

# AR700 Series Router Installation and Safety Guide



AR750S  
AR770S

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AR750S  
AR770S

AR700 Series Router Installation and Safety Guide  
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## Table of Contents

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Models Covered By This Guide .....	4
Package Contents .....	4
Installing the Router .....	5
Installing the router in a rack .....	7
Installing the router on a wall .....	8
Installing SFPs .....	9
Applying power to the router .....	9
Configuring the Router .....	10
Configuring with the GUI .....	10
Configuring with the CLI .....	13
Default configuration .....	15
Connecting Data Cables to the Router .....	16
LEDs on the AR750S .....	17
LEDs on the AR770S .....	18
Documentation and Tools CD-ROM .....	19
Emission Compliance Statements .....	20
Safety .....	21
Sicherheit .....	22
Sikkerhed .....	23
Veiligheid .....	24
Sécurité .....	25
Turvallisuus .....	27
Norme di Sicurezza .....	28
Sikkerhet .....	29
Segurança .....	30
Seguridad .....	31
Säkerhet .....	33
Connection to mains voltage supply .....	34
Telecommunications Interfaces .....	34
Important Safety Instructions .....	34
Connection to ISDN network .....	35
US Federal Communications Commission (FCC) .....	36
Canadian Department of Communications .....	37

## Models Covered By This Guide

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This Installation and Safety Guide includes information on these models:

- AR750S
- AR770S

Documentation updates can be found at [www.alliedtelesis.com/support/documentation/](http://www.alliedtelesis.com/support/documentation/)

## Package Contents

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### **AR750S package contents**

These items are included with the AR750S router:

- One AR750S router
- One AC power cord
- One power cord retaining clip
- One serial cable for connecting the router to a terminal or PC
- Two UTP network cables
- One 19 inch rack-mount kit
- One wall mount kit
- One *AR700 Series Router Installation and Safety Guide*
- One AR700 Series Router Documentation and Tools CD-ROM (includes the complete AR700 Series Document Set and utilities)
- One warranty card

Contact your authorised distributor or reseller if any items are damaged or missing.

### **AR770S package contents**

These items are included with the AR770S router:

- One AR770S router
- A set of AC power cords  
One of these is suitable for your region. If desired, you can return the extra cords to your authorised distributor or reseller.
- One power cord retaining clip
- One serial cable for connecting the router to a terminal or PC
- Two UTP network cables
- One 19 inch rack-mount kit
- One *AR700 Series Router Installation and Safety Guide*
- One AR700 Series Router Documentation and Tools CD-ROM (includes the complete AR700 Series Document Set and utilities)
- One warranty card

Contact your authorised distributor or reseller if any items are damaged or missing.

## **Installing the Router**

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### **Selecting a site**

You can install the router on a level surface such as a desktop or bench, in a standard 19-inch rack using the rack mount kit included with your router, or on a firm wall using a wall mount kit (AR750S only).

When you install the router, choose a site that:

- allows adequate airflow around the router and its vents.
- is free of dust and moisture.
- will maintain an ambient temperature range of 0 °C to 50 °C (32 °F to 122 °F) and a humidity range of 5% to 80% non-condensing.
- has a reliable and earthed (grounded) power supply, preferably dedicated and filtered.
- does not expose cabling to sources of electrical noise such as radio transmitters, broadband amplifiers, power lines, electric motors, and fluorescent fixtures.
- allows easy access to the router's power and cable connections.

## Before installing

- Read the safety information “Safety” on page 20.
- Gather the tools and equipment you will need.

To install an AR750S or AR770S in a **rack** ([Installing the router in a rack](#)) you will need:

- the rack mount bracket kit included with your router
- a Phillips #1 screwdriver
- screws and cage nuts to attach the brackets to your rack.

To install an AR750S on a **wall** ([Installing the router on a wall](#)) you will need:

- the wall mount bracket kit supplied with the router.
- a Phillips #1 screwdriver and a Phillips #2 screwdriver.
- If you are fixing the router to a solid masonry or hollow wall, you need equipment to drill a 6 mm hole.

You may also need:

- an optional Port Interface Card (PIC) and the *PIC Installation and Safety Guide*.
  - an optional SFP (Small Form-factor Pluggable module). See the *AR700 Series Router Hardware Reference* for a list of approved SFPs; order from your authorised Allied Telesis distributor or reseller. ([Installing SFPs](#))
- Unpack the router. Verify the package contents. If any items are damaged or missing, contact your sales representative.
  - Place the router in its operating location. See the previous section “[Selecting a site](#)” on page 5 for guidelines on choosing a suitable location.

## Installing PICs

If you purchased optional Port Interface Cards (PICs), install them by following their Installation and Safety Guide. That guide can be found with the PIC, on the Documentation and Tools CD-ROM, or can be downloaded from [www.alliedtelesis.com/support/documentation/](http://www.alliedtelesis.com/support/documentation/)

## Installing the router in a rack

1. Check the rack.

Ensure that the rack is safely secured and that it will not tip over. Devices in a rack should be installed starting at the bottom, with the heavier devices near the bottom of the rack.

Ensure the rack has sufficient space for the router and its associated cables. The router is 1U high.

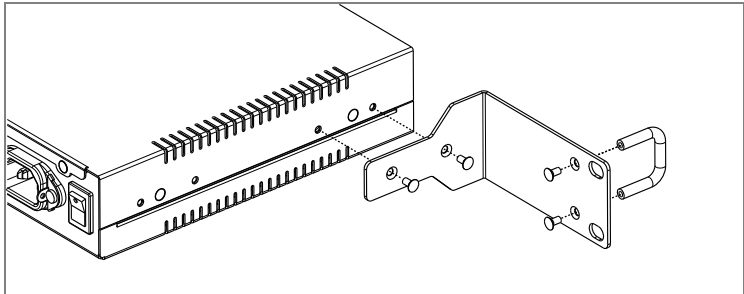
2. Unscrew the feet.
3. Connect the handles to the brackets (AR750S only).

Screw the handles to the wider side of each bracket, using the supplied screws (see the figure below).

4. Connect the brackets to the router.

Screw the brackets to the sides of the router, using the supplied screws (see figure below). The router can be front or rear mounted.

