



*CentreCOM<sup>®</sup> AT-FS708*  
*CentreCOM<sup>®</sup> AT-FS708E*

*Fast Ethernet Switches*

*Installation Guide*

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# Electrical Safety and Emission Compliance Statements

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**Standards:** This product meets the following standards.

## U.S. Federal Communications Commission

### DECLARATION OF CONFORMITY

Manufacture Name: Allied Telesyn International  
Manufacture Address: 960 Stewart Drive, Suite B  
Sunnyvale, CA 94086 USA  
  
Manufacture Telephone: 408-730-0950  
Declares that the product: Unmanaged, Fast Ethernet Switches  
Model Number: AT-FS708 and AT-FS708E

This product complies with FCC Part 15B, Class B Limits:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device must not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### RADIATED ENERGY

Note: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful 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:




- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.


Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission rules.


## Industry Canada


This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.


Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.


RFI Emission	EN55022 Class B  1
Immunity	EN50082-1  2
Electrical Safety	EN60950, UL 1950, CSA 950  3


**Important:** Appendix B contains translated safety statements for installing this equipment. When you see the , go to Appendix B for the translated safety statement in your language.


**Wichtig:** Anhang B enthält übersetzte Sicherheitshinweise für die Installation dieses Geräts. Wenn Sie  sehen, schlagen Sie in Anhang B den übersetzten Sicherheitshinweis in Ihrer Sprache nach.


**Vigtigt:** Tillæg B indeholder oversatte sikkerhedsadvarsler, der vedrører installation af dette udstyr. Når De ser symbolet , skal De slå op i tillæg B og finde de oversatte sikkerhedsadvarsler i Deres eget sprog.


**Belangrijk:** Appendix B bevat vertaalde veiligheidsopmerkingen voor het installeren van deze apparatuur. Wanneer u de  ziet, raadpleeg Appendix B voor vertaalde veiligheidsinstructies in uw taal.


**Important :** L'annexe B contient les instructions de sécurité relatives à l'installation de cet équipement. Lorsque vous voyez le symbole , reportez-vous à l'annexe B pour consulter la traduction de ces instructions dans votre langue.


**Tärkeää:** Liite B sisältää tämän laitteen asentamiseen liittyvät käännetyt turvaohjeet. Kun näet -symbolin, katso käännettyä turvaohjetta liitteestä B.

**Importante:** l'Appendice B contiene avvisi di sicurezza tradotti per l'installazione di questa apparecchiatura. Il simbolo , indica di consultare l'Appendice B per l'avviso di sicurezza nella propria lingua.

**Viktig:** Tillegg B inneholder oversatt sikkerhetsinformasjon for installering av dette utstyret. Når du ser , åpner du til Tillegg B for å finne den oversatte sikkerhetsinformasjonen på ønsket språk.

**Importante:** O Anexo B contém advertências de segurança traduzidas para instalar este equipamento. Quando vir o símbolo , leia a advertência de segurança traduzida no seu idioma no Anexo B.

**Importante:** El Apéndice B contiene mensajes de seguridad traducidos para la instalación de este equipo. Cuando vea el símbolo , vaya al Apéndice B para ver el mensaje de seguridad traducido a su idioma.

**Obs!** Bilaga B innehåller översatta säkerhetsmeddelanden avseende installationen av denna utrustning. När du ser , skall du gå till Bilaga B för att läsa det översatta säkerhetsmeddelandet på ditt språk.

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# Welcome to Allied Telesyn

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This guide contains instructions on how to install and configure the AT-FS708 and AT-FS708E Ethernet Switches.

## Where to Find Web-based Guides

The Allied Telesyn web site at **[www.alliedtelesyn.com](http://www.alliedtelesyn.com)** provides you with an easy way to access the most recent documentation and technical information for all of our products. For product guides, you can go directly to the following web page: **[www.alliedtelesyn.com/support/lib\\_allproducts.htm](http://www.alliedtelesyn.com/support/lib_allproducts.htm)**.

## Documentation Conventions

Throughout this guide, you will notice several conventions that you should become familiar with first before installing the product.

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### Note

A note provides additional information.

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### Caution

A caution indicates that performing or omitting a specific action may result in equipment damage or loss of data.

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### Warning

A warning indicates that performing or omitting a specific action may result in bodily injury.

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## Contacting Allied Telesyn

There are several ways to contact Allied Telesyn technical support, online, telephone, fax or by e-mail.

### Online Support

You can request technical support online by filling out the Tech-Assistant Form at [www.alliedtelesyn.com/forms/feedtech.htm](http://www.alliedtelesyn.com/forms/feedtech.htm).

### For Technical Support and Services

#### **Americas**

United States, Canada, Mexico,  
Central America, South America  
Tel: 1 (800) 428-4835, option 4  
Fax: 1 (503) 639-3176

#### **Asia**

Singapore, Taiwan, Thailand, Malaysia,  
Indonesia, Korea, Philippines, China,  
India, Hong Kong  
Tel: (+65) 381-5612  
Fax: (+65) 383-3830

#### **Australia**

Tel: 1 (800) 000-880  
Fax: (+61) 2-9438-4966

#### **France**

France, Belgium, Luxembourg,  
The Netherlands, Middle East, Africa  
Tel: (+33) 0-1-60-92-15-25  
Fax: (+33) 0-1-69-28-37-49

#### **Germany**

Germany, Switzerland, Austria, Eastern  
Europe  
Tel: (+49) 0130/83-56-66  
Fax: (+49) 30-435-900-115

#### **Italy**

Italy, Spain, Portugal, Greece, Turkey,  
Israel  
Tel: (+39) 02-416047  
Fax: (+39) 02-419282

#### **Japan**

Tel: (+81) 3-3443-5640  
Fax: (+81) 3-3443-2443

#### **United Kingdom**

United Kingdom, Denmark, Norway,  
Sweden, Finland  
Tel: (+0044) 1235-442500  
Fax: (+44) 1-235-442680

### Technical Support E-mail Addresses

#### **United States and Canada**

TS1@alliedtelesyn.com

#### **Latin America, Mexico, Puerto Rico, Caribbean, and Virgin Islands**

latin\_america@alliedtelesyn.com

#### **United Kingdom, Sweden, Norway, Denmark, and Finland**

support\_europe@alliedtelesyn.com



## Returning Products

Products for return or repair must first be assigned a Return Materials Authorization (RMA) number. A product sent to Allied Telesyn without a RMA number will be returned to the sender at the sender's expense.

To obtain an RMA number contact Allied Telesyn's Technical Support at one of the following locations:

### North America

2205 Ringwood Ave  
San Jose, CA 95131  
Tel: 1-800-428-4835, option 4  
Fax: 1-503-639-3716

### European Customer Support Centre

10/11 Bridgemoor Close  
Westmead Industrial Estate  
Swindon, Wiltshire SN5 7YT  
England  
Tel: +44-1793-501401  
Fax: +44-1793-431099

### Latin America, the Caribbean, Virgin Islands

Tel: international code + 425-481-3852  
Fax: international code + 425-483-9458

### Mexico and Puerto Rico

Tel: 1-800-424-5012, ext 3852 or  
1-800-424-4284, ext 3852  
Mexico only: 95-800-424-5012, ext 3852  
Fax: international code + 425-489-9191

## FTP Server

If you know the name of a specific driver, you may connect directly to our FTP server at: **ftp://gateway.centre.com**.

At login, enter 'anonymous'. Enter your e-mail address for the password as requested by the server at login.

## For Sales or Corporate Information

**Allied Telesyn International, Corp.**

19800 North Creek Parkway, Suite 200  
Bothell, WA 98011

Tel: 1 (425) 487-8880

Fax: 1 (425) 489-9191

**Allied Telesyn International, Corp.**

960 Stewart Drive, Suite B  
Sunnyvale, CA 94086

Tel: 1 (800) 424-4284 (USA and Canada)

Fax: 1 (408) 736-0100

## Tell Us What You Think

If you have any comments or suggestions on how we might improve this or other documents, you can fill out the “AT-FS708 and AT-FS708E Switches Installation Feedback” on page 39 and return the form to us at the address or fax number provided. You can also provide feedback online by filling out the Feedback on Documentation form at [www.alliedtelesyn.com/forms/feedmanu.htm](http://www.alliedtelesyn.com/forms/feedmanu.htm).

