

**AMARANTEN**

## **Installation and Setup guide**

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***Amaranten F50 Series***

Published 2006-08-29  
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# Preface

## Target Audience

The target audience for this guide is the user who has taken delivery of a packaged Amaranten F50 Series appliance. The guide takes the user from unpacking and installation of the device through to power-up and initial network connection.

## Text Structure

The text is broken in down into chapters and subsections. All numbered subsections are shown in the table of contents at the beginning of the document.

### Text links

Where a "See section" link is provided in the main text, this can be clicked on to take the reader directly to that reference eg. see Chapter 5, *Hardware Specifications*.

### Web links

Web links included in the document are clickable eg. <http://www.amaranten.com>

## Notes to the main text

Special sections of text which the reader should pay special attention to are indicated by icons on the the left hand side of the page followed by a short paragraph in italicized text. There are the following types of such sections:



### **Note**

*This indicates some piece of information that is an addition to the preceding text. It may concern something that is being emphasised or something that is not obvious or explicitly stated in the preceding text.*



### **Tip**

*This indicates a piece of non-critical information that is useful to know in certain situations but is not essential reading.*



### **Caution**

*This indicates where the reader should be careful with their actions as an undesirable situation may result if care is not exercised.*



### **Important**

*This is an essential point that the reader should read and understand.*



### **Warning**

*This is essential reading for the user as they should be aware that a serious situation may result if certain actions are taken or not taken.*

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# Chapter 1. Product Overview

- [Unpacking the product, page 1](#)
- [Ports and Connectors, page 2](#)

## 1.1. Unpacking the product



This section details the unpacking of the F50 Series appliance. Carefully open the shipping packaging and carefully unpack its contents. The box should contain the following items:

1. The Amaranten F50 Series Appliance
2. 1 x Ethernet cable
3. RS-232 null-modem cable
4. Power cord
5. AC power adapter
6. CD-ROM containing:
  - Amaranten FineTune software
  - Amaranten Logger software
  - Required documentation in PDF format
7. Certificate of Authenticity



**Note**

*If any items are missing from your package, please contact your reseller or distributor.*

## 1.2. Ports and Connectors

This section is an overview of the hardware's external design and construction.

**Figure 1.1. Front view of the Amaranten F50 Series.**



The SG50 features an RS232 console port on the extreme right. To the left are 10 Fast Ethernet ports which can operate at 10Mb or 100Mb speeds. These ports are referred to by the administrator using logical interface names. The first two ports are marked as **DMZ** and **AUX**, the third as **WAN**. The remaining 7 ports are marked **LAN 1** to **LAN 7**. These ports fulfill the following functions:

<b>WAN</b>	This port should be connected to the external wide area network (eg. the internet). It is 100Base-T or 10Base-T capable. The default interface name is <b>wan</b> .
<b>DMZ &amp; AUX</b>	These ports are also 100Base-T or 10Base-T capable. Their default interface names are <b>dmz</b> and <b>aux</b> .
<b>LAN 1-7</b>	These ports are general purpose interfaces that connect to the main processor via a switch chip which is common to all seven ports. All are designed to be connected to internal networks. All 7 ports share a single default logical interface names which is called <b>lan</b> . In other words any rule in the IP rule-set that uses <b>lan</b> as the source or destination interface will apply to traffic on any of the physical ports LAN 1-7.



### ***Changing default interface names***

*The default logical interface names assigned to physical ports can be changed later by the F50 Series appliance administrator. In the case of **lan**, changing this name will change the shared name for physical ports LAN 1-7.*



### ***Important***

*Traffic that enters a F50 Series device by one of the 7 general purpose interfaces LAN1 to LAN7 and then leaves by another of those same 7 interfaces destined for the same IP subnet, will not be subject to the CorePlus IP rule-set. This is because that traffic will pass through the device's internal switch logic and it will be sent directly to the destination interface by the switch.*

## Power and Status LEDs

The front panel of the F50 Series device features two LED lights. One is for power, the other indicates CorePlus status. The Power LED should be green when power is applied (see Section 2.2, "Connecting Power"). The Status LED flashes during the CorePlus firmware loading sequence and stops flashing when CorePlus is successfully loaded.

