

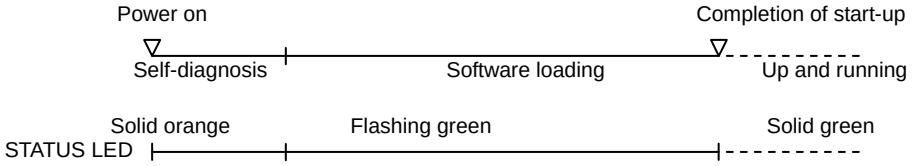
【Step 6】Checking LED

The green STATUS LED on the basic control unit indicates that the device is up and running.



Basic Control Unit

The following shows the processes until the device is up and running.



1. After the power is on, the STATUS LED becomes orange and the device starts self-diagnosis.
2. The STATUS LED flashes green, then the device starts software loading.
3. When the device is up and running, the STATUS LED becomes green.

NOTE

When the STATUS LED is red, or the LCD screen displays a failure message, the device has a problem.
See “Troubleshooting” on device failure cases and countermeasures.

2.2 Supplemental Information

- Installing and uninstalling optional units
  For installing and uninstalling an optional unit such as fan unit, power supply unit, basic control unit, basic switching unit, network interface unit, memory card, or transceiver, see the “AX6700S Hardware Manual.”

- For details on the main device and optional units
  For part names and their descriptions on the main device and optional units, see the “AX6700S Hardware Manual.”

3 Operations Required for Initial Setup

This chapter describes basic setup operations for time setting, password setting in the administrator mode, addition and deletion of user IDs, etc.

3.1 Overview of Command Input Mode

The command line interface (CLI) for the device has three command input modes: user mode, administrator mode, and configuration command mode.

To set or modify the configuration or check the status of the device, change to the appropriate command mode and enter the configuration or operation commands.

Each command input mode is described below. For details about how to access and exit the command input modes, see Table 3-1 Command Input Modes.

Table 3-1 Command Input Modes

Command input mode	Mode change command	Prompt	Exit command	Description
User mode	`login: <user ID>`	`>`	`> logout`	Can use operation commands except some commands such as `configure` and `adduser`.
Administrator mode	`> enable`	`#`	`# disable`	Can use all management commands.
Configuration mode	`# configure`	`(config) #`	`(config)# exit`	Can use all configuration commands.

● User mode

When logging in the device, CLI is in the user mode.

In the user mode, you can use operation commands except some commands such as `configure` and `adduser`.

The `configure` command, which is used for adding and deleting user accounts and changing to the configuration command mode, cannot be executed in the user mode. This command should be used in the administrator mode.

● Administrator mode

Entering the `enable` command in the user mode changes the CLI to the administrator mode.

In the administrator mode, you can use all operation commands.

Initially, the password for the `enable` command is not set. We recommend setting a password for the `enable` command to limit users who can use the administrator mode for security reasons.

- Configuration command mode

  Entering the `configure` command in the administrator mode changes the CLI to the configuration command mode.

  You can set and modify the device configuration using configuration commands in the configuration command mode.

NOTE

The configuration command mode has a hierarchical structure.
The above mentioned (`config`)# is called the “global configuration mode.” Under this level, there are multiple input modes for each command group. See *Software Manual Configuration Guide*” for more details about configuration commands.

NOTE

For details about the command input modes in which operation commands can be executed, see the manual *Software Manual Operation Command Reference.*
For details about the command input modes in which configuration commands can be executed, see the manual *Software Manual Configuration Command Reference*.

3.2 Overview of Initial Setup Operations

This section provides an overview of necessary operations for initial setup.

See the following sections for details on each operation.

NOTE

The following actions are minimum necessary operations for initial setup.
For operations after the initial setup, see *4.1 Operation management and configuration setting.*

(1) Login

Log in to the device. Use the user ID "`operator`" which is set by factory default (because no password is set for "`operator`," you can log in without authentication).

(2) Setting a password for the administrator mode

Set a password to change to the administrator mode using the `enable` command. No password is set by factory default. Set a password for the administrator mode for security reasons.

(3) Adding user IDs and deleting "`operator`"

Add a new user ID.

When you don't use the login user "`operator`" set by factory default, we recommend deleting it using the `rmuser` command after adding a new user ID for security reasons.

NOTE

If you forget your user ID, you cannot log in.
Do not forget your user ID.

(4) Setting time

Set the time zone and time. No accurate time is set by factory default. Set an accurate time because the time is key information when extracting failure information.

3.3 Login

When the device starts, the “`login`” prompt is displayed. Enter the user ID at the “`login`” prompt to log in.

```
login: operator                                                    ... Enter the user ID ”operator”.
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>
```

NOTE

In the following sections, the display differs slightly according to the software version. However, the basic operations are the same.