# Chapter 1

## Product Description

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### Overview

This chapter describes the features of the following unmanaged Fast Ethernet switches:

- AT-FS708
- AT-FS708E

Each switch model is described in Table 1.

**Table 1** Switch Models and Port Description

Model	Description
AT-FS708	Eight auto-negotiating 10/100 Mbps twisted pair RJ-45 ports Port 8 MDI and Port 8 MDI-X Total bandwidth of 1.6 Gbps Internal Power Supply
AT-FS708E	Eight auto-negotiating 10/100 Mbps twisted pair RJ-45 ports Port 8 MDI and Port 8 MDI-X Total bandwidth of 1.6 Gbps External Power Supply

---

#### Note

For definitions of technical terms associated with Allied Telesyn's products, refer to the Glossary on Allied Telesyn's web site at [www.alliedtelesyn.com/support/gloss\\_a.htm](http://www.alliedtelesyn.com/support/gloss_a.htm).

---

## Common Major Features

These switches come with the following common features:

- IEEE 802.3 and IEEE 802.3u compliant
- RJ-45 ports that can be connected/disconnected without powering off the switch
- Store and forward switching at full-wire speed (14,880 packets per second on 10 Mbps ports and 148,880 packets per second on 100 Mbps ports)
- Media-dependent interface (MDI) on Port 8 MDI for hub connection or Port 8 MDI-X for PC connection
- Support for up to 17K MAC addresses
- Internal power supply (100-240 VAC) for AT-FS708, or external power adapter for AT-FS708E
- Desktop or wall-mount

The switch models described in this guide complement the other Allied Telesyn Fast Ethernet products, providing simple, cost-effective solutions for switching between 10 and 100 Mbps. Easy to install, simply connect your 10Base-T or 100Base-TX station ports, and plug in the power.

Figure 1 and Figure 2 show the front panels of the switches.

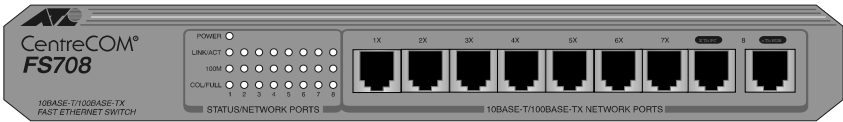


Figure 1 AT-FS708 Front Panel

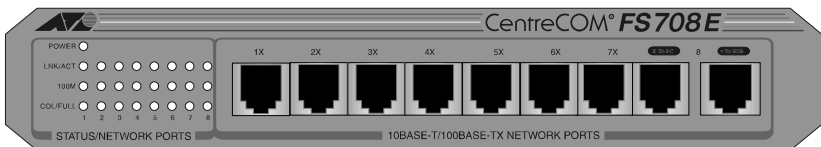


Figure 2 AT-FS708E Front Panel

## Physical Description

The physical description for the switches includes:

- Connectors
- Media-Dependent Interface (MDI), Port 8
- LEDs
- Power supply

### Connectors

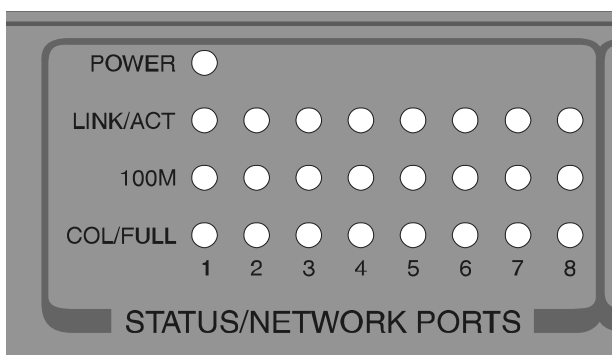
Table 2 lists and defines the type of connectors available and their function.

**Table 2** Connector Types on Switches

Connector Type	Function
Ports 1 through 8 10Base-T/100Base-TX RJ-45 connectors	Connecting to a high performance workstation, server, or hub

### Front Panel LEDs

Figure 3 shows the front panel LEDs; Table 3 describes the LED status.



**Figure 3** A Close Up of the Front Panel LEDs

**Table 3** LED Status

LEDs	Color	Description
LINK/ACT	Green	<b>On</b> indicates a valid physical link on the port. <b>Blinking</b> indicates data is being transmitted. <b>Off</b> means no link.
100M	Green	<b>On</b> means the bandwidth is 100 Mbps. <b>Off</b> means the bandwidth is 10 Mbps.
COL/FULL	Green	<b>On</b> indicates full-duplex transmission mode. <b>Blinking</b> indicates data collisions in half-duplex mode. <b>Off</b> indicates half-duplex transmission mode.
POWER	Green	<b>On</b> means there is power to the switch. <b>Off</b> means there is no power to the switch.

**MDI Port**

Port 8 is associated with the MDI function.

Port 8 gives you the flexibility of using a straight-through cable to connect to a hub or another switch (Port 8 MDI), or to any DTE device (Port 8 MDI-X), such as an end station or a server.

---

**Note**

Use only one Port 8, either Port 8 MDI or Port8 MDI-X.

---

**Table 4** MDI Ports

Port	Use
Port 8 MDI	To connect a hub or another switch to the port
Port 8 MDI-X	To connect a DTE to the port

## Power Supply

The AT-FS708 uses a universal internal switching power supply with 100 to 240 VAC, 50/60 Hz input rating. Allied Telesyn ships power cords with the units to the U.S., Australia, Continental Europe, and the U.K. The AT-FS708E uses an external power adapter.

## Required Voltage

The switches require input of 100 to 240 VAC. Maximum power consumption is 8.0 W maximum for AT-FS708, and 8.5 W for AT-FS708E.

## Auto-Negotiation

The 10/100 Mbps ports are capable of auto-negotiation:

The ports automatically adapt to the wire speed (10 or 100 Mbps) and duplex transmission (half- or full-duplex) supported by the linked device without user reconfiguration.

Auto-negotiation is an optional function of the IEEE 802.3u Fast Ethernet standard that enables devices (switches) to automatically exchange information over a link about their speed and duplex abilities. This allows devices to perform automatic configurations to achieve the maximum common level of operation over a link. Auto-negotiation can provide automatic speed matching for multispeed devices at each end of a link. Multispeed Ethernet interfaces can then take advantage of the highest speed offered by the 10/100 ports on the switch.

The auto-negotiation protocol also includes automatic negotiation of duplex mode, allowing auto-negotiation-capable end-system devices to not only configure the speed but also change to full-duplex for even higher traffic throughput. This is particularly useful in environments where NICs are being replaced or desktop workstations are moved. Each time a new device is connected to a switch's port or a device is moved from one port to another, auto-negotiation will automatically reconfigure each port without any intervention from a network administrator.





## Chapter 2

# Installation

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### Before You Proceed

Before installing the switch, make sure you read “Translated Safety and Emission Information” on page 23.

### Verifying Package Contents

Make sure that the package includes the following items:

- One AT-FS708 or AT-FS708E switch
- One AC power cord (AT-FS708) or power adapter (AT-FS708E)
- Two rackmounting brackets with screws (AT-FS708 only)
- Four self-adhesive rubber feet
- Warranty card
- This installation guide

If any of the above items is damaged or missing, contact your representative immediately.

---

**Note**

For wall-mount installation, you must supply the two screws and plastic anchors or other material necessary to physically mount the switch to the wall.