AR750S rack mount bracket



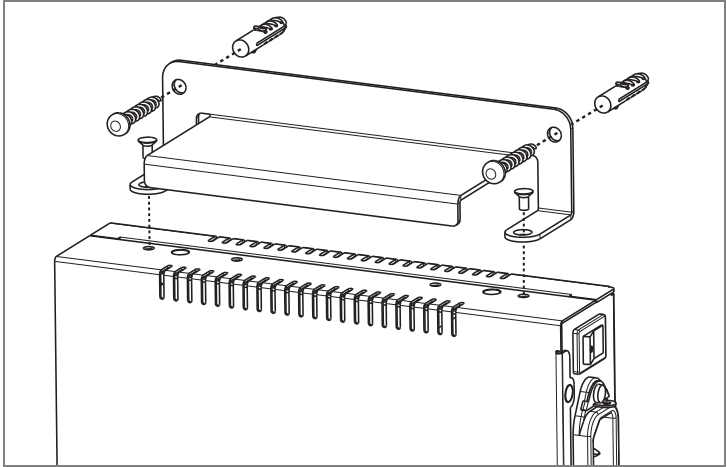
5. Mount the router in the rack.

Use appropriate rack mounting screws (not supplied).



## Installing the router on a wall

1. Screw the brackets to the AR750S router. Screw a wall mount bracket to the outer screw holes on each side of the router using the shorter screws supplied (see figure below).



2. Screw the wall brackets to the wall with the brackets at the top and bottom of the router, the feet against the wall, and the power inlet near the top.

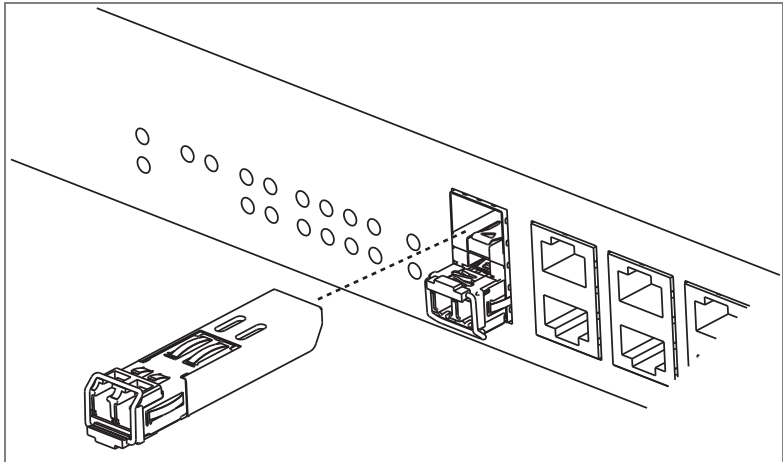
## Installing SFPs



**Warning** Do not look into the optical ports of SFP cables or transceivers. Invisible laser radiation may be emitted from disconnected fibres or connectors.

If you purchased optional SFPs for the AR770S, install them in the Ethernet SFP slots (leftmost).

The SFP transceiver must be inserted the right way in the slot. To install an SFP into the Ethernet SFP 0 slot (lower, leftmost), make sure the hinge on the front handle is at the top. For Ethernet SFP 1 (upper, leftmost), the handle hinge must be at the bottom. See the figure below.



Slide the transceiver into the SFP socket, and firmly press it until it engages. To remove it, first release it by gently pulling the release lever, and then pull it out of the socket. **Never** force a transceiver into or out of a socket.

## Applying power to the router

Check that the supply voltage and the router's rated voltage match. The router is fitted with a universal power supply that will function over the range 100 VAC to 240 VAC and 50 Hz to 60 Hz.



**Warning** The specific power supply requirements for a particular model are clearly displayed on the rear or underside of the router. If the supply is outside the accepted range for the router, the router may not operate or damage to the router may result.



**Warning** This equipment must be earthed.

Fit the power cord retaining clip to the AC power inlet on the router's rear panel.

Connect the provided power cord to the AC power inlet and clip it in place. Switch the router's power switch to the ON position. The Power LED lights continuously and the System LED lights briefly. The Port LEDs also light briefly. If the LEDs fail to light, check that the router is receiving power.

## Configuring the Router

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To configure the router you can either:

- [“Configuring with the GUI” on page 10](#) (AR750S only)
- [“Configuring with the CLI” on page 13](#)

The AR750S and AR770S routers have a simple default configuration ([“Default configuration” on page 15](#)).

### Configuring with the GUI

This section describes how to access the AR750S GUI via a switch port in VLAN1, when the PC and the router are in the same subnet, in order to configure the router. The router's switch ports all belong to VLAN1 by default.

We recommend starting to configure the AR750S using the GUI. You can then use the CLI if necessary to complete your configuration ([“Configuring with the CLI” on page 13](#)).

The GUI requires a PC and web browser. Supported browsers are Internet Explorer 5.0 or later and Netscape 6.2.2 or later, with JavaScript enabled. If you are using a toolbar or plug-in on your browser to block pop-ups, disable it while using the GUI. The GUI displays detailed configuration options and information in pop-up windows.

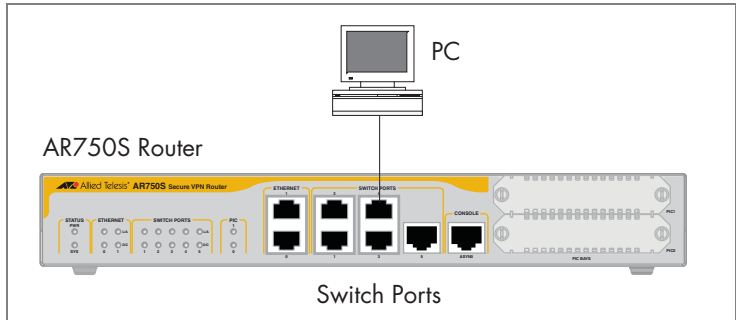


**Caution** If another device on your network already uses the router's default IP address, 192.168.1.1, do not connect the router to the network until you have changed the management port's address by using the command line.

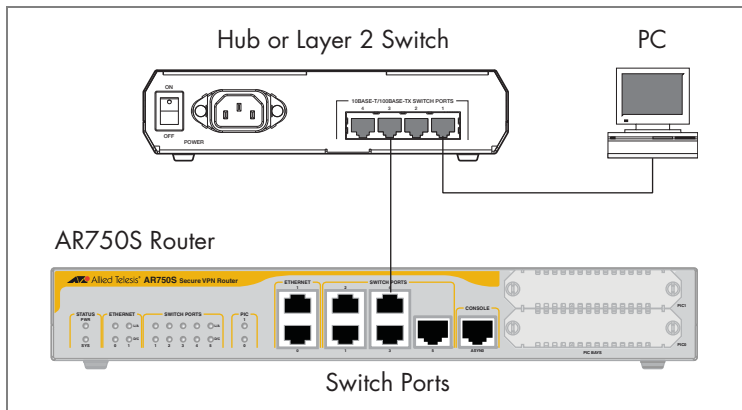
## I. Connect the PC to a router switch port.

