

Installation Guide

Elise3

About this document

This document is used for installation and configuration of the Elise3, as well as for administration and troubleshooting.

Target groups

- The field engineer that installs, maintains and troubleshoots the system
- The system administrator responsible for the IT management at the customer site, that needs to get error messages, to survey and have control of the system.
- The administrator responsible for the daily administration at the customer site, that needs to change and edit settings.

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www.recyclethis.info

**Regulatory Compliance
(EU/EFTA)**

This equipment is intended to be used in the whole EU & EFTA.

This equipment is in compliance with the essential requirements and other relevant provisions of EMC Directive 2004/108/EC, LVD Directive 2006/95/EC, Eco Design 2005/32/EC, and RoHS Directive 2011/65/EU.

The Declaration of Conformity may be consulted at:

<http://www.ascom-ws.com/doc/>

Regulatory Compliance (US/CAN)

Safety Compliance

The equipment described herein complies with:

- UL 60950-1, Second Edition, Safety of Information Technology Equipment – Safety – Part 1: General Requirements
- CSA 60950-1-07, 2nd Edition, Safety of Information Technology Equipment – Safety – Part 1: General Requirements

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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 the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does 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 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 or television technician for help.

IC Compliance

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Classe B conforme a la norme NMB-003 du Canada.

Information to user

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- i) this device may not cause harmful interference, and
- ii) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Modifications

Changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Environmental Requirements

- Refer to the installation guide and product data sheet for complete product ratings and information.
- Avoid exposing the device to direct sunlight or other heat sources.
- Do not expose the device to open flame.
- Keep the device away from excessive heat and moisture.
- Protect your device from aggressive liquids and vapours.
- Keep the device away from strong electromagnetic fields.

Terms used in this manual

Specialized terms are used throughout this manual. The first time a term is used it is defined in the text.

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1. Introduction



The *Elise3 hardware* is the platform for Linux based applications such as messaging, alarm handling, administration and device management. The hardware can be used independently but also works in combination with other hardware or systems.

Elise3 comes in different variants; Elise3 Lite, Elise3 Standard, Elise3 LON/ISC and Elise3 LON/NSS.

The Elise3 Lite is intended for connections via IP only. It has two LAN connections, two USB 2.0 ports for communication with external devices, one mini-USB port for easy management and is equipped with two galvanically isolated physical inputs and outputs. The inputs can be used for trigger conditions which in turn can use the outputs for actions.

The Elise3 Standard has the same functionality as the Lite variant, but supports A-bus connection to Ascom paging system and RS-232 communication with external systems.

The Elise3 LON variants has the same features as the Standard variant but is equipped with a LON piggyback for connection to teleCARE local operating network (LON) and intended for EU/EFTA only. The Elise3 LON/ISC has a LON interface for teleCARE M and Elise3 LON/NSS for the Nurse Station Server application.

Supply voltage:	100 – 240 Vac \pm 20% 12 – 24 Vdc -25% / +20%
Current consumption	Max 275 mA at 100 Vac input Max 1 A at 12 Vdc input Max 500 mA at 24 Vdc input
Delivery includes:	Elise3 hardware with pre-installed software ^a Getting started document: ELISE3- EMBEDDED LINUX SERVER INCLUDING SAFETY INFORMATION Two assembly brackets Four screws size 3.5×40 mm (0.14×1.6 in) together with four wall plugs Four MFT screws size M3×6 mm (0.12×0.24 in) for fastening the assembly brackets Power cable Cable strain reliefs and warning labels kit ^b

a. Separately ordered license certificate.

b. Product dependent.

1. Introduction

Tools etc. required:

Philips screwdriver (Ph No. 2) for the wall screws size 3.5×40 mm (0.14×1.6 in)
Torx (T10) for the MFT screws size M3×6 mm (0.12 × 0.24 in)
Screwdriver 0.40×2.5 mm (0.16×0.098 in) for screw connectors on the rear side
Ethernet cable
System Bus Cabling
Power supply
Computer with Microsoft Internet Explorer™ 8 through 9, or Mozilla Firefox™ 3.6 through 12.

1.1 Abbreviations and Glossary

Elise	Embedded Linux Server
GUI	Graphical User Interface
LON	Local Operating Network
SD card	a non-volatile Secure Digital memory card

2. General Information

2.1 Licenses

The product's software installed on the Elise3 hardware must have a valid software license. The license number can be found:

- on the license certificate provided with the product
- in the product's Setup Wizard
- in the product's Configuration page
- in the product's Advanced Configuration page

New licenses can be downloaded from the Ascom extranet (<https://www.ascom-ws.com>).

2.2 MAC Address

The MAC address can be found:

- on a label on the hardware's rear side
- in the product's Setup Wizard
- in the product's Configuration page
- in the product's Advanced Configuration page (Troubleshoot > System Information)
- in the product's Boot Mode GUI (System > Information)

2.3 Authentication and Administration

Administration is made via a web browser. The administration pages require a user name and password.

IMPORTANT: The default passwords need to be changed to prevent unauthorized access to the administration pages.

2.3.1 Authentication

The product's software has different default accounts, that determine which GUIs that can be accessed.¹

User ID	Password	Comments
sysadmin	setmeup	Used for advanced troubleshooting. The sysadmin has access to all administration pages and has permission to change passwords for all users
admin	changeme	Used for administration and simple troubleshooting. The admin has permission to change all passwords except the sysadmin password.
user	password	Used for administration of some features included in the application
ftpuser	changemetoo	Used to access the FTP area on the product. ^a

a. Product dependent feature

2.3.2 Administration

The Advanced Configuration page requires the sysadmin/admin account. The page can be reached directly by entering "xxx.xxx.xxx.xxx/admin" in a web browser, where xxx.xxx.xxx.xxx is the product's IP address. The Advanced Configuration page can also be accessed by clicking the "Configuration" button on the Start page and then selecting Other Settings > Advanced Configuration.

All configurations can be set and changed on the Advanced Configuration page, such as system setup, changing passwords, etc. This page also contains troubleshooting and detailed configuration of interfaces etc.

3. Description

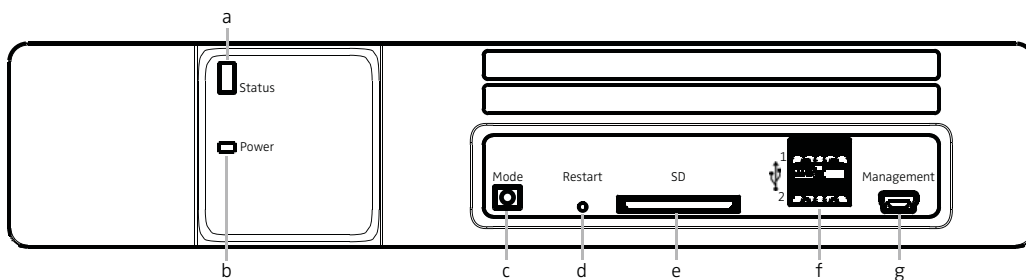
3. Description

The Elise3 front side has different status indications and is used for maintenance. The LEDs indicate the status of the product and the management port makes it possible to have direct connection to the product. It also has an SD card slot and two USB ports for use with external temporary devices.

The rear side is used for connecting supply voltage, communication to supplementary Ascom systems, external systems, inputs/outputs etc.

3.1 Overview of Connectors, Buttons and LEDs

Figure 1. Front side

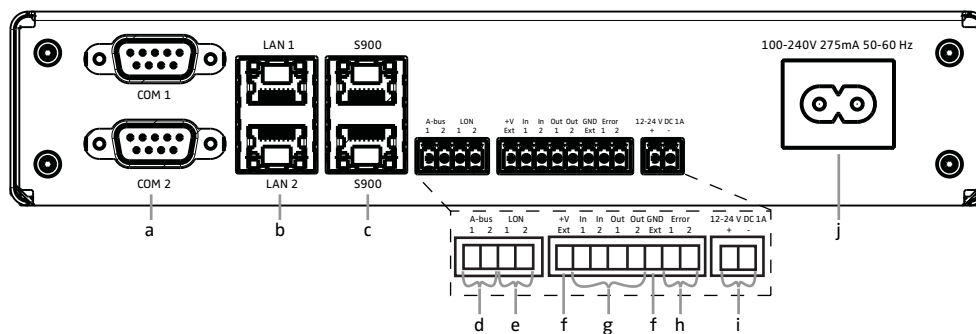


Front side

- (a) Status LED
Indicates the product status
- (b) Power LED
Indicates the power status
- (c) Mode button
Used as a momentary push button with a blue LED. Used for placing the product into specific modes by different push patterns.
- (d) Restart button
A hole button that requires a paper clip (or similar) to be able to push. Used for performing controlled restart and forced restart.
- (e) SD card slot
Used as external memory for storing configuration and data. This is a software dependent feature.
- (f) USB ports
Used for upgrading of the Boot software on the field.
- (g) Management
Mini-USB port for device management

Figure 2. Rear side

3. Description



Rear side

- (a) COM ports
Used for connection of RS232 communication
Note applicable for the Elise3 Lite version.
- (b) LAN ports
LAN 1 is used for connection of 10baseT or 100baseT Ethernet TCP/IP network
LAN 2 is currently not used
- (c) S900 connections (A-bus)
Modular jacks (RJ45) used for connection of Ascom Paging System, Output modules, and Alarm Modules with modular system bus cabling.
Not applicable for the Elise3 Lite version.
- (d) A-bus
Screw connector for connection of Ascom Paging System, and Output modules when modular system bus cable is not used. Not applicable for the Elise3 Lite version.
- (e) LON connections
Screw connector for connection of the LON bus. Applicable for the Elise3 LON version only.
- (f) V+ Ext/GND Ext connections
External 12 V power supply to provide galvanic isolation of the inputs and outputs, see below.
- (g) In1/In2 and Out1/Out2 connections
Used for connection of AUX inputs and AUX outputs
- (h) Error connection
Used for connection of a lamp/siren used to indicate if the product is malfunctioning.
- (i) 12-24 Vdc connection
Used for connection of external backup battery/power supply.