---

## Site Requirements

Make sure you observe the following site requirements:

- ❑ Make sure you are placing the switch in a dust-free and moisture-free environment.
- ❑ Do not block ventilation openings on the unit. Allow at least 10 cm (4 in) of space at the front and back of the unit for ventilation.
- ❑ Make sure that the switch's power is accessible and cables can be connected easily.
- ❑ Cabling should be away from sources of electrical noise such as radios, transmitters, broadband amplifiers, power lines, and fluorescent fixtures.
- ❑ Do not place objects on top of the switch.
- ❑ Use dedicated power circuits or power conditioners to supply power to the switch.

## Desktop Installation

Place the switch on the desktop using these steps, or perform the steps “Wall-Mount Installation” on page 9 or perform the steps “Rack-Mount Installation (AT-FS708 only)” on page 10. The AT-FS708 (only) can be stacked two or more devices high on the desktop as described in the steps below.

1. Attach the four self-adhesive rubber feet to the bottom of the switch, positioning them in the indentations.
2. Place the switch on a flat, level surface where power is easily accessible.
3. To stack more than one switch (for the AT-FS708 only), repeat step 1 for the additional switches before stacking them. The rubber feet cushion the switch against shock and vibration and provide space between each switch for ventilation.



---

### Warning

The power cord is used as a disconnecting device. To de-energize equipment, disconnect the power cord. *See 7*

---

#### 4. Connect power:

For AT-FS708, attach one end of the power cord to the back of the switch and the other end to the power source.

For AT-FS708E, plug the power adapter into the power receptacle, then plug the DC connector to the switch.

#### 5. Make sure the Power LED on the front panel lights green.

#### 6. Attach the data cables and observe normal operation as indicated by the port LEDs. Use only Port 8, either Port 8 MDI or Port 8 MDI-X.

## Wall-Mount Installation

For wall-mount installation, you can position the switch vertically or horizontally on the wall using the keyhole cutouts in the bottom of the switch chassis.

1. If previously attached, remove the rubber feet and all cables and power cord from the switch.
2. Select a wall location for the switch.

---

### Note

For wall-mount installation, you must supply the two screws and plastic anchors or other material necessary to physically mount the switch to the wall.

---

3. Install two plastic anchors and two pan-head screws into the wall, separated by 100 mm (approximately 4-inches) on center.
4. Position the switch onto the wall screws.



---

### Warning

The power cord is used as a disconnection device. To de-energize equipment, disconnect the power cord. *See 7*

---

5. Connect power:

For AT-FS708, attach one end of the power cord to the back of the switch and the other end to the power source.

For AT-FS708E, plug the power adapter into the power receptacle, then plug the DC connector to the switch.

6. Attach the data cables and observe normal operation as indicated by the port LEDs. Use only Port 8, either Port 8 MDI or Port 8 MDI-X.

---

**Note**

Auto-negotiation for transmission mode supports full-duplex only if the connected device also negotiates for full-duplex transmission mode.

---

You are finished with wall-mount installation.

## Rack-Mount Installation (AT-FS708 only)

Rackmount installation applies to the AT-FS708 only. You will need a Phillips screwdriver for this installation.



**Caution**

Do not use power tools to perform this installation.

---

1. If previously attached, remove the rubber feet and all cables and power cord from the switch.
2. Attach the rackmounting brackets to each side of the switch, using the screws provided.
3. Attach the power cord to the back of the switch.
4. Position the switch in a standard 19-inch rack and secure the switch brackets to the rack using the 4 large screws provided.



**Warning**

The power cord is used as a disconnection device. To de-energize equipment, disconnect the power cord. *See 7*

---

5. Plug the power cord into the power receptacle. Make sure the Power LED on the front panel lights green.

- Attach the data cables and observe normal operation as indicated by the port LEDs. Use only Port 8, either Port 8 MDI or Port 8 MDI-X.

---

### Note

Auto-negotiation for transmission mode supports full-duplex only if the connected device also negotiates for full-duplex transmission mode.

---

You are finished with rackmount installation.

## Configuration

The following sections discuss standalone, cascade and uplink configurations.

### Standalone Configuration

Figure 4 shows the switch connected to end stations and a server. The basic physical connection for this configuration requires connecting one of the switch's ports to the adapter card of an end station.

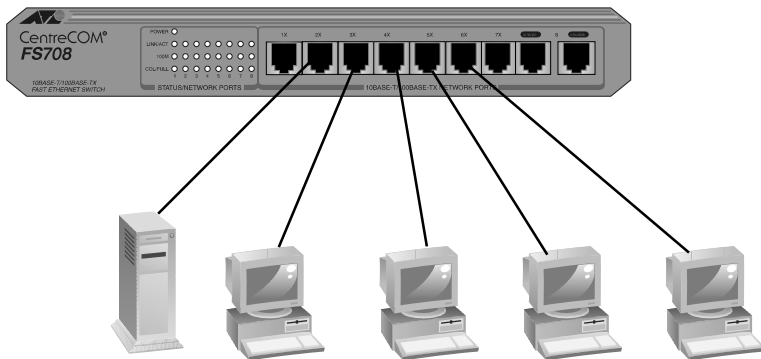


Figure 4 AT-FS708 Connected to End Stations

### Cascade Configuration

Cascading means that two switches can be connected together using any of the switch ports provided you maintain the same medium type. Two switches can be cascaded to support multiple network port connections. Cable length to the nodes must follow the 100Base-TX cabling specifications.

To cascade installed switches, do the following:

---

**Note**

When cascading switches, you must use the same medium type from port to port.

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1. If you intend to use Port 8, use Port 8 MDI.
2. Use a straight-through UTP RJ-45 cable to connect the first switch to the second switch. See Figure 5.

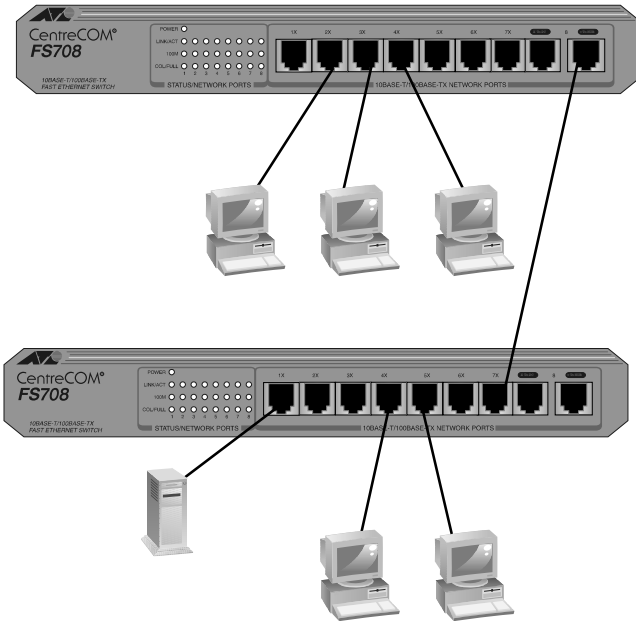


Figure 5 Cascading Switches

3. Check the front panels to make sure that the green Link/Activity LED lights.

## Uplink Configuration

For 100 Mbps connection to the backbone, use Port 8 MDI. Figure 6 illustrates how the AT-FS708 switches can be used as an uplink to the backbone in a typical office complex using Category 5 UTP cable.

