

ELISE2 Installation Guide

INSTALLATION INSTRUCTIONS



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INTRODUCTION

The ELISE2 module can be used as a platform for a wide range of applications. ELISE2 is the hardware base for DECT/Wi-Fi solutions from Ascom.

Licenses are not described in this document since it is application dependent. For more information on licenses see the different application documentation.

The parameter setup of the server is done with a web browser.

System 900 is an Ascom system for alarm and messaging handling, which is not part of the MX-ONE solution. When mentioned in this document it is only used as an example.

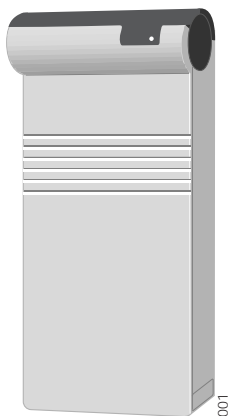


Figure 1: The Elise2 Module

Table 1 Technical Data

Supply voltage	12 – 24 V/DC $\pm 10\%$
Current consumption	max 0.4 A at 12 V max 0.2 A at 24 V
Delivery includes	ELISE2
	System Bus Cabling
	Ethernet cable
Tools and so on required	Screwdrivers
	Cutting pliers
	Screws for installation
	Multimeter
	Power supply
	PC with Microsoft Internet Explorer 5.5 or later
	Software Route to ELISE (available from the distributor)

2

BOARD DESCRIPTION

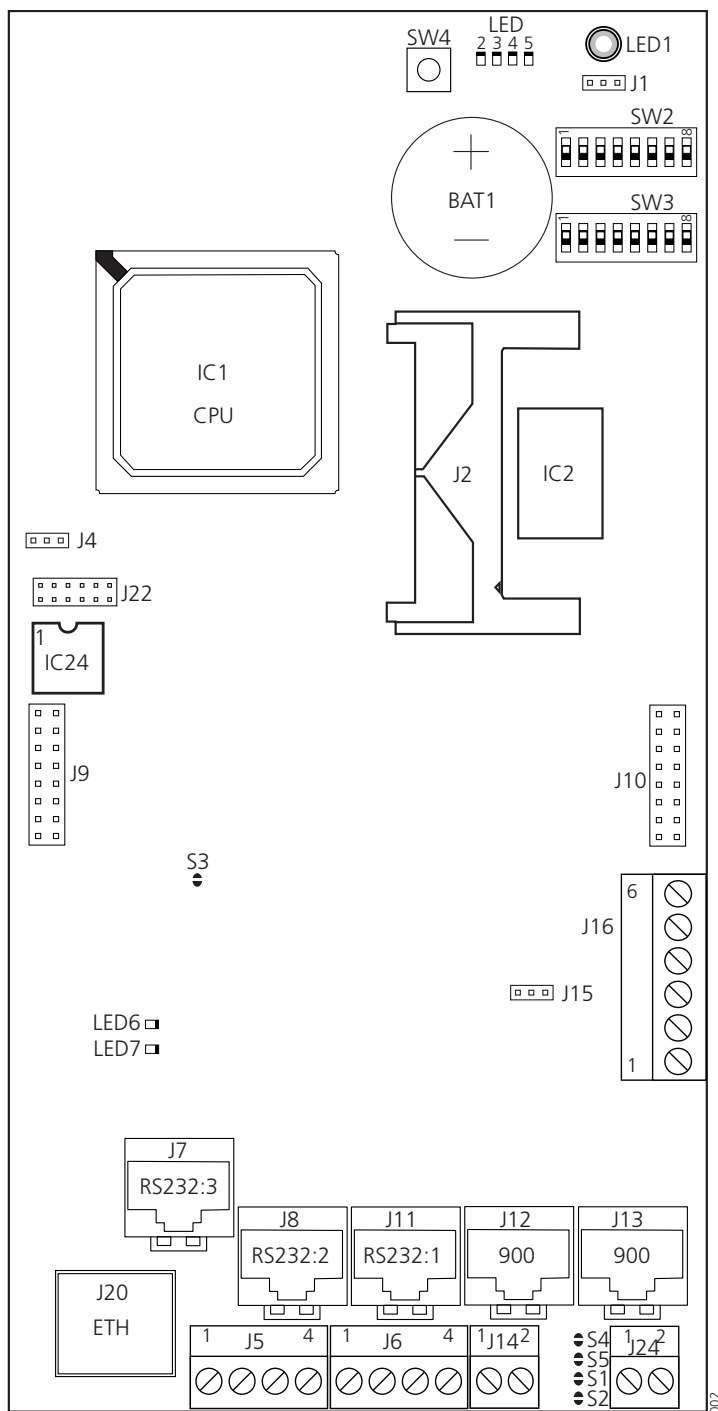


Figure 2: The Elise2 Circuit Board

2.1

CONNECTORS

Table 2 Connectors

12	Connector for the Compact Flash
15	Connection of supply voltage
16	For connection of RS422 communication
17	Modular jack (RJ45) for connection of RS232 communication. RS232:3
18	Modular jack (RJ45) for connection of RS232 communication. RS232:2
J9, J10	LON/GP Interface Connector
J11	Modular jack (RJ45) for connection of RS232 communication. RS232:1
J12, J13	Modular jacks (RJ45) for connection of System 900 bus cabling
J14	Connector where an error relay output is available
J16	Connects AUX Input and AUX Output
J20	For connection of 10baseT or 100baseT Ethernet TCP/IP network
J22	For internal use only
J24	For connection of A- or B-bus from System 900 when a modular system bus cable is not used

2.2

JUMPER POINTS AND PUSH BUTTONS

Table 3 Jumper Points and Push Buttons

J1	Jumper that activates the backup battery (Jumper pin 2-3 to activate)
J4	For grounding and production test
J15	Jumper that determines whether the Error relay output is active when the relay operates or it is released Normally set to 1-2 to select operating
S1, S2	Jumper points for selection of A- or B-bus
S3	For internal use only
S4, S5	Jumper points used when the ELISE2 controls the communication on the A- or B-bus
SW4	Reset button for CPU

2.3

SWITCHES

Table 4 Switches

SW2	Module address selector switch for A- or B-bus If the setting of SW2 is changed, the ELISE2 module detects this automatically and will reconnect to System 900 with the new address (it takes approximately 30 s)
SW3	Selector switch for operating mode

2.4

MODULE KEY AND BACKUP BATTERY

Table 5 Module Key and Backup Battery

IC1	CPU
IC2	On-board flash
IC24	Module key
BAT1	Backup battery

2.5

LEDS

Table 6 LEDs

LED1	Function indicator with green, orange, and red indication
LED2-5	Application dependent function Refer to the documentation on the application for a description
LED6	Communication on the Ethernet
LED7	Ethernet speed indicator ON 100 Mbit/s, OFF 10 Mbit/s

3 GENERAL INFORMATION

3.1 LICENSE

All ELISE2 units must have a valid software license.