3. Description

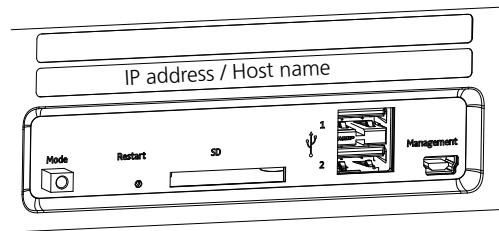
- (j) 100-240 Vac
Used for connection of supply voltage.

3.2 Label for IP Address/Host Name

To facilitate future support and access to the module, the product's IP address or Host name can be printed on a blank label and attached as shown in [Figure 3](#).




The blank label is found on the back side of the Getting started document: "Elise3 – EMBEDDED LINUX SERVER INCLUDING SAFETY INFORMATION", included in the delivery.

Figure 3. Label for IP address or host name



3.3 LED Indications

The LEDs show different colors to determine type of information and have different flashing frequency for showing the priority.

Colors	
	Red Fault indication
	Yellow Mode indication
	Blue Normal operation (OK)

Flashing patterns

Figure 4. LED indications

3. Description

Status LED			
Status OK	Blue		
Starting up/shutting down	Blue		
Feedback (1 sec.)	Blue		
Error/fault	Red		
Warning	Red		
Boot mode	Yellow		Mode LED
Demonstration mode	Yellow		Blue
Active module during synchronization	Red		Blue
Active module synchronized	Blue		Blue
Standby module during synchronization	Yellow		Blue
Standby module synchronized			Blue
Waiting for automatic startup (1 min.)	Yellow		
Troubleshoot mode and during firmware upgrade	Yellow		
Mass storage mode			Blue

Secured settings		Status LED	Mode LED
Indicates that manual confirmation is required		Blue	
Confirmation is done and settings can be activated	Yellow		Blue

Power		Power LED
Power OK	Blue	
Closing down caused by low voltage	Red	
Low voltage*	Red	

* also used if the Power parameter conflicts with the actual setup.

3.4 Operating Mode

Besides normal operation the Elise3 can be operated in three other modes, that is, Boot Mode, Demonstration Mode and Troubleshoot Mode.

3.4.1 Normal Operation

All configuration and settings for the Elise3's software, such as maintenance, software upgrade and troubleshooting, are performed in the web user interface described in the product's user documentation.

3.4.2 Boot Mode

If the software cannot be accessed, the Elise3 can be set in Boot Mode from the web user interface. From this interface, it is possible to install new software, start Troubleshoot Mode, see settings and to reset the module back to factory default settings¹.

Placing the Elise3 in Boot Mode is performed manually by the user but if the Elise3 detects several major errors the module can place itself in Boot Mode.

See [5. Working in Boot Mode](#) on page 28.

1. Network settings such (IP address, Host name, etc.) will not be changed when resetting back to factory default.

3. Description

3.4.3 Demonstration Mode

Demonstration Mode makes it possible to run the Elise3's software for two hours with full or almost full functionality, with or without a valid license. Exact functionality is software dependent. For more information about the functionality during demonstration mode, see the product's documentation. See [6. Demonstration Mode](#) on page 31.

3.4.4 Troubleshoot Mode

Troubleshoot Mode makes it possible to troubleshoot the system and access log files when it is impossible to access and troubleshoot in the software running on the Elise3, i.e. in Troubleshoot Mode no application is started.

Troubleshoot Mode is started from the Boot Mode GUI, see [8.1 Troubleshooting from Boot Mode](#) on page 34.

4. Installation and Configuration

The Elise3 can be mounted vertically on a wall or be placed horizontally in a 19" rack. It must be fixed by screws or other fixtures to the wall or rack, and must not be easily movable.

Figure 5. Recommended installation and configuration procedure



4.1 Mounting

4.1.1 Environmental

The Elise3 shall be placed in an environment with an ambient temperature between 0°C to +40°C (32°F to 104°F). Relative humidity: 30 - 85% RH (non condensing).

4.1.2 Installations Requiring Seismic Considerations

When installing the Elise3 in geographic regions with seismic conditions and special considerations, check regional codes and regulations to determine if any requirements exist and apply for securely mounting ITE equipment.

After the desired rack or cabinet is installed, install the Elise3 in accordance with the instructions in [4.1.3 Wall Mounting](#) and [4.1.4 Rack Mounting](#) on page 11.

IMPORTANT:

- Use only the racks or cabinets described in OSHPD Installation Requirements and Instructions (3101998).
- It is permissible to apply the OSHPD label to the rack or cabinet only. Applying the label to the Elise3 is prohibited. If an OSHPD label for Elise3 is required, contact Ascom Technical Support.

4.1.3 Wall Mounting

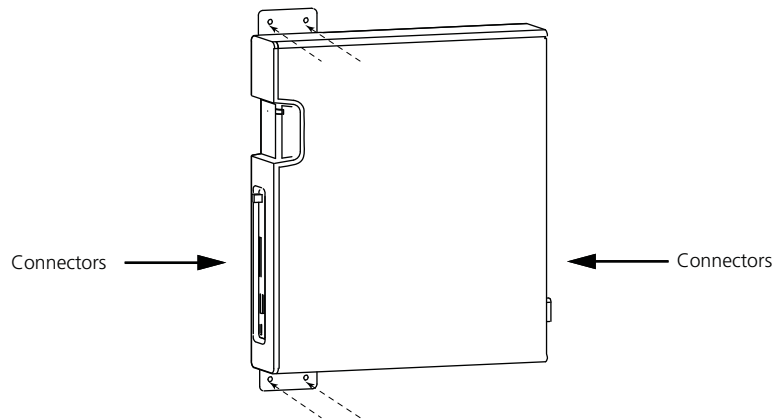
Four screws size 3.5×40 mm (0.14×1.6 in) together with four wall plugs and four screws size M3×6 mm (0.12×0.24 in), are delivered with the product. The M3×6 screws are used for attaching the assembly brackets to the module. Use the 3.5×40 mm (0.14×1.6 in) screws for walls made of wood. For walls made of concrete and bricks use them together with the wall plugs. For other types of walls use suitable screws and plugs according to wall material.

IMPORTANT: When mounted on a wall, it is of great importance that the connections are located in a vertical plane.

- 1 Fasten the supplied assembly brackets on the bottom side of the Elise3.
- 2 Use the supplied screws and wall plugs (or other suitable screws and plugs dependent on wall material) and mount the Elise3 as shown in [Figure 6](#).

Figure 6. Mounting on a wall

4. Installation and Configuration



4.1.4 Rack Mounting

The Elise3 can be either front mounted or reverse mounted in a 19" rack. Accessories for mounting in a rack (ordered separately).

Item No.	Rack
660324	Standard 19" rack kit: Small left/right brackets for two front mounted Elise3 and one big bracket for one front mounted hardware.
660325	Reverse 19" rack kit: Small left/right brackets for two reverse mounted Elise3 and one big bracket for one reverse mounted Elise3.

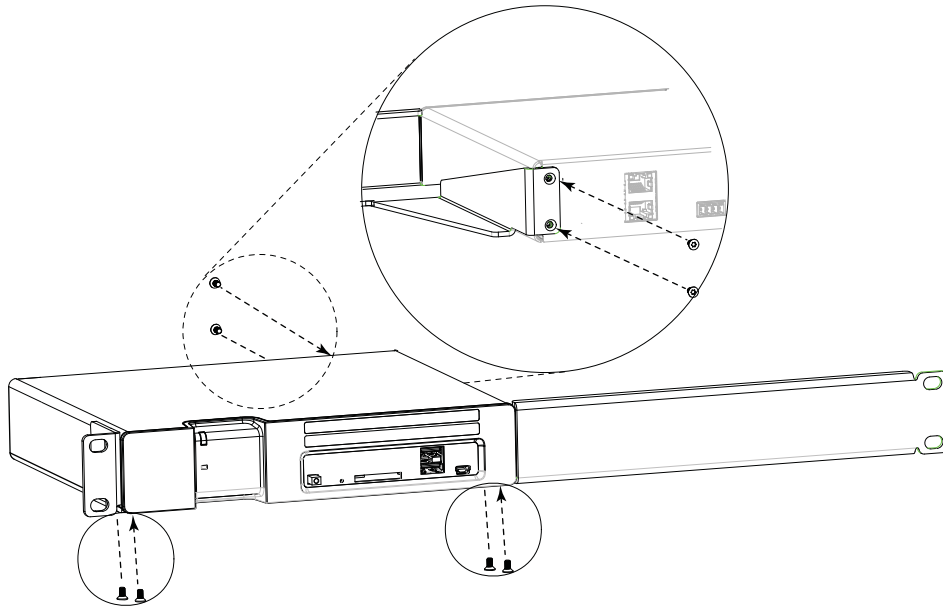
NOTE: Screws for fastening the assembly brackets in the rack are not included in the delivery.