### CORPORATE BACKBONE

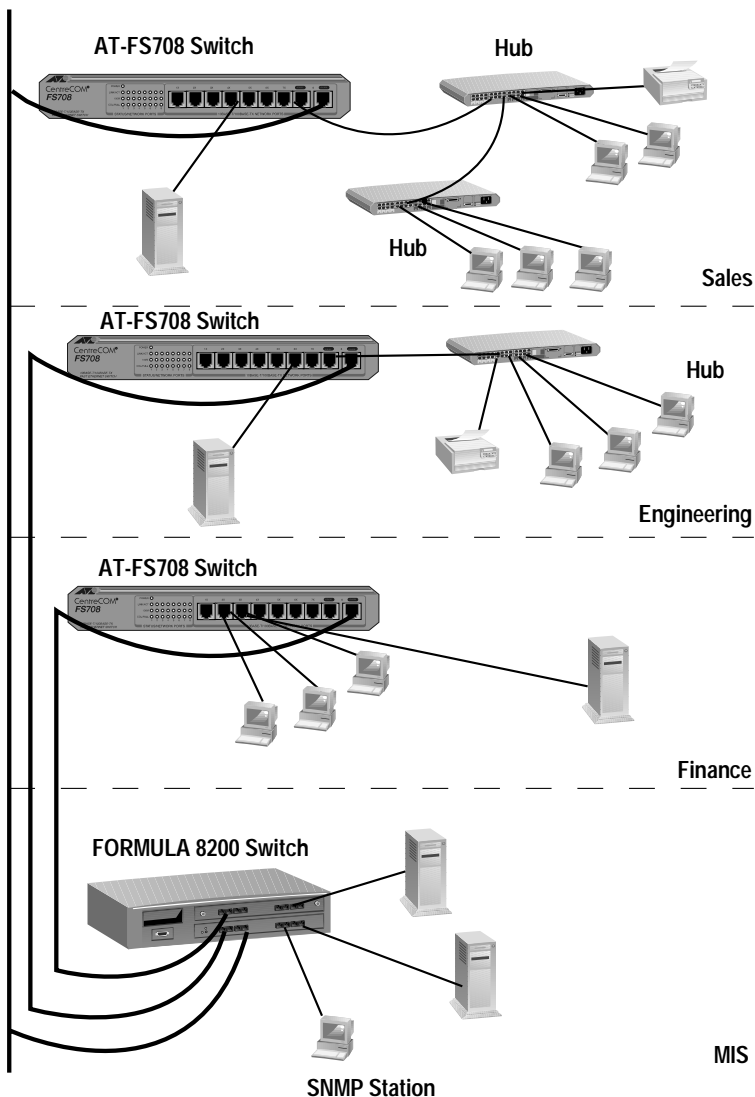


Figure 6 Switches as Uplink to the Backbone





## Chapter 3

# Troubleshooting

---

This chapter describes the procedures to test and troubleshoot the switches.

### Connectivity Testing

In the following procedure, you will test each port for a valid connection and to confirm the correct operation of the network.

1. Start with Ports 1 and 2. Connect these two ports of a single switch to two nodes or workstations and turn on the switch power.
2. Wait approximately 1-3 seconds for the auto-negotiation process to complete after power-on or after the cables are reconnected.
3. Make sure the Link/Activity and other LEDs of both switch ports are lit.
4. After confirming that Port 1 and Port 2 are operational, reconnect one of the nodes/workstations to another port, then repeat this connectivity test with the switch's remaining ports. Continue to verify the connection in each port by checking the Link/Activity and other activity LEDs.

---

**Note**

Use Port 8 MDI-X connected to a workstation. Use Port 8 MDI connected to a hub. Use only one Port 8 at a time.

---

## Problem Solving

### Is the Unit Receiving Power?

Check the Power LED on the front of the switch. This green LED should be lit.

---

**Note**

The switch performs a self-diagnostic test upon power on, and takes about 20 seconds to complete.

---

If the Power LED is not on, check both ends of the power cord or adapter. Make sure the power cord or adapter is plugged into a functioning wall outlet and that it is properly inserted into the switch's connector on the back of the unit.

### Is the Link/Activity LED Lit?

The Link LED on the front of the switch lights when a proper connection between the corresponding 10/100Base-TX port and the equipment connected to it is established. If this LED is not lit, check for the problems listed below and make corrections as necessary.

#### 1. Problem 1:

The cable has been cut, damaged, or it is the wrong type of cable.

##### ❑ Solution 1:

- Try making the connection with a different cable. Be sure you are using an undamaged cable of the correct type.

#### 2. Problem 2:

Connected equipment is not turned on or not operating properly.

##### ❑ Solution 2:

- Check the connected equipment (computer, another switch, etc.) and turn on the power.

**3. Problem 3:**

Port 8 does not work.

**❑ Solution 3:**

- Connect to only one Port 8, either Port 8 MDI or Port 8 MDI-X. Make sure you are connected to the correct Port 8.

**4. Problem 4:**

There is data loss between the switch and one of the connected network nodes.

**❑ Solution 4:**

- Make sure that the distance between the switch and the connected network device is no greater than 100 m (328 ft).
- Make sure you are using Category 5 cable.



# Appendix A

## Switch Specifications

---

### Physical Characteristics

Chassis Dimensions:	W x D x H
AT-FS708	260 mm x 117 mm x 38 mm (10.4 in x 4.68 in x 1.5 in)
AT-FS708E	210 mm x 117 mm x 38 mm (8.4 in x 4.68 in x 1.5 in)
Weight:	
AT-FS708	1.95 lbs (0.890 kg)
AT-FS708E	1.5 lbs (0.690 kg)
Operating Temperatures:	0° to 40° C (32° to 104° F)
Storage Temperatures:	-25° to 70° C (-13° to 158° F)
Relative Humidity:	5% to 95% (non-condensing)
Operating Altitude:	Up to 10,000 ft (3,048 m)

### Standards

CE Compliant	
Functional:	IEEE 802.3 10Base-T Ethernet IEEE 802.3u, 100Base-TX Fast Ethernet
EMI/RFI:	Meets FCC Class B, VCCI Class B, CISPR Class B, EN55022 Class B
Safety:	Conforms to all standards normally supported by Allied Telesyn products, including safety standards CSA/NRTL (C22.2 950, UL 1950), TUV/GS (EN60950), CB(IEC60950)
Immunity:	EN50082-1

## Cabling Specifications

10Base-T:	STP/UTP Category 3,4,5 100 ohm impedance
100Base-TX:	STP/UTP Category 5 wiring, 100 ohm impedance

100 m (328 ft) between switch and network node.

## Electrical Specifications

AT-FS708 Internal Power: Internal universal power supply with 100 to 240 VAC, 50/60 Hz, 0.3 A input.

AT-FS708E External Power: External power adapter provides 12 VDC, 1.5 A maximum.

## UTP (RJ-45) Connector

Figure 7 shows an RJ-45 connector. For a 100Base-TX link between switches, —any two Medium Attachment Units (MAUs)—you need a crossover cable. For a connection to a Network Interface Controller (NIC), the cable is wired straight-through.

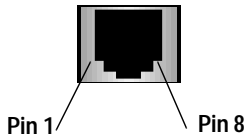


Figure 7 RJ-45 Connector

## Low Last Bit-to-First Delay

For Long Packets:	<30 $\mu$ s
For Short Packets:	<18 $\mu$ s

## Network Specifications

Table 5 provides an overview of IEEE 802.3 and 802.3u specifications for 10Base-T and 100Base-TX network configurations using shielded twisted-pair wiring.

**Table 5** IEEE 802.3 and 802.3u Network Specifications

	10Base-T	100Base-TX
Media	Shielded Twisted Pair Category 3 or 5	Shielded Twisted Pair Category 5 only
Topology	Star, Tree	Star, Tree
External Devices	Network Adapter Card, Repeater	Network Adapter Card, Repeater
Maximum Segment Length	100 m (328 ft)	100 m (328 ft)

### 100Base-TX Cable

There are various grades of voice-quality and data-quality cables available. These can appear to be similar externally, although their high-speed data transmission characteristics are radically different.

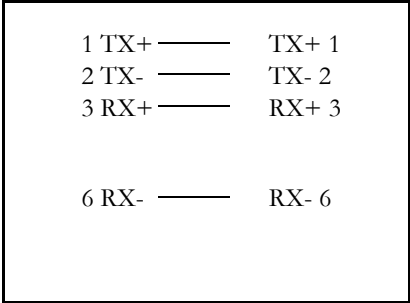
The identification problem is made worse by some suppliers selling voice-quality cables as data-quality cables.

