

Operating Instructions

MEW01623

Revision -

Fire Alarm System EBL128 V2.0.x

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1 Introduction

EBL128 Operating Instructions is a document¹ intended to be used by the **end-user** and the **fire brigade** personnel as well as **service / commissioning engineers**.

It could be read in conjunction with the EBL128 Planning Instructions, since most of the information in one of the documents is not found in the other document and vice versa.

It should also be read in conjunction with the EBL128 drawings², according to the valid Table of drawings.

Product Leaflets are also available at:

<http://pesn.panasonic.se> (Data sheets)

When planning a fire alarm installation the national regulations have to be obeyed. A lot of detector types can be used. Detector coverage area and detector placing in the room / building, etc. are matters for the planning engineers and are not described in this document.

Due to continual development and improvement, different S/W versions are to be found. This document is valid for the EBL128 S/W **version 2.0.x**. On the date of this document is x=0.

EBL128 S/W **version 2.0.x** support and some functions require the EBL128 main board 4556 with p.c.b. no. 9285-6A. This S/W version also support main board with p.c.b. no. <9285-6A (e.g. 9285-5A).

EBL128 is produced for many countries, accordingly the look, the texts, the functions, etc. might vary from country to country.

Products

Products consists of one or more parts (H/W) according to a **Product Parts List**. A product has:

- a **type number** (e.g. **4550**)
- an **article number**, often the same as the type no. but sometimes a country code is added (e.g. **4550SE**)
- a **product name** (e.g. **EBL128 Control & Indicating Equipment, 128 addresses**)

H/W

A H/W (e.g. a **printed circuit board**) has:

- a **type number** (e.g. **4556**)
- an **article number**, often the same as the type no. but sometimes a country code is added (e.g. **4556SE**)
- a **product name** (e.g. **Main Board 255 addr.**)

¹ File name: L:\User documents\128\Doc\V2.0.x\MEW01623 (Rev -).doc

² Dimensions & overviews, connection diagrams, etc.

- a **p.c.b. number** (e.g. **9285-6A**) and can also have a configuration (e.g. **CFG: 1**) and a revision (e.g. **REV: 2**)
- sometimes is a **S/W** (software) downloaded.

S/W

A S/W has:

- a **version number** (e.g. **V2.0.0**)
- sometimes is additional information, such as **Convention** (different functions / facilities), **Language**, etc. added.

PC S/W

A PC S/W is a program used for programming, commissioning, etc. It has a **version number**.

2 Definitions / Explanations

Definitions / explanations / abbreviations / etc. frequently used or not explained elsewhere in the document.

2.1 PESN AB

Panasonic Eco Solutions Nordic AB

2.2 Alarm point

Unit, which can generate a fire alarm, i.e. an analog or conventional detector, a manual call point, etc.

2.2.1 Smoke detector

One type of analog and conventional smoke detectors is available: the photo electric (optical) smoke detector.

2.2.2 Sensor

Sensor = Analog detector

2.2.3 Analog detector

Contains an A/D-converter. EBL128 picks up the digital values ("sensor values") for each detector individually. All evaluations and "decisions" are then made in EBL128, i.e. by advanced alarm algorithms. As from version 2.0.x the latest detector generation (440x) can be used. In the "Advanced mode" the alarm algorithms are stored in the detector instead of the control unit. Analog detectors are addressable – an address setting tool is used for address and mode settings. An analog detector has to be plugged in an ASB.

2.2.4 (Analog) Sensor Base (ASB)

A sensor is plugged in an ASB, which is connected to a COM loop (see below).

2.2.5 Conventional detector

Detector with two statuses, normal or fire alarm. The detector contains 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 are water proof and are not plugged in any base. An end-of-line device is connected in the last unit on the conventional zone line.

2.2.6 Conventional Detector Base (CDB)

A conventional detector is plugged in a CDB and connected to a conventional zone line input.

2.2.7 Addressable

A unit with a built-in address device (e.g. a manual call point). Each unit is individually identified, handled and indicated in EBL128.

(The unit can consequently be an I/O unit, to which one or more conventional "alarm points" can be connected on the zone line.)

2.2.8

Old detector

Conventional detector with a closing contact (short circuit; no alarm resistor), or detector with two breaking contacts.

2.2.9

Conventional zone line

Zone line input on e.g. an I/O unit, intended for one or more conventional alarm points. End-of-line device in the last alarm point.

2.2.10

Addressable zone interface

Unit with a zone line input, intended for one or more conventional alarm points. End-of-line device in the last alarm point.

2.3

Output unit

Addressable unit with programmable control outputs (e.g. an I/O unit). To be connected to a COM loop (see below).

2.4

Output / Control output

Defined or programmable function. Relay or (supervised / monitored) voltage output, in EBL128 or an output unit.

2.5

Short circuit isolator

Addressable unit for automatic isolation of a segment on a COM loop (see below) in case of short circuit on the loop.

2.6

Display unit (D.U.)

Unit for fire alarm presentation (incl. alarm texts, if programmed). Connected to an RS485 line.

2.7

COM loop

Loop = a cable (a twisted pair), to which all the addressable Panasonic COM loop units can be connected. It starts in EBL128 and it returns back to EBL128.

2.8

Control Unit (C.U.) / C.I.E.

Control Unit = C.U. = Control and Indicating Equipment (c.i.e.) = A unit, e.g. EBL128, to which the alarm points are connected. Indicates fire alarm, fault condition, etc. on the front, i.e. on the Fire Brigade & Control Panel (see below).

2.9

Fire Brigade Panel (FBP)

The Fire Brigade Panel is a part of the EBL128 front, intended for fire alarm presentation, etc. for the fire brigade personnel. A separate unit; an **external FBP**, can also be connected to EBL128.

In the ext. FBP a printer can be included.

2.10 Control panel (CP)

The Control Panel is a part of the EBL128 front, intended for the building occupier, service personnel, etc. to "communicate" with EBL128 / the system.

2.11 LED

LED (Light Emitting Diode) = Yellow, green or red optical indicator ("lamp").

2.12 External Indicator (LED)

A unit with an LED. Connected to an ASB, CDB or a detector with a built-in LED, for external indication. Lit when the built-in LED is lit.

2.13 Display / LCD

LCD (Liquid Crystal Display) = Display for presentation of fire alarms, fault messages, etc. Normally alphanumeric characters and backlight.

2.14 Door open / Key switch

A door / key switch, which has to be activated in order to get access to the push buttons on the front. Indicated by the LED "Door open".

2.15 Site Specific Data (SSD)

This data is unique for each installation. All alarm points, presentation numbers, alarm texts, programmable outputs, etc. are programmed (configured) in the PC program **EBLWin** and has to be downloaded in EBL128.

2.16 Software (S/W) / Firmware / System program

The S/W makes EBL128 (the microprocessor) work. It is factory downloaded but a new version can via the PC program **EBLWin** be downloaded in EBL128 on site.

2.17 EBLWin

PC program used to create and download the SSD in EBL128 unit. Also used to download another / new software version.

Can be used during commissioning / maintenance of the EBL128 system (autogenerate COM loop SSD, acknowledge faults, etc.).

2.18 Web-server

The **Web-server** is used to get EBL128 information as well as remote control via a PC (browser) and an intranet / internet. The Web-server is configured via the PC tool **EBLWin**.

3 Overview

3.1 The EBL128 c.i.e.

EBL128 is a microprocessor controlled intelligent fire alarm Control and Indicating Equipment (c.i.e.) intended for analog addressable smoke and heat detectors. Also conventional detectors and manual call points can be used. Programmable inputs, control outputs and I/O units are available. Up to 255 addresses can be connected to EBL128. EBL128 is fully compliant with the European standard **EN54 parts 2 and 4** and the front is fully **SS3654** compliant.

3.2 S/W versions

Due to continual development and improvement, different S/W versions can be found. You can update the S/W in EBL128 on site.

3.3 Documents

The following documents are available:

- Planning instructions
- Drawings
- Operating instructions

Information found in one document is normally not to be found in another document, i.e. the documents complement each other. Product Leaflet for EBL128 and other units are available as pdf documents on our web site: <http://pesn.panasonic.se>

3.4 Applications

EBL128 is intended for small and medium installations. The intelligent control unit offer the system designer and end user a technically sophisticated range of facilities and functions. Programming (via PC S/W **EBLWin**) and commissioning is very easy.

3.5 PC S/W

EBLWin is used for programming and commissioning, i.e. to:

- create / download / upload (backup) the site specific data (SSD)
- download new S/W version, language (text file), EBL128 settings (e.g. convention), etc.
- create / download the alarm texts shown in the display in EBL128, ext. FBP and/or AA units.

The EBLWin S/W shall have the same version number as the EBL128 S/W version number, e.g. **2.0.x**. Only x may be different. Old SSD files can be used with a newer EBL128 S/W version. Open and save the old SSD file in the new EBLWin version before the download. If

a backup is required, use the same EBLWin version as the EBL128 version.

EBLWin key 5094 is a USB unit that has to be plugged in the PC in order to log on to the c.i.e.

4 Control & Indicating Equipment



Figure 1. The EBL128 Control & Indicating Equipment (4550).

Depending on country, convention, configuration, etc. the look, language and functions might vary. Figure 1 shows an EBL128 with an English front. EBL128 is housed in a grey metal cabinet. The door has a Plexiglas ahead of the front, see Figure 1. A key is required to open the door to get full access to the push buttons on the front, i.e. the **Fire Brigade Panel (FBP)** and the **Control Panel (CP)**.

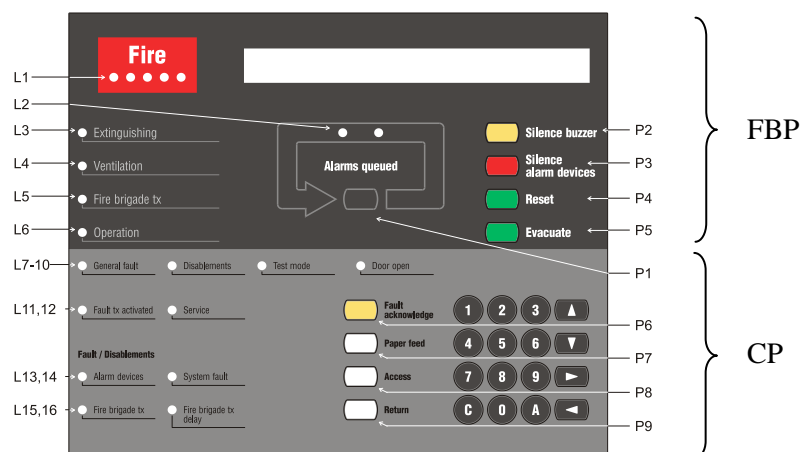


Figure 2. The EBL128 front. The look might vary depending on the country (language) configuration, etc. (e.g. English texts as in the figure). See also chapter "LED indicators and push buttons", page 16.

The FBP is used by the fire brigade personnel to see which alarm point / zone having activated the fire alarm(s), silence alarm devices, reset alarms, etc. In the display (LCD, 2x40 alphanumeric characters), the information displayed on the first row is depending on how many alarm points / zones having activated fire alarm, convention and language.

On the second row is, for the activated alarm point / zone, an alarm text shown, if programmed. See chapter "Fire alarm", page 42.

Required fire brigade personnel manoeuvres are performed via the FBP in EBL128 or via an external FBP 1826 / 1828.

Instead of external FBPs 1826 / 1828, the German Fire Brigade Control Panels (Feuerwehr-Bedienfeld) **FBF 2003** and/or German Fire Brigade Indicator Panels (Feuerwehr-Anzeigetableau) **FAT 2002** can be used.

The CP is used by the EBL128 owner, service personnel, etc. to "communicate" with EBL128, e.g. for monthly tests, disablements commissioning, maintenance and service. Access codes for different users and access levels are required. A keypad is used to get access to the menu tree, i.e. main and sub menus for data input / output, manoeuvres, etc. The CP also holds several system status LEDs.

5 LED indicators and push buttons

LEDs and push buttons can vary according to configuration / convention / country / language.

See also Figure 2, page 14.

LED indicators on the Fire Brigade Panel (FBP)		
LED indicator		Indicating
L1	Fire (5 red) Blinking (0.4/0.4s)	Fire alarm (also heavy smoke/heat alarm, Quiet alarm & key cabinet alarm) ³
L2	Alarms queued (2 red) Blinking (0.4/0.4s)	More than one unit / zone have generated fire alarm.
L3	Extinguishing (red)	Output(s) activated for <u>extinguishing equipment</u> . ⁴
L4	Ventilation (yellow)	Output(s) activated for <u>fire/smoke ventilation equipment</u> . ⁴
L5	Fire brigade tx (red)	Output activated for Fire brigade tx (routing equipment) and/or corresponding programmable output(s) of type routing equipment. ⁴ ----- Test of routing equipment in progress (see menu H1).
L6	Operation (green)	Power on, i.e. EBL128 is power supplied via the rectifier or the backup battery.

(FBP push buttons on next page)

³ In the New Zealand convention also "Acknowledged alarm" (ACK).

⁴ L3, L4 and L5 can as an alternative be programmed to indicate when a programmable input is activated, i.e. input trigger condition "Extinguishing system released", "Activated fire ventilation" and "Activated routing equipment" respectively (e.g. L5 can be turned on when a programmable input is activated by an activated routing equipment output). L5 is turned on until all fire alarms are reset.

Push buttons on the Fire Brigade Panel (FBP)		
Push button		Operation/function
P1	Alarms queued (black)	Used, when LEDs "Alarms queued" (L2) are lit, to scroll/browse through the queued alarms (zones).
P2	Silence buzzer (yellow)	Used to silence the buzzer in EBL128
P3	Silence Alarm devices (red) ⁵	Used to silence the sounders (i.e. to "reset" outputs for alarm devices). ⁶
P4	Reset (green)	Used to reset the fire alarm(s). ⁷ Has to be pressed for > 0.5 sec.
P5	Evacuate (green) ⁸	Used to activate all the sounders (i.e. the outputs for alarm devices).
	Alert Annunciation Acknowledge (green) ⁹	Used to acknowledge an Alert Annunciation alarm.
	Disable (yellow) ¹⁰	Used to disables all zones in alarm state.

⁵ In the New Zealand convention = The "inside switch".

⁶ Via EBLWin can be set if the alarm devices shall be continuous off / disabled **or** re-sound for a new alarm.

⁷ **Single reset:** The fire alarm displayed in the LCD (first row to the left) will be reset. When more than one fire alarm is activated (LEDs "Alarms queued" are lit) each fire alarm has to be individually reset.
Multiple reset (Default): All fire alarms will be reset simultaneously.

Single encapsulated reset: Like Single reset but with the Encapsulation function, which is described in chapter "Single with automatic disablement", page 55.

NOTE (1)! When "Multiple reset" is used, encapsulated reset can be done by pressing "Reset" (P4) and 0.1 sec. later also press "Alarms queued" (P1) and hold them pressed for > 0.5 sec. The fire alarm displayed in the LCD (first row to the left) will be encapsulated **or** the points in alarm status within one zone will be encapsulated **or** the whole zone (conventional) will be encapsulated.

NOTE (2)! When "Single encapsulated reset" is used, you can make a "Multiple reset" by pressing "Reset" (P4) and 0.1 sec. later also press "A" (in the keypad) and hold them pressed for > 0.5 sec.

⁸ "Evacuate" is only valid in the "Belgian", British Standard, Hungarian, Spanish and "Ukrainian" conventions.

⁹ "Alert Annunciation Acknowledge" is only valid in the "Czech", Bulgarian and "Polish" conventions.

¹⁰ "Disable" is only valid in the "Australian" and New Zealand conventions.

(CP LED indicators on next page)

LED indicators on the Control Panel (CP)		
LED indicator		Indicating
L7	General fault (yellow)	Fault(s), i.e. not acknowledged fault(s) and/or acknowledged but not corrected fault(s).
L8	Disablements (yellow)	Something is disabled / disconnected via a menu or automatically via "Single encapsulated reset" ⁷ .
L9	Test mode (yellow)	One or more zones are in "test mode".
L10	Door open (yellow)	A door is open (in EBL128 or an ext. FBP). ¹¹
	¹² Störung Löschanlage (yellow)	An input with trigger condition "Extinguishing system fault" is activated (true).
L11	Fault tx activated (yellow)	Output activated for Fault tx (routing equipment), i.e. one or more not acknowledged faults.
		Test of routing equipment in progress (see menu H1).
L12	Service (yellow)	One or more sensors have reached the service level. See menu H4/U4.
	¹² Leitungsstörung Löschanlage (yellow)	Short-circuit or cut-off (open circuit) on a supervised input OR a supervised output type "Extinguishing".
L13	Fault / Disablements Alarm devices (yellow)	One or more outputs (type Alarm device) are <u>disabled</u> . Blinking: One or more supervised outputs (type Alarm device) have generated <u>fault(s)</u> . ¹³
L14	System fault (yellow)	EBL128 is not running (because of S/W, CPU or memory fault). ¹⁴
L15	Fault / Disablements Fire brigade tx (yellow)	Output for Fire brigade tx (routing equipment) is <u>disabled</u> via menu (H2/B10) or via an open door. ¹¹ Blinking: Routing equipment power supply output ¹⁵ or one or more supervised outputs (type Routing equipment) have generated <u>fault(s)</u> . ¹⁶

¹¹ See also chapter "Door open", page 36.

¹² L10 and L12 have different functions on the German front.

¹³ This is also valid when EBL128 has no "contact" with a unit with such an output, e.g. 3377, 3378, 3361, etc.

¹⁴ The LED is turned on during restart and stays on for restart code other than 00, 03 or 25 until the fault is acknowledged.

¹⁵ Main board terminal block "J1:11-12".

¹⁶ This is also valid when EBL128 has no "contact" with a unit with such an output, e.g. an I/O unit 3361, etc.

L16	Fire brigade tx delay (yellow)	The Alert Annunciation function is enabled, i.e. the time channel controlling this function is "on". ¹⁷
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¹⁷ The **Alert Annunciation** function is described in the EBL128 Planning Instructions, chapter "Alert annunciation". The LED "L16" will be "on" if the **AA** function is enabled for at least one alarm point / zone. Normally is only one time channel used for this function but two or more channels can be used. The **AA** function can, as an alternative, be continuously "on".

Push buttons / Keypad on the Control Panel (CP)		
Key/push button		Operation/function
P6	Fault acknowledge (yellow)	Used to acknowledge the faults shown in menu H6. Also used to acknowledge SERVICE signal, see menu H8/S4. ¹⁸
P7	Paper feed (white)	Not used in EBL128.
P8	Access (white)	Used to log on, i.e. to get access to the menu tree (via an access code) to carry out disablements, etc. In conjunction with a fire alarm, some information is available and some actions are possible to perform via the "Fire alarm menu" (X1-X9) without log on, see chapter "Fire alarm", page 42.
P9	Return (white)	Used to stop input of data, leave a menu ("one step up") and to log off.
	1 – 9 and 0	Numeric keys for the figures 0-9.
	C	Used to clear /delete just written data.
	A	Used to accept a menu and accept input of data.
	← → ↑ ↓	Left / right keys are used to move the cursor in a menu. Up / down keys are used to scroll between the menus.

¹⁸ In the New Zealand convention only, used to acknowledge a Fire alarm, i.e. the alarm information "ALM" in the LCD is changed to "ACK".

6 Normal operation

When EBL128 is in normal operation and in quiescent state, i.e. no fire alarms and normally no faults, no disablements, no service signal, no zones in test mode, no activated interlocking in / outputs and/or no open doors, only the LED "Operation" (L6) shall be lit.

6.1 The display in EBL128

The display (LCD) will in normal operation and in quiescent state show the following information:

```
YYYY-MM-DD   *** EBL128 ***   hh:mm [i]  
User programmable information text.
```

Top (first) row¹⁹:

YYYY = Year, e.g. 2005

MM = Month, e.g. 02 (=February)

DD = Day, e.g. 28

hh = hours, e.g. 21

mm = minutes, e.g. 45

[i] = Will only be shown in case of one or more Technical Warnings in the system.

NOTE! The way the date is presented can be different for different languages, e.g.: **DD-MM-YYYY**.

Bottom (second) row:

The information on the bottom row (40 characters) can be created via EBLWin, i.e. it is user definable.

6.1.1 LCD backlight

When the information above is shown in the LCD, the backlight is OFF.

As soon as any other information (see below) is shown in the LCD, the backlight is turned ON.

In order to reduce the current consumption, the LCD backlight will be turned OFF if the c.i.e. is powered only by the second power source, i.e. the battery.²⁰

6.1.2 The LCD information priority order

The different type of alarms, faults, etc. listed below are described in other parts of this document.

¹⁹ The information on the top row (40 characters) is included in the text file downloaded in EBL128, i.e. the information could be different than the one showed above.

²⁰ In the Australian and New Zealand conventions, the LCD backlight will **not** be turned OFF even if the c.i.e. is powered only by the second power source.

