Panasonic

EBLOne V. 3.8.X

OPERATING INSTRUCTONS

Fire alarm solutions

www.panasonic-fire-security.com

Table of Contents

1. INTRODUCTION

This document is an operation instruction for the EBLOne system, S/W version 3.8.x.
It is intended to be used by the end-user and the fire brigade personnel as well as service- and commissioning engineers.

This document should be read in conjunction with:

- EBLOne Planning Instructions MEW03041
- Technical descriptions, for the control and indicating equipment and all other units

Normally, information found in one of the documents is not found in another document. The documents complement each other.

DRAWINGS / CONNECTION DIAGRAMS

Resulting from continual development and improvement, all dimensions quoted are approximate only and subject to change without notice, as are other technical features and data.

More information on characteristics, mounting, connections and technical data for the control unit and all other units, is found in each Technical description respectively.

NATIONAL REGULATIONS

When planning a fire alarm installation, the national regulations must be obeyed. Detector coverage area and positioning of detector in the room / building are not described in this document.

EBLOne is very flexible. Many functions / facilities are built-in the system, for example in the S/W and EBLWin. When downloading S/W and SSD, different settings, conventions, languages, and so on can be set to fulfil national regulations.

Since the EBLOne control unit (CIE) is produced for many countries the look, the texts, the functions and so on might vary.

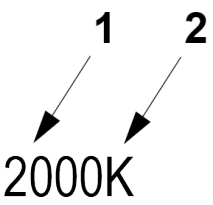
Some functions are adapted to different countries regulations and are described separately in special country specific documents.

TYPE NUMBER - ARTICLE NUMBER - PRODUCT NAME

A product consists of one or more parts (HW) according to a Product Parts List. A product has a type number.

An article number is often the same as the type no. but a country code can be added.

Example of an article number:



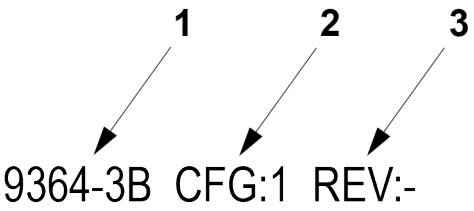
1) Type number
2) With key

Example of a product name:
EBLOne CU, with key

Hardware (HW), for example a printed circuit board (PCB), has:

- a type number
- an article number
- a product name
- a PCB number
- sometimes a S/W

Example of a PCB number:



1) PCB number
2) Configuration
3) Revision

Software (S/W) has:

- a version number (for example V3.3.0)
- sometimes additional information, such as Language

PC S/W, a program used for programming, commissioning and so on, has:

- a version number (for example V3.3.0)

2. ABBREVIATIONS

PFSEU AB	Panasonic Fire & Security Europe AB
Alarm points	Units, which can generate a fire alarm (in the control unit), i.e. analog detectors (sensors), conventional detectors, manual call points, etc.
Smoke detector	Analog or conventional photoelectric (optical) smoke detector
Sensor	Sensor = Analog detector
Analog detector	Contains an A/D-converter. The Control Unit pick up the digital values ("sensor values") for each detector individually. All evaluations and "decisions" are then made by alarm algorithms in the CU. The detector generation (440x and 440xI) can be used in "Advanced mode", i.e. the alarm algorithms are in the detector instead. Analog detectors are address-able – an address setting tool 4414 is used for the detector's COM loop address and mode settings. An analog detector has to be plugged in an Analog Sensor Base (ASB).
Analog Sensor Base (ASB)	An analog detector is plugged in an ASB, which is connected to a COM loop (see below).
Conventional detector	A detector with only two statuses, i.e. normal or fire alarm. The detector has a "closing contact" and a series alarm resistor. Normally plugged in a conventional detector base CDB (see below), which is connected to a conventional zone line input. Some types (e.g. water proof types) are connected directly on zone line. An end-of-line device has to be connected in the last unit on the zone line.
Conventional Detector Base (CDB)	A conventional detector is plugged in a CDB, connected to a conventional zone line input.
Addressable	A unit with a built-in address device. Each unit is individually identified, handled and indicat-ed in the Control Unit. (The unit can be an I/O unit with a zone line input, to which one or more conventional "alarm points" can be connected.)
Conventional zone line input / External line	Input intended for one or more conventional alarm points. End-of-line device in the last alarm point on the line.
Output unit	Addressable unit with programmable control outputs. Connected to a COM loop (see below).
Output / Control output	Defined or programmable function. Relay output or voltage output (supervised / monitored or not), in the Control Unit or an output unit connected on a COM loop.
COM loop	Loop = a cable, twisted pair, to which all the addressable units can be connected. Starts in the Control Unit and returns back to the CU.
Control Unit / CU / CIE	Control Unit = Control and Indicating Equipment (CIE) = Unit to which the alarm points are connected (via e.g. the COM loop). Indicates fire alarm, fault condition, etc.
System / Installation	The control unit and its corresponding equipment.
Nuisance alarms	False or unwanted alarms
LED	LED (Light Emitting Diode) = Yellow, green or red optical indicator ("lamp").
External Indicator (Ext. LED)	A unit with a red LED connected to a base (ASB / CDB) or a detector with an output for an ext. LED. Lit when the built-in LED in the detector / base is lit.
Exit light / Emergency light	Customized I/O units with built-in LED. MXE: Indicates recommended exit. MXER: Indicates recommended exit OR blocked exit. MXL: For corridors or open area
Touch screen / LCD	LCD (Liquid Crystal Display) = touch screen for presentation of fire alarms, fault messages, etc. In EBLOne it is a 7" graphical LCD (1024 x 600 px), RGB.

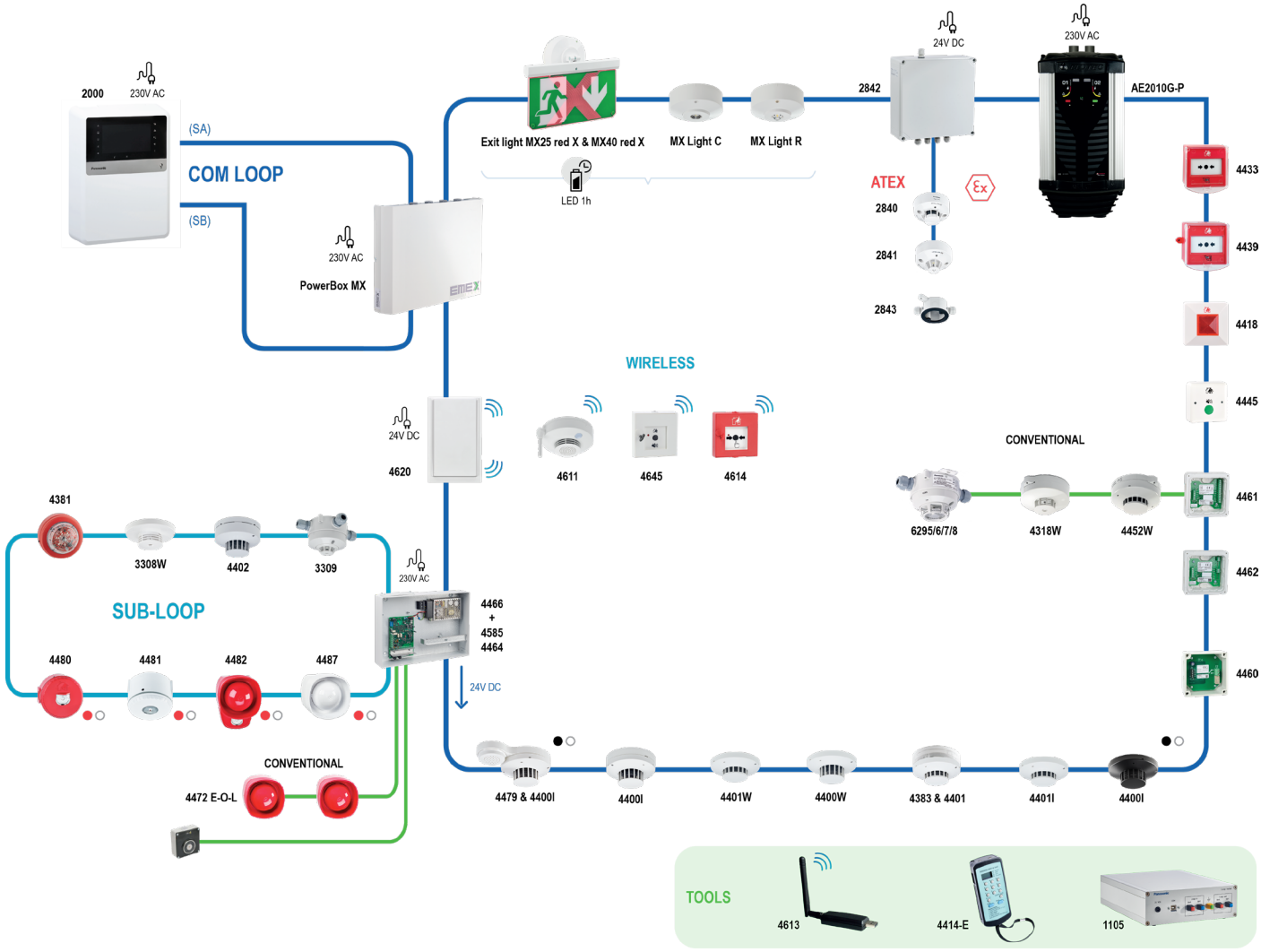
Site Specific Data (SSD)	The SSD is unique for each installation. All alarm points, presentation numbers, user definable alarm texts, programmable outputs, etc. are created in the PC program EBLWin and also downloaded in EBLOne unit with EBLWin.
Short circuit isolator (ISO)	Addressable unit for automatic disconnection of a part (segment) of the COM loop (see below) in case of short circuit on the loop. (According to EN54-2, one ISO is required per 32 alarm points.)
Software (S/W) / Firmware / System program	The software (S/W) – also called Firmware and System program – makes the control unit (the microprocessor) work. It is factory downloaded but another / new version can, via the PC program EBLWin, be downloaded in EBLOne on site.
EBLWin	PC program used to create and download the SSD in EBLOne unit(s). Can be used during commissioning / maintenance of the EBLOne system (autogenerate COM loop SSD, acknowledge faults, etc.)
EBL Firmware Manager	PC program used to download another / new software version.
Gateway	The Gateway is used to get EBLOne information as well as remote control via a PC (browser) and an intranet / internet. The Gateway is configured via the PC tool EBLWin.
EN54-13	Fire detection and fire alarm systems; Part 13: Compatibility assessment of system components.

3. GENERAL DESCRIPTION

EBLOne is a microprocessor controlled intelligent fire alarm system, intended for analog addressable detectors, as well as conventional detectors and manual call points. EBLOne has one loop connected for addressable units. On the COM loop it is possible to connect up to four SUB-loops. Programmable control outputs and output units are available.

EBLOne consists of a colour touch screen and has multi language support.

The CIE can have up to 253 addresses, and up to 253 alarm points.



TECHNICAL ADDRESS

The technical address, NNN, is used when programming all units connected to the COM loop. Technical address is also used to identify which unit has generated a fault.

PRESENTATION NUMBER

Each fire alarm point / input / zone has a presentation number, NNN-NN. The presentation number is shown on the CIE touch screen to identify the point / zone activating fire alarm.

COM LOOP UNITS

Addressable COM loop units are connected directly to the COM loop.

ADDRESS AND MODE

Most of the addressable units must have both address and mode set. This is done in different ways for different units, for example address setting tool, DIP switches, jumpers, or via the CIE touch screen. For more information, please read the Technical descriptions for each unit respectively.

SOFTWARE (S/W) VERSIONS

Due to continual development and improvement, different S/W versions can be found.

EBLWin

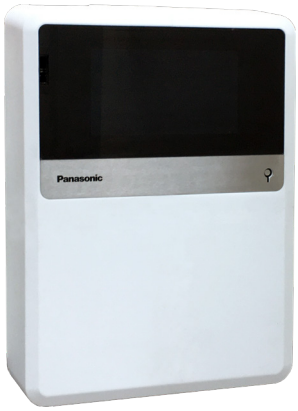
The PC program EBLWin is used for programming and commissioning of the control unit.

APPLICATIONS

The EBLOne system is intended for small installations. The intelligent control unit offer the system designer and end user a technically sophisticated range of facilities and functions.

Programming with the PC programs EBLWin and commissioning the system is very easy.

4. EBLONE

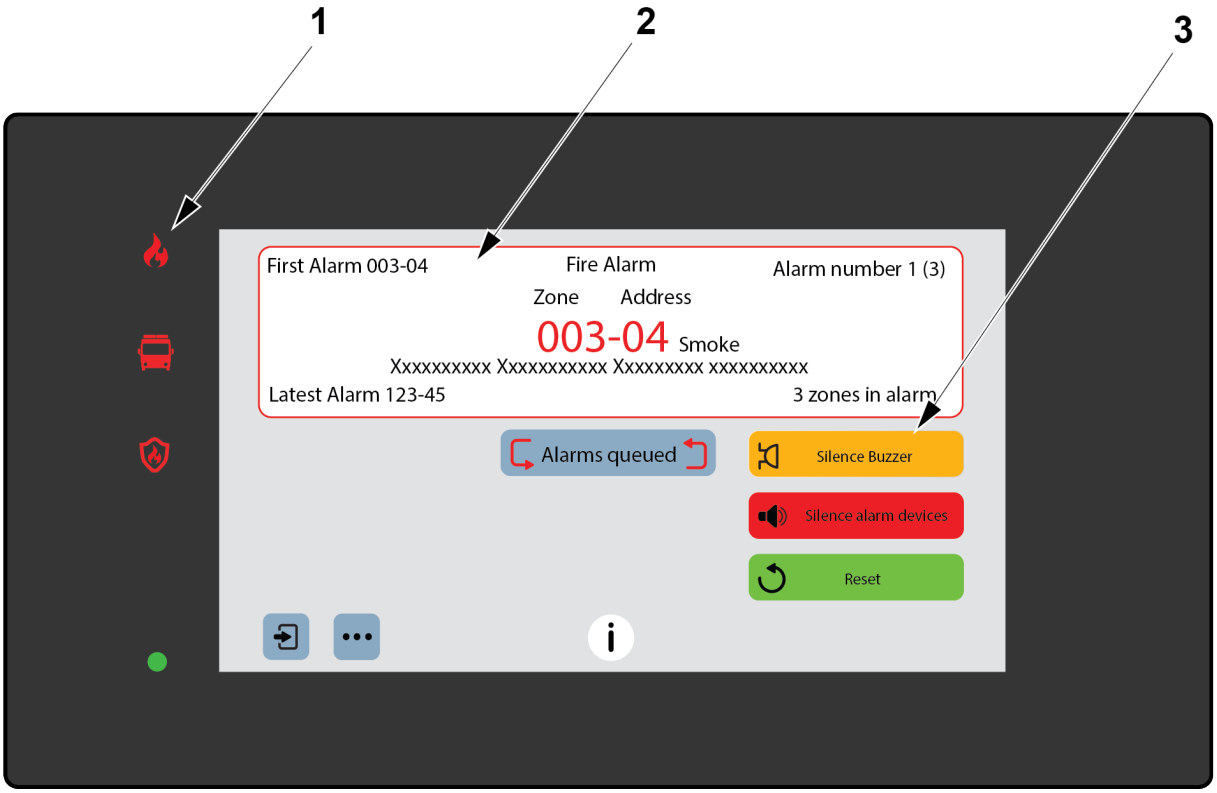


THE CONTROL UNIT HAS THE FOLLOWING BASIC CONFIGURATION:

For drawings and connection diagram, see Technical description for the CIE.

- White plastic cabinet
  - DIN rail for Gateway (5088)
- Main board (2010)
  - One COM loop to which the loop units are connected
  - One programmable supervised voltage outputs (S1)
  - Two programmable supervised / not supervised inputs (I1-I2)
  - Two 24 V DC outputs (power supply outputs for routing equipment and external equipment)
  - Two not programmable relay outputs for routing equipment (Fire alarm output for Fire brigade tx and Fault condition output for Fault tx)
  - Connectors for Gateway
  - Battery charger
  - Battery temperature sensor
  - Connectors for power supply (rectifier) and batteries
- Built-in power supply
  - Switched power supply (rectifier), 230V AC / 24V DC (MeanWell MDR-40-24)
  - Space and connection cables for two Sealed Lead-Acid backup batteries (12 V, 17 Ah)

5. FRONT



1) Icon display area
2) Alarm presentation
3) Control panel

5.1. ALARM PRESENTATION

In case of fire alarms the fire brigade personnel are able to see which alarm point/points having activated fire alarm and to take required operating control of the system.
The information displayed in the upper part is depending on how many alarm points having activated fire alarm. In the middle part will the fire alarms be shown, one alarm point together with an user definable alarm text (if programmed).

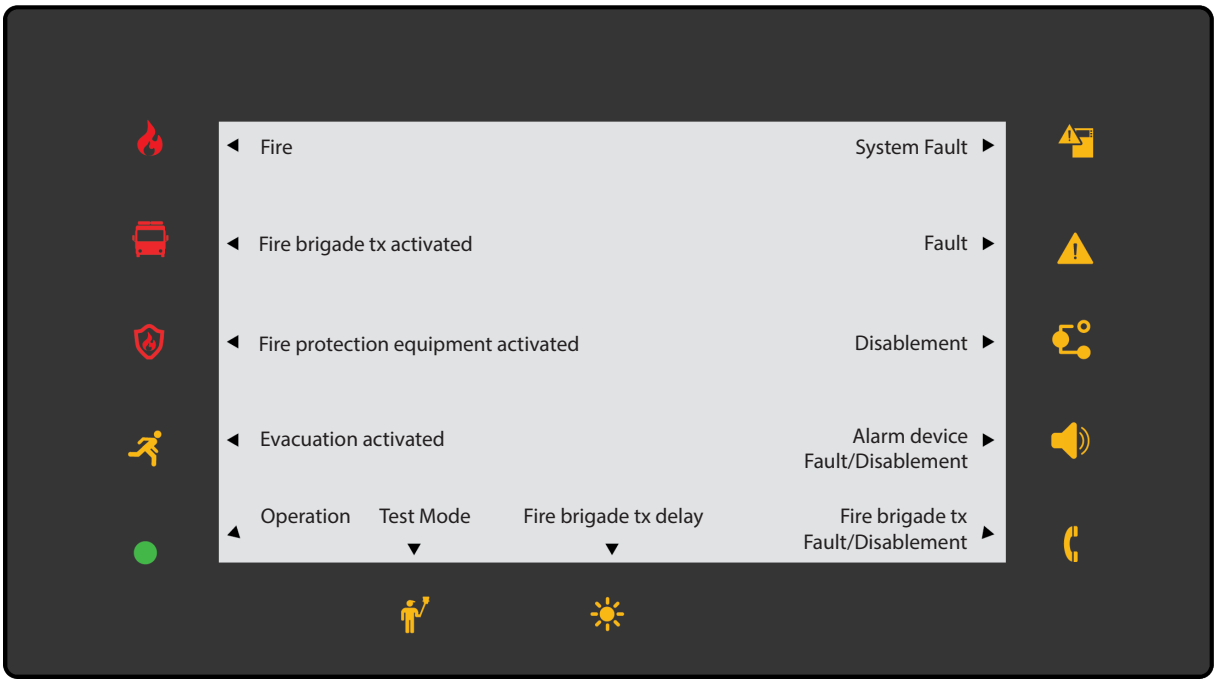
5.2. CONTROL PANEL

The touch screen is also used for CIE operations such as commissioning, monthly test and maintenance. To get access to operate the CIE, a user name and password is required. Up to ten user names can be used for three different user level types.
A password (six digits) for each user name is required.

See following chapters for more information about status LEDs, alarm presentation and the control panel.

5.3. LED INDICATORS

Press the information button (i) to see the explanation for the LEDs in the icons dispay area.



	Fire	Fire alarms. See 17. ALARM on page 36
	Fire brigade tx activated	Output "Fire alarm" for fire brigade tx (routing equipment) is activated. Or a programmable input type "Activated routing equipment" is activated. Or test of routing equipment in progress, see menu 25.4.1. PERFORM MONTHLY TEST on page 90.
	Fire protection equipment activated	Output(s) for extinguishing equipment or fire/smoke ventilation equipment are activated. (Or a programmable input type "Extinguishing" or "Ventilation" is activated.)
	Evacuation activated	A programmable input type "Evacuate" is activated.
	Operation	Steady light: CIE is powered via the rectifier and/or the battery. Flashing light: CIE start up, and if the loop is disconnected at start up, until the loop is re-connected.
	Test mode	Zones are in "test mode" (see Zone test menu).
	Fire brigade tx delay	The Alert Annunciation function is enabled.
	Fire brigade tx Fault/Disablement	Steady light: Output(s) for "Routing equipment" disabled via Output type menu. Flashing light: Routing equipment power supply outputs or supervised outputs of type "Routing equipment" have generated fault(s) or the CIE has lost contact with a unit with such an output, for example 4461.
	Alarm devices Fault/Disablement	Steady light: Output(s) type "Alarm device" or "Alarm device for evacuation" are disabled. Flashing light: Output(s) type "Alarm device" or "Alarm device for evacuation" have generated fault(s). This is also valid when the CIE has no "contact" with a unit with such an output, for example 4487, 4479, and so on.
	Disablements	Disablement(s) in the system. Or the system is in service mode.
	Fault	General fault(s) in the system. Or test of routing equipment in progress, see menu 25.4.1. PERFORM MONTHLY TEST on page 90. Or sensitive fault detection mode is on. See menu 25.6.5. SENSITIVE FAULT DETECTION MODE on page 103.
	System fault	EBLOne is not running because of S/W fault, CPU fault, or Memory fault. CIE restart (fault code ≠ 00 / 03 /25).

5.3.1. BUTTONS

Explanation of the buttons in the control unit.

	Fire	Used to access the alarm page.
	More	Used to access the event tabs page.
	Up / down keys	Used to scroll between items in lists.
	Top / bottom keys	Used for fast scrolling to the top or the bottom of the lists.
	Acknowledge faults / technical warning / service signal	Used to acknowledge fault. Press  to acknowledge a fault or press  to acknowledge all.
	Re-enable	Used to re-enable functions. Press  to re-enable a function in one unit or press  to re-enable the function in all units
	Silence buzzer	Used to silence the buzzer in the CIE when it is sounding.
	Log in	Used to log in to the CIE.
	Log out	Used to log out from the CIE.

It is an audible feedback, a click sound, when you press a button or a key.

5.3.2. SYMBOLS

Explanation of the symbols in the control unit.

	Indicates one or more events		Incorrect value in edit field
	One zone		Interlocking area
	Zone in range		Interlocking point
	Detector address		Technical address
	Automatic re-enablement for zones and alarm point		Output
	"Automatic re-enablement" is used. Will be automatically re-enabled at hh:mm		

5.4. INFORMATION PRIORITY ORDER

When the control unit / system is in normal operation (quiescent state), which means no alarms, no faults, no disablements, no service signals, no zones in test mode, no activated interlocking in / outputs, and/or Alert Annunciation function not enabled, only the LED "Operation" should be lit and "Welcome page" is shown. However, the "Welcome page" has the lowest priority and more important information suppresses less important.

PRIORITY ORDER TABLE

Priority	Shown in window	Event
1	Fire alarm page	Fire alarms: • Fire alarm • Heavy smoke/heat alarm • Alert Annunciation (AA) alarm • Key cabinet alarm
2	Fire alarm page	Quiet alarm
3	Fire alarm page	Co-incidence alarm
4	Fire alarm page	Delayed alarm
5	Fire alarm page	Pre-warning
6	Fire alarm page	Test mode alarm
7	Event tab page	LAA alarm
8	Event tab page	Evacuate information
9	Event tab page	Fault
10	Event tab page	Disablement
11	Event tab page	Zones in "Test mode"
12	Event tab page	Interlocking input / output active
13	Event tab page	Technical warning
14	Event tab page	Service signal activated
15	Event tab page	Service mode activated
16	Event tab page	Sensitive fault detection
17	Welcome page	System information

Priority no. 7 to 16 can be shown on the event tab page at the same time.

5.5. WELCOME PAGE

EBLOne "Welcome" page is shown in logged out mode, when there are no alarms or other events activated.
Date and time are displayed.

yyyy-mm-dd = (Date) Year-Month-Day
hh:mm = (Time) hour:minute

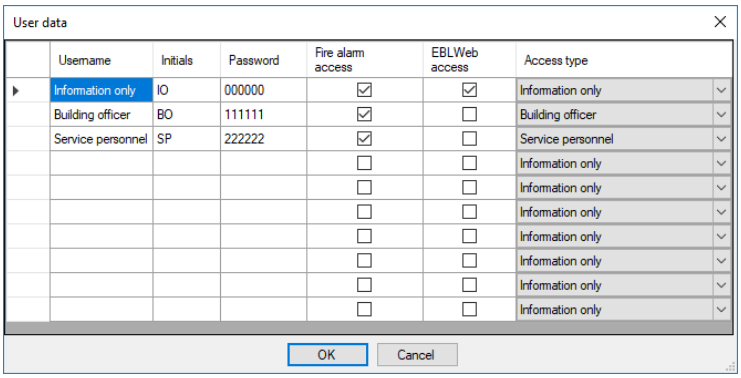
When the Spanish, German, Norwegian, Ukraine, Australian, or New Zealand language is selected the date is shown as follows: dd-mm-yyyy.

5.5.1. USER DEFINABLE SYSTEM INFORMATION

User definable system / installation information (created and downloaded via EBLWin) can be displayed in the middle of the touch screen. Two rows are available. In total 38 characters.

6. USER DATA

EBLOne has different user levels for different kind of users. To log in to an EBLOne a user name and a password are required. Ten different User names with individual Passwords can be used.
Via EBLWin (menu “System”) ten different User names with individual Passwords are possible to define in the "User data" dialog box. One of three different levels /Types can be selected for each user name. They have to be used to log in to an EBLOne and/or for Gateway access.
Three User names and Passwords are default:



It is highly recommended to change the default user names and passwords and to add a number of new user names and passwords. Also the Fire alarm access and EBLWEB access columns have to be filled in, depending on how the user names and passwords shall be used.

In a new CIE (i.e. before any Site Specific Data has been downloaded), only user "0" is available. No password is required and you have access to all menus. After download of SSD the downloaded user names and passwords will be valid.

6.1. USER NAME

Up to ten users, 0 to 9, may be programmed. By default in a new SSD programming, three users are available:

- 0 = Information only
- 1 = Building officer
- 2 = Service personnel

6.2. PASSWORD

Each user has a password for an access level, for example. "Information only", "Building officer" or "Service personnel".

6.2.1. CHANGE OF PASSWORD

Normally the user names and passwords are downloaded / changed via EBLWin and SSD download. A logged on person (user name) can also change his/her password via Settings menu > > .

If the valid password(s) are unknown, EBLWin must be used to change the password(s).

6.2.2. PASSWORD FOR GATEWAY ACCESS ONLY

Normally a password consists of 6 digits. This allows the same user to get access to the control unit as well as to the Gateway if both are selected.
If a user should have access to the Gateway only, it is possible to choose a stronger password. It consists of 6 to 10 characters and digits as well as letters can be used.

The letters are case sensitive.

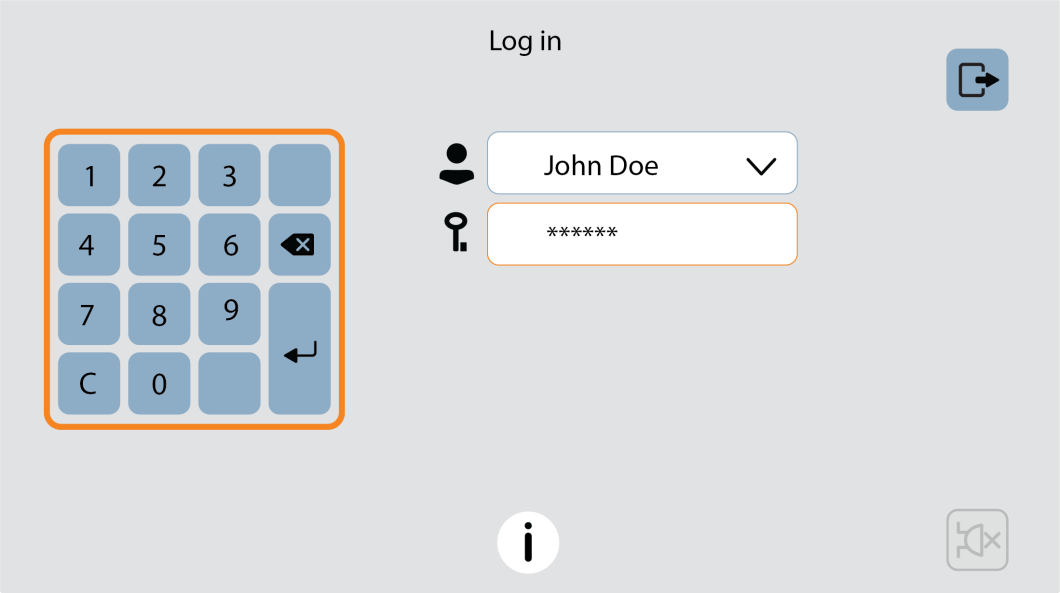
7. ACCESS

Get access to the menus, it is necessary to log in with a user name and a password for level 2B, 2C or 3A. See section 8.1. USER LEVEL ACCORDING TO EN54-2 on page 23.

Before any SSD is downloaded (e.g. in a brand new control unit), only "0" is shown and no password is required. After SSD download, the downloaded user names and passwords are valid.

7.1. HOW TO LOG IN

a) Press to log in.
b) Select a user in the drop-down list.
c) Type the password for that user. (Six digits. * * * * * *)



After typing a correct password, a main menu list with the available menus will be displayed.
For "0", Information only, no password is required.

The cross will be shown if the password was not correct. Try again.

After three wrong passwords the log in function will be blocked for one hour for the user name respectively.

7.2. NAVIGATION / GENERAL PROCEDURES

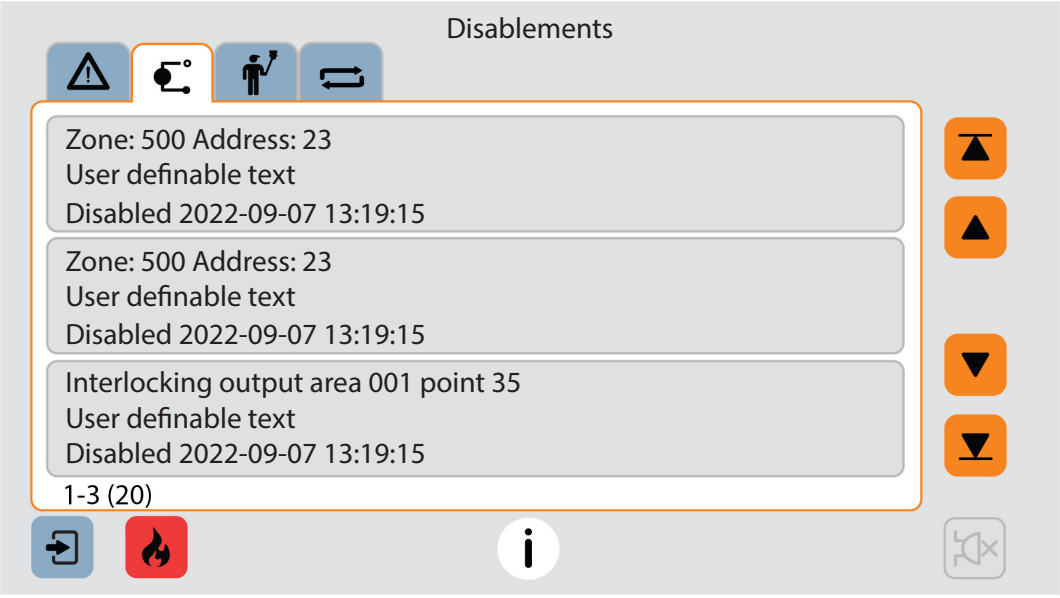
- Scroll in the lists with and .
- Tap on the input field, a numpad will pop up to enter data.
- Use the switch to toggle between different functions.
- Press the button to re-enable a function on one unit or press to re-enable the function on all units.
- To acknowledge, press or press to acknowledge all.
- A successful operation is indicated by a . It will also be shown in the list.
- A not successful operation is indicated by a .
- The symbols are greyed out when not active.
- To return to the main menu press .
- To leave the menu system and log out, press log out .

Quick jump can be used within each menu, press the icons in the top left corner for a quick jump to previous menu.

You will be automatically logged out 15 minutes after the last action, and after 5 seconds when you press log out . A new login is then required.

7.2.1. NAVIGATION IN THE EVENT TAB PAGE

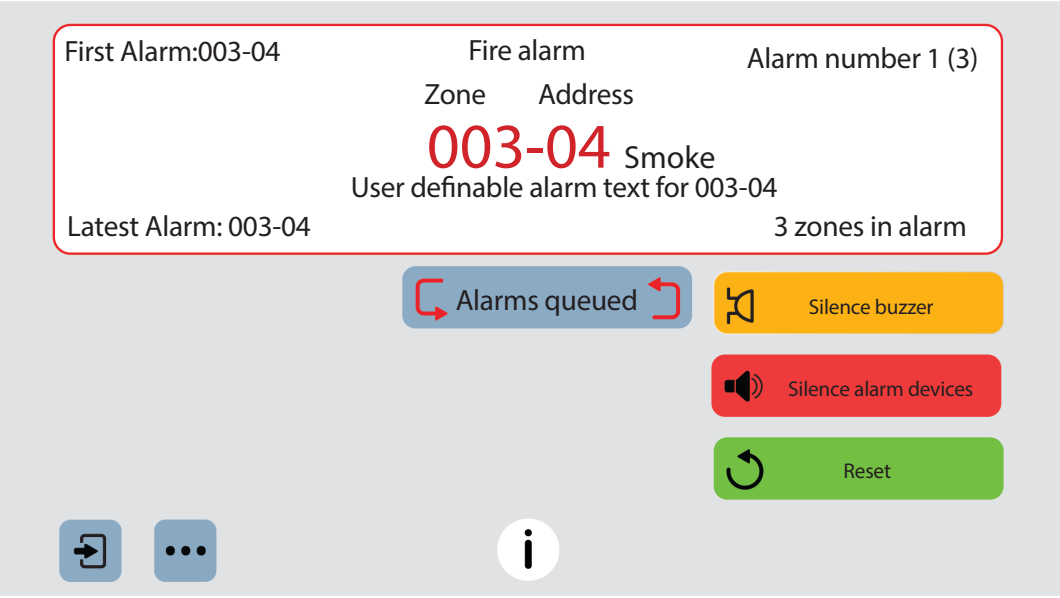
- The event tab page is only shown when logged out. In logged in mode, press log out to access the event tab page.
- In logged out mode, the event tab page will be shown if there are any events in the system.
- A tab will be shown on the event tab page if there are any faults, disablements etc in the system.
- To switch between the tabs, press the tab icon
- If the system also is in fire alarm state, the fire button will be shown in the event tab page. Press the fire button to go to the fire alarm page.
- To access the menu system when the event tab page is shown, press to log in.