You can find the license on the administration web page, under the section *System Setup > Common > Licence*.

Warning! Changing this field may seriously affect the function.

If no valid license is present, the unit will not start and the Function Indicator (see on page 10) will indicate a license error with a slow flashing red light. The unit can be started in unlicensed mode, see 3.3.4 Unlicensed Mode on page 8 and 3.3 Operating Modes on page 7 for more information. The unlicensed mode is indicated by the Function Indicator with an orange light (3000 ms ON/100 ms OFF), see also 3.4 Selection of the Operating Mode on page 8.

3.2 POWER DOWN AND RESTART OF ELISE2

3.2.1 POWER DOWN

1. Remove the cover from the ELISE2 module.
2. Press the push button SW4 to perform a shut down of the processor.
3. Wait until the Function Indicator is flashing orange.
4. Remove the power cable. The power must be removed within 10 minutes, or the ELISE2 will restart. If the ELISE2 restarts, wait until the Function Indicator is not indicating starting up (flashing orange) before pressing SW4 again.

3.2.2 RESTART

There are two ways to restart an ELISE2: either follow the instructions above and then replace the power cable, or initiate a restart from the administration web page.

3.3 OPERATING MODES

There are five different operating modes as follows:

- Normal
- Network setup
- Fail-safe
- Image installation
- Unlicensed

3.3.1 NETWORK SETUP MODE

To be able to contact the ELISE2, a valid and unique IP address is necessary. In this mode, the IP address is set to 192.5.36.229, which is reserved for the installation of the ELISE2. The Network Setup Mode can only be used when the ELISE2 has not got any IP address or when the IP address has to be changed, that is, if the ELISE2 has been moved from one network to another.

3.3.2 FAIL-SAFE MODE

This mode can be used when it is impossible to contact the ELISE2. When started in Fail-safe Mode, no applications are started. It is possible to return to factory settings or a backup copy of the parameters from the web page `xxx.xxx.xxx.xxx/admin` (`xxx.xxx.xxx.xxx` is the IP address given to the ELISE2). If there is a problem accessing this page, it is possible to access `xxx.xxx.xxx.xxx/system`, where it is possible to change the network parameters or install a new software.

3.3.3 IMAGE INSTALLATION MODE

The Compact Flash includes the ELISE2 operating system and application software. If all information (operating system and application software) needs to be updated, then the complete Compact Flash image must be replaced. The ELISE2 is normally set in image installation mode from the administration pages but it can also be set by the operating mode switch. See 6.3 Replacing an Image on the Compact Flash on page 25 or 6.4 Installing an Image on an Empty Compact Flash on page 26.

If the Compact Flash needs to be partly updated with a new application software, the image installation mode must not be used. For more information, see 6.2 Updating Application Software on page 25.

3.3.4 UNLICENSED MODE

It is possible to run the ELISE2, with limited function, without a license. How the mode functions is application dependent. For more exact information about the function during unlicensed mode, refer to the application documentation.

In unlicensed mode, it is possible to enter a license that does not match the current hardware. This makes it possible to configure a Compact Flash on one hardware and move the Compact Flash to another hardware without changing the license.

3.4 SELECTION OF THE OPERATING MODE

In unlicensed mode, it is possible to enter a license that does not match the current hardware. This makes it possible to configure a Compact Flash on one hardware and move the Compact Flash to another hardware without changing the license.

All eight sections of SW3 are set to OFF for normal operating mode.

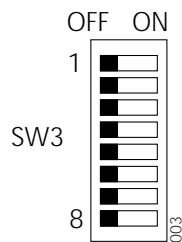


Figure 3: Switch for the Selection of the Operating Mode
Table 7 Operating Modes

Section 1	Network setup mode
Section 2	Fail-safe mode
Section 3	Not used, must be set to OFF
Section 4	Image Installation mode
Section 5	Unlicensed mode
Section 6	Not used, must be set to OFF
Section 7	Not used, must be set to OFF
Section 8	Not used, must be set to OFF

3.4.1

CHANGING THE OPERATING MODE

1. Set the section that corresponds to the operating mode to ON.
2. Open the administration web page and press **Reboot** or follow the instructions in 3.2 Power Down and Restart of ELISE2 on page 7.

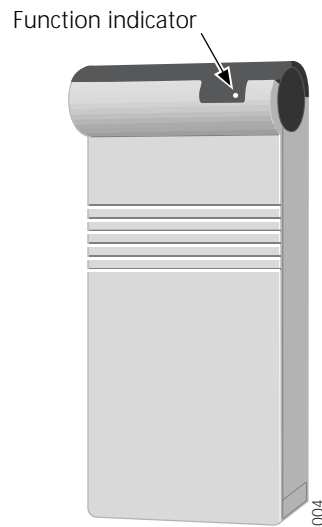
3.4.2

STARTING THE UNIT IN NORMAL MODE

1. Set all sections on SW3 to OFF.
2. Open the page *System Setup > General* on the administration web page and check that the correct license is entered.
3. Press **Reboot**.