The priority order is shown in the following table:

Priority	Event
1	Fire alarms (see below)
2	Quiet alarm
3	Co-occurrence alarm
4	Delayed alarm
5	Pre-warning
6	Test mode alarm
7	AAF alarm ²¹
8	Evacuate information ²²
9	<i>New Zealand convention only:</i> Routing equipment left isolated
10	Fault (not acknowledged)
11	Disablement
12	Zones in "Test mode"
13	Interlocking input / output active
14	Information in normal operation in quiescent state

NOTE! Fire alarms are:

Fire alarm

Heavy smoke/heat alarm

Alert Annunciation (AA) alarm

Key cabinet alarm

Acknowledged alarm (New Zealand only)

Isolated alarm (New Zealand only)

The different type of events and the menu system are described in other parts of this document. Regarding "priority 14", see page 21.

NOTE!

When "More..." is shown, it is possible to scroll between the items with "↓" and "↑".

²¹ The AAF function is used in conjunction with an AAF Control, which is available on the Australian market only.

²² Only valid for Belgian, British Standard, Hungarian, Spanish and Ukrainian conventions.

7 User level, User name & Password

EBL128 has different user levels for different kind of users.

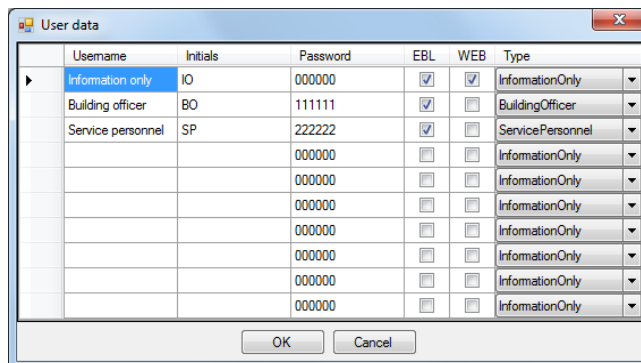
To log on to an EBL128 (version ≥ 2.0) a **User name** and a **Password** are required (see page 81). Ten different User names with individual Passwords can be used. Each User name is for a specific user level, which has access to specific menus according to the following table.

User level according to EN54-2	User level name / type	Required action / equipment	Access to
1	-	No. (Hole in the Plexiglas.)	Alarms queued button.
2A	-	Fire brigade key. (To open the door.)	Like 1 + Silence buzzer, Silence alarm devices & Reset buttons.
2B	Information only	Like 2A + log on as "Information only"	Like 2A + keypad. Menu H4, H6 ^{a)} , H9 ^{b)} & H10
2C	Building officer	Like 2A + log on as "Building officer"	Like 2A + keypad. H1-H4, H6, H7, H9 & H10
3A	Service personnel	Like 2A + log on as "Service personnel"	Like 2A + keypad. H1-H10
3B	-	PC + EBLWin + H/W key	SSD & S/W download
4	-	PC + EBLWin + H/W key + special password	SSD & S/W download + reset of alarm counter.

a) Information only, i.e. the faults cannot be acknowledged.

b) Menu H9/C1 only.

Via EBLWin (menu "System") are ten different User names with individual Passwords possible to define in the "User data" dialog box. They can be used to log on to an EBL128 (version ≥ 2.0) and/or Web-server access. Three User names and Passwords are default:






NOTE! Initials are required in system EBL128 since they will be used in the event log instead of the User names.

7.1 User level 1

With the door closed, **anybody** has access to the push button "Alarms queued" (P1) to scroll / browse through the queued alarms.

7.2 User level 2A

After the door has been opened with the fire brigade key (LED "Door open" is lit), **the user / fire brigade personnel** have access to the following push buttons:

Push button	Operation/function
P2 	Silence the buzzer in the c.i.e.
P3 	Silence all alarm devices (sounders).
P4 	Reset fire alarms. (see below)

NOTE! Fire alarms are:

- Fire alarm (incl. heavy smoke/heat alarm)
- Alert Annunciation (AA) alarm
- Key cabinet alarm
- Co-occurrence alarm (if not reset automatically)
- Acknowledged alarm (New Zealand only)
- Isolated alarm (New Zealand only)

7.3

User level 2B

After the door has been opened with the fire brigade key (LED "Door open" is lit), you have access to level 2A and after log on as "Information only" (level 2B), access to the following menus:

H4 Present system status
U1 Disablement
U2 Disablement by time channel
U3 Sensor values
U4 Sensors activating SERVICE signal
U5 Technical warning
U6 Event log
U7 Version and alarm counter
H6 Display FAULTS NOTE! Information only!
H9 Interlocking outputs and inputs
C1 Activated interlocking outputs / inputs
H10 Change password (In this case for "Information only".)

7.4 User level 2C

After the door has been opened with the fire brigade key (LED "Door open" is lit), you have access to level 2A and after log on as "Building officer" (level 2C), access to the following menus:

H1 Perform monthly test
H2 Disable or re-enable
B1 Disable Zone
B2 Disable zone-address
B3 Disable output
B4 Disable all control, ventilation, exting or interlocking outputs
B5 Re-enable zone
B6 Re-enable zone-address
B7 Re-enable output
B8 Re-enable all control, ventilation, exting or interlocking outputs
B9 Disable / re-enable alarm devices
B10 Disable / re-enable outputs for routing equipment
B11 Disable / re-enable alert annunciation function
H3 Set calendar and clock
H4 Present system status
U1 Disablement
U2 Disablement by time channel
U3 Sensor values
U4 Sensors activating SERVICE signal
U5 Technical warning
U6 Event log
U7 Version and alarm counter
H6 FAULT Acknowledge
H7 Perform ZONE TEST ("Test mode")
H9 Interlocking outputs and inputs
C1 Activated interlocking outputs / inputs
C2 Activate interlocking output
C3 Reset interlocking output
C4 Disable interlocking output
C5 Re-enable interlocking output
H10 Change password (In this case for "Building officer".)

7.5 User level 3A

After the door has been opened with the fire brigade key (LED "Door open" is lit), **the service / maintenance personnel** have access to level 2A and after log on as "Service personnel" (level 3A), access to all menus, i.e. like level 2C and also to the following menus:

Same menus as in access level 2C plus the following:
H5 Service
A1 Calibration of supervised outputs
A2 Sensitive fault detection mode
A3 Service mode for COM-loop
A4 Display current consumption in unit
A5 Display current consumption on COM-loop
A6 Display statistics for COM-loop
A7 Activate address setting mode for DU
A8 Show information about site specific data
H8 Maintenance
S1 Disconnect / Re-connect COM-loop
S2 Disconnect / Re-connect zone line input
S3 Disconnect / Re-connect addressable zone interface input
S4 Acknowledge SERVICE signal
S5 Restore weekly average to default
S6 Test of alarm devices
S7 Safe shut down of control unit
S8 Activate zone/address in alarm mode
S9 Activate output
S10 Reset activated output
H10 Change password (In this case for "Service personnel".)

7.6 Access level 3B

Used by Service / maintenance / commissioning engineers when a PC (i.e. **EBLWin**) is to be connected to EBL128 for backup (upload), download of site specific data (SSD) and/or download of software. An **EBLWin** key in the PC is required.

7.7 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. A special password is required.

8 Silence Alarm devices

In EBL128, on the FBP, there is a push button "Silence Alarm devices" (P3).

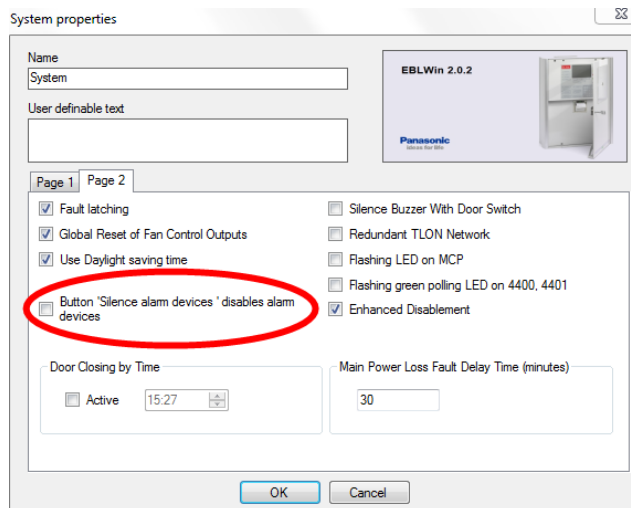
If the push button "Silence Alarm devices" is pressed during a pre-warning, a fire alarm²³ or a Co-incidence alarm, the following will happen:

- LEDs "Fire" (L1) and "Alarms queued" (L2)²⁴ continue to be **blinking** (0.4 / 0.4).
- Activated outputs²⁵, programmed for sounders (type Alarm devices), will be silenced.

In case of a new alarm, or if the push button "Silence Alarm devices" is pressed again, the sounders will automatically sound again.

NOTE! This is also valid for Pre-warning and Co-incidence alarm.

In EBLWin, the option *Button "Silence alarm devices" disables alarm devices* can be selected.



In this case the button "Silence alarm devices" (P3) will have the same function as in the menu H2/B9, see page 96. See also chapter "Disable / Re-enable alarm devices", page 32.

In the Australian and New Zealand conventions only, the "FIRE" LEDs will indicate steady instead of blinking when the alarm devices are disabled.

²³ In the New Zealand convention "Acknowledged alarm" (ACK) as well.

²⁴ When more than one fire alarm is activated.

²⁵ Including Addressable siren 3377 / 4477, Addressable sounder base 3379, Addressable beacon 4380 and Light indicator 4383.

8.1 Silence alarm devices (inside switch)

NOTE! The functions in this chapter are valid for the New Zealand convention only.

The button "Silence alarm devices" (P3) is called the "inside switch" and has the following function:

The inside switch toggles between two states.

- **Alarm devices disabled**
All programmable outputs of type "Alarm devices" are disabled, i.e. they cannot be activated.
- **Alarm devices not disabled**
All programmable outputs of type "Alarm devices" enabled, i.e. they can be activated.

If the inside switch is in its disabled state when the c.i.e. door is being closed the buzzer will beep once and the message "Silence switch left active" will be shown in the LCD. For priority order see chapter "The display in EBL128", page 21.

NOTE! The inside switch has no function if the outside switch (see below) is activated (ON).

8.2 New Zealand FB Silence switch (outside switch)

NOTE! The functions in this chapter are valid for the New Zealand convention only.

The "**New Zealand FB Silence switch**" is called the "outside switch" since it is placed outside the c.i.e. The outside switch is a key switch and connected to a programmable input with the trigger condition "New Zealand FB Silence switch".

The outside switch can be in two states.

The outside switch is turned ON (i.e. from not activated to activated state).

- All programmable outputs of type "Alarm devices" are disabled, i.e. they cannot be activated. The "inside switch" (see above) has no function.
- LEDs "Fire" (on the front) changes from blinking to steady (continuous).²⁶
- The c.i.e. built-in buzzer is disabled.
- A fault is generated²⁷: "FAULT: FB Silence switch active".

²⁶ This is valid also if the fire alarm is activated after the outside switch is turned ON.

The outside switch is turned OFF (i.e. from activated to not activated state).

- The fault "FAULT: FB Silence switch active" will be **Serviced**.²⁸
- Any alarm point / zone in fire alarm state will automatically be disabled / isolated. (I.e. it has to be re-enabled via menu H2/B5-B6.)
- Any alarm point / zone in fire alarm state will automatically change state to "Isolated alarm" and in the fire alarm list (presented in the LCD) will "**ALM**" be changed to "**ISO**".

An example:

```
ISO ZONE-ADDR 12-46 LAST ZONE 12 No. 01  
This is a user defined alarm text.
```

- The c.i.e. built-in buzzer is re-enabled.

²⁷ Always latched, regardless of if faults are programmed to be not latched.

²⁸ Since this fault is always latched, it has to be acknowledged via menu H6.

9 **Disable / Re-enable alarm devices**

All outputs²⁵ programmed for sounders (type Alarm devices) can via menu H2/B9 be collectively disabled. This is indicated by LED "Disablements" (L8) and LED **Fault / Disablements** "Alarm devices" (L13) steady (continuous).

NOTE! They will remain disabled until they are re-enabled again via menu H2/B9.

10 "Silence buzzer"

The EBL128 built-in **buzzer** will sound for:

- pre-warning (0.8 / 5 sec.)
- co-incident alarm: When only one **zone / address** (alarm point) is in alarm status (0.8 / 5 sec.)
- fire alarm and acknowledged alarm²⁹ (0.4 / 0.4 sec.)
- fault (continuous)
- activated interlocking input (0.8 / 0.8 sec.), if this option is selected via EBLWin.
- quiet alarm (0.8 / 5 sec.)
- delayed alarm

Press "Silence buzzer" (P2) to silence the buzzer.

In case of a new alarm or if the push button "Silence buzzer" is pressed again, the buzzer will automatically sound again.³⁰

NOTE! This is also valid for pre-warning, co-incident alarm, etc.

Silence buzzer by open door

In EBLWin, the function "Silence Buzzer by Door Switch" can be selected. The buzzer will then be turned off as long as the EBL128 door is open. (This function is a violation to the EN54-2 standard.)

Valid for the New Zealand convention only:

Silence buzzer by the "outside switch"

When the **New Zealand FB Silence switch** (outside switch, see page 30) is turned ON (i.e. from not activated to activated state) the buzzer is silenced until the outside switch is turned OFF.

10.1 Buzzer

If there is a fault or disablement when the door to EBL128 is being closed, the EBL128 built-in **buzzer** will give a 2 seconds beep directly after the door is closed. One fault message or disablement will be shown in the LCD but more faults and/or disablements will be indicated by the word **"more"**.

NOTE! In the New Zealand convention, if any of the outputs for routing equipment ("Fire brigade tx" and "Fault tx") or outputs for alarm devices is disabled when the door to EBL128 is being closed, the EBL128 built-in **buzzer** will beep continuously directly after the door is closed. "Alarm routing equipment left isolated", "Fault routing equipment left isolated" and "Silence switch left active" respectively, will be shown in the LCD. This information has higher priority than the normal fault messages and disablements.

²⁹ Acknowledged alarm in the New Zealand convention only.

³⁰ Not valid if the buzzer is silenced by the open door.

11 **Disable / Re-enable all control, extinguishing, ventilation and interlocking outputs**

All control outputs programmed as type:

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

... can via menu H2/B4 be collectively disabled, type by type. This is indicated by the LED "Disablements" (L8).

They will remain disabled until they are re-enabled again via menu H2/B8.

See also chapters "Disable all control, ventilation, exting or interlocking outputs (H2/B4)", page 90 and "Re-enable all control, ventil, exting or interlocking outputs (H2/B8)", page 95.

12 Evacuate, Alert Annunciation Acknowledge and Disable

- These functions are only valid in some conventions.
- A front with the push button (P5) is required.

See also chapters "Control & Indicating Equipment", page 14 and "LED indicators and push buttons", page 16.

12.1 Evacuate

When the green push button "Evacuate" (P5) is pressed, all outputs programmed for sounders (type Alarm devices)²⁵ will be collectively turned ON steady (continuous). This is indicated by the following information in the EBL128 display:

```
Evacuate in progress
```

The sounders will remain ON until they are turned OFF by pressing the push button "Evacuate" (P5) again.

NOTE! The alarm devices (sounders) will in this case be activated steady (continuous) irrespective of the fact that the outputs can be set to something else for fire alarm (e.g. intermittent).

12.2 Alert Annunciation Acknowledge

The green button "Alert Annunciation Acknowledge" (P5) has the same function as the Acknowledge button on an **AA** unit 1735 / 1736.

12.3 Disable

When the yellow push button "Disable" (P5) is pressed, all zones in fire condition will be disabled.

13 German functions / units

It is possible to connect some units that are required in Germany, e.g. Feuerwehr BedienFeld – FBF (German external Fire Brigade Panel) and Feuerwehr AnzeigeTableau – FAT (German Fire Brigade Indicator Panel).

When the German panels are connected the standard Display units – External Fire Brigade Panel, Alert Annunciation Unit and External Presentation Unit – **cannot** be connected and vice versa.

A German front is also required – with German texts and with different function on two of the LEDs (i.e. L10 and L12).

13.1 Push-button "ÜE prüfen"

When push-button "ÜE prüfen" on "Feuerwehr-Bedienfeld" (FBF) is pressed, the output to fire alarm routing equipment will be activated, if it is not disabled.

The output will be activated as long as the push-button "ÜE prüfen" is pressed, i.e. when the push-button is released the output will be deactivated. The push-button "ÜE prüfen" is non-locking.

During the test with push-button "ÜE prüfen", the c.i.e. shall send a signal to the FBF in order to indicate "ÜE ausgelöst" on the FBF. Since the c.i.e. supports fire alarm routing equipment (ÜEs) with or without feedback signal, there are two cases:

- 1) Without feedback signal: In this case the c.i.e. activates a signal to the FBF as long as the output to the fire alarm routing equipment is activated.
- 2) With feedback signal: In this case the c.i.e. activates a signal to the FBF if the output to the fire alarm routing equipment is activated and the c.i.e. receives a feedback signal from the fire alarm routing equipment. The signal to the FBF is latched as long as the output to the fire alarm routing equipment is activated.

13.2 Button "Brandfall Steuerungen ab"

The button "Brandfall Steuerungen ab" on "Feuerwehr-Bedienfeld" (FBF) will disable the three output types **Control**, **Fire ventilation** and **Extinguishing**. All these type of outputs are nominated as output G in DIN EN 54-1.

It is not possible to disable the outputs, with the button "Brandfall Steuerungen ab", when c.i.e. is in fire alarm condition.

When the outputs are disabled from the FBF (via button "Brandfall Steuerungen ab") it is not possible to re-enable them in the c.i.e. via menu H2/B8.

When the outputs are disabled in the c.i.e. via menu H2/B4 it is not possible to re-enable them from the FBF (via button "Brandfall Steuerungen ab").

13.3 Indication "Brandfall Steuerungen ab"

The indication "Brandfall Steuerungen ab" on "Feuerwehr-Bedienfeld" (FBF) is turned on if any of the three output types Control, Fire ventilation and Extinguishing is disabled.

13.4 Button "Akustische Signale ab"

The button "Akustische Signale ab" on "Feuerwehr-Bedienfeld" (FBF) has the same function as the menu "Disable alarm devices" (H2/B9) in the c.i.e.

If pushed during fire alarm condition the button "Akustische Signale ab" will also silence the buzzer in the c.i.e.

When the outputs are disabled from the FBF (via button "Akustische Signale ab") it is not possible to re-enable them from the CIE.

However, during fire alarm condition and if the outputs to fire alarm devices (outputs C) have been disabled from the c.i.e. it is possible to re-enable them from the FBF.

13.5 Indication "Akustische Signale ab"

The indication "Akustische Signale ab" on "Feuerwehr-Bedienfeld" (FBF) is turned on when the outputs to alarm devices are disabled.

13.5.1 Indication in button "Akustische Signale ab"

(Switch "1" on the DIP switch in FBF (2003) shall be in position ON.)

The LED in button "Akustische Signale ab" follow the indication "Akustische Signale ab" on "Feuerwehr-Bedienfeld" (FBF) i.e. LED turned on means that the outputs to alarm devices are disabled.

13.6 The buzzer in the c.i.e.

Even if the outputs to alarm devices are disabled, the buzzer in the c.i.e. will re-sound in case of a new alarm. It is possible to silence the buzzer by pressing the button "Akustische Signale ab" (outputs to alarm devices will be re-enabled) and immediately press the button "Akustische Signale ab" again (outputs to alarm devices will be disabled again). *In this case there is a risk that the alarm devices will sound for a short while.*

13.7 Button "ÜE ab"

The button "ÜE ab" on "Feuerwehr-Bedienfeld" (FBF) will disable all the outputs of type Routing equipment, nominated as output E in DIN EN 54-1.

NOTE! It is not possible to disable the outputs with the button "ÜE ab" when the c.i.e. is in fire alarm condition.

13.8 Indication "ÜE ab"

The indication "ÜE ab" on "Feuerwehr-Bedienfeld" (FBF) is turned on when the outputs of type Routing equipment are disabled.

When the outputs are disabled from the FBF (via button "ÜE ab") it is not possible to re-enable them via menu H2/B9 in the c.i.e.

When the outputs are disabled via menu H2/B9 in the c.i.e. it is not possible to re-enable them from the FBF (via button "ÜE ab").

13.9 Disablements of outputs; Information in the c.i.e. and FAT display respectively.

When outputs are disabled the information will be shown in the display in the c.i.e. and FAT respectively as follow:

<u>In the c.i.e.</u>	<u>In the FAT</u>	
Steuerausgang	ST	Absch.
Rauchabzug	Rauch	Absch.
Löshanlage	LB	Absch.
Alarmierungseinr.	Ak. Sig	Absch.
ÜE ab	ÜE-1	Absch.

14 Door open

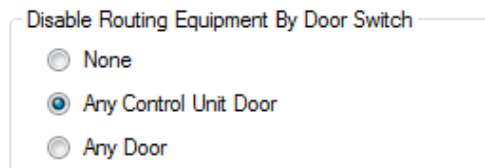
A special key is used to open the EBL128 door to get access to the front, see chapter "User level, User name & Password", page 23. The same type of key is also used to open the ext. FBP door / the key switch. Door open³¹ is indicated by LED "Door open" (L10).

14.1 LED "Door open"

Valid for the door in EBL128 or an external FBP connected to EBL128: Door open in EBL128 is indicated by LED "Door open" in EBL128. Door open in an ext. FBP is indicated by LED "Door open" in EBL128.