When the event tab page is shown, the screen backlight will go done to 10% after 5 minutes. It will never turn off.

7.2.2. NAVIGATION IN ALARM STATE

- If the system is in alarm state, the screen will be turned on and the alarm page is shown.
- The fire alarm page is only shown when logged out. In logged in mode, press the fire button or log out to go to the alarm page. You will be automatically logged out.
- On the alarm page, if there are also other events in the system, the more button will be shown. Press the more button to go to the event tab page.
- To access the menu system during alarm state, press to log in. The normal alarm page will be automatically displayed again after the menu system is escaped or 20 seconds after the latest maneuver in the menu system.
- The alarm page has priority over the event tab page.



8. USER LEVELS

Each user level type has access to specific menus according to the following table.

INFORMATION ONLY	BUILDING OFFICER	SERVICE PERSONNEL
Fault Technical warning Sensor value Service signal Event log Activated interlocking Control unit information Current consumption Communication	Fault Technical warning Sensor value Service signal Event log Activated interlocking Control unit information Current consumption Communication	Fault Technical warning Sensor value Service signal Event log Activated interlocking Control unit information Current consumption Communication
	Set clock and date Display settings Change password Change language	Set clock and date Display settings Change password Change language
	Zone Address Outputs Output types Time channels Interlocking Alert annunciation Routing equipment	Zone Address Outputs Output types Time channels Interlocking Alert annunciation Routing equipment
	Monthly test Zone test	Monthly test Zone test Test alarm devices
	Activate interlocking output	Disconnect Acknowledge service signal Clear weekly average Safe shut down Activate alarm point Activate output Activate interlocking output
		Set up wireless system Calibrate outputs Service mode for loop Sensitive fault detection mode SSD information

8.1. USER LEVEL ACCORDING TO EN54-2

User level EN54-2	User level type	Required action / equipment	Access to
1	-	No	Alarms queued button
2A	-	Access code or Fire brigade key	Like 1 + Silence buzzer, Silence alarm devices & Reset buttons
2B	Information only	Like 2A + log on as “Information only”	Like 2A + the following menus Status[1]
2C	Building officer	Like 2A + log on as “Building officer”	Like 2A + the following menus Disable, Test[2], and Maintenance[3]
3A	Service personnel	Like 2A + log on as “Service personnel”	Like 2A + the following menus Installation
3B	-	PC + EBLWin + H/W key (EBLWin key)	SSD & S/W download
4	-	PC + EBLWin + H/W key (EBLWin key) + a special password	SSD & S/W download + reset of alarm counter

1) Information only, i.e. the faults cannot be acknowledged
2) Except Test alarm devices menu
3) Only Activate interlocking output menu

8.1.1. USER LEVEL 1

When logged out, anybody has access to:

- "Alarms queued" button to scroll / browse through the queued alarms.
- Silence buzzer

8.1.2. USER LEVEL 2A

The user / fire brigade personnel have access to the following buttons:

- Reset (This button is password protected, see 24.1.1. ACCESS CODE on page 66).
- Silence alarm devices (This button is password protected, see 24.1.1. ACCESS CODE on page 66).

In a control units type 2000K access level 2A is reached by using the fire brigade key. When the key is operated, no password is required for buttons Reset and Silence alarm devices.

8.1.3. USER LEVEL 2B

After log in as “Information only” (level 2B), you have access to the following menu:

Status

- Fault

Information only!

- Technical warning
- Sensor values
- Service signal
- Event log
- Activated interlocking
- Control unit information
- Current consumption
- Communication

8.1.4. USER LEVEL 2C

After log in as “Building officer” (level 2C), you have access to the following menus:

Test
- Monthly test
- Zone test

Disable
- Zone
- Address
- Outputs
- Output type
- Time channel
- Interlocking
- Alert annunciation
- Routing equipment

Settings
- Set clock and date
- Change language
- Display settings
- Change password for the logged in user

Status
- Fault
- Technical warning
- Sensor values
- Service signal
- Event log
- Activated interlocking
- Control unit information
- Current consumption
- Communication

Maintenance
- Activate interlocking output

8.1.5. USER LEVEL 3A

After log in as “Service personnel” (level 3A), you have access to all menus, i.e. like level 2C and also to the following menus:

Test
- Test of alarm devices

Installation
- Setup wireless system
- Calibrate outputs
- Service mode for loop
- Sensitive fault detection mode
- SSD information

Maintenance
- Disconnect loop / zone line input
- Acknowledge service signal
- Clear weekly average
- Safe shut down
- Activate alarm point
- Activate output

Settings
- Change password for the logged in user

8.1.6. ACCESS LEVEL 3B

Used by Service / maintenance / commissioning engineers when a PC (i.e. EBLWin) is to be connected to EBLOne for backup (upload), download of site specific data (SSD) and/or download of software. EBLWin require an EBLWin key (5094) to be plugged in the PC.

8.1.7. ACCESS LEVEL 4

Used by manufacturer or by personnel authorised by the manufacturer for re-initialisation (reset) of the alarm counter, change software configurations, on-line status checking, etc. An EBLWin key (5094) is required to be plugged in the PC.

9. TECHNICAL ADDRESS

The technical address, NNN, is used when programming all units connected to the COM loop. Technical address is also used to identify which unit has generated a fault.

- The technical address on the COM loop.
- The addresses don't have to be in sequence.
- The connections on the COM loop don't have to be in sequence.
- The address for each unit is set during auto addressing or with the programming tool 4414E.

The technical address can be set to 001 – 253.
With the programming tool 4414E, the units can also be set to 000 (factory setting).
If the auto-addressing function will be used, the units on the loop must have technical address 000. See Planning Instructions for the system.

Totally 253 COM loop (technical) addresses can be used for the control unit, of which up to 253 addresses can be used for alarm points.

A brand new detector is factory set to COM loop (technical) address 000. Connected on the COM loop, the detector LEDs will start blinking every second, indicating that an address (001 - 253) has to be set before the detector will work.

10. PRESENTATION NUMBER

For each fire alarm point / input / zone, a presentation number, NNN-NN, has to be programmed. The presentation number is shown on the CIE touch screen to identify the point / zone activating fire alarm.

It is also used to disable / re-enable fire alarm points / zones and as trigger conditions in control expressions to activate programmable outputs.

Together with the presentation number, a user definable 40 characters text message (alarm text) can be displayed (if programmed).

NNN	NN
001-999	**00-99**
Zone number	01 – 99 = The address within the zone. 00 = Only the zone number will be displayed, e.g. used for conventional zone line inputs.

Zone numbers 001-999 can be used, but not more than 128 different zones can be used in EBLOne.

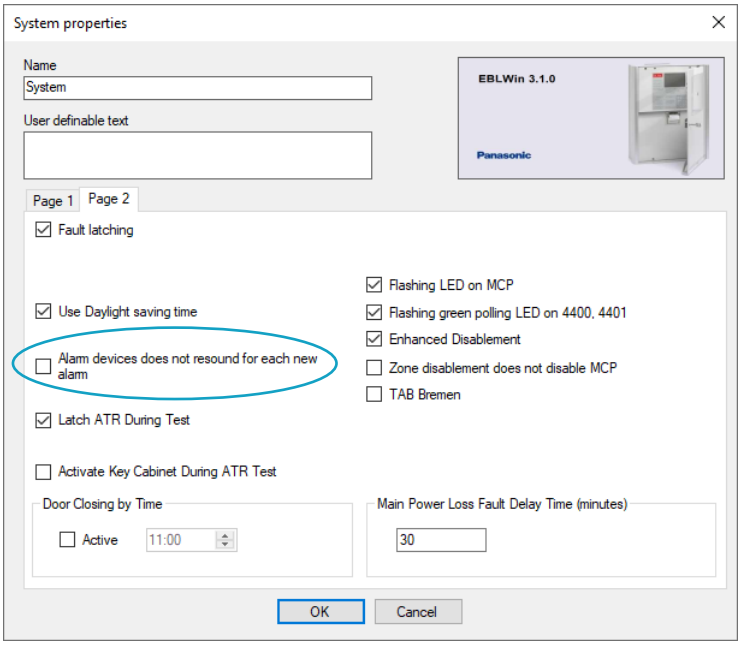
11. SILENCE ALARM DEVICES

On the alarm page, the button "Silence alarm devices" can be used to silence the activated sounders.
The activated outputs programmed for sounders, type "Alarm devices", will be turned OFF (de-activated). This includes Addressable sounder base 3379 / 4479, Light indicator 4383, Wireless smoke detector 4611, and all alarm devices 448X.

If the button "Silence alarm devices" is pressed again, the sounders will automatically sound again. In case of a new alarm the sounders will automatically sound again, unless programmed otherwise, see below.

If sounders are programmed with type "Alarm devices for evacuation" they will not be silenced by the silence alarm devices button.

In EBLWin, the option "Alarm devices does not resound for each new alarm" can be selected.



In this case the alarm devices will not re-sound automatically if a new alarm is detected.

12. SILENCE BUZZER

The buzzer in the control unit will sound for:

- Fire alarm (0.4 / 0.4 sec.)
- Co-incidence alarm (2-zone or 2-unit dependent fire alarm): When only one zone or one zone / address (alarm point) is in alarm status (0.8 / 5 sec.)
- Pre-warning (0.8 / 5 sec.)
- Quiet alarm (0.8 / 5 sec.)
- Fault (continuous)
- Activated interlocking input (0.8 / 0.8 sec.), if this option is selected via EBLWin.
- Activated technical warning (0.5 / 10 sec.), if this option is selected via EBLWin.

Press "Silence buzzer" button to silence the buzzer. In case of a new alarm (pre-warning, co-incidence alarm, and so on), the buzzer will automatically sound again.

13. DISABLE OR RE-ENABLE ALARM DEVICES

Outputs programmed for sounders can be collectively disabled. This is done via Disable Output types menu > > .
The disablement is indicated by LED "Disablement" and LED "Alarm devices", which are steady ON.

In case of a fire, the sounders will remain disabled, which means the alarm devices will not sound until they are re-enabled again.

Outputs of type "Alarm devices" cannot be individually disabled, not even via Output types menu > > . See also chapter 25.4.3. TEST OF ALARM DEVICES on page 94. All outputs of type "Alarm device" can be activated for an alarm device test.

Also sounders programmed with type "Alarm devices for evacuation" will be disabled by the Alarm devices alternative in the Output types menu > > .

14. DISABLE OR RE-ENABLE OUTPUT

All control outputs (except outputs of type “Alarm devices” and "Alarm devices for evacuation") can via Outputs menu > > be individually disabled:

- Loop unit xxx output x
- Control unit Sx

This is indicated by LED Disablement .
They will remain disabled until they are re-enabled again.
See also section 25.2.4. OUTPUT TYPES on page 84.
See also section 25.7.6. ACTIVATE OUTPUT on page 112.

An output can be activated for an output test, even if it is disabled.

15. DISABLE OR RE-ENABLE CONTROL OUTPUTS

All control outputs programmed as type:

- Control (general)
- Ventilation (Fire ventilation)
- Extinguishing
- Interlocking

… can via disable menu > > be collectively disabled for the control unit. This is indicated by LED "Disablement".

They will remain disabled until they are re-enabled again.

See also section 25.7.6. ACTIVATE OUTPUT on page 112. An output can be activated for an output test, even if it is disabled.

See also chapter 25.7.7. ACTIVATE INTERLOCKING on page 113. An interlocking output can be activated for an output test, even if it is disabled.

16. EVACUATE

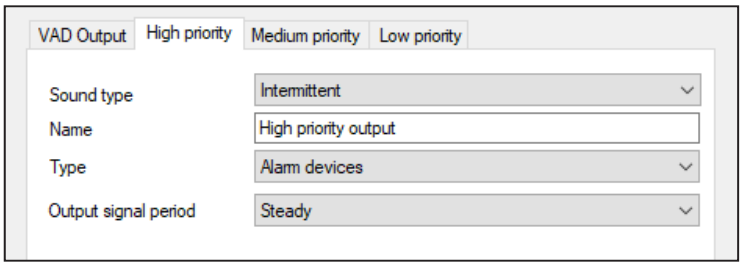
When an input programmed as “Evacuate” is activated, all outputs that are programmed for sounders (type "Alarm devices" and "Alarm devices for evacuation"), will be collectively turned ON (steady).

Evacuate in progress is indicated by LEDs "Evacuate". Evacuate in progress is also shown on the event tab page when logged out.

The sounders will remain turned ON until the programmable input is de-activated.

Outputs type “Alarm devices”: The alarm devices (sounders) will always be activated steady (sound continuously) irrespective of the fact that the outputs can be set to anything else for fire alarm (e.g. intermittent).

Addressable alarm devices: The alarm devices (sounders) will always be activated according to the setting in; High priority / Sound type.



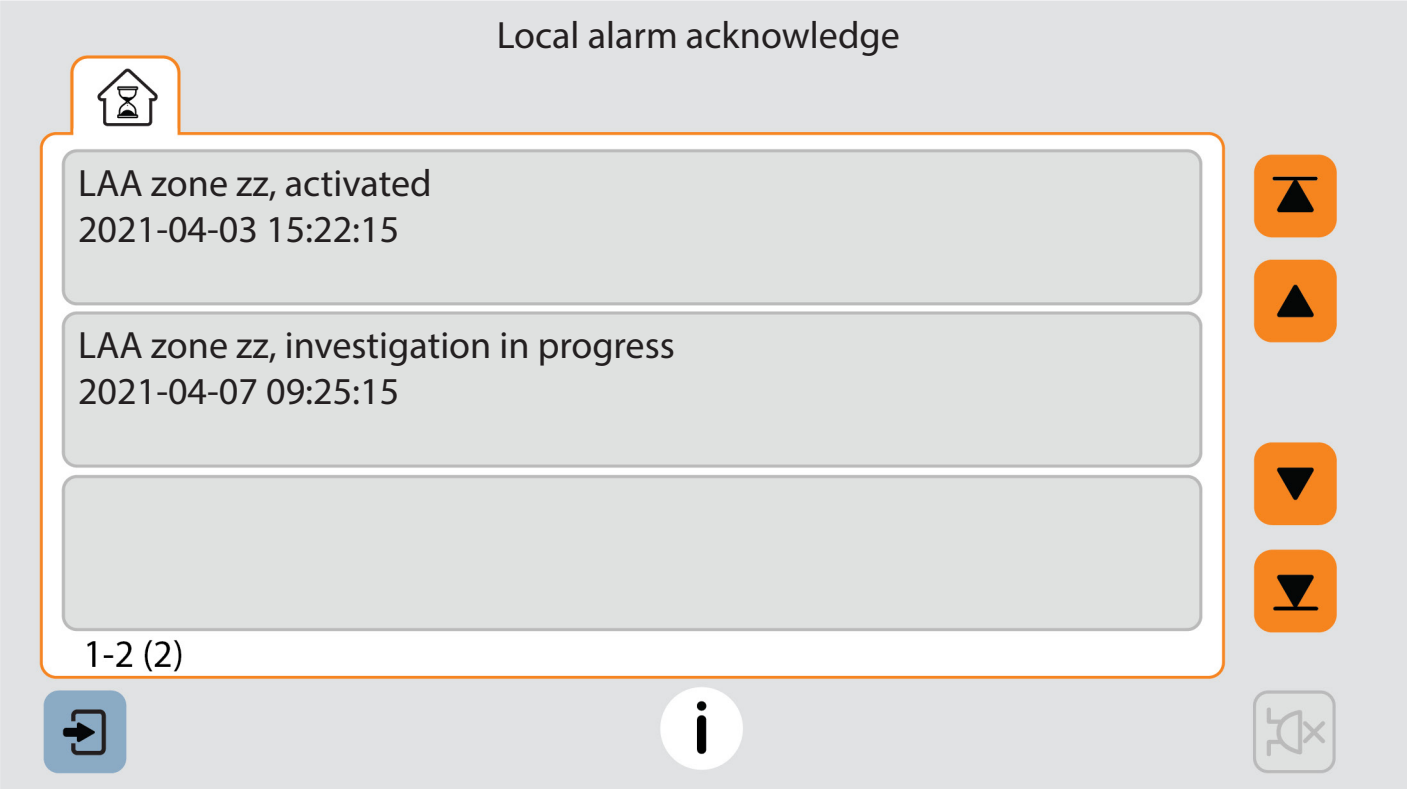
16.1.1. LOCAL ALARM ACKNOWLEDGEMENT (LAA)

One or more Local Alarm Acknowledgement units are used in the system.
See Technical description MEW01838 for more information.

If the **Local Alarm Acknowledgement** function is used there will be an indication on the event tab page during the Acknowledgement Period and the Investigation Period respectively.

During the Acknowledgement Period (10-120 sec.), the activated LAA zone (a list if many) is shown.

During the Investigation Period (1-9 min.), investigation in progress for the LAA zone (a list if many) is shown.



17. ALARM

In case of a fire, analog detectors (sensors), conventional smoke and/or heat detectors, manual call points and programmable inputs can activate fire alarm. If somebody illegally breaks into a key cabinet, this will also activate a "fire alarm" (i.e. a key cabinet alarm).

17.1. ALARM TYPES

A fire alarm could be an **Alert Annunciation alarm**, i.e. the activation of the routing equipment (fire brigade tx) is delayed during an acknowledgement time and an investigation time respectively. The analog detectors can also activate two other types of "alarm", i.e. **Pre-warning** and **Heavy smoke alarm** / **Heavy heat alarm**. "Two unit dependent" addressable alarm points (normally only smoke detectors) and "2-zone dependent" zones, can activate a **Co-incidence alarm**.

Quiet alarm can be used to activate outputs, based on smoke detected by a smoke detector, without activating a fire alarm in the system.
Regarding the different alarm types, etc., see the following chapters.

In the following chapters are all different alarm types described. The illustrations in this document show the essential information and might not look exactly as shown on the touch screen.

17.1.1. PRE-WARNING

Activation of Pre-warning is an option that has to be enabled (via EBLWin) for the control unit.

Pre-warnings activated in the control unit will always be presented in the control unit and all programmable outputs in the system (with trigger condition pre-warning) will be activated (if not disabled).

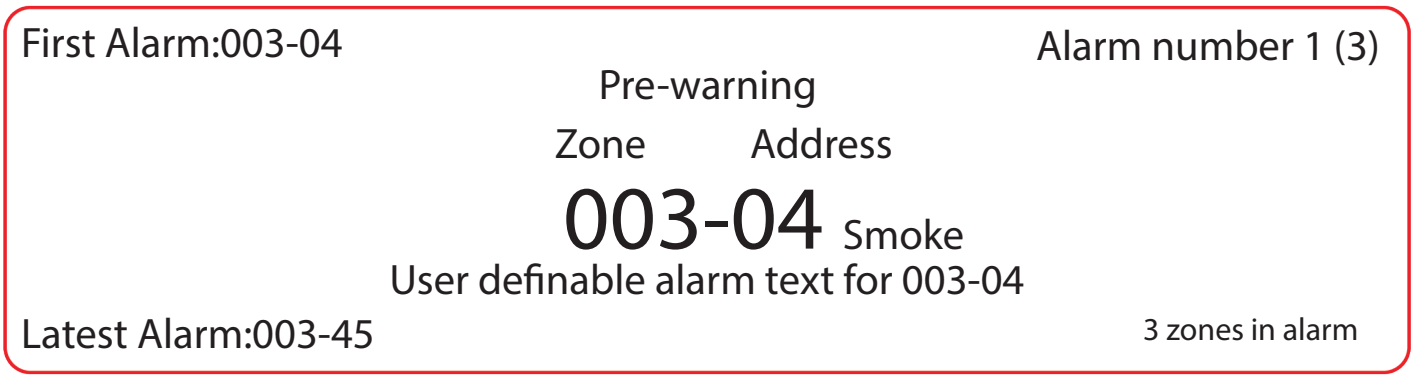
An analog detector will generate a pre-warning for a lower alarm level than the fire alarm level. Pre-warning can be used when an early warning and/or an early action is required (for example a "soft" computer shut down). Normal alarm devices (output type "Alarm devices"), routing equipment, and so on will not be activated.

Any programmable input can also be used to activate a pre-warning, e.g. for a High Sensitivity Smoke Detector system. Aspirating smoke detector Aspect Lazeer (AE2010L-P) programmed for Detection type "And with pre-warning" will activate a pre-warning for "alarm" from one detection area only.
See EBLOne Planning instructions for the system.

IN CASE OF A PRE-WARNING, THE FOLLOWING HAPPENS:

- The buzzer in the CIE sounds 0.8 sec. every five sec. (0.8 / 5 sec.).
- Outputs programmed for pre-warning are activated.
- On the CIE touch screen, a presentation number (zone/address) is shown (for the first pre-warning).
- On the CIE touch screen, a user definable text message (= the alarm text for fire alarm) is shown (if programmed).

Example; pre-warning zone 003, address 04:



"SMOKE" after the presentation number is automatically added depending on the type of alarm point (SMOKE, HEAT, MULTI or MCP).

If more than one pre-warning is activated, the arrows on the button "Alarms queued" will turn red and the pre-warnings will be automatically scrolled (every five seconds).
Pre-warnings are automatically reset, see chapter 18. ALARM RESET on page 46.

17.1.2. FIRE ALARM

See also section 5.4. INFORMATION PRIORITY ORDER on page 16.

THE FOLLOWING HAPPENS IN CASE OF A FIRE ALARM:

(In accordance with the EN54-2 standard.)

- The buzzer in the CIE sounds 0.4 sec. each 0.4th sec. (0.4 / 0.4 sec.).
- LED "Fire" is blinking (0.4 / 0.4 sec.).
- Output for routing equipment (Fire brigade tx) is activated.
- Outputs for fire alarm are activated. Outputs programmed for General fire alarm and outputs programmed for the activated fire alarm(s).
- On the CIE touch screen, a presentation number (zone/address) is shown (for the first fire alarm).
- On the CIE touch screen, a user definable text message (alarm text) is shown (if programmed).
- On the CIE touch screen, is also some additional information presented.

ONE ALARM POINT ACTIVATING FIRE ALARM.

Example; fire alarm zone 002, address 03:

MORE THAN ONE ALARM POINT ACTIVATING FIRE ALARM.

Example; fire alarm in zone 002, address 03, and seven other fire alarms (of which the latest alarm is 003-11) in four different zones:

ALARM SOURCE

An alarm point can activate a fire alarm based on detection of **smoke**, **heat**, or **multi**. A **Manual call point** can be used to manually activate a fire alarm.

After the presentation number is automatically added SMOKE, HEAT, MULTI or MCP depending on type of alarm source.

The alarm source "**Smoke**", "**Heat**", "**Multi**", or "**MCP**" will be added to the normal fire alarm information.
Alarm sources can be used to trigger control expressions, see trigger conditions Alarm 30-49 in Planning, chapter 12.19.7 TRIGGER CONDITIONS.

ADDITIONAL INFORMATION

First alarm, Latest alarm, Alarm number and number of zones in alarm.

User definable alarm text for each alarm point and zone line input can an individual alarm text be shown (if programmed). Up to 40 characters can be used.

When the arrows on the "Alarms queued" button turns red, it indicates that more than one fire alarm is activated. To scroll through the alarm points, press the button "Alarms queued".

Reset of the fire alarms, see section 18. ALARM RESET on page 46.

17.1.3. TEST MODE ALARM

Regarding Test mode, see chapter 25.4.1. PERFORM MONTHLY TEST on page 90 and 25.4.2. PERFORM ZONE TEST on page 92.

When an alarm point in a zone set in test mode is tested, it is shown on the touch screen as a fire alarm but with the information "Test mode" added.
The test mode is indicated by LED "Test mode"

No outputs will be activated except the fire door outputs. The test mode alarm will be automatically reset after approximately 10 seconds.

17.1.4. HEAVY SMOKE ALARM / HEAVY HEAT ALARM

An analog detector can activate a heavy smoke / heat alarm for a higher alarm level than the normal fire alarm level, i.e. a normal fire alarm is already activated by a detector activating a heavy smoke / heat alarm. See EBLOne Planning Instructions for the system.

Heavy smoke / heat alarm is to confirm heavy or increasing smoke / heat and can be used for special actions, e.g. activation of smoke ventilation, and so on.

THE FOLLOWING HAPPENS IN CASE OF A HEAVY SMOKE / HEAT ALARM:

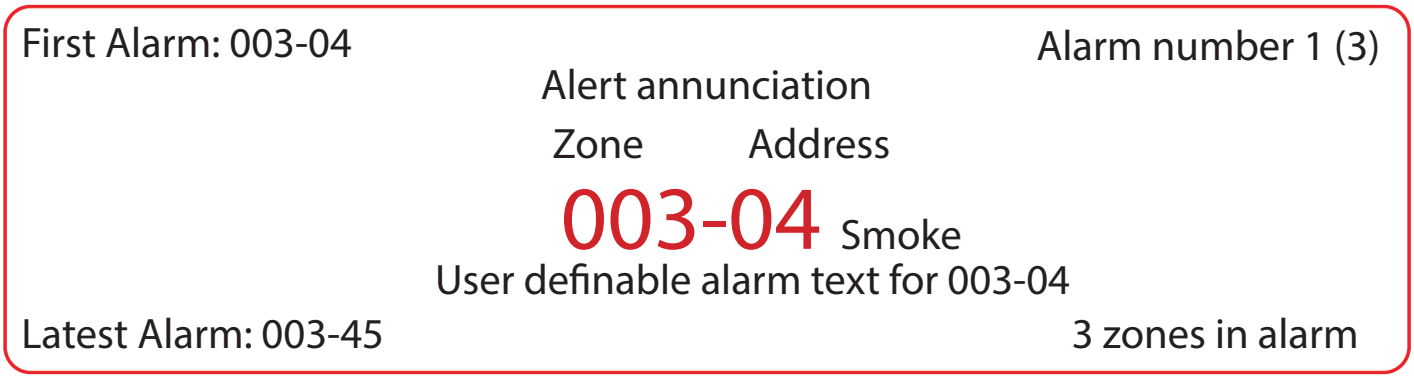
- Outputs programmed for heavy smoke / heat alarm are activated. General heavy smoke / heat alarm and individual alarm points / zones.
- Each heavy smoke / heat alarm is presented with a "title", which means "Heavy smoke" or "Heavy heat" will be added to the normal fire alarm information:

Heavy smoke / heat alarm will be reset when the fire alarm respectively is reset, see section 18. ALARM RESET on page 46.

17.1.5. ALERT ANNUNCIATION ALARM (AA ALARM)

When the AA function is enabled, indicated by the LED ☀ "Fire brigade tx delay", the indications, actions, and so on are the same as for a normal fire alarm (see above) except for the CIE output for routing equipment (fire brigade tx), which will not be activated directly.

There will also be a "title". "Alert annunciation" or "Alert annunciation acknowledged" will be added to the normal fire alarm information. The AA alarm has to be acknowledged within an acknowledge time and reset within an investigation time, otherwise the output(s) for routing equipment (fire brigade tx) will be activated. See EBLOne Planning Instructions for more information regarding the AA function.
See also section 18.5. ALERT ANNUNCIATION on page 46.



The button "Acknowledge" is only visible if an AA alarm is activated.

17.1.6. KEY CABINET ALARM

The fire brigade uses a key cabinet to store a key to the building. One programmable input can be used to connect a key cabinet.

A key cabinet alarm is like a normal fire alarm, i.e. outputs with trigger condition "General fire alarm" will be activated as well as outputs with trigger condition "Activated key cabinet"

KEY CABINET OPENED BEFORE A FIRE ALARM

If the key cabinet is opened without a fire alarm, for example if somebody illegally breaks into the key cabinet, a key cabinet alarm will be activated.

Key cabinet alarm is reset like a normal fire alarm, see section 18.2. FIRE ALARM RESET on page 46.

This alarm will also generate a fault message, see section 18.6. KEY CABINET ALARM RESET on page 47.
It is indicated by LED ⚠ "Fault" and the "Fault tx" output(s) will be activated.

KEY CABINET OPENED IN CONJUNCTION WITH A FIRE ALARM

If a normal fire alarm already is activated in the CIE the fire brigade personnel can open the key cabinet without activating any key cabinet alarm or fault.

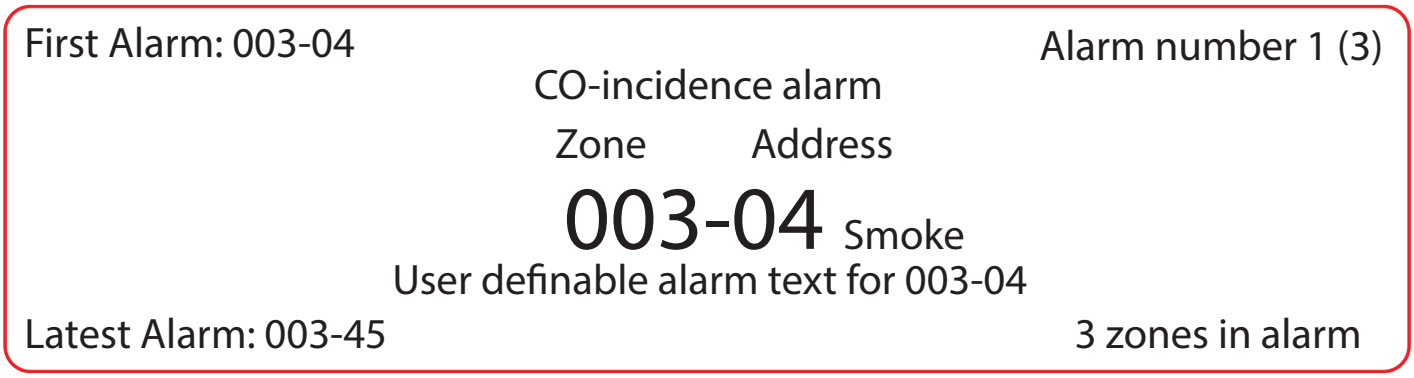
RESTORING THE KEY AFTER A FIRE ALARM

When **all** fire alarms in the system are reset, see chapter 18. ALARM RESET on page 46, the key has to be restored into the key cabinet **within 5 minutes**. If not, a fault will be generated, see section 18.6. KEY CABINET ALARM RESET on page 47.

17.1.7. CO-INCIDENCE ALARM (2-ADDRESS / -ZONE DEPENDENCE)

The co-incidence alarm function is programmed via EBLWin for the alarm points / zones in question. When only one zone or one zone / address (alarm point) is in alarm status, the CIE buzzer sounds (0.8 / 5 sec.) and there is a co-incidence alarm presentation on the touch screen.
The co-incidence alarm will be automatically reset after 5 minutes or via the "Reset" button. See chapter "Alarm reset", page 53.

Example; co-incidence alarm zone 003, address 04:



If more than one co-incidence alarm not dependent on each other are activated, the arrows on the button "Alarms queued" will turn red and the co-incidence alarms will be automatically scrolled (every five seconds).

If **two or more zones** or **alarm points** (zone / addresses) dependent on each other are in alarm status at the same time, normal fire alarm (see above) will be activated in the system. The co-incidence alarm function can be turned on / off via a time channel.

17.1.8. DELAYED ALARM

Delayed alarm is an option that has to be enabled (via EBLWin) for the alarm point respectively. The delay time (0-255 sec.) is, for the whole system, set via EBLWin (System Properties, page 1). The delay time will be added at the end of the alarm algorithm when a fire alarm normally would have been activated. For that reason this "extra" delay time should be as short as possible.

The Delayed alarm will be activated when the delay time countdown has started and will be activated until the delay time has run out and a normal fire alarm is activated. No outputs will be activated. In case of a Delayed alarm, the following happens:

- The buzzer in the CIE sounds 0.8 sec. every five sec. (0.8 sec. / 5 sec.).
- On the CIE touch screen, a presentation number (zone/address) is shown (for the first delayed alarm). Also a user definable text message (= the alarm text for fire alarm) is shown (if programmed).
- Outputs programmed for delayed alarm will be activated.

Example; Delayed alarm zone 003, address 04:

"SMOKE" after the presentation number is automatically added depending on the type of alarm point (for example SMOKE, HEAT, MULTI or MCP).

If more than one Delayed alarm is activated, the arrows on the button "Alarms queued" will turn red and the Delayed alarms will be automatically scrolled (every five seconds). Delayed alarms are automatically reset, see chapter 18. ALARM RESET on page 46.

17.1.9. QUIET ALARM

One or more smoke detectors, via EBLWin programmed for Quiet alarm, have passed the fire alarm level. Quiet alarm is used for activating outputs based on smoke detected by a smoke detector without activating fire alarm in the system.

INDICATIONS AND ACTIONS:

Detector LEDs are turned on (i.e. also a connected ext. LED). The buzzer sounds (0.8 / 5 sec.) and there is a Quiet alarm presentation (including a title "Quiet alarm") on the touch screen:

Programmable outputs for quiet alarm, i.e. any output with a control expression containing the trigger conditions "Quiet Alarm Zone" or "Quiet Alarm Zone Address" will be activated.
Quiet Alarms are automatically reset; see section 18.10. QUIET ALARM RESET on page 47.