3.5

FUNCTION INDICATOR

**Figure 4: Function Indicator**

The status is indicated by the *Function indicator* according to the list below:

Colour	LED Indication	Status
Green		OK. Running
Orange		Fail-safe mode ¹ Network setup mode ²
Orange		Image installation mode
Orange		Starting up ³
Orange		Power up Restart
Orange		Halted (auto. restart after 10 min.)
Orange		Unlicensed mode
Red		Low voltage
Red		Licence error
Red		Watch-dog reset
Red		Shut-down
Red		Memory error (3 s ON / 3 s OFF)
Red		Network error (IP interface initiation error) Module key error (Module key not found)
	Each segment = 100 ms	

Figure 5: LED Indications

- 1) The fail-safe mode is indicated, even if SW3 pin 2 is not set to ON, or if the application on the ELISE2 is not completely installed or when the application part of the Compact Flash is erased.
- 2) When the ELISE2 is in Network setup mode, this will always be indicated and override LED indications of other simultaneously activated modes, for example, the Image installation mode.
- 3) The Starting up mode is indicated during the start of the applications or if an application has lost connection to a required resource, for example, A-bus.

3.6

ADMINISTRATION AND AUTHENTICATION

Administration on the ELISE2 is done from a web browser. In order to access the administration pages, a user name and password have to be given.

Note: The default passwords have to be changed, otherwise anyone knowing a password and the IP address can access the administration web pages and make changes.

3.6.1

AUTHENTICATION

There are two different users in all ELISE2 products, namely *admin* and *sysadmin*.

The user *admin* has the default password **changeme** and is used for the administration and simple troubleshooting of the product. The *admin* has permission to change all passwords except the *sysadmin* password.

The user *sysadmin* has the default password **setmeup** and is used for advanced troubleshooting. The user also has access to all the administration pages. The *sysadmin* has permission to change passwords for all the users in the product.

In addition, there are two other users in some ELISE2 products. One is called *user* and the default password is **password**. This user is product dependent and what it is used for is described in the corresponding product documentation. This user does not have access to the administration pages where passwords are normally changed. The user can change its own password on the following page:

http://xxx.xxx.xxx.xxx/admin/public/user_chpass.shtml. The password can also be changed by the users *admin* and *sysadmin*.

The other user is called *ftpuser* and the default password is **changemetoo**. The user is available in products with an FTP area. The user can change its own password on the following page: http://xxx.xxx.xxx.xxx/admin/public/ftpuser_chpass.shtml.

3.6.2

ADMINISTRATION

To access the web pages below, the user *admin* is used.

The web page **xxx.xxx.xxx.xxx/admin** is used in most cases, for example:

- System setup
- Troubleshooting information
- Changing passwords

In the following cases, the web page **xxx.xxx.xxx.xxx/system** must be used:

- Replacement of the current software installation
- Lack of software installed on the ELISE2
- Compact Flash image update or installation

The system page can also be used when configuring network parameters.

4

INSTALLATION

The ELISE2 must be placed in a dry environment with a temperature range of 0 to +40°C.

Caution! The ELISE2 module must be mounted in a vertical position to ensure sufficient cooling for the electrical components.

Caution! Always follow the instructions in 3.2 Power Down and Restart of ELISE2 on page 7 when disconnecting the power to the ELISE2 module.

Note: Only install one ELISE2 module at a time, otherwise problems may occur during IP addressing.

5

INSTALLATION PROCEDURE

1. Read chapters 5.1 Opening the Housing on page 13 and 5.2 Wiring Runs on page 13 before starting the installation.
2. Mount the ELISE2 on the wall by following the instructions in 5.3 Mounting on page 15 and 5.4 Mounting Together with Other Units on page 15.
3. Optionally connect outputs and inputs as described in 5.6 Additional Connections on page 17.
4. Activate the battery by following the instructions in 5.7 Activation of Battery on page 19.
5. Perform a network parameter setup of the ELISE2 by following the instructions in 5.8 Setup of Network Parameters on page 20.
6. Connect the Ethernet connector to the Local Area Network (LAN) by following the instructions in 5.9 Connection of Ethernet on page 21.
7. Perform a test of the installation by following the instructions in 5.10 Installation Test Procedure on page 22.
8. Continue with the additional parameter setup for the unit according to 5.11 Clock Synchronization and Time Settings on page 22, 5.12 Message Distribution on page 23, and the respective software application documentation.
9. Make a backup copy of all the parameters.

5.1

OPENING THE HOUSING

Use a screwdriver or something similar to release the cover by applying a light pressure to the two snap catches (1) and remove the cover (2).

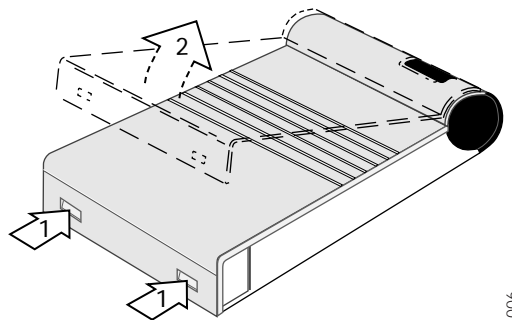


Figure 6: Opening the ELISE2 Housing

5.2

WIRING RUNS

The plastic partition is scored to facilitate breaking at convenient intervals.

1. Use pliers to break off a suitable section.

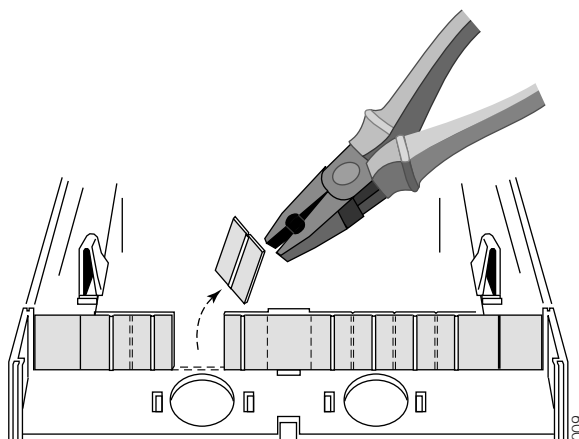


Figure 7:

2. Run the wiring out through the partition. The wiring can be run in the following three ways from the ELISE2 module:

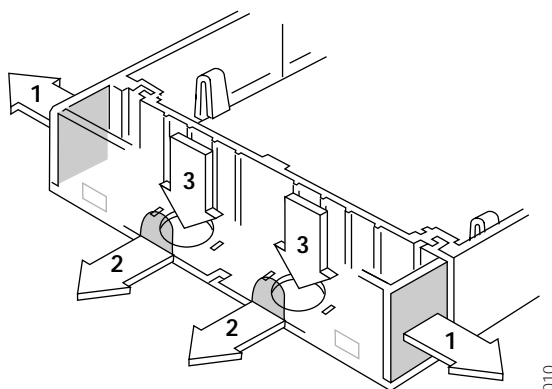


Figure 8:

- Remove the rectangular covers and run the cabling out through the side (1).
 - Break off the sections at the short side of the case and run the cabling downwards (2).
 - Run the cabling through the round holes at the bottom of the case (3).
3. Secure the wiring with cable straps.