14.2 Outputs for routing equipment (Fire brigade tx and Fault tx)

In EBLWin the following can be programmed:



Disable Routing Equipment By Door Switch

- None
- Any Control Unit Door
- Any Door

None: The output(s) for routing equipment (Fire brigade and fault tx) will not be disabled by any open door.

Any Control Unit Door: Door open in EBL128 will disable the output(s) for routing equipment (Fire brigade and fault tx).

Any Door: Door open in EBL128 and/or Ext. Fire Brigade Panel will disable the output(s) for routing equipment (Fire brigade and fault tx).

Disabled outputs for routing equipment are indicated by the LED "Disablements" (L8) and "**Fault / Disablements** Fire brigade tx" (L15) and listed in menu H4/U1.

In the display is shown:

```
All outputs to fire alarm routing equip.  
disabled by open door
```

14.3 Silence buzzer

In EBLWin the following can be programmed:

Silence Buzzer With Door Switch

The buzzer in the control unit will be turned off as long as the EBL128 door is open.

(This function is a violation to the EN54-2 standard.)

³¹ In the ext. FBP 1828: when the key is turned to the "position open / access".

15 Technical address / Presentation number

15.1 Technical address for COM loop units

The technical address in EBL128 is used when programming (via EBLWin) all units connected to the COM loop.

The technical address is also used to identify which unit has generated a fault.

The technical address is equal to the address that is set in each unit connected to the COM loop with the Address setting tool 3314/4414.

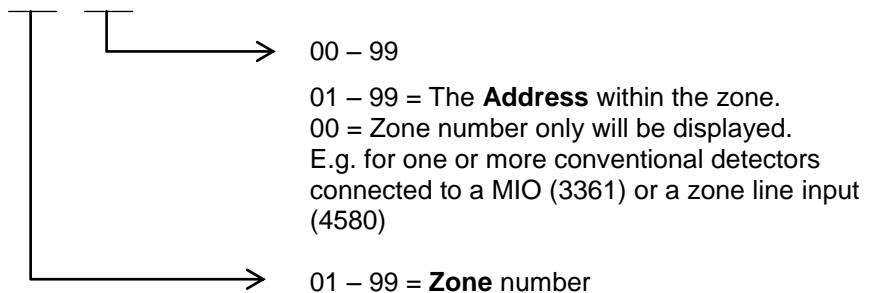
Addresses 001 – 255 can be set (not 000).

15.2 Presentation number

For each fire alarm point / zone line input, a presentation number, **NN-NN**, has to be programmed. The presentation number is shown in the display in EBL128 and in Ext. FBP 1826 / 1828, Alert Annunciation unit 1735 / 1736 and Ext. Presentation unit 1728, to identify the point / zone generating a fire alarm. It is also used to disable / re-enable fire alarm points / zones and in control conditions / expressions to activate the programmable outputs.

Together with the presentation number, an alarm text with up to 40 alphanumeric characters can be displayed (if programmed via EBLWin).

NN – NN



16 Alarm types

In case of a fire, analog detectors (sensors), conventional smoke and/or heat detectors, manual call points and programmable inputs can generate **fire alarm**.³² If somebody illegally breaks into a key cabinet, this will also generate a "fire alarm" (a Key cabinet alarm).³³

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.

In the Australian convention only, an **Alarm Acknowledgement Facility** function can be used. During the Acknowledgement Period and the Investigation Period respectively, there will be an indication in the c.i.e. display.

The analog detectors can also generate other type of "alarms", i.e. **Pre-warning, Heavy smoke alarm / Heavy heat alarm** and a two-unit / -zone dependent alarm point / zone can generate a **Co-incident alarm**.³⁴ **Quiet alarm** is used for fan control.

EBL128 can handle and present up to 256 fire alarms (alarm points and/or zones). Zone numbers 01-99 can be used and in each zone the alarm point (address) numbers 01-99 can be used. The fire alarms will be shown in the EBL128 display and in Ext. FBP 1826 / 1828, Alert Annunciation unit 1735 / 1736 and Ext. Presentation unit 1728.

Regarding the different alarm types, etc., see the following chapters.

16.1 Pre-warning

An analog detector will generate a pre-warning for a lower alarm level than the fire alarm level.³⁵ Pre-warning can be used when an early alarm and/or an early action is required (e.g. a "soft" computer shut down). Normal alarm devices, routing equipment, etc. will not be activated.

In case of a pre-warning, the following will happen:

- The buzzer in EBL128 sounds 0.8 sec. each 5th sec. (0.8 / 5 sec.).
- Outputs programmed for pre-warning are activated.³⁶
- On the first row in the EBL128 display, the presentation number (zone-address) is shown (for the first pre-warning).

³² In the New Zealand convention only, a Fire alarm (ALM) can be "changed" to an Acknowledged alarm (ACK) or an Isolated alarm (ISO).

³³ This is done via a programmable input.

³⁴ This function is normally used for smoke detectors only.

³⁵ See EBL128 Planning Instructions. Any programmable input can also be used to activate a pre-warning.

³⁶ Outputs programmed for General pre-warning and outputs programmed for the activated pre-warning(s).

- On the second row, an alarm text (= the fire alarm text) will be shown (if programmed).

Example; pre-warning zone 12, address 45 (within zone 12):

```
Pre-warning detector 12-45  
(alarm text)
```

Example; pre-warning zone 12:

```
Pre-warning zone 12  
(alarm text)
```

LEDs "Alarms queued" (L2) blinking are indicating more than one pre-warning and they will be automatically scrolled (each 5th second).

Pre-warning is automatically reset see chapter "Alarm reset", page 53.

16.2

Fire alarm

256 alarms (points or zones) can be presented in the EBL128 display.

See also chapter "The display in EBL128", page 21. According to the EN54-2 standard, in case of a fire alarm, the following will happen:

- The buzzer in EBL128 sounds 0.4 sec. each 0.8th sec. (0.4 / 0.4 sec.).
- LEDs "Fire" (L1) are blinking (0.4 / 0.4 sec.).
- Output for routing equipment (Fire brigade tx) is activated. See also NOTE! below.
- Programmable outputs for fire alarm are activated.³⁷
- In the EBL128 display (and ext. FBP display), the fire alarm(s) will be presented. See below.

NOTE! Normally the c.i.e. relay output "R0" is used as the output for Routing equipment (Fire brigade tx). The output will then be activated for fire alarm from any alarm point or zone line input.

If the fire alarm routing equipment has provision for transmission of several fire alarm signals and the alarm receiver has provision for reception of several fire alarm signals, the alarm receiver can take different actions depending on if it is a fire alarm type A or B.

If a **fire alarm type B** is received, it will indicate that only **one** analog addressable smoke, heat or multi detector is activated, which could be a nuisance alarm.

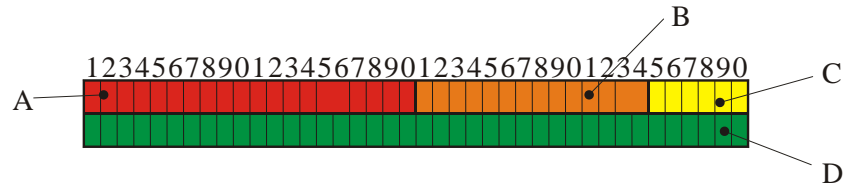
If a **fire alarm type A** is received, it is probably a real fire since fire alarm is then activated from:

- **Two or more** analog addressable smoke, heat or multi detectors.

³⁷ Programmable outputs for "General fire alarm" and for the activated fire alarm(s).

- **Any** manual call point
- **Any** zone line input
- **Any** programmable input with the trigger condition "General Fire"

Fire alarm presentation in the EBL128 display³⁸:



- A: Field for the **first alarm point or zone** in alarm.
By **scrolling** each alarm will be shown in this field.
- B: Field for **the most recent (last) zone** in alarm.
- C: Field for total **number of zones** in alarm.
- D: Field for alarm text. (User definable.)

Comments to the different fields³⁸:

The information in the field A:

NNN ZONE-ADDR **ZZ-AA**

or

NNN ZONE **ZZ**

NNN = a serial number for the displayed alarm, i.e. 001 for the first activated alarm (**ZZ-AA**), 002 for the second alarm and so on.

ZZ = zone number 01 – 99. **AA** = address 01 – 99

The information in the field B:

LAST ZONE **zz**

zz = zone number 01 – 99 for the most recent zone in alarm.
Displayed also if only one alarm point is in alarm.

The information in the field C:

No. **nn**

nn = 01 – 99 = the total number of **zones** (not alarm points) in alarm.

The information in the field D:

A user definable alarm text (max. 40 characters) for the alarm displayed in the field "A".

Some Fire alarm examples:

One alarm point (e.g. detector **12-45**)

³⁸ In the German (VdS) convention and the New Zealand convention the presentation is different and described in separate documents.

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
"Alarm text for 12-45"
```

One zone (e.g. zone **14**; a conventional zone line input)

```
001 ZONE 14 LAST ZONE 14 No. 01
"Alarm text for zone 14"
```

More than one alarm point in one zone (e.g. detectors **12-45** & **-46**)

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
"Alarm text for 12-45"
```

The LEDs "Alarms queued" (L2) are indicating that more than one alarm point is in alarm. Press the button "Alarms queued" (P1) to see the other alarm:

```
002 ZONE-ADDR 12-46 LAST ZONE 12 No. 01
"Alarm text for 12-46"
```

One alarm point in two zones (e.g. detectors **12-45** & **13-02**)

```
001 ZONE-ADDR 12-45 LAST ZONE 13 No. 02
"Alarm text for 12-45"
```

The LEDs "Alarms queued" (L2) are indicating that more than one alarm point is in alarm. Press the button "Alarms queued" (P1) to see the other alarm:

```
002 ZONE-ADDR 13-02 LAST ZONE 13 No. 02
"Alarm text for 13-02"
```

More than one alarm point / zone

LEDs "Alarms queued" (L2) are blinking (0.4 / 0.4 sec.), indicating more than one fire alarm.³⁹ To scroll through the alarms, use the push button "Scroll" (P1). The fire alarms are stored in a circular buffer and when scrolling from the last to the first alarm, the LEDs "Alarms queued" will be turned off for approx. three seconds.

When the "Scroll" button has been used the first alarm will be automatically displayed again after 20 seconds.

If an ext. FBP 1826 with a built-in printer is connected, the printer will print each fire alarm⁴⁰, e.g.:

```
*** Fire Alarm ***
ZONE-ADDR: 12-45 Time HH.MM Date MM-DD
Alarm text for 12-45
```

³⁹ Up to 256 alarms can be presented in the display. Alarm = ZONE and/or ZONE-ADDRESS.

⁴⁰ The alarms will be printed like they are presented in the display, i.e. as an alarm point (ZZ-AA) or a zone (ZZ) and alarm text if programmed.

or

```
*** Fire Alarm ***  
ZONE: 14           Time HH.MM   Date MM-DD  
Alarm text for zone 14
```

Reset of the fire alarms, see chapter "Alarm reset", page 53.

NOTE!

1. The fire alarm presentation in the EBL128 display is for the **German (VdS) convention** only, different than described above.

The serial number for the displayed alarm is deleted and the different fields on the top row are separated by black squares as follows (an example):

```
BER-ADR 12-45 ■ LETZTER BER 12 ■ Nr.01  
"Alarm text for 12-45"
```

2. The fire alarm presentation in the EBL128 display is for the **New Zealand convention** only, different than described above.

The serial number for the displayed alarm is replaced with the information "ALM" as follows (an example):

```
ALM ZONE-ADDR 13-02 LAST ZONE 13 No. 02  
"Alarm text for 13-02"
```

If the fire alarm is acknowledged (see page 56), "ALM" will be replaced with "ACK".

If the fire alarm or the acknowledged alarm is isolated (see page 56), "ALM" will be replaced with "ISO".

16.2.1

Fire alarm menu (X1-X9)

During the fire alarm presentation, a special fire alarm menu can be used. (If this menu / option is excluded (via EBLWin), it is a violation to the EN54-2 standard).

Use special menu during fire alarm

Fire alarms can be displayed via this menu but it can also be used to display faults and disablements in the system.

Alarm points, zones, control outputs and alarm devices can also be disabled / re-enabled via this menu.

No User name and Password are required.

During the fire alarm presentation press button "Access"⁴¹ and the **alarm text** will be replaced with the following:

⁴¹ Access code is **not** required.

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Display alarms ACCEPT? X1
```

"A", "↓", "↑", "→", "←" and "Return" can be used like in the normal menu tree, see chapter "Access", page 81. The original presentation (the alarm text) will be automatically displayed again approx. 20 seconds after the push buttons "A", "↓", "↑", "→", "←" or "Return" are no longer used.

Press "A" or scroll ("↓", "↑") to the wanted menu and press "A".

16.2.1.1

Display alarms (X1)

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Display alarms ACCEPT? X1
```

Press "A"

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
ZONE-ADDR: 12-45 001 of 003
```

First row: Explanations in chapter "Fire alarm", page 42.

Second row: All fire alarms (up to 256 alarms) will be displayed one at a time in zone-address order.

001 of **003** = alarm number one of three alarms in the system is displayed to the left.

One alarm is an alarm point (ZZ-AA) or a zone (ZZ).

Press "↓" (to see the next alarm).

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
ZONE-ADDR: 12-46 002 of 003
```

002 of **003** = alarm number two of three alarms in the system is displayed to the left.

Press "↓" (to see the next alarm).

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
ZONE-ADDR: 12-47 003 of 003
```

003 of **003** = alarm number three of three alarms in the system is displayed to the left.

16.2.1.2

Display faults (X2)

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Display faults ACCEPT? X2
```

Press "A"

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
FAULT: Battery
```

Only the fault message for the fault respectively, will be displayed here, not date, time and "status" information.

Press "↓" (to see the next fault).

16.2.1.3 Display disablements (X3)

NOTE! Also zones in "Test mode" will be displayed via this menu.

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Display disablements ACCEPT? X3
```

Press "A"

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Zone XX address XX disabled
```

Press "↓" (to see the next disablement).

NOTE! After all disablements will zones in "Test mode" be displayed.

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Zone in TEST MODE: 01 02 03 04
```

16.2.1.4 Disable zone (X4)

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Disable zone ACCEPT? X4
```

Press "A"

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Disable zone: 00 ACCEPT?
```

Write a zone number (01 – 99) and press "A". If more zones are to be disabled, repeat the procedure.

16.2.1.5 Disable zone / address (X5)

This function is useful e.g. for a manual call point not to continue to generate alarms because of a broken glass.

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Disable zone-address ACCEPT? X5
```

Press "A". E.g.:

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Disable zone: 00 Address: 00 ACCEPT?
```

Write a zone-address and press "A". If more zone-addresses are to be disabled, repeat the procedure.

16.2.1.6 Re-enable zone (X6)

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Re-enable zone ACCEPT? X6
```

Press "A". E.g.:

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Re-enable zone: ZZ ACCEPT?
```

This is a list of disabled zones. Scroll to or write the wanted zone number and press "A". If more zones are to be re-enabled, repeat the procedure.

16.2.1.7 Re-enable zone / address (X7)

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Re-enable zone / address ACCEPT? X7
```

Press "A". E.g.:

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Re-enable zone: ZZ Address: 00 ACCEPT?
```

This is a list of disabled zone-addresses. Scroll to or write the wanted zone-address and press "A". If more zone-addresses are to be re-enabled, repeat the procedure.

16.2.1.8 Disable / Re-enable control (X8)

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Disable/Re-enable control ACCEPT? X8
```

Press "A". E.g.:

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Dis(=0) or re-en(=1) control? 1 ACCEPT?
```

To disable, press "0" and "A". (To re-enable, press "1" and "A"). For more information, see chapter "Disable all control, ventilation, exting or interlocking outputs (H2/B4)", page 90.

16.2.1.9 Disable / Re-enable alarm devices (X9)

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Disable/Re-enable alarm dev. ACCEPT? X9
```

Press "A". E.g.:

```
001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01
Dis(=0) or re-en(=1) alarm dev?1 ACCEPT?
```

To disable, press "0" and "A". (To re-enable, press "1" and "A"). For more information, see chapter "Disable / re-enable alarm devices (H2/B9)", page 96.

16.2.2 Alert Annunciation alarm (AA alarm)

Alert Annunciation function turned on is indicated by the LED "Fire brigade tx delay" (L16).

Indications, actions etc. for an AA alarm is as for a normal fire alarm **except that EBL128 output for routing equipment (Fire brigade tx) will not be activated directly.** The AA alarm has to be

acknowledged within an acknowledge time and reset within an investigation time, otherwise will the output for routing equipment (Fire brigade tx) be activated. See EBL128 Planning Instructions for more information regarding the **AA** function. Acknowledgement⁴² and reset of the **AA** alarm can be done on an **AA** unit 1735 / 1736 (or an **AA** controller 1740). See also chapter "Alarm reset", page 53.

16.2.3 Co-incident alarm (two-unit / -zone dependence)

When only one two-unit dependent alarm point, (i.e. one **zone – address**) is in alarm status⁴³ or when only one two-zone dependent zone is in alarm status⁴⁴, the buzzer sounds (0.8 / 5 sec.) and there is a **Co-incident alarm** presentation in the display.

Co-incident alarm detector ZZ/AA

or

Co-incident alarm zone ZZ

If there are Co-incident alarms generated in other zones, the LEDs "Alarms queued" (L2) are blinking and the Co-incident alarms will be automatically scrolled (each 5th second).

Co-incident alarm is automatically reset 5 minutes after the alarm point / zone is no longer in alarm status or by the Reset button (P4), see chapter "Alarm reset", page 53.

16.3 Heavy smoke alarm / Heavy heat alarm

An analog detector generates heavy smoke / heat alarm for a higher alarm level⁴⁵ than the fire alarm level, i.e. fire alarm is already activated by the same detector.

Heavy smoke / heat alarm is a confirmation on that the smoke or heat is increasing and can be used for special actions, e.g. activation of smoke ventilation, etc.

In case of a heavy smoke / heat alarm, the following will happen:

- Outputs programmed for heavy smoke / heat alarm are activated.⁴⁶

⁴² In the "Czech" and "Polish" (CNBOP) conventions, the push button "Evacuate" (P5) can be used for "AA Acknowledge".

⁴³ If two or more two-unit dependent alarm points (zone - addresses) in the same zone are in alarm status at the same time, normal fire alarms will be activated in EBL128. See also EBL128 Planning Instructions.

⁴⁴ If two or more two-zone dependent zones in the same group are in alarm status at the same time, normal fire alarms will be activated in EBL128. See also EBL128 Planning Instructions.

⁴⁵ See EBL128 Planning Instructions.

- If an ext. FBP with a built-in printer (1826) is connected, the printer will print⁴⁷ each heavy smoke / heat alarm, e.g.:

```
*** Heavy smoke ***  
ZONE-ADDR: 12-45 Time HH.MM Date MM-DD  
Alarm text for 12-45
```

or

```
*** Heavy smoke ***  
ZONE: 14 Time HH.MM Date MM-DD  
Alarm text for zone 12
```

```
*** Heavy heat ***  
ZONE-ADDR: 12-45 Time HH.MM Date MM-DD  
Alarm text for 12-45
```

or

```
*** Heavy heat ***  
ZONE: 14 Time HH.MM Date MM-DD  
Alarm text for zone 14
```

Heavy smoke / heat alarm will be reset when the fire alarm respectively is reset, see chapter "Alarm reset", page 53.

16.4 Key cabinet alarm

One programmable input⁴⁸ can be used to connect a key cabinet.

The fire brigade uses a key cabinet to store a key to the building.

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

16.4.1 Key cabinet opened before a fire alarm

If the key cabinet is opened before a fire alarm (e.g. if somebody illegally breaks into the key cabinet), a key cabinet alarm, i.e. a "fire alarm" will be generated.

Example; Key cabinet alarm:

```
ZONE: KE No. 01  
Alarm from key cabinet
```

It will be printed like a normal fire alarm if an ext. FBP with printer is available, see chapter "Fire alarm", page 42.

Key cabinet alarm is reset like a normal fire alarm, see chapter "Fire alarm reset, page 53.

⁴⁶ General heavy smoke / heat alarm and individual alarm points / zones.

⁴⁷ The alarms will be printed like they are presented in the display, i.e. as ZONE-ADDR or ZONE.

⁴⁸ Input I0 or COM loop I/O unit 3361 can be used.

This alarm will also generate a fault message, see chapter "Key cabinet alarm reset", page 55. It is indicated by LED "General fault" (L7) and the "Fault tx" output(s) will be activated.

16.4.2 **Key cabinet opened in conjunction with a fire alarm**

The fire brigade personnel can open the key cabinet if a fire alarm already is activated in EBL128. In this case there will be **no** key cabinet alarm or fault generated when the key cabinet is opened.

16.4.2.1 **Restoring the key after a fire alarm**

When **all** fire alarms are reset (see chapter "Alarm reset", page 53), the key has to be restored in the key cabinet **within 5 minutes**. If not, a fault will be generated, see chapter "Key cabinet alarm reset", page 55.

16.5 **Quiet alarm**

One or more smoke detectors, programmed for quiet alarm, e.g. used for fan control (stop / start depending on the type of fan), have passed the fire alarm level.

Quiet alarm is normally used in conjunction with a Fan control panel (4593).⁴⁹

Indications and actions:

LEDs "Fire" (L1) are blinking (0.4 / 0.4 sec.), the buzzer sounds (0.8 / 5 sec.) and there is a **Quiet alarm** presentation in the display:

Quiet alarm detector ZZ/AA
(user definable text message)

Programmable outputs for quiet alarm are activated, e.g. 3361 outputs controlling supply air fans and standard fans, i.e. any output with a control expression containing the trigger conditions "Quiet Alarm Zone" or "Quiet Alarm Zone Address".

16.6 **Alarm Acknowledgement Facility (AAF)**

Used on the Australian market only.

One or more Alarm Acknowledgement Facility Controls⁵⁰ are used in the system.

During the Acknowledgement Period (10-60 sec.) there is an indication in the control unit display:

⁴⁹ The Fan control panel can be used for control of 4 + 4 fans. For each group of four fans is also one I/O Matrix board 4582 required and for each fan is one I/O unit 3361 required.

⁵⁰ The AAF Control is available on the Australian market only.

AAF zone zz, activated

During the Investigation Period (0-3 min.) there is an indication in the c.i.e. display:

AAF zone zz, investigation in progress

See EBL128 Planning Instructions chapter "Alarm Acknowledgement Facility (AAF)" for more information regarding the **AAF** function.

17 Alarm reset

17.1 Pre-warning reset

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

17.2 Fire alarm reset

In the New Zealand convention **fire alarms** = normal fire alarms (ALM), acknowledged alarms (ACK) and isolated alarms (ISO).

NOTE! The detectors having activated the fire alarms shall, after reset, be inspected, tested and replaced when required.

One of the following alarm reset alternatives is valid. This is selected via EBLWin. "All" is default.

17.2.1 All

All activated fire alarms (alarm points / zones) will be reset by pressing "Reset" (P4) once. (This is in accordance with the EN54-2 standard).

NOTE! The push button has to be pressed for min. 0.5 sec.

When all fire alarms are reset, LEDs "Fire" (L1) and "Alarms queued" (L2) are turned off. If there are other conditions (e.g. a fault condition) the corresponding information will be shown (e.g. a fault message), for the priority order see chapter "The display in EBL128", page 21.

All outputs (for fire alarm) are reset, i.e. de-activated.

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 in the display, see chapter "Key cabinet alarm reset", page 55.

NOTE!

When "Single" or "Single with automatic disablement" is used, all alarms can be reset by pressing "Reset" (P4) and approx. 0.1 sec. later also press "A" (in the keypad) and hold them pressed for > 0.5 sec.

17.2.2 Single

Each fire alarm (alarm point / zone) has to be reset one by one.

NOTE! This function is available only if it is set in EBLWin.

Press "Reset" (P4) to reset the fire alarm currently shown to the left in the display.

NOTE! The push button has to be pressed for min. 0.5 sec.

Output(s) programmed for that fire alarm (alarm point / zone) will be reset, i.e. de-activated.

If more than one fire alarm is activated (i.e. LEDs "Alarms queued" (L2) are lit) the next fire alarm in the queue will be shown in the display. It has to be reset the same way as the first one.

When all fire alarms are reset, LEDs "Fire" (L1) and "Alarms queued" (L2) are turned off. If there are other conditions (e.g. a fault condition) the corresponding information will be shown (e.g. a fault message), for the priority order see chapter "The display in EBL128", page 21.

All outputs (for fire alarm) are reset, i.e. de-activated.

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 in the display, see chapter "Key cabinet alarm reset", page 55.

17.2.3 **Single with automatic disablement**

Like "Single reset" but including the so called encapsulation function:

Normally when an alarm point or zone having activated fire alarm is reset whilst still is in alarm status, it will activate a new fire alarm within 20 seconds. (This is in accordance with the EN54-2 standard.)

When "Single with automatic disablement" reset is performed, an alarm point or zone, still in alarm status, will not only be **reset** but also **disabled**, i.e. it will not activate a new fire alarm within 20 seconds.

It has to be re-enabled via menu H2/B6 (see page 92) before it can activate a new fire alarm. (This function, set via EBLWin, is a violation to the EN54-2 standard.)

LED "Disablements" (L8) is indicating one or more disablements in the system.

NOTE!

When "All" or "Single" reset is used, "automatic disablement" (encapsulation function) can be used by pressing "Reset" (P4) and approx. 0.1 sec. later also press "Alarms queued" (P1) and hold them pressed for > 0.5 sec.

The alarm point **or** the whole zone (conventional) currently shown in the display will be reset and disabled.

17.3 **Alert Annunciation alarm reset**

Regarding the function, see chapter "Alert Annunciation alarm (AA alarm)", page 48 and EBL128 Planning Instructions, chapter "Alert Annunciation".

Reset of the **AA** alarm can be done via push button "Reset" on an **AA** unit 1735 / 1736 (an **AA** controller 1740) or in EBL128. **AA** alarms will be reset all at a time.

NOTE! Reset via an external unit is only possible during the investigation time and only **AA** alarm(s) can be reset, not normal fire alarms.

17.4 Co-incident alarm reset

Co-incident alarm is automatically reset 5 minutes after the alarm point / zone is no longer in alarm status or by the Reset button (P4). See also chapter "Co-incident alarm (two-unit / -zone dependence)", page 49.

17.5 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.

17.6 Key cabinet alarm reset

After reset of the key cabinet alarm ("fire alarm"), a fault message is shown in the display to inform the user that the key cabinet has been opened.

```
FAULT: Key cabinet  
Date: MM-DD Time: HH:MM
```

If the key cabinet is closed again, the "status" information "Serviced" is added.

```
FAULT: Key cabinet  
Date: MM-DD Time: HH:MM Serviced
```

This key cabinet fault message is to be acknowledged the same way as a "normal" fault, see chapter "Fault acknowledge", page 70.

When the key cabinet fault is acknowledged, the LED "General fault" (L7) will be turned OFF (if the key cabinet is closed and if there are no other faults in the system).

17.7 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.)

17.8 Alarm Acknowledgement Facility (AAF) reset

NOTE! The AAF function is used in conjunction with an AAF Control, which is available on the Australian market only.

The indication in the control unit display, during the Acknowledgement Period (10-60 sec.) and the Investigation Period (0-3 min.) respectively, will automatically disappear when:

- the **AA process** ends because no detector in the **AAF 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.)

17.9 Acknowledged alarm

NOTE! Valid for the New Zealand convention only.

A fire alarm presented in the LCD can be acknowledged by pressing the yellow button "Fault acknowledge" (P6).

Acknowledged alarms are indicated in the fire alarm list in the LCD by "ACK" in front of the alarm, see page 45. This indication is the only difference between a fire alarm and an acknowledged alarm.

Acknowledged alarms ("ACK") have to be reset like fire alarms ("ALM").

17.10 Isolated alarm

NOTE! Valid for the New Zealand convention only.

A fire alarm ("ALM") or an acknowledged alarm ("ACK") presented in the LCD can be isolated as follows:

When the "New Zealand FB Silence switch" (outside switch) is turned OFF (from activated to not activated), any fire alarm and acknowledged alarm will be isolated (=disabled).⁵¹

Isolated alarms are indicated in the fire alarm list in the LCD by "ISO" in front of the alarm respectively, see page 45.

Isolated alarms do not activate any control outputs, do not activate the output for routing equipment (Fire brigade tx), do not activate the c.i.e. buzzer and do not activate the LED:s "Fire" in the c.i.e.

Isolated alarms ("ISO") have to be reset like fire alarms ("ALM").

Isolated alarms have to be re-enabled via menu H2/B5-B6 before they can activate a new fire alarm again.

⁵¹ LED "Disablements" (L8) is indicating that one or more zones / alarm points are isolated (disabled).

18 Fault

In case of a fault condition, the following has happened / will happen in EBL128:

- The buzzer in EBL128 sounds steady (continuous).
- Output "R1" for routing equipment (Fault tx) is activated.
- Programmable output for general fault is activated
- Programmable output for general charge fault is activated if it is a charge fault.
- LED "Fault tx activated" (L11) is turned ON.
- LED "General fault" (L7) is turned ON.
- LEDs "**Fault / Disables** Alarm devices" (L13), "System fault" (L14) and/or "Fire brigade tx" (L15) might as well be turned ON (depending on the type of fault).
- A fault message incl. date and time is shown in the display.
NOTE! The way the date is presented could be different for different languages.
For an alarm point / zone also the "alarm text" will be shown.

Example of a fault message for an alarm point (e.g. a detector):

```
FAULT: No reply zz-aa →  
Date: MM-DD Time: HH:MM
```

Press "→" to see more information:

```
FAULT: No reply techn. address xxx ←  
User definable alarm text for zz-aa
```

Press "←" to see the zone-address:

- If more than one fault is activated, the text: "**More faults**" is added after the time.
- If a fault has been corrected before it has been acknowledged, the "status" text: "**Serviced**" is added after the time.⁵²
- Fire alarm presentation has higher priority than the fault messages. During fire alarm presentation the faults can be shown via the special fire alarm menu X2, see page 46.

Faults are normally latched and have to be acknowledged, which is done via menu H6 (see page 123). In menu (H6) can up to 200 faults be listed:

- Not serviced/corrected and not acknowledged faults
- Not serviced/corrected but acknowledged faults
- Serviced/corrected but not acknowledged faults

⁵² In EBLWin, Fault latching can be selected (default) or not selected. Selected = each fault always have to be acknowledged. Not selected = corrected faults will automatically be removed from the fault list (menu H6).

If a fault cannot be corrected, it is important to contact service personnel / engineer immediately.

NOTE! As a warning, faults (and disablements) are also indicated by a 2-sec. beep when an open c.i.e. door is being closed.

18.1 Fault messages

Below follows a list of all fault messages, in alphabetical order:

FAULT: 24 V for external equipment

Fuse "F9" on the main board 4556 is blown.

FAULT: 24 V for routing equipment

Fuse "F7" on the main board 4556 is blown.

Also indicated by LED "L15" blinking.

FAULT: 24 V output, techn address xxx

This is valid for an external power supply (e.g. 3366) connected on the COM loop. The output might be turned off. The current output limit is exceeded.

FAULT: AAU x

AAU=1735 / 1736 (Alert Annunciation Unit)

The unit is programmed as another type of unit than the SSD says or fault in the unit.

FAULT: Battery

The battery check is done every 14th minute (every 30th second in the New Zealand convention).

- Battery voltage is below 18.9 V (24.4 V in the New Zealand convention).
- Batteries (2 x 12 V) are missing or not correctly connected.
- Fuse F2 on the main board is blown.
- Another battery fuse is blown (e.g. if the batteries are placed outside EBL128).

FAULT: Battery charging

The battery charging function is not working all right. The main board 4556 may have to be replaced.

FAULT: Battery, loop unit zz-aa →

Press "→" to see the technical address.

FAULT: Battery, techn. address xxx ←

zz-aa = Zone-Address. **xxx** = COM loop address.

This is valid for an external power supply (e.g. 3366) connected on the COM loop.

Batteries (2 x 12 V) are missing or not correctly connected.

Battery fuse is blown.

FAULT: Cables mixed on COM-loop

The two wires L (SA) and C (SB) have been mixed (alternated). Check so that the wire connections are correct (according to drawing 128-21).

FAULT: Charging, external power supply

The fault is to be found in the external power supply equipment. A fault output is connected to a programmable input in the EBL128 system. Check the input as well.

FAULT: Charging, techn addr xxx

This is valid for an external power supply (e.g. 3366) connected on the COM loop.

The battery charging function is not working all right. The charger board (3367) may have to be replaced.

FAULT: Checksum system program

A fault in the EBL128 S/W. This is very serious. Call for service personnel / engineer immediately.

FAULT: Cut-off SCI **nn** <-> SCI **nn**

This fault is indicating a cut-off (break) on the loop or that the COM loop voltage is too low at the end of the loop (i.e. < 12 V DC).

SCI **nn** <->SCI **nn** describes between which Short Circuit Isolators (SCI:s) the cut-off is located.

nn = A, B, 0, 1, 2, 3, 4, 5, 6 or up to 63. A & B is the built-in isolator in the EBL128 A-direction and B-direction respectively, i.e. if no SCI is used the information will always be: SCI **A** <-> SCI **B**.

If one SCI (no. 0) is used, the information will be:

SCI **A** <-> SCI **0** or SCI **0** <-> SCI **B**
...and so on.

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 EBL128 cannot find and "FAULT: Several faults ...".

NOTE! Each 10th minute a new attempt is made to communicate in the A-direction only.

When all breaks are repaired (corrected) the communication automatically returns to communicate in the A-direction only.⁵³

FAULT: Earth fault (minus)

FAULT: Earth fault (plus)

Earth fault is detected. The system voltage is normally 24 V DC. +24 V to earth is normally 12.5 V. 0 V to earth is normally 11.5 V. Voltage to earth < 3.4 V = Earth fault (minus).

Voltage to earth > 18.3 V = Earth fault (plus).

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

FAULT: Earth fault, techn address xxx

This is valid for an external power supply (e.g. 3366) connected on the COM loop. Check all cables connected to the unit.

FAULT: EPU x

EPU=1728. (Ext. Presentation Unit)

The unit is programmed as another type of unit than the SSD says or a faulty unit.

FAULT: Expansion board x

Valid for the 8 zones exp. board 4580, the 8 relays exp. board 4581 and the Inputs and outputs exp. board 4583 mounted in the c.i.e. (EBL128). Also valid for the I/O Matrix board 4582 connected on the COM loop, i.e. mounted outside the c.i.e.

⁵³ The fault has to be acknowledged and it can last up to 10 minutes before the communication returns to communicate in the A-direction only.

Internal fault on the board and it has probably to be replaced.

FAULT: External fuses

The fault is to be found in the external power supply (blown fuses, etc.). A fault output is connected to a programmable input in the EBL128 system. Check the input as well.

FAULT: External power supply

The fault is to be found in the external power supply. A fault output is connected to a programmable input in the EBL128 system. Check the input as well.

FAULT: Extinguishing system

The fault is to be found in the extinguishing system. A fault output is connected to a programmable supervised input in the EBL128 system (i.e. to an expansion board 4583). Check the input as well.

FAULT: Factory settings

The battery charging (factory) settings have been "changed", e.g. because of some external disturbance. The main board has to be replaced since the battery charging function cannot be guaranteed.

FAULT: Fan on loop unit t.addr xxx

The LED "Fault" is lit on a fan control module, for the fan connected to I/O unit 3361 with the technical address xxx. Fan has been activated but the corresponding I/O unit input has not been activated within its programmed time.

Check the fan and the cables / connections.

FAULT: Fault warning routing equipment

The fault is to be found in the Fault warning routing equipment. A fault output is connected to a programmable supervised input in the EBL128 system (e.g. I0). Check the input as well.

FAULT: FB Silence switch active

Only valid in the New Zealand convention.

New Zealand FB Silence switch ("outside switch") is turned ON, i.e. from not activated to activated state.

FAULT: FBP x

FBP=1826 / 1828 (Ext. Fire Brigade Panel)

The ext. FBP is programmed as another type of unit than the SSD says or a faulty unit.

FAULT: Fuse on COM-loop

Fuse F4 on the main board is broken. The fuse is **not replaceable**. There are more components broken, i.e. the main board has to be repaired / replaced.

FAULT: High current consumption in CU

EBL128 current consumption, including battery charging, is over 1.8 A, and because of this, the battery charging is turned off. The current consumption, excluding battery charging, exceeds 0.8 A and the battery charging is turned off as long as the current consumption exceeds 0.75 A. (Normally this fault only appears when starting up / expanding an EBL128.)

FAULT: Input

A fault on the supervised input I0 in EBL128.

Check the cables / connections (cut-off or short-circuit).

FAULT: Input x exp board x

A fault on the supervised input x on the expansion board (4583) with address x.

Check the cables / connections (cut-off or short-circuit).

FAULT: Interlocking input AA/PP

AA/PP = Area-Point.

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 / point).

FAULT: Key cabinet

The key cabinet has been opened without a prior fire alarm (i.e. somebody has opened the key cabinet illegally).

or

The key cabinet has not been closed within 5 minutes after reset of all fire alarms.

FAULT: Loop unit zz-aa →

Press "→" to see the technical address.

FAULT: Loop unit techn address xxx ←

zz-aa = Zone-Address. **xxx** = COM loop address.

The communication with the unit is not all right, i.e. the unit is out of order / faulty.

FAULT: Low battery capacity

Every 4th hour the battery circuit (connection cables, fuses, etc.) resistance is checked. A resistance over 1.4 ohm will generate a fault

In the New Zealand convention: The battery charging is turned off 60 minutes every 24th hour. A battery voltage < 24.4 V during these 60 minutes will generate a fault.

If a fault is generated it will automatically be **Serviced** after these 60 minutes.

FAULT: Low voltage

System voltage < 21 V DC.

FAULT: Low voltage, techn address xxx

This is valid for an external power supply (e.g. 3366) connected on the COM loop. The power output is turned off because the unit's internal voltage is < 21 V DC. Check the power supply (rectifier) 1537 output voltage, which shall be 24 V DC. Replace 1537 if required.

FAULT: Mains

- * Loss of mains, i.e. no 230 V AC (the fault is activated after 1-300 minutes).⁵⁴
- * Fuse for 230 V AC blown.
- * Fuse "F1" on the main board 4556 blown.

FAULT: Mains, external power supply

Loss of mains, i.e. no 230 V AC to the ext. power supply equipment (the fault is activated after 1-300 minutes).⁵⁴ Check 230 V AC fuses. A fault output is connected to a programmable input in the EBL128 system. Check the input as well.

FAULT: Mains, techn address xxx

This is valid for an external power supply (e.g. 3366) connected on the COM loop.

- * Loss of mains, i.e. no 230 V AC in the loop unit (the fault is activated after 1-300 minutes).⁵⁵
- * Fuse for 230 V AC blown.
- * Fuse "F1" blown on the charger board 3367.

FAULT: No reply zz-aa →

Press "→" to see the technical address.

FAULT: No reply techn address xxx ←

zz-aa = Zone-Address. **xxx** = COM loop address.

In spite of communication in both directions (COM loop A-direction and B-direction), the unit cannot be found.

- * Check the unit's address (with the address setting tool 3314/4414).
- * Faulty unit.
- * Detector might be removed (un-plugged) from its base.
- * Double break or short-circuit on the COM loop.

(**Note!** There will also be a fault message "FAULT: Cut-off loop..." or "FAULT: Short-circuit loop...").

FAULT: No reply AAU x

⁵⁴ The time is programmable in EBLWin. Max. 30 min. according to the EN54-2 standard. Default value depending convention.

⁵⁵ The time is programmable in EBLWin. Max. 30 min. according to the EN54-2 standard. Default value depending convention.

AAU=1735 / 1736. (Alert Annunciation Unit)

EBL128 cannot communicate with the unit. Check / edit the address and the S/W mode in the unit (or edit the SSD).

FAULT: No reply EPU x

EPU=1728. (Ext. Presentation Unit)

EBL128 cannot communicate with the unit. Check / edit the address and the S/W mode in the unit (or edit the SSD).

FAULT: No reply, expansion board x

Valid for the 8 zones exp. board 4580, the 8 relays exp. board 4581 and the Inputs and outputs exp. board 4583 mounted in the c.i.e. (EBL128). Also valid for the I/O Matrix board 4582 connected on the COM loop, i.e. mounted outside the c.i.e.

EBL128 cannot communicate with the board. Check / edit the address. Check the cables / connections.

FAULT: No reply FBP x

FBP=1826 / 1828. (Ext. Fire Brigade Panel)

EBL128 cannot communicate with the unit. Check / edit the address and the S/W mode in the unit (or edit the SSD).

FAULT: Output Sx

This is valid for the EBL128 supervised voltage outputs S0 and S1. If the output is programmed for sounders (type Alarm devices), it is also indicated by LED "**Fault / Disablements** Alarm devices" (L13) blinking.

If the output is programmed for a fire brigade tx (type Routing equipment), it is also indicated by LED "**Fault / Disablements** Fire brigade tx" (L15) blinking.

- * Calibration not performed via menu H5/A1.
- * Short-circuit / break on the connected cable / equipment.
- * Blown fuse "F8" (S0) or "F6" (S1) on the main board 4556.
- * Connected equipment might be "missing".
- * End-of-line resistor(s) missing or not correct value (see drawing 128-22). 1- 5 resistors 33K.

NOTE! The calibrated value has to be in the range 4K7-50K.

FAULT: Output x expansion board x

A fault on the supervised output x on the expansion board (4583) with address x.

If the output is programmed for sounders (type Alarm devices), it is also indicated by LED "**Fault / Disablements** Alarm devices" (L13) blinking.

If the output is programmed for fire brigade tx (type Routing equipment), it is also indicated by LED "**Fault / Disablements** Fire brigade tx" (L15) blinking.

- * Calibration not performed via menu H5/A1.
- * Short-circuit / break on the connected cable / equipment.
- * Blown fuse "F1" (Output 0) or "F2" (Output 1) on the 4583 board.
- * Connected equipment might be missing.
- * End-of-line resistor(s) missing or not correct value (1-5 x 33K).

NOTE! The calibrated value has to be in the range 4K7-50K.

FAULT: Output x, techn addr xxx

This is valid for COM loop output unit 3364 outputs.

If the output is programmed for sounders (type Alarm devices), it is also indicated by LED "**Fault / Disablements** Alarm devices" (L13) blinking.

If the output is programmed for fire brigade tx (type Routing equipment), it is also indicated by LED "**Fault / Disablements** Fire brigade tx" (L15) blinking.

- * Calibration not performed via menu H5/A1.
- * Short-circuit / break on the connected cable / equipment.
- * Connected equipment might be "stolen".
- * End-of-line capacitor(s) missing or not correct value (see drawing 128-28).

NOTE! The calibrated value has to be in the range 470 nF – 5 x 470 nF (2350 nF).

FAULT: Read/write site data (SSW)

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

- If the C.U. was made powerless (i.e. mains and battery disconnected) without first doing a Safe shut down of control unit via menu H8/S7 (see page 132), this fault might be generated when the C.U. 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 menu H5/A1.

- Some external influence has caused a fault in the SSW. This is very serious. Call for service personnel/engineer.

FAULT: Restart, code xx addr yyyyyyyyyyy

C.i.e. (EBL128) restart has occurred. See also page 77.

xx=00: Power up Restart. (Power supply connected)

xx=01: Watchdog Reset.

xx=02: Accidental jump to reset vector.

xx=03: Restart after Software download

xx=04-19: Unexpected interrupt.

xx=20: S/W monitoring fault

xx=25: Restart after SSD download

NOTE!

xx=00, 03 and 25 are normal. Only acknowledge the "fault".

xx=01, 02 or 04-20 appearing often: call for service personnel / engineer.

yy...y = memory address (before restart). Write down the address and inform the service personnel/engineer.

FAULT: Sensor zz-aa →

Press "→" to see the technical address.

FAULT: Sensor techn address xxx ←

zz-aa = Zone-Address. **xxx** = COM loop address.

The communication with the sensor / detector is not all right, i.e. the unit is out of order / faulty.

For detector types 33xx / 43xx / 44xx: The built-in self verification function has reported a fault status.

FAULT: Several faults on COM-loop

Breaks (cut-offs) / short-circuits in more than one segment on the COM loop. Normally this fault is generated in conjunction with some cut-off faults / short-circuit faults. In that case, first correct one fault and the next fault will be presented.

FAULT: Short-circuit, internal COM-loop

Short-circuit on the connection (ribbon cable) to or between the expansion boards (458x) in the c.i.e. (EBL128).

FAULT: Short-circuit SCI nn <-> SCI nn

SCI nn <-> SCI nn describes between which Short Circuit Isolators (SCI:s) the short-circuit is located.

nn = A, B, 0, 1, 2, 3, 4, 5, 6 or up to 63. A & B is the built-in isolator in the EBL128 A-direction and B-direction respectively, i.e. if no SCI is used the information will always be: SCI A <-> SCI B.

If one SCI (no. 0) is used, the information will be:

SCI A <-> SCI 0 or SCI 0 <-> SCI B

...and so on.

There will also be a "FAULT: No reply" message for each unit that EBL128 cannot find.

If there are several short-circuits on the loop the message shows the last isolator before the break in the A-direction (incl. the following isolator). There will also be shown "FAULT: Several faults ...".

NOTE! Each 10th minute a new attempt is made to communicate in the A-direction only.

When all short-circuits are repaired (corrected) the communication automatically returns to communicate in the A-direction only.⁵⁶

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. If the fault cannot be corrected it is very serious. Call for service personnel / engineer immediately.

FAULT: Site specific data (SSD), AAU x

AAU=1735 / 1736 (Alert Annunciation Unit)

There is no SSD (Site Specific Data) downloaded to the unit or something is wrong in the downloaded SSD.

FAULT: Site specific data (SSD), EPU x

EPU=1728 (Ext. Presentation Unit)

There is no SSD (Site Specific Data) downloaded to the unit or something is wrong in the downloaded SSD.

⁵⁶ The fault has to be acknowledged and it can last up to 10 minutes before the communication returns to communicate in the A-direction only.

FAULT: Site specific data (SSD), FBP x

FBP=1826 / 1828 (Ext. Fire Brigade Panel)

There is no SSD (Site Specific Data) downloaded to the unit or something is wrong in the downloaded SSD.

FAULT: Wrong type, expansion board x

Valid for the 8 zones exp. board 4580, the 8 relays exp. board 4581 and the Inputs and outputs exp. board 4583 mounted in the c.i.e. (EBL128). Also valid for the I/O Matrix board 4582 connected on the COM loop, i.e. mounted outside the c.i.e.

The board is not the same type as programmed in the SSD. Change the programming (via EBLWin) **or** the board.

FAULT: Wrong type of unit zz-aa →

Press "→" to see the technical address.

FAULT: Wrong type of unit t.addr xxx ←

zz-aa = Zone-Address. **xxx** = COM loop address.

The unit is not the same type as programmed in the SSD. Change the programming (via EBLWin) **or** the unit.

FAULT: Zone line input zz-aa

Press "→" to see the technical address or the expansion board (4580) number and input number.

FAULT: Zone line input t.addr xxx

FAULT: Zone line input x exp board x

zz-aa = Zone-Address. **xxx** = COM loop address.

a. Valid for the Multipurpose I/O unit 3361, connected on the COM loop, monitored zone line input Z: Break on the zone line or wrong / no end-of-line capacitor / short-circuit (if not programmed for fire alarm at short-circuit).

b. Valid for the 8 zones exp. board 4580, mounted in the c.i.e. (EBL128): Break on the zone line, wrong / no end-of-line capacitor / short-circuit (if not programmed for fire alarm at short-circuit). .

(User programmable fault text; External fault)

A programmable input is used for an external fault to be presented in EBL128 with a fault message.

18.2 Fault acknowledge

The LEDs "Fault tx activated" (L11) and "General fault" (L7) are turned ON.

(LEDs **Fault / Disablements** "Alarm devices" (L13), "System fault" (L14) and/or "Fire brigade tx" (L15) might be turned ON as well.)

Output for routing equipment (Fault tx) is activated.

Output for general fault is activated.

Output for general charge fault might be activated.

A **fault message, date and time**, is shown in the EBL128 display.

After the **time** might be shown "**More faults**" = more than one fault is generated.

After the **time** might be shown "**Serviced**" = the fault is already serviced / corrected. "**Serviced**" will never be shown if the faults are set (via EBLWin) to be "Not latched".

- Login, according to chapter "Access", page 81.
- Use **menu H6** (access code for Building officer or Service personnel is required) for fault acknowledge, see chapter "FAULT Acknowledge (H6)", page 123. Menu H6 is a list showing up to 200 faults (not acknowledged faults and/or acknowledged but not corrected faults). The first fault in the list is the most recent fault. When a fault is both acknowledged and corrected it will be removed from the list (and a new fault can be shown, if there are more than 200). All fault events are shown in the event log (menu H4/U6).
- All faults have to be individually acknowledged one by one with the yellow push button "Fault acknowledge" (P6). Use ↑ or ↓ keys to scroll.
- If a fault has been serviced / corrected before it has been acknowledged, the text "**Serviced**" is added after the time.⁵⁷ It still has to be acknowledged.
- When a fault is corrected and acknowledged, it will disappear from the list (H6).
- When **all** faults have been acknowledged, the LED "Fault tx activated" (L11) will be turned off and output for routing equipment (Fault tx) is "reset" (as in normal operation).
- As long as there are faults (not acknowledged faults and/or acknowledged but not corrected faults) the LED "General fault" (L7) will be lit and general fault (and maybe general charge fault) output(s) are activated.

⁵⁷ Via EBLWin the faults can be set to be **not latched**. Corrected faults will in this case automatically disappear from the list without being acknowledged before.

19 Commissioning an EBL128

Before you connect any power to EBL128 all other cable connections shall be made. Check, once more, that the connections are correct.

A tip! Measure the resistance of each loop wire (L & C respectively) before turning on the power. Check that the L-wire (SA) that goes out on terminal J1:1 comes back at terminal J1:3 and so on. If the loop has short circuit isolators, only the C-wire (SB) can be measured. Also measure the resistance between the loop wires and 24V, 0V and Earth (J2:1, 2 and 3). The resistance should be very high (mega ohm).

1. Remove the rectifier (power supply) fuse (F1) on the main board.
2. Remove the battery fuse (F2) on the main board (or the fuse between the batteries).
3. Connect the batteries to the main board.
4. Connect the rectifier to the mains (230 V AC).
5. Put back the rectifier fuse (F1) on the main board.⁵⁸
6. Put back the battery fuse.
7. LED "Operation" (L6) lit indicates that the 24 V DC power supply (rectifier and/or battery) is okay.
8. An automatic restart will now take place (see chapter "Restart", page 77).
9. The site specific data (SSD) is now to be downloaded, see chapter "SSD programming & download", page 72.

See also chapter "Calibration of supervised outputs (H5/A1)", page 112.

⁵⁸ Regarding especially the previous main board 4556 (P.c.b. No. 9285-5A): If a lot of units (especially units with high internal capacitance) are connected to EBL128, the total momentary inrush current consumption might activate the electronic short circuit protection and EBL128 will not start working. In such a case, put back the battery fuse before the rectifier fuse (i.e. the batteries have to be reasonably charged) or temporarily disconnect some of the units in order to reduce the current consumption while EBL128 is powered.

20 SSD programming & download

The Site Specific Data (SSD) for an installation is created (programmed) via the PC program **EBLWin**, which also is used to download the SSD into the EBL128 c.i.e. and/or 1728, 1735 / 1736 & 1826 / 1828 units. The SSD will be saved in a file named **xxxxx.EBLWin**.⁵⁹

20.1 SSD programming

The SSD programming can be made "in your office" and afterwards be downloaded to EBL128 on site.

20.2 Auto generating SSD

If you are on site, the **Auto generate** function can be used to create the SSD. Open a new installation in EBLWin, connect the PC to the RS232 connector J3 in EBL128 (on the main board) and log on.⁶⁰ In the COM loop menu select "Auto generate loop...". The COM loop units⁶¹ connected on the COM loop will now be identified and listed in EBLWin, i.e. the SSD will be auto generated and given default settings (01-01, 01-02, 01-03, etc.). Save the installation (SSD). The SSD can be downloaded to EBL128 as it is or being edited (recommended) before the download.

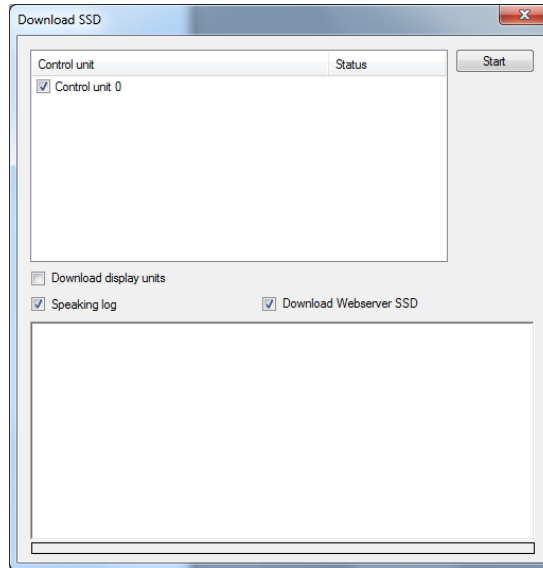
20.3 SSD download

The PC with EBLWin has to be connected to the RS232 connector J3 in EBL128 (on the main board). Open the wanted installation (xxxxx.EBLWin) and log on to EBL128.⁶⁰ In menu "Tools" select "Download SSD..." to open the dialog box.

⁵⁹ **xxxxx** = A suitable name of the installation.

⁶⁰ An EBLWin key 5094 (a hardware key) is required, i.e. plugged in a USB port in the PC.

⁶¹ Each unit have to be running i.e. be connected, power supplied and the address, mode etc. have to be set. **NOTE!** During this check the COM loop will be disconnected (disabled) and no alarms or faults can be activated. Disconnected COM loop is indicated by the LED "Disablements" (L8).



Mark the required checkbox(es). Click "Start". Information will be shown in the "Status" column and in the large white field. There is a progress bar in the dialog box as well as in the EBL128display:

```
Download in progress.....  
■■■■■■■■
```

When the download is completed in a correct way, the following text message will be shown:

```
Download completed successfully.  
Control unit will now restart
```

Now, an automatic warm restart will take place (see chapter "Restart", page 77) followed by a restart fault, code 25.

If the download was not completed or incorrect, the following text message will be shown:

```
Checksum fault in downloaded data.  
Control unit will now restart
```

Now, an automatic warm restart will take place (see chapter "Restart", page 77).

After the restart another text message will be shown in the display:

```
FAULT: Site specific data (SSD)  
Date: MM-DD Time: HH:MM
```

This text message means that the SSD have not been downloaded correctly, i.e. try to download the SSD once more.

20.4 Download of Alarm texts

When a fire alarm is activated (e.g. an addressable alarm point), the presentation number (Zone - Address) is shown on the first row in the EBL128 display and in any ext. FBP display.⁶² On the second row is a user definable alarm text shown, if programmed. See also chapter "Fire alarm", page 42.

Each alarm point can have a unique alarm text. When several alarms are activated (in one or more zones) and only the zone numbers are shown, each zone can have a unique alarm text.

Each zone line input can have a unique alarm text.

The alarm texts will be printed out if an ext. FBP 1826 with a printer is connected.

All alarm texts, up to 40 alphanumeric characters each, are normally created when each alarm point is programmed and downloaded to the control unit via **EBLWin** (SSD Download). See Planning Instructions, chapter "Alarm texts".

⁶² Also valid for the Ext. Presentation unit 1728 and the Alert Annunciation units 1735 / 1736.

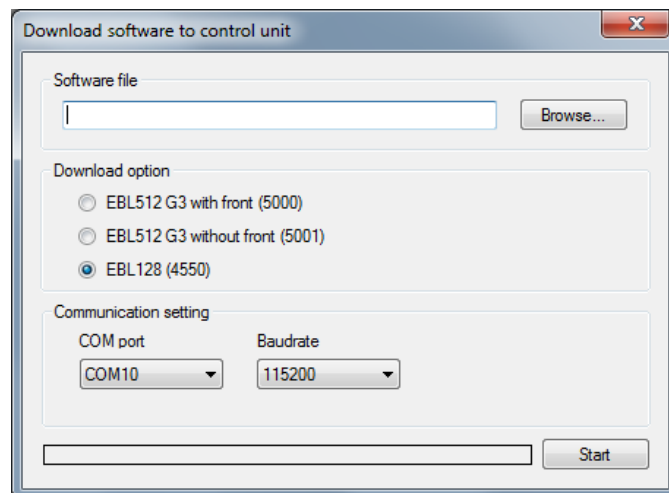
21 Software (S/W) download

The latest version of the EBL128 software⁶³ is factory downloaded before delivery. Due to continual development and improvement, different S/W versions can be found. EBL128 can be upgraded with a new S/W version, downloaded on site, via EBLWin. The valid (current) EBL128 S/W version is shown in menu H4/U7 or via EBLWin (Control unit pop-up menu; Software version...).

21.1 Download of S/W in EBL128 (c.i.e.)

To download new software (S/W), a PC and **EBLWin** are used. Before download, the PC has to be connected to the RS232 connector J3 in EBL128 (on the main board).

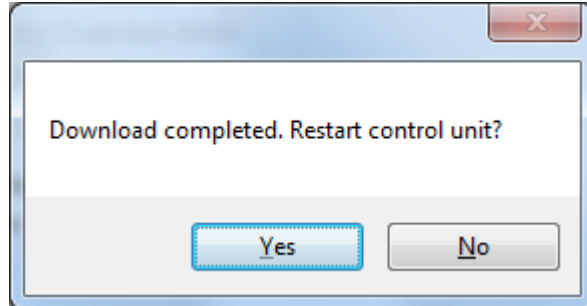
1. Start EBLWin. Do not log on to EBL128. In the "Tools" menu select "Download Software..." to open the dialog box and do the required settings.



2. Select the path and the S/W file to be downloaded, e.g. English_EBL128_200.bin. (200 = version 2.0.0)
3. Select the control unit, i.e. EBL128 (4550)
4. Select "COM Port" (on the PC) and baud rate. (If the download is not successful it might depend on a too high baud rate.)
5. Set the control unit in "boot mode", i.e. on the main board, up to the left, push on the jumper "JP2" (BOOT). Momentarily short the solder pads "JP1" (RESET). The buzzer will be sounding indicating "boot mode".
6. Start the download, i.e. click "Start". The buzzer stops sounding. The download status is indicated in the progress bar. LED "Operation" (L6) will be turned off. LED "General fault" (L7) is

⁶³ The software (firmware) makes the microprocessor work.

indicating that EBL128 is in the so called "Boot mode". LEDs "Alarms queued" (L2) are indicating the Flash memory programming. When the download is completed, LEDs "Alarms queued" (L2) will be turned off and the control unit has to be restarted. NOTE! First pull off the jumper "JP2" (BOOT)!



8. LED "Operation" (L6) will be lit.
9. There will be at least a "restart fault" (see chapter "Restart", page 77), i.e. LEDs "General fault" (L7) and "Fault tx activated" (L11) will be lit. Acknowledge all faults (menu H6).
10. New Site Specific Data (SSD)⁶⁴ can now be downloaded.

21.2 Earlier S/W version download

For some reason it might be required to "downgrade" to an earlier S/W version. The download procedure is the same as for a new S/W. **NOTE!** A corresponding Win128 / EBLWin version has to be used. EBL128 version N.N.x with Win128 / EBLWin version N.N.x.

21.3 S/W download in Display Units

New S/W for the 1728, 1735 / 1736 & 1826 / 1828 units can also be downloaded via EBLWin. The PC has to be connected to the RS232 connector "J2" in the unit respectively.

See the "**Technical Description**" for the unit respectively.

⁶⁴ Old SSD can be opened in EBLWin, saved and then downloaded as new SSD.

22 Restart

A restart will delete or not delete the data in EBL128. Here 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 **F**aults.

D = **D**isablements

FFD = Fire alarms, **F**aults and **D**isablements.

SSW = Sensor values, access codes, supervised output calibration values, log buffers and in some conventions the alarm counter.

SSD = **S**ite **S**pecific **D**ata, i.e. all the installation programming created and downloaded via EBLWin.

S/W = Software, i.e. the EBL128 system program.

WASV = **W**eek **A**verage **S**ensor **V**alues

Safe shut down of control unit (menu H8/S7) will save the SSW data (except the week average sensor values) in a Flash ROM **before you power off** (de-energize) **EBL128**. Before the first "Safe shut down" this memory is empty. After each "Safe shut down" the latest SSW data is saved. When EBL128 is powered up, the RAM (working memory) will, after the restart, read the SSW data saved in the Flash ROM.

The alarm counter value is stored in an EEPROM, i.e. the value will be retained also after the c.i.e. has been de-energized.

NOTE! After any restart, a new week average sensor value will be calculated within 2½ minutes, for all the analog smoke detectors.⁶⁵ Thereafter a new average sensor value will be calculated each week.

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

⁶⁵ During these 2½ minutes all fire alarms from analog smoke detectors will be suppressed.

Action	Data, etc. which will be <u>deleted</u>	Data, etc. which will be <u>not deleted</u>	Restart code
Power down ⁶⁶ and then power up again. ("Cold restart")	SSW FFD, WASV	SSD, S/W	00
Via menu H8/S4 Safe shut down of control unit. ("Cold restart")	FFD, WASV	SSD, S/W, SSW	00 alt. 03
Automatically after <u>download of site specific data (SSD)</u> via a PC & EBLWin. (" Warm restart ")	FF, WASV, D	SSD, S/W, SSW	25
Automatically after <u>download of S/W</u> via a PC & EBLWin. ("Cold restart")	FFD, WASV	SSD, S/W, SSW	03
Automatically due to <u>external disturbance</u> . ⁶⁷ ("Cold restart")	FFD, WASV	SSD, S/W, SSW	01, 02 alt. 04-20

NOTE! During the restart, the output "R1" for Fault tx will be "activated", the supervised 24 V DC outputs S0-S1 will be not supervised and S0-S1 programmed as normally high will be low for a few seconds.

During the "restart", no fire alarm can be activated and the buzzer will sound until the following text messages is show in the display:

```
*** EBL128 ***
Checking program memory.....
```

And for a second (if everything is all right, else see Memory fault below):

```
Booting.....
```

A **fault** is now generated and the following text message will be shown in the display:

```
FAULT: Restart code xx addr yyyy
Date: MM-DD Time: HH:MM
```

Regarding code **xx** and **yyyy**, see also page 67. This fault is also indicated by LEDs "Fault tx activated" (L11) and "General fault" (L7). After the fault is acknowledged (via menu H6), the LEDs will be turned OFF if there are no other faults.

⁶⁶ Power supply (mains) and battery disconnected.

⁶⁷ If this happens often, call for service personnel / engineer.

After any restart, required disablements have to be done.

Memory fault

In case of a fault in the S/W (system program) the following text message will be shown in the display:

```
Memory fault in program area: xxx
```

This is also indicated by LED "System fault" (L14) and the buzzer sounds steady (continuous). The Fault tx output is "activated".

A new download of the S/W (system program) is required.

NOTE! After **SSD download** (see chapter "SSD programming & download", page 72), the following messages might be shown:

```
Checksum fault in downloaded data.  
Control unit will now restart
```

```
FAULT: Restart code 25 addr yyyy  
Date: MM-DD Time: HH:MM Serviced
```

```
FAULT: Site specific data (SSD)  
Date: MM-DD Time: HH:MM
```

The last one means that the SSD have **not** been (correctly) downloaded. A new SSD download has to be performed.

22.1 **Boot menu**

The Boot menu should be used by **authorised personnel only!**

NOTE! Vital data can be erased via this menu.

The Boot menu is opened as follows:

Perform a "cold restart", i.e. Power down / power up EBL128:

The following text messages will be shown in the EBL128 display:

```
*** EBL128 ***  
Checking program memory.....
```

And after that, for a second:

```
Booting.....
```

When the text "Booting....." appears, press "**Access**" and 0.1 sec. later also press "**1**" and the **Boot menu** will be shown:

```
1:Restart, 2:Erase memory
```

Press "**1**" to perform a restart (you will also leave the Boot menu).
Press "**2**" to open the Erase memory menu, see below.

The Erase memory menu:

1 = SSD, 2 = SSW, 3 = Texts

Press "**1**" to erase the SSD memory.

Press "**2**" to erase the SSW memory.

Press "**3**" to erase the texts memory.

"Erasing SSD", "Erasing SSW" and "Erasing texts" respectively will be shown and then the Erase memory menu will be shown again.

Press "**Return**" to go back to the Boot menu.

NOTE! After erasing the SSW, perform a "Power down / power up" restart directly.

NOTE! All other alternatives are strictly forbidden to use. These are only for use at trouble shooting controlled by Panasonic specialists.

23 Access

To use the key pad in EBL128 (to get access to the menu tree), it is necessary to log in with a User name and Password for level 2B, 2C or 3A.

See also chapter "User level, User name & Password", page 23.

Open the EBL128 door (= level 2A), press the "Access" button (P8) and continue as follows:

Action	Text in display	Comments
"Access"	Log in as: 0: Information only →	Before SSD download only "0" is required to log in and get access to all the menus. After SSD download the settings done via EBLWin will be valid, i.e. up to ten (0-9) log in alternatives might be available. ⁶⁸ :
Step with → to the wanted alternative and press "A" or press "0", "1", ... "8" or "9" and "A"	Password: *****	The digits are replaced (*****) in the display.
	NO ACCESS!	Wrong password was entered. Try again. NOTE! After three wrong passwords the log in function will be blocked for one hour for the user name respectively.
	Perform monthly test ACCEPT? H1	Correct password was entered. Menu H1 is shown. Press "A" to accept (i.e. to perform a monthly test) or scroll / jump to another menu (H2-H10).

Explanations, to the table column headings:

⁶⁸ **0**: Information only (level 2B), **1**: Building officer (level 2C) and **2**: Service personnel (level 3A) are default in EBLWin. For safety reasons they are recommended to be changed and others to be added, i.e. after SSD download there might be up to ten (0-9) log in alternatives available.

Action = what to do, e.g. use push button / key signed "Access".

Text in display = what is shown in the EBL128 (c.i.e.) display.

Comments = Comments to the text in the "Action" and "Text in display" columns.

Use "↑" and "↓" to scroll between the main menus H1-H10.
Use "A" to accept.

Some main menus have sub menus. Use "A" to accept and then "↑" and "↓" to scroll between the sub menus (e.g. B1-B10).

NOTE! The menus are circular, i.e. if you scroll with "↓" and the last menu is reached, the first menu comes up next. It is also possible to make "quick jumps" within each menu, e.g. in menu H1 press "6" for a quick jump to menu H6. ("0" = menu x10).

Instead of a menu identification (e.g. B1), the letter L can be shown, which means that it is a List. Use "↑" and "↓" to scroll in the list.

If ← or → is shown in a menu, use "←" or "→" to get more information.

Use "←" and "→" to move the cursor in a menu.

Use "Return" to return from a sub menu to a main menu.

Use "Return" in a main menu (H1-H10) to leave the menu system.

NOTE! You will not be logged off until you close the door or 60 minutes after the last action (i.e. if the key pad / push buttons have not been used for 60 min.).

You will normally get some information that the action / operation you wanted is performed, (e.g. "Output xx forced active"). If not, the information will be "Operation failed!". (Also e.g. if you try to disable a unit that doesn't exist in the installation.)

24 Perform monthly test (H1)

EBL128 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 tested, i.e. no outputs (no sounders) will be activated during the test. (Alarm devices can be tested via menu H8/S6.)

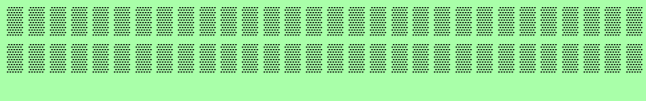
If a real fire alarm is activated by **an alarm point not in test mode**, the normal fire alarm functions will be activated, i.e. fire alarm presentation, outputs (sounders) activated, routing equipment (fire brigade tx) activated, etc. but the zone(s) in test mode will remain in test mode until the test mode is ended. During the fire alarm the zone(s) in test mode can be displayed via menu X3, see chapter "Display disablements (X3)", page 47.

See also chapter "The display in EBL128", page 21.

NOTE! If the EBL128 door is left open, the output(s) for routing equipment (fire brigade tx) might be disabled (if set so in EBLWin).

There will be an automatic ending of the test mode one hour after the latest tested alarm point / zone.

See also chapter "Perform ZONE TEST (test mode) (H7)", page 124.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
	Perform monthly test ACCEPT? H1	
"A"	Check that all LEDs light up! ACCEPT	
"A"		The buzzer (in EBL128) sounds and all dots in the display are shown. All LED:s light up, incl. LED:s in units connected via I/O Matrix board 4582.
"A"	Zones to be set in test mode: ?? ?? ?? ?? Start test: ACCEPT	
Write zone numbers (e.g. 01, 02, 03, 04)	Zones to be set in test mode: 01 02 03 04 Start test: ACCEPT	Press "A" to start the test mode.
"A"	Zones in test mode: 01 02 03 04 End test: ACCEPT	LED "Test mode" (L9) will light up. Perform the tests.

The zone(s) will stay in test mode until the test mode is ended but after 60 minutes or if you press "Return" two times, you will be logged out from menu H1.

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 be lit about ten seconds until the alarm point is automatically reset.

A detector in test mode will not be able to activate fault.

After 60 minutes or "Return" "Return"	Zones 01 in test mode More... NOTE! See chapter "The display in EBL128", page 21 regarding priority order.	You are no longer in menu H1 but still in test mode.
(When required: "Access", "Password") "A"	Zones in test mode: 01 02 03 04 End test: ACCEPT	Press "A" to end the test mode.
"A"	Test of routing equipment? 0 (1 = Yes, 0 = No) ACCEPT	The LED "Test mode" is turned OFF.
Some national regulations also require a <u>routine test of the routing equipment</u> . Press "A" for no test or press "1" and "A" to start such a test. The following will happen: <ul style="list-style-type: none"> • EBL128 "Fault tx" output will be de-activated⁶⁹, indicated by the LED "Fault tx activated" (L11). A 60 seconds count-down starts. • After 30 seconds, EBL128 "Fire brigade tx" output (and corresponding programmable outputs type 4 = routing equipment) will be activated as well, indicated by the LED "Fire brigade tx" (L15). • After another 30 seconds, the test will be ended and all the outputs and LEDs will return to "normal". 		
"1", "A"	Test of routing equipment in progress. nn seconds left.	"nn" starts at 60 and will count down to 00.
	Monthly test is completed! ACCEPT	
"A"	Perform monthly test ACCEPT? H1	Scroll or press "Return" to log off.

NOTE!

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

b) When the "Fire door closing" function is used, the fire door(s) will be closed when the zone involved is set in test mode.

⁶⁹ **NOTE!** This output is activated in normal state.

25 Disable or re-enable (H2)

A whole zone, one or more alarm points within a zone and/or control outputs can be disabled via menus H2/B1-B4. This possibility can be used when a temporary disablement is wanted (e.g. craftsmen working in the premises, etc.).

A disabled alarm point will not activate Pre-warning, fire alarm or fault.

NOTE! When a zone is disabled, the addressable manual call points in that zone will **not** be disabled.⁷⁰ When absolutely required, they can be individually disabled (as alarm points).

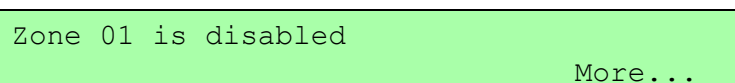
- **Zones 01-99** can be disabled via menu H2/B1.
- **Up to 100 alarm points** (zone / address) can be **individually** disabled via menu H2/B2.
- **Up to 100 outputs** can be **individually** disabled via menu H2/B3. Disabled output will stay in (or return to) the normal condition for the output respectively.
- **All outputs of a specified type** can be **collectively** disabled via menu H2/B4.
- **All outputs of type alarm devices** can be **collectively** disabled via menu H2/B9.
- **Outputs for routing equipment** can be disabled via menu H2/B10.

NOTE!

- **Up to 100 Interlocking outputs** can be **individually** disabled via menu H9/C4.
- The **COM loop** can be disabled via menu H8/S1.
- A **zone line input** can be disabled via menu H8/S2 or S3.

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

Disablements are indicated by LED "Disablements" (L8) and are also shown in the display⁷¹. An example:



Zone 01 is disabled More...

More... is indicating two or more disablements.

Disablements (and faults) are indicated by a 2-sec. beep when an open EBL128 door is being closed.

⁷⁰ This is not valid for the VdS (German), Australian and New Zealand conventions. In these conventions also the addressable manual call points will be disabled.

⁷¹ See chapter "The display in EBL128", page 19 regarding priority order.

25.1 Disable zone (H2/B1)

When a whole zone is disabled, all alarm points within the zone are disabled excluding the addressable manual call points.⁷⁰

All zones can be disabled. Disabled zones are listed in menu H4/U1.

Disabled zones can be automatically re-enabled or they have to be re-enabled via menu H2/B5.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
"A"	Disable zone: <u>00</u> ACCEPT?	
Write zone number, e.g. "01"	Disable zone: 01 ACCEPT?	Press "A" to accept.
"A"	Automatic re-enabling: <u>0</u> (0=No, 1=Yes) Time: HH:MM ACCEPT? <i>(Default is current time + 3 hours)</i>	Press "1" for aut. re-enabling and accept or change the time (max. 24 hours). Press "A" to accept. LED "Disablesments" (L8) will light up.
"A"	Zone 01 is disabled	
"A"	Disable zone: <u>00</u> ACCEPT?	If more disablesments shall be done, continue like above. If not, press "Return" to menu B1.
"Return"	Disable zone ACCEPT? B1	Scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.2 Disable zone / address (H2/B2)

Up to 100 addressable alarm points (also addressable manual call points), connected to the COM loop, can be individually disabled.

Disabled alarm points (zone – address) are listed in menu H4/U1.

Disabled alarm points (zone – address) can be automatically re-enabled or they have to be re-enabled via menu H2/B6.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B2.	Disable zone-address ACCEPT? B2	
"A"	Disable zone: <u>00</u> Address: 00 ACCEPT?	
Write zone number and address e.g. "01-01"	Disable zone: 01 Address: 01 ACCEPT?	Press "A" to accept.
"A"	Automatic re-enabling: <u>0</u> (0=No, 1=Yes) Time: HH:MM ACCEPT? (Default is current time + 3 hours)	Press "1" for aut. re-enabling and accept or change the time (max. 24 hours). Press "A" to accept. LED "Disablenents" (L8) will light up.
"A"	Zone 01 address 01 is disabled	
"A"	Disable zone: <u>00</u> Address: 00 ACCEPT?	If more disablements shall be done, continue like above. If not, press "Return" to menu B2.
"Return"	Disable zone-address ACCEPT? B2	Scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.3 Disable output (H2/B3)

Up to 100 Control outputs, except outputs of type "alarm device", can be individually disabled. Disabled output will stay in (or return to) the normal condition for the output respectively.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B3.	Disable output ACCEPT? B3	
"A"	Disable output type: <u>0</u> 0=Loopunit 1=S 2=R0 3=EXPB ACCEPT?	Press: "0"=3361 or 3377/4477 or 3379 or 3364 or 4380 or 4383 "1"=C.i.e. output S0-S1 "2"=C.i.e. output R0 "3"=C.i.e. exp. board output. ⁷² Press "A" to accept.
"0", "1", "2" or "3" "A" Depending on the chosen type the following will be shown:	Disable output <u>0</u> technical address 000 ACCEPT? Disable <u>S0</u> ACCEPT? Disable R0 ACCEPT? Disable output <u>0</u> expansion board 0 ACCEPT?	Regarding the 3377/4477 & 3379 units' output no.: 0=high priority 1=medium priority 2=low priority Write the data. Press "A" to accept. LED "Disablesments" (L8) will light up.
(Type 2 chosen.) "A"	Output R0 disabled	
"A"	Disable R0 ACCEPT?	
"Return"	Disable output type: <u>0</u> 0=Loop unit 1=S 2=R0 3=EXPB ACCEPT?	If more disablesments shall be done, continue

⁷² Expansion board (EXPB) 0-3,
4581: Relay output 0-7 alt. 4583: Output 0-2.

		like above. If not, press "Return" to menu B3.
"Return"	Disable output ACCEPT? B3	Scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.4 Disable all control, ventilation, exting or interlocking outputs (H2/B4)

Outputs programmed as type Control (general), type Fire ventilation, type Extinguishing system and type Interlocking can for the type respectively be collectively disabled (all at the same time). **Disabled output** means that even if the control expression (trigger condition) for the output respectively is fulfilled (true), the output will not be activated. Disabled outputs are shown in menu H4/U1.

The outputs will be disabled until re-enabled again (via H2/B8).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B4.	Disable all control, ventilation, exting or interlocking outputs ACCEPT? B4	
"A"	Disable type:0 0=Control 1=Ventilation 2=Exting 3=Interlocking ACCEPT?	For the type respectively press: "0"=control outputs "1"=ventilation outputs "2"=extinguishing outputs "3"=interlocking outputs Press "A" to accept. LED "Disablements" (L8) will light up.
"0", "1", "2" or "3" "A" Depending on the chosen type the following will be shown:	All xxxxxxxx outputs disabled	xxxxx=control, ventilation, extinguishing or interlocking
"A"	Disable type:0 0=Control 1=Ventilation 2=Exting 3=Interlocking ACCEPT?	If more disablements shall be done, continue like above. If not, press "Return" to menu B4.
"Return"	Disable all control, ventilation, exting or interlocking outputs ACCEPT? B4	Scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.5 Re-enable zone (H2/B5)

Disabled zones are listed in menu H4/U1.

Re-enabling via this menu (H2/B5) has higher priority than automatic re-enabling.

Zones disabled when the "New Zealand FB Silence switch" (outside switch) is turned OFF, have to be re-enabled via menu B5 or B6 before they can activate a new alarm.

When all zones have been re-enabled, the LED "Disables" (L8) will be turned OFF, if there are no other disablements.

NOTE! Alarm points that have been individually disabled via menu H2/B2 cannot be collectively re-enabled via this menu. They have to be individually re-enabled.

If there is nothing to re-enable, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B5.	Re-enable zone ACCEPT? B5	
"A"	Re-enable zone: 01 ACCEPT? L	L=A list in which you can scroll. Press "A" to accept. You will stay in this list until all zones are re-enabled or press "Return" to menu B5.
"A" (to re-enable) or "Return"	Re-enable zone ACCEPT? B5	If more re-enabling shall be done, continue like above. If not, scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return"

25.6 Re-enable zone / address (H2/B6)

Disabled alarm points (zone – address) are listed in menu H4/U1.

Re-enabling via this menu has higher priority than automatic re-enabling.

Alarm points / Zones disabled via the "Encapsulation function", see chapter "Single with automatic disablement" page 54, have to be re-enabled via this menu before they can activate a new alarm.

A zone will be presented as ZZ - 00 (ZZ=01-99).

Alarm points (zone – address) disabled when the "New Zealand FB Silence switch" (outside switch) is turned OFF, have to be re-enabled via menu B5 or B6 before they can activate a new alarm.

When all alarm points have been re-enabled, the LED "Disablements" (L8) will be turned OFF, if there are no other disablements.

If there is nothing to re-enable, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2:	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B6.	Re-enable zone-address ACCEPT? B6	
"A"	Re-enable zone: 01 Address: 01 ACCEPT? L	L=A list in which you can scroll. Press "A" to accept. You will stay in this list until all zone-addresses are re-enabled or press "Return" to menu B6.
"A" (to re-enable) or "Return"	Re-enable zone-address ACCEPT? B6	If more re-enabling shall be done, continue like above. If not, scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.7 Re-enable output (H2/B7)

Disabled outputs are listed in menu H4/U1.

When all outputs have been re-enabled, the LED "Disables" (L8) will be turned OFF, if there are no other disables.

If there is nothing to re-enable, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B7.	Re-enable output ACCEPT? B7	
"A"	Re-enable output type: <u>0</u> 0=Loopunit 1=S 2=R0 3=EXPB ACCEPT?	Only disabled type(s) will be shown. Press: "0"=3361 or 3377/4477 or 3379 or 3364 or 4380 or 4383 "1"=C.i.e. output S0-S1 "2"=C.i.e. output R0 "3"=C.i.e. exp. board output. ⁷³ Press "A" to accept.
	Or, e.g. if only type 2 is disabled:	
	Re-enable output type: <u>0</u> 2=R0 ACCEPT?	
"0", "1", "2" or "3" "A" Depending on the chosen type the following will be shown:	Re-enable output <u>0</u> technical address 000 ACCEPT? L	L=A list in which you can scroll. Regarding the 3377/4477 & 3379 units' output no.: 0=high priority 1=medium priority 2=low priority Press "A" to accept.
	Re-enable output <u>S0</u> ACCEPT? L	
	Re-enable output R0 ACCEPT? L	
	Re-enable output <u>0</u> expansion board 0 ACCEPT? L	
"A"	--- List is empty ---	All types are re-enabled.
"Return"	Re-enable output ACCEPT? B7	If more re-enabling shall be done, continue like

⁷³ Expansion board (EXPB) 0-3,
4581: Relay output 0-7 alt. 4583: Output 0-2.

		above. If not, scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.8 Re-enable all control, ventil, exting or interlocking outputs (H2/B8)

Disabled outputs are listed in menu H4/U1.

When all outputs have been re-enabled, the LED "Disablements" (L8) will be turned OFF, if there are no other disablements.

If there is nothing to re-enable, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B8.	Re-enable all control, ventil, exting or interlocking outputs ACCEPT? B8	
"A"	Re-enable type:0 0=Control 1=Ventilation 2=Exting 3=Interlocking ACCEPT?	Only disabled type(s) will be shown. Press: "0"=control output "1"=extinguishing output "2"=ventilation output "3"=interlocking output. Press "A" to accept.
	Or, e.g. if only type 1 is disabled:	
	Re-enable type:0 1=Ventilation ACCEPT?	
Press 1 "A"	--- List is empty ---	All types are re-enabled.
"Return"	Re-enable all control, ventil, exting or interlocking outputs ACCEPT? B8	Scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.9 Disable / re-enable alarm devices (H2/B9)

Disabled alarm devices are listed in menu H4/U1.

Outputs for alarm devices can be collectively disabled and re-enabled via this menu. Disabled output will stay disabled, until re-enabled again via this menu.

When all outputs type Alarm devices have been disabled, the LEDs "Disablesments" (L8) and "**Fault / Disablesments** Alarm devices" (L13) will be turned ON.

When all outputs type Alarm devices have been re-enabled, the LED "**Fault / Disablesments** Alarm devices" (L13) will be turned OFF.