A detector programmed for Quiet alarm can never generate a real fire alarm.

18. ALARM RESET

18.1. PRE-WARNING RESET

Pre-warning is automatically reset.

18.2. FIRE ALARM RESET

The detectors having activated fire alarm shall, after reset, be inspected, tested and replaced when required.

All activated fire alarms (alarm points / zones) will be reset by pressing "Reset" once. (This is in accordance with the EN54-2 standard).

When all fire alarms are reset, LED "Fire" is turned off. If there are other conditions (e.g. a fault condition) the corresponding information will be shown (for example. a fault message), for the priority order see section 5.4. INFORMATION PRIORITY ORDER on page 16.
All outputs (for fire alarm) are reset.

If a key cabinet is installed, the key (to the building) has to be put back into the key cabinet within 5 minutes. If not, a fault will be generated and a fault message will be shown on the touch screen, see section 18.6. KEY CABINET ALARM RESET on page 47.

18.3. TEST MODE ALARM

Test mode alarm is automatically reset after approximately 10 seconds.

18.4. HEAVY SMOKE / HEAT ALARM RESET

If a heavy smoke / heat alarm has been activated, it will be reset at the same time as the corresponding fire alarm is reset. Also the output(s) will be reset, i.e. de-activated.

18.5. ALERT ANNUNCIATION

Regarding the function, see section 17.1.5. ALERT ANNUNCIATION ALARM (AA ALARM) on page 41 and EBLOne Planning Instructions, chapter "Alert annunciation". Reset of the AA alarm(s) can be done via the alarm page.

Reset via an AA unit is possible only during the investigation time and of AA alarm(s) only (not normal fire alarms). If more than one AA alarm is activated, they will be reset all at a time.

18.6. KEY CABINET ALARM RESET

A key cabinet alarm has to be reset like the normal fire alarms. After reset a fault message is shown on the touch screen to inform the user that the key cabinet has been opened.

If the key cabinet is closed again, the "status" information is changed to: "serviced".

This key cabinet fault message is to be acknowledged the same way as "normal" faults, see chapter 21. FAULT ACKNOWLEDGE on page 60.
When the key cabinet fault is acknowledged, the LED ⚠ "Fault" will be turned off (i.e. if the key cabinet is closed and if there are no other faults in the system).

18.7. CO-INCIDENCE ALARM

A Co-incidence alarm can be manually reset with the "Reset" button or automatically reset after 5 minutes (i.e. if the alarm point / zone is no longer in alarm state).
See also chapter 17.1.7. CO-INCIDENCE ALARM (2-ADDRESS / -ZONE DEPENDENCE) on page 43.

18.8. DELAYED ALARM

The Delayed alarm will be automatically reset if the alarm point during the delay time countdown no longer is in alarm state or when a normal fire alarm is activated (when the delay time has run out).

18.9. LOCAL ALARM ACKNOWLEDGEMENT (LAA) RESET

The indication on the CIE, during the Acknowledgement Period (10-120 sec.) and the Investigation Period (1-9 min.) respectively, will automatically disappear when:

- the AA process ends because no detector in the LAA zone is over the fire alarm level.
- the AA process ends up in a fire alarm, which has higher priority. (Regarding Fire alarm reset, see above.)

18.10. QUIET ALARM RESET

Quiet alarms are non-latching, i.e. they will be automatically reset when the alarm point / zone is no longer above alarm level. Outputs activated by quiet alarm will be de-activated. (In some cases after a programmable delay time.)

19. FAULT

All faults are delayed in order not to generate any unnecessarily faults, for example. for COM loop and zone interface input faults the delay time is approx. 45 seconds. Some units may also have an internal delay time, which makes the delay time even longer, for example the Multipurpose I/O unit 4461 has an internal delay time of 30 seconds, which results in 45+30=75 seconds delay time in total.

In case of a fault condition, the following will happen in the control unit:

- The buzzer in the CIE will sound continuously (steady).
- The fault condition output for routing equipment (Fault tx) will be activated.
- Programmable output(s) for general fault will be activated and output(s) for general charge fault might be activated.
- LED "Fault" will be turned on.
- LEDs "Alarm devices", "System fault" and/or "Fire brigade tx Fault/Disablement" might be turned on as well.

The following will be shown on the touch screen:

- A fault message incl. date, time and status will be shown on the touch screen. If it is an alarm point or zone also the User definable alarm text will be shown. If there is no zone/address the logical name, programmed in EBLWin, of the 'object' will be shown instead.
- On the touch screen up to three fault messages can be shown simultaneously. On the touch screen, down to the left, is shown the number of faults.
- If a fault has been corrected (serviced) before it has been acknowledged, the status information is "Serviced".
- Fire alarm presentation has higher priority than the fault messages, however during fire alarm presentation the faults can be shown via the menu system, see section 7.2.2. NAVIGATION IN ALARM STATE on page 22.

Faults have to be acknowledged, which is done via Fault menu > > , see chapter 25.1.1. FAULT on page 70.
This menu is a list of all faults in the system:

- not corrected / serviced and not acknowledged fault
- not corrected / serviced but acknowledged fault (Acknowledged)
- corrected / serviced but not acknowledged fault (Serviced)

If a fault cannot be corrected, it is important to contact service personnel / engineer immediately.
The faults are normally latched, but can via EBLWin be set to be "not latched". This will make the fault disappear from the list when serviced but not acknowledged.

The fault list shown on the event tab page, displays all faults, even acknowledged faults.

20. FAULT MESSAGES

Below follows a list of all fault messages, in alphabetical order. There is also an explanation to each fault.

Download failed
Restarting...

A fault in the downloaded Site Specific Data (SSD). After the restart a new fault will be generated:
FAULT: Site Specific Data (SSD)
A new SSD download will probably solve the problem.

FAULT: 24V for external equipment (auto-resettable)

The auto-resettable fuse PTC7 (max 250mA) has been activated. Check for overload or damage on the external equipment.
To reset the PTC, disconnect the external equipment and wait 5 min to let the PTC cool down before re-connecting the external equipment.

FAULT: 24V for routing equipment (auto-resettable)

The auto-resettable fuse PTC6 (max 150mA) has been activated. Check for overload or damage on the routing equipment. To reset the PTC, disconnect the routing equipment and wait 5 min to let the PTC cool down before re-connecting the routing equipment.

FAULT: 24V for Gateway (auto-resettable)

The auto-resettable fuse PTC5 (max 150mA) has been activated. Check for overload or damage on the Gateway.
To reset the PTC, disconnect the Gateway and wait 5 min to let the PTC cool down before re-connecting the Gateway.

FAULT: Alarm routing equipment

The fault is to be found in the Alarm routing equipment. A routing equipment fault output is connected to a programmable supervised input in the EBLOne system.
Check the input connections as well.

FAULT: Aspect not calibrated zone xxx
address xx

The Aspiration smoke detector Aspect Lazeer is not working as it should be, i.e. the unit has not been calibrated in conjunction with commissioning.

FAULT: Aspect not calibrated zone xxx
address xx and zone xxx address xx

The Aspiration smoke detector Aspect Grizzle is not working as it should be, i.e. the unit has not been calibrated in conjunction with commissioning.

FAULT: Aspect zone xxx address xx

Check the specified Aspiration smoke detector Aspect Lazeer. (One detection area, one or two pipelines per detection area.)

FAULT: Aspect zone xxx address xx and
zone yyy address yy

Check the specified Aspiration smoke detector Aspect Grizzle. (Two detection areas, one or two pipelines per detection area.)

FAULT: Battery, technical address xxx

The charging function in the external power supply 4466 connected on the COM loop is not OK.

- Batteries (2 x 12 V) are missing or not connected correctly.
- The PCB is faulty and has to be replaced.

FAULT: Battery zone xxx address xx,
technical address xxx

Valid for the wireless units 4611, 4614, and 4645. The battery voltage is < 2.8 V. The batteries have to be replaced.

FAULT: Cables mixed [sub-loop x], loop x

The two wires L (SA) and C (SB) for COM-loop no. x (0) have been mixed (alternated). Check / correct the wire connections.

FAULT: Charger

The battery charging function is not OK. The main board may have to be replaced.

FAULT: Charging external power supply

The fault is to be found in the external power supply equipment, which has a charging fault output connected to a programmable input.

FAULT: Charging, output unit xxx

The fault is to be found in the external power supply unit 4466.
Charging is stopped due to too high output current.

FAULT: Checksum system program

A fault in the main board software. LED "System fault" is turned on. This is a very serious fault. Call for service personnel / engineer immediately.

FAULT: Cut-off tech addr nnn <-> nnn [sup-loop x]

This fault is indicating a cut-off (break) on COM loop x or the COM loop voltage is too low at the end of the loop.
Tech addr nnn <-> nnn describes between which Short Circuit Isolators the cut-off is located.
n = Technical address of the unit with short circuit isolator. A & B is the built-in isolator in the EBLOne A-direction and B-direction respectively.

If it is a single break (cut-off) on the loop there will be no other fault messages.

If there are several breaks on the loop the message shows the last isolator before the break in the A-direction (incl. the following isolator). There will also be a "FAULT: No reply ….." message for each unit that EBLOne cannot find and "FAULT: Multiple faults …".

Each 10th minute a new attempt is made to communicate in one direction only.
When all breaks are repaired (corrected) the communication automatically returns to communicate in one direction only.

FAULT: Detector removed zone xxx address xx

A wireless smoke detector 4611 has been removed from its base or the door on a wireless manual call point 4614 has been opened.

FAULT: Earth fault (minus)

FAULT: Earth fault (plus)

Earth fault is detected in control unit no. xx.

+24 V to earth is normally 11.5 V. 0 V to earth is normally 12.5 V.

- Voltage 0V to earth < TBD V = Earth fault (minus)
- Voltage 0V to earth > TBD V = Earth fault (plus)

When the earth fault is located on the COM loop it can be difficult to measure with a multi meter due to the fact that SA and SB changes polarity during COM loop communication. However, the CIE makes measurements at specific timings when the polarity of SA and SB is known. In case of an earth fault on the COM loop it will be displayed as follows:

- ***Earth fault on the SA line will be displayed as Earth fault (minus)***
- ***Earth fault on the SB line will be displayed as Earth fault (plus)***

Check all cables (for damage, etc.). The function of the control unit cannot be guaranteed. Call for service personnel / engineer.

FAULT: Earth fault, technical address xxx

Check all cables (for damage, etc.) connected to the unit.

FAULT: External fuses, control unit xx

The fault is to be found in the external power supply equipment, which has a fuse fault output connected to a programmable input in the control unit no. xx.

FAULT: External power supply

The fault is to be found in the external power supply equipment, which has a fault output connected to a programmable input.

FAULT: Extinguishing system

The fault is to be found in the extinguishing system, which has a fault output connected to a programmable supervised input in the EBLOne system. Also check the input connections.
There will also be an additional information text on the touch screen: Extinguishing fault.

FAULT: Factory settings

The factory settings have been "changed", e.g. because of some external disturbance. The main board has to be replaced.

FAULT: Fan, technical address xxx

The LED "Fault" is lit on a fan control module connected to control unit xx. Fan no. xx has been activated but the corresponding I/O unit 4461 input has not been activated within the programmed time. Check the fan and the cables / connections.

FAULT: Fuse output x, technical address xxx

Blown fuse 0, 1 or 2 on the 4464 board or in power supply 4466.
Replace the fuse.

FAULT: Fuse, supervised output 1 (auto-resettable)

The auto-resettable fuse PTC2 (for output 1) (max 250mA) has been activated. Check for overload on the equipment connected to the output.
To reset the PTC, disconnect the connected equipment and wait 5 min to let the PTC cool down before re-connecting the equipment.

FAULT: High current [sub-loop x] loop x

When starting up the control unit or when the COM-loop is reconnected, the loop current in normal condition is measured and stored.

Main board 2010 and a SUB-loop connected to 4585:
This fault will be generated for a measured current higher than the stored value plus 50mA. (One example: 75 mA (stored) + 50mA = 125 mA = fault limit.)

This fault is not checked in alarm condition.
The reason could be not "full" short circuit on the COM loop but very close to short circuit, e.g. due to moisture / corrosion / bad contact. Check connections etc.

FAULT: High current consumption

The control unit current consumption is > 0.6 A (> 1.5 A in alarm state) and because of this, the battery charging is turned off and will be so until the current consumption has decreased to < 0.6 A (< 1.5 A) again.

FAULT: High resistance [sub-loop x] loop x

The loop resistance measured by the control unit / 4585 board is too high for the current consumptions. Check cables / connections etc.
The measured value can be seen in Current consumption menu.

FAULT: Interlocking input AAA-PP

An interlocking input is not activated within the time set for fault activation (5-255 seconds). The time is counted from the activation of the output in the interlocking combination, area AAA / point PP.

FAULT: Key cabinet

The key cabinet has been opened without a prior fire alarm (i.e. if somebody has opened the key cabinet illegally).
OR
The key cabinet has not been closed within 5 minutes after reset of all fire alarms in the system.

FAULT: Loop unit,
technical address xxx

The unit (e.g. a customized unit) is not all right, i.e. the unit is out of order / faulty. The unit has to be replaced.

FAULT: Loop unit zone: xxx address: xx
technical address xxx

The unit is not all right, i.e. the unit is out of order / faulty. The unit has to be replaced.
An Aspirating smoke detector Aspect Lazeer: The PCB for addressing is broken and has to be replaced.

FAULT: Loop unit zone: xxx address: xx and
zone: yyy address: yy
technical address xxx

The unit (not a detector) is not all right, i.e. the unit is out of order / faulty. The unit has to be replaced.
An Aspirating smoke detector Aspect Grizzle: The PCB for addressing is broken and has to be replaced.

FAULT: High resistance, primary battery circuit

Battery internal resistance > 0.5 Ω.
The "Resistance in battery circuit." value shown in Current consumption menu is > 500 m Ω.

- The battery might be too old.
- Check / adjust the rectifier (power supply) voltage (24 V DC).
- Check the charging voltage over the battery respectively (13.5-13.8 depending on the actual charging step).
- Check the voltage over a disconnected battery (fully charged > 13 V).

The battery should normally be replaced.

The battery check is performed every 15 minutes, i.e. it can take up to 15 minutes until the fault status will be "corrected".

FAULT: High resistance, secondary battery circuit

Battery internal resistance > 0.5 Ω.
The "Resistance in battery circuit." value shown in Current consumption menu is > 500 m Ω.

- The battery might be too old.
- Check / adjust the rectifier (power supply) voltage (24 V DC).
- Check the charging voltage over the battery respectively (13.5-13.8 depending on the actual charging step).
- Check the voltage over a disconnected battery (fully charged > 13 V).

The battery should normally be replaced.

The battery check is performed every 15 minutes, i.e. it can take up to 15 minutes until the fault status will be "corrected".

FAULT: Low battery capacity, technical address xxx

Battery in external power supply 4466 unit no. xxxxxx, internal resistance > 0.7 Ω.

- The battery might be too old.
- Cables, fuses etc. for externally placed batteries might cause a voltage drop.
- Check / adjust the rectifier (power supply) voltage (24 V DC).
- Check the charging voltage over the battery respectively (13.5-13.8 depending on the actual charging step).
- Check the voltage over a disconnected battery (fully charged > 13 V).

The battery should normally be replaced.

The battery check is performed every 5th minutes, i.e. it can take up to 5 minutes until the fault status will be "corrected".

FAULT: Low voltage

System voltage < 21.0V DC. Check the power supply, rectifier MeanWell MDR-40-24 (2037) output voltage, which shall be 24 V DC. Replace rectifier if required.

A control unit powered by the back-up battery only, will shut down at a battery voltage of 20.6 V, in order not to damage the battery. When this fault is detected, the log is saved to flash memory automatically, in order to keep the log intact after a power failure.

FAULT: Low voltage, technical address xxx

System voltage < 21 V DC in the external power supply unit 4466.
Check the power supply, rectifier output voltage, which shall be 24 V DC. Replace if required.

FAULT: Mains

The fault is activated 1-300 minutes after:

- Loss of mains, i.e. no 230V AC
- Blown mains fuse.

When this fault is detected, the log is saved to flash memory automatically, in order to keep the log intact after a power failure.

FAULT: Mains, external power supply

This is valid for external power supply equipment, which has a fault output connected to a programmable input in the EBLOne system.
The fault is activated 1-300 minutes after the input is activated.

- Loss of mains, i.e. no 230V AC to the ext. power supply equipment.
- Blown mains fuse.
- Check the programmable input connections.

FAULT: Mains, technical address xxx

This is valid for the external power supply unit 4466 connected on the COM loop. The fault is activated after 1-300 minutes after:

- Loss of mains, i.e. no 230V AC to the 4466 unit.
- Blown mains fuse.
- Fuse F1 blown on the 4466 unit's charger board (Fuse T5AH 250 V, 5x20 mm).

The time delay of this fault activation is programmable via EBLWin. Maximum 30 minutes is allowed according to the EN54-2 standard. Default value is depending on convention.

FAULT: Multiple faults, [sub-loop x], loop x

Break (cut-off) / short-circuit in more than one segment on the COM loop.

FAULT: No reply Loop unit xxx

The unit (e.g. a customized unit), cannot be found by the control unit.

- Check the unit's COM loop address (with the programming tool 4414).
- Check the downloaded site specific data (SSD).
- The unit might be faulty.
- The unit might be removed from the COM loop.
- There might be a double break or short-circuit on the COM loop.

FAULT: No reply zone: xxx address: xx
technical address xxx

The unit cannot be found by the control unit.

- Check the unit's COM loop address (with the programming tool 4414).
- Check the downloaded site specific data (SSD).
- The unit might be faulty.
- The detector might be removed from its base.
- There might be a double break or short-circuit on the COM loop.
- Valid for 4611, 4614, and 4645:
  Battery voltage < 2.3 V or the Base station (4620) does not receive any detector data.

FAULT: No reply zone: xxx address: xx and
zone: yyy address: yy
technical address xxx

The unit (Aspirating smoke detector Aspect Grizzle), cannot be found by the control unit.

- Check the unit's COM loop address (with the programming tool 4414).
- Check the downloaded site specific data (SSD).
- The unit might be faulty.
- There might be a double break or short-circuit on the COM loop.

FAULT: Primary battery

- Battery voltage is below 9.5 V
- Batteries (2 x 12 V) are missing or not connected correctly
- PTC8 (max 2.6A) auto-resettable

This check is done every 14th minute but when the fault is generated the check is done every 30th sec.
Fuse: PTC8 (max 2.6A) auto-resettable

FAULT: Read/write site data (SSW)

SSW = the data that is changed during operation, i.e. week average sensor values, access codes, calibration values and event logs.

- If the CU was made powerless (i.e. mains and battery disconnected) without first doing a Safe shut down of control unit via Safe shut down menu, this fault might be generated when the CU is powered again. After fault acknowledge the SSW will get default values and the fault will be corrected (serviced). Supervised outputs have to be calibrated via Calibrate outputs menu.
- Some external influence has caused a fault in the SSW. This is very serious. Call for service personnel/engineer.

FAULT: Restart control unit,
code xx, address yyyyyyyyyy

A restart has occurred in the control unit. SSD and S/W download will automatically be followed by a restart. Also, you can manually do a restart. Regarding the restart codes 00, 03, 13, & 25, see chapter 23. RESTART on page 63.
Some restart codes are because of some external disturbance and are not normal, see 23.2. RESTART TABLE on page 64. Call for service personnel / engineer.

FAULT: Secondary battery

- Battery voltage is below 9.5 V
- Batteries (2 x 12V or 1 x 12V) are missing or not connected correctly
- PTC10 (max 2.6A) auto-resettable

This check is done every 14th minute but when the fault is generated the check is done every 30th sec.
Fuse: PTC10 (max 2.6A) auto-resettable

FAULT: Sensor zone: xxx address: xx
technical address xxx

The analog smoke, heat or multi detector is faulty. The detector's built-in self-verification function has reported a fault. The detector has to be replaced.

FAULT: Short circ. tech addr nnn <-> nnn, [sub-loop x], loop x

Tech addr nnn <-> nnn describes between which Short Circuit Isolators the short-circuit is located.
nnn = Technical address for short circuit isolator. A & B is the built-in isolator in the EBLOne CIE.
A-direction and B-direction respectively.

Each 10th minute a check is performed if all short-circuits are corrected (repaired). If so, the communication automatically returns to communicate in one direction only.
The fault has to be acknowledged, i.e. and it can last up to 10 minutes after the acknowledgement before the communication returns to communicate in one direction only.

This fault might be incorrectly shown if the SA-SB cables are mixed. If no short circuit can be found, run "check loop" from EBLWin to get correct information.

FAULT: Site specific data (SSD)

The Site Specific Data (SSD) is not downloaded correctly (a checksum fault, etc.). A new SSD download (via EBLWin) is required.

FAULT: Supervised input x
technical address xxx

A fault on the supervised input x in 4461/4462
A fault on the supervised input x on the board 4464. (Mounted in power supply 4466)
Check the cables / connections (cut-off or short-circuit).

FAULT: Supervised output x

If the output is programmed for sounders (type "Alarm devices"), it is also indicated by LED "Alarm devices" blinking.
If the output is programmed for fire brigade tx (type "Routing equipment"), it is also indicated by LED "Fire brigade tx Fault/Disablement" blinking.

Supervised (1-50 kΩ):
x=1 (S1): Short circuit/break on the connected cable/ equipment

Fuse **auto-resettable PTC2** (max 250mA)

- Calibration not performed via Calibrate outputs menu.
- Connected equipment might be "stolen".
- Resistor(s) missing or not correct value. (1-5 resistors 33 kΩ)

The calibrated value has to be in the range 1 kΩ - 50 kΩ.

Supervised (EN54-13):
x=1 (S1): Short circuit/break on the connected cable/ equipment or too high resistance in the cables

Fuse **auto-resettable PTC2** (max 250mA)

- Connected equipment might be "stolen"
- End of line device 4472 missing

FAULT: Supervised output x,
technical address xxx

This fault message is valid for a COM loop output unit 4464 board output.
If the output is programmed for sounders (type Alarm devices), it is also indicated by LED "Alarm devices" blinking.
If the output is programmed for fire brigade tx (type Routing equipment), it is also indicated by LED "Fire brigade tx Fault/Disablement" blinking.

- Short-circuit / break on the connected cable / equipment.
- Connected equipment might be "stolen"
- End-of-line device 4472, or end-of-line resistor, is missing

FAULT: Temperature sensor

The sensor is faulty.

FAULT: Wrong type of unit xxxxxx

Check the type of unit, which should be the same as programmed via EBLWin.

FAULT: Wrong type of unit zone: xxx
address: xx
technical address xxx

Check the type of unit, which should be the same as programmed via EBLWin.

FAULT: Wrong type of unit zone: xxx
address: xx and zone: yyy address: yy
technical address xxx

Check the type of unit (Aspirating smoke detector Aspect Grizzle), which should be the same as programmed via EBLWin.

FAULT: Zone line input, zone: xxx address:
xx technical address xxx

Valid for the Multipurpose I/O unit 4461 monitored zone interface input Z. Break on the zone interface or wrong / no end-of-line capacitor (10 µF) or short-circuit (if not programmed for fire alarm at short-circuit).

External fault; User programmable text

Programmable input is connected to any external equipment's fault output. User definable fault message (< 40 characters) has to be programmed via EBLWin.

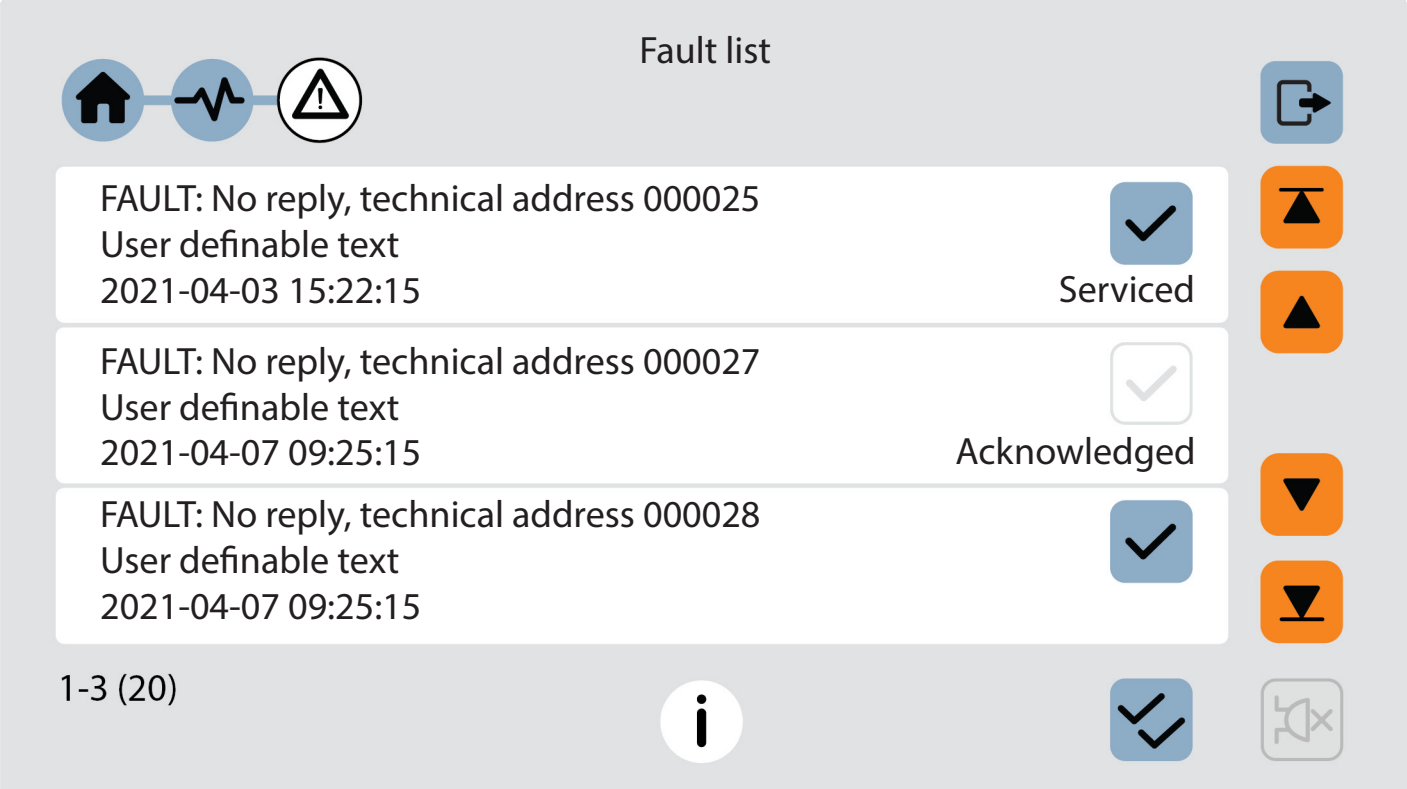
The prefix "FAULT:" will not be automatically added.

21. FAULT ACKNOWLEDGE

The LED "Fault" is turned on. LEDs "Alarm devices" and /or "System fault" might be turned on as well.
Output(s) for routing equipment (Fault tx) is (are) activated.
Output(s) for general fault is (are) activated.
Output(s) for general charge fault might be activated.
One or more fault messages incl. date and time are shown on the control unit touch screen.

If **Fault latching** is selected in EBLWin, after the time might be shown "Serviced" = the fault is already serviced / corrected.
Any already Acknowledged fault in the list is indicated by **"Acknowledged"**.

Example: Fault messages shown on the control unit touch:



See also chapter 25.1.1. FAULT on page 70.
Fault menu is a list showing a maximum of 300 faults. This includes not acknowledged faults and/or acknowledged but not serviced / corrected faults.

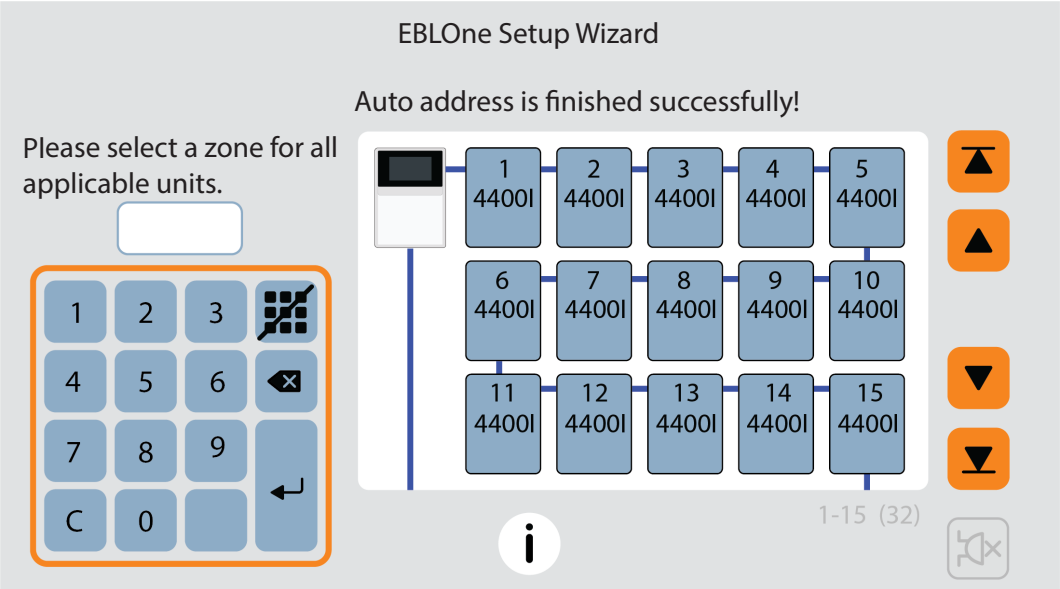
- All faults can be acknowledged, one by one or press to acknowledge all at the same time.
- If a fault has been corrected before it has been acknowledged, the text "serviced" is added after the time. It still must be acknowledged.
- When a fault is corrected / serviced and acknowledged, it will disappear from the list.
- When all faults have been acknowledged, output(s) for routing equipment (Fault tx) is (are) reset.
- As long as there are faults (i.e. not acknowledged faults and/or acknowledged but not corrected faults) the LED "Fault" will be lit and general fault (and maybe general charge fault) output(s) are activated.
- Faults, corrected faults and acknowledged faults are shown in the Event log > > .

22. WIZARD

When the control unit is started up for the first time, the system needs to be configurated. A wizard will guide the user through the configuration.

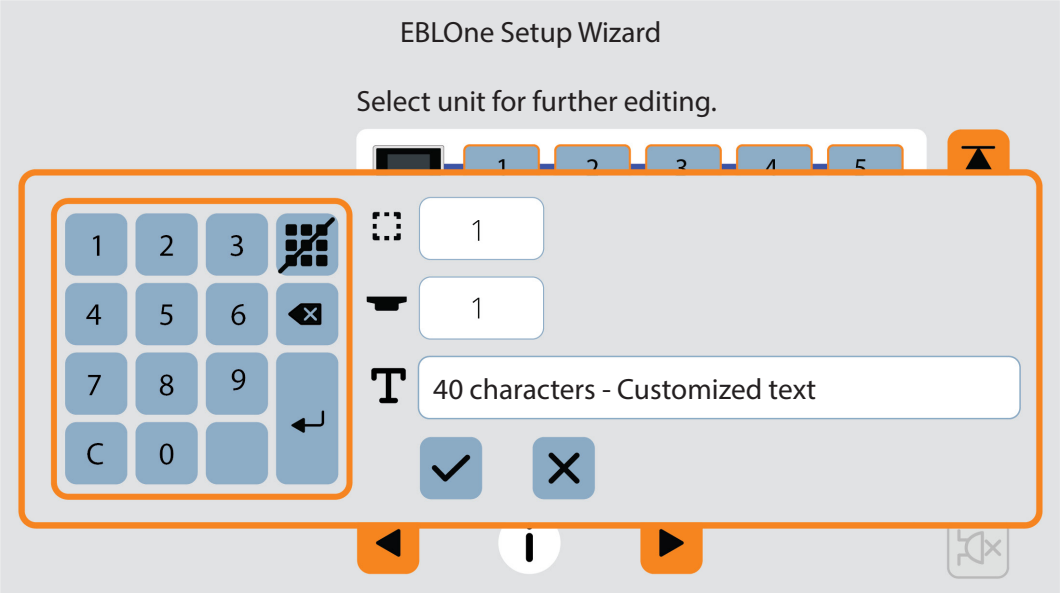
a) Log on.
b) Add users. Enter user name, password, and access level for each user.
c) Press the next button ▶ when all users are added.

d) Press ☑ to run the auto address function. When the auto address function is done the key pad appears.



e) Set up a zone for each unit. Tap on the unit / units to select (selected unit / units will change to turquoise).
f) Enter zone number for the selected unit/units, and press Enter. Units with a zone set has an orange frame. When all units are set the next button ▶ will appear.

g) A customized text can be added to the alarm point. Select a unit and enter the text for the alarm point. Press ✓ to save the changes or press ✕ to leave the unit unchanged.



h) Press the next button ▶ when all customized texts are added.
i) Press ✓ to create an SSD, or press ✕ if you want to go back and change a unit.

During the "restart", the touch screen will be off.
When the unit has restarted, a restart fault will be generated. The fault message will be shown on the event tab page, and the buzzer will sound.

23. RESTART

A restart will delete or not delete the data in EBLOne. Below follows an explanation of the different data, abbreviations and a table showing how the data respectively is affected, cold or warm restart.

FF	= Fire alarms and Faults
D	= Disablements
FFD	= Fire alarms, Faults and Disablements
SSW	= Sensor min. / max. values & performance factor, passwords, supervised output calibration values and event logs
WASV	= Week Average Sensor Values
SSD	= Site Specific Data, i.e. all the installation programming created and downloaded via EBLWin
S/W	= Software, the EBLOne system program

The date & time and alarm counter value is stored in the memory of the real time clock, i.e. the value will be retained also after the CIE has been powered off (de-energized).