## Port Status LEDs

Above each F50 Series interface port socket there are two indicator lights. The top-right hand light flashes green to indicate data traffic on that port. The top-left hand light is illuminated continuously

green if the port is operating as a 100Base-TX link. The top-left light is not lit if the connection is operating as a 10Base-T link.



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# Chapter 2. Installation

- [Installation Guidelines, page 5](#)
- [Connecting Power, page 6](#)
- [Resetting to factory defaults, page 7](#)

## 2.1. Installation Guidelines

Follow these guidelines when installing your Amaranten F50 Series appliance:

- Make sure that the power source circuits are properly grounded, then use the power cord supplied with the appliance to connect it to the power source.
- If your installation requires a different power cord than the one supplied with the appliance, be sure to use a power cord displaying the mark of the safety agency that defines the regulations for power cords in your country. The mark is your assurance that the power cord can be used safely with the appliance.
- Ensure that the appliance does not overload the power circuits, wiring and over-current protection. To determine the possibility of overloading the supply circuits, add together the ampere ratings of all devices installed on the same circuit as the appliance and compare the total with the rating limit for the circuit. The maximum ampere ratings are usually printed on the devices near the AC power connectors.
- Do not install the appliance in an environment where the operating ambient temperature might exceed the specified operating range (see Chapter 5, *Hardware Specifications*).
- Make sure that airflow around the sides and back of the appliance is not restricted.



### **Note**

*Detailed information concerning power supply range, operating temperature range etc. can be found at the end of this publication in Chapter 5, Hardware Specifications.*

## Flat Surface Installation

The F50 Series device can be mounted onto any appropriate flat, level surface that can safely support the weight of the appliance and its attached cables.



### **Caution**

*Please ensure there is adequate space around the unit for ventilation and access to operating switches and cable connectors.*

## 2.2. Connecting Power



### ***Important***

*Please read the advisory concerning electrical safety in Chapter 4, Safety.*

The image below shows the back of the F50 Series. To the extreme right is the power cord socket. To the left of the socket is a recessed button for resetting the device to factory defaults.

**Figure 2.1. Rear view of the Amaranten F50 Series.**



## Connecting AC Power

To connect the power cord, follow these steps:

1. Fit the powercord into the power adapter that comes with the F50 Series.
2. Plug the power adapters power plug into the power receptacle on the back panel of the F50 Series device.
3. Plug the other end of the power cord into a grounded power outlet.

## 2.3. Resetting to factory defaults

In some unusual cases, it may be necessary to reset the F50 Series device to the state it was in when it left the factory.

The recessed button to the left of the power inlet on the back of the F50 Series can be used to reset the device to its factory defaults.

To reset to factory defaults:

1. Power off the device
2. Push in the reset button with a suitable pointed tip tool
3. Hold the button in and re-apply power to the unit
4. Continue holding in the button for at least 30 seconds longer after power is applied
5. Release the button and the device should be reset with its factory defaults



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# Chapter 3. Initial Setup

- [Attaching Connectors](#), page 9
- [Setup with local RS232 console](#), page 11
- [Finalizing the Configuration](#), page 13