5.3 MOUNTING

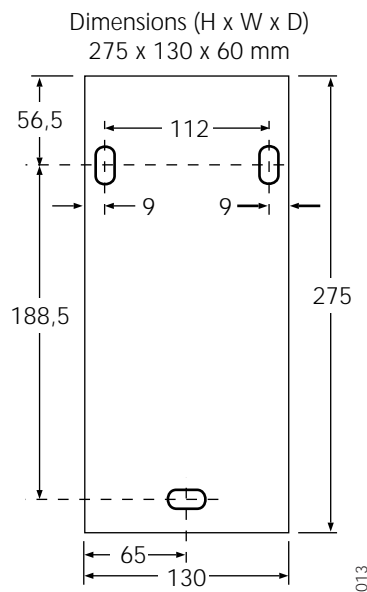


Figure 9: Dimensions for the Installation of the ELISE2 Module.

Note: To facilitate the service after the unit is installed, we recommend a free space of about 150 mm above and 50 mm below the unit.

5.4 MOUNTING TOGETHER WITH OTHER UNITS

1. Remove the rectangular (1) and circular (2) covers.

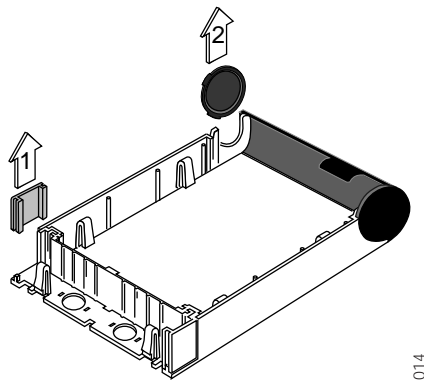


Figure 10:

2. The rectangular covers are used to fasten units to each other (3 and 4).

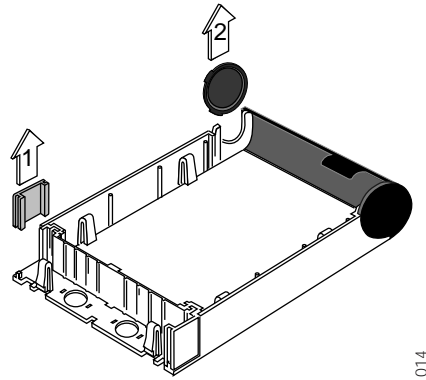


Figure 11:

3. Fasten the unit with three screws, see the illustration in 5.3 Mounting on page 15.

5.5

CONNECTION OF SUPPLY VOLTAGE

A separate power supply is connected to screw connector J5, pin1 and 2. A ferrite bead is thread on the wire to prevent EMC disturbances. The current through J5 must not exceed 3A. Refer also to *System Installation, Onsite Paging System, TD 90227GB* under **Power Supply**.

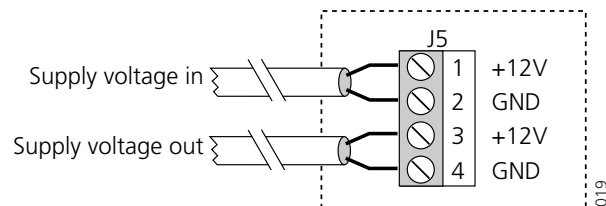


Figure 12: Connection of Supply Voltage

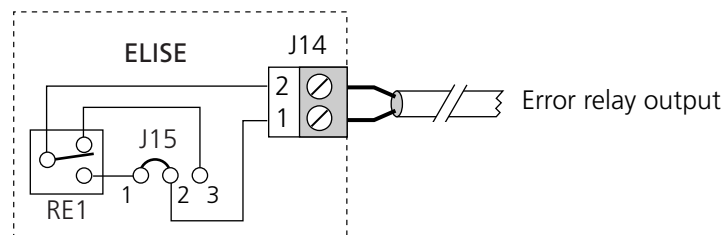


Figure 13: Ferrite Bead Attached and Wired in the Module

1. To be able to fit the ferrite bead, break a section off the plastic partition, see also 5.2 Wiring Runs on page 13.
2. Attach the ferrite bead with a cable strap.
3. Run the power supply cable two turns through the ferrite bead.
4. Connect the power supply cable to J5:1-2.

5.6 ADDITIONAL CONNECTIONS

5.6.1 ERROR RELAY OUTPUT

A relay output on connector J14 is used to indicate an ELISE2 module malfunction and can also be used to indicate other errors. For more information about the function, refer to the application documentation.

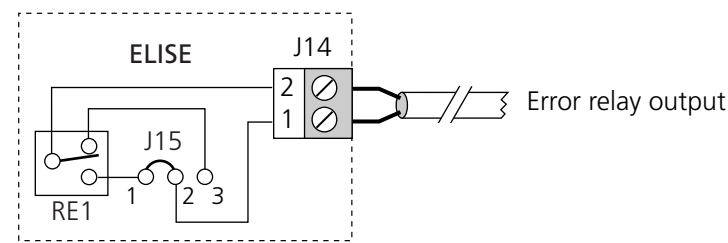


Figure 14: Jumpering J15

The jumpering J15 decides if the output is active when the relay is operating or it is released. 1 and 2 select operating and 2 and 3 select released. In on page 17, the relay is released and as the jumpering is set to 1 and 2, the circuit is open and the error relay output is inactive.

At power-up or restart of the ELISE2, the relay is released until the applications are working properly. If the relay is released longer, the ELISE2 will malfunction.