Front mounted single

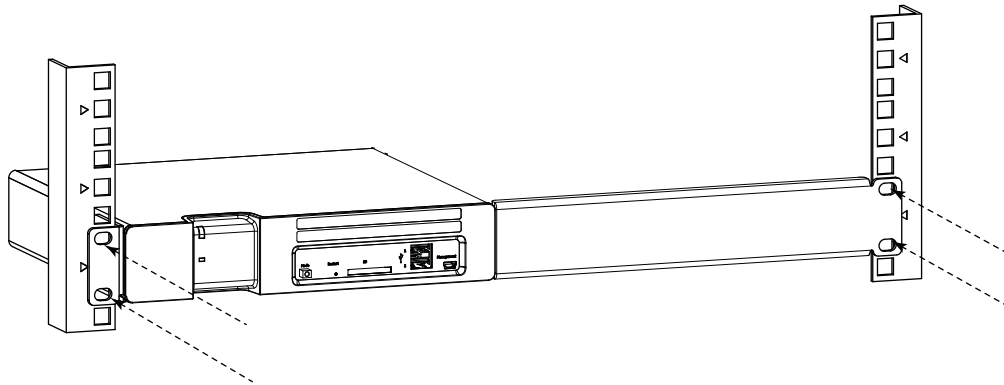
Front mounting a single Elise3 requires the standard 19" rack kit.

- 1 Fasten the big assembly bracket on the right side of the Elise3 and the small assembly brackets on the left side, as shown in the figure below.

4. Installation and Configuration



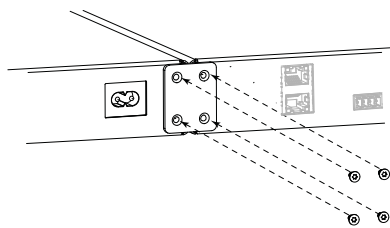
- 2 Fasten the assembly brackets in the rack as shown in the figure below (screws not included).



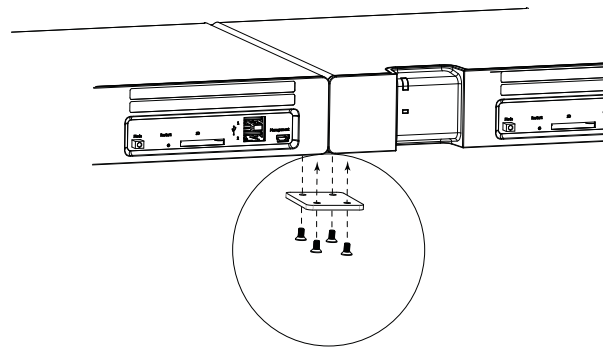
Front mounted double

Front mounting of double Elise3 requires the standard 19" rack kit.

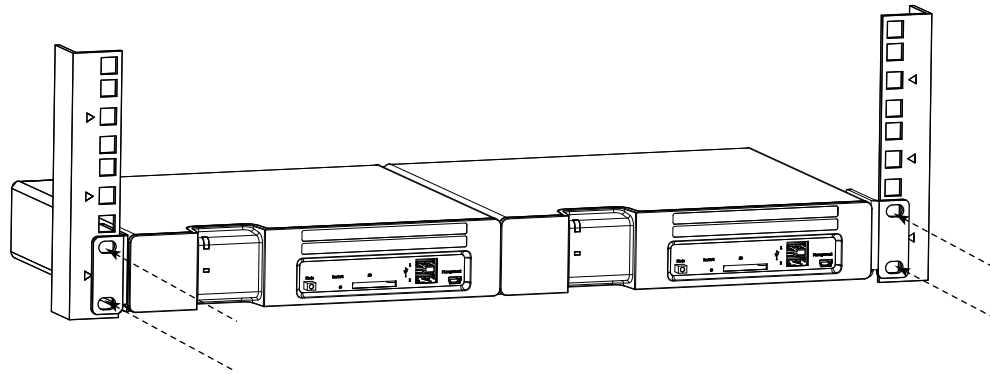
- 1 Use the supplied assembly brackets and fasten the two Elise3 together, both on the rear side and on the bottom side, as shown in the figures below.



4. Installation and Configuration



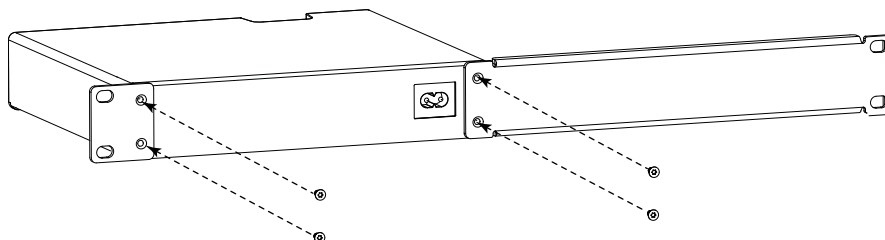
- 2 Use the two small standard assembly brackets and fasten one on the right front side and the other on the left front side.
- 3 Fasten the assembly brackets in the rack as shown in figure below (screws not included).



Rear mounted single

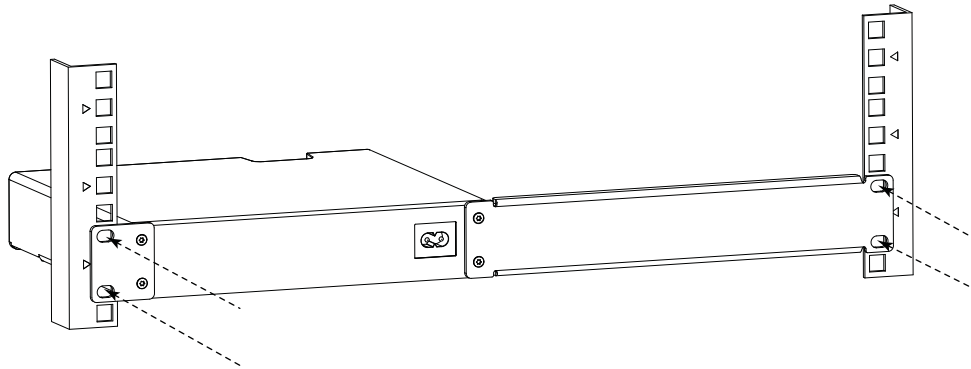
Rear mounting of single an Elise3 requires the reverse 19" rack kit.

- 1 Fasten the big assembly bracket on the right side of the Elise3 and the small assembly brackets on the left side, as shown in the figure below.



- 2 Fasten the assembly brackets in the rack as shown in the figure below (screws not included).

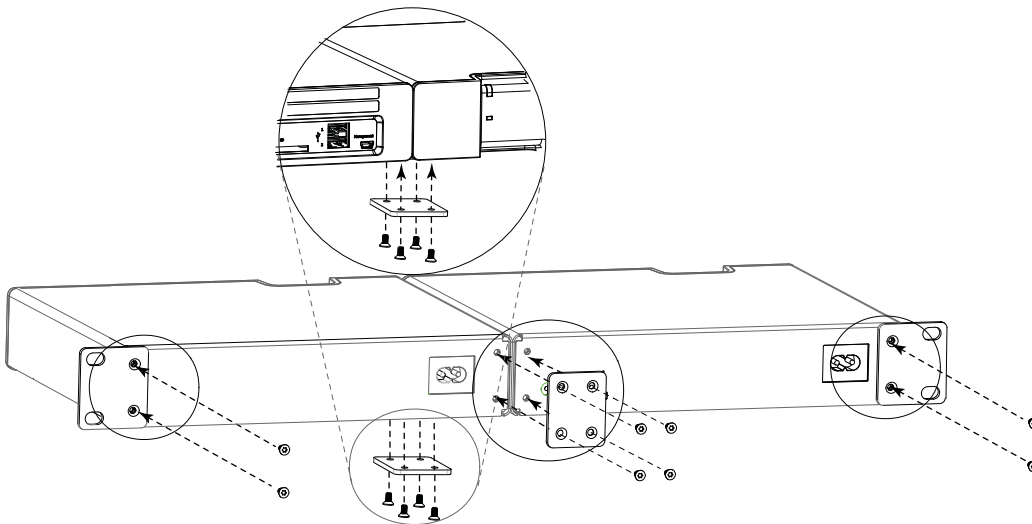
4. Installation and Configuration



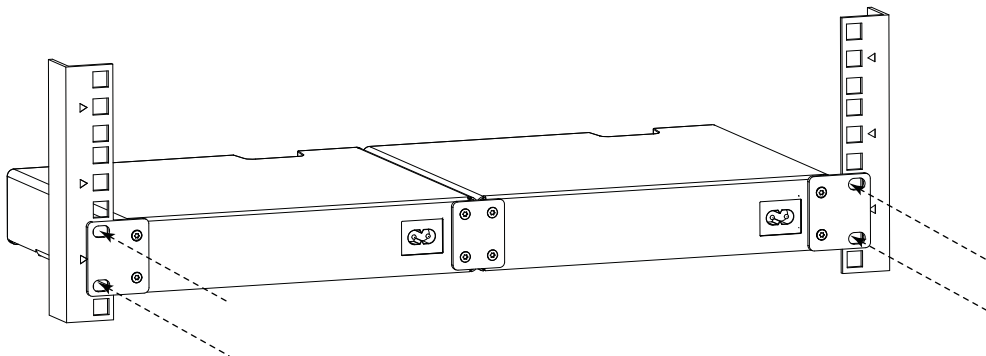
Rear mounted double

Rear mounting of double Elise3 require the reverse 19" rack kit.