The PC can be connected directly, or through your LAN.

To connect the PC directly to the router, use a straight-through Ethernet cable to connect an Ethernet card on the PC to any one of the router's switch ports.



To connect via a LAN, use an Ethernet cable to connect the router's switch port(s) to the device(s) on the LAN. Select the LAN PC from which you wish to configure the router. The PC should be in the same subnet as the part of the LAN that contains the router (for example, the PC could be connected to a hub or Layer 2 switch that is directly connected to one of the router's switch ports).



## 2. Assign the PC an IP address in the same subnet as the router.

The router's default IP address is 192.168.1.1, and the default subnet mask is 255.255.255.0.

### 3. Browse to the GUI.

If you access the Internet through a proxy server, set your browser to bypass the proxy for 192.168.1.1. Point your web browser at 192.168.1.1.

### 4. Log in and set the password.

At the log in prompt, enter the log in name and password. Passwords are case sensitive.

User Name: **manager**

Password: **friend**

The system status page appears and you can now use the GUI to configure the router.

**Important** To ensure configuration settings are saved correctly, use the GUI menus and buttons to navigate, not your browser's buttons.



**Caution** As a security precaution, change the password as soon as possible. Remember the new password, as there is no way to retrieve it if it is lost.

To change the password, select Management > Users from the sidebar menu. Select the Manager account and click Modify.

### 5. Change the default IP address.

Change the default IP address to match the addressing system on your LAN. Select Quick Start > LAN.



**Caution** Do not leave the management port IP address set to its default because this may constitute a serious security risk.

### 6. To access context-sensitive help in the GUI.

Click on the Help Button [Help]. The Help button is located at the top of the sidebar menu or on any popup page.

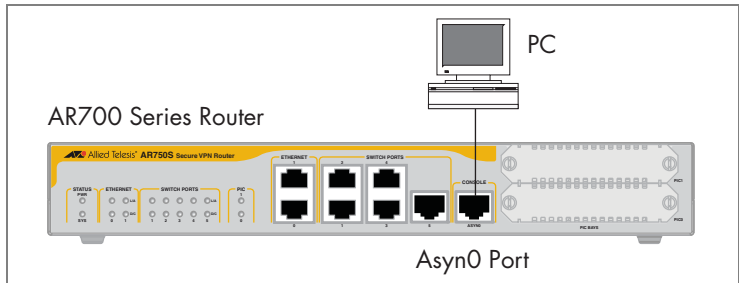
## Configuring with the CLI



**Caution** If another device on your network already uses the router's default IP address, 192.168.1.1, do not connect the router to the network until you have changed the IP address of the router's default VLAN by using the command line.

### I. Initiate router start-up.

Using the terminal cable supplied, connect a VT 100-compatible terminal, or the COM port of a PC running a terminal emulation program such as Windows Hyper Terminal, to the Console RS-232 (ASYN0) port on the router's front panel.



Set the communication parameters on your terminal or terminal emulation program to:

- Baud rate: 9600
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: Hardware

See the *AR700 Series Router Hardware Reference* for more information on configuring emulation software.

## 2. Log in and set the password.

The login prompt appears on the terminal or PC. If the login prompt does not appear, press [Enter] two or three times.

When the router boots for the first time it automatically creates an account with manager privileges. The account has the login name “manager” and the password is “friend”. Passwords are case sensitive.

At the log in prompt, enter the log in name and password.

```
Login: manager
Password: friend
```

The router’s command prompt appears and you can now configure the router using the command line interface.



**Caution** Change the password as soon as possible. Leaving the manager account with the default password is a serious security risk. Make sure you remember the new password as there is no way to retrieve it if it is lost. Passwords are case sensitive.

Use the following command to change the account password:

```
set password
```

## 3. Customise the router for your region.

Change the default ISDN territory to your region by using the command:

```
set system territory={australia|china|europe|japan
|korea|newzealand|usa}
```

We recommend you set the territory even if you are not installing an ISDN PIC now.

In Australia only:

- To use the Micro service, set the territory to **australia**
- To use the OnRamp service, set the territory to **europe**.

## 4. Save the configuration.

Save your configuration to a new file by using the command:

```
create config=filename.cfg
```

Then set the router to load this file when it restarts by using the command:

```
set config=filename.cfg
```

We recommend leaving the boot.cfg file unchanged, in case you need to revert to the original default configuration.

## 5. Use the CLI to continue configuring the router.

See the *AR700 Series Router Software Reference* for details about commands available for configuring the router (including a list of message definitions).

To display a list of help topics, enter:

```
help
```

To display help on a specific topic, enter:

```
help topic
```

Alternatively, type a question mark at the end of a partially completed command to see a list of valid options.

## Default configuration

The default configuration file *boot.cfg* loads automatically when the router starts up. This file is stored in the router's flash memory.

Figure 1: Default configuration file for the AR750S and AR770S routers

```
# IP Configuration
#
ena ip
add ip int=vlan1 ip=192.168.1.1
```



# Connecting Data Cables to the Router

---

## Connecting the router to your network:

### 1. Connecting to the LAN.

If you have not already done so, use Ethernet patch cables to connect the devices on your private network (LAN) to the router's switch ports. By default, all switch ports are members of VLAN1.

### 2. Connecting a DMZ

If you have a public server, use an Ethernet patch cable to connect it to either:

- one of the router's Ethernet 10/100/1000 RJ-45 ports
- one of the router's Ethernet SFP ports (using fibre optic cable), or
- switch ports in a different VLAN than the rest of your LAN

On the AR770S, you can connect to either an Ethernet 10/100/1000 port (right) or the corresponding SFP port (left), but not both.

Separating public servers from your LAN allows the firewall to provide greater protection for your LAN. If you have multiple public servers, you can connect them to a hub or Layer 2 switch and connect that device to the router's DMZ port. For information about configuring VLANs, see the *Switching* chapter in the *Software Reference*.