5.6.2 RS232 COMMUNICATION WITH EXTERNAL UNIT

The ELISE2 has three identical RS232 connectors, namely, J7, J8, and J11. Depending on the software application, the RS232 ports can be used or not. How to connect external equipment to the ELISE2 is described in the documentation of the software application.

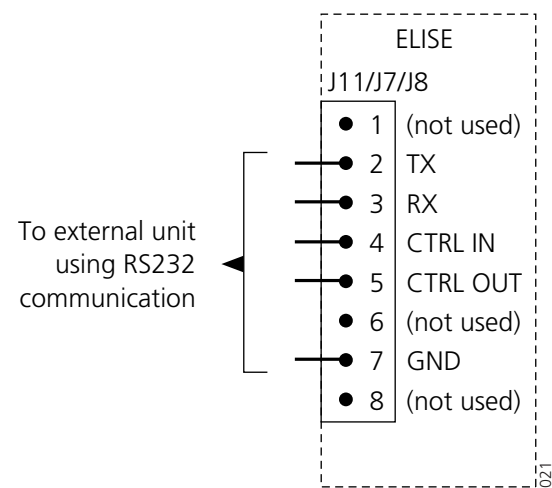


Figure 15: Description of the ELISE2 RS232 Ports

5.6.3 CONNECTIONS FOR SERIAL LINE PRINTER

To connect the serial line printer, see the figure for the pin-layout and wiring run below:

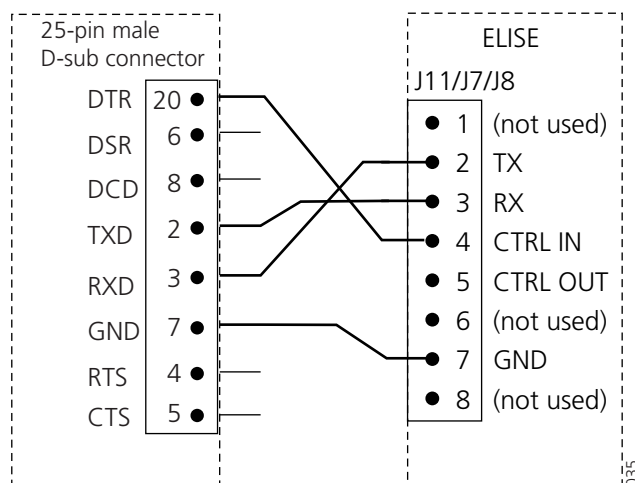


Figure 16: Connections for Serial Line Printing

5.6.4

RS422 COMMUNICATION WITH EXTERNAL UNIT

Depending on the software application, the RS422 port is used or not. If it is used, connector J6 is connected to the external unit as shown in the figure below:

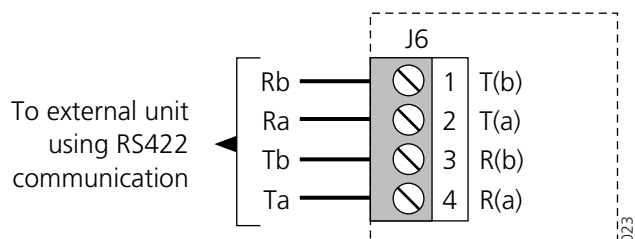


Figure 17: Connection of External Unit Via the RS422 Port

5.6.5

CONNECTION OF AUX INPUTS AND AUX OUTPUTS

The application of the inputs and outputs are software dependent.

Two digital inputs and two digital outputs can be connected via J16. The outputs are of the open-collector type and the output signals are dimensioned for 100 mA at max 12 V. A pull-up resistor must be connected to the output, as shown in on page 19.

Galvanic isolation of the inputs and outputs is provided by using a separate power supply. When galvanic isolation is not needed, supply voltage can be taken from the ELISE2 circuit board by connecting J16-1 to J5-3 and J16-6 to J5-4.

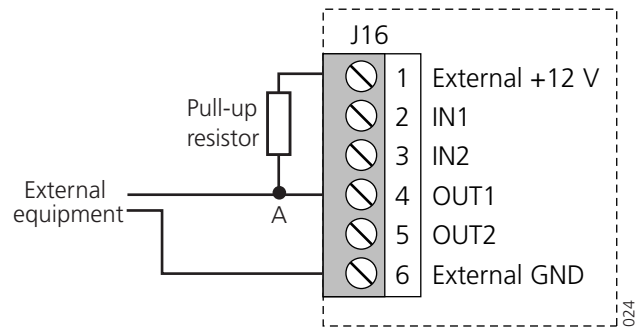
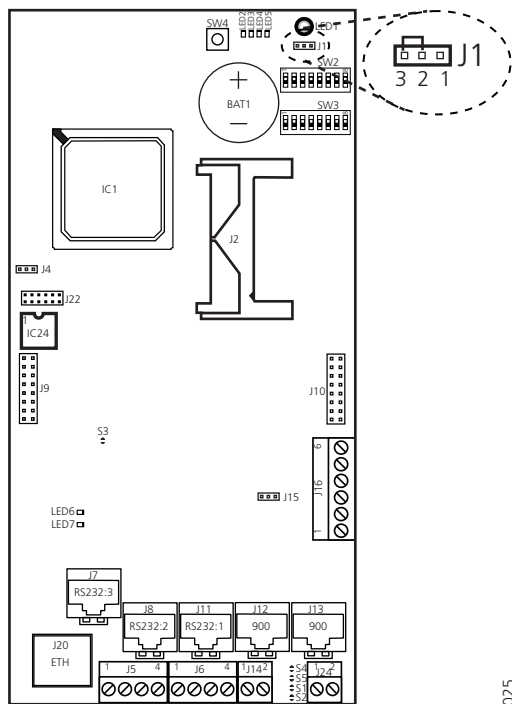


Figure 18: Connection of Inputs and Outputs

The inputs IN1 and IN2 are active when they are connected to 12 V. When the output OUT1 is active, the potential in point A in on page 19 will be close to 0 V. The same applies to a similar connection for OUT2.