- 1 Use the supplied assembly brackets and mount the two Elise3 together, both on the rear side and on the bottom side as shown in figure below.



- 2 Use the two small reverse assembly brackets and fasten one on the right rear side and the other on the left rear side.



4. Installation and Configuration

4.2 Supply Voltage

The Elise3 can be connected to an external power supply (12-24 Vdc battery or power source) as a complement to the primary power supply (100-240 Vac). If the primary power supply fails it switches over to the external power supply automatically, without any negative influence on the running application. If an external battery is used, a current is fed to the battery to recharge it continuously.

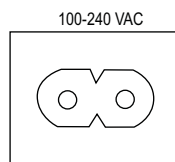
NOTE: 24 hours backup requires a 12V battery with at least 4.8 Ah.

IMPORTANT

- For installation on ships the 12 - 24 Vdc input should be used to meet the regulatory requirements for safety and EMC.
- To meet the regulatory requirements for EMC alone, the 12 - 24 Vdc input should be used on deck, bridge and in special power distribution zones while 100 - 240 Vac input can be used in general power distribution zones.

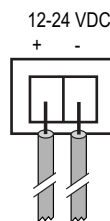
Primary power supply 100-240 Vac

Connect supply voltage to the 100-240 Vac jack, see figure below.



External power supply 12-24 Vdc

Connect the external power supply to the 12-24 Vdc screw connector, see figure below.



4.2.1 Change Power Supply Parameter

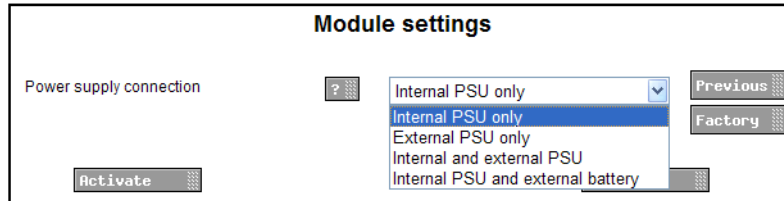
The Elise3 is default configured to use the primary power supply (100-240 Vac). When connected to an external DC power supply, this must be configured in the application installed on the Elise3. If the parameter setting conflicts with the actual setup, the Power LED will indicate with slow flashing red light.

IMPORTANT: Select the *Internal PSU and external battery* setting only if an external battery is used. If an external PSU is configured as a battery, it might result in damages to the PSU.

- 1 Click "Configuration" on the Start page.
- 2 Select Other Settings > Advanced Configuration in the menu on the Configuration page.

4. Installation and Configuration

- 3 Select Power supply in the menu on the Advanced Configuration page.



- 4 Select setting in the drop-down list (Internal PSU only, External PSU only, Internal and external PSU or Internal PSU and external battery).
- 5 Click "Activate".

4.3 Connections

4.3.1 COM Ports (RS232 Communication with External Equipment)

COM ports are available on the Elise3 Standard or LON variant. Additionally, the application installed on the Elise3 determines if the ports can be used or not.

The Elise3 has two identical RS232 connectors; COM1 and COM2. How to connect external equipment to the Elise3 is described in the product's documentation.

4.3.2 Ethernet (LAN) Ports

The Elise3 has two 10baseT/100baseT Ethernet modular jacks (RJ45) but only the jack marked 1 is currently in use.

IMPORTANT: Shielded Ethernet cables should be used for installation on trains to meet the regulatory requirements for railway equipment.

4.3.3 S900/A-bus connection

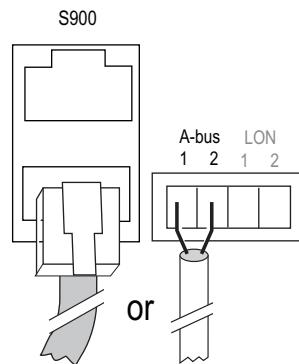
NOTE: Not applicable for the Elise3 Lite version.

The Elise3 can be connected to Ascom Paging System, Alarm modules, and Output modules; either via modular system bus cabling or via twisted-pair lines to 1 and 2 on screw connector A-bus.

The Elise3 has two modular jacks (RJ45) marked *S900* for connection of Ascom Paging System/modules via modular bus cabling. If modular bus cabling is not used, connections are made with twisted pairs to 1 and 2 on screw connector *A-bus*.

Figure 7. Modular jacks for system bus and screw connectors for twisted pairs

4. Installation and Configuration

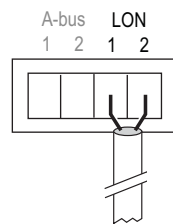


4.3.4 LON Bus

NOTE: The LON connection is only available on the Elise3 LON variant.

Elise3 can be connected to teleCARE M equipment. Connections are made with twisted pairs to 1 and 2 on screw connector LON.

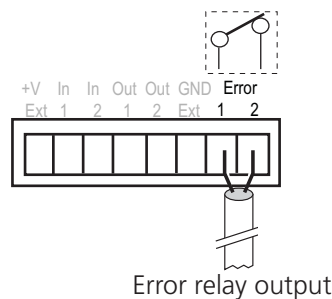
Figure 8. LON connector on Elise3.



4.3.5 Error Relay Output

A relay output is used to indicate Elise3 malfunction and to indicate errors. Connections are made with twisted pairs to 1 and 2 on screw connector.

Figure 9. Error relay



When the Elise3 is working properly the relay is closed. If the Elise3 is malfunctioning, the relay releases to activate the error relay output. Any equipment (e.g. a lamp) connected to the error relay output is triggered (e.g. the lamp is turned on) if the Elise3 is malfunctioning. At power up or restart the relay is released until the applications on the Elise3 are working properly.

4. Installation and Configuration

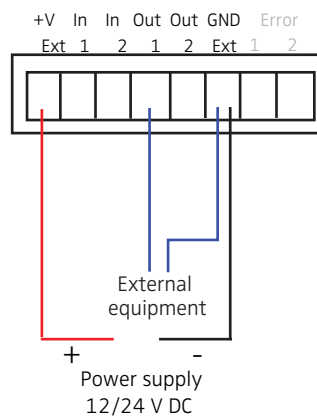
4.3.6 AUX Connections

NOTE: The AUX connections must be supported by the software installed on the Elise3.

Two digital inputs and two digital outputs can be connected. The outputs are of open-collector type and the output signals are dimensioned for 100 mA at 12 Vdc/24 Vdc.

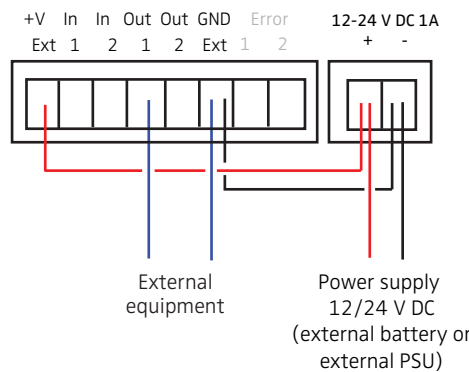
Galvanic isolation of the inputs and outputs is provided by using a separate power supply, see [Figure 10](#).

Figure 10. Example of AUX output with galvanic isolation



If galvanic isolation is not needed and the Elise3 is supplied by an external 12 Vdc/24 Vdc power source, the supply voltage can be taken from the 12-24 Vdc screw connector by connecting +V Ext to "+" and GND Ext to "-", see [Figure 11](#).

Figure 11. Example of AUX output without galvanic isolation and external 12/24 Vdc power supply/battery.



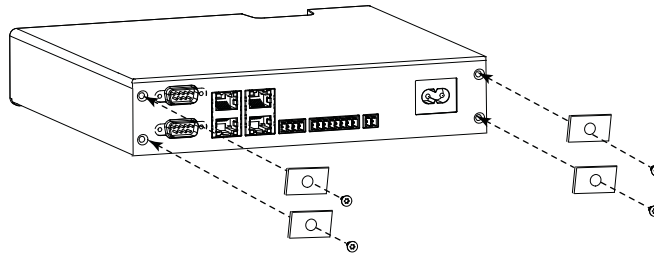
The inputs In 1 and In 2 are active when they are connected to 12 Vdc/24 Vdc.

4.4 Strain Reliefs and Warning Labels for Medical Devices

For medical device gateways such as Ascom Cardiomax, Ascom Mobile Monitoring Gateway (MMG), and for installations requiring seismic considerations; cable strain reliefs and warning labels must be used. Cable ties, anchors, 8 mm (0.31 in) screws, and warning labels are included in the delivery in a separate package (Item. No. 902987). Strain reliefs ensure that the cables do not come off and the unit does not shut down unintentionally.

4. Installation and Configuration

- 1 Fasten two anchors on the left rear side and two anchors on the right rear side of the Elise3 using 5 mm (0.20 in) screws. If an assembly bracket is used for double modules, use 8 mm (0.31 in) screws and fasten the anchors on the assembly bracket.