After any restart, a new week average sensor value will be calculated within two minutes, for all the analog smoke detectors. During these two minutes all fire alarms from analog smoke detectors will be suppressed. Thereafter a new average sensor value will be calculated each week.

23.1. SAFE SHUT DOWN

Safe shut down of control unit via menu > > , will save the SSW data in a Flash memory. in EBLOne. Before the first "Safe shut down" this memory is empty. After each "Safe shut down" the latest SSW data is saved. (Safe shut down will not save the week average sensor values)

a) Activate safe shut down via menu > > .
b) Power off (de-energize).

When EBLOne is powered up, the RAM will, after the restart, read the SSW data saved in the Flash memory.

23.2. RESTART TABLE

Here follows a table describing the different reset alternatives and how the data respectively is affected:

Restart code	Action	DATA deleted	DATA not deleted
00	Manual power off / on (both mains and battery disconnected). Address is always zero.	SSW FFD, WASV	SSD, S/W, SSW*
01	Watchdog restart. Address is always zero	FFD, WASV	SSD, S/W, SSW
03	Normal restart via Safe shut down menu in the control unit or via reset command in EBLWin. Address is always zero.	FFD, WASV	SSD, S/W, SSW
03	Automatically after download of S/W via EBLWin. (The old S/W will be deleted.)	FFD, WASV	SSD, S/W, SSW
13	Software monitoring restart, address points to the instruction that caused the fault	FFD, WASV	SSD, S/W, SSW
16	CPU low voltage restart Address is always zero	FFD, WASV	SSD, S/W, SSW
17	Low level error handler called, address points to the instruction that called the error handler.	FFD, WASV	SSD, S/W, SSW
25	Automatically after correct download of SSD via EBLWin. Address is always zero.	FFD, WASV	SSD, S/W, SSW
30-47	Automatically due to some external disturbance. If this happens, call for service personnel / engineer. Depending on the restart reason, also the SSW might be deleted.	FFD, WASV	SSD, S/W, SSW

During the restart, the fault output (relay) for the Fault tx will be "activated", the supervised 24V DC outputs S1 will be not supervised and S1 programmed as normally high will be low for a few seconds.

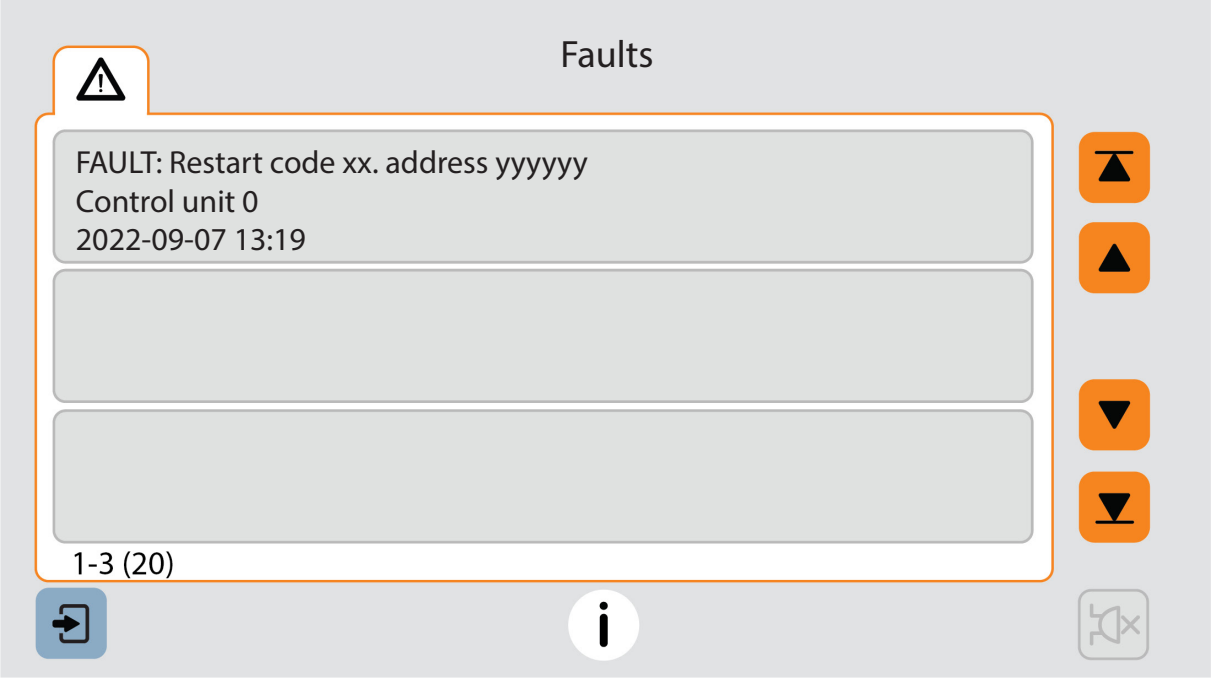
**** SSW previously saved with safe shut down is not deleted.***

23.3. DURING RESTART

During the "restart", no fire alarm can be activated and the touch screen will be off.

When the EBLOne is restarted for the first time, it will automatically show the Change language page. Press a flag to set the language in the control unit.

A fault will be generated. The following text message will be shown on the event tab page, and the buzzer will sound:



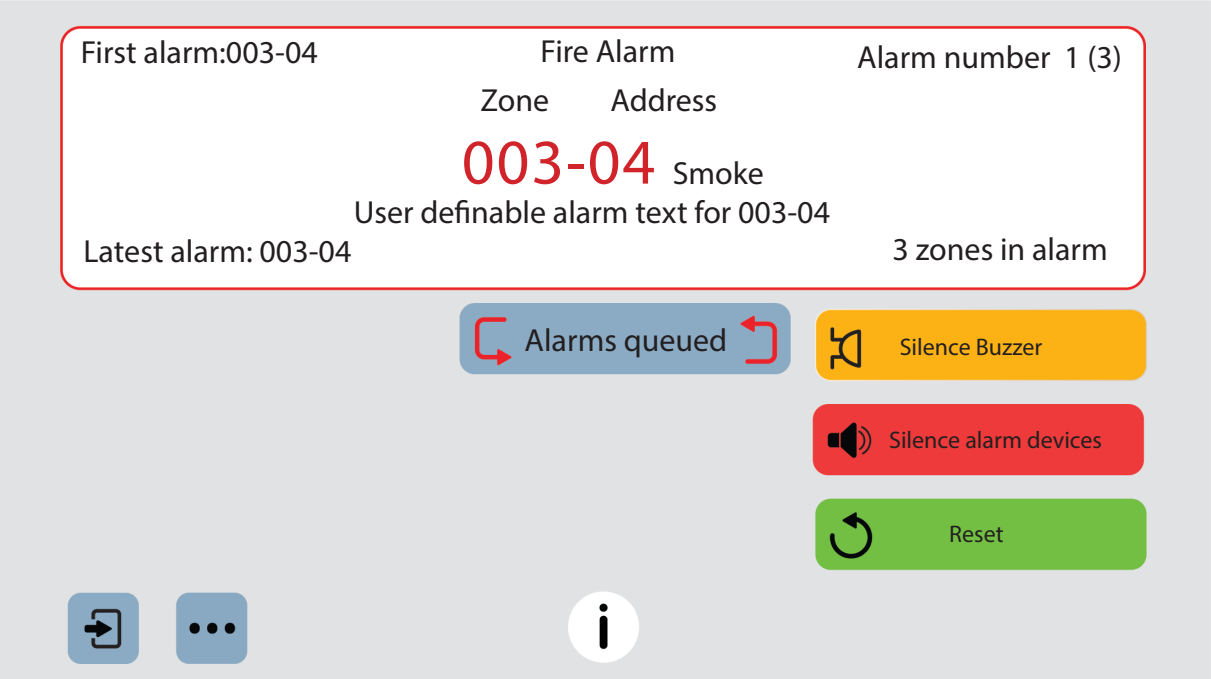
Regarding code xx and address yyyyyy, see section 23.2. RESTART TABLE on page 64. This fault is also indicated by the LED ⚠ "Fault".
After the fault is acknowledged (via menu > >), the LED ⚠ "Fault" will be turned OFF if there are no other faults.

After any restart, required individual disablements have to be done.

24. LOGGED OUT

24.1. ALARM PAGE

The alarm page can be accessed when there is an alarm activated.



ALARMS QUEUED – The arrows on the button "Alarms queued" will turn red when there are two or more fire alarms in the system, and you can scroll amongst the fire alarms. The first alarm will automatically be shown again after 20 seconds, if no button is pressed during that time.

SILENCE BUZZER – Used to silence the buzzer in the CIE when it is sounding.

SILENCE ALARM DEVICES – Used to silence alarm devices / sounders.

RESET – Used to reset: Fire alarms, co-incidence alarms.

ACKNOWLEDGE – Visible when there is an alert annunciation alarm activated. Used to acknowledged the alert annunciation alarms.

24.1.1. ACCESS CODE

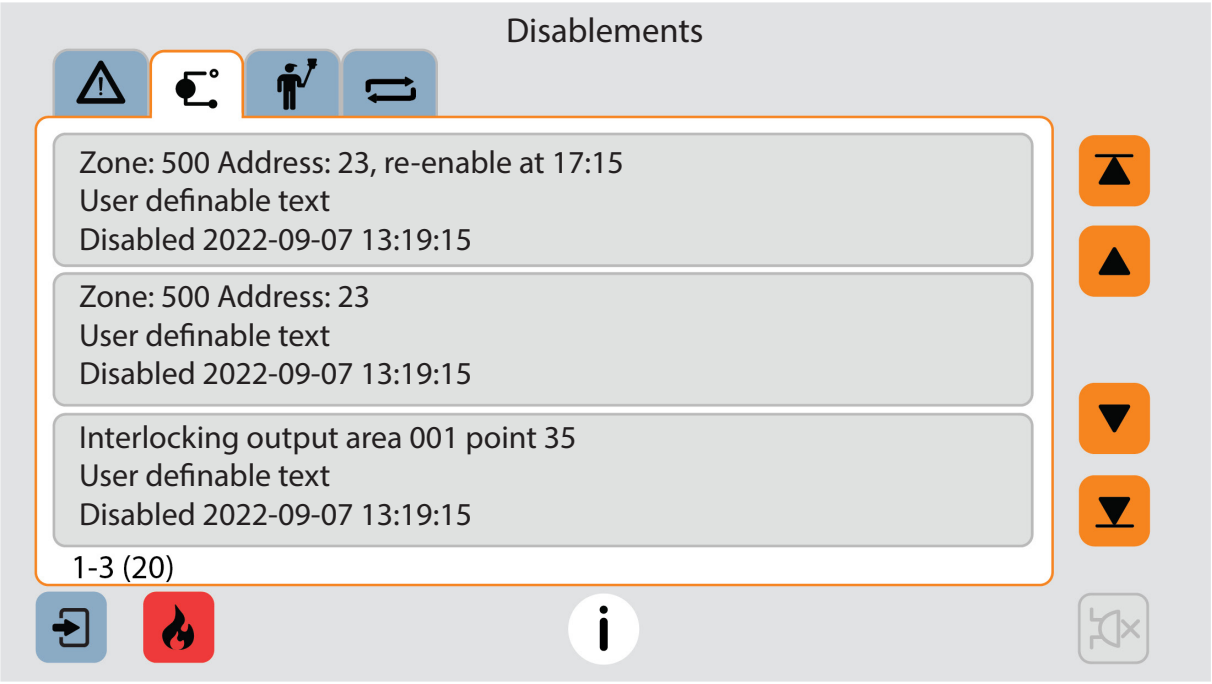
An access code is required to get access to the buttons Silence alarm devices and Reset. Any password programmed for building officer or service personnel can be used.

In a 2000K CIE a turned fire brigade key gives access to the buttons without any password.

24.2. EVENT TAB PAGE

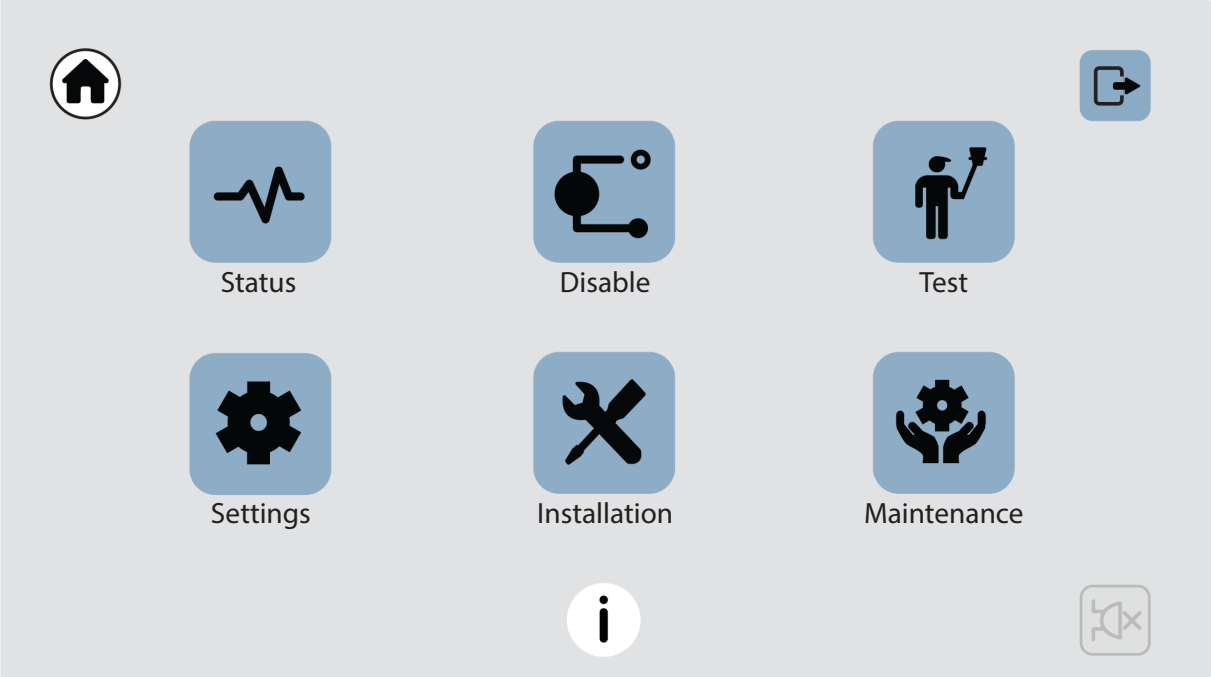
The Event tab page is visible when there are events to be shown in the system. The events that can be shown here are:

- LAA alarm
- Evacuate information
- Fault list
- Disablement
- Zones in "Test mode"
- Interlocking input / output active
- Technical warning
- Service signal activated
- Service mode activated
- Sensitive fault detection



25. MENUS

The following chapters describe the menus in the CIE and the procedures to use them.

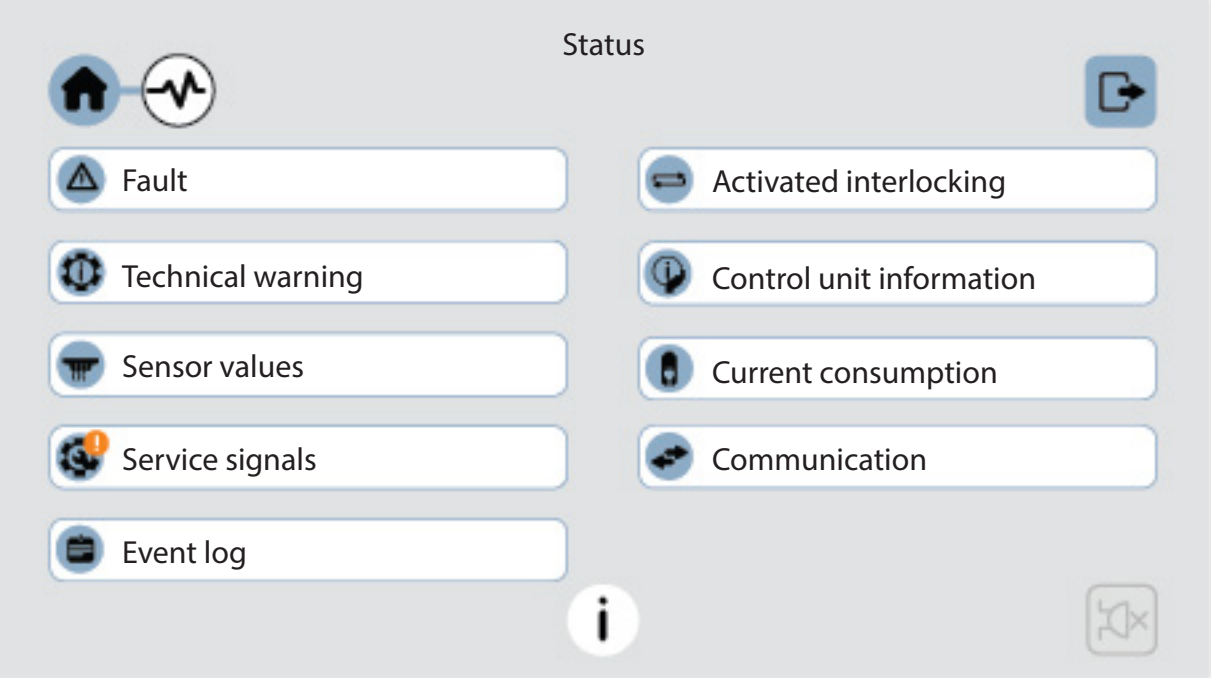


There are different access levels for different menus. See chapter 8. USER LEVELS on page 23.
The menus and buttons are greyed out when disabled or inactive.

For general information on navigation in the menu system, see section 7.2. NAVIGATION / GENERAL PROCEDURES on page 21.

25.1. STATUS

a) Log in to the CIE.
b) Navigate to menu . A sub menu list will be displayed.



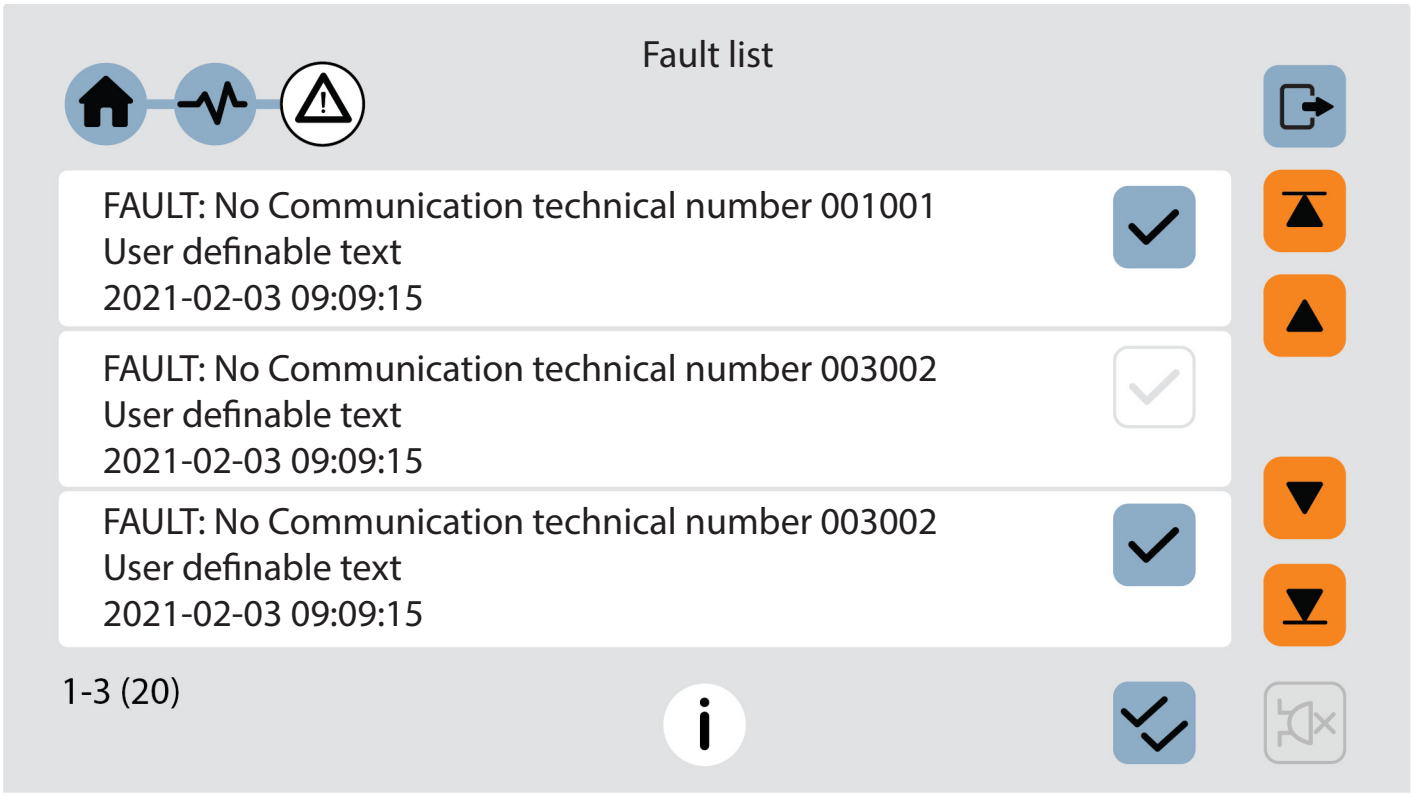
The symbol is indicating one or more events in the underlying menu.

25.1.1. FAULT

Regarding fault indication, and so on., see chapter 19. FAULT and 20. FAULT MESSAGES where all faults messages are listed.
See also chapter 21. FAULT ACKNOWLEDGE.
All faults and the status / action are stored in the event log and can be listed, see section 25.1.5. EVENT LOG.
Up to 300 faults can be listed:

- Not corrected (not serviced) and not acknowledged faults (no status information)
- Not corrected (not serviced) but acknowledged faults (/Acknowledged)
- Corrected (serviced) but not acknowledged faults (/Serviced)

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press or to scroll in the list. The most recent fault is on top of the list.
d) To acknowledge a fault, press or press to acknowledge all. A serviced fault that is acknowledged will disappear from this list.



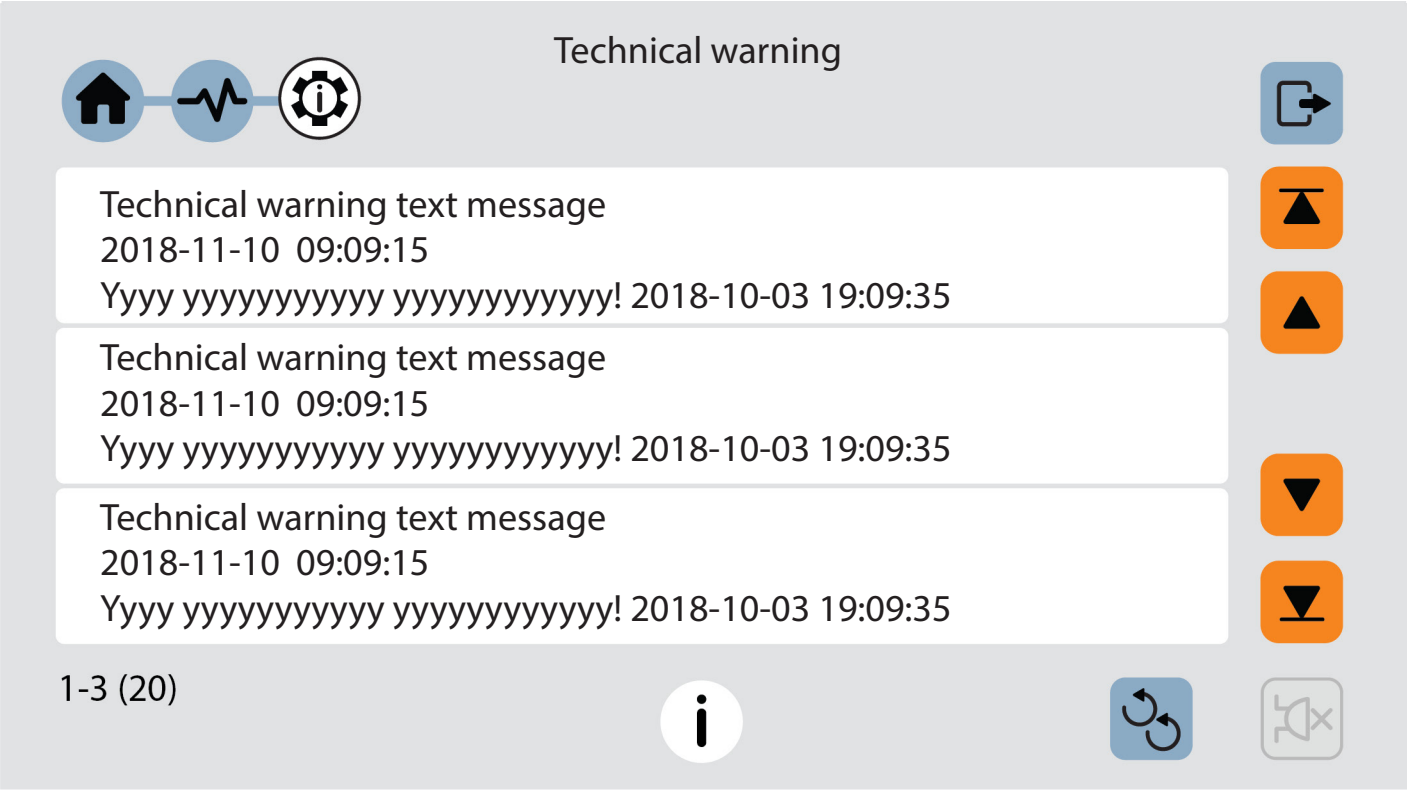
e) To exit the menu press .

If there are no events, the list will be empty.

25.1.2. TECHNICAL WARNING

A technical warning is an event that is neither a fire alarm nor a fault.
It is information that something has or has not happened and is generated via a programmable input. The text message, shown on the CIE touch screen, is user programmable (up to 40 characters).
If one or more technical warnings are activated in the system, the symbol is shown in the Status menu > . The activated technical warnings are also shown on the event tab page when logged out if programmed so in EBLWin.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press or to scroll in the list.



d) Press to reset all technical warnings.
e) To exit the menu press .

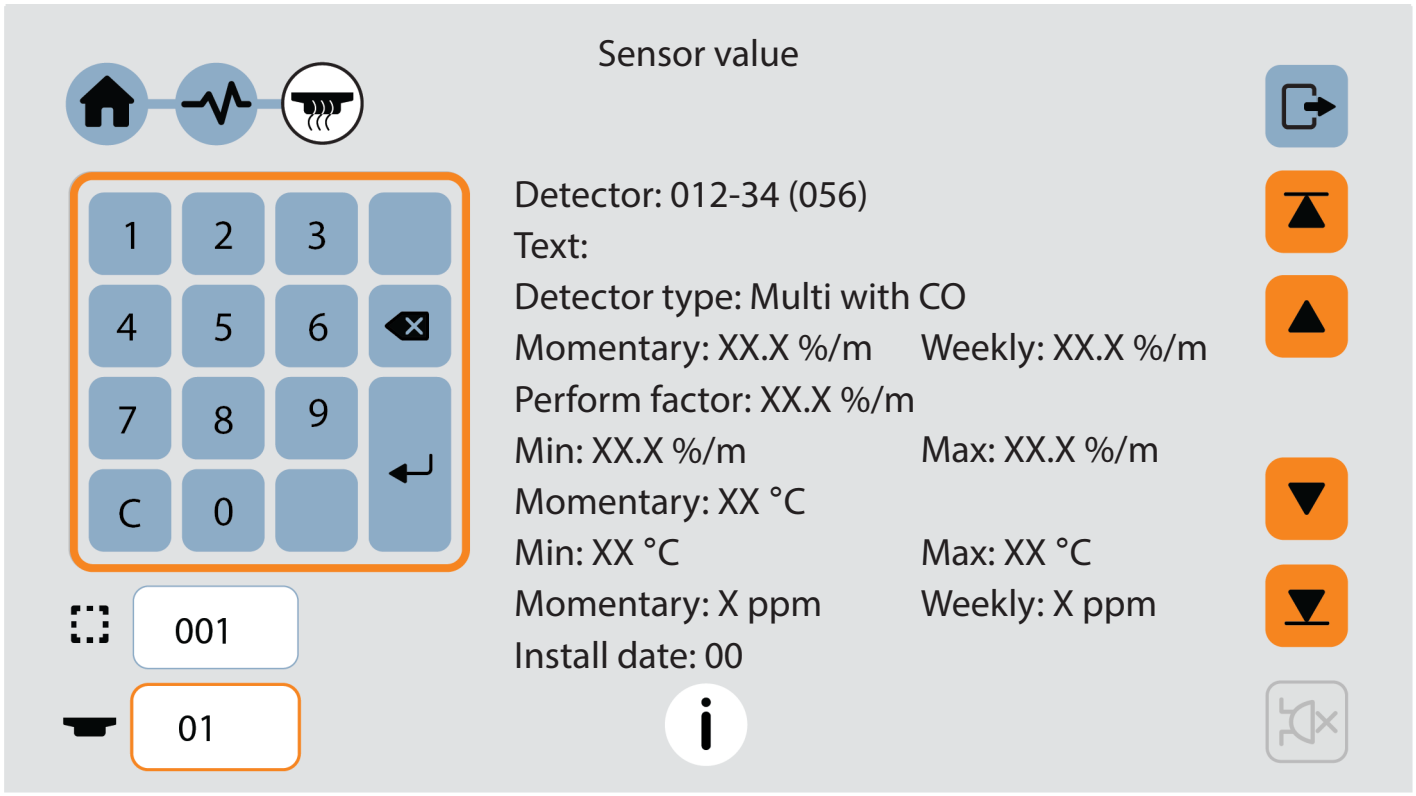
If there are no technical warnings, the list will be empty.

The technical warnings are normally not latched, but can via EBLWin be set to be "latched". If an programmable input is activated with a latched technical warning, the technical warning must be reset via this menu.

25.1.3. SENSOR VALUES

Information on heat, smoke or multi detector sensor values.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Enter zone and address for a specific sensor or press to start as from sensor 000001.
If there are no sensors (analog detectors) when is pressed, the list view will not open.
d) Press or to scroll in the list.



e) To exit the menu press .

EXPLANATION TO THE SENSOR VALUES

Momentary: Momentary value in this menu will be updated after every detector polling, approx. every 7th second.
Weekly in NORMAL mode: The very first week average sensor value for the 2840 is calculated within 2½ minutes after SSD download & restart. During these 2½ minutes can no fire alarm be activated and "Weekly: 00.0%/m" will be shown. The "Weekly" value will thereafter be updated every week.
Weekly in Advanced mode: For the 440x detectors in Advanced mode the "Weekly" value is 00.0%/m by delivery. It will be updated the very first time after 13 minutes. It will thereafter be calculated every 13th minute but will then only be changed downwards if required. After 18 hours it can be changed downwards or upwards and after additional 18 hours (36 hours in all) it can be changed downwards or upwards and it is also saved in the detector's EEPROM, i.e. that value will be used after the detector has been powerless. The "Weekly" value for the 440x detectors in Advanced mode is also called the "Contamination Compensation Value (CCV).
Performance factor: The "Performance factor" and "Min. / Max." values are updated at midnight (00:00), which means the values shown are from the previous day. For more information on performance factor, see the Planning instructions for the system.
Algorithm: Shows the algorithm that is currently in use.
Install date: The date is set in the detector when it's powered up by the loop for the first time.

Algorithm - NORMAL mode	Abbreviations
Normal sensitivity (3%/m) & Normal detection (15 s)	N-15
High sensitivity (2.4%/m) & Normal detection (15 s)	H-15
Low sensitivity (3.6%/m) & Normal detection (15 s)	L-15
Normal sensitivity (3%/m) & Slow detection (35 s)	N-35
High sensitivity (2.4%/m) & Slow detection (35 s)	H-35
Low sensitivity (3.6%/m) & Slow detection (35 s)	L-35
Heat algorithm, Class A1	A1
Heat algorithm, Class A2 (S)	A2 (S)
Heat algorithm, Class B (S)	B (S)

Algorithm - Advanced mode	Abbreviations
Normal area	Normal
Clean area	Clean
Smoke - Steam area	Smoke
Cooking - Welding area	Welding
Heater area	Heater

25.1.4. SERVICE SIGNAL

This is a list of the sensor(s) having activated service signal.

Regarding the service signal levels, see Planning Instructions, section "Service signal".
Regarding Lifetime limit service signal, see Planning Instructions.

Service signal is only information that the sensor has to be replaced with a new/clean sensor soon.
Service signal from an Analog multi detector with CO (4402) can also indicate that the CO sensor's life time (5 years) is reached and the detector has to be replaced.
Service signal from an Aspirating smoke detector Aspect Grizzle or Lazeer: Contact service personnel.

After replacement of a detector, the service signal must be acknowledged for that detector, see section 25.7.2. ACKNOWLEDGE SERVICE SIGNAL on page 107.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press or to scroll in the list.
d) To exit the menu press .

If there are no sensors activating service signal the list will be empty.