## 3.1. Attaching Connectors

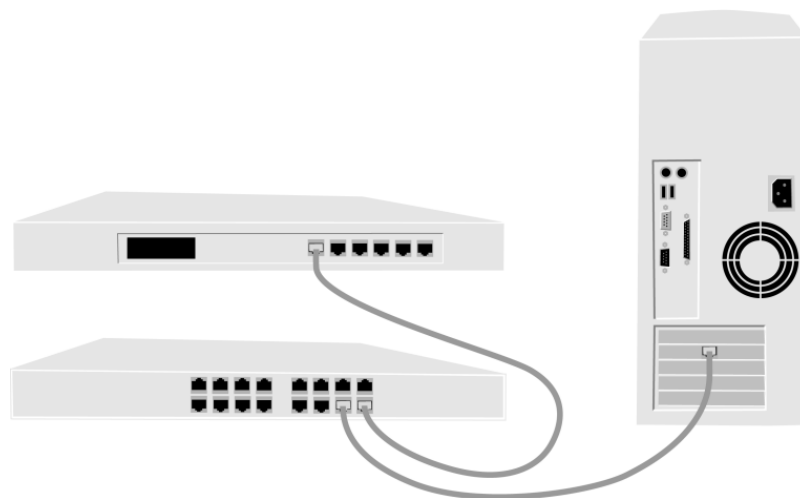
### 3.1.1. Connecting to a Network

The initial configuration of the F50 Series device configures which Ethernet interface is to be used for remote management. Any interface can be used for this purpose. The selected interface can also be used for normal traffic.

The intended interface should be attached to the same network as the management server (or a network accessible from the management server via one or more routers).

Connect the interface to a switch or hub in the network using a regular straight-through Ethernet cable. In the diagram below, a Amaranten appliance (unit top-left) is connected to a switch (bottom-left).

**Figure 3.1. A typical installation setup**



The F50 Series device can be connected directly to the network interface of the management server without using any switch or hub, but please note that in that case, a crossover cable must be used.

### 3.1.2. Connecting the Console Port

The final phase of the initial set-up requires actions performed using the F50 Series *Console* port.

The serial console port is an RS-232 port that enables a connection to a PC or terminal for monitoring and initial configuration of the F50 Series device. To use the console port, you need the following equipment:

- A terminal or a (portable) computer with a serial port and the ability to emulate a terminal i.e. using the Hyper Terminal software included in most Microsoft Windows installations). The ter-

minal should have the following settings: **9600 baud, No parity, 8 bits and 1 stop bit.**

- An RS-232 cable with appropriate connectors. The F50 Series package includes an RS-232 null-modem cable.

To connect a terminal to the console port, follow these steps:

1. Set the terminal protocol as described previously.
2. Connect one of the connectors on the RS-232 cable supplied, directly to the console port on the F50 Series device.
3. Connect the other end of the cable to the terminal or the serial connector of the computer running the communications software.

## 3.2. Setup with local RS232 console

Make sure that a terminal (or a computer running terminal emulation software) is connected to the console port on the Amaranten F50 Series hardware as described above in Section 3.1.2, “Connecting the Console Port”.

1. Power up the F50 Series appliance.



### Note

The hardware will need some time to power up and during this period, there will be no output to the terminal window.

When the device is starting, a text similar to the following will appear in the terminal window:

```

=====
Select Management Interface
=====
This will setup a small base configuration needed for the
system to start, and for remote management of the
Security Gateway to work. When this procedure is finished,
the remaining parts of the configuration may be completed
remotely using the Security Gateway Manager software.

Please choose your management interface
-----

LAN: Switched interfaces Port 1-7
WAN: Fast Ethernet interface 10/100
AUX: Fast Ethernet interface 10/100
-----
ESC Return to previous menu

```

2. Select the interface that you have chosen for communication with the management station. Press *Enter* to confirm your choice.
3. Enter the IP address you intend to use for the management interface and enter the appropriate netmask and default gateway. It's also possible to specify a remote management network if it's different from the local management interface subnet. Press *Ctrl-S* to save the settings and continue.

```

=====
Base IP configuration
=====
Management Interface:
LAN: Switched interfaces Port 1-7

Use DHCP:          [ ]
Use PPPoE:         [ ]

IP Address:        [192.168.10 .10 ]
Netmask:           [255.255.255.0# ]
Gateway Address:   [ . . . ] (Leave blank for none)
Allowed Mgmt Net: [ . . . ] (Leave blank for local
network)
Netmask:           [ . . . ]

NOTE: If this interface is NOT the external interface,
the gateway address should normally be left blank.
-----

```

**Note**

*It is possible to use DHCP on the interface.*

4. The following will appear in the terminal window:

```
=====  
Generating Base Configuration  
=====  
Writing configuration file, please wait...Done.  
It is recommended to start the core now.
```

Press **Y** to start CorePlus.