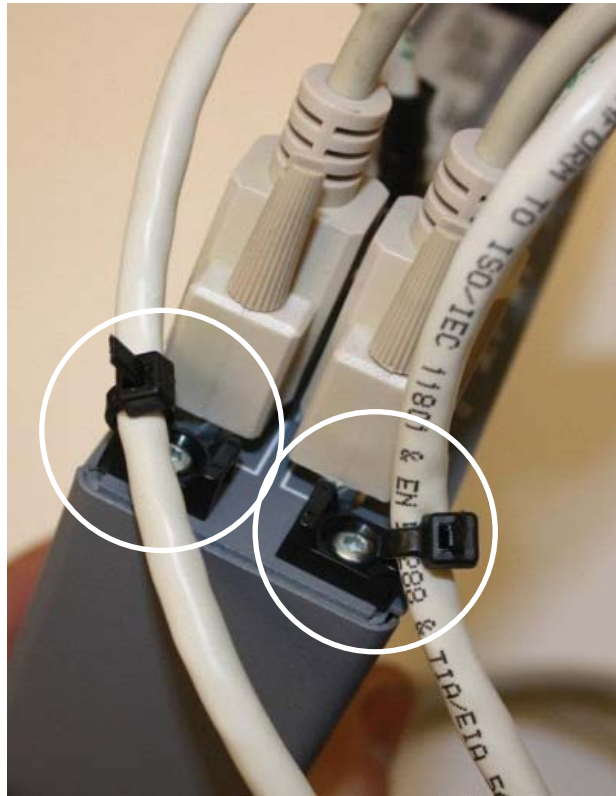
- 2 Make sure that all cables are connected to their final positions.
- 3 Attach the cable ties to the cables as shown in the figures below.

Figure 12. Cable tie on the power supply side



Figure 13. Cable ties on the network cable side

4. Installation and Configuration



- 4 Put a warning label on the top side of Elise3, and put warning labels on the cables close to the wall socket as shown in the figures below.

Figure 14. Label for medical devices

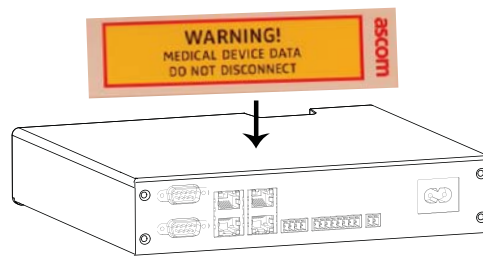


Figure 15. Label for cables connected to medical devices



4. Installation and Configuration

4.5 Accessing Elise3

The Elise3 can be accessed either via an IP network or directly via the management port (mini-USB). A web browser is used for accessing the product's web interface.

4.5.1 Access via Network

It is recommended that the Elise3 always gets the same IP address if it communicates with other equipment, to prevent it from losing contact with the equipment after a restart. Inform the network administrator about the MAC address and ask to reserve a fixed IP address via DHCP for this Elise3. Write the IP address on the blank label, found on the back side of the Getting Started document and attach the label on the front side to facilitate future access. See [3.2 Label for IP Address/Host Name](#) on page 7.

NOTE: If NetBIOS is enabled in the network, the address elise-XXXXXXXX can be used when accessing the Elise3 via the network, where XXXXXXXX is the module key number. The module key number can be found on the license certificate or on the label on the back of the Elise3.

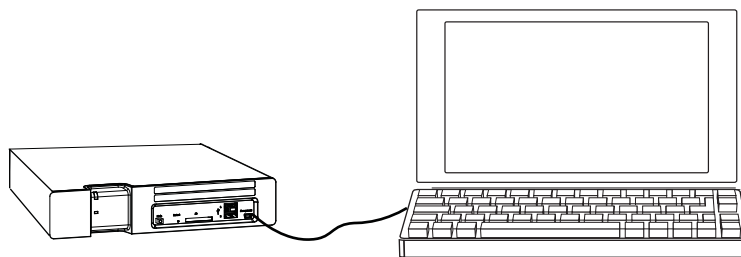
Pre-condition: You have access to the network that Elise3 is attached to. If not, see [4.5.2 Access via Management Port](#) on page 21.

- 1 Connect the module to the LAN.
- 2 Enter the Elise3's IP address or elise-XXXXXXXX, where XXXXXXXX is the module key number (leading zeros can be excluded).
- 3 Continue in [4.6 Basic Configuration](#) on page 24.

4.5.2 Access via Management Port

The management port can be used when Elise3 has not got a valid and unique IP address or when the IP address has been changed, i.e. if Elise3 has been moved from one network to another. It gives access to the Elise3 without having access to the customer's network.

Figure 16. Connection via Management port



NOTE: The reserved IP address for accessing Elise3 via the management port is "192.5.36.229". Additionally, a port driver needs to be installed on your computer to get access via the management port. The driver is located on the Elise3.

The default mode for the management port is Network access but Mass storage is used to get the required driver for the Elise3. When set to Mass storage, the Elise3 will automatically change to Network access within 10 minutes. By pressing the Mode button twice, the Management port toggles from Network access to Mass storage and the other way around.

The Mass storage mode is only used when the driver, required for accessing the Elise3 via the management port, shall be installed. This is only needed the first time the computer is used for this purpose.

4. Installation and Configuration

- 1 Connect a mini-USB type B cable between the USB port on your PC and the management port on the module.

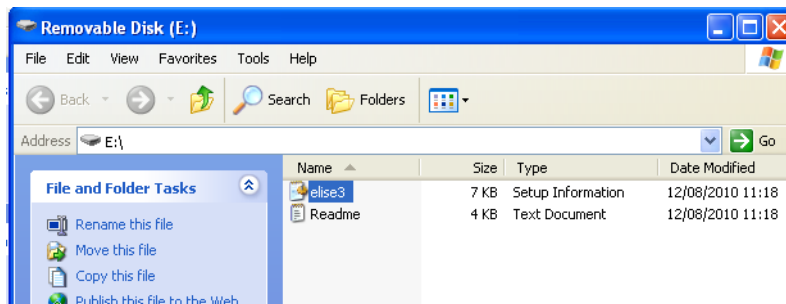
NOTE: If the required port driver is not installed on the computer, install it now. The installation differs dependent on the operating system, see either [Install the Port Driver on Windows Vista](#) or [Install the Port Driver on Windows 7](#).

- 2 Enter the IP address "192.5.36.229" in a web browser on your computer to access the product's web interface.
- 3 Continue in [4.6 Basic Configuration](#) on page 24.

Install the Port Driver on Windows Vista

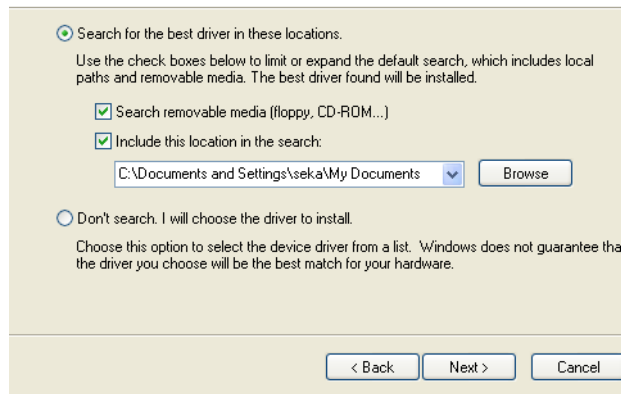
NOTE: When switching between mass storage mode and network mode, it takes about 30 seconds before the Elise3 can be accessed with the 192.5.36.229 address.

- 1 Connect a mini-USB type B cable between the USB port on your computer and the management port on the Elise3.
The *Found new hardware* wizard opens but at this stage there is no valid port driver so close the wizard and continue to install the driver.
- 2 Press the Mode button twice to change the mode to *mass storage*.
The module will now turn up as a mass storage device on your computer. This is indicated by slow flashing blue light ■ ■ ■ ■ on the Mode button LED.
- 3 Locate the required "elise3.inf" driver and save it on your computer.



- 4 Press the Mode button twice again to change the mode to network access.
The *Found new hardware....* dialog window opens.
- 5 Select "No, not this time" and click "Next".
- 6 Select "Install from a list or specific location (Advanced)" and click "Next".
- 7 Select "Search for the best driver in these locations".
- 8 Select the "Include this location in the search:" check box.
- 9 Browse to the folder where the port driver is saved.

4. Installation and Configuration

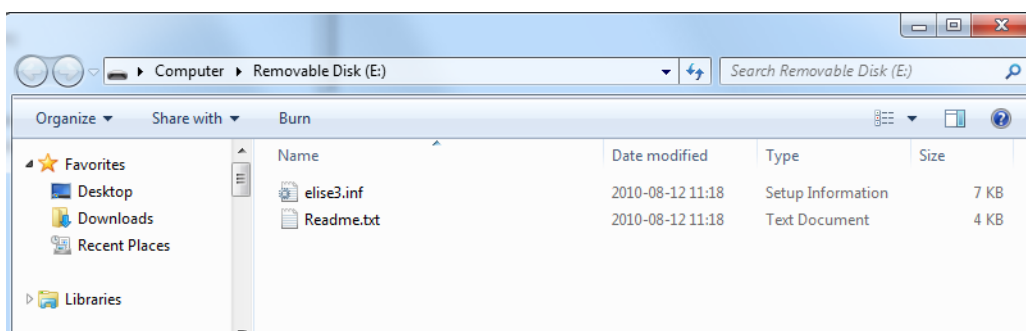


- 10 Click "Next". The installation of the port driver begins. If a message opens, saying the software has not passed Windows Logo testing, click "Continue Anyway".
- 11 Click "Finish".