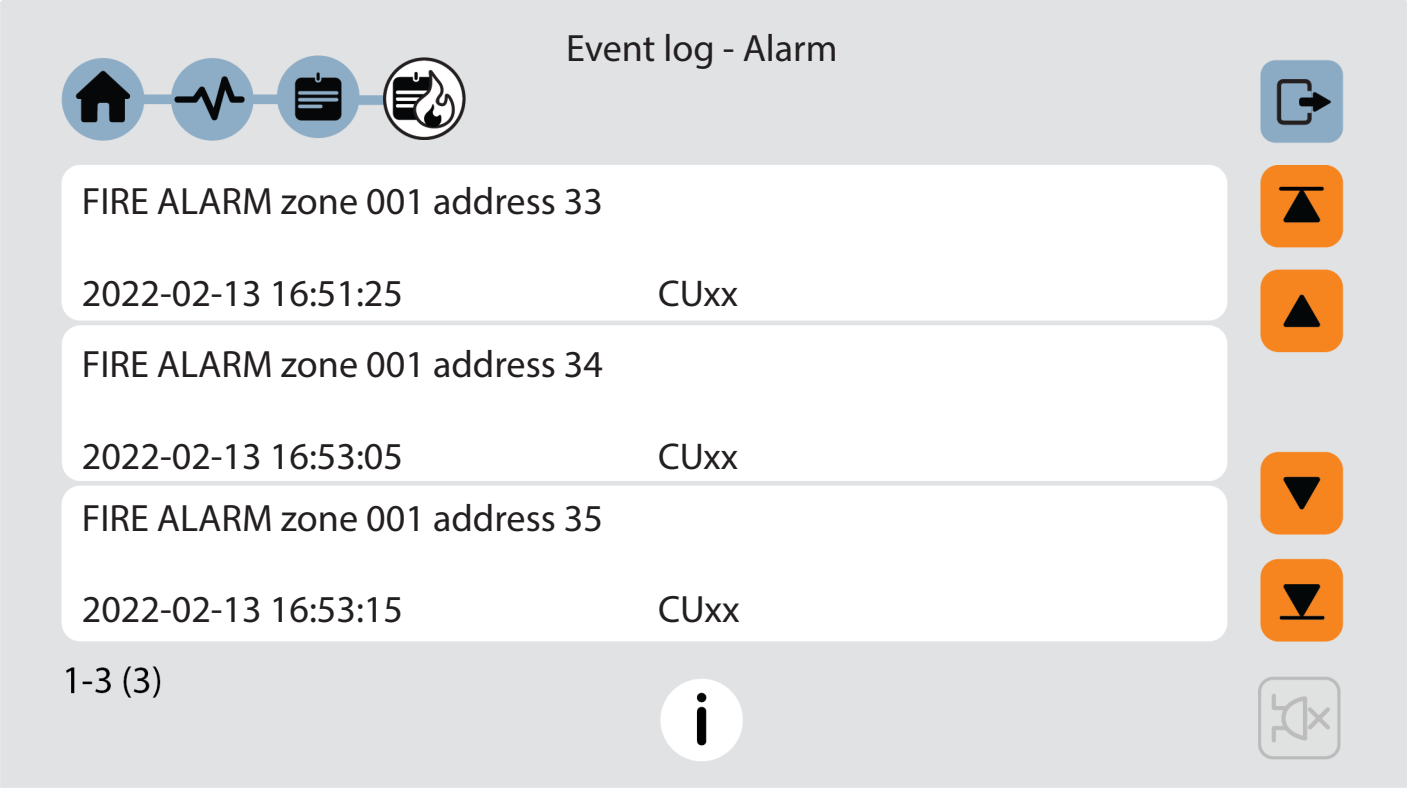
25.1.5. EVENT LOG

Three event logs (3 x 999 events) are available:

- Alarm (alarm events, for example fire alarm, fire alarm reset, and so on)
- Interlocking (interlocking events only)
- Other (all other type of events)

The origin of the event, for example CU00 (see below), can instead be EBLWin, EBLWeb or Ext# (External system no. # connected via Gateway).

a) Log in to the CIE.
b) Navigate to menu > > .
c) Select event log to show:
   - Alarm
   - Interlocking
   - Other
d) Press or to scroll in the list.



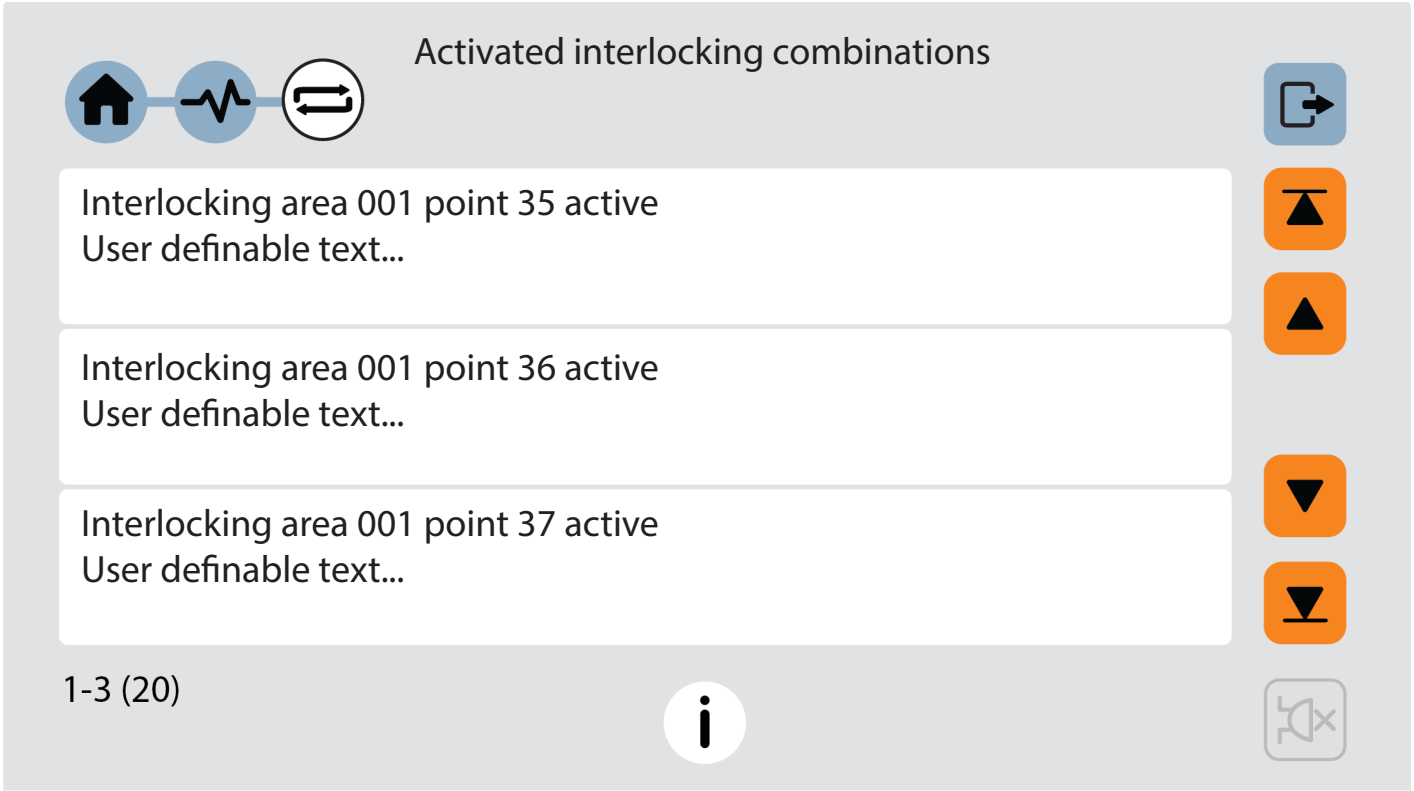
e) To exit the menu press .

The most recent event is on top of the list. If there are no events the list will be empty.

25.1.6. ACTIVATED INTERLOCKING

This menu is read only.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press or to scroll in the list.

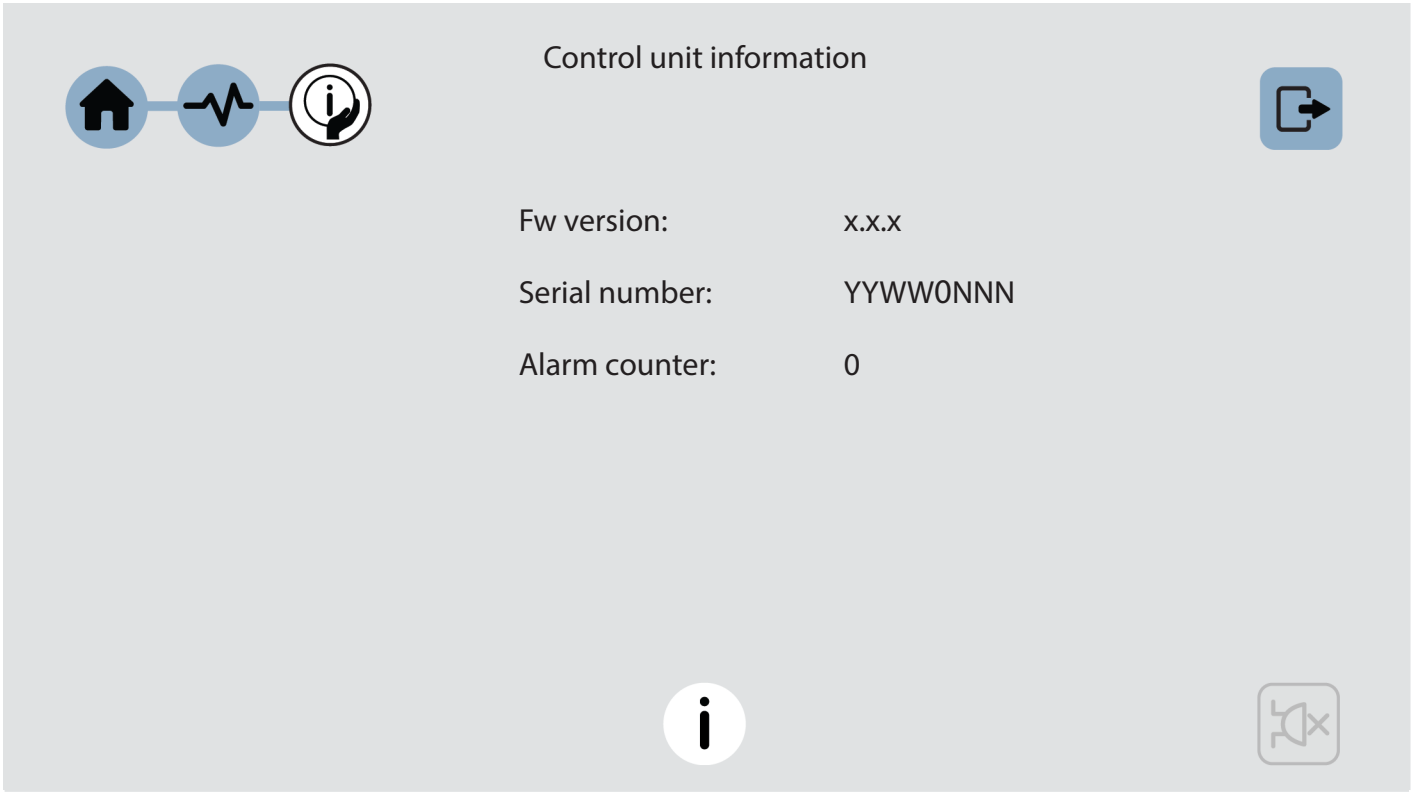


d) Press to leave this menu.

25.1.7. CONTROL UNIT INFORMATION

FW version: The S/W (software / firmware / system program) version downloaded to the Main board.
Serial number: The manufacturer's serial number (year YY, week WW, number of the main board NNN).
Alarm counter: The alarm counter is increased with "1" every time the CIE enters a real "fire alarm condition" (i.e. fire alarm indication on the touch screen, LED "Fire" is lit and the CIE buzzer is sounding). Alarms from zones in test mode will not be counted. It starts on 000 and goes to 999. It can be reset to 000 via EBLWin (Control unit menu "Reset alarm counter…"). The value will be retained also after the CIE has been completely powerless.

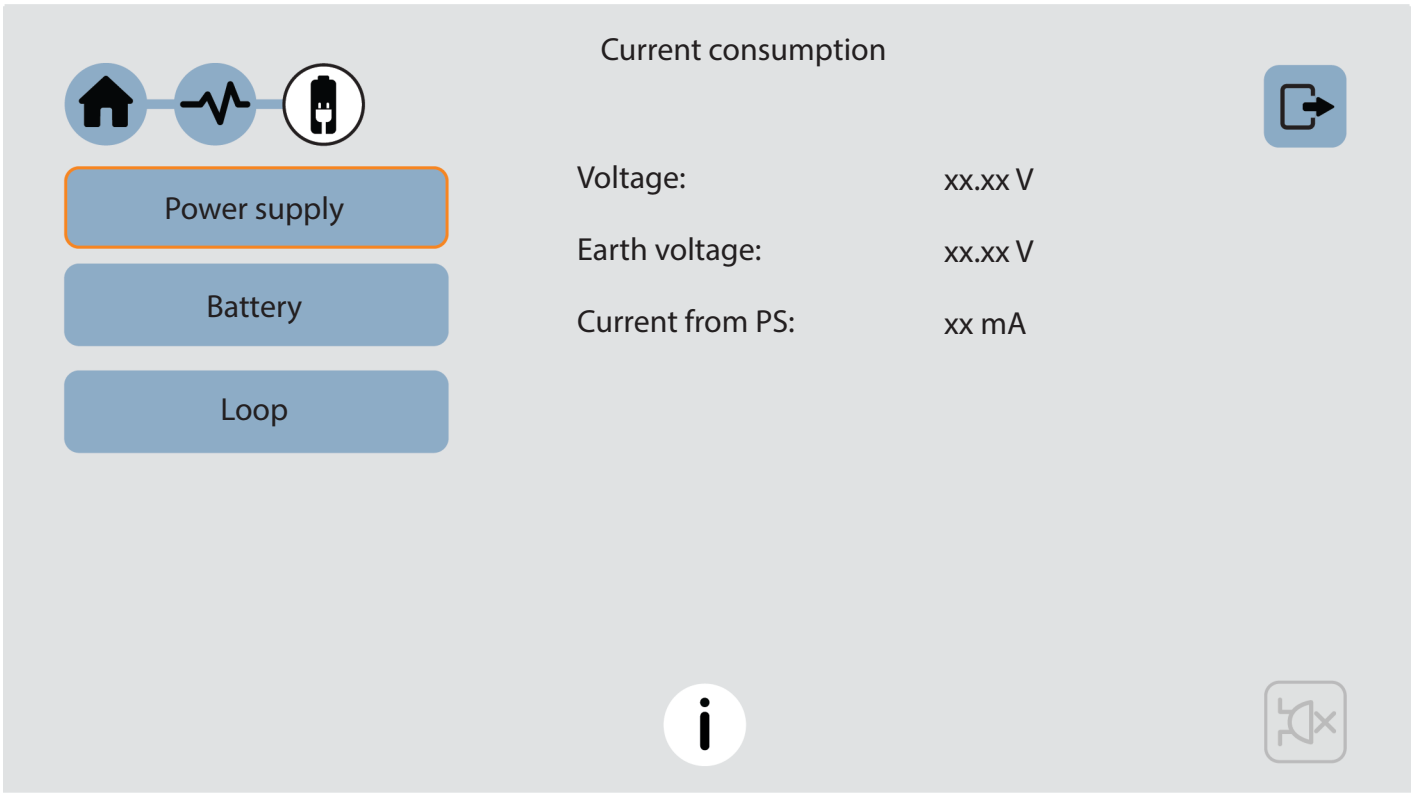
a) Log in to the CIE.
b) Navigate to menu > > .



c) To exit the menu press .

25.1.8. CURRENT CONSUMPTION

a) Log in to the CIE.
b) Navigate to menu > > .
c) Use the buttons to the left to show current consumption for Power supply, Battery, or Loop.
The information is automatically updated every 5th second.



d) To exit the menu press .

POWER SUPPLY (CONTROL UNIT)
Voltage: The 24V measured by the CPU on the main board. Corresponds to the output voltage at the power supply outputs on connector J5.
Earth voltage: Measured from 0V (connector J5) to earth.
Current consumption: The total current consumption (including the charging current at 24V) for the control unit when it is connected to the mains (230 V AC), i.e. this function is not working by battery backup.

BATTERY
Voltage battery 1: The battery voltage at connector J2:1-2
Voltage battery 2: The battery voltage at connector J2:4-3
Charge voltage: The charge voltage on the P.C.B.
Charging current: The battery charging current for both the batteries.
Temperature: The temperature detected by the battery temperature sensor.
Resistance in battery circuit 1: During the battery capacity check the resistance in the battery circuit is measured. A resistance > 500 mΩ will result in a "High resistance in battery circuit" fault. Checked every 15 minutes.
Resistance in battery circuit 2: During the battery capacity check the resistance in the battery circuit is measured. A resistance > 500 mΩ will result in a "High resistance in battery circuit" fault. Checked every 15 minutes.

LOOP
Loop current: Current consumption (an average value) for the COM loop
Loop resistance: The total resistance of the loop measured by the control unit

No or very small current / voltages cannot be presented correctly / precisely since the accuracy is a couple of percent.

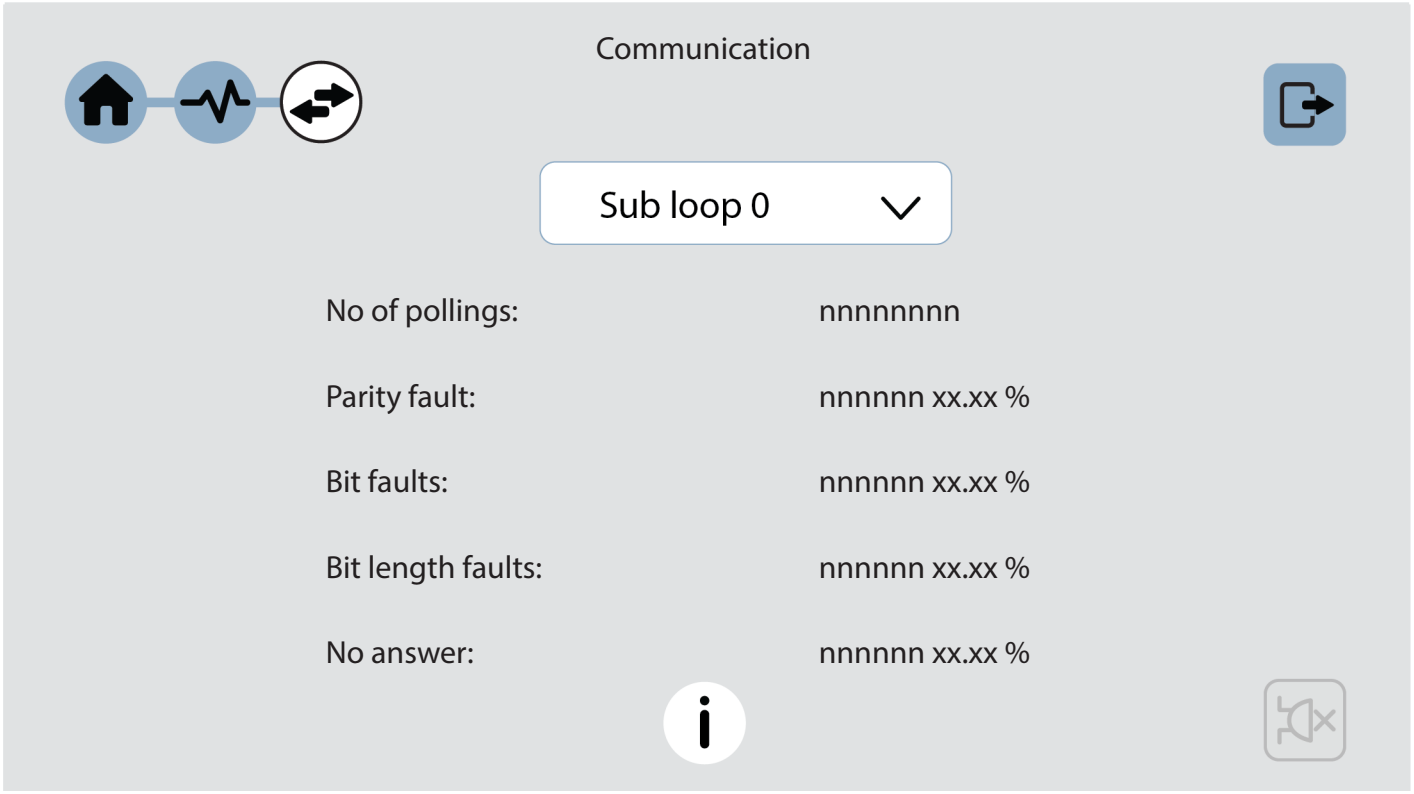
25.1.9. COMMUNICATION

The statistics for communication can be used during commissioning, service, and so on.
Number of pollings is the number of pollings / "questions" sent out by the control unit to all the units connected on the COM loop.
Parity fault is the received number of parity faults and % (faults in relation to pollings).
Bit faults is the received number of bit faults and % (faults in relation to pollings).
Bit length fault is the received number of bit length faults and % bit length faults in relation to the pollings.
No answer is the received number of answer faults / no answers and % (faults in relation to pollings).

The number of Parity faults, Bit faults, Bit length faults and No answer shall normally be "0" or as close to "0" as possible. If not, there are some communication problems that have to be investigated. Check the COM loop, connections and the loop units.

All values are set to "0" after restart and/or after re-connection of COM loop via Disconnect menu .

a) Log in to the CIE.
b) Navigate to menu > > .
c) Use the drop-down to select between:
   - COM loop
   - SUB-loop

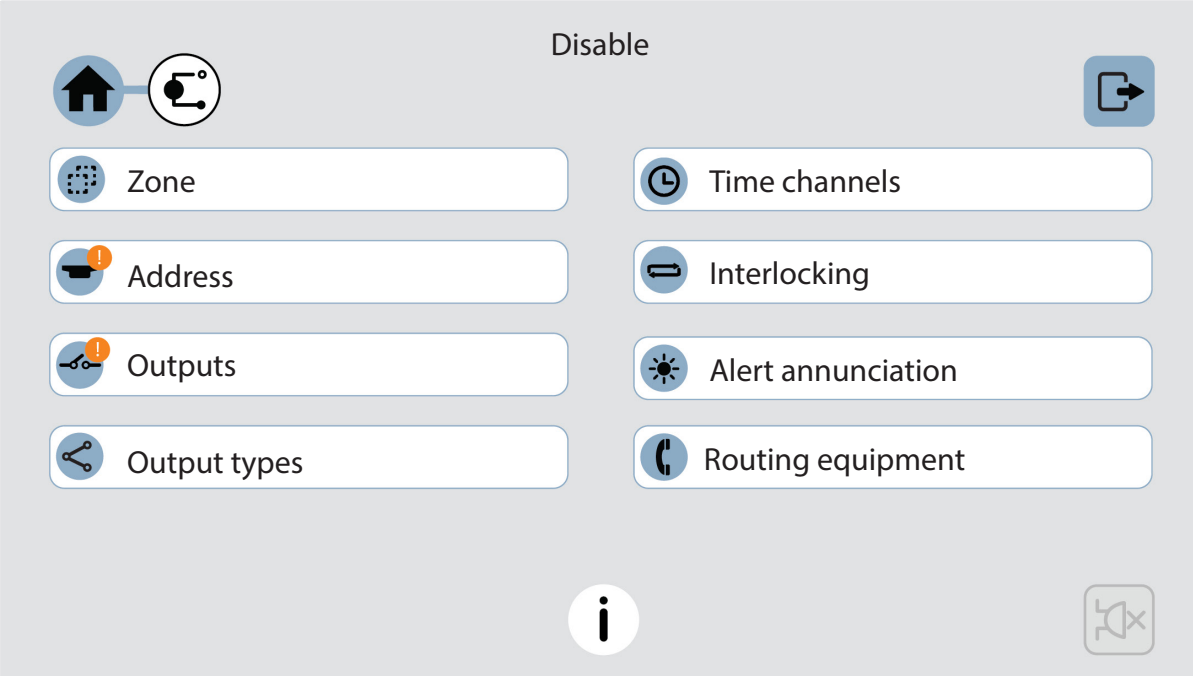


d) To exit the menu press .

The information is automatically updated every 5th second.

25.2. DISABLE

a) Log in to the CIE.
b) Navigate to menu . A sub menu list will be displayed.



LED "Disablement" and the symbol is indicating one or more disablements in the system.

A whole zone, one or more alarm points within a zone and/or control outputs can be disabled. This function can be used for temporary disablement (e.g. craftsmen working in the premises, etc.).
If the function Enhanced disablement is enabled (default), disabled alarm points cannot activate Pre warning, fire alarm and fault.
If this function is not enabled (via EBLWin), disabled alarm points cannot activate Pre-warning and fire alarm but fault can be generated. (This is a violation to the EN54-2 standard).
An Addressable manual call point can be disabled (but shall normally not be disabled). When a whole zone is disabled, the addressable manual call points will also be disabled. (This function complies with EN54-2 but can be changed in EBLWin).
All zones can be disabled.
Up to 200 alarm points (zones / address) can be individually disabled. (Alarm points disabled via time channels are not limited and must not be counted!)

Up to 200 outputs can be individually disabled via -disable menu.
Disabled output will stay in (or return to) the normal condition for the output respectively. (Collectively disabled outputs are not limited and must not be counted!)
It is not possible to exceed the limits. A red cross indicating that the disablement was not performed will be shown.

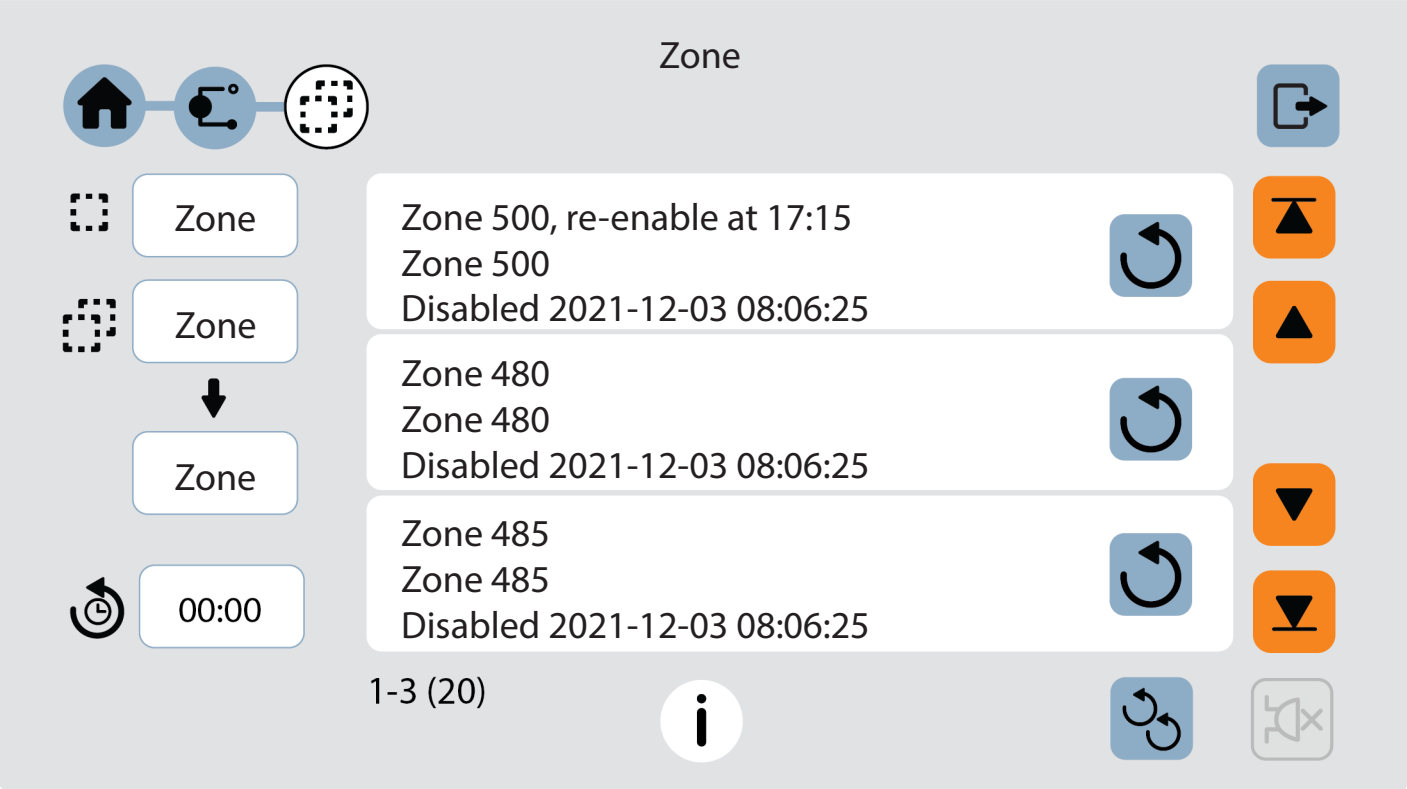
Don't forget to re-enable, or use automatic re-enablement for zones and alarm points.

25.2.1. ZONE

When a whole zone is disabled, all alarm points within the zone will be disabled.

DISABLE:

a) Log in to the CIE.
b) Navigate to menu > > .
c) Enter the zone number, one by one or in range.
d) If "Automatically re-enablement" shall be used, enter time (hh:mm). Default is current time + 3 hours. Automatic re-enablement is indicated with the time.
e) Press to disable the zone. The zone will appear in the list.



RE-ENABLE:

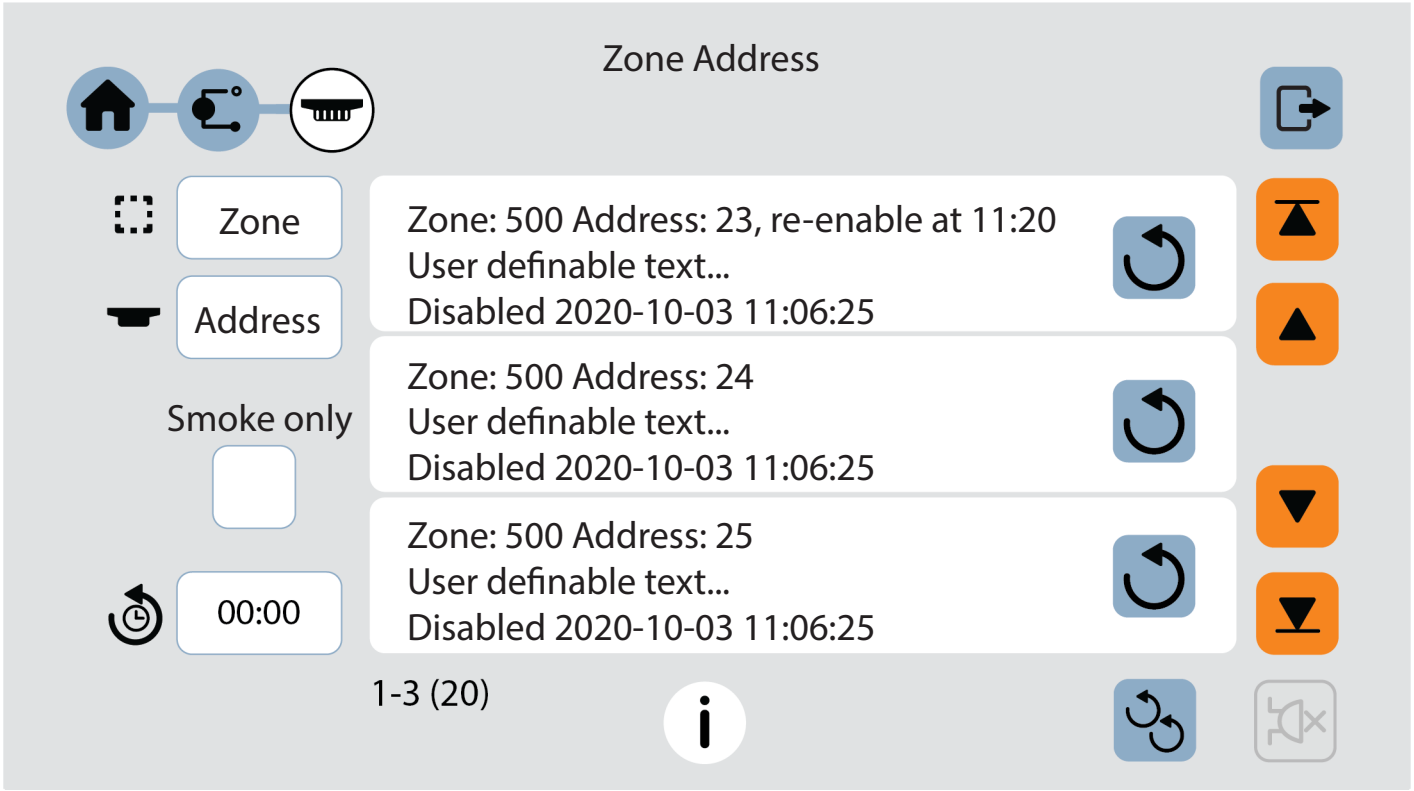
Press the button to re-enable a zone or to re-enable all zones. Re-enabled zone will disappear from the list.

25.2.2. ADDRESS

All alarm points connected to the COM loop can be individually disabled.

DISABLE:

a) Log in to the CIE.
b) Navigate to menu > > .
c) Enter the zone number and address .
d) If "Automatically re-enablement" shall be used, enter time (hh:mm). Default is current time + 3 hours. Automatic re-enablement is indicated with the time.
e) If the smoke part of the multidetector shall be disabled, check the check box "Smoke only".
f) Press to disable the zone address. The zone address will appear in the list.



RE-ENABLE:

Press the button to re-enable a zone address or to re-enable all zone addresses. Re-enabled zone address will disappear from the list.