### 3. Connecting to the WAN.



**Caution** If you intend to use a firewall, configure it before you activate the WAN link.

Once initial configuration is complete, connect the router to the WAN. Either:

- Connect a PIC port to a WAN connection (see the *Port Interface Card Installation and Safety Guide* and *Hardware Reference*), or
- Use an Ethernet patch cable to connect one of the router's Ethernet 10/100/1000 ports to the Ethernet port of a WAN device (such as a modem).
- Use a fibre-optic cable to connect one of the router's Ethernet SFP ports to a WAN device.

You can connect to either a 10/100/1000 Ethernet port or the corresponding SFP port, but not both.

## LEDs on the AR750S

LED	State	Function
Status PWR	Green	The router is receiving power and the power switch is ON.
Status SYS	Off	Normal operation.
	Amber	Lit briefly during router start up, or the router is malfunctioning.
	Flashing	The router fan has failed.
PIC 0..1	Green	A port interface card (PIC) is correctly installed and has been detected by the router.
Ethernet 0..1 L/A	Green	The Eth port has a 100 Mbps link.
	Amber	The Eth port has a 10 Mbps link.
	Flashing	Data is being transmitted or received on the Eth port.
Ethernet 0..1 D/C	Green	The Eth port is operating at full duplex.
	Amber	The Eth port is operating at half duplex.
	Amber flashing	There is a collision on the Eth port.
Switch Ports 1..5 L/A	Green	The switch port has a 100 Mbps link.
	Amber	The switch port has a 10 Mbps link.
	Flashing	Data is being transmitted or received on the switch port.
Switch Ports 1..5 D/C	Green	The switch port is operating at full duplex.
	Amber	The switch port is operating at half duplex.
	Amber flashing	There is a collision on the switch port.

## LEDs on the AR770S

LED	State	Function
Status PWR	Green	The router is receiving power and is switched ON.
Status SYS	Off	Normal operation.
	Amber	Lit briefly during router start up, or when the router system is malfunctioning.
	Flashing	The router fan has failed.
Ethernet SFP 0..1 L/A	Green	The SFP Eth port has a 1000 Mbps link.
	Green flashing	Data is being transmitted or received.
	Amber	There is an SFP installed, but there is no link.
	Amber flashing	There is a transmission fault at this SFP port.
Ethernet 10/100/1000 0..1 L/A	Green	The Eth port has a 1000 Mbps link.
	Amber	The Eth port has a 10 or 100 Mbps link.
	Flashing	Data is being transmitted or received.
Ethernet 10/100/1000 0..1 D/C	Green	The Eth port is operating at full duplex.
	Amber	The Eth port is operating at half duplex.
	Amber flashing	There is a collision on the Eth port.
Switch Ports 10/100/1000 1..4 L/A	Green	The switch port has a 1000 Mbps link.
	Amber	The switch port has a 10 or 100 Mbps link.
	Flashing	Data is being transmitted or received
Switch Ports 10/100/1000 1..4 D/C	Green	The switch port is operating at full duplex.
	Amber	The switch port is operating at half duplex.
	Amber flashing	There is a collision.

LED	State	Function
PIC 0..1	Green	A port interface card (PIC) is correctly installed and has been detected by the router.

## Documentation and Tools CD-ROM

The Documentation and Tools CD-ROM bundled with each router contains the complete Document Set for your router. The CD-ROM also includes tools for managing your router.

The Document Set on the CD-ROM includes:

- This Installation and Safety Guide.
- The *AR700 Series Router Hardware Reference*, which provides detailed information on the hardware features of AR700 Series routers.
- The *AR700 Series Router Software Reference*, which provides detailed information on configuring the router and its software.
- The *Port Interface Card Installation and Safety Guide*, which provides instructions for installing a Port Interface Card in your router.
- The *Port Interface Card Hardware Reference*, which provides detailed information on the hardware features of Port Interface Cards.
- The *Network Service Module Installation and Safety Guide*, which provides instructions for installing a Network Service Module in your router.
- The *Network Service Module Hardware Reference*, which provides detailed information on the hardware features of Network Service Modules.
- The *AR740 RPS Safety and Statutory Information*
- The *AR740 RPS Quick Install Guide*
- AT-TFTP Server for Windows, for downloading software versions.
- Adobe Acrobat Reader, for viewing online documentation.

Updates of these documents can also be downloaded from the Support Site at [www.alliedtelesis.com/support/documentation/](http://www.alliedtelesis.com/support/documentation/)

Emission Compliance Statements

**STANDARDS:** The AR700 Series routers meet the following standards:

Category	Approval Agency and Requirement
Safety	UL60950-1 CAN/CSA-C22.2 No. 60950-1-03 EN60950-1 EN60825-1 (for AR770S only) AS/NZS 60950.1
Electromagnetic Compliance	FCC CFR47 Part 15 Class A EN55022 Class A VCCI Class A AS/NZS CISPR22 Class A
Immunity	EN55024
Network Interface (where applicable)	ISDN Limited Network Protocol Analysis FCC Part 68, Subpart D IC CS-03, Issue 8, Part I and IV TBR3 TBR4 ACA TS031

**U.S. Federal Communications Commission**

**RADIATED ENERGY**

Note: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Note: Modifications or changes not expressly approved by the manufacturer or the FCC can void your right to operate this equipment.

**Canadian Department of Communications**

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

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

**Safety**



**WARNING:** In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.



**WARNING:** Class I Laser product.



**WARNING:** Do not stare into the laser beam.



**CAUTION:** Use of controls or adjustments of performance or procedures other than those specified herein may result in hazardous radiation exposure.



**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.



**LIGHTNING DANGER**

**DANGER:** DO NOT WORK on equipment or CABLES during periods of LIGHTNING ACTIVITY.



**CAUTION:** POWER CORD IS USED AS A DISCONNECTION DEVICE. TO DE-ENERGIZE EQUIPMENT, disconnect the power cord.



**ELECTRICAL - TYPE CLASS I 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.



PLUGGABLE EQUIPMENT, the socket outlet shall be installed near the equipment and shall be easily accessible.



**CAUTION:** Air vents must not be blocked and must have free access to the room ambient air for cooling.



**OPERATING TEMPERATURE:** AR750S and AR770S routers are designed for a maximum ambient temperature of 50 degrees C.



**ELECTRICAL - AC MAINS CIRCUIT OVERLOADING**

When installing product, consideration must be given to the accumulative nameplate ratings when connecting the equipment to the AC supply wiring.