Install the Port Driver on Windows 7

NOTE: When switching between mass storage mode and network mode, it takes about 30 seconds before the Elise3 can be accessed with the 192.5.36.229 address.

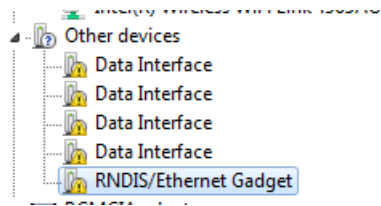
- 1 Connect a mini-USB type B cable between the USB port on your computer and the management port on the Elise3.
The *Found new hardware* wizard opens but at this stage there is no valid port driver so close the wizard and continue to install the driver.
- 2 Press the Mode button twice to change the mode to *mass storage*.
The module will now turn up as a mass storage device on your computer. This is indicated by slow flashing blue light ■ ■ ■ ■ on the Mode button LED.
- 3 Locate the required "elise3.inf" driver and save it on your computer.



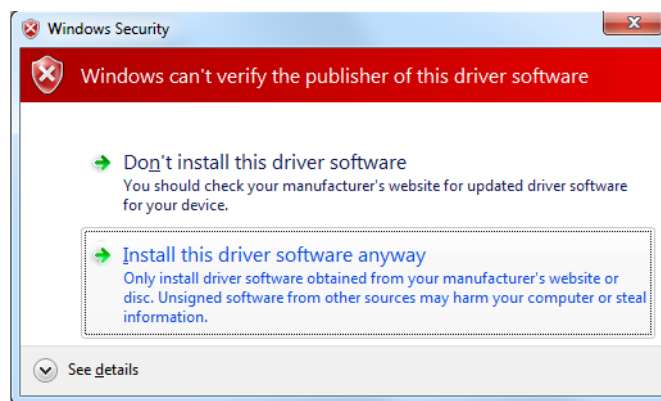
- 4 Press the Mode button twice again to change the mode to network access¹.
- 5 Select Control Panel > Hardware and Sound.
- 6 Select "Device Manager" under Devices and Printers.

1. If not pressed within 10 minutes the Elise3 will automatically change to Network access (default mode).

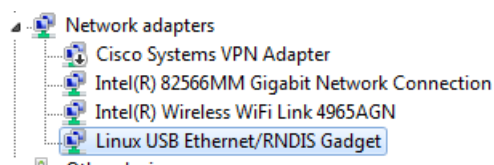
4. Installation and Configuration



- 7 Right click "RNDIS/Ethernet gadget" and select "Update driver software". A new window opens.
- 8 Click "Browse my computer for driver software".
- 9 Browse to the folder where the port driver is saved and click "Next". A Windows security window opens.



- 10 Click "Install this driver software anyway". The installation of the port driver begins.
- 11 Click "Close" when the installation has finished.
- 12 The port driver "Linux USB Ethernet/RNDIS Gadget" is now installed in Control Panel > Hardware and Sound > Devices and Printers > Device manager > Network adapters



4.6 Basic Configuration

The Elise3 needs to be configured with basic settings. Some settings can be set in the Setup Wizard accessible from the web interface. The Setup Wizard starts automatically the first time the Elise3 is accessed from the web browser and every time until the configuration has been saved. Follow the wizard and fill in the required data (IP address, NTP server, license etc.). After it has been saved the wizard can always be opened from the Start page. Other settings are set from the product's configuration page and are described in the product's manual.

For products not having a Setup Wizard, all settings are set from the products Advanced Configuration page, see [4.6.2 Setup from Advanced Configuration Page](#) on page 25

4. Installation and Configuration

4.6.1 Setup via Setup Wizard

- 1 Access the Elise3 either via the network or via the management port, see [4.5 Accessing Elise3](#) on page 21.
- 2 Enter user name "admin" and the password "changeme".
- 3 Complete the Setup Wizard.

NOTE: If the Elise3's network IP address has not been assigned by an DHCP server, it must be set manually in the wizard. If manually set, the IP address 192.5.36.229 cannot be assigned to the Elise3 when it is connected to the LAN. That IP address is reserved for accessing the Elise3 via the management port only.

- 4 Select "Restart immediately" when the setup wizard has finished.
The Elise3 will restart with the new configuration.

4.6.2 Setup from Advanced Configuration Page

- 1 Access the Elise3 either via the network or via the management port, see [4.5 Accessing Elise3](#) on page 21.
- 2 Enter user name "admin" and the password "changeme".
- 3 Click "System Setup" and navigate to "Network". Set the network parameters.

NOTE: The IP address 192.5.36.229 cannot be assigned to the Elise3 when it is connected to the LAN. That IP address is reserved for accessing the Elise3 via the management port only.

- 4 Click "License" and enter the license number.
- 5 Set the time, see [4.6.4 Clock Synchronization and Time Settings](#) on page 26
- 6 Change the default passwords for all users. If the passwords are not changed, anyone with knowledge of the default passwords can access the module and change any parameter.
- 7 Restart the Elise3. Select "Reboot" in the menu and click the "Reboot" button.
- 8 When Elise3 has been restarted, enter the URL xxx.xxx.xxx.xxx/admin in your browser (xxx.xxx.xxx.xxx is the IP address that was given to Elise3 during network setup) to see that it has started up correctly.

4.6.3 Change Secured Settings

To be able to activate some security settings it is required that someone physically confirms the changes on the Elise3. This is a security feature due to the remote access (LAN or VPN) ability on the Elise3. The Elise3 is often locked in some kind of secured area that only approved users have access to (such as the server room).

When clicking the "Activate" button for a secured setting the web user interface will prompt the user to confirm the secured change by pressing the Mode button on the module. The Elise3's Mode button LED indicates that a confirmation is needed with a quick flashing blue light ■■■■■.

- 1 Push the Mode button. The Mode button LED stops flashing and indicates that confirmation has been done with fixed yellow light on the status LED and fixed blue light on the mode button.



4. Installation and Configuration

- 2 Click the "Activate" button to save the secured setting.
The possibility to save secured settings is open for 10 minutes after the Mode button has been pressed or until the user manually exits the mode by clicking the Mode button once more.

4.6.4 Clock Synchronization and Time Settings

The clock in different Elise3 can be set from the web browser, A-bus (i.e. Central Unit in System 900) or a time server. To be able to synchronize the clocks in different Elise3 modules a time server has to be used. Depending on software application and license, an Elise3 can be used as time server. An external time server supporting the Network Time Protocol (NTP) can also be used. Normally the Elise3 used as time server synchronizes with an external time server and then all other Elise3 modules use that Elise3 as the time server.

To select time source do as follows:

- 1 Enter "xxx.xxx.xxx.xxx/admin" (xxx.xxx.xxx.xxx is the IP address of the Elise3) in a web browser to access the Advanced Administration page.
- 2 Click "Settings" in the left menu.
- 3 Select time source to be used.
- 4 Click "Activate".

4.6.5 Message Distribution

In the administration pages, there are distribution lists that are used to distribute incoming information. The internal distribution is automatically set, but external distribution of incoming data has to be configured separately.

Distribution of "Status Logs" and "Activity Logs" are configured separately. Advanced settings for activity logs are described in the Function Description, Activity Logging in Unite, TD 92341GB.

The addressing is described in the examples below:

Addressing another Unite compliant module on the LAN

The addressing includes the IP address that the data should be distributed to and also which service on that address that should take care of it. How a product is addressed is described in the documentation for each product.

- Addressing of another Unite compliant module
xxx.xxx.xxx.xxx/Service

First the IP address of the module is defined. After the "/", the application service that should take care of the data is specified.

Below is an example that describes how to distribute data from an Elise3 software application to an Alarm Management Server.

- Addressing of an Alarm Management Server
xxx.xxx.xxx.xxx/EventHandler

First the Alarm Management Server IP address is defined. After the "/", the application service EventHandler is specified.

Addressing a module on the System 900 A-bus

When a specific module on the A-bus is addressed, the data will be transferred directly to that module. It is however not necessary to address a specific module on the A-bus as the

4. Installation and Configuration

Central Unit in the System 900 can distribute the data to a module. Note that this requires configuration of the Central Unit.

- No module addressing
127.0.0.1/S900

The data is sent to the System 900 interface in the Elise3 module, which sends the data on the A-bus without the module address defined. The Central Unit in the system has to be configured to distribute the data to a module. It is also possible to address the System 900 interface on another module by entering its IP address instead of 127.0.0.1 (localhost).

- Module addressing
127.0.0.1/S900?03

The data is sent to the System 900 interface (127.0.0.1/S900) in the Elise3 module and is then sent to the module with address 03 in the system. It is also possible to address the System 900 interface on another module by entering its IP address instead of 127.0.0.1 (localhost).

5. Working in Boot Mode

If the software installed on the Elise3 cannot be started, the Boot Mode can be used for installing new software, see settings, performing factory reset, troubleshooting and also starting up in normal operation again. If the Elise3 detects several major errors (for example restart loop), the Elise3 can set itself in Boot Mode.

5.1 Set Elise3 in Boot Mode

The description below starts with a controlled restart. The operation takes approximately 5 minutes.