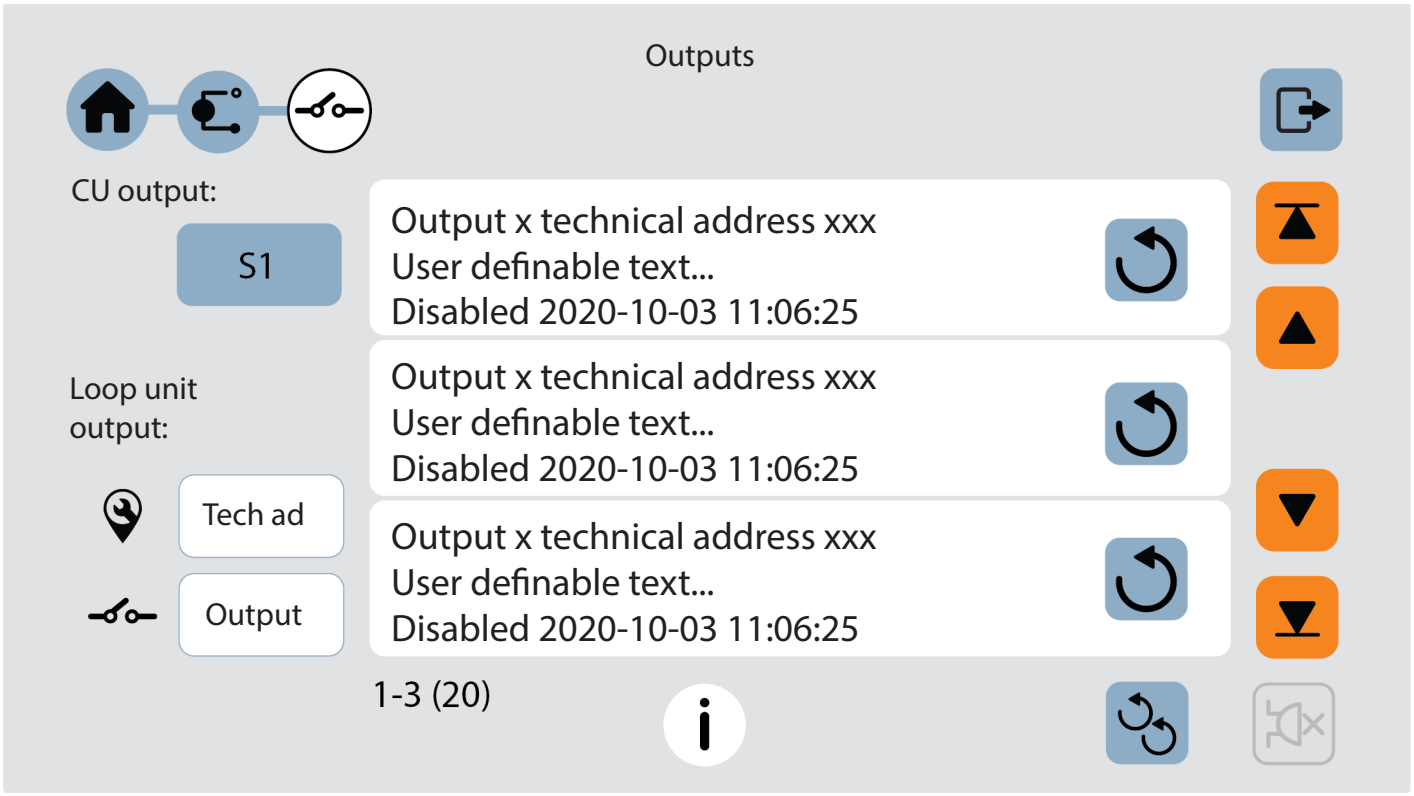
25.2.3. OUTPUT

The programmable output S1 in the CIE and outputs in units connected to the COM loop (except outputs of type "Alarm device" or "Alarm device for evacuation") can be individually disabled.
If you try to disable an output of type "Alarm device" or "Alarm device for evacuation" it will be treated as if it does not exist.

Disabled output: Even if its control expression (trigger condition) is fulfilled (true), the output will not be activated.

DISABLE:

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press S1 to disable control unit output S1
d) Enter the technical address and output number address and press ↵ to disable the loop unit output.
The disabled output will directly be shown in the list.



RE-ENABLE:

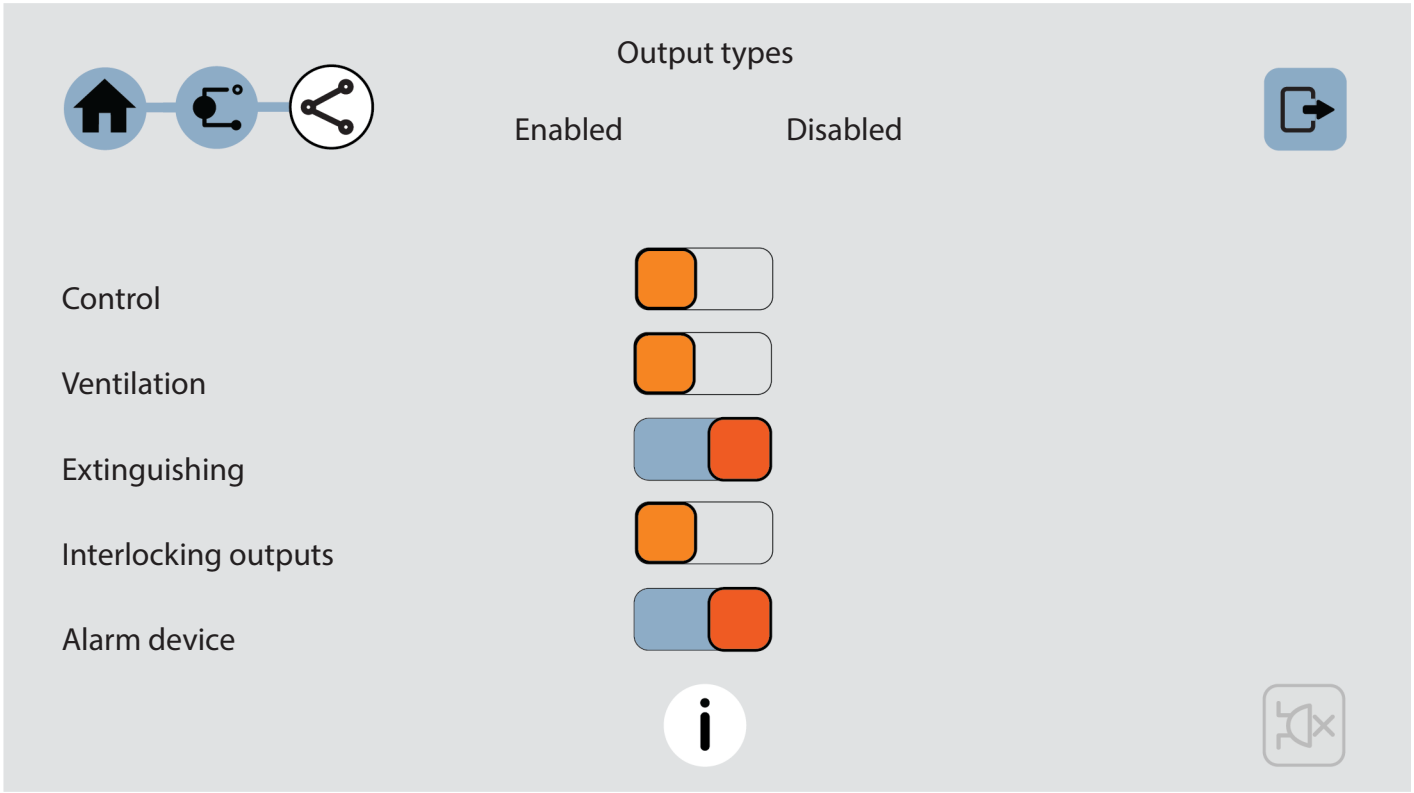
Press the button to re-enable an output or to re-enable all outputs. Re-enabled output will disappear from the list.

25.2.4. OUTPUT TYPES

Outputs of the same type can be collectively disabled in the control unit.
Disabled output will stay in (or return to) the normal condition for the output respectively.

DISABLE:

a) Log in to the CIE.
b) Navigate to menu > > .
c) The different output types are listed:
   - Control outputs
   - Ventilation outputs
   - Extinguishing outputs
   - Interlocking outputs
   - Alarm devices
d) Use the switches to toggle between:
   - Enabled
   - Disabled



e) To exit the menu press .

25.2.5. DISABLEMENT BY TIME CHANNEL

This is a static list of all disablements by time channels in the system. The list has up to three items per page.
Indicated by LED "Disablement".

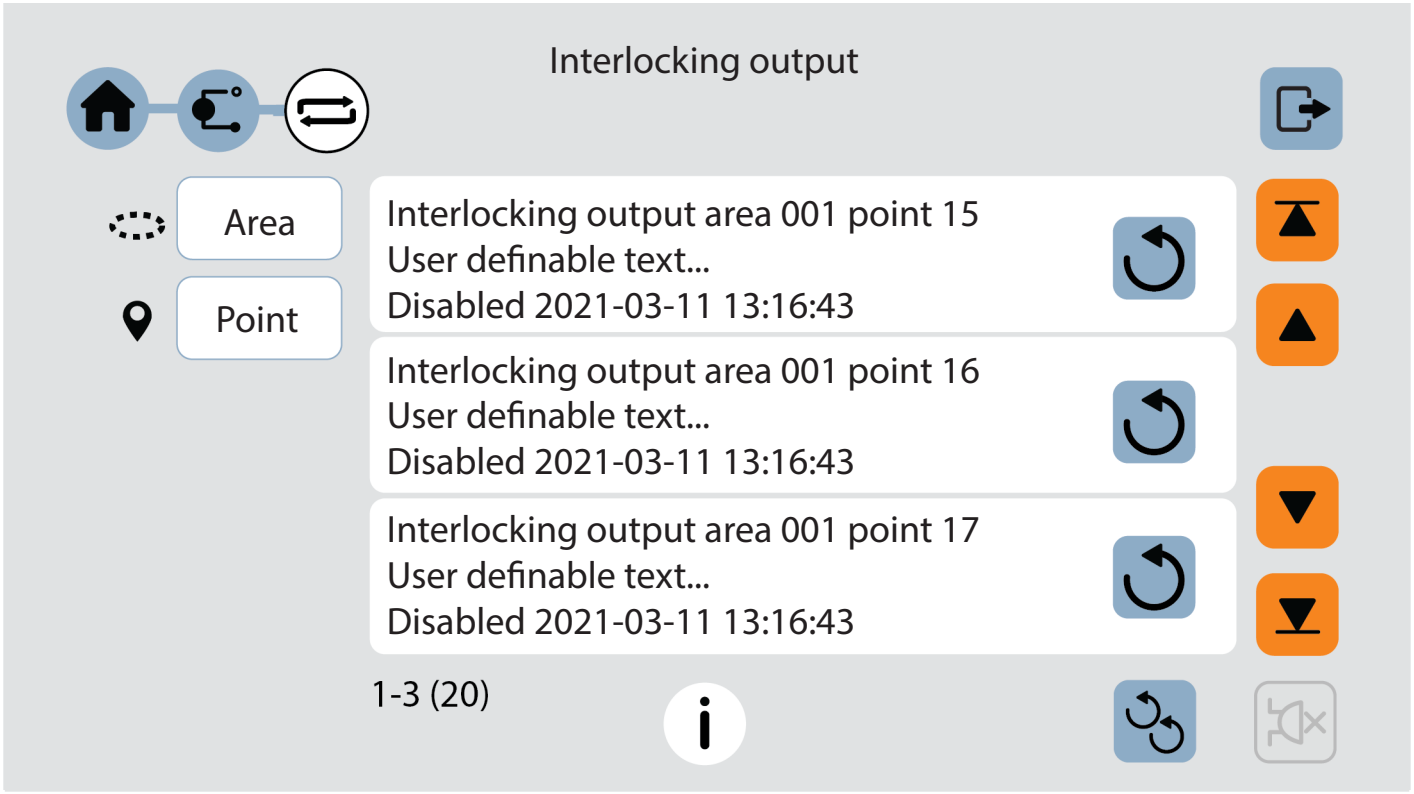
a) Log in to the CIE.
b) Navigate to menu > > .
c) Press or to scroll in the list.
d) To exit the menu press .

All other disablements are shown on the event tab page when logged out.

25.3. DISABLE INTERLOCKING OUTPUT

Interlocking outputs (Type = Interlocking) can be individually disabled via this menu (or collectively via the Output types menu > >). The "Interlocking Combination" (Area / Point) is to be entered to disable the output. Up to 100 interlocking outputs can be disabled in the whole system. The LED "Disablement" is also indicating one or more disabled interlocking outputs.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Enter the area number and address.
d) Press to disable the output. The output will appear in the list.



RE-ENABLE

e) Press the button to re-enable a output or to re-enable all outputs. Re- enabled output will disappear from the list.
f) To exit the menu press .

25.3.1. ALERT ANNUNCIATION

For alarm points / zones programmed for Alert Annunciation (via EBLWin) is normally the AA function enabled via a time channel, for example enabled daytime (during working hours) and disabled night time. As an alternative, the AA function can be continuously enabled (always on).

Via this menu it is possible to disable the AA function, i.e. the AA function will be turned off for the alarm points / zones programmed for Alert Annunciation in spite of the time channel is "on" or if they are programmed to be continuously enabled. The AA function will be turned off until re-enabled via this menu.

a) Log in to the CIE.
b) Navigate to menu > > .
c) By default “Alert annunciation” is selected. Use the switch to toggle between:
   - Enabled
   - Disabled

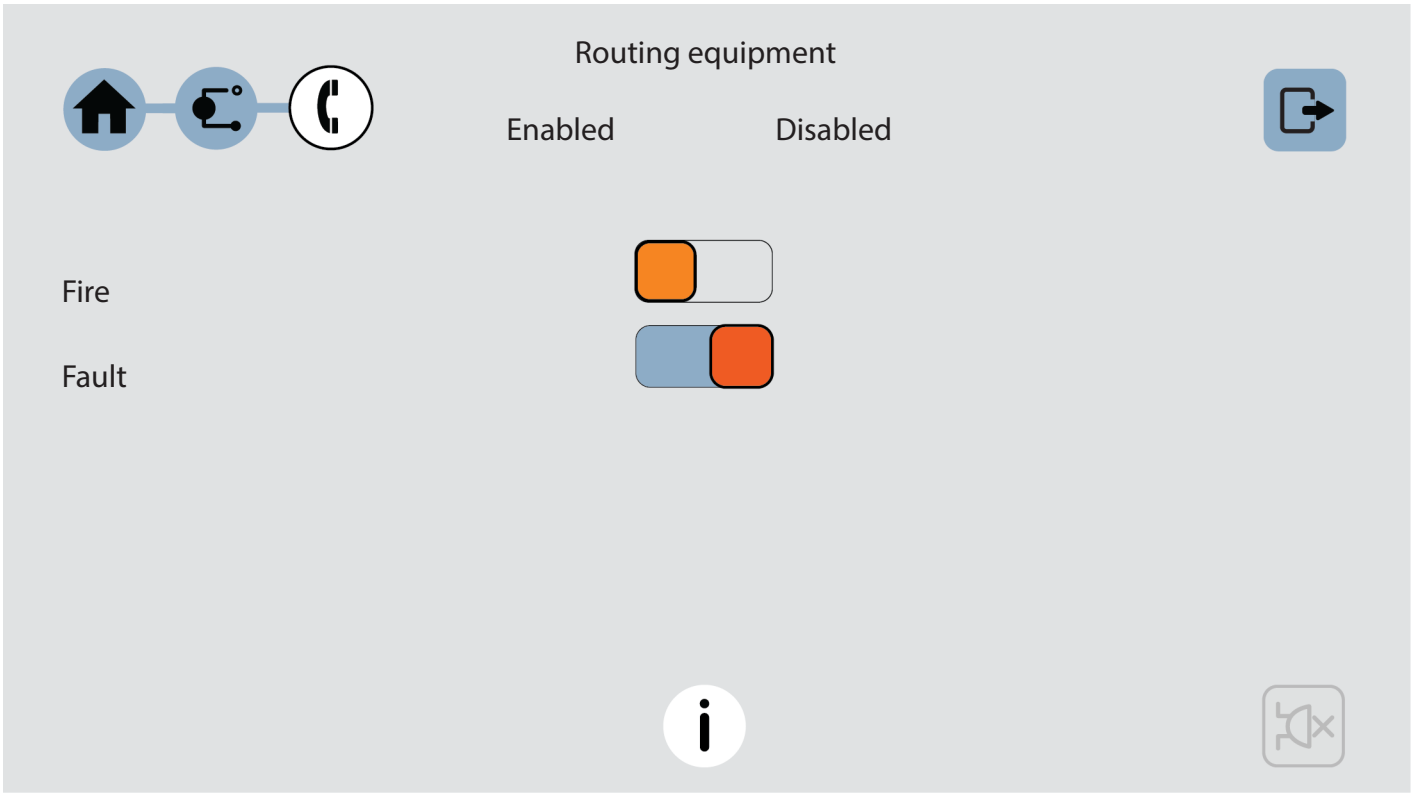
25.3.2. ROUTING EQUIPMENT

Outputs for routing equipment (fire brigade tx and fault tx) can be disabled and re-enabled via this menu. Can be useful during an installation and test period, when only local alarms are required.
Disabled output will stay disabled until re-enabled again via this menu.

Disabled output for routing equipment is indicated by LEDs "Disablement" and "Fire brigade TX".

DISABLE:

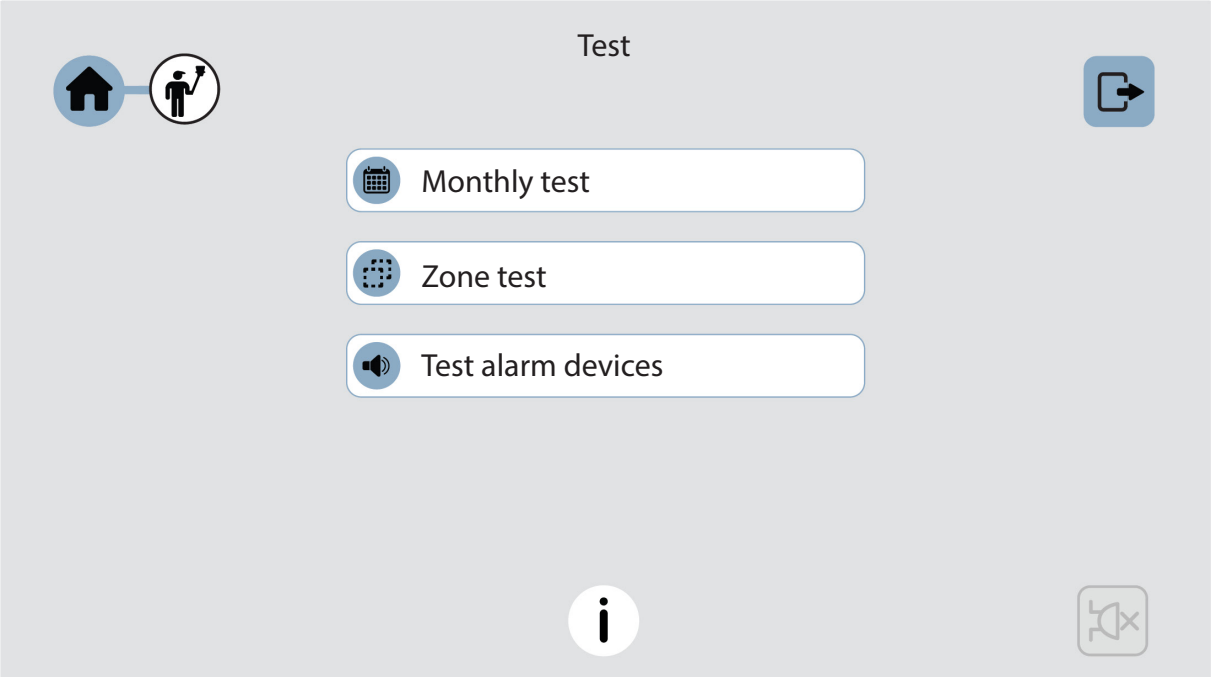
a) Log in to the CIE.
b) Navigate to menu > > .
c) The different routing equipment are listed:
   - Fire
   - Fault
d) Use the switches to toggle between:
   - Enabled
   - Disabled



e) To exit the menu press .

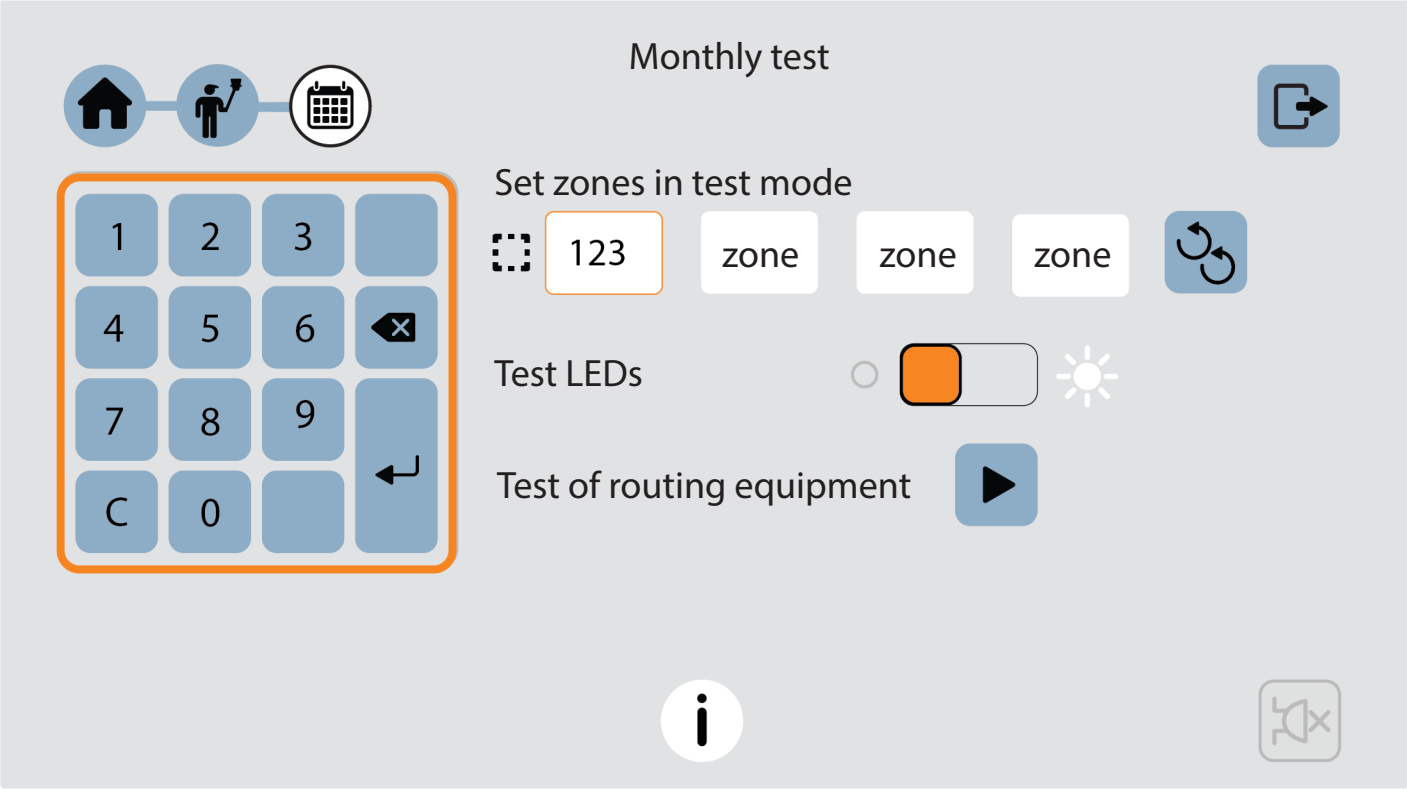
25.4. TEST MENU

a) Log in to the CIE.
b) Navigate to menu . A sub menu list will be displayed.



25.4.1. PERFORM MONTHLY TEST

The control unit and the installation shall be tested on a regular basis. If one twelfth of the alarm points are tested each month, the whole installation will be tested after one year. In test mode, only the alarm points are set to test mode and no outputs (sounders) will be activated during the test. (Alarm devices can be tested via Test alarm devices menu > > .)
If a real fire alarm is activated, for example by an alarm point not in test mode, the normal fire alarm functions will be activated, which means fire alarm presentation, outputs (sounders) activated, routing equipment (fire brigade tx) activated, and so on.
See also section 5.4. INFORMATION PRIORITY ORDER on page 16.



a) Log in to the CIE.
b) Navigate to menu > > .

SET ZONES IN TESTMODE

c) Up to four zones can be set in test mode. Use the numpad to enter the zone numbers and press to start the test.
d) Press to end the test for all zones.

The zone(s) will stay in test mode until the test mode is ended. The test mode is ended in this menu or automatically one hour after the latest test alarm. This is valid for each zone respectively.
You will be automatically logged out 15 minutes after the latest "action" (in the menu) but the zone(s) will stay in test mode until the test mode is ended.

TEST LEDS

e) Use the Test LEDs switch to test the LEDs in the icon display area. The buzzer will also be turned on during this test.

Some national regulations also require a routine test of the routing equipment.
If the routing equipment **shall not be tested**, the monthly test is completed.

TEST OF ROUTING EQUIPMENT

Started test is indicated by the two progress bars and after 30 seconds also the LED "Fire brigade tx activated".

Press to start the test, the following will happen in the system:

1) The CIE "Fault tx" output will be de-activated and fault will be tested / transmitted for 30 seconds.

The "Fault tx" is activated in normal state. 60 seconds count-down starts.

2) The CIE "Fire brigade tx" output (and corresponding programmable outputs type "routing equipment") will be activated and fire will be tested /transmitted for 30 seconds. This is indicated by the LED "Fire brigade tx activated".

After 60 seconds in total, the routing equipment test is ended and the outputs and LED will return to "normal".

Perform the test as quickly as possible, since the outputs for routing equipment are disabled during the test mode. Also the parts of the zones in test mode, not visible for the test personnel, are disabled.
In order to shorten the testing time, any time delay for the detectors / zones in test mode will be "disabled", i.e. fire alarm will be detected faster than normally.

In the tested alarm point, the LED will light up approximately 10 seconds and then the alarm point will be automatically reset. There will be a test mode alarm indication on the CIE touch screen. A detector in test mode is not able to generate a fault.

If an alarm point, for example a manual call point, is in alarm state when the test mode is ended, there will be a fire alarm activated.

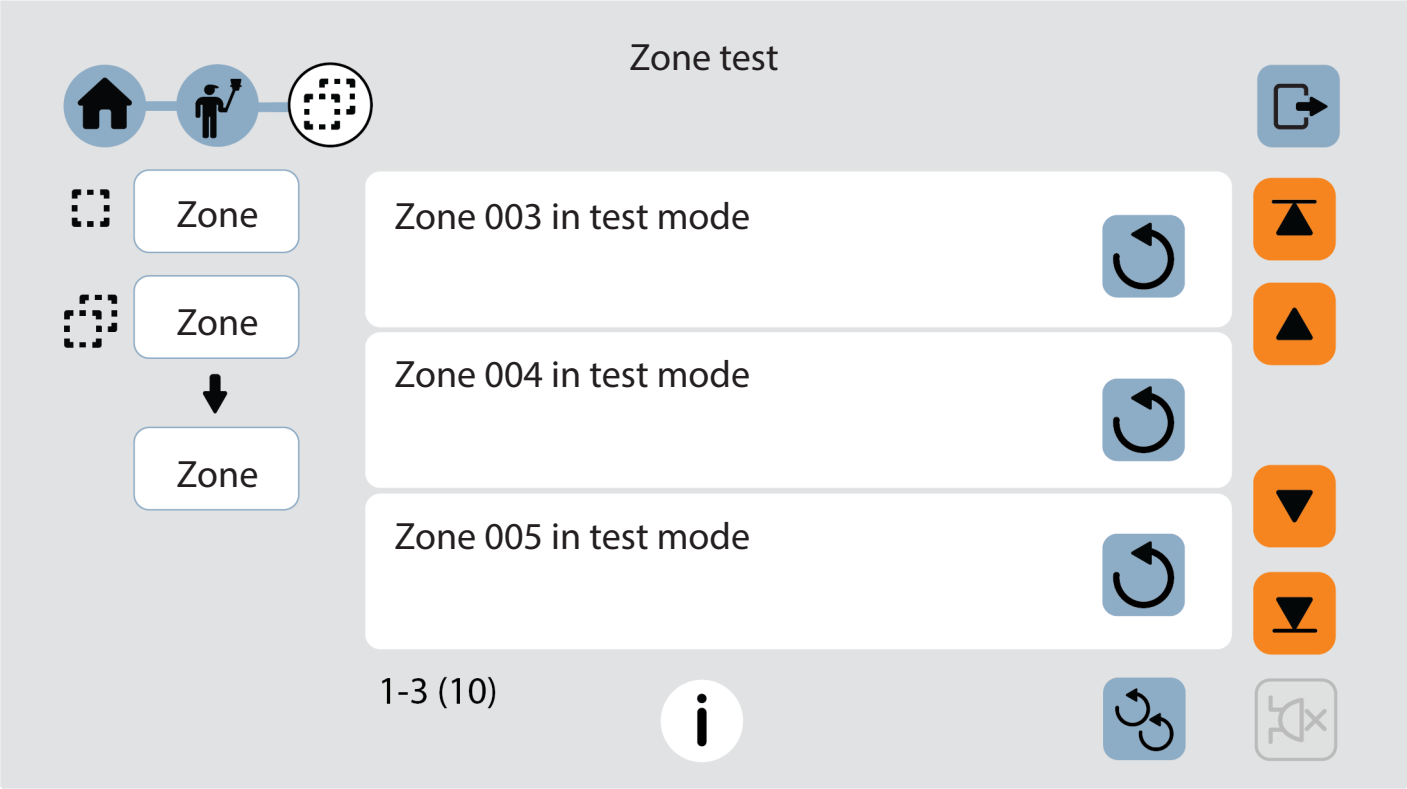
When the "Fire door closing" function is used, the fire door will be closed when the detectors controlling the door are set in test mode.

25.4.2. PERFORM ZONE TEST

Normally, zones are tested during the monthly test. Via this menu it is also possible to perform the zone test. Up to 100 zones can be set in test mode. In test mode, only the alarm points are tested.
No outputs (sounders) will be activated during the test. (Alarm devices can be tested via menu > > , and any output via Activate output menu > > or via EBLWin when you are logged on.)

If a real fire alarm is activated by an alarm point not in test mode, the normal fire alarm functions will be activated, which means fire alarm presentation, outputs activated, routing equipment activated, and so on. See also section 5.4. INFORMATION PRIORITY ORDER on page 16.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Enter the zone number, one by one or in range, and press to start the test.
The zone will appear in the list.



One or more zones in test mode are indicated by the LED "Test mode". The green polling LED in the 440x / 440xI detectors will be turned off in test mode.

END TEST MODE

d) Press the button to end the test mode of a zone or to end test mode of all zones. Zones with ended test mode will disappear from the list. The test mode must be ended for all zones.

DURING THE TEST

Perform the test as quickly as possible, since the output(s) for routing equipment (fire brigade tx) are disabled (also the parts of the zones in test mode, not visible for the test personnel, are disabled). In order to shorten the testing time, any time delay for the detectors / zones in test mode will be "disabled", i.e. fire alarm will be detected faster than normally.

In the tested alarm point, the LED will light up approx. 10 seconds and then the alarm point will be automatically reset. There will be a test mode alarm indication in the CIE touch screen.
A detector in test mode is not able to generate a fault.

When the "Fire door closing" function is used, the fire door will be closed also when the detectors controlling the door are tested in test mode.

AFTER THE TEST

The zone(s) will stay in test mode until the test mode is ended. The test mode is ended in zone test menu or automatically one hour after the latest test alarm. This is valid for each zone respectively.
For example, if you set 4 zones in test mode, it should be possible to finish the test within 1 hour. But if you have 50 zones in test mode, and start testing from zone 1, it will probably take more than 1 hour to test all zones.
After one hour, the first zones will begin to end test mode, one by one.

You will be automatically logged out 15 minutes after the latest "action" (using of any key) but the zone(s) will stay in test mode until the test mode is ended, see above.

If an alarm point (for example a manual call point) is in alarm state when the test mode is ended, there will be a fire alarm activated.