**CAUTION:** MECHANICAL LOADING - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven loading.



Lithium Battery - Should only be changed by authorised service personnel.

**CAUTION:** Danger of explosion if battery incorrectly replaced. Replace only with Lithium Battery, type CR2032, and dispose of in accordance with the manufacturer's recommendations and all local codes.



**ALL COUNTRIES:** Install product in accordance with local and National Electrical Codes.

## Sicherheit

---



**WARNUNG:** Bei Verwendung zu Hause kann dieses Produkt Funkstörungen hervorrufen. In diesem Fall müßte der Anwender angemessene Gegenmaßnahmen ergreifen.



**WARNUNG** Laserprodukt der Klasse I.



**WARNUNG** Nicht direkt in den Strahl blicken.



**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.



**GEFAHR DURCH BLITZSCHLAG**

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



**VORSICHT:** DAS NETZKABEL DIENT ZUM TRENNEN DER STROMVERSORGUNG. ZUR TRENNUNG VOM NETZ, KABEL AUS DER STECKDOSE ZIEHEN.



GERÄTE DER KLASSE I

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.



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

**VORSICHT**

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



**BETRIEBSTEMPERATUR:** AR750S, AR770S: Dieses Produkt wurde für den Betrieb in einer Umgebungstemperatur von nicht mehr als 50° C entworfen.



**NETZSICHERUNG**

Bei der Installation muß der auf dem Typenschild angezeigte Nennwert des Gerätes für den Anschluß an das Netz beachtet werden.



**VORSICHT:** RAHMENEINBAU

Die Geräte müssen so in den Rahmen montiert werden, daß keine Gefahren durch unebenen inbau des Rahmens verursacht werden.



Lithium-Batterie - Sollte nur von einem geschulten qualifizierten Techniker ausgetauscht werden.

**VORSICHT:** Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Nur mit einer gleichen Batterie oder einem gleichwertigen Batterietyp nach Empfehlung des Herstellers ersetzen. Gebrauchte Batterien nach Anweisungen des Herstellers beseitigen.



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

## Sikkerhed

---



**ADVARSEL:** I et hjemligt miljø kunne dette produkt forårsage radio forstyrrelse. Bliver det tilfældet, påkræves brugeren muligvis at tage tilstrækkelige foranstaltninger.



**ADVARSEL** Laserprodukt av klasse I.



**ADVARSEL** Stirr ikke på strålen.



### ELEKTRISKE FORHOLDSREGLER

**ADVARSEL: RISIKO FOR ELEKTRISK STØD**

For at forebygge ELEKTRISK stød, undlad at åbne apparatet. Der er ingen indre dele, der kan repareres af brugeren. Denne enhed indeholder LIVSFARLIGE STRØMSPÆNDINGER og bør kun åbnes af en uddannet og kvalificeret tekniker.



### FARE UNDER UVEJR

**FARE: UNDLAD** at arbejde på udstyr eller KABLER i perioder med LYNKATIVITET.



**ADVARSEL: DEN STRØMFØRENDE LEDNING BRUGES TIL AT AFBRYDE STRØMMEN. SKAL STRØMMEN TIL APPARATET AFBRYDES, tages ledningen ud af stikket.**



### ELEKTRISK - KLASSE I-UDSTYR

DETTE UDSKYR KRÆVER JORDFORBINDELSE. Stikket skal være forbundet med en korrekt installeret jordforbunden stikkontakt. En ukorrekt installeret stikkontakt kan sætte livsfarlig spænding til tilgængelige metaldele.



UDSTYR TIL STIKKONTAKT, stikkontakten bør installeres nær ved udstyret og skal være lettilgængelig.



**ADVARSEL:** Ventilationsåbninger må ikke blokeres og skal have fri adgang til den omgivende luft i rummet for afkøling.



**BETJENINGSTEMPERATUR:** AR750S, AR770S: Dette apparat er konstrueret til en omgivende temperatur på maksimum 50 grader C.





**ELEKTRISK-OVERBELASTNING AF SPÆNDINGSKREDSLØBET**

Ved installation af produktet, bør der tages hensyn til den kumulative kapacitet der angives på navneskiltet, når udstyret forbindes med vekselstrømsledningen.



**ADVARSEL:** MEKANISK OPSTILLING-Udstyret skal opstilles i stativet, på en sådan måde, at der ikke opstår fare p.g.a. ujævn opstilling.



Lithium batteri - Bør kun udskiftes af uddannet og kvalificeret tekniker.

**ADVARSEL :** Eksplosionsfare, hvis batteriet udskiftes ukorrekt. Udskift kun med samme eller en tilsvarende type der anbefales af producenten. Kassér brugte batterier i overensstemmelse med producentens instruktioner.



**ALLE LANDE:** Installation af produktet skal ske i overensstemmelse med lokal og national lovgivning for elektriske installationer.

## Veiligheid

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**WAARSCHUWING:** Binnenshuis kan dit product radiostoring veroorzaken, in welk geval de gebruiker verplicht kan worden om gepaste maatregelen te nemen.



**WAARSHUWING** Klasse-I laser produkt.



**WAARCHUWING** Neit in de straal staren.



**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 GEVAARLIJKE SPANNING en mag alleen worden geopend door een daartoe opgeleide en bevoegde technicus.



**GEVAAR VOOR BLIKSEMINSLAG**

**GEVAAR:** NIET aan toestellen of KABELS WERKEN bij BLIKSEM.



**WAARSCHUWING: HET TOESTEL WORDT UITGESCHAKELD DOOR DE STROOMKABEL TE ONTKOPPELEN.OM HET TOESTEL STROOMLOOS TE MAKEN:** de stroomkabel ontkoppelen.



**ELEKTRISCHE TOESTELLEN VAN KLASSE I**

**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.



**AAN TE SLUITEN APPARATUUR,** de contactdoos wordt in de nabijheid van de apparatuur geïnstalleerd en is gemakkelijk te bereiken.



**OPGELET:** De ventilatiegaten mogen niet worden gesperd en moeten de omgevingslucht ongehinderd toelaten voor afkoeling.



**BEDRIJFSTEMPERATUUR:** AR750S, AR770S: De omgevingstemperatuur voor dit produkt mag niet meer bedragen dan 50 graden Celsius.