If voice-quality cables are used in a 100Base-TX network system, data movement may be slow, collision-prone or non-existent. In addition, interface LEDs will usually indicate a valid link in such cases.

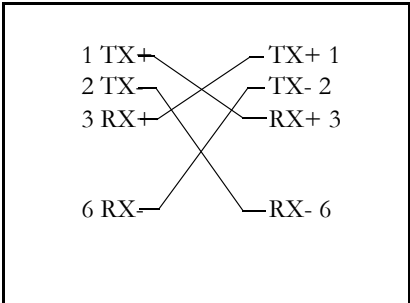
Category 5 is required cabling for use with 100Base-TX connections. Using any other category for a 100Base-TX connection may have high error rates and may not have the capacity to transmit data.

# 100Base-TX Connector Pinouts

## Straight-through Cable



## Crossover Cable





## Appendix B

# Translated Safety and Emission Information

---

**Important:** This appendix contains multiple-language translations for the safety statements in this guide.

**Wichtig:** Dieser Anhang enthält Übersetzungen der in diesem Handbuch enthaltenen Sicherheitshinweise in mehreren Sprachen.

**Vigtigt:** Dette tillæg indeholder oversættelser i flere sprog af sikkerhedsadvarslerne i denne håndbog.

**Belangrijk:** Deze appendix bevat vertalingen in meerdere talen van de veiligheidsopmerkingen in deze gids.

**Important:** Cette annexe contient la traduction en plusieurs langues des instructions de sécurité figurant dans ce guide.

**Tärkeää:** Tämä liite sisältää tässä oppaassa esiintyvät turvaohjeet usealla kielellä.

**Importante:** questa appendice contiene traduzioni in più lingue degli avvisi di sicurezza di questa guida.

**Viktig:** Dette tillegget inneholder oversettelser til flere språk av sikkerhetsinformasjonen i denne veiledningen.

**Importante:** Este anexo contém traduções em vários idiomas das advertências de segurança neste guia.

**Importante:** Este apéndice contiene traducciones en múltiples idiomas de los mensajes de seguridad incluidos en esta guía.

**Obs!** Denna bilaga innehåller flerspråkiga översättningar av säkerhetsmeddelandena i denna handledning.

**Standards:** This product meets the following standards.

**U.S. Federal Communications Commission**

**DECLARATION OF CONFORMITY**

Manufacture Name: Allied Telesyn International  
Manufacture Address: 960 Stewart Drive, Suite B  
Sunnyvale, CA 94086 USA

Manufacture Telephone: 408-730-0950  
Declares that the product: Unmanaged, Fast Ethernet Switches  
Model Number: AT-FS708 and AT-FS708E

This product complies with FCC Part 15B, Class B Limits:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device must not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**RADIATED ENERGY**

Note: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions, may cause harmful 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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission rules.










**Industry Canada**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

1	RFI Emission	EN55022 Class B
2	Immunity	EN50082-1
3	Electrical Safety	EN60950, UL1950, CSA 950


## SAFETY


- 4  **ELECTRICAL NOTICES**  
**WARNING: ELECTRIC SHOCK HAZARD**  
 To prevent ELECTRIC shock, do not remove the cover. No user-serviceable parts inside. This unit contains HAZARDOUS VOLTAGES and should only be opened by a trained and qualified technician. To avoid the possibility of ELECTRIC SHOCK, disconnect electric power to the product before connecting or disconnecting the LAN cables.
- 5  **LIGHTNING DANGER**  
**DANGER: DO NOT WORK** on equipment or CABLES during periods of LIGHTNING ACTIVITY.
- INSTALLATION**
- 6  **ELECTRICAL—AUTO VOLTAGE ADJUSTMENT**  
 This product will automatically adjust to any voltage between the ranges shown on the label
- 7  **CAUTION: POWER CORD IS USED AS A DISCONNECTION DEVICE.**  
 TO DE-ENERGIZE EQUIPMENT, disconnect the power cord.
- 8  **ELECTRICAL - TYPE CLASS 1 EQUIPMENT**  
 THIS EQUIPMENT MUST BE EARTHED. Power plug must be connected to a properly wired earth ground socket outlet. An improperly wired socket outlet could place hazardous voltages on accessible metal parts.
- 9  **PLUGGABLE EQUIPMENT**, the socket outlet shall be installed near the equipment and shall be easily accessible.
- 10  **CAUTION: Air vents must not be blocked and must have free access to the room ambient air for cooling.**
- 11  **OPERATING TEMPERATURE:** This product is designed for a maximum ambient temperature of 40° degrees C.
- 12  **ALL COUNTRIES:** Install product in accordance with local and National Electrical Codes.

**Normen:** Dieses Produkt erfüllt die Anforderungen der nachfolgenden Normen.


- |   |                        |                          |
|---|------------------------|--------------------------|
| 1 | Hochfrequenzstörung    | EN55022 Klasse B         |
| 2 | Störsicherheit         | EN50082-1                |
| 3 | Elektrische Sicherheit | EN60950, UL1950, CSA 950 |


### **SICHERHEIT**


- 4  **ACHTUNG: GEFÄHRLICHE SPANNUNG**  
Das Gehäuse nicht öffnen. Das Gerät enthält keine vom Benutzer wartbaren Teile. Das Gerät steht unter Hochspannung und darf nur von qualifiziertem technischem Personal geöffnet werden. Vor Anschluß der LAN-Kabel, Gerät vom Netz trennen.

- 5  **GEFAHR DURCH BLITZSCHLAG**  
**GEFAHR:** Keine Arbeiten am Gerät oder an den Kabeln während eines Gewitters ausführen.


### **INSTALLATION**


- 6  **AUTOMATISCHE SPANNUNGSEINSTELLUNG**  
Dieses Gerät stellt sich automatisch auf die auf dem Etikett aufgeführten Spannungswerte ein


- 7  **VORSICHT: DAS NETZKABEL DIENST ZUM TRENNEN DER STROMVERSORGUNG. ZUR TRENnung VOM NETZ, KABEL AUS DER STECKDOSE ZIEHEN.**

- 8  **GERÄTE DER KLASSE 1**  
**DIESE GERÄTE MÜSSEN GEERDET SEIN.** Der Netzstecker darf nur mit einer vorschriftsmäßig geerdeten Steckdose verbunden werden. Ein unvorschriftsmäßiger Anschluß kann die Metallteile des Gehäuses unter gefährliche elektrische Spannungen setzen.

- 9  **STECKBARES GERÄT:** Die Anschlußbuchse sollte in der Nähe der Einrichtung angebracht werden und leicht zugänglich sein."

- 10  **VORSICHT**  
Die Entlüftungsöffnungen dürfen nicht versperrt sein und müssen zum Kühlen freien Zugang zur Raumluft haben.










- 11  **BETRIEBSTEMPERATUR:** Dieses Produkt wurde für den Betrieb in einer Umgebungstemperatur von nicht mehr als 40° C entworfen.

- 12  **ALLE LÄNDER:** Installation muß örtlichen und nationalen elektrischen Vorschriften entsprechen.