25.4.3. TEST OF ALARM DEVICES

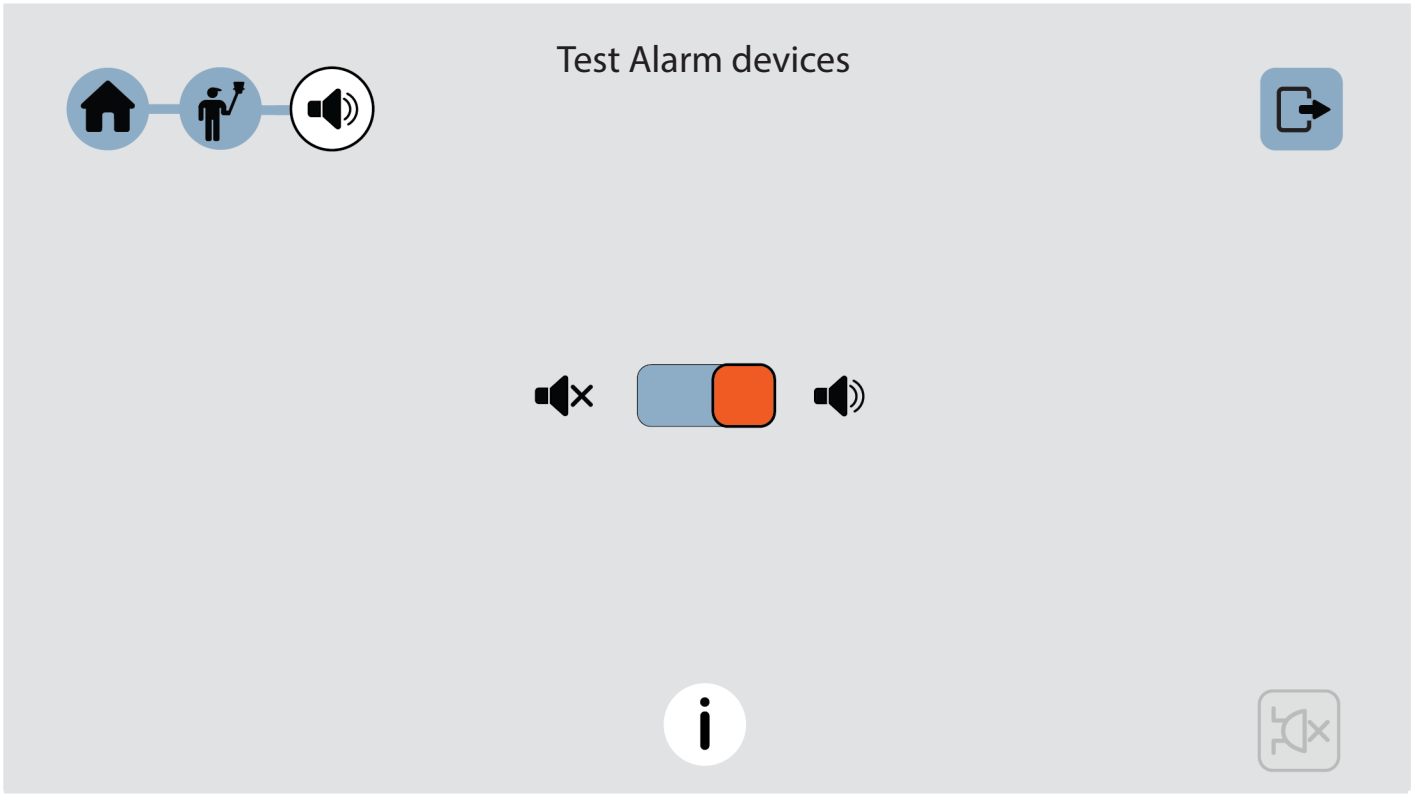
All programmable outputs in the control unit, of type "Alarm device" or "Alarm device for evacuation", can be collectively activated to test the alarm devices. This procedure includes Addressable siren 4477 and Addressable sounder base 4479 / 3379, wireless detector 4611, and all alarm devices 4480, 4481, 4482, 4487.
The test cannot be started if a fire alarm already is activated in the system.

When the test starts, the alarm devices will sound continuously (steady) for approx. 5 seconds, be silent for approx. 25 seconds, sound for approx. 5 seconds and so on. For the alarm devices 4477, 4479, 3379, 4611, 4480, 4481, 4482, and 4487, the tone with the highest priority level (and type "alarm device") will be automatically selected.

The test will continue for one hour if not stopped via this menu or if a fire alarm is activated in the system. After one hour, when the test mode is ended, a message is shown in the Event log .

If wireless photoelectric smoke detector 4611 is tested for more than 45 minutes, the batteries in the detector must be replaced. When replacing the batteries, remove both batteries for 2 seconds to force a restart of the detector. (The battery fault is latched so a restart is necessary to clear the fault.)

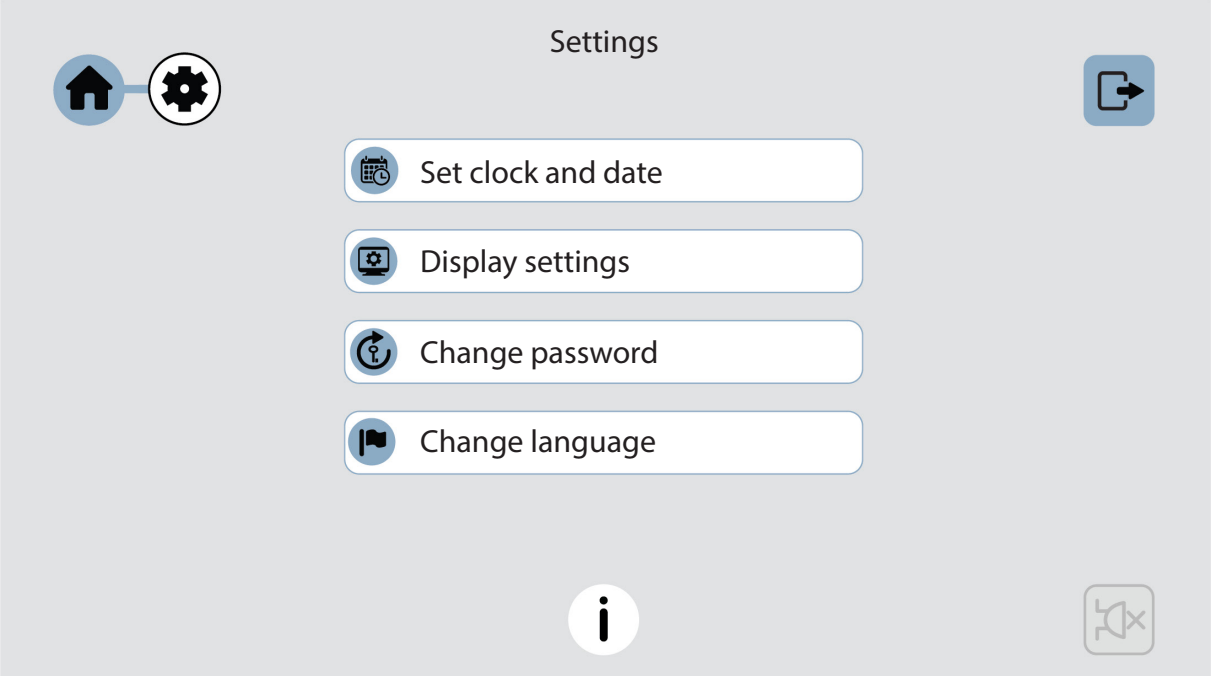
a) Log in to the CIE.
b) Navigate to menu > > .
c) Use the switch to toggle between:
   - Start test
   - End test



d) To exit the menu press .

25.5. SETTINGS

a) Log in to the CIE.
b) Navigate to menu . A sub menu list will be displayed.



25.5.1. SET CLOCK AND DATE

The RTC component has a capacitor as a backup power supply. Normally, date, day of the week and time only have to be set when the power is turned on the control unit for the first time. If required, the clock might be corrected, so that the "time stamps" for fire alarms, faults, etc. will be correct.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Use the numpad to enter new values for date and / or time. Press ↵ to save the setting.
d) To exit the menu press .

The capacitor can supply the RTC for a couple of days. When the power has been turned off, it is recommended to check / set the date and time.

25.5.2. DISPLAY SETTINGS

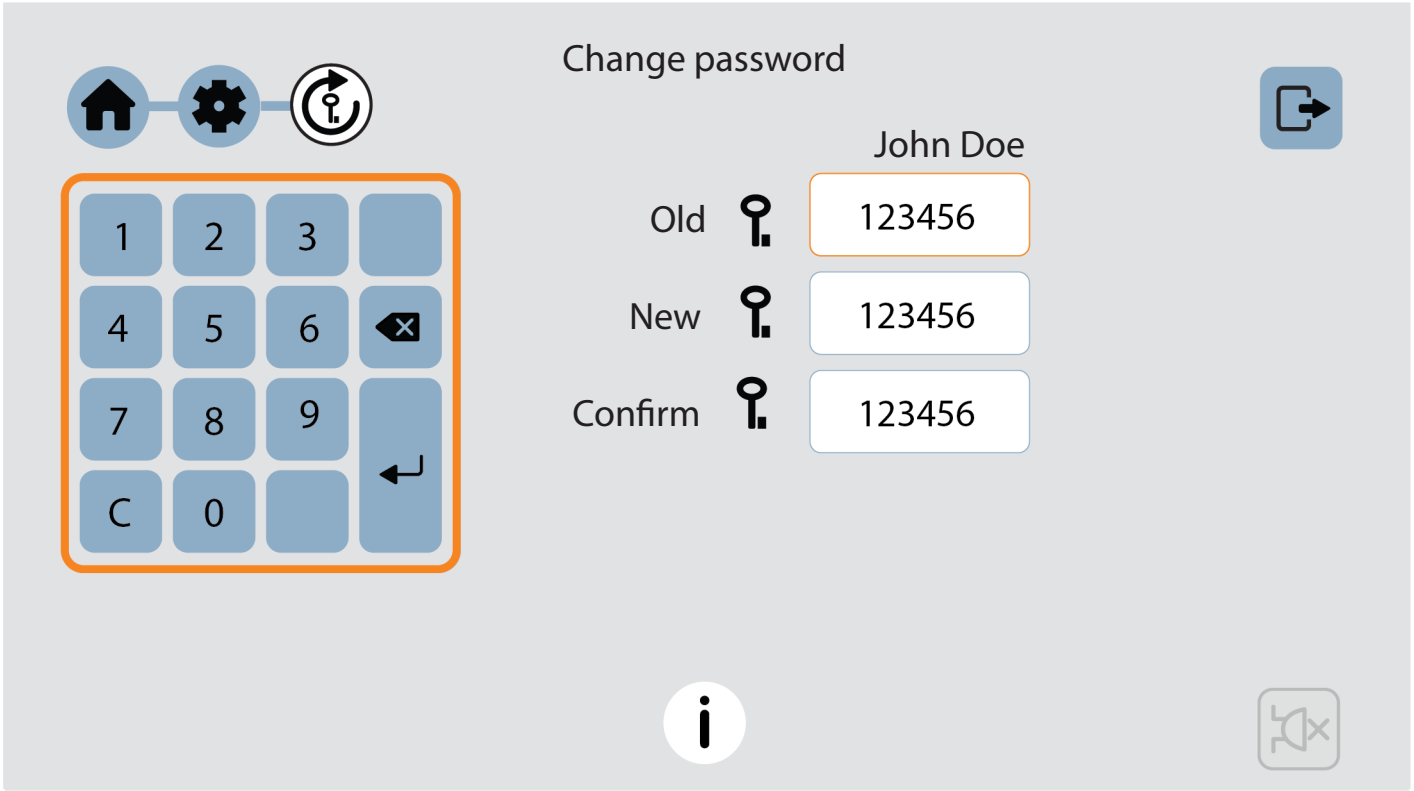
The touch screen brightness is default set to 100%. The brightness may need to be changed due to the lighting conditions.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Drag the thumb to change the brightness level.
d) To exit the menu press .

25.5.3. CHANGE PASSWORD

A password changed via this menu will be valid until it is changed again or it is erased via EBLWin (menu Tools / Reset user passwords.

e) Log in to the CIE.
f) Navigate to menu > > .
g) Enter the old password, the new password and the new password again. The password is now changed to the new one.



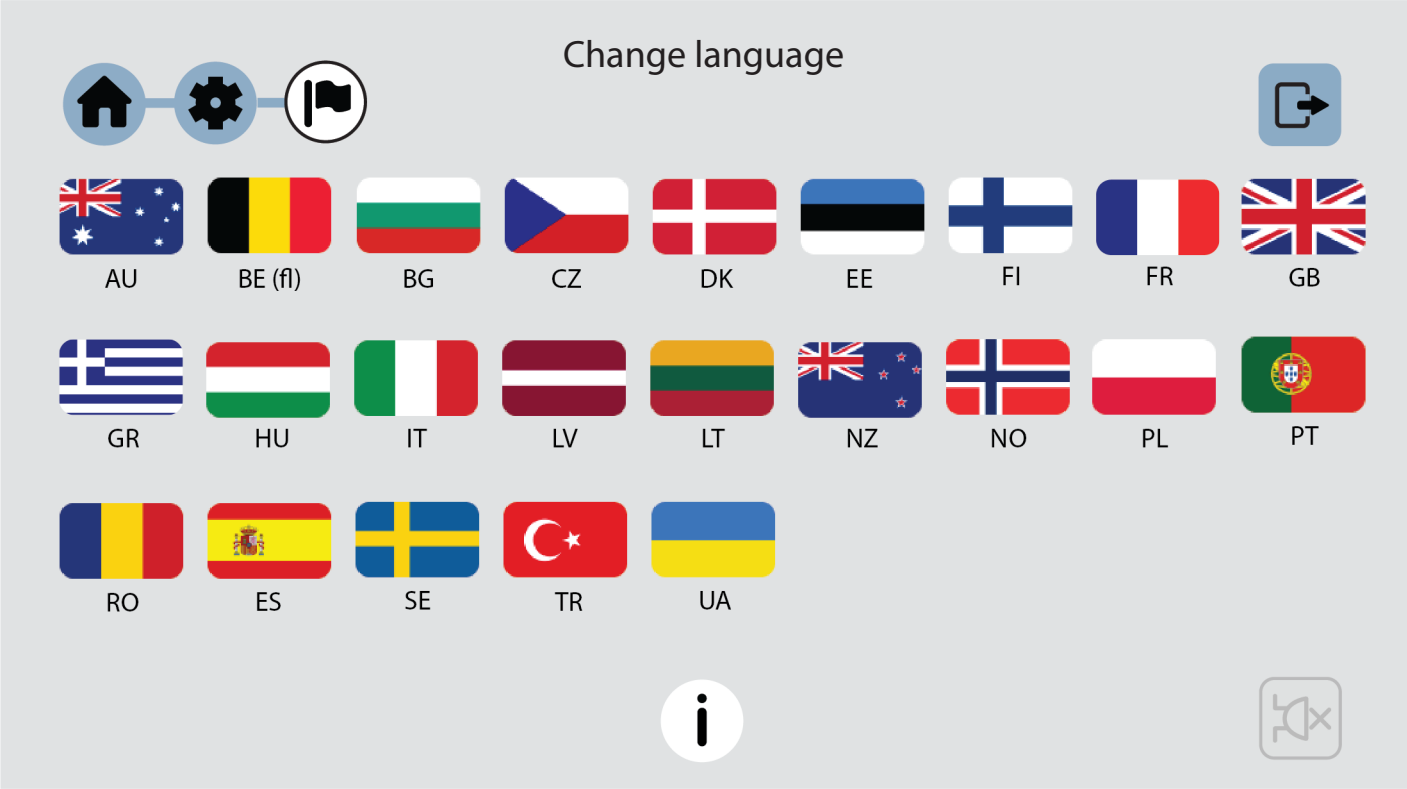
h) To exit the menu press .

Make a "Safe shutdown of control unit" if you want this password to be valid also after power off. This will save the SSW data in a Flash memory. See Safe shutdown menu > > .

25.5.4. CHANGE LANGUAGE

In this menu you can set the language used in the control unit.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press a flag to change the language in the control unit.



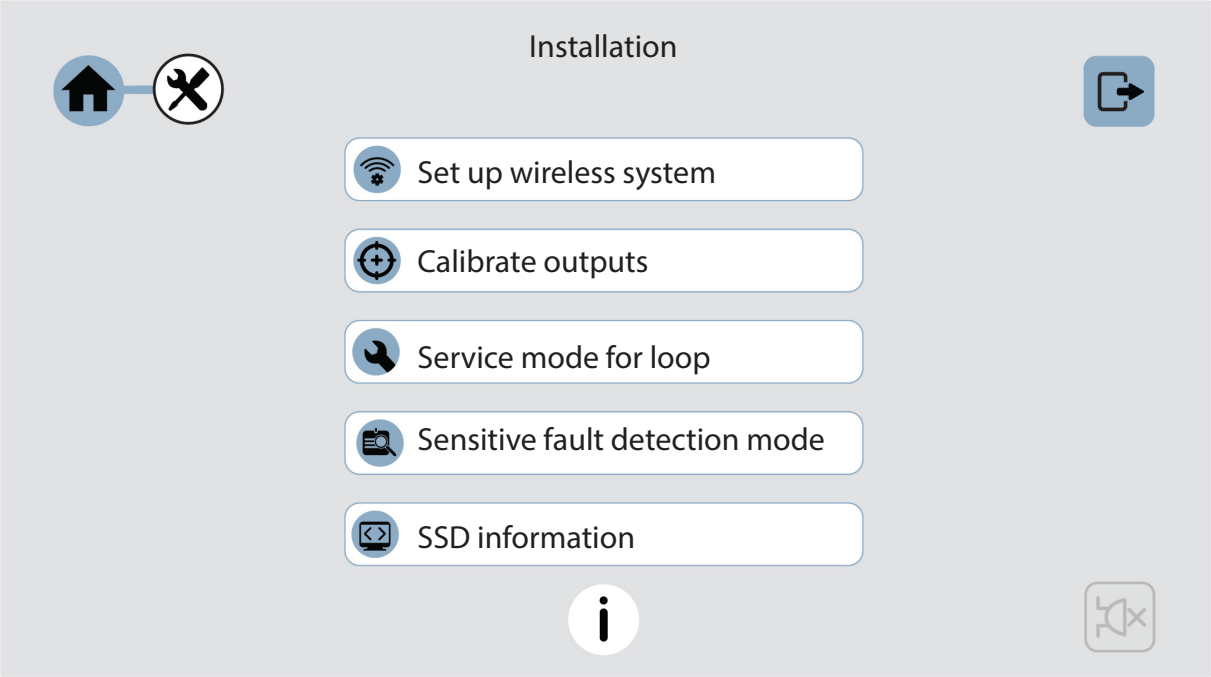
d) To exit the menu press .

25.6. INSTALLATION

When commissioning an installation and by maintenance (for example when you power on and when you are programming a control unit / system), this menu can be used for certain actions, information and help.

Only authorized personnel have access to the installation menu and a password for level 3A (Service technician) is required.

a) Log in to the CIE.
b) Navigate to menu . A sub menu list will be displayed.



Some tasks for Service technicians are done via EBLWin. Via PC and EBLWin you can:

- download / backup (upload) the site specific data (SSD)
- create and download software (S/W), settings, configurations, control unit and system properties.
- create and download the user definable text messages (alarm texts) shown on the touch screen.

To be able to Log in to an EBLOne via a PC and EBLWin, the PC has to be provided with an EBLWin key (5094). This USB device has a number (a key) required for the log in.

25.6.1. SETUP WIRELESS SYSTEM

This function can be used by commissioning / service engineer to set a Base station for wireless units (4620) to one of the following modes:

Register - in order to register one or more wireless units 4611 / 4614 / 4645 to the Base station.

Unregister - in order to unregister one or more wireless units 4611 / 4614 / 4645 from the Base station.

Install - in order to change the communication from normally every 2nd minute to every 5th second, to be used during commissioning, and so on.

To set the Base station to any of the modes above the Base station must be in a "Normal state", i.e. not set to any of the modes. For example, a base station set to e.g. "Register" mode must be set back to "Normal state" before it can be set to any other mode.

For more information, see Technical description MEW01764.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Write the technical number for the base station.
d) Press the buttons to select between the states:
   - Register
   - Unregister
   - Install

SET TO NORMAL STATE

e) Press the button to end the mode for one base station or to end mode of all base stations.
   The base station is now back in Normal state and will disappear from the list.
f) To exit the menu press .

The Base station must be set back to the "Normal state" for the wireless detectors to function normally.

25.6.2. CALIBRATE OUTPUTS

Supervised (monitored) outputs:
The voltage outputs (S1) in the control unit.
When all alarm devices have been connected, including required end-of-line devices and when the SSD is downloaded, a calibration has to be done.

FUNCTION

If the actual value at any time differs from the calibrated value ± a small tolerance or if the calibrated value is outside the calibration range, a fault will be generated.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press to start calibration of supervised outputs.
d) Press again when the calibration is ready.
e) To exit the menu press .

After the calibration it is recommended to do a "Safe shutdown of the control unit", see Safe shutdown menu > > . This will save the SSW data (e.g. the calibration values) in a Flash memory.

25.6.3. END-OF-LINE DEVICES

Control unit outputs S1, programmed as **Supervised (1-50kΩ)**: One end-of-line resistor (33kΩ) in the last unit or one resistor (33kΩ) in up to five units.

25.6.4. SERVICE MODE FOR COM-LOOP

This mode can be used when commissioning an installation and by maintenance. The COM loop communication (polling) will be turned off but there is still voltage (24 V DC) on the loop in the A-direction only, in the B-direction only or in both directions at the same time.

A volt meter can be used, e.g. to check the voltage / voltage drop on different places on the loop or to find a single break on the loop. (Since there is voltage on the loop, short circuit isolators will work normally.)
The "Service mode for COM-loop" is indicated by LED "Disablement". It is also shown on the event tab page when logged out.

If short-circuit is detected when a COM loop is in service mode, the loop will be disabled and a fault message will be displayed:
FAULT: Short circ. tech addr A <-> B, [sub-loop x], loop x

…independent of where the short-circuit is situated on the loop.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Select between A Direction, B Direction, or both directions.
d) Press the button to end the service mode.
e) To exit the menu press .

When you leave this menu by pressing the service mode will be turned off, and the communication will be turned on in the normal way.

25.6.5. SENSITIVE FAULT DETECTION MODE

To increase the possibilities to detect faults during the commissioning, it is possible to use the "Sensitive fault detection mode". The time delay for each fault will then be reduced, i.e. you might find some faults now instead of later. When the "Sensitive fault detection mode" is turned on, it is indicated by LED ⚠ "Fault" and the "Fault" output for routing equipment is "activated". It is also shown on the event tab page when logged out.

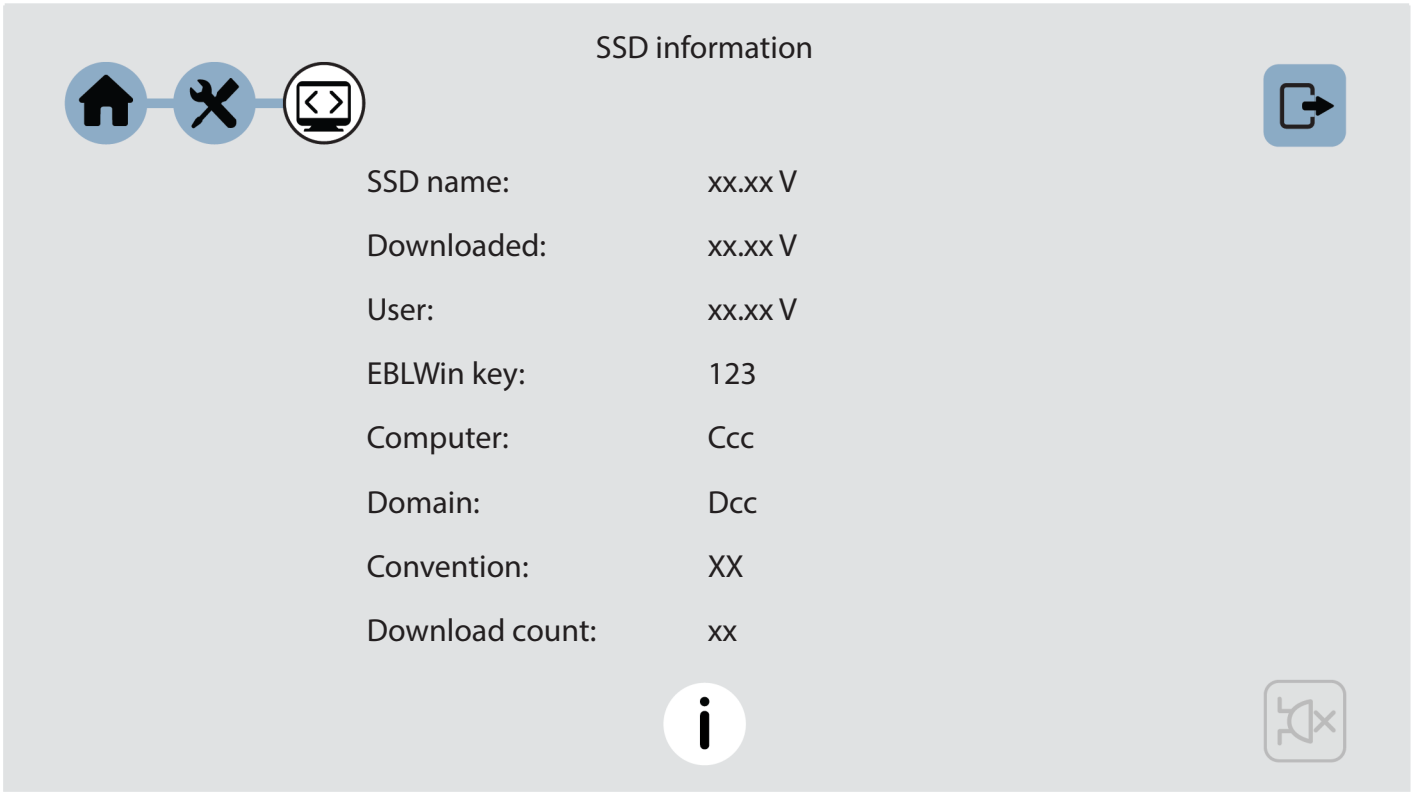
Don't forget to turn off this mode after the commissioning.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Use the switch to toggle between:
   - Activate
   - Deactivate
d) To exit the menu press .

25.6.6. SSD INFORMATION

SSD name: As written in the EBLWin dialog box "System Properties" (Name).
Downloaded: Date and time when the SSD was downloaded.
User: User name for the person who performed the SSD download.
EBLWin key: The unique number for EBLWin key.
Computer: Computer name (if programmed) for the PC that was used for the SSD download.
Domain: Domain (if programmed) for the PC that was used for the SSD download.
Convention: Country specific functions, default EBLWin settings, and so on, is set in conjunction with the installation of EBLWin.
Download count: Number of times the SSD has been downloaded.

a) Log in to the CIE.
b) Navigate to menu > > .

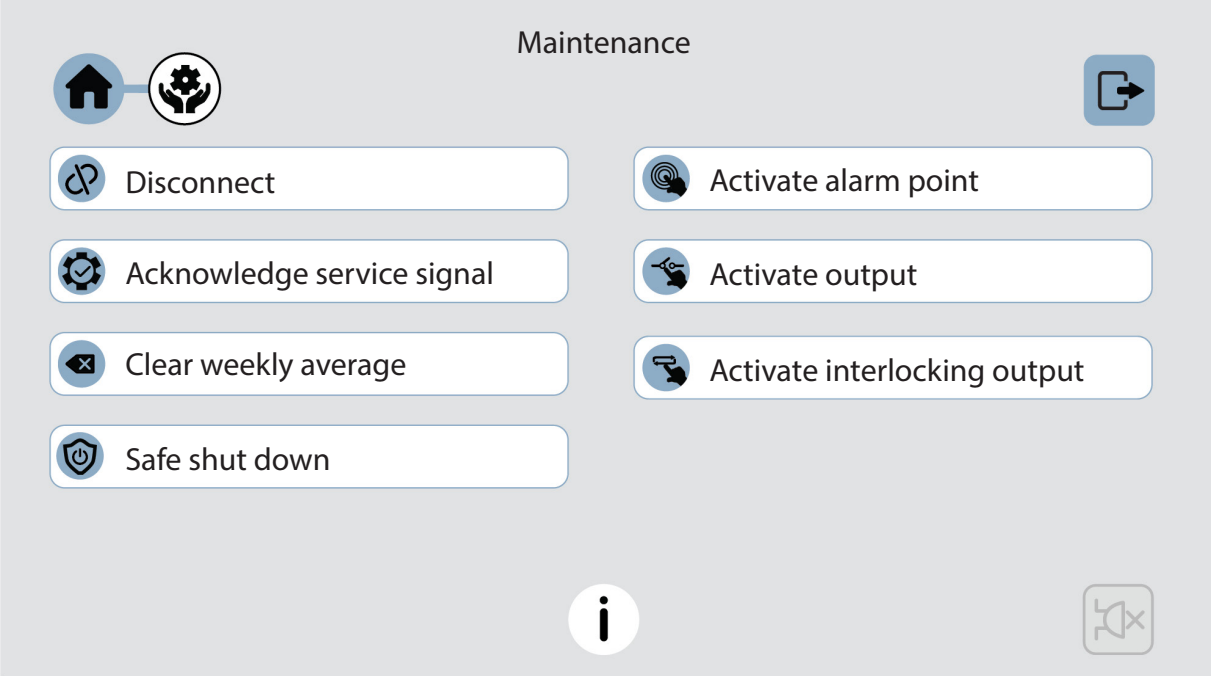


c) To exit the menu press .

25.7. MAINTENANCE

Only authorised personnel have access to maintenance menu and a password for level 3A (Service technician) is required.

a) Log in to the CIE.
b) Navigate to menu . A sub menu list will be displayed.

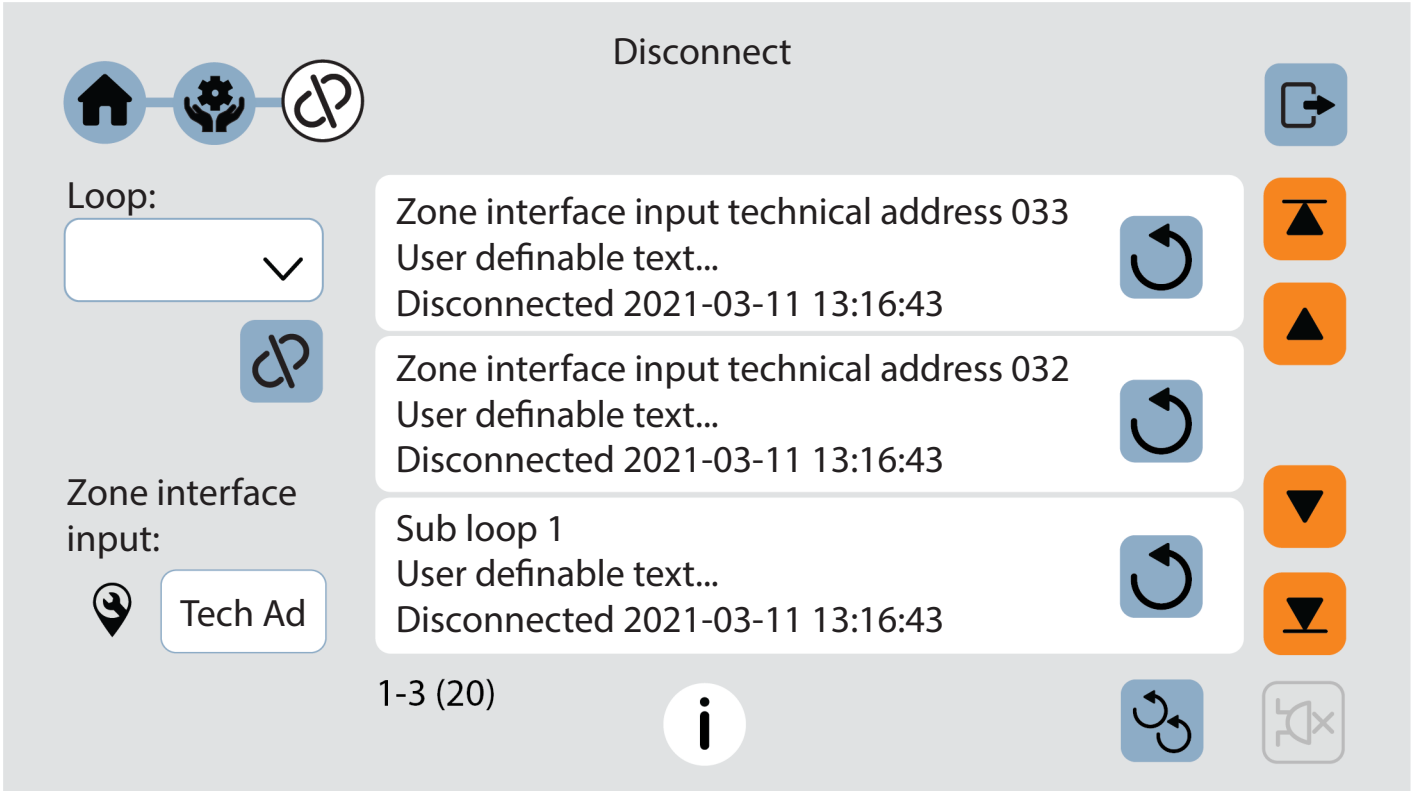


25.7.1. DISCONNECT

Before physical connection / disconnection of loop units, etc. the loop (or zone interface input) shall be disconnected (voltage free) in order to avoid damage on the units and the CIE. Zone interface input requires an Addressable multipurpose I/O unit 4461 connected on a COM loop.
One or more disconnected "loops" are indicated by LED "Disablement". Disconnected loops are also shown on the event tab page when logged out.

When you re-connect a COM loop all the statistics shown in Communication menu > > will be erased and set to "0".

a) Log in to the CIE.
b) Navigate to menu > > .
c) Use the drop-down to select between COM loop or SUB-loop.
The loop will directly be shown in the list.
d) If addressable multipurpose I/O unit 4461 is connected on the COM loop, enter the technical address for the zone interface input, and press .



RE-CONNECT

e) Press the to re-connect a loop / zone interface or to re-connect all loops / zone interface. Re-connected loop / zone interface will disappear from the list.
f) To exit the menu press .