**ELEKTRISCH: OVERBELASTING VAN WISSELSTROOM HOOFDCIRCUIT**  
Tijdens de installatie van het produkt dient men rekening te houden met de gecombineerde waarden op de naamplaatjes bij het aansluiten van het toestel op de wisselstroom-voedingsdraden.



**LOPGELET: MECHANISCH LADEN** - De montage van het toestel in het rek dient zo uitgevoerd te worden dat geen gevaar ontstaat door een ongelijke lading.



Lithium batterij. Mag alleen worden vervangen door een daartoe opgeleide en bevoegde technicus.

**OPGELET:** Gevaar voor ontploffing indien de batterij verkeerd wordt vervangen. Alleen vervangen door hetzelfde of een gelijkwaardig, door de fabrikant aanbevolen type.



**ALLE LANDEN:** het toestel installeren overeenkomstig de lokale en nationale elektrische voorschriften.

## Sécurité

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**MISE EN GARDE :** dans un environnement domestique, ce produit peut provoquer des interférences radioélectriques. Auquel cas, l'utilisateur devra prendre les mesures adéquates.



**ATTENTION** Produit laser di classe I.



**ATTENTION** Ne pas fixer le faisceau des yeux.



### 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.



#### DANGER DE Foudre

**DANGER:** NE PAS MANIER le matériel ou les CÂBLES lors d'activité orageuse.



**ATTENTION:** LE CORDON D'ALIMENTATION SERT DE MISE HORS CIRCUIT. POUR COUPER L'ALIMENTATION DU MATÉRIEL, débrancher le cordon.



**ÉQUIPEMENT DE CLASSE I 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.



**EQUIPEMENT POUR BRANCHEMENT ELECTRIQUE,** la prise de sortie doit être placée près de l'équipement et facilement accessible”.



**ATTENTION:** Ne pas bloquer les fentes d'aération, ceci empêcherait l'air ambiant de circuler librement pour le refroidissement.



**TEMPÉRATURE DE FONCTIONNEMENT:** AR750S, AR770S: Ce matériel est capable de tolérer une température ambiante maximum de ou 50 degrés Celsius.



**SURCHARGE DES CIRCUITS PRINCIPAUX DE COURANT ALTERNATIF ÉLECTRIQUE**

Lors de l'installation du matériel, il faut prendre en compte la somme des puissances indiquées sur les étiquettes au moment de connecter le matériel à une source de courant alternatif.



**ATTENTION : RÉPARTITION DE LA CHARGE MÉCANIQUE** - Le montage du matériel dans le bâti doit être effectué de telle manière que la répartition de la charge mécanique ne pose aucun danger.



Pile en Lithium-Doit uniquement être remplacée par un technicien dûment qualifié

**ATTENTION :** Un danger d'explosion existe en cas de remplacement incorrect de la pile. Remplacer uniquement avec une pile du même type ou d'un type recommandé par le fabricant. Mettre au rebut les piles usagées conformément aux instructions du fabricant).



**POUR TOUS PAYS:** Installer le matériel conformément aux normes électriques nationales et locales.

## Turvallisuus



**VAROITUS:** Kotiolosuhteissa tämä laite voi aiheuttaa radioaaltojen häiröitä, missä tapauksessa laitteen käyttäjän on mahdollisesti ryhdyttävä tarpeellisiin toimenpiteisiin.



**VAROITUS** Luokan I Lasertuote.



**VAROITUS** Älä katso säteeseen.



### 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.



### SALAMANISKUVAARA

**HENGENVAARA:** ÄLÄ TYÖSKENTELE laitteiden tai KAAPELEIDEN KANSSA SALAMOINNIN AIKANA.



### HUOMAUTUS: VIRTajoHTOA KÄYTETÄÄN

VIRRANKATKAISULAITTEENA. VIRTA KATKAISTAAN irrottamalla virtajohto.



### SÄHKÖ - TYPPILUOKAN I LAITTEET

TÄMÄ LAITE TÄYTY MAADOITTA. Pistoke täytyy liittää kunnollisesti maadoitettuun pistorasiaan. Virheellisesti johdotettu pistorasia voi altistaa metalliosat vaarallisille jännitteille.



PISTORASIAAN KYTKETTÄVÄ LAITE; pistorasia on asennettava laitteen lähelle ja siihen on oltava esteetön pääsy.



**HUOMAUTUS:** Ilmavaihtoreikiä ei pidä tukkia ja niillä täytyy olla vapaa yhteys ympäröivään huoneilmaan, jotta ilmanvaihto tapahtuisi.



**KÄYTTÖLÄMPÖTILA:** AR750S, AR770S: Tämä tuote on suunniteltu ympäröivän ilman maksimilämpötilalle 50°C.



### SÄHKÖ-VAIHTORVIRTASÄHKÖPIIRIN YLIKUORMITUS

Tuotetta asennettaessa on otettava huomioon osien nimikilvissä osoitettu teho silloin kun osat liitetetään vaihtovirtaverkkoon.



**HUOMAUTUS:** MEKAANINEN KUORMITUS--Osien asennuksen alustaan tulee tapahtua siten, että epätasainen kuormitus ei aiheuta vaaraa.



Litiumparisto - Vaihdon voi suorittaa vain koulutettu ja pätevä teknikko.

**Varoitus:** Räjähdyksivaara, jos paristo on vaihdettu väärin. Vaihda vain samaan tai vastaavaan tyyppiin, jota valmistaja suosittelee. Hävitä käytetyt paristot valmistajan ohjeiden mukaan.



**KAIKKI MAAT:** Asenna tuote paikallisten ja kansallisten sähköturvallisuusmääräysten mukaisesti.

## Norme di Sicurezza

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**AVVERTENZA:** in ambiente domestico questo prodotto potrebbe causare radio interferenza. In questo caso potrebbe richiedersi all'utente di prendere gli adeguati provvedimenti.



**AVVERTENZA** Prodotto laser di Classe I.



**AVERTENZA** Non fissare il raggio con gli occhi.



### **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.



### **PERICOLO DI FULMINI**

**PERICOLO:** NON LAVORARE sul dispositivo o sui CAVI durante PRECIPITAZIONI TEMPORALESCHIE.



**ATTENZIONE:** IL CAVO DI ALIMENTAZIONE È USATO COME DISPOSITIVO DI DISATTIVAZIONE. PER TOGLIERE LA CORRENTE AL DISPOSITIVO staccare il cavo di alimentazione.



ELETTRICITÀ - DISPOSITIVI DI CLASSE I

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.