**Standarder:** Dette produkt tilfredsstiller de følgende standarder.

- 1 Radiofrekvens forstyrrelsesemission EN55022 Klasse B
- 2 Immunitet EN50082-1
- 3 Elektrisk sikkerhed EN60950, UL1950, CSA 950

### SIKKERHED

- 4  **ELEKTRISKE FORHOLDSREGLER**  
**ADVARSEL: RISIKO FOR ELEKTRISK STØD**  
 For at forebygge ELEKTRISK stød, undlad at åbne apparatet. Der er ingen indre dele, der kan reparereres af brugeren. Denne enhed indeholder LIVSFARLIGE STRØMSPÆNDINGER og bør kun åbnes af en uddannet og kvalificeret tekniker. For at undgå risiko for ELEKTRISK STØD, afbrydes den elektriske strøm til produktet, før LAN-kablerne monteres eller afmonteres.
- 5  **FARE UNDER UVEJR**  
**FARE: UNDLAD** at arbejde på udstyr eller KABLER i perioder med LYNAKTIVITET.  
**INSTALLATION**
- 6  **ELEKTRISK -- AUTOMATISK SPÆNDINGSREGULERING**  
 Dette apparat vil automatisk tilpasse sig enhver spænding indenfor de værdier, der er angivet på etiketten.
- 7  **ADVARSEL: DEN STRØMFØRENDE LEDNING BRUGES TIL AT AFBRYDE STRØMMEN. SKAL STRØMMEN TIL APPARATET AFBRYDES, tages ledningen ud af stikket.**
- 8  **ELEKTRISK - KLASSE 1-UDSTYR**  
 DETTE UDSTYR KRÆVER JORDFORBINDELSE. Stikket skal være forbundet med en korrekt installeret jordforbunden stikkontakt. En ukorrekt installeret stikkontakt kan sætte livsfarlig spænding til tilgængelige metaldele.
- 9  **UDSTYR TIL STIKKONTAKT**, stikkontakten bør installeres nær ved udstyret og skal være lettilgængelig.
- 10  **ADVARSEL:** Ventilationsåbninger må ikke blokeres og skal have fri adgang til den omgivende luft i rummet for afkøling.
- 11  **BETJENINGSTEMPERATUR:** Dette apparat er konstrueret til en omgivende temperatur på maksimum 40 grader C.
- 12  **ALLE LANDE:** Installation af produktet skal ske i overensstemmelse med lokal og national lovgivning for elektriske installationer.

**Eisen:** Dit product voldoet aan de volgende eisen.

- |   |                        |                          |
|---|------------------------|--------------------------|
| 1 | RFI Emissie            | EN55022 Klasse B         |
| 2 | Immunititeit           | EN50082-1                |
| 3 | Electrische Veiligheid | EN60950, UL1950, CSA 950 |










### VEILIGHEID

- 4  **WAARSCHUWINGEN MET BETREKKING TOT ELEKTRICITEIT**  
**WAARSCHUWING:** GEVAAR VOOR ELEKTRISCHE SCHOKKEN  
Verwijder het deksel niet, teneinde ELEKTRISCHE schokken te voorkomen. Binnenin bevinden zich geen onderdelen die door de gebruiker onderhouden kunnen worden. Dit toestel staat onder GEVAARLIJK SPANNING en mag alleen worden geopend door een daartoe opgeleide en bevoegde technicus. Om het gevaar op ELEKTRISCHE SCHOKKEN te vermijden, moet u het toestel van de stroombron ontkoppelen alvorens de LAN-kabels te koppelen of ontkoppelen.
- 5  **GEVAAR VOOR BLIKSEMINSLAG**  
**GEVAAR:** NIET aan toestellen of KABELS WERKEN bij BLIKSEM.  
**INSTALLATIE**
- 6  **ELEKTRISCH: AUTOMATISCHE AANPASSING VAN DE SPANNING**  
Dit toestel past zich automatisch aan elke spanning aan, tussen de op het label vermelde waarden.
- 7  **WAARSCHUWING: HET TOESTEL WORDT UITGESCHAKELD DOOR DE STROOMKABEL TE ONTKOPPELEN. OM HET TOESTEL STROOMLOOS TE MAKEN: de stroomkabel ontkoppelen.**
- 8  **ELEKTRISCHE TOESTELLEN VAN KLASSE 1**  
DIT TOESTEL MOET GEAARD WORDEN. De stekker moet aangesloten zijn op een juist geaarde contactdoos. Een onjuist geaarde contactdoos kan de metalen onderdelen waarmee de gebruiker eventueel in aanraking komt onder gevaarlijke spanning stellen.
- 9  **AAN TE SLUITEN APPARATUUR, de contactdoos wordt in de nabijheid van de apparatuur geïnstalleerd en is gemakkelijk te bereiken."**
- 10  **OPGELET:** De ventilatiegaten mogen niet worden gesperd en moeten de omgevingslucht ongehinderd toelaten voor afkoeling.
- 11  **BEDRIJFSTEMPERATUUR:** De omgevingstemperatuur voor dit produkt mag niet meer bedragen dan 40 graden Celsius.
- 12  **ALLE LANDEN:** het toestel installeren overeenkomstig de lokale en nationale elektrische voorschriften.

**Normes:** ce produit est conforme aux normes de suivantes:

- |   |   |                          |
|---|---|--------------------------|
| 1 | Emission d'interférences radioélectriques | EN55022 Classe B         |
| 2 | Immunité                                  | EN50082 - 1              |
| 3 | Sécurité électrique                       | EN60950, UL1950, CSA 950 |









## SÉCURITÉ

- 4  **INFORMATION SUR LES RISQUES ÉLECTRIQUES**  
**AVERTISSEMENT : DANGER D'ÉLECTROCUTION**  
 Pour éviter toute ÉLECTROCUTION, ne pas ôter le revêtement protecteur du matériel. Ce matériel ne contient aucun élément réparable par l'utilisateur. Il comprend des TENSIONS DANGEREUSES et ne doit être ouvert que par un technicien dûment qualifié. Pour éviter tout risque d'ÉLECTROCUTION, débrancher le matériel avant de connecter ou de déconnecter les câbles LAN.
- 5  **DANGER DE Foudre**  
**DANGER:** NE PAS MANIER le matériel ou les CÂBLES lors d'activité orageuse.
- INSTALLATION**
- 6  **RÉGLAGE DE TENSION AUTOMATIQUE ÉLECTRIQUE**  
 Ce matériel peut s'ajuster automatiquement sur n'importe quelle tension comprise dans la plage indiquée sur l'étiquette.
- 7  **ATTENTION: LE CORDON D'ALIMENTATION SERT DE MISE HORS CIRCUIT. POUR COUPER L'ALIMENTATION DU MATÉRIEL,** débrancher le cordon.
- 8  **ÉQUIPEMENT DE CLASSE 1 ÉLECTRIQUE**  
 CE MATÉRIEL DOIT ÊTRE MIS A LA TERRE. La prise de courant doit être branchée dans une prise femelle correctement mise à la terre car des tensions dangereuses risqueraient d'atteindre les pièces métalliques accessibles à l'utilisateur.
- 9  **EQUIPEMENT POUR BRANCHEMENT ELECTRIQUE,** la prise de sortie doit être placée près de l'équipement et facilement accessible".
- 10  **ATTENTION:** Ne pas bloquer les fentes d'aération, ceci empêcherait l'air ambiant de circuler librement pour le refroidissement.
- 11  **TEMPÉRATURE DE FONCTIONNEMENT:** Ce matériel est capable de tolérer une température ambiante maximum de ou 40 degrés Celsius.
- 12  **POUR TOUS PAYS:** Installer le matériel conformément aux normes électriques nationales et locales.