5. You will receive a confirmation message that CorePlus has successfully started as shown below:

```
Configuration done
```

## 3.3. Finalizing the Configuration

After initial setup, the user should refer to the companion publications found in PDF format on the accompanying CD for information on how to begin to configure the F50 Series device:

**Amaranten FineTune Administrators Guide**

FineTune is a software tool that provides the principal management interface for the F50 Series device. The software runs on a Windows based PC workstation and is used by the administrator to manage one or multiple Amaranten Security Gateways. This describes how to register your Amaranten license and set-up a first security policy.

**Amaranten CorePlus Administrators Guide**

This describes the general operation and control of the CorePlus firmware, which is the Amaranten proprietary operating system that drives and controls the Amaranten F50 Series hardware. The document includes examples of how to carry out typical administrative tasks such as setting up a VPN, and how to use the F50 Series in various scenarios.

**Amaranten Log Reference Guide**

This documents and describes all log messages that might be generated by CorePlus during operation of the system.



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## Chapter 4. Safety

### Safety Information

Amaranten F50 Series devices are safety class I products and have protective ground terminals. There must be an uninterrupted safety earth ground from the main power source to the product's input wiring terminals, power cord, or supplied power cord set. Whenever it is likely that the protection has been impaired, disconnect the power cord until the ground has been restored.

For LAN cable grounding:

- If your LAN covers an area served by more than one power distribution system, be sure their safety grounds are securely interconnected.
- LAN cables may occasionally be subject to hazardous transient voltage (such as lightning or disturbances in the electrical utilities power grid). Handle exposed metal components of the network with caution.

There are no user-serviceable parts inside these products. Only service-trained personnel can perform any adjustment, maintenance or repair.

### Säkerhetsföreskrifter

Dessa produkter är säkerhetsklassade enligt klass I och har anslutningar för skyddsjord. En obruten skyddsjord måste finnas från strömkällan till produktens nätkabelanslutning eller nätkabel. Om det finns skäl att tro att skyddsjorden har blivit skadad, måste produkten stängas av och nätkabeln avlägnas till dess att skyddsjorden har återställts.

För LAN-kablage gäller dessutom att:

- om LAN:et täcker ett område som betjänas av mer än ett strömförsörjningssystem måste deras respektive skyddsjord vara ihopkopplade.
- LAN kablage kan vara föremål för farliga spänningstransienter (såsom blixtnedslag eller störningar i elnätet). Hantera metallkomponenter i förbindelse med nätverket med försiktighet.

Det finns inga delar i produkten som kan lagas av användaren. All service samt alla justeringar, underhåll eller reparationer får endast utföras av behörig personal.

### Informations concernant la sécurité

Cet appareil est un produit de classe I et possède une borne de mise à la terre. La source d'alimentation principale doit être munie d'une prise de terre de sécurité installée aux bornes du câblage d'entrée, sur le cordon d'alimentation ou le cordon de raccordement fourni avec le produit. Lorsque cette protection semble avoir été endommagée, débrancher le cordon d'alimentation jusqu'à ce que la mise à la terre ait été réparée.

Mise à la terre du câble de réseau local:

- si votre réseau local s'étend sur une zone desservie par plus d'un système de distribution de puissance, assurez-vous que les prises de terre de sécurité soient convenablement interconnectées.
- Les câbles de réseaux locaux peuvent occasionnellement être soumis à des surtensions transitoires dangereuses (telles que la foudre ou des perturbations dans le réseau d'alimentation pub-

lic). Manipulez les composants métalliques du réseau avec précautions.

Aucune pièce contenue à l'intérieur de ce produit ne peut être réparée par l'utilisateur. Tout dépannage, réglage, entretien ou réparation devra être confié exclusivement à un personnel qualifié.

## Hinweise zur Sicherheit

Dies ist ein Gerät der Sicherheitsklasse I und verfügt über einen schützenden Erdungsterminal. Der Betrieb des Geräts erfordert eine ununterbrochene Sicherheitserdung von der Hauptstromquelle zu den Geräteingabeterminals, den Netzkabeln oder dem mit Strom belieferten Netzkabelsatz voraus. Sobald Grund zur Annahme besteht, dass der Schutz beeinträchtigt worden ist, das Netzkabel aus der Wandsteckdose herausziehen, bis die Erdung wiederhergestellt ist.