25.7.2. ACKNOWLEDGE SERVICE SIGNAL

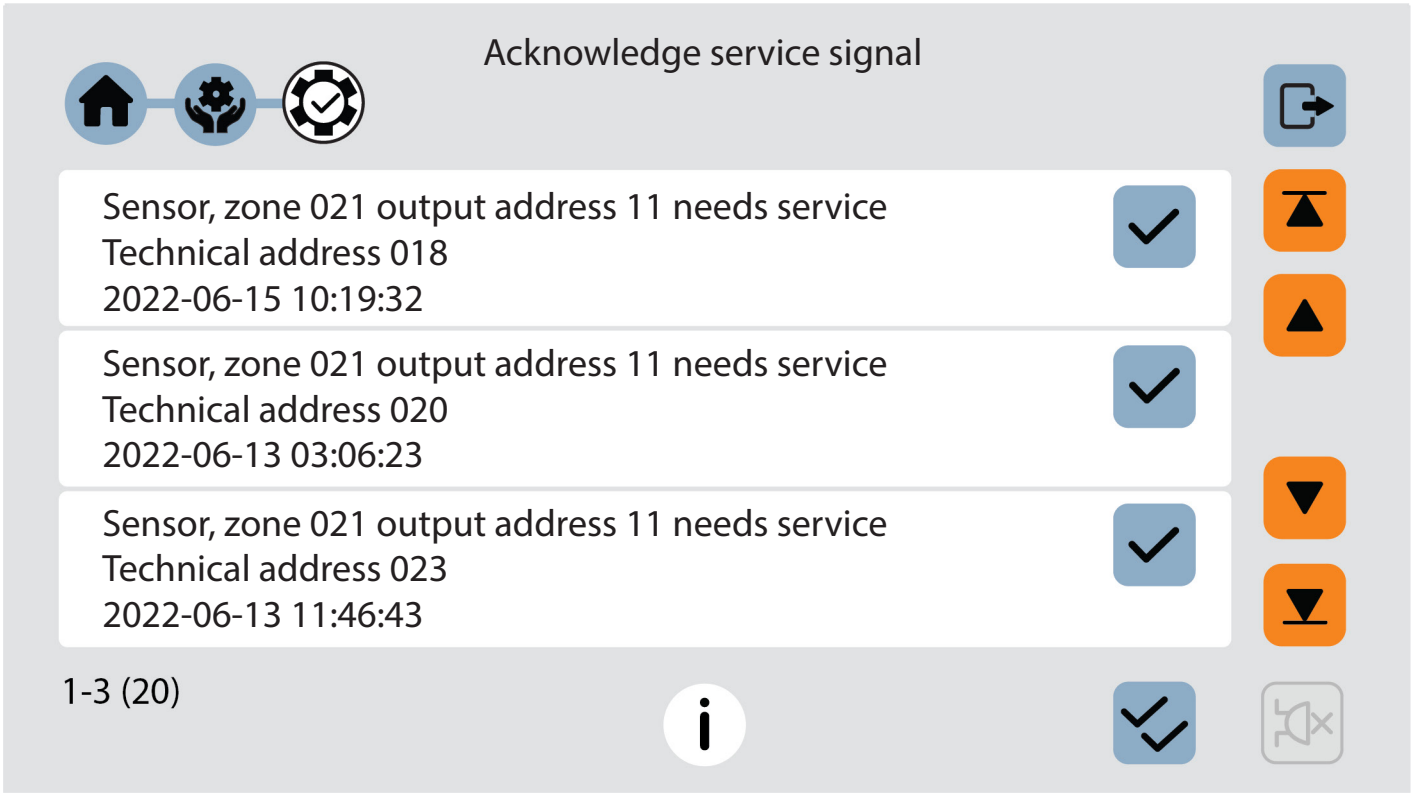
Sensor = analog smoke detector.

Only 2840 have to be acknowledged: When service signal from a 2840 sensor is acknowledged, the sensor is given a default week average sensor value (same as for a new / clean sensor = 0.1 %/m). First replace the sensor and then acknowledge the service signal as soon as possible. The first week average sensor value after acknowledge will be calculated within one hour, then each week.

Sensors 4400, 4401 set in advanced mode and 4402 (always set in normal mode) do not have to be acknowledged if they are replaced after generating service signal. They will be automatically reset.

If a 2840 sensor is replaced without having generated service signal, it has to be reset to the default week average sensor value via menu CLEAR WEEKLY AVERAGE .

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press or to scroll in the list.
d) To acknowledge a sensor press or press to acknowledge all sensors. The acknowledged sensor disappears from the list.



e) To exit the menu press .

The most recent service signal is on top of the list. A service signal that is acknowledged will disappear from this list.

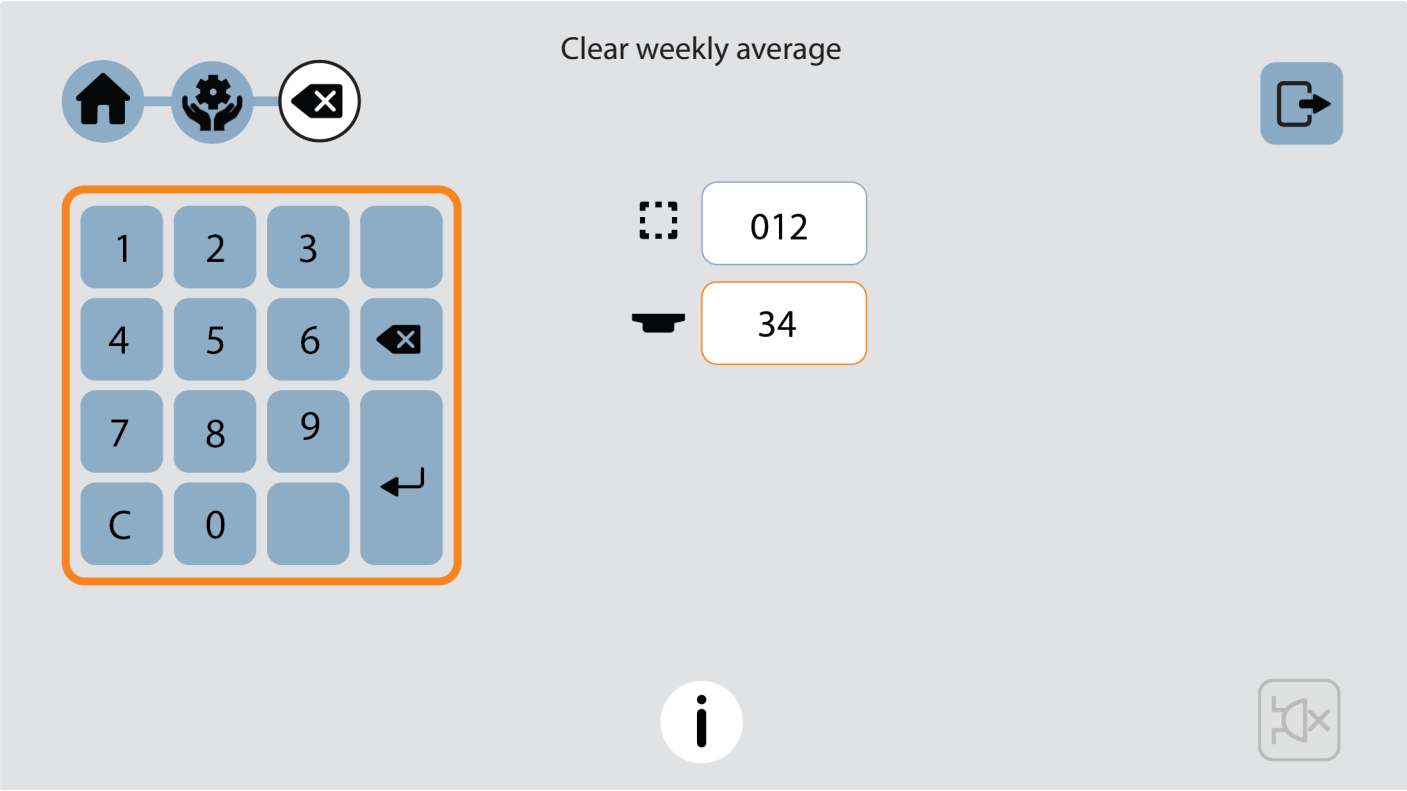
25.7.3. CLEAR WEEKLY AVERAGE

Valid only for 2840: If a sensor (analog smoke detector) is replaced without having generated SERVICE signal, its week average sensor value has to be cleared and set to the default value (i.e. "1" = 0.1 %/m), otherwise the new / clean sensor will inherit the old sensor's value. It is possible to clear the week average sensor value for each sensor individually via this menu.

First replace the sensor and then clear the week average value as soon as possible. Authorised service personnel only, must do this. Used incorrectly it can cause nuisance fire alarms.

The first week average sensor value (after clearing) will be calculated within one hour, then each week.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Enter the wanted zone and address and press .



d) To exit the menu press .

25.7.4. SAFE SHUTDOWN

It's recommended to do a safe shut down of control unit before you power off the control unit, which means disconnecting it from 230V AC and battery. Safe shut down will save the SSW in a Flash memory and put the CPUs at rest.
If safe shut down is not done, it might also generate a fault when you power up the control unit again:
FAULT: Read/write site data (SSW).

See also chapter 23. RESTART on page 63.

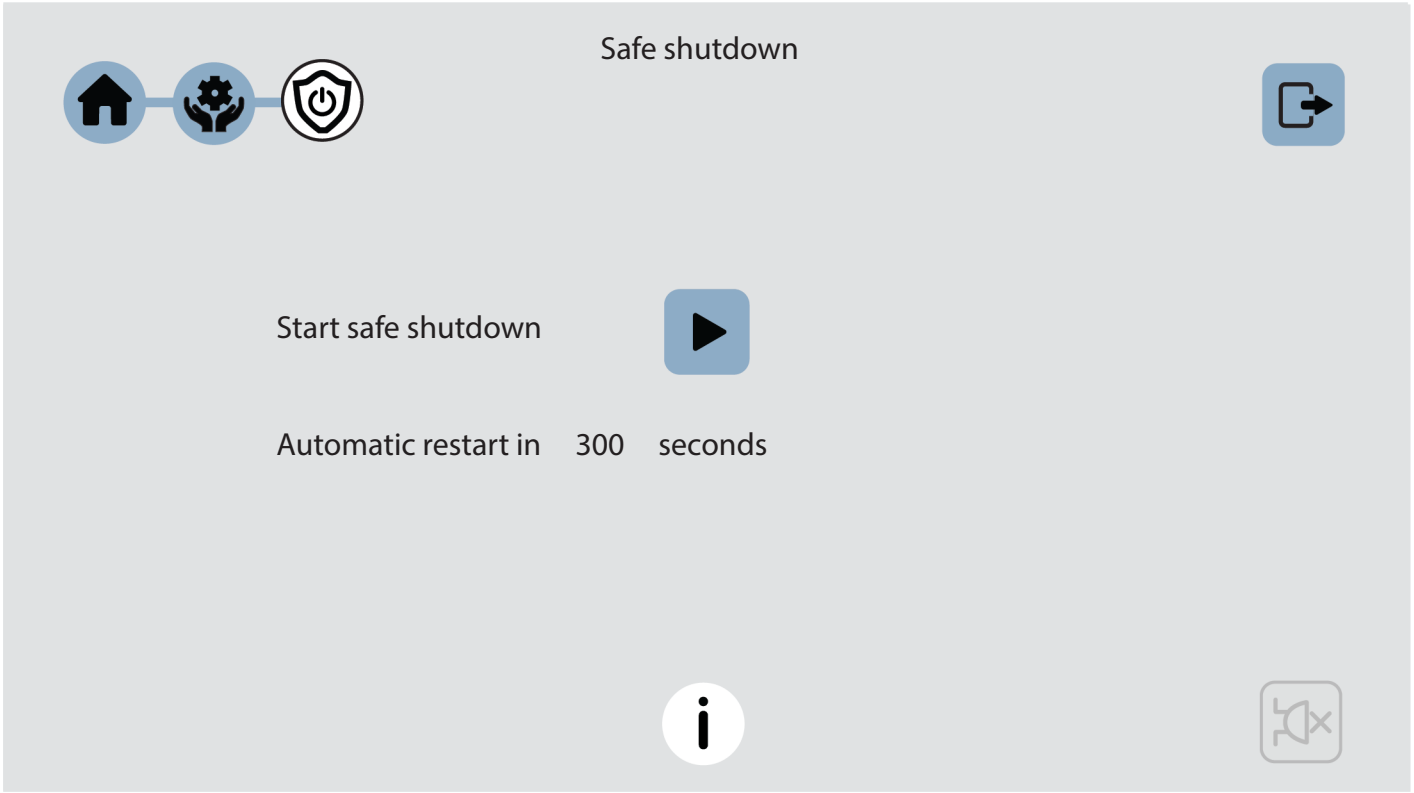
It's recommended to do a safe shut down after commissioning the installation and after the calibration of supervised outputs, change of passwords and so on, in order to save the new valid values and codes.

By restart and power off, the Fault tx output(s) will be "activated".

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press to start the safe shut down. The SSW is now saved and the Main board CPU are at rest.
d) Break the power of the control unit.

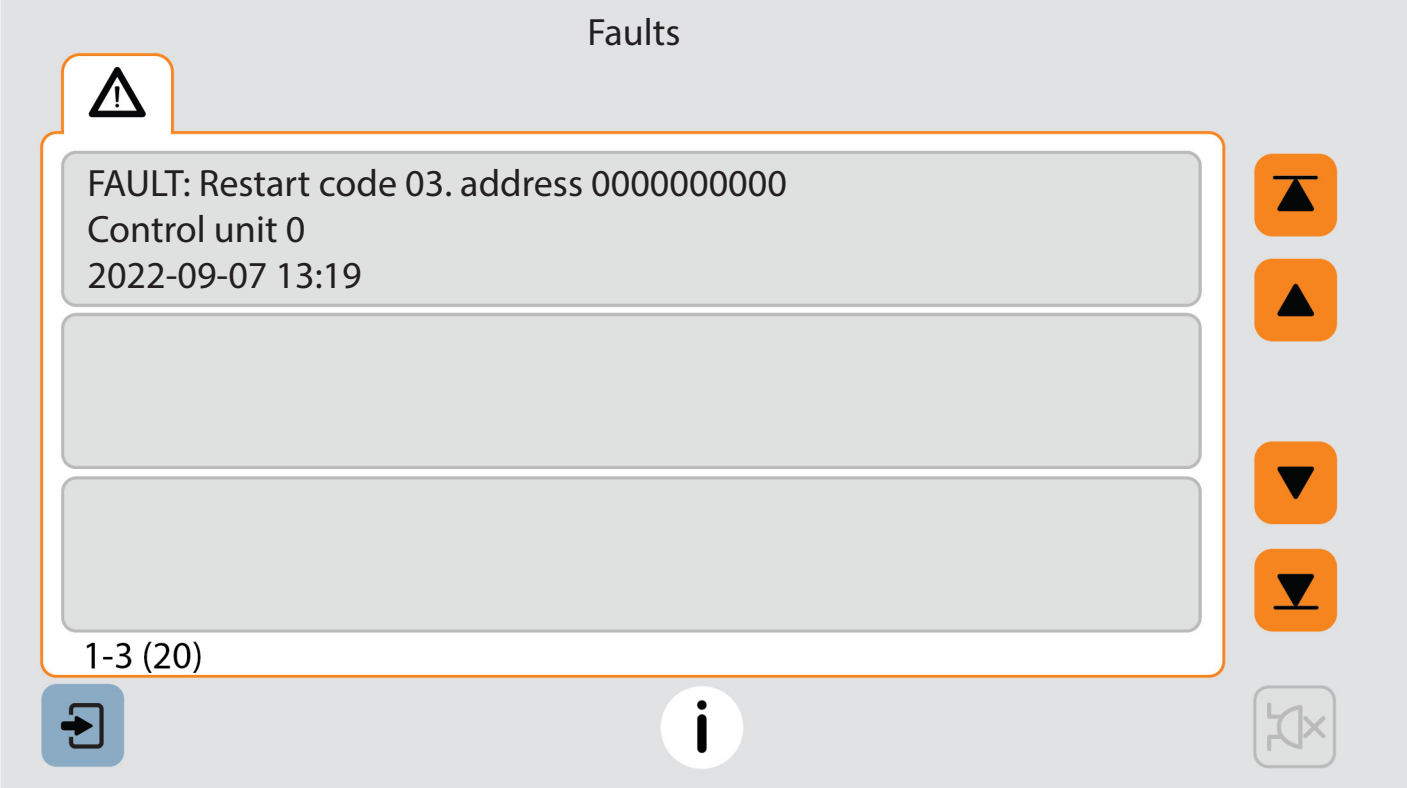
OR

e) If not, the control unit will restart automatically after 300 seconds (5 minutes).



AFTER RESTART

After a restart, see chapter 23. RESTART on page 63, there will always be one restart fault. The code will be 00 after Power off / Power on restart and 03 after a countdown restart. Address 0. This fault must be acknowledged, see chapter 25.1.1. FAULT on page 70.



Before the very first safe shut down the Flash memory is empty. Then every time safe shut down is performed the valid data will be saved in the Flash memory, i.e. any old data will be overwritten. When the CIE is powered up, the data stored in the Flash memory will be used.

If safe shut down is not performed just before you power off a control unit, then by power on, the Flash memory might be empty which means the default settings will be used. Or the stored data might be old and not valid.

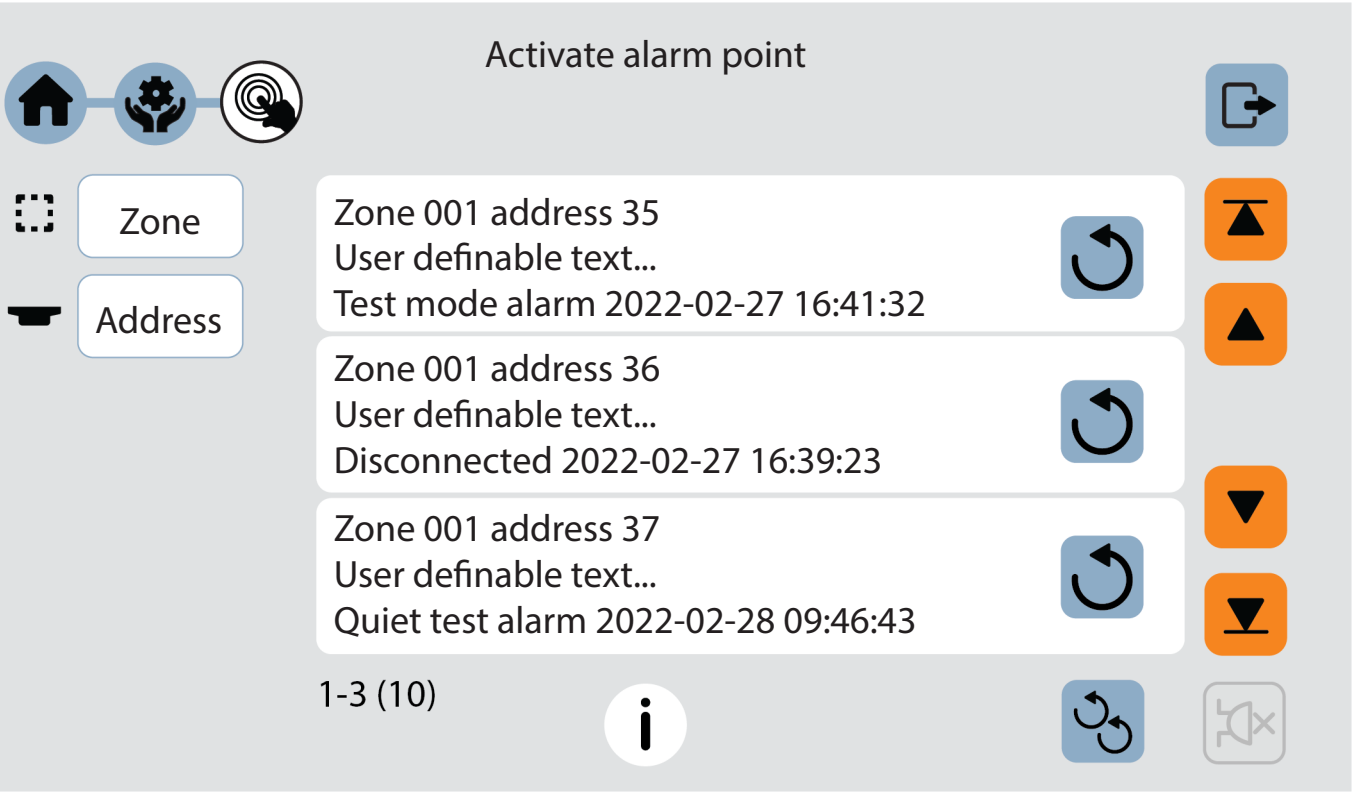
25.7.5. ACTIVATE ALARM POINT

One alarm point (zone-address), not a whole zone, can be set in alarm. It will be presented as a fire alarm, the built-in LED in the alarm point (for example a detector) will be turned on and all outputs, standard and programmable, which would have been activated by a normal fire alarm from the same alarm point will be activated.

If a real fire alarm occurs, the "Test mode alarm" will be automatically reset by the actual fire alarm.

A detector programmed for "Quiet alarm" will activate a Quiet test alarm instead of a fire alarm.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Enter the wanted zone and address.
d) Press to start the alarm mode of this zone address.



RESET

e) Press the to reset the alarm point or to reset all alarm points. Reset alarm points will disappear from the list.
f) Press to leave this menu.

This manually activated fire alarm will be presented as "Test mode alarm" on the control unit touch screen and indicated by the LEDs "Fire" and "Fire brigade tx activated".

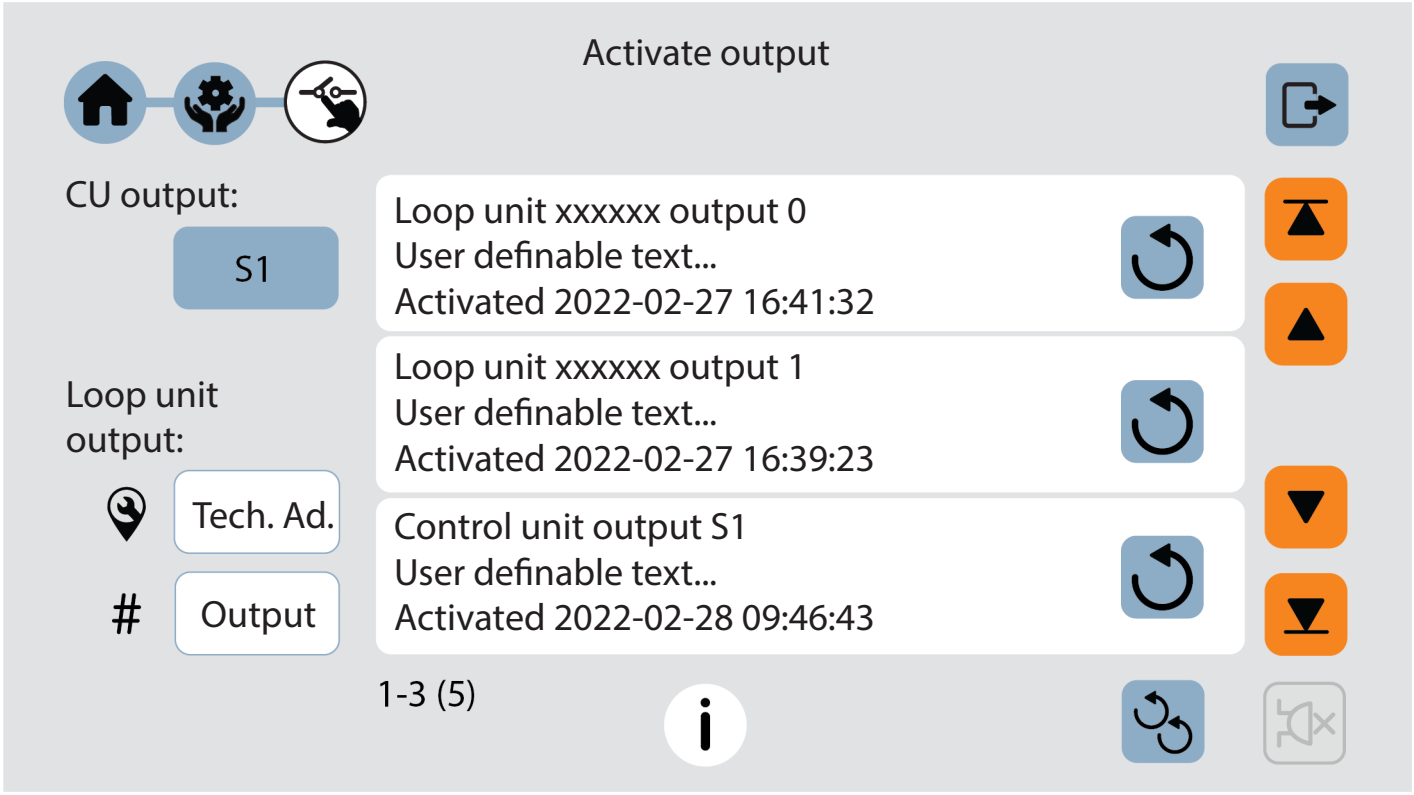
25.7.6. ACTIVATE OUTPUT

Via this menu, a loop unit output and control unit output can be activated and reset.

Any output can be activated, which means the function can be tested. (Can also be done via EBLWin.)
This is including Addressable sounder base 4479, wireless detector 4611, light indicator 4383, and all alarm devices 4480, 4481, 4482, 4487.

The selected output will be activated no matter if the control expression is true or not. The selected output will be reset only if the control expression is false. If the control expression is true when you reset the output, the output will remain activated until the control expression is false again.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Press S1 to activate control unit output S1
d) Enter the technical address of the loop unit and press ↵ to activate. The activated output will directly be shown in the list.



RESET

e) Press the ↺ to reset an output or ↺ to reset all outputs. Reset outputs will disappear from the list.
f) To exit the menu press .

25.7.7. ACTIVATE INTERLOCKING

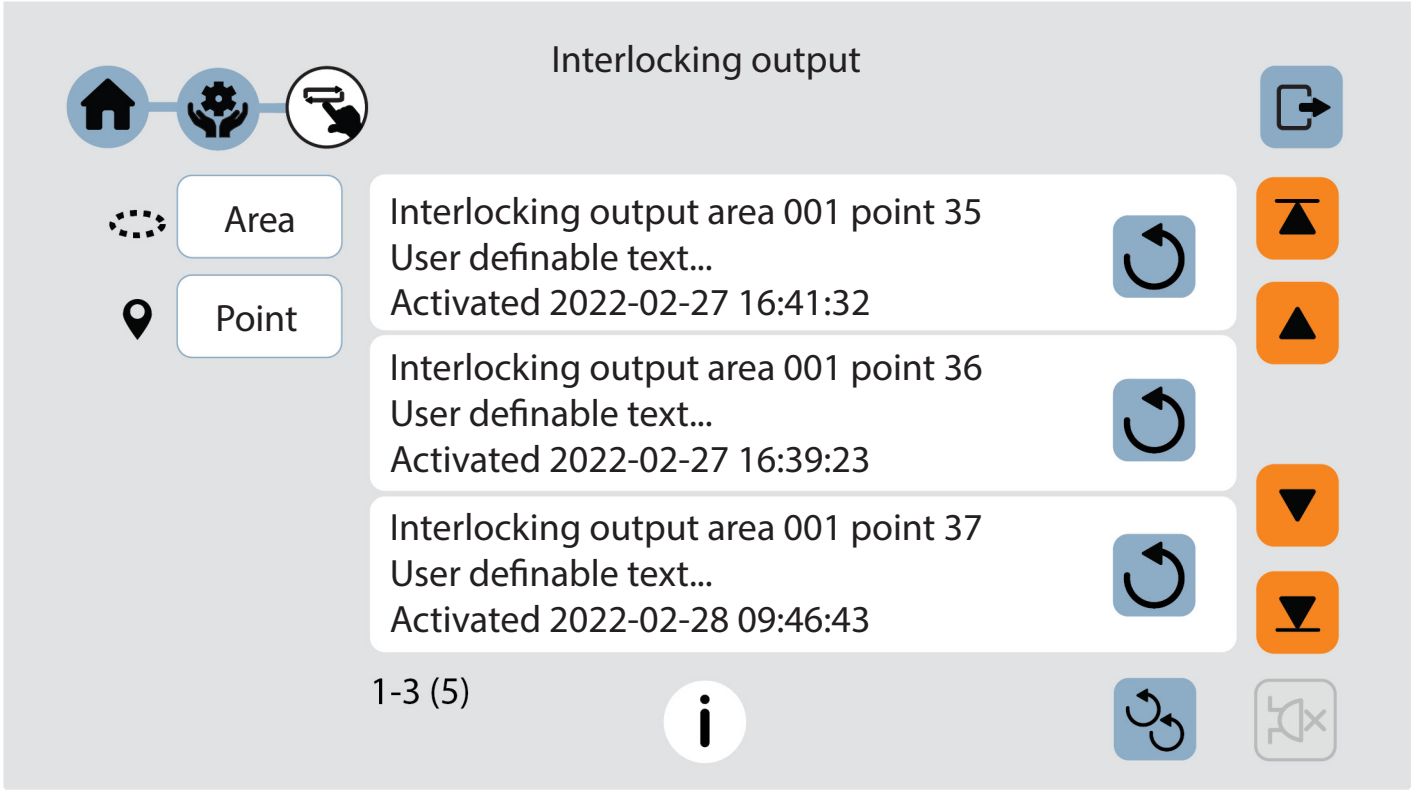
The output in each interlocking combination (area / point) can be manually activated via this menu. The corresponding interlocking input will be "monitored" in the same way as if the output was activated by its control expression.

The output in each interlocking combination (area / point) can be manually deactivated via this menu.

The output will be deactivated also if its control expression still is true and cannot be activated again until after its control expression has been false again.

Also a latched output will be deactivated. If an interlocking output is activated via its control expression and with latching output selected (in EBLWin), the output must be deactivated via this menu.

a) Log in to the CIE.
b) Navigate to menu > > .
c) Enter the area number and address and press to activate. The activated output will directly be shown in the list, indicated by a beep.



DEACTIVATE

d) Press the to deactivate an output or to deactivate all outputs. Deactivated outputs will disappear from the list.
e) To exit the menu press .

26. BATTERY MAINTENANCE

The batteries - 1 or 2 x 12 V, 17 Ah (for example Panasonic LC-PD1217PG) – are placed inside the control unit.

The control unit supervise and charge the batteries and a fault will be generated for any battery trouble.

The batteries, rechargeable Sealed Lead-Acid batteries, shall fulfil UL94V-0. The batteries are normally maintenance-free but the producer's instructions shall always be followed.

The ambient temperature affects the battery's capacity, self-discharge and life span. The temperature should preferably not be higher than normal room temperature (approximately 20-22°C). For highest safety, the batteries used in a fire alarm installation should not be more than four years old.

Risk of explosion if battery is replaced by incorrect type. Dispose used batteries according to the producer's instructions and national regulations.

27. HOW TO AVOID NUISANCE FIRE ALARMS

We all realise, when life, buildings, production facilities, etc. shall be saved, it is of utmost importance that an initial fire is detected as soon as possible. That's why more and more automatic fire alarm systems are installed.
In an automatic fire alarm installation, especially if smoke detectors (sensors) are used, everybody in the building needs to be informed how to avoid so called unnecessary (nuisance) fire alarms.
To avoid trouble and unnecessary expenses there are a couple of things to bear in mind. Here are some advice and tips.

TOBACCO SMOKE

The detectors (sensors) cannot sense the difference between "smoke" and "smoke". They cannot separate tobacco smoke from smoke from a fire. Intensive tobacco smoking in conjunction with bad ventilation can cause a fire alarm. Welding, grinding, cutting, sawing & drilling These kinds of jobs cause smoke.

CARPET WELDING

Welding of plastic carpets causes a smoke that can be almost invisible, but it still influences the smoke detectors (sensors).

COOKING FUMES, TOASTING & CANDLES

It is not only "normal smoke" that influences smoke detectors (sensors). It is all kinds of "combustion products", caused by cooking (frying/grilling), toasting, etc.

Be careful when smoke detectors (sensors) are mounted near / close to such activities.

SPECIAL ENVIRONMENTS

In certain premises a special environment can exist, which can influence smoke detectors (sensors) and cause alarm. It can be ions (from plastics), flour dust, oil haze, aerosols, strong perfumes, strong ventilation, insecticides, disinfecting sprays, etc. If many odd and unnecessary alarms occur, the environment must be examined and perhaps other detector types have to be chosen.

STEAM / HOT AIR

Smoke and heat detectors are influenced by steam and hot air, for example. from an oven, dry-blower, heater, and so on.

EXHAUSTS

Exhausts from cars / trucks, lift trucks, lawn mowers, etc. influences smoke detectors (sensors). If windows and doors are open, exhausts can "slip in" that way.

LACK OF MAINTENANCE

Smoke detectors (sensors) are influenced by their environment and become "dirty". In an analog system (like EBLOne) a Service signal is given when it is time to exchange the smoke detectors (sensors) to new ones. The alternative is to exchange detectors at given periods, to be on the safe side.

CHANGE IN ACTIVITIES OR WRONG CHOICE OF DETECTOR

If the activities in the premises are altered, the detector choice might also need to be altered. Due to special environments, see above, an inappropriate detector type might have been chosen from the beginning and thus cause unnecessary alarms.

ACTIONS VIA EBLWIN

Choosing another type of detector can solve certain problems. Bear also in mind, that the coverage area can be different for different types of detectors.

It is however not always the best action to change detector type. Here is a list of other actions, programmed via EBLWin, which can be used:

- Another alarm algorithm can be used (e.g. during working hours).
- Alarm delay for smoke detectors / sensors can be used.
- Two-zone or two-unit dependent (co-incidence) fire alarm activation can be used.
- In an installation with addressable detectors / sensors, the affected detectors can be individually disabled (or whole zones) for temporary work in the premises. Bear in mind that the smoke spreads, and consideration must be taken to adjacent detectors / zones. Disablements can be done automatically via a time channel (built-in or external) or via Disable menu > . Automatic re-enabling can be used.
- If there is an alarm organisation for the personnel on site, the alert annunciation function can be used.
- Pre-warning can be used as information before a fire alarm is activated.

28. RADIOACTIVE RADIATION SOURCE

Today, Panasonic have no ionization smoke point detectors but old detectors connected to the EBLOne installation might be smoke sensors / detectors of the ionization type. They contain a small radioactive radiation source, normally Americium 241.

When these sensors / detectors gets dirty and when service signal has been activated in the system, contact your local dealer for cleaning / replacement of the sensors / detectors.

Metal objects must absolutely not be stuck into the sensor / detector. Static electricity might destroy the detector.

Defective / faulty, discarded and replaced sensors / detectors shall be taken care of as radioactive waste. They shall be packed in chock absorbing material to make a stable parcel.

The Aspirating smoke detectors Aspect Nitro and Lazeer contain a small radioactive radiation source, Americium 241. These detectors must only be handled by authorized personnel. Dismounted detector must be sent to Panasonic Fire & Security Europe AB.

PLEASE NOTE!
Damaged sensors / detectors shall be packed in a sealed packet whose surface must not be contaminated, that is, not be soiled with loose radioactive dust.

National regulations must be followed.

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