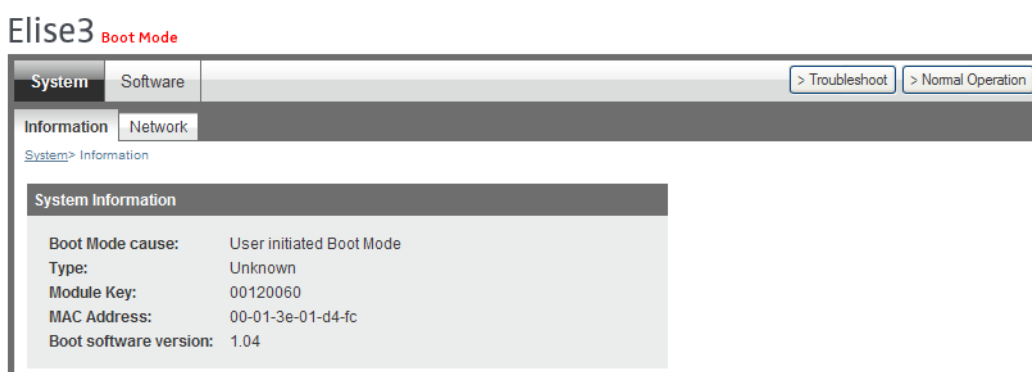
- 1 Press the Restart button and release it within 4 seconds (use a paper clip or similar).
The status LED will first indicate shutting down with quick flashing blue light ■ ■ ■ ■ ■ and then "waiting" with flashing yellow light || || ||.
- 2 Wait for one minute until the status LED indicates starting up with quick flashing blue light ■ ■ ■ ■ ■, then press the Mode button.
The Mode button LED will lit and show fixed blue light ■ ■ ■ ■ ■.
- 3 Then wait until the status LED changes to quick flashing yellow light ■ ■ ■ ■ ■, which indicates that the module has started in Boot Mode (after approximately one minute).
- 4 Enter the Elise3's IP address in a web browser.

If this operation does not work, pressing the Mode button after an initiated forced restart can be used as a last resource, see [7.2.2 Forced Restart](#) on page 33.

5.1.1 System Information

Under System > Information the reason for why the Elise3 is in Boot Mode, the module key number, MAC address, Boot software version, etc. are shown.

Figure 17. System information in Boot Mode.



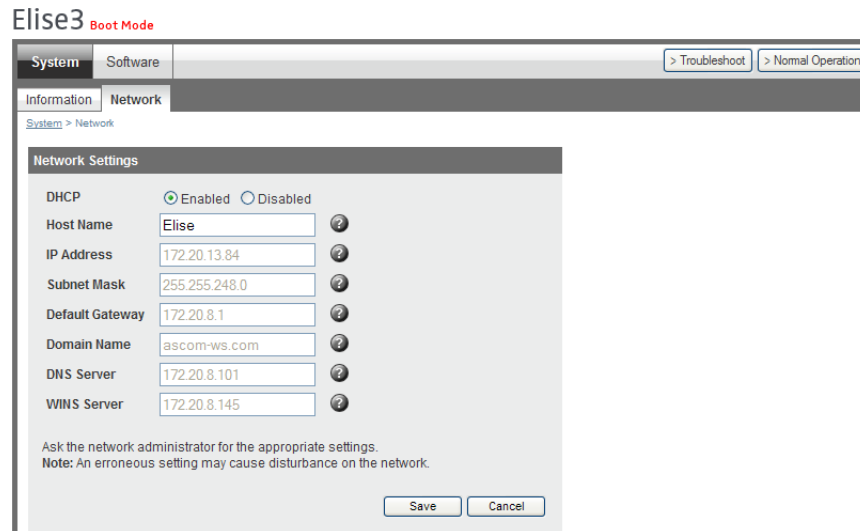
5.1.2 Network Settings

Under System > Network the network settings are shown. All network settings can be edited in this view if DHCP is disabled, but only the Host name if DHCP is enabled.

5. Working in Boot Mode

NOTE: The IP address 192.5.36.229 cannot be assigned to the Elise3 when it is connected to the LAN. That IP address is reserved for accessing the Elise3 via the management port only.

Figure 18. System network settings in Boot Mode.



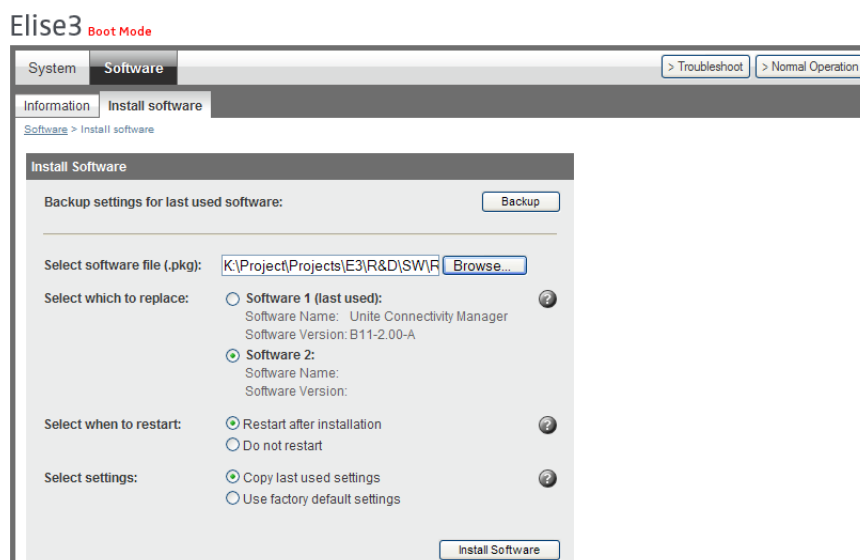
5.1.3 Install Software in Boot Mode

Installing new software is normally done from the product's web interface, refer to the product documentation. But if the web interface cannot be reached it is possible to put the Elise3 in Boot Mode, access the Elise3 web interface and install new software from there.

NOTE: It is not recommended to use the Elise3's Management port when installing software.

Two software versions can be installed on the module. One software version is active and the other inactive in normal operation.

Figure 19. Software installation in Boot Mode



5. Working in Boot Mode

- 1 Set the Elise3 in Boot Mode, see [5.1 Set Elise3 in Boot Mode](#) on page 28.
- 2 Select Software > Install software.
- 3 Click the "Browse..." and locate the software (.pkg) file to install.
- 4 Select where to save the software. If two versions of the software already have been installed on the module choose which software to replace.
- 5 Select if the Elise3 shall be restarted after the installation or not.
- 6 If "Restart after installation" is selected, choose if the last used settings or the factory default settings shall be applied on the new software.
If you choose "Do not restart", you can later, when returning to normal operation, choose and apply settings to software that is installed but not yet started.

NOTE: If current parameters cannot be used, i.e. if software of another type has been installed, factory default parameters will always be used.

- 7 Click the "Install Software" button.
- 8 If "Do not restart" is selected a dialog window is shown. Click "OK".



5.1.4 Return to Normal Operation

- 1 Click "Normal Operation".
- 2 Select which software to start and click "OK".
- 3 Select which settings to use for the software and click "OK". The Elise3 will restart and return to normal operation.

6. Demonstration Mode

The Demonstration Mode can be set when the module is running in normal operation, either via the product's web interface or manually by using the Mode button.

Press and hold the Mode button for 10 seconds.

Demonstration Mode is indicated by the Status LED with slow flashing yellow light  and by the Mode button LED with fixed blue light .

The module will automatically return to the previous license and parameters (without restart) after 2 hours.

Exiting before the 2 hours have passed, is done from the product's web interface, refer to the product documentation. Restarting the Demonstration Mode after exiting, can be done from the product's web interface after a delay of 10 minutes, but an immediate restart can be done by using the Mode button.

7. Maintenance

7.1 Software Management

7.1.1 Installation of Software

Normally the installation of software is done from the product's web interface but it can also be done in Boot Mode, see [5.1.3 Install Software in Boot Mode](#) on page 29.

7.1.2 Create Backup of Software Settings

Normally the backup is done from the product's web interface but it can also be done in Boot Mode.

Set the product in Boot Mode, see [5.1 Set Elise3 in Boot Mode](#) on page 28.

- 1 Select Software > Install software.
- 2 Click "Backup". All settings for last run software will be saved.
- 3 Click "Save" in the File Download window.
- 4 Select where to save the file and click "Save" again.





7.1.3 Field Upgrade of Boot Software


The Elise3 can be upgraded on the field by using a USB memory stick containing the appropriate boot software file (.bin).

The boot software version that you want to upgrade to must have the same major version as the one installed on the Elise3. The installed boot software version can be viewed under System Information on the Troubleshooting page, refer to the manual for the product.

- 1 On the Ascom Partner Web, download the appropriate boot software file (.bin).

NOTE: Do not rename the .bin file.

- 1 Insert the USB memory stick in the upper USB connector marked 1.
- 2 Perform a controlled restart via the Restart button, by pressing the button and releasing it within 4 seconds.
The Status LED indicates shutting down with quick flashing blue light .
Before starting up again, the Status LED will indicate "waiting" for one minute with flashing yellow light .
- 3 When the Status LED indicates starting up with quick flashing blue light , press the Mode button within 3 seconds.
The Mode button should indicate by showing fixed blue light .

The module now detects the memory stick and begins the upgrade process which is indicated by the Status LED with fixed yellow light . The upgrading process takes 7-8 minutes.

After the upgrade process has finished, the Elise3 will continue and start up the last used software. The complete operation can take up to 10 minutes.