Für LAN-Kabelerdung:

- Wenn Ihr LAN ein Gebiet umfasst, das von mehr als einem Stromverteilungssystem beliefert wird, müssen Sie sich vergewissern, dass die Sicherheitserdungen fest untereinander verbunden sind.
- LAN-Kabel können gelegentlich gefährlichen Übergangsspannungen ausgesetzt werden (beispielsweise durch Blitz oder Störungen in dem Starkstromnetz des Elektrizitätswerks). Bei der Handhabung exponierter Metallbestandteile des Netzwerkes Vorsicht walten lassen.

Dieses Gerät enthält innen keine durch den Benutzer zu wartenden Teile. Wartungs-, Anpassungs-, Instandhaltungs- oder Reparaturarbeiten dürfen nur von geschultem Bedieningspersonal durchgeführt werden.

## Considerazioni sulla sicurezza

Questo prodotto è omologato nella classe di sicurezza I ed ha un terminale protettivo di collegamento a terra. Dev'essere installato un collegamento a terra di sicurezza, non interrompibile che vada dalla fonte d'alimentazione principale ai terminali d'entrata, al cavo d'alimentazione oppure al set cavo d'alimentazione fornito con il prodotto. Ogniqualvolta vi sia probabilità di danneggiamento della protezione, disinserite il cavo d'alimentazione fino a quando il collegamento a terra non sia stato ripristinato.

Per la messa a terra dei cavi LAN:

- se la vostra LAN copre un'area servita da più di un sistema di distribuzione elettrica, accertatevi che i collegamenti a terra di sicurezza siano ben collegati fra loro;
- i cavi LAN possono occasionalmente andare soggetti a pericolose tensioni transitorie (ad esempio, provocate da lampi o disturbi nella griglia d'alimentazione della società elettrica); siate cauti nel toccare parti esposte in metallo della rete.

Nessun componente di questo prodotto può essere riparato dall'utente. Qualsiasi lavoro di riparazione, messa a punto, manutenzione o assistenza va effettuato esclusivamente da personale specializzato.

## Consideraciones sobre seguridad

Este aparato se enmarca dentro de la clase I de seguridad y se encuentra protegido por una borna de puesta a tierra. Es preciso que exista una puesta a tierra continua desde la toma de alimentación eléctrica hasta las bornas de los cables de entrada del aparato, el cable de alimentación hasta haberse subsanado el problema.

Puesta a tierra del cable de la red local (LAN):

- Si la LAN abarca un área cuyo suministro eléctrico proviene de más de una red de distribución de electricidad, cerciorarse de que las puestas a tierra estén conectadas entre sí de modo seguro.
- Es posible que los cables de la LAN se vean sometidos de vez en cuando a voltajes momentáneos que entrañen peligro (rayos o alteraciones en la red de energía eléctrica). Manejar con precaución los componentes de metal de la LAN que estén al descubierto.

Este aparato no contiene pieza alguna susceptible de reparación por parte del usuario. Todas las reparaciones, ajustes o servicio de mantenimiento debe realizarlos solamente el técnico.

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# Chapter 5. Hardware Specifications



Below are the key hardware specifications for Amaranten F50 Series installation.

**Figure 5.1. F50 Series Dimensions and Weight**

Height x Width x Depth (mm)	35 x 260 x 190
Device weight	1.2 kg
Device form Factor	Desktop
Power Supply (AC)	100-240V 50 to 60 Hz AC

**Figure 5.2. Regulatory and Safety Standards**

Safety	UL, CE
EMC	FCC class A, CE class A

**Figure 5.3. Environmental**

Humidity	20% to 95% noncondensing
Operational Temperature	5 to 55° C
Vibration	0.41 Grms <sup>2</sup> (3-500 Hz)
Shock	30 G

## Further information

For complete product specifications refer to (clickable link):

<http://www.amaranten.com/products/>