3.4 Setting Password for Administrator Mode

Set a password for the administrator mode.

```
> enable                                  … Change to the administrator mode.
# password enable-mode                    … Enter into the password setting mode.
Changing local password for admin.
New password: ********                    … Enter a password for the administrator mode.
Retype new password: ********             … Re-enter the password for confirmation.
#
```

NOTE

Using 6 or more letters for the password is recommended. When you enter less than 6 letters, an error message is displayed, but entering it one more time allows you to set it. Do not enter more than 128 letters. When you enter more than 128 letters, only 128 letters are set as a password. Including capital letters, numbers, and symbols in a password is recommended. When you enter all lower-case letters, an error message is displayed, but entering it one more time allows you to set it as a password.

3.5 Adding User ID and Deleting "**operator**"

【Step 1】Adding a user ID and setting a login password

Add a new user ID and set a login password.

The example below shows how to add a new user ID "newuser" and set its password.

```
# adduser newuser                              … Add a new user ID "newuser".
User(empty password) add done. Please setting password.
Changing local password for newuser.
New password: ********                         … Assign a login password to the user ID "newuser".
Retype new password: ********                  … Re-enter the password for confirmation.
# disable                                      … Change back to the user mode.
> logout                                       … Log out.
```

NOTE

Using 6 or more letters for the password is recommended. When you enter less than 6 letters, an error message is displayed, but entering it one more time allows you to set it. Do not enter more than 128 letters. When you enter more than 128 letters, only 128 letters are set as a password. Including capital letters, numbers, and symbols in a password is recommended. When you enter all lower-case letters, an error message is displayed, but entering it one more time allows you to set it as a password.

【Step 2】Deleting the user ID "operator"

Delete the user ID "operator" coming by factory default.

```
login: newuser                                 … Log in using the new user ID "newuser".
 Password: ********                            … Enter the password (that you set in Step 1).
Copyright (c) 2006-2009 ALAXALA Networks Corporation. All rights reserved.

> enable                                       … Change to the administrator mode.
Password: ********                             … Enter the password for the administrator mode.
# rmuser operator                              … Delete the user ID "operator" coming as factory default.
Delete user 'operator'? (y/n): y
#
```

NOTE

If you forget your user ID, you cannot log in.
Do not forget your user ID.

3.6 Setting Time

Set the time zone and time.

The example below shows how to set “1/20/2009 15:30” in Japanese standard time.

# *configure*	… **Change to the configuration command mode.**
(config)# *clock timezone JST +9*	… **Set JST for the time zone and +9 for the offset to UTC**.
!(config)# *save*	… **Save the time zone setting.**
(config)# *exit*	… **Change back to the administrator mode.**
# *set clock 0901201530*	… **Set a date /time (01/20/09 15:30).**
Tue Jan 20 15:30:00 2009 JST	… **The system displays the time you set.**
# *disable*	… **Change back to the user mode.**
> *logout*	… **Log out.**

NOTE

When the configuration is changed, “!” appears in front of the prompt. Also, when the configuration is saved, “!” disappears.

This is the end of the section to explain the operations necessary for initial setup: setting time and a password for the administrator mode, and adding and deleting user IDs.

NOTE

After completing the above operations, see *4.1 Operation Management and Configuration Setting* for details on operation management and setting other configurations.

4 Other Operations

This chapter describes the manuals to be referenced when setting other configurations, checking the status of the device, and troubleshooting problems.

4.1 Operation Management and Configuration Setting

See the following manuals for details on operation management and configuration setting (the numbers in the parentheses indicate manual numbers).

- Refer to the following manuals on operation management and configuration setting:
  - Software manual: Configuration Guide Vol.1 (AX63S-S001)
  - Software manual: Configuration Guide Vol.2 (AX63S-S002)
  - Software manual: Configuration Guide Vol.3 (AX63S-S003)

- Refer to the following manuals for details about configuration commands:
  - Software manual: Configuration Command Reference Vol.1 (AX63S-S004)
  - Software manual: Configuration Command Reference Vol.2 (AX63S-S005)

- Refer to the following manuals for details about operation commands:
  - Software manual: Operation Command Reference Vol.1 (AX63S-S006)
  - Software manual: Operation Command Reference Vol.2 (AX63S-S007)

NOTE

After configuration setting, save the backup for operational information. By having a backup, you can easily restore the operational information when the basic control unit is replaced due to device failure.
See *Chapter 11 Device Managing in Software manual: Configuration Guide Vol.1* for details on backup.

4.2 Troubleshooting

See the following manual for troubleshooting (the number in the parenthesis indicates a manual number):

- Troubleshooting Guide (AX36S-T001)

NOTE

Troubleshooting Guide is common for the AX2400S, AX3600S, AX6300S, AX6600S and AX6700S series switches.