To verify a successful upgrade, you can put the USB stick back in your computer and open the file autoupdate.log. In the end of that file, you should then see the text "Upgrade finished successfully".


NOTE: If the USB memory stick contains incorrect Boot software, the module will start up in Boot Mode.

7.2 Restarting the Elise3

7.2.1 Controlled Restart using Restart Button

When a controlled restart is performed via the Restart button, all ongoing jobs on the Elise3 ends in a controlled way and everything is logged. When the Elise3 has shut down, the user can unplug the power cable or wait one minute for the Elise3 to automatically start up again. During startup, there is a delay for three seconds where the user is able to interact with the Elise3 and change to Boot Mode.

Use a paper clip or similar and press the Restart button and release it within 4 seconds. The Status LED indicates shutting down with quick flashing blue light . Before starting up again, the Status LED will indicate "waiting" for one minute with yellow light . Here the power cable can be detached.

If the power cable is not detached the module starts up automatically after one minute. The Status LED indicates starting up with quick flashing blue light .

Another form of a controlled restart can be performed via the GUI, but then the Elise3 will immediately start up again without the one minute delay and will not give you enough time to unplug the power cable.


7.2.2 Forced Restart

Forced restart is used as a last resort when the Elise3 does not respond at all.

When a Forced restart is performed, ongoing jobs are not finished (as in a controlled restart).

The Elise3 detects that a forced restart has been made and a voltage restart is performed. During startup, there is a delay for three seconds where the user is able to interact with the Elise3 to change to Boot Mode.

Use a paper clip or similar and press the Restart button for at least 5 seconds.

The status LED will turn off for a short time (3 seconds) and when it turns on again the status LED indicates starting up with quick flashing blue light . The power LED is solid on all the way.

7.3 Factory Reset

Resetting the Elise3's software back to factory default settings can be done from the product's web interface on the Configuration page under Software. Either by switching software or reinstalling software and selecting factory default settings.

Factory default settings can also be chosen from the Boot Mode's web interface when new software is installed or when returning to Normal Operation from Boot Mode, see [5.1.3 Install Software in Boot Mode](#) on page 29.

NOTE: Network settings (IP address, Host name, etc.) are not changed.

8. Troubleshooting

Troubleshooting is normally done by accessing the product's web interface to see logs, statistics etc. But if for some reason the application's web interface cannot be reached, it is possible to get access to the information by placing the product in Troubleshoot mode. See [8.1 Troubleshooting from Boot Mode](#) on page 34

Fault	Probable cause	Action or comment
Several functions of the software application on product does not start.	<ul style="list-style-type: none"> – There is not a valid license – The module has been running for more than two hours in Demonstration mode. 	Check if the functions starts in Demonstration mode, if it does enter a valid license and restart the product.
The product has put itself in Boot Mode.	No software is installed or the installed software is malfunctioning.	Install new software
A LED shows slow or quick flashing red light		See 3.3 LED Indications on page 7
The product cannot be accessed via the management port.	<ul style="list-style-type: none"> – The required port driver is not installed on the PC or for the USB port you have connected to (or not correctly installed). – The PC has not been given enough time to obtain an IP address from the DHCP server. 	NOTE: The installation differs between Windows XP/Vista and Windows 7. Follow the instructions in chapter 4.5.2 Access via Management Port on page 21. When switching between mass storage mode and network mode, it takes about 30 seconds before an IP address is obtained from the DHCP server.
The installation of the USB port driver has been successful, but you still cannot connect to your product via the USB network.		Try the following. Open the Command Prompt and type: route DELETE 192.5.36.229 arp -d 192.5.36.229
An external battery is connected but the Power LED shows slow flashing red light and in System status (under System Information in Troubleshoot Mode) the "Charge external supply" shows "off" even if the external battery voltage is shown in "External power supply".	The Elise3 does not charge the external battery.	The Elise3 does not charge the external battery if the battery voltage is below 8.0 Vdc or if the internal power supply voltage is less than 13.8 Vdc

8.1 Troubleshooting from Boot Mode

Via the Troubleshoot button in the Boot Mode GUI, you get access to the product's web interface (no applications are running) and will be able to see logs and other information.

8. Troubleshooting

When troubleshooting, it is always a good idea to examine the log files, since they provide additional information that may prove useful. When reporting an error to your supplier, always include the appropriate log file.

- 1 Enter Boot Mode, see [5.1 Set Elise3 in Boot Mode](#) on page 28.
- 2 Click the "Troubleshoot" button.
- 3 Click "OK" in the Troubleshoot dialog window.

The system will restart in troubleshoot mode within approximately 5 minutes. The browser refreshes to the application's GUI automatically.

- 4 Access the product's Configuration page.
- 5 Select Other Settings > Advanced Configuration. You will now be able to perform troubleshoot actions and view system information, logs etc.

9. Related Documents

teleCARE IP Installation Manual for Emergency Call Systems	TD 93021US
Configuration Manual, Unite Connectivity Manager	TD 92735EN
Configuration Manual, IMS3	TD 92962EN
Installation and Operation Manual, MMG	TD 92654GB
Installation and Operation Manual, Cardiomax	TD 92901EN

10. Document History

10. Document History

For details in the latest version, see change bars in the document.

Version	Date	Description
A	03 September 2010	First released version
B	15 September 2010	Minor updates
C	05 November 2010	Minor updates
D	12 April 2011	Updates in figure 3 on page 7.
E	22 November 2011	LED indication for Secured Settings changed in 3.3 LED Indications on page 7 and 4.7.3 Change Secured Settings on page 23
F	11 October 2012	Updates in figure 3 on page 7. Added information on maintenance current in chapter 4.3 Supply Voltage on page 13. Added chapter 4.5 Strain Reliefs and Warning Labels for Medical Devices on page 16.
G	22 November 2013	Added: Copyrights and Disclaimer Updated: 3.1 Overview of Connectors, Buttons and LEDs on page 5: changed that use of SD card is software dependent.
H	06 May 2014	AUX output without galvanic isolation and internal 230 Vac power supply removed in 4.3.6 AUX Connections on page 18. 2.3 Authentication and Administration on page 3: User "Auditor" removed. 4.3.5 Error Relay Output on page 17: Clarified that an activated error relay output triggers the equipment connected to the output.
I	01 September 2014	4.6.1 Setup via Setup Wizard on page 25, 4.6.2 Setup from Advanced Configuration Page on page 25 and 5.1.2 Network Settings on page 28: Note regarding that 192.5.36.229 cannot be assigned to product connected to the LAN.
J	19 February 2016	7.1.3 Field Upgrade of Boot Software on page 32: Clarified which boot software version to be used. (UCM-2801, WSM-2077). 7.2.2 Forced Restart on page 33: Changed from "the Power LED is turned off..." to "the Status LED is turned off..." (UEW-228).

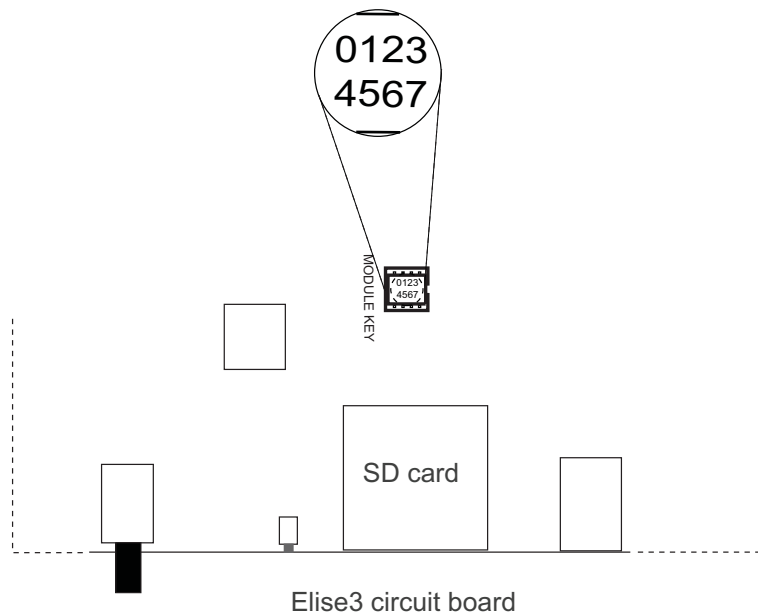
Appendix A. Move License from ELISE2 to Elise3

A license for a product on ELISE2 can, if the license is compatible with Elise3, be moved to Elise3 by moving the Module key from the ELISE2 module to the Elise3 module.

To make it easier to differ between the Module Keys, the marking "2M" is added on the label on a Module Key from Elise3.

NOTE: All functions will be the same as it was in ELISE2 and only one ethernet port (LAN1) can be used.

- 1 Create a backup of your configuration on the ELISE2 module.
- 2 Remove the four screws on the back side of the Elise3 module.
- 3 Slide the metal cover backwards.
- 4 Remove the Module Key from the ELISE2 module.
- 5 Replace the Module Key on the Elise3 with the one from ELISE2. See illustration below.



- 6 Slide the metal cover back to the front.
- 7 Replace the four screws.
- 8 Restore the configuration.

Replacing a wall mounted ELISE2 module with an Elise3 module

The drilled holes made for the ELISE2 module are easily covered by the Elise3 module. When mounting Elise3 on a wall be sure to follow the instructions in [chapter 4.1.3 Wall Mounting](#) on page 10.