5.7 ACTIVATION OF BATTERY

Activate the real-time clock backup battery by closing jumper J1 on the circuit board, that is, activate jumper pin 2 and 3.



5.7.1

BATTERY DATA

Table 8 Current Consumption, Real-Time Clock

Battery	Typical	Maximum
3V battery	3 μ A	40 μ A

Table 9 Battery Life (Battery Connected)

Power	Typical	Minimum
Power not connected	six years	half a year
Power connected		10 years

Table 10 Battery life (Battery Not Connected)

Battery life (battery not connected)	Minimum 10 years
--------------------------------------	------------------

5.8

SETUP OF NETWORK PARAMETERS

- Set section one in SW3 to ON to set the ELISE2 in **Network setup mode**. The remaining sections must be set to OFF.

**Figure 20: Setting the ELISE2 in Network Setup Mode.**

- Connect the ELISE2 Ethernet connector J20 with either one of the following:
 - A crossover cable directly to a PC
 - An ordinary (straight through pinouts) cable via a HUB on the LAN to the PC

Note: It has to be the same LAN, that is, the same Ethernet Broadcast Domain.

- Connect the power cable and wait until the Function Indicator indicates with a steady orange light. The ELISE2 now has the network setup IP address 192.5.36.229.

If the function indicator is red, check that the supply voltage is 12.5 Vdc \pm 10%.

- To be able to access the ELISE2 from a PC, the PC has to belong to the same network as the ELISE2 or ELISE2s IP address has to be found in the PC's route table. To facilitate this, the program **Route to ELISE** is provided, as follows:
 - Start the program **Route to ELISE**.
 - Press **Attach** to add the ELISE2 network setup IP address to the route table.

5. Press **Launch config**. This will open the page **192.5.36.229/system** in your browser. The user ID is *admin* and the default password is **changeme**.
6. Press **System Setup** and navigate to **Network**. Set the network parameters. Use the online help if any problems occur.
7. Navigate to **System 900** and select the bus operating mode for the module. The modes are described in the online help.
8. Change the default passwords for all the users. If the passwords are not changed, anyone knowing the default passwords can access your ELISE2 module and change any parameter.
9. Set all the sections in SW3 to OFF. Reboot the ELISE2 by navigating to **Reboot**.
10. Return to the program **Route to ELISE** and press **Detach** to remove the ELISE2 network setup IP address from the route table. Close the program.
11. When the ELISE2 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 the ELISE2 during network setup) and see whether it has started up correctly.
12. If an entry is added in the DNS, it will be easier to connect to the ELISE2.

5.9

CONNECTION OF ETHERNET

If the ELISE2 is connected directly to a PC, a crossover cable has to be used. If the ELISE2 is connected to a HUB, an ordinary (straight through pinouts) cable has to be used. The cable supplied is an ordinary cable.

Connect the Ethernet cable to connector J20, as shown in the figure below.

Break off a suitable section before inserting the Ethernet cable, see 5.2 Wiring Runs on page 13.

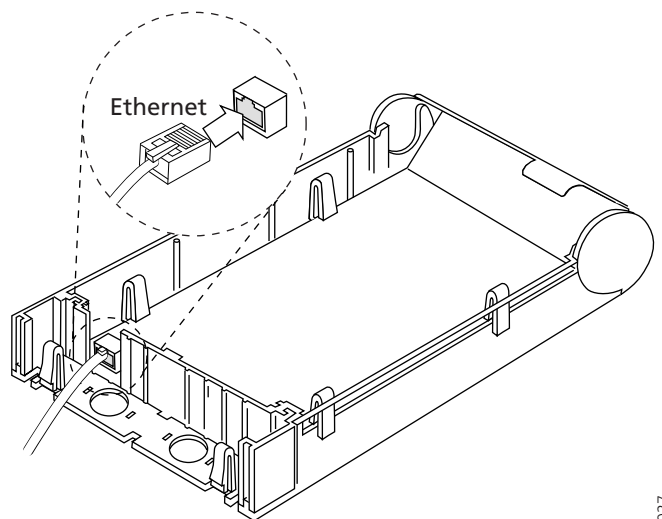


Figure 21: Connecting the Ethernet Cable

5.10

INSTALLATION TEST PROCEDURE

1. If the ELISE2 module is connected to a Central Unit, the indicator will light steadily green for 90 seconds.

- If the indicator continues to flash orange, check the following:
 - Connections on the ELISE2
 - Whether the ELISE2 has a correct System 900 address

Note: Check also the application documentation for troubleshooting information.

- If the indicator starts to blink red, check the following:
 - IP address
 - Network connections
 - License
 - Module key

If everything seems to be OK but the function indicator still flashes, the fault is probably located outside the ELISE2. Check the other units according to the relevant installation instructions, or contact your dealer.

2. Open the administrator page in a browser and navigate to **Troubleshoot**. Use the information log and tools given to test that ELISE2 is functioning properly.
3. Replace the cover.
4. When all other units are installed, perform the system test described in relevant installation instructions.

5.11

CLOCK SYNCHRONIZATION AND TIME SETTINGS

The clock in different ELISE2 modules can be set from the web browser, or a time server. To be able to synchronize the clocks in different ELISE2 modules a time server has to be used. Depending on software application and license, an ELISE2 can be used as time server. An external time server supporting the Network Time Protocol (NTP) can also be used. Normally the ELISE2 that is used as time server synchronizes with an external time server, and then all other ELISE2s use that ELISE2 as the time server.

To select the time source, do as follows:

1. Open the administration pages of the ELISE2 by entering **xxx.xxx.xxx.xxx/admin** in the address field in the web browser.
2. Click **Settings** in the left menu.
3. Select the time source, namely, Web browser, or Time server.

Note: Not all system's Central Unit can provide the time.

Independent of the time source, the ELISE2 can handle different time zones and adjust the clock according to daylight saving time.

The date and time format controls the appearance of date and time in log views and application specific pages. The administration pages that are common to all ELISE2s will display the date and time in the YYYY-MM-DD and HH:MM:SS format, for example 2000-01-31 13:30:00. This format for date and time will also be used in exported log files.

An ELISE2 can also set the time in connected systems. In this case, the ELISE2 will send its time to the connected system once every 24-hour period and when the time is updated.