**Standardit:** Tämä tuote on seuraavien standardien mukainen.

- |     |                        |                          |
|-----|------------------------|--------------------------|
| 🌀 1 | Radioaaltojen häirintä | EN55022 Luokka B         |
| 🌀 2 | Kestävyys              | EN50082-1                |
| 🌀 3 | Sähköturvallisuus      | EN60950, UL1950, CSA 950 |

### **TURVALLISUUS**










- 🌀 4  **SÄHKÖÖN LIITTYVIÄ HUOMAUTUKSIA**  
**VAROITUS: SÄHKÖISKUVAARA**  
Estääksesi SÄHKÖISKUN älä poista kantta. Sisällä ei ole käyttäjän huollettavissa olevia osia. Tämä laite sisältää VAARALLISIA JÄNNITTEITÄ ja sen voi avata vain koulutettu ja pätevä teknikko. Vältäaksesi SÄHKÖISKUN mahdollisuuden katkaise sähkövirta tuotteesen ennen kuin liität tai irrotat paikallisverkon (LAN) kaapelit.
- 🌀 5  **SALAMANISKUVAARA**  
**HENGENVAARA: ÄLÄ TYÖSKENTELE** laitteiden tai KAAPELEIDEN KANSSA SALAMOINNIN AIKANA.  
**ASENNUS**
- 🌀 6  **SÄHKÖ - AUTOMAATTINEN JÄNNITTEENSÄÄT**  
Tämä tuote säätää automaattisesti mihin tahansa jännitteeseen ohjetarrassa annettujen arvojen välillä.
- 🌀 7  **HUOMAUTUS: VIRTAJOHTOA KÄYTETÄÄN**  
VIRRANKATKAISULAITTEENA. VIRTA KATKAISTAAN irrottamalla virtajohto.
- 🌀 8  **SÄHKÖ - TYYPPILUOKAN 1 LAITTEET**  
**TÄMÄ LAITE TÄYTYY MAADOITTA.** Pistoke täytyy liittää kunnollisesti maadoitettuun pistorasiaan. Virheellisesti johdotettu pistorasia voi altistaa metalliosat vaarallisille jännitteille.
- 🌀 9  **PISTORASIAAN KYTKETTÄVÄ LAITE;** pistorasia on asennettava laitteen lähelle ja siihen on oltava esteetön pääsy."
- 🌀 10  **HUOMAUTUS:** Ilmavaihtoreikiä ei pidä tukkia ja niillä täytyy olla vapaa yhteys ympäröivään huoneilmaan, jotta ilmanvaihto tapahtuisi.
- 🌀 11  **KÄYTTÖLÄMPÖTILA:** Tämä tuote on suunniteltu ympäröivän ilman maksimilämpötilalle 40°C.
- 🌀 12  **KAIKKI MAAT:** Asenna tuote paikallisten ja kansallisten sähköturvallisuusmääräysten mukaisesti.



**Standard:** Questo prodotto è conforme ai seguenti standard

- |   |  |                          |
|---|--|--------------------------|
| 1 | Emissione RFI (interferenza di radiofrequenza) | EN55022 Classe B         |
| 2 | Immunità                                       | EN50082-1                |
| 3 | Sicurezza elettrica                            | EN60950, UL1950, CSA 950 |










#### **NORME DI SICUREZZA**

- 4  **AVVERTENZE ELETTRICHE**  
**ATTENZIONE: PERICOLO DI SCOSSE ELETTRICHE**  
 Per evitare SCOSSE ELETTRICHE non asportare il coperchio. Le componenti interne non sono riparabili dall'utente. Questa unità ha TENSIONI PERICOLOSE e va aperta solamente da un tecnico specializzato e qualificato. Per evitare ogni possibilità di SCOSSE ELETTRICHE, interrompere l'alimentazione del dispositivo prima di collegare o staccare i cavi LAN.
- 5  **PERICOLO DI FULMINI**  
**PERICOLO: NON LAVORARE** sul dispositivo o sui CAVI durante PRECIPITAZIONI TEMPORALESCE.
- INSTALLAZIONE**
- 6  **ELETTRICITÀ - REGOLAZIONE AUTOMATICA DELLA TENSIONE**  
 Questo prodotto regolerà automaticamente la tensione ad un valore compreso nella gamma indicata sull'etichetta
- 7  **ATTENZIONE: IL CAVO DI ALIMENTAZIONE È USATO COME DISPOSITIVO DI DISATTIVAZIONE. PER TOGLIERE LA CORRENTE AL DISPOSITIVO** staccare il cavo di alimentazione.
- 8  **ELETTRICITÀ - DISPOSITIVI DI CLASSE 1**  
 QUESTO DISPOSITIVO DEVE AVERE LA MESSA A TERRA. La spina deve essere inserita in una presa di corrente specificamente dotata di messa a terra. Una presa non cablata in maniera corretta rischia di scaricare una tensione pericolosa su parti metalliche accessibili.
- 9  **APPARECCHIATURA COLLEGABILE**, la presa va installata vicino all'apparecchio per risultare facilmente accessibile".
- 10  **ATTENZIONE:** le prese d'aria non vanno ostruite e devono consentire il libero ricircolo dell'aria ambiente per il raffreddamento.
- 11  **TEMPERATURA DI FUNZIONAMENTO:** Questo prodotto è concepito per una temperatura ambientale massima di 40 gradi centigradi.
- 12  **TUTTI I PAESI:** installare il prodotto in conformità delle vigenti normative elettriche nazionali.

**Sikkerhetsnormer:** Dette produktet tilfredsstiller følgende sikkerhetsnormer.

- |   |                     |                          |
|---|---------------------|--------------------------|
| 1 | RFI stråling        | EN55022 Klasse B         |
| 2 | Immunitet           | EN50082-1                |
| 3 | Elektrisk sikkerhet | EN60950, UL1950, CSA 950 |










#### **SIKKERHET**

- 4  **ELEKTRISITET**  
**ADVARSEL: FARE FOR ELEKTRISK SJOKK**  
For å unngå ELEKTRISK sjokk, må dekslet ikke tas av. Det finnes ingen deler som brukeren kan reparere på innsiden. Denne enheten inneholder FARLIGE SPENNINGER, og må kun åpnes av en faglig kvalifisert tekniker. For å unngå ELEKTRISK SJOKK må den elektriske strømmen til produktet være avslått før LAN-kablene til- eller frakobles.
- 5  **FARE FOR LYNNEDSLAG**  
**FARE: ARBEID IKKE** på utstyr eller KABLER i TORDENVÆR.  
**INSTALLASJON**
- 6  **ELEKTRISK - AUTO SPENNINGSTILPASNING**  
Dette produktet vil automatisk bli tilpasset hvilken som helst strømspenning i de områdene som vises på etiketten.
- 7  **FORSIKTIG: STRØMLEDNINGEN BRUKES TIL Å FRAKOBLE** UTSTYRET. FOR Å DEAKTIVISERE UTSTYRET, må strømforsyningen kobles fra.
- 8  **ELEKTRISK - TYPE 1- KLASSE UTSTYR**  
DETTE UTSTYRET MÅ JORDES. Strømkontakten må være tilkopleet en korrekt jordet kontakt. En kontakt som ikke er korrekt jordet kan føre til farlig spenninger i lett t ilgjengelige metalleder.
- 9  **UTSTYR FOR STIKKONTAKT.** Stikkontakten skal monteres i nærheten av utstyret og skal være lett tilgjengelig."
- 10  **FORSIKTIG:** Lufteventilene må ikke blokkeres, og må ha fri tilgang til luft med romtemperatur for avkjøling.
- 11  **DRIFTSTEMPERATUR:** Dette produktet er konstruert for bruk i maksimum romtemperatur på 40 grader celsius.
- 12  **ALLE LAND:** Produktet må installeres i samsvar med de lokale og nasjonale elektriske koder.