APPARECCHIATURA COLLEGABILE, la presa va installata vicino all'apparecchio per risultare facilmente accessibile.



**ATTENZIONE:** le prese d'aria non vanno ostruite e devono consentire il libero ricircolo dell'aria ambiente per il raffreddamento.



**TEMPERATURA DI FUNZIONAMENTO:** AR750S, AR770S: Questo prodotto è concepito per una temperatura ambientale massima di 50 gradi centigradi.



ELETTRICITÀ - SOVRACCARICO DEL CIRCUITO DI RETE A C.A.

Durante l'installazione ed il collegamento del dispositivo alla rete di alimentazione a corrente alternata, è necessario tenere in considerazione le capacità cumulative riportate sulla targhetta.



**ATTENZIONE:** CARICAMENTO MECCANICO - Il montaggio del dispositivo sul supporto va effettuato in maniera tale da evitare qualsiasi potenziale condizione di pericolo eventualmente dovuta al montaggio irregolare.



Batteria al litio - Va sostituita solo da un tecnico specializzato e qualificato.

**ATTENZIONE:** l'errata sostituzione della batteria può causare pericolo di esplosioni. Sostituire solamente con lo stesso tipo o con uno equivalente raccomandato dal produttore. Eliminare le batterie usate secondo le istruzioni del produttore.



**TUTTI I PAESI:** installare il prodotto in conformità delle vigenti normative elettriche nazionali.

## Sikkerhet

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**ADVARSEL:** Hvis dette produktet benyttes til privat bruk, kan produktet forårsake radioforstyrrelse. Hvis dette skjer, må brukeren ta de nødvendige forholdsregler.



**ADVARSEL** Laserprodukt av klasse I.



**ADVARSEL** Stirr ikke på strålen.



### 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.



### FARE FOR LYNNEDSLAG

**FARE:** ARBEID IKKE på utstyr eller KABLER i TORDENVÆR.



**FORSIKTIG:** STRØMLEDNINGEN BRUKES TIL Å FRAKOBLE UTSTYRET. FOR Å DEAKTIVISERE UTSTYRET, må strømforsyningen kobles fra.



ELEKTRISK - TYPE I- 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 tilgjengelige metalleder.



UTSTYR FOR STIKKONTAKT. Stikkontakten skal monteres i nærheten av utstyret og skal være lett tilgjengelig.



**FORSIKTIG:** Lufterventilene må ikke blokkeres, og må ha fri tilgang til luft med romtemperatur for avkjøling.



**DRIFTSTEMPERATUR:** AR750S, AR770S: Dette produktet er konstruert for bruk i maksimum romtemperatur på 50 grader celsius.



ELETRISK OVERBELASTNING PÅ AC HOVEDKRETSLØP

Når produktet installeres, må de samlede navneplateverdierne kontrolleres nøye når strøm påsettes.



**FORSIKTIG: MEKANISK LASTNING** Installering av utstyret på hyllen må utføres på en slik måte at ingen farlige situasjoner oppstår som en følge av ujevn lastning.



Litiumbatteri — Må kun byttes ut av en faglig kvalifisert tekniker.

**FORSIKTIG:** Eksplosjonsfare hvis batteriet feilinnsettes. Batteriet må bare erstattes med samme type eller en tilsvarende type som er anbefalt av fabrikanten. Batteriene må kasseres i samsvar med fabrikantens instruksjoner.



**ALLE LAND:** Produktet må installeres i samsvar med de lokale og nasjonale elektriske koder.

## Segurança

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**AVISO:** Num ambiente doméstico este produto pode causar interferência na radiorrecepção e, neste caso, pode ser necessário que o utente tome as medidas adequadas.



**AVISO** Produto laser de classe I



**AVISO** Não olhe fixamente para o raio.



### **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.



#### **PERIGO DE CHOQUE CAUSADO POR RAIOS**

**PERIGO: NÃO TRABALHE** no equipamento ou nos CABOS durante períodos suscetíveis a QUEDAS DE RAIOS.



**CUIDADO:** O CABO DE ALIMENTAÇÃO É UTILIZADO COMO UM DISPOSITIVO DE DESCONEXÃO. PARA DESELETRIFICAR O EQUIPAMENTO, desconecte o cabo de ALIMENTAÇÃO.



ELÉTRICO - EQUIPAMENTOS DO TIPO CLASSE I

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.



EQUIPAMENTO DE LIGAÇÃO, a tomada eléctrica deve estar instalada perto do equipamento e ser de fácil acesso.”



**CUIDADO:** As aberturas de ventilação não devem ser bloqueadas e devem ter acesso livre ao ar ambiente para arrefecimento adequado do aparelho.



**TEMPERATURA DE FUNCIONAMENTO:** AR750S, AR770S: Este produto foi projetado para uma temperatura ambiente máxima de 50 graus centígrados.



**ELÉTRICO - SOBRECARGA DA REDE DE CORRENTE ALTERNADA (AC)**  
Antes de instalar o produto, verifique o efeito cumulativo da conexão de diversos aparelhos à rede de corrente alternada através das etiquetas que indicam potência ou amperagem.



**CUIDADO: CARREGAMENTO** - O equipamento deverá ser montado no suporte de montagem de forma tal que não cause perigo devido a carregamento não uniforme.



Bateria de lítio - Só deve ser trocada por técnico qualificado e treinado.  
**CUIDADO:** Se a bateria não for devidamente instalada há perigo de explosão. Substitua somente pelo mesmo tipo ou equivalente, conforme recomendado pelo fabricante. Descarte baterias usadas, de acordo com as instruções fornecidas pelo fabricante.



**TODOS OS PAÍSES:** Instale o produto de acordo com as normas nacionais e locais para instalações elétricas.

## Seguridad

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**ADVERTENCIA:** en un entorno doméstico, este producto puede causar radiointerferencias, en cuyo caso, puede requerirse del usuario que tome las medidas que sean convenientes al respecto.



¡**ADVERTENCIA!** Producto láser Clase I.



¡**ADVERTENCIA!** No mirat fijamente el haz.



### 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.



#### **PELIGRO DE RAYOS**

**PELIGRO:** NO REALICE NINGUN TIPO DE TRABAJO O CONEXION en los equipos o en LOS CABLES durante TORMENTAS ELECTRICAS.



**ATENCION:** EL CABLE DE ALIMENTACION SE USA COMO UN DISPOSITIVO DE DESCONEXION. PARA DESACTIVAR EL EQUIPO, desconecte el cable de alimentación.