To set the time in a connected system from the ELISE2, do as follows:

1. On the time settings page, enter when the ELISE2 must send its time to the connected system in the **Time push time** field.???
2. Click **Setup System 900 time**.
3. Select **Yes** in the **Set time in System 900**.

Setting the time in other carrier systems is done similarly. If several carrier systems are available, the time will be sent at the same time to all systems.

5.11.1

TIME SYNCHRONIZATION

It can take a few seconds to synchronize the date and time during start-up. It also takes a few seconds if the server parameters change to another server.

When the time is changed in the time server, it takes a different time period to synchronize the time, depending on how the modules are set up and how they are connected together. If a module does not have a time server license, it takes about 15 minutes to update its clock. A module with a time server license takes about 30 minutes to update.

5.12

MESSAGE DISTRIBUTION

On the administration pages, there are distribution lists that are used to distribute incoming information to other modules. If a module is to be connected to several carrier systems, for example, multiple Cordless Telephone System, distribution of the incoming data from the different systems has to be configured independently. The distribution of **Status Logs** and **Activity Logs** are configured separately.

The addressing is described in the examples below.

5.12.1

ADDRESSING ANOTHER UNITE COMPLIANT MODULE ON THE LAN

The addressing includes the IP address that the data is distributed to and also which service on that address it must take care of. How a unit is addressed is described in each unit's documentation.

- *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 must take care of the data is specified.

Below is an example that describes how to distribute data from an ELISE2 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.

Note: For AMS version 3.00 and 3.10 the service cannot be used. Instead, the correct port on the AMS, port number 10010, has to be used for addressing, that is, xxx.xxx.xxx.xxx:10010.

6 MAINTENANCE INFORMATION

6.1 REPLACING THE COMPACT FLASH

Note: Only Compact Flashes supplied by Ascom Tateco can be used.

1. Remove the cover, see 5.1 Opening the Housing on page 13.
2. Perform a power down of the unit, see 3.2 Power Down and Restart of ELISE2 on page 7.
3. Remove the circuit board, see 6.6 Replacing the Circuit Board on page 26.
4. Replace the Compact Flash.
5. Put the circuit board back into the cabinet.
6. If the Compact Flash is not preprogrammed with a valid IP address, follow the instructions in 5.8 Setup of Network Parameters on page 20, otherwise connect the power cable.
7. Replace the cover.

6.2 UPDATING APPLICATION SOFTWARE

The application software on the Compact Flash can be updated, for example, if a function for the application has been released. The version of the application software has to be compatible with the ELISE2 operating system version. For information about how to upgrade the operating system, see 6.3 Replacing an Image on the Compact Flash on page 25.

1. Open the page **xxx.xxx.xxx.xxx/system**.
2. Press **Software**. The current software versions for the application and the ELISE2 are shown.
3. Navigate to **Install software** and follow the instructions.

Note: The eas files must be used to update the application software.

It is possible to update the software over a remote connection. However, it is not possible to update software on the ELISE2 that handles the remote connection.

6.3 REPLACING AN IMAGE ON THE COMPACT FLASH

The complete Compact Flash image has to be replaced if the ELISE2 operating system has been updated. When a new image is installed, all the information on the Compact Flash will be replaced. It is recommended to take a backup of the parameters before the image is installed in order to be able to recover the unit to original setup.

1. Open the page **xxx.xxx.xxx.xxx/system**.
2. Press **Software**. Navigate to **Install Image**. Follow the instructions on the page. It will take some time to install the new image. The time depends on the size of the image and the type of connection to the ELISE2.

Note: The .img file must be used to update the complete image on the Compact Flash.

It is possible to replace the image over a remote connection. However, it is not possible to replace the image on the ELISE2 that handles the remote connection.

6.4 INSTALLING AN IMAGE ON AN EMPTY COMPACT FLASH

An image can also be installed on an empty Compact Flash.

1. Set sections one and four in SW3 to ON, to set the ELISE2 in **Network setup mode** and **Image installation mode**.
2. Perform a power down of the unit and then restart it, see 3.2 Power Down and Restart of ELISE2 on page 7.
3. Use the program **Route to ELISE** to connect to the ELISE2. A web page where a new image can be installed will open.
4. Select the image to install. It will take some time to install the new image. The time depends on the size of the image and the type of connection to the ELISE2.

Note: The img file must be used to update the complete image on the Compact Flash.

5. Set section four in SW3 to OFF and press **Reboot** on the displayed web page, to leave **Image installation mode**.
6. Setup the parameters according to the instructions in 5.8 Setup of Network Parameters on page 20 or recover parameters from a backup file.

6.5 UPDATING THE SOFTWARE LICENSE

1. Open the page **xxx.xxx.xxx.xxx/admin** and press **General**.
2. Enter the new license, and press **Activate**.

6.6 REPLACING THE CIRCUIT BOARD

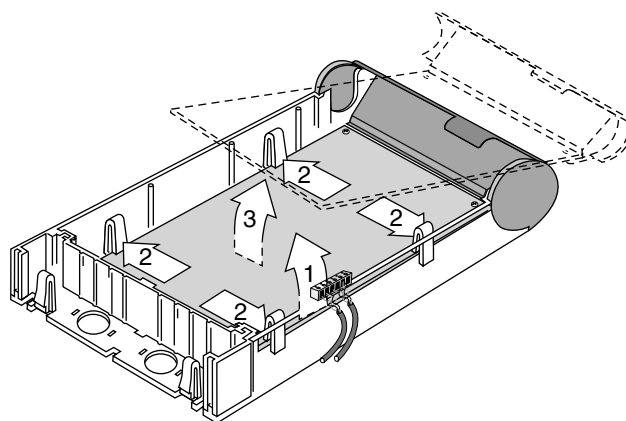


Figure 22: Replacing the ELISE2 Circuit Board

1. Perform a power down of the unit.
2. Remove the cover, see 5.1 Opening the Housing on page 13.
3. Lift off the screw connectors from the circuit board. (1)

4. Press the four holding clips to release the circuit board (2).
5. Remove the circuit board (3).
6. Install the new circuit board in the case and make sure the circuit board clicks into position.
7. Set all switches and jumpers as they were on the original circuit board and replace the screw connectors.
8. Check installation according to 5.10 Installation Test Procedure on page 22.