**Padrões:** Este produto atende aos seguintes padrões.

- |   |   |                          |
|---|---|--------------------------|
| 1 | Emissão de interferência de radiofrequência | EN55022 Classe B         |
| 2 | Imunidade                                   | EN50082-1                |
| 3 | Segurança Eléctrica                         | EN60950, UL1950, CSA 950 |










## SEGURANÇA

- 4  **AVISOS SOBRE CARACTERÍSTICAS ELÉTRICAS**  
**ATENÇÃO: PERIGO DE CHOQUE ELÉTRICO**  
 Para evitar CHOQUE ELÉTRICO, não retire a tampa. Não contém peças que possam ser consertadas pelo usuário. Este aparelho contém VOLTAGENS PERIGOSAS e só deve ser aberto por um técnico qualificado e treinado. Para evitar a possibilidade de CHOQUE ELÉTRICO, desconecte o aparelho da fonte de energia elétrica antes de conectar e desconectar os cabos da LAN.
- 5  **PERIGO DE CHOQUE CAUSADO POR RAIOS**  
**PERIGO: NÃO TRABALHE** no equipamento ou nos CABOS durante períodos suscetíveis a QUEDAS DE RAIOS.
- INSTALAÇÃO**
- 6  **ELÉTRICO - AJUSTE AUTOMÁTICO DE VOLTAGE**  
 Este produto ajustar-se-á automaticamente a qualquer voltagem que esteja dentro dos limites indicados no rótulo.
- 7  **CUIDADO: O CABO DE ALIMENTAÇÃO É UTILIZADO COMO UM DISPOSITIVO DE DESCONEXÃO. PARA DESELETRIFICAR O EQUIPAMENTO, desconecte o cabo de ALIMENTAÇÃO.**
- 8  **ELÉTRICO - EQUIPAMENTOS DO TIPO CLASSE 1 DEVE SER FEITA LIGAÇÃO DE FIO TERRA PARA ESTE EQUIPAMENTO.** O plugue de alimentação deve ser conectado a uma tomada com adequada ligação de fio terra. Tomadas sem adequada ligação de fio terra podem transmitir voltagens perigosas a peças metálicas expostas.
- 9  **EQUIPAMENTO DE LIGAÇÃO, a tomada eléctrica deve estar instalada perto do equipamento e ser de fácil acesso."**
- 10  **CUIDADO: As aberturas de ventilação não devem ser bloqueadas e devem ter acesso livre ao ar ambiente para arrefecimento adequado do aparelho.**
- 11  **TEMPERATURA DE FUNCIONAMENTO: Este produto foi projetado para uma temperatura ambiente máxima de 40 graus centígrados.**
- 12  **TODOS OS PAÍSES: Instale o produto de acordo com as normas nacionais e locais para instalações elétricas.**

**Estándares:** Este producto cumple con los siguientes estándares.

- |   |                     |                          |
|---|---------------------|--------------------------|
| 1 | Emisión RFI         | EN55022 Clase B          |
| 2 | Inmunidad           | EN50082-1                |
| 3 | Seguridad eléctrica | EN60950, UL1950, CSA 950 |










### SEGURIDAD

- 4  **AVISOS ELECTRICOS**  
**ADVERTENCIA: PELIGRO DE ELECTROCHOQUE**  
Para evitar un ELECTROCHOQUE, no quite la tapa. No hay ningún componente en el interior al cual puede prestar servicio el usuario. Esta unidad contiene VOLTAJES PELIGROSOS y sólo deberá abrirla un técnico entrenado y calificado. Para evitar la posibilidad de ELECTROCHOQUE desconecte la corriente eléctrica que llega al producto antes de conectar o desconectar los cables LAN.
- 5  **PELIGRO DE RAYOS**  
**PELIGRO:** NO REALICE NINGUN TIPO DE TRABAJO O CONEXION en los equipos o en LOS CABLES durante TORMENTAS ELECTRICAS.
- INSTALACION**
- 6  **ELECTRICO - AUTO-AJUSTE DE TENSION**  
Este producto se ajustará automáticamente a cualquier tensión entre los valores máximos y mínimos indicados en la etiqueta.
- 7  **ATENCION: EL CABLE DE ALIMENTACION SE USA COMO UN DISPOSITIVO DE DESCONEXION. PARA DESACTIVAR EL EQUIPO,** desconecte el cable de alimentación.
- 8  **ELECTRICO - EQUIPO DEL TIPO CLASE 1**  
**ESTE EQUIPO TIENE QUE TENER CONEXION A TIERRA.** El cable tiene que conectarse a un enchufe a tierra debidamente instalado. Un enchufe que no está correctamente instalado podría ocasionar tensiones peligrosas en las partes metálicas que están expuestas.
- 9  **EQUIPO CONECTABLE,** el tomacorriente se debe instalar cerca del equipo, en un lugar con acceso fácil".
- 10  **ATENCION:** Las aberturas para ventilación no deberán bloquearse y deberán tener acceso libre al aire ambiental de la sala para su enfriamiento.
- 11  **TEMPERATURA REQUERIDA PARA LA OPERACIÓN:** Este producto está diseñado para una temperatura ambiental máxima de 40 grados C.
- 12  **PARA TODOS LOS PAÍSES:** Monte el producto de acuerdo con los Códigos Eléctricos locales y nacionales.

**Standarder:** Denna produkt uppfyller följande standarder.

- |     |               |                          |
|-----|---------------|--------------------------|
| ☞ 1 | Radiostörning | EN55022 Klass B          |
| ☞ 2 | Immunitet     | EN50082-1                |
| ☞ 3 | Elsäkerhet    | EN60950, UL1950, CSA 950 |

### SÄKERHET

- ☞ 4  **TILLKÄNNAGIVANDEN BETRÄFFANDE ELEKTRICITETSRIK:**  
**RISK FÖR ELEKTRISK STÖT** För att undvika ELEKTRISK stöt, ta ej av locket. Det finns inga delar inuti som behöver underhållas. Denna apparat är under HÖGSPÄNNING och får endast öppnas av en utbildad kvalificerad tekniker. För att undvika ELEKTRISK STÖT, koppla ifrån produktens strömanslutning innan LAN-kablarna ansluts eller kopplas ur.
- ☞ 5  **FARA FÖR BLIXTNEDSLAG**  
**FARA:** ARBETA EJ på utrustningen eller kablarna vid ÅSKVÄDER.
- INSTALLATION**
- ☞ 6  **ELEKTRISKT - AUTOMATISK SPÄNNINGSJUSTERIN**  
 Denna produkt justeras automatiskt till alla spänningar inom området som indikeras på produktens märkning.
- ☞ 7  **VARNING: NÄTKABELN ANVÄNDS SOM STRÖMBRYTARE FÖR ATT KOPPLA FRÅN STRÖMMEN,** dra ur nätkabeln.
- ☞ 8  **ELEKTRISKT - TYP KLASS 1 UTRUSTNING**  
 DENNA UTRUSTNING MÅSTE VARA JORDAD. Nätkabeln måste vara ansluten till ett ordentligt jordat uttag. Ett felaktigt uttag kan göra att närliggande metalldelar utsätts för högspänning. Apparaten skall anslutas till jordat uttag, när den ansluts till ett nätverk.
- ☞ 9  **UTRUSTNING MED PLUGG.** Uttaget skall installeras i utrustningens närhet och vara lättåtkomligt".
- ☞ 10  **VARNING: Luftventilerna får ej blockeras och måste ha fri tillgång till omgivande rumsluft för avsvälning.**
- ☞ 11  **DRIFTSTEMPERATUR**  
 Denna produkt är konstruerad för rumstemperatur ej överstigande 40 grader Celsius
- ☞ 12  **Alla länder:** Installera produkten i enlighet med lokala och statliga bestämmelser för elektrisk utrustning.



# ***Appendix C***

## ***Technical Support Fax Order***

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Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State/Province \_\_\_\_\_

Zip/Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

### **Incident Summary**

Model number of Allied Telesyn product I am using \_\_\_\_\_

Network software products I am using \_\_\_\_\_

Brief summary of problem \_\_\_\_\_

Conditions (List the steps that led up to the problem.) \_\_\_\_\_

Detailed description (Use separate sheet, if necessary)

When completed, fax this sheet to the appropriate Allied Telesyn office. Fax numbers can be found on page viii.





## Appendix D

# AT-FS708 and AT-FS708E Switches Installation Feedback

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Please tell us what additional information you would like to see discussed in the guide. If there are topics you would like information on that were not covered in the guide, please photocopy this page, answer the questions and fax or mail this form back to Allied Telesyn International Corp. The mailing address and fax number are at the bottom of the page. Your comments are valuable when we plan future revisions of the guide.

I found the following the most valuable \_\_\_\_\_

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I would like the following more developed \_\_\_\_\_

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I would find the guide more useful if \_\_\_\_\_

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Please fax or mail your feedback. Fax to 1-408-736-0100. Or mail to:

**Allied Telesyn International, Corp.**

c/o Technical Communications

960 Stewart Drive, Suite B

Sunnyvale, CA 94086 USA