**ELECTRICO - EQUIPO DEL TIPO CLASE I**

**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.



**EQUIPO CONECTABLE,** el tomacorriente se debe instalar cerca del equipo, en un lugar con acceso fácil”.



**ATENCIÓN:** Las aberturas para ventilación no deberán bloquearse y deberán tener acceso libre al aire ambiental de la sala para su enfriamiento.



**TEMPERATURA REQUERIDA PARA LA OPERACIÓN:**

AR750S, AR770S: Este producto está diseñado para una temperatura ambiental máxima de 50 grados C.



**ELECTRICO - SOBRECARGA DEL CIRCUITO PRIMARIO DE CORRIENTE ALTERNA**

Al instalarse el producto deberán considerarse las potencias nominales acumulativas, cuando se conecta el equipo al cable de alimentación de corriente alterna.



**ATENCIÓN: CARGA MECANICA** - El montaje del equipo en el bastidor debe realizarse de manera tal que no cause una condición peligrosa debido a la distribución desigual del peso.



Batería de litio - Sólo deberá ser cambiada por un técnico entrenado y calificado.

**ATENCIÓN:** Peligro de explosión si la batería no se reemplaza en forma correcta. Reemplace sólo con el mismo tipo o equivalente que recomienda el fabricante. Deseche las baterías usadas según las instrucciones del fabricante.



**PARA TODOS LOS PAÍSES:** Monte el producto de acuerdo con los Códigos Eléctricos locales y nacionales.

## Säkerhet

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**WARNING:** Denna produkt kan ge upphov till radiostörningar i hemmet, vilket kan tvinga användaren till att vidtaga erforderliga åtgärder.



**WARNING!** Laserprodukt av klass I.



**WARNING!** Laserstrålning när enheten är öppen.



**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.



### **FARA FÖR BLIXTNEDSLAG**

**FARA:** ARBETA EJ på utrustningen eller kablarna vid ÅSKVÄDER.



**WARNING:** NÄTKABELN ANVÄNDS SOM STRÖMBRYTARE FÖR ATT KOPPLA FRÅN STRÖMMEN, dra ur nätkabeln.



ELEKTRISKT - TYP KLASS I 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.



UTRUSTNING MED PLUGG. Uttaget skall installeras i utrustningens närhet och vara lättåtkomligt”.



**WARNING:** Luftventilerna får ej blockeras och måste ha fri tillgång till omgivande rumsluft för avsvälning.



**DRIFTSTEMPERATUR:** AR750S, AR770S: Denna produkt är konstruerad för rumstemperatur ej överstigande 50 grader Celsius.



ELEKTRISKT - ÖVERBELASTNING AV VÄXELSTRÖMSNÄTET: När produkten installeras bör den sammanlagda effekten på namnplåten beaktas när apparaten ansluts till växelströmsnätet.



**WARNING:** MEKANISK BELASTNING: Utrustningen ska installeras i chassit på så sätt att fara inte uppstår p g a ojämn belastning.



Litium batteri - Får endast bytas av utbildade och kvalificerade tekniker.

**WARNING:** Risk för explosion om felaktigt batteri används. Byt endast mot samma eller likvärdig typ batteri, rekommenderat av tillverkaren. Kassera använda batterier i enlighet med tillverkarens instruktioner.



**ALLA LÄNDER:** Installera produkten i enlighet med lokala och statliga bestämmelser för elektrisk utrustning.

## Connection to mains voltage supply

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This product is supplied with a power cord that incorporates a moulded plug and has been approved for use. It must only be used with the power cord supplied.

For continued protection against the risk of fire and shock hazard, replace fuses only with the same type and rating.

## Telecommunications Interfaces

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**Warning** To reduce risk of fire use only No.26 awg or larger telecommunications line cord if the cord supplied is not used with the apparatus.

### Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Do not use this product near water, for example near a bathtub, washbowl, kitchen sink, or laundry tub in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be remote risk of electric shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. Remove the telephone cord from the unit prior to making changes to the expansion port.

**Save these instructions**

## Connection to ISDN network

### Ports for the connection of other apparatus

The following interfaces normally operate at SELV (Safe Extra Low Voltage) levels:

- Asynchronous (console) ports
- Ethernet ports
- G703 ports
- Synchronous ports

**Note** SELV is a secondary circuit whose voltages do not exceed a safe value under normal operating conditions and under single fault conditions. Under normal operating conditions the voltages do not exceed 42.4 V peak AC or 60 V DC.

### TNVI

The following interfaces are Telecommunications Network Voltage (TNVI) circuits, which operate normally within the limits of SELV:

- BRI ports for connection to ISDN Basic Rate telecommunications networks
- PRI ports for connection to ISDN Primary Rate telecommunications networks
- E1/T1 ports for connection to E1/T1 services

**Note** A TNVI circuit is a circuit which under normal operating conditions does not exceed the limits for SELV and on which overvoltages from telecommunication networks are possible.

## US Federal Communications Commission (FCC)

This equipment complies with Part 68 of the Federal Communications Commission (FCC) rules for the United States.

A label is located on the underside of the base unit containing the FCC registration number. You must, upon request, provide the following information to your local telephone company:

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### For the AR021U PIC

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Facility Interface Code	021S5
Service Order Code	6.0Y The AR021U PIC has completed the ISDN Ordering Codes Translation Review and is registered for IOC S and EZ-ISDN I.
USOC Jack Type	RJ49C

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Should you experience trouble with this telephone equipment, please contact:  
ALLIED TELESIS INTERNATIONAL  
19800 NORTH CREEK PARKWAY #200  
BOTHELL  
WASHINGTON 98011  
TEL: 425 487 8880  
FAX: 425 489 9191

If trouble is experienced with this equipment (AR021U PIC), for repair or warranty information, please contact the above. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

This equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs.

Your telephone company may discontinue your service if your equipment causes harm to the telephone network. They will notify you in advance of disconnection, if possible. During notification, you will be informed of your right to file a complaint to the FCC.

Occasionally, your telephone company may make changes in its facilities, equipment, operation, or procedures that could affect the operation of your equipment. If so, you will be given advance notice of the change to give you an opportunity to maintain uninterrupted service.

## Canadian Department of Communications

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The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.



**Warning** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

This digital apparatus does not exceed the limits for radio noise emissions from digital apparatus as set out in the Radio Interface Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministre des Communications du Canada.