7

LON PIGGY BACK CIRCUIT BOARD

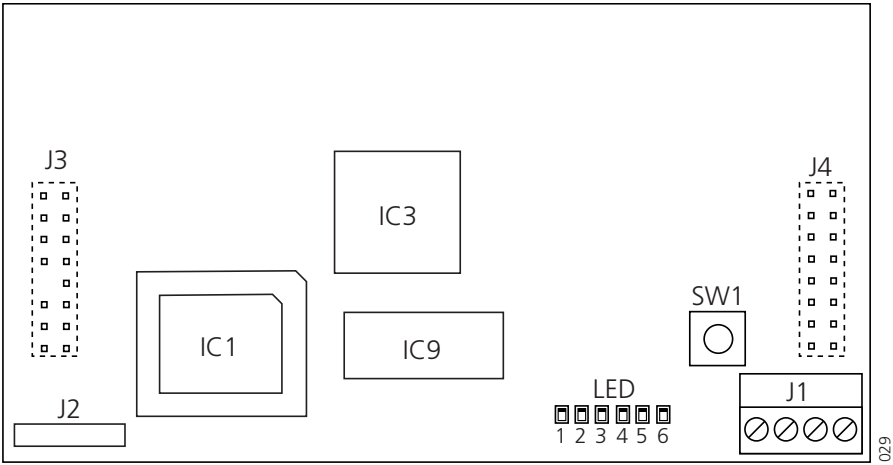


Figure 23: LON Piggy Back Circuit Board (LPB)

7.1

CONNECTORS AND JUMPER POINTS

Table 11 Connectors and Jumper Points

J1	Connection for the teleCARE M LON (only use terminals 1 and 2)
J2	Connector for In System Programming (ISP) of the flash micro controller
J3	Male connector to be put on J9 on the ELISE2 circuit board. Pin 12 cut off
J4	Male connector to be put on J10 on the ELISE2 circuit board

7.2

PUSH BUTTON

Table 12 Push Button

SW1	For service
-----	-------------

7.3

MICRO CONTROLLERS AND OTHERS

Table 13 Micro Controllers and Others

IC1	Flash memory
IC3	Neuron micro controller
IC9	PIC flash micro controller

7.4






LEDS

Table 14 LEDs

LED1	LON Rx
LED2	LON Tx
LED3	See the table for LED3 in on page 29.
LED4	Rx data transfer
LED5	Tx data transfer
LED6	See the table for LED6 in on page 29.



7.5

STATUS INDICATION OF LPB

Sequence	Status 1 Indication (LED3)	Function
1		Power up (On momentarily)
2		Normal operation (Off continuously)
3		Watch-dog reset
4		Unconfigured (Neuron uC)
5		No application (no Neuron firmware)
	Each segment = 100 ms	

030

Figure 24: LED3

Sequence	Status 2 Indication (LED6)	Function
1		Searching for baudrate. No connection with NSS/ISC main board
2		Normal operation. Connection with NSS/ISC main board (LON Protocol running)
	Each segment = 250 ms	

031

Figure 25: LED6

7.6

INSTALLING THE LPB

Caution! Always follow the instructions in 3.2 Power Down and Restart of ELISE2 on page 7 when disconnecting the power to the ELISE2 module.

1. Remove the cover from the ELISE2 module, see 5.1 Opening the Housing on page 13.
2. Perform a power down of the ELISE2 module, see 3.2.1 Power Down on page 7.
3. Lift off the screw connector J1 from the LPB.
4. Attach the LPB on the ELISE2 circuit board. Carefully line up the male connector pins of the LPB with the female connector of the ELISE2, then press the LPB

down firmly. (To avoid misalignment, the pin 12 on the J3 connector of the LPB is cut off and the corresponding hole on the J9 connector of ELISE2 plugged). See the figure below:

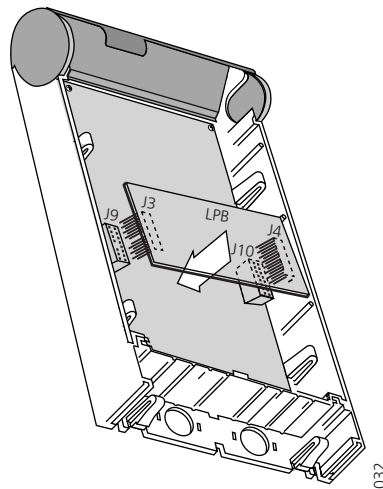


Figure 26: Mounting the LPB on an ELISE2 Circuit Board

5. Connect cables to the screw connector J1. Use maximum 2 x 0.8 mm wires per connector. Strip the outer sheath of the cables to a length of about 10 cm. Only use pins 1 and 2 for connecting the LON bus in or out. (Pins 3 and 4 can be used for connecting other LON devices, for example, SLA). See the figure below:

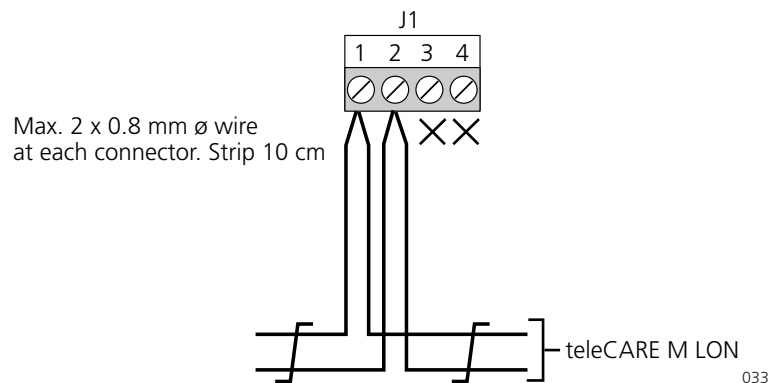


Figure 27: Cabling of Screw Connector J1

6. Replace all removed connectors.
7. Close the cover and restart the ELISE2, see 3.2 Power Down and Restart of ELISE2 on page 7.