NOTE! This function for alarm devices is **not** the same as for push button "Silence alarm devices" (P3) – unless the option *Button "Silence alarm devices" disables alarm devices*, is selected in EBLwin System properties, see chapter "Silence Alarm devices", page 29. This menu has higher priority than the push button "Silence alarm devices".

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B9	Disable / re-enable alarm devices ACCEPT? B9	
"A"	Alarm devices in normal condition Press ACCEPT to disable	Depending on the actual status one of the texts will be shown.
"A"	Alarm devices disabled Press ACCEPT to re-enable	
"Return"	Disable or re-enable outputs for routing equipment ACCEPT? B9	Scroll or press "Return" to return to H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.10 Disable / re-enable outputs for routing equipment (H2/B10)

Disabled outputs are listed in menu H4/U1.

Outputs for routing equipment (fire brigade tx / fault tx) can be disabled and re-enabled via this menu. Disabled output will stay disabled, until re-enabled again via this menu.

Can be useful during an installation and test period, when only local alarms are required.

Disabled output is indicated by LEDs "Disablements" (L8) and "**Fault / Disablements** Fire brigade tx" (L15).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B10	Disable / re-enable outputs for routing equipment ACCEPT? B10	
"A"	Routing equipment for FIRE:1, FAULT:1 (1=enabled, 0=disabled) ACCEPT?	To move the cursor, press "→". Edit and/or press "A" to accept.
E.g. "0" "A"	All outputs to routing equipment for: FIRE is disabled / FAULT is enabled	
"A"	Routing equipment for FIRE:0, FAULT:1 (1=enabled, 0=disabled) ACCEPT?	
"Return"	Disable / re-enable outputs for routing equipment ACCEPT? B10	Scroll or press "Return" to return to H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

25.11 Disable / re-enable alert annunciation function (H2/B11)

Normal operation:

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

Turned Off

Via this menu (H2/B11) it is possible to disable the AA function, i.e. the AA function will be disabled 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 stay disabled until re-enabled again via this menu.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B11.	Disable / re-enable alert annunciation function ACCEPT? B11	
"A"	Alert annunciation function is in normal operation. Press ACCEPT to turn off	Depending on the actual status one of the texts will be shown.
"A"	Alert annunciation function turned off. Press ACCEPT to set to normal	
"Return"	Disable / re-enable alert annunciation function ACCEPT? B11	Scroll or press "Return" to menu H2.
"Return"	Disable or re-enable ACCEPT? H2	Scroll or press "Return".

NOTE! Disabled Alert Annunciation function is **not** indicated by LED "Disablements" (L8).

The LED "**Fault / Disablements** Fire brigade tx delay" (L16) turned off, is indicating that the Alert Annunciation function is turned off by a time channel or is disabled via this menu.

26 Set calendar and clock (H3)

When required, the clock can be corrected, so that the "time stamps" for fire alarms, faults, etc. will be correct.

The way the date is presented could be different for different languages.

NOTE! The RTC component has no built-in battery, i.e. if EBL128 is out of power (no mains and no battery backup) and after new software has been downloaded, the date, day of the week and the time have to be set when EBL128 is powered-up again.

NOTE! The information shown in the display will be saved when you press "A".

Press "Return" instead of "A" to return to menu H3 **without any changes.**

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H3.	Set calendar and clock ACCEPT? H3	
"A"	Date: 20YY-MM-DD Time: hh:mm:ss Weekday:1 (1=Monday, 7=Sunday) NOTE! The date is in some conventions / languages shown as DD-MM-YYYY. YY=Year MM=Month DD=Date hh=hour mm=minute ss=second	The time shown is the time when "A" was pressed (in menu H3). When required, edit the date, time and/or weekday. Press "A". <u>The "clock" starts again from the date, time, etc. shown in the display.</u> <u>NOTE! Press "Return" (instead of "A") to return to menu H3 if no changes are to be done.</u>
Settings done "A"	Date and time was set. Date: 20YY-MM-DD Time: hh:mm:ss Day D	Depending on if "A" or "Return" is pressed.
"Return"	Set calendar and clock ACCEPT? H3	Scroll or press "Return".

26.1 Daylight saving time

If the time shall be automatically changed when the Daylight saving time period starts and stops respectively is set via EBLWin (System properties). This change is depending on which convention that is used.

- Australian convention: Forward 1 hour the first Sunday in October, 02:00 → 03:00. Backward 1 hour the first Sunday in April, 03:00 → 02:00.
- New Zealand convention: Forward 1 hour the last Sunday in September, 02:00 → 03:00. Backward 1 hour the first Sunday in April, 03:00 → 02:00.
- All other conventions: Forward 1 hour the last Sunday in March, 02:00 → 03:00. Backward 1 hour the last Sunday in October, 03:00 → 02:00.

27 Present system status (H4)

27.1 Disablement (H4/U1)

A list of all disablements (done via menu H2/Bx).

NOTE! Disablements by time channel(s) are listed in menu H4/U2.

If there are no disablements, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H4.	Present system status ACCEPT? H4	
"A"	Disablement ACCEPT? U1	Press "A" for presentation in the display.
"A"	<p><i>When "A" is pressed, the disablements will be shown in the display. Some examples:</i></p> <p>Zone XX address XX disabled 74 L</p> <p>or</p> <p>Zone XX is disabled 74 L</p>	L = a list in which you can scroll. If there are no disablements, --- List is empty --- will be shown.
"Return"	Disablement ACCEPT? U1	Scroll or press "Return" to menu H4.
"Return"	Present system status ACCEPT? H4	Scroll or press "Return".

⁷⁴ On this row can also be shown adding information, e.g.:

- Automatic re-enablement HH:MM
- Date and time
- (by open door in CU)

27.2 Disablement by time channel (H4/U2)

A list of all disablements by time channel(s).

NOTE! Other disablements are listed in menu H4/U1.

If there are no disablements, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H4.	Present system status ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U2.	Disablement by time channel ACCEPT? U2	Press "A" for presentation in the display.
"A"	<i>When "A" is pressed, the disablements will be shown in the display, e.g:</i> Zone XX address XX disabled (by time channel) L	L = a list in which you can scroll. If there are no disablements, --- List is empty --- will be shown.
"Return"	Disablement by time channel ACCEPT? U2	Scroll or press "Return" to menu H4.
"Return"	Present system status ACCEPT? H4	Scroll or press "Return".

When scrolling in the list the message "No more zone/addresses disabled by time channel found in the system" can be shown.

27.3 Sensor values (H4/U3)

The "Momentary" value in this menu will be updated after every detector polling, i.e. approx. every 6th second.

The very first week average sensor value for the 430x and 440x detectors in **NORMAL mode** 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.

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).

The "Performance factor" and "Min. / Max." values are updated each night (00:00), i.e. the values shown are from the previous day.

"Algorithm" shows the algorithm that is currently in use.

	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H4.	Present system status ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U3.	Sensor values ACCEPT? U3	Press "A" to accept.
"A"	Start Sensor : 00-00	Write the presentation number and/or press "A" to accept.
Depending on the type, the following will be shown (examples):	"A" Type 4301/4401: Sensor: 01-01 (technical address AAA) Momentary: XX.X%/m Weekly: XX.X%/m	This is a list in which you can scroll or use "→" to see the next information window for the selected sensor. Press "Return" back to "Start Sensor...". Scroll or write a new
	"→" Sensor: 01-01 Min: XX.X%/m Perf factor: X.XX%/m Max: XX.X%/m	
	"→" Sensor: 01-01 Current Algorithm: nnnnnn	

"A"	Type 3308/3309: Sensor: 01-02 (technical address AAA) Momentary: XX°C Min: XX°C Max: XX°C	presentation number or press "Return" to menu U3. NOTE! XX.X%/m = XX.X % obscuration per meter". Perf. Factor: see below this table. nnnnnn = algorithm short name, see separate table, page 104.
"→"	Sensor: 01-02 Current Algorithm: nnnnnn	
"A"	Type 4300/4400: Sensor: 01-03 (technical address AAA) Momentary: XX.X%/m Weekly: XX.X%/m	
"→"	Sensor: 01-03 Min: XX.X%/m Perf Factor: X.XX%/m Max: XX.X%/m	
"→"	Sensor: 01-03 Current Algorithm: nnnnnn	
"→"	Sensor: 01-03 (technical address AAA) Momentary: XX°C Min: XX°C Max: XX°C	
"→"	Sensor: 01-03 Current Algorithm: nnnnnn	
"Return"	Start Sensor : 00-00	Write the presentation number and/or press "A" to accept or press "Return" to menu U3.
"Return"	Sensor values ACCEPT? U3	Scroll or press "Return" to menu H4. Scroll or press "Return".
"Return"	Present system status ACCEPT? H4	Scroll or press "Return".

When scrolling the message "Please Wait....." might be shown for "a second".

Regarding the Performance factor:

The Performance factor can be 0.00 – 2.55. How the Performance factor (Pf) is calculated is shown to the left.

The Performance factor is normally close to 0.00, which means that the detector is mounted in a "stable" environment. The momentary sensor values during 24 hours do not differ a lot from the week average sensor value.

In an "unstable" environment the Performance factor will be higher than 0.00. This could for example be the case in a factory (e.g. "dirty" activities during working hours – no or clean activities during the night) and is not a problem as long as there are no nuisance (false) alarms or other problems.

Algorithms

Table showing the algorithms and the shortenings respectively:

$$\frac{\sum_{m=0}^{14400} |X_m - X_{wa}|}{14400} = Pf$$

X_m = momentary sensor values for 24 hours.
 X_{wa} = week average sensor value
 14400 = pollings during 24 hours

Algorithm	Short name⁷⁵
Detectors 3308/3309, 430x and 440x, all in <u>NORMAL</u> mode.	
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
Heat algorithm, Class B (S)	B
Decision algorithm	Dec ⁷⁶

Default is N-15 and A1 respectively.

Algorithm	Short name
Detector 4400 in <u>Advanced</u> mode.	
Normal area	Normal
Clean area	Clean
Cooking-Welding area	Welding
Heater area	Heater
Smoke-Steam area	Smoke

Default is Normal.

Algorithm	Short name
Detector 4401 in <u>Advanced</u> mode.	
Normal area	Normal
Clean area	Clean
Smoke-Steam area	Smoke

Default is Normal.

⁷⁵ If some other short name is wanted, it can be changed in EBLWin. Up to six characters can be used.

⁷⁶ Analog multi detector 4300 only.

27.3.1

Reset of a week average sensor value

If a sensor (analog smoke detector) is replaced without having generated SERVICE signal, its week average sensor value has to be set to the default value. If not, the new / clean sensor will inherit the old / dirty sensor's week average sensor value.

It is possible to clear the week average sensor value for each sensor individually, see chapter "Restore weekly average to default (H8/S5)", page 130. See also chapter "Acknowledge SERVICE signal (H8/S4)", page 129.

NOTE! Authorised service personnel only, must do the reset to default value. Used incorrectly it can cause nuisance fire alarms.

27.4 Sensors activating SERVICE signal (H4/U4)

Service signal is indicated by LED "Service" (L12). The week average sensor value is over the service level respectively for one or more sensors. (Regarding the service signal levels, see Planning Instructions, chapter "Service signal").

Menu H4/U4 is a list of the sensor(s) activating service signal.

NOTE! Service signal is only information that a sensor has to be replaced soon. The service signal has to be acknowledged, see chapter "Acknowledge SERVICE signal (H8/S4)", page 129.

If there are no sensors activating service signal,
--- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H4.	Present system status ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U4.	Sensors activating SERVICE signal ACCEPT? U4	Press "A" to accept.
"A"	Sensor : ZZ-AA (technical address aaa) needs service L	L = a list in which you can scroll. If there are no sensors activating service signal, --- List is empty --- will be shown.
"Return"	Sensors activating SERVICE signal ACCEPT? U4	Scroll or press "Return" to menu H4.
"Return"	Present system status ACCEPT? H4	Scroll or press "Return".

27.5 Technical warning (H4/U5)

One or more Technical warnings in the system are indicated in the display with **[i]**.

Menu H4/U5 is a list of the Technical warnings in the system.

If there are no Technical warnings, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H4.	Present system status ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U5.	Technical warning ACCEPT? U5	Press "A" to accept.
"A"	Technical warning number NNNN xxxxxxxxxxxx xxxxxxxxxxxxxxxx	A list in which you can scroll. If there are no Technical warnings, --- List is empty --- will be shown.
"Return"	Technical warning ACCEPT? U5	Scroll or press "Return" to menu H4.
"Return"	Present system status ACCEPT? H4	Scroll or press "Return".

27.6 Event log (H4/U6)

Presentation of the events in EBL128 is divided into three event lists, Alarm, Interlocking and General respectively. The event lists can also be read via EBLWin and the Web-server II.

The most recent event is shown in the top of the list. The way the date is presented could be different for different languages.

The initials of the person logged on to the system will also be shown for each event when applicable (i.e. commands). Commands done via EBLWin and the Web-server will also be shown.

NOTE! The event logging is disabled as long as this menu (H4/U6) is open.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H4.	Present system status ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U6.	Event log ACCEPT? U6	Press "A" to accept.
"A"	Select event log: <u>0</u> 0=Alarm 1=Interlocking 2=General	Select type of event log.
"0", "1" or "2" "A"	<p><i>When "A" is pressed, an event will be shown in the display, e.g:</i></p> <pre>FIRE ALARM zone 12 address 45 MM-DD HH:MM xxx</pre> <p>or</p> <pre>Command: Reset zone 32 MM-DD HH:MM xxx</pre> <p>or</p> <pre>FAULT: Output S1 acknowledged MM-DD HH:MM xxx</pre>	<p>The most recent event will be shown, i.e. use "↓" to scroll downwards in the list.</p> <p>xxx: "Blank" = EBL128 Win = By EBLWin Web = By Web-server SP = By Service Personnel</p>
"Return"	Select event log: <u>0</u> 0=Alarm 1=Interlocking 2=General	Select type or press "Return" to menu U6.
"Return"	Event log ACCEPT? U6	Scroll or press "Return" to menu H4
"Return"	Present system status ACCEPT? H4	Scroll or press "Return".

27.7 Version and alarm counter (H4/U7)

Version: Menu H4/U7 can be used to see the EBL128 software / firmware version.

Alarm counter The alarm counter is increased with "1" every time the c.i.e. enters the real "fire alarm condition" (Fire alarm indication in the display, LEDs "Fire" lit and the c.i.e. buzzer sounding), i.e. not for zones in test mode. It starts on 000 and goes to 999. It can be reset to 000 via EBLWin (Control unit menu "Reset alarm counter..."). It is stored in an EEPROM, i.e. the value will be retained also after the c.i.e. has been de-energized.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H4.	Present system status ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U7.	Version and alarm counter ACCEPT? U7	Press "A" to accept.
"A"	Version: X.X.X Alarm counter: yyy	Press "Return" to menu U7.
"Return"	Version and alarm counter ACCEPT? U7	Scroll or press "Return" to menu H4.
"Return"	Present system status ACCEPT? H4	Scroll or press "Return".

28 Service (H5)

When commissioning an installation (at power-up etc.) and by maintenance (programming etc.) menu H5 can be used, e.g. to get certain information and help.

Only authorised personnel have access to the level 3A menus. User name and Password for level 3A (Service Personnel) are required.

NOTE!

Via a PC⁷⁷ and EBLWin (+ EBLWin key in the PC) you can:

- download / upload (backup) Site Specific Data (SSD)
- download new S/W, etc.
- create and download the alarm texts shown in the display in EBL128 / ext. FBP / AAU / EPU.

⁷⁷ Connected to the "D" connector J3 (RS232) on the main board.

28.1 Calibration of supervised outputs (H5/A1)

Supervised (monitored) outputs⁷⁸:

- The voltage outputs (S0-S1) in the control unit
- The voltage outputs (VO0-VO1) in the COM loop output unit 3364.
- The voltage outputs (Output 0-Output 1) on the Inputs and outputs expansion board 4583

When all alarm devices (sounders, etc.) have been connected, including required end-of-line devices⁷⁹ and when the SSD download is ready, a calibration has to be done.

Function: If the actual value differs from the calibrated value \pm a small tolerance or if the calibrated value is outside the calibration range⁸⁰, a fault will be generated.

NOTE!

Each output's logic is programmable via EBLWin, i.e. normally low (default) or normally high (24V) but during the calibration the outputs will automatically be low, i.e. a normally high output will be low during the calibration (a few seconds).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H5.	Service ACCEPT? H5	
"A"	Calibration of supervised outputs ACCEPT? A1	
"A"	To calibrate supervised outputs press ACCEPT	
"A"	Calibration in progress Please wait.....	
"A"	Calibration is completed! ACCEPT?	

⁷⁸ Supervised (monitored) outputs can via EBLWin be set to be **not** supervised.

⁷⁹ **EBL128 outputs (S0-S1) and the exp. board 4583 outputs (Output 0-Output 1):** One end-of-line resistor (33K) in the last unit or one resistor (33K) in up to five units.

3364 outputs (VO0-VO1): One end-of-line capacitor (470 nF) in the last unit or one capacitor (470 nF) in up to five units.

⁸⁰ 4K7 – 50K and 470 – 5x470 nF respectively.

"A"	Calibration of supervised outputs ACCEPT? A1	Scroll or press "Return" to H5.
	Service ACCEPT? H5	Scroll or press "Return".

NOTE! After the calibration it is recommended to do a "Safe shutdown of control unit" (see menu H8/S7. This will save the SSW data (e.g. the calibration values) in a Flash ROM (see page 77).

28.2 Sensitive fault detection mode (H5/A2)

"Sensitive fault detection mode" means that the normal time delays for all type of faults are reduced, which makes it possible to find faults during the commissioning instead of later.

This mode is indicated by the LED "Fault tx activated" (L11).

NOTE 1! The "Fault" output for routing equipment is also "activated".

NOTE 2! Don't forget to turn this mode off after the commissioning.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H5.	Service ACCEPT? H5	
"A"	Calibration of supervised outputs ACCEPT? A1	
Scroll to menu A2	Sensitive fault detection mode ACCEPT? A2	
"A"	Sensitive fault detection mode is not active. Press ACCEPT to activate	Depending on the actual status one of the texts will be shown. Press "A" to accept or press "Return" to menu A2.
	Sensitive fault detection mode is active Press ACCEPT to deactivate	
"Return"	Sensitive fault detection mode ACCEPT? A2	Scroll or press "Return" to H5.
"Return"	Service ACCEPT? H5	Scroll or press "Return".

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

28.3 Service mode for COM-loop (H5/A3)

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.)

It is recommended to do this check also when EBL128 is power supplied via the backup battery only, since the battery voltage can be different (compared with the rectifier voltage) due to the battery condition, backup duration, etc.

The "Service mode for COM-loop" is indicated by LED "Disablements" (L8).

When you press "Return" back to menu A3, the "Service mode for COM-loop" will be terminated.

NOTE! If short circuit is detected on the loop when in service mode, the loop will be disabled and a fault message will be displayed:

```
FAULT: SHORT CIRCUIT SCI A <-> SCI B
```

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

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H5.	Service ACCEPT? H5	
"A"	Calibration of supervised outputs ACCEPT? A1	
Scroll to menu A3	Service mode for COM-loop ACCEPT? A3	Press "A" to accept.
"A"	Service mode for COM-loop: 0 0=Off 1=A-dir 2=B-dir 3=Both ACCEPT?	Press: 0=Service mode is off.

		<p>1=Voltage in A-direction. 2=Voltage in B-direction. 3=Voltage in both directions. 1, 2 or 3 selected is indicated by LED "Disables" (L8)</p>
E.g. "1" "A"	<p>COM-loop in service mode. Powered in A-direction.</p>	<p>The communication is now turned off on the COM loop but there still is 24 V DC in the A-direction. This state will last until you press "A" or "Return" to menu A3.</p>
"A" or "Return"	<p>Service mode for COM-loop ACCEPT? A3</p>	
"Return"	<p>Service ACCEPT? H5</p>	<p>Scroll or press "Return".</p>

28.4 Display current consumption in unit (H5/A4)

Control unit: The total current consumption (incl. the charging current at 24 V) for the control unit when it is connected to the mains (230 V AC), i.e. this function is not working by battery backup.

NOTE! No or very small current consumption will not be presented correctly / precisely since the accuracy is ± 5 mA.

Charging: The battery charging current.

Low capacity voltage difference: During the battery capacity check the voltage is measured with and without a resistor. A difference between these two voltages > 2100 mV will result in a "Low battery capacity" fault. This is checked every 4th hour.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H5.	Service ACCEPT? H5	
"A"	Calibration of supervised outputs ACCEPT? A1	
Scroll to menu A4	Display current consumption in unit ACCEPT? A4	
"A"	Current consumption unit: XXXX mA Charging: XXXX mA →	Press "→" for the second information window.
"→" ⁸¹	Low capacity voltage diff: XXXXX mV ←	Press "←" for the first information window.
"Return"	Display current consumption in unit ACCEPT? A4	Scroll or press "Return" to H5.
"Return"	Service ACCEPT? H5	Scroll or press "Return".

NOTE! Each window is updated continuously.

⁸¹ This window will not be visible until 4 hours after the c.i.e. is powered and the batteries have to be connected.

28.5 Display current consumption on COM-loop (H5/A5)

An average current consumption value can be displayed for the COM loop.

NOTE! No or very small current consumption will not be presented correctly / precisely since the accuracy is ± 5 mA.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H5.	Service ACCEPT? H5	
"A"	Calibration of supervised outputs ACCEPT? A1	
Scroll to menu A5	Display current consumption on COM-loop ACCEPT? A5	
"A"	Current consumption on COM-loop is xxx mA ACCEPT?	
"A" or "Return"	Display current consumption on COM loop ACCEPT? A5	Scroll or press "Return" to H5.
"Return"	Service ACCEPT? H5	Scroll or press "Return"

NOTE! The window is updated continuously.

28.6 Display statistics for COM loop (H5/A6)

The statistics can be used during commissioning, service, etc.

Pollings are the number of pollings ("questions") sent out by EBL128 to the units connected on the COM loop.

Parity is the received number of parity faults and % parity faults in relation to the pollings.

No answer is the received number of answer faults / no answers and % faults in relation to pollings.

Bit length is the received number of bit length faults and % bit length faults in relation to the pollings.

No. of bits is the number of bit faults and % bit faults in relation to the pollings. (Bit fault / incomplete answer.)

The **Parity**, **Bit length** and **No. of bits** values 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. Check so that the COM loop cable is not placed too close to high voltage cables, etc. that might cause communication disturbance / problems.

NOTE! All values are set to "0" after a restart and when you re-connect the COM loop (via menu H8/S1).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H5.	Service ACCEPT? H5	
"A"	Calibration of supervised outputs ACCEPT? A1	
Scroll to menu A6	Display statistics for COM-loop ACCEPT? A6	
"A" ⁸²	Pollings 1234567 Parity 000000 00.0% No reply 000000 00.0% →	Press "→" for the second information window.
"→"	Bitlength 000000 00.0% ← No. of bits 000000 00.0%	Press "←" for the first information window.
"Return"	Display statistics for COM-loop ACCEPT? A6	Scroll or press "Return" to H5.
"Return"	Service ACCEPT? H5	Scroll or press "Return".

⁸² The values are updated continuously.

28.7 Activate address setting mode for DU (H5/A7)

This function can be used by commissioning / service engineer to activate the address setting mode in the following Display Units connected to the RS485 interface in EBL128:

- Ext. Presentation unit (EPU) 1728
- Alert Annunciation unit (AAU) 1735 / 1736
- Ext. Fire Brigade Panel (FBP) 1826 / 1828

A specific unit or all units can be activated for address setting.

NOTE! The units have to be in operation and in quiescent condition, i.e. the units have to have an address set already.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H5.	Service ACCEPT? H5	
"A"	Calibration of supervised outputs ACCEPT? A1	
Scroll to menu A7	Activate address setting mode for DU ACCEPT? A7	
"A"	Activate address setting mode for DU <u>0</u> (9 = All) ACCEPT?	Write the unit's address (0-7). 9 = All units. Press "A" to accept.
E.g. "9" "A"	Operation failed!	If the address setting mode was not activated.
E.g. "9" "A"	All DU set in address setting mode	The address has now to be set / changed in the DU respectively.
"Return"	Activate address setting mode for DU ACCEPT? A7	Scroll or press "Return" to H5.
"Return"	Service ACCEPT? H5	Scroll or press "Return".

28.8 Show information about Site Specific Data (H5/A8)

Information about the latest downloaded Site Specific Data (SSD) via a PC and the program EBLWin.

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.

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.

EBLWin key The unique number for EBLWin key.

Convention (i.e. country specific functions, default EBLWin settings, etc.) is set in conjunction with the installation of EBLWin.⁸³

Language The Control unit language.

NOTE! YYYY=year, MM=month, DD=day, hh=hour, mm=minute. The way the date and time is presented can be different for different languages, since the format is depending on the convention.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H5.	Service ACCEPT? H5	
"A"	Calibration of supervised outputs ACCEPT? A1	
Scroll to menu A8	Show information about site specific data ACCEPT? A8	
"A"	SSD name: xxxxxxxxxxxxxx Downloaded: YYYY-MM-DD hh:mm →	See NOTE! above!!
"→"	User: nnnnnnnnnn Computer: cccccccccc →	Press "→" to see the next window.
"→"	Domain: dddddddd EBLWin key: 1234567890 →	Press "→" to see the next window.
"→"	Convention: cccccccccc	Press "→" to see the first

⁸³ To change the convention via EBLWin, "Level 2" has to be selected, which require a special password. Alt. EBLWin can be re-installed.

	Language: LLLLLLLLLL →	window again or "Return".
"Return"	Show information about site specific data ACCEPT? A8	Scroll or press "Return" to H5.
"Return"	Service ACCEPT? H5	Scroll or press "Return".

29 FAULT Acknowledge (H6)

Regarding fault indication, etc., see chapter "Fault", page 57.

All faults are normally latched, i.e. all faults have to be acknowledged. See also chapter "Fault acknowledge", page 70.

All fault events are stored in the event log and can be listed. See also chapter "Event log (H4/U6)", page 109.

In this menu (H6) are up to 200 faults listed:

- Not corrected and not acknowledged faults (no status info.)
- Not corrected but acknowledged faults (status: Acknowledged)
- Corrected but not acknowledged faults (status: Serviced)⁸⁴

The way the date is presented is different for different languages.

If there are no faults, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H6.	FAULT Acknowledge ACCEPT? H6	
"A"	<div style="background-color: #e0ffe0; padding: 2px;"> FAULT: XXXXXXXX → Date: MM-DD Time: HH:MM Status info. </div> <div style="background-color: #e0ffe0; padding: 2px;"> FAULT: XXXXXXXX ← User defined Alarm text, when applicable </div>	This is a list in which you can scroll. <u>The first fault in the list is the most recent fault.</u> Status info., see above. When applicable, press "→" for more info. To acknowledge the fault shown in the display, press "Fault acknowledge" (P6).
"Fault acknowledge"	<div style="background-color: #e0ffe0; padding: 2px;"> FAULT: XXXXXXXX → Date: MM-DD Time: HH:MM Acknowledged </div>	The status info. is now Acknowledged . When this fault is corrected it will be removed from the list. Scroll in the list e.g. to acknowledge more faults or press "Return" to menu H6.
"Return"	FAULT Acknowledge ACCEPT? H6	Scroll or press "Return" to log off.

⁸⁴ If faults are set – via EBLWin – to be "Not latched", **Serviced** will never be shown.

30 Perform ZONE TEST (test mode) (H7)

Normally, zones are tested during the monthly test via menu H1, see page 83. Via menu H7 it is possible to solely perform the zone test. Up to 99 zones can be in test mode at the same time.

In test mode, only the alarm points are tested, i.e. no outputs (no sounders) will be activated during the test. (Alarm devices can be tested via menu H8/S6.) See also *NOTE! b)* below.

If a real fire alarm is activated by **an alarm point not in test mode**, the normal fire alarm functions will be activated, i.e. fire alarm presentation, outputs (sounders) activated, routing equipment (fire brigade tx) activated, etc. but the zone(s) in test mode will remain in test mode until the test mode is ended. During the fire alarm the zone(s) in test mode can be displayed via menu X3, see chapter "Display disablements (X3)", page 47.

See also chapter "The display in EBL128", page 21.

There will be an automatic ending of the test mode one hour after the latest tested alarm point / zone.

NOTE! If the door in EBL128 is left open, the output(s) for routing equipment (fire brigade tx) might be disabled (if set so in EBLWin).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H7.	Perform ZONE TEST ACCEPT? H7	
"A"	Set zone in test mode ACCEPT? D1	D1 = Sub menu to set a zone in test mode.
"A"	Set zone: <u>00</u> in test mode Start test: ACCEPT	Write the zone number and press "A".
E.g. "01" "A"	Zone 01 in test mode	LED "Test mode" (L9) will light up.
"A"	Set zone: <u>00</u> in test mode Start test: ACCEPT	If more zones shall be set in test mode, do like above, else press "Return".
"Return"	Set zone in test mode ACCEPT? D1	

The zone(s) will stay in test mode until the test mode is ended. The test mode will also be automatically ended 60 minutes after the last testing in the zone.

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 and the alarm point will be automatically reset after about ten seconds. The alarm will also momentarily be shown in the EBL128 display.

A sensor in test mode will not be able to activate fault.

	Set zone in test mode ACCEPT? D1	To end the test mode the menu D1 has to be open. Press "↓" or "2" to open menu D2.
"↓" or "2"	End zone in test mode ACCEPT? D2	(Press "↑" or "1" for menu D1.)
"A"	End test mode zone: 01 ACCEPT? L --- List is empty ---	This is a list in which you can scroll between all the zones in test mode. Select or type the zone number and press "A". When no more zones are in test mode --- List is empty --- will be shown and the LED "Test mode" (L9) is turned OFF. Press "Return" to D2.
"Return"	End zone in test mode ACCEPT? D2	Press "Return" to H7.
"Return"	Perform ZONE TEST ACCEPT? H7	

NOTE!

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

b) When the "Fire door closing" function is used, the fire door(s) will be closed when the zone involved is set in test mode.

31 Maintenance (H8)

Only authorised personnel have access to the level 3A menus. User name and Password for level 3A (Service Personnel) are required.

Disconnected (disabled) loop, etc. is indicated by LED "Disablements" (L8) and is listed in menu H4/U1.

31.1 Disconnect / Re-connect COM loop (H8/S1)

To avoid damage on the units and EBL128 during physical connection / disconnection of loop units, it is highly recommended to have the loop disconnected (disabled), i.e. the loop is voltage free (dead).

NOTE! When you disconnect and re-connect the COM loop, all the statistics shown in menu H5/A6 will be erased and set to "0".

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Disconnect / Re-connect COM loop ACCEPT? S1	
"A" or "Return"	COM-loop is connected. Press ACCEPT to disconnect	Depending on if the COM loop shall be disconnected or re-connected, press "A" or "Return"
"A" or "Return"	COM-loop is disconnected. Press ACCEPT to re-connect	
"A"	Disconnect / Re-connect COM loop ACCEPT? S1	Scroll or press "Return" to H8.
"Return"	Maintenance ACCEPT? H8	Scroll or press "Return".

31.2 Disconnect / Re-connect zone line input (H8/A2)

To avoid damage on the units and EBL128 during physical connection / disconnection of units, it is highly recommended to have the zone line disconnected (disabled), i.e. voltage free (dead).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Disconnect / Re-connect COM loop ACCEPT? S1	
Scroll to menu S2	Disconnect / Re-connect zone line input ACCEPT? S2	
"A"	Disconnect (=0) or Re-connect (=1) zone line input? <u>1</u> ACCEPT?	Press "0" or "1" and press "A" to accept.
Depending on if "0" or "1" is chosen, one of the following will be shown:	Disconnect zone line input <u>0</u> expansion board 0 ACCEPT? Re-connect zone line input <u>0</u> expansion board 0 ACCEPT?	Write the 4580 board no. (0-3) and the zone line input no. (0-7). Press "A" to accept.
E.g. "0" "0" "A"	Zone line input 0 expansion board 0 disconnected	
"A"	Disconnect zone line input <u>0</u> expansion board 0 ACCEPT?	Do more disconnections or press "Return".
"Return"	Disconnect (=0) or Re-connect (=1) zone line input? <u>1</u> ACCEPT?	Write "0" or "1" and press "A" to accept or press "Return" menu S2.
"Return"	Disconnect / Re-connect zone line input ACCEPT? S2	Scroll or press "Return" to H8.
"Return"	Maintenance ACCEPT? H8	Scroll or press "Return".

31.3 Disconnect / Re-connect addressable zone interface input (H8/S3)

To avoid damage on the units and EBL128 during physical connection / disconnection of units, it is highly recommended to have the zone interface input disconnected (disabled), i.e. voltage free (dead).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Disconnect / Re-connect COM loop ACCEPT? S1	
Scroll to menu S3	Disconnect / Re-connect addressable zone interface input ACCEPT? S3	
"A"	Disconnect (=0) or Re-connect (=1) addr. zone interface input? <u>1</u> ACCEPT?	Press "0" or "1" and press "A" to accept.
Depending on if "0" or "1" is chosen, one of the following will be shown:	Disconnect addressable zone interface input, technical address: <u>000</u> ACCEPT?	Write the COM loop address (001-255). Press "A" to accept.
	Re-connect addressable zone interface input, technical address: <u>000</u> ACCEPT?	
E.g. "0" "001" "A"	Input technical address 001 disconnected	
"A"	Disconnect addressable zone interface input, technical address: <u>000</u> ACCEPT?	Do more disconnections or press "Return".
"Return"	Disconnect (=0) or Re-connect (=1) addr. zone interface input? <u>1</u> ACCEPT?	Write "0" or "1" and press "A" to accept or press "Return" menu S3.
"Return"	Disconnect / Re-connect addressable zone interface input ACCEPT? S3	Scroll or press "Return" to H8.
"Return"	Maintenance ACCEPT? H8	Scroll or press "Return".

31.4 Acknowledge SERVICE signal (H8/S4)

See chapter "Sensors activating SERVICE signal (H4/U4)", page 107. Indicated by LED "Service" (L12), which will be turned off when all sensors have been acknowledged.

When a sensor (analog smoke detector) that has generated SERVICE signal is acknowledged, the sensor will be given a default sensor value as for a new / clean sensor, i.e. **first** replace the sensor **then** acknowledge the service signal **as soon as possible**.

The very first week average sensor value after the SERVICE signal is acknowledged will be calculated within one hour. Thereafter a new week average sensor value will be calculated every week.

NOTE! If a sensor is replaced without activating service signal, it has to be reset to the default sensor value via menu H8/S5, see page 130.

If there are no sensors having activated SERVICE signal,
--- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Disconnect / Re-connect COM loop ACCEPT? S1	
Scroll to menu S4.	Acknowledge SERVICE signal ACCEPT? S4	
"A"	Sensor : xx-xx (technical address xxx) needs service L	L = a list in which you can scroll. Press "Fault acknowledge" to acknowledge the service signal or press "Return" to S4.
"Fault acknowledge"	<i>The service signal for that sensor is now acknowledged and the next sensor will be shown in the display.</i> Sensor : yy-yy (technical address yyy) needs service L	If more service signal acknowledgements shall be done, continue like above. If not, press "Return" to menu S4.
"Return"	Acknowledge SERVICE signal ACCEPT? S4	Scroll or press "Return" to menu H8.
"Return"	Maintenance ACCEPT? H8	Scroll or press "Return".

31.5 Restore weekly average to default (H8/S5)

If a sensor (analog smoke detector) is replaced **without having generated SERVICE signal**, its week average sensor value has to be restored and set to a default value. If not, the new / clean sensor will inherit the old sensor's value. The week average sensor value has to be restored for each replaced sensor individually. **First** replace the sensor **then** restore the week average sensor value **as soon as possible**.

The very first week average sensor value after restoring will be calculated within one hour. Thereafter a new average sensor value will be calculated each week.

NOTE! Authorised service personnel only, must use this menu. Used incorrectly it can cause nuisance fire alarms from a sensor or no fire alarm at all.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Disconnect / Re-connect COM loop ACCEPT? S1	
Scroll to menu S5.	Restore weekly average to default ACCEPT? S5	
"A"	Enter zone-address to restore: <u>00</u> -00 ACCEPT?	Write the zone-address and press "A" to accept.
E.g. "01-01" "A"	Sensor 01-01 (tech addr 001) is restored to default average	
"A"	Enter zone-address to restore: <u>00</u> -00 ACCEPT?	If more sensors shall be restored, continue like above. If not, press "Return" to menu S5.
"Return"	Restore weekly average to default ACCEPT? S5	Scroll or press "Return" to menu H8.
"Return"	Maintenance ACCEPT? H8	Scroll or press "Return".

31.6 Test of alarm devices (H8/S6)

The programmable outputs⁸⁵ of type "Alarm device" can be collectively activated via this sub menu (S6), which makes it possible to test the alarm devices without too much disturbance on site.

The test cannot be started if fire alarm is already activated in EBL128.

When the test starts, the alarm devices will sound for approx. 1 second, be silent for approx. 29 seconds, sound for approx. 1 second and so on.⁸⁶

NOTE! Also disabled (and silenced) alarm devices will be tested.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S6.	Test of alarm devices ACCEPT? S6	
"A"	Test of alarm devices? ACCEPT?	Press "A" to start the test.
"A"	Test of alarm devices in progress. End test? ACCEPT?	The test will now continue until stopped via this menu (S6) or automatically after one hour or if a fire alarm is activated. Press "A" to stop the test.
"A"	Test of alarm devices? ACCEPT?	
"Return"	Test of alarm devices ACCEPT? S6	Scroll or press "Return" to return to menu H8.
"Return"	Maintenance ACCEPT? H8	Scroll or press "Return"

⁸⁵ Including Addressable siren 3377 / 4477, Addressable sounder base 3379, Addressable beacon 4380 and Light indicator 4383.

⁸⁶ The output activation will be steady (continuous). For the alarm devices 3377 / 4477 and 3379, the tone with the highest priority level (and type "alarm device") will be automatically selected.

31.7 Safe shut down of control unit (H8/S7)

It's not recommended to power down (de-energize) EBL128 without first doing a safe shut down. Safe shut down will save the SSW in a Flash memory and also put the CPU at rest.⁸⁷ See also chapter "Restart", page 77.

It's recommended to do a safe shut down after commissioning the installation and after calibration of supervised outputs, change of password etc.

NOTE! By restart and power down, the Fault tx relay, which is powered in quiescent/normal state, will be powerless, i.e. the relay contacts will alternate.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S7.	Safe shut down of control unit ACCEPT? S7	
"A"	For safe shut down of control unit press ACCEPT	
"A"	Control unit ready for power down. To restart without power down press ACCEPT. NOTE! If you change your mind regarding power down, press "A" to restart the CU (or wait 5 min. for an aut. restart).	The SSW is now saved, the CPU is at rest and the CU is ready to be de- energized.
Power down – up or "A" or after 5 min.	Normal restart indication, see page 77 FAULT: Restart code 0x addr 0 Date: mm-dd Time: hh:mm Serviced	After the restart / power up there will be a fault, which has to be acknowledged, see chapter "FAULT Acknowledge (H6)", page 123. Restart = code 03or 00.

⁸⁷ All LEDs, incl. "Operation" (L6), will be turned off as well as the communication on the COM loop, RS232 / -485 serial lines and the input "IO".

31.8 Activate zone-address in alarm mode (H8/S8)

One alarm point (zone-address), not a whole zone, can be manually activated, i.e. be set in alarm mode.

NOTE! All outputs, standard and programmable, which would have been activated by a real fire alarm from the same alarm point, will be activated by this "manually activated" alarm as well.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S8.	Activate zone/address in alarm mode ACCEPT? S8	
"A"	Select zone: <u>00</u> address: 00 ACCEPT?	
Write the zone and address, e.g. "12-45"	Select zone: 12 address: 45 ACCEPT?	Press "A" to accept / activate the fire alarm.
"A"	001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01 "Alarm text for 12-45"	Normal fire alarm presentation in the EBL128 / FBP display. If more alarm points have to be set in alarm status, press "Return" to select another zone - address and continue as above.
"Return"	Select zone: <u>00</u> address: 00 ACCEPT?	
Write another zone and address, e.g. "12-34".	Select zone: 12 address: 34 ACCEPT?	Press "A" to accept / start the fire alarm.
"A"	001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01 "Alarm text for 12-45"	The LEDs "Alarms queued" (L2) are indicating that more than

"Alarms queued"	002 ZONE-ADDR 12-34 LAST ZONE 12 No. 01 "Alarm text for 12-34"	one alarm point is in alarm. Press the button "Alarms queued" (P1) to see the other alarm. Press "Reset" to reset the alarm(s).
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What happens when you press "Reset" is depending on:

- a) if you still are in menu H8/S8 and single encapsulated reset is used
- b) if you still are in menu H8/S8 and multiple reset is used **or** if you have left the menu system (by pressing "Return" two times **or** automatically after 10 minutes).

Alternative a) "Reset"	Activate zone/address in alarm mode ACCEPT? S8	Scroll or press "Return" to menu H8.
	Maintenance ACCEPT? H8	Scroll or press "Return".

Alternative b) "Reset"	(Blank)	
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NOTE!

Multiple reset is default.⁸⁸

By Single encapsulated reset each point has to be reset individually.

See also chapter "Alarm reset", page 53.

⁸⁸ Alarm reset method is selected via EBLWin, "Control Unit Properties", tab "Advanced".

31.9 Activate output (H8/S9)

Any output can be activated via this menu (H8/S9).

NOTE! It will be activated until reset via menu H8/S10.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S9.	Activate output ACCEPT? S9	
"A"	Activate output type: <u>0</u> 0=Loopunit 1=S 2=R0 3=EXPB ACCEPT?	Loop unit=3361 or 3364 S=S0-S1 R0=R0 EXPB= 4581 or 4583
Depending on if 0, 1, 2 or 3 is selected one of the alternatives will be shown.	Activate output: <u>0</u> , technical address 000 ACCEPT?	Fill in the requested data respectively and press "A".
	Activate <u>S0</u> ACCEPT?	
	Activate <u>R0</u> ACCEPT?	
	Activate output: <u>0</u> , expansion board 0 ACCEPT?	
"A" Depending on if 0, 1, 2 or 3 is selected one of the alternatives will be shown.	Output 0 technical address 002 forced active	
	Output S0 forced active	
	Output R0 forced active	
	Output 0 expansion board 0 forced active	
"A" "Return"	Activate output type: <u>0</u> 0=Loopunit 1=S 2=R0 3=EXPB ACCEPT?	If more outputs shall be activated do as above, else

		press "Return" to menu S9.
"Return"	Activate output ACCEPT? S9	Scroll or press "Return" to menu H8.
"Return"	Maintenance ACCEPT? H8	Scroll or press "Return".

31.10 Reset activated output (H8/S10)

Output(s) activated via menu H8/S9 have to be reset via this menu (H8/S10).

NOTE! Only output types that are activated will be shown and possible to select.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H8.	Maintenance ACCEPT? H8	
"A"	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S10.	Reset activated output ACCEPT? S10	
"A"	Reset output type: <u>0</u> 0=Loopunit 1=S 2=R0 3=EXPB ACCEPT?	Only output types that are activated will be shown. Loop unit=3361 or 3364 S=S0-S1 R0=R0 EXPB= 4581 or 4583
Depending on if 0, 1, 2 or 3 is selected one of the alternatives will be shown.	Reset output: <u>0</u> , technical address 000 ACCEPT? L	L=A list in which you can scroll. Select the output to reset and press "A".
	Reset <u>S0</u> ACCEPT? L	
	Reset <u>R0</u> ACCEPT? L	
	Reset output: <u>0</u> , expansion board 0 ACCEPT? L	
"A"	Reset output type: <u>0</u> 0=Loopunit 1=S 2=R0 3=EXPB ACCEPT?	Only output types that are activated will be shown. When all outputs are reset, --- List is empty --- will be shown.
"Return"	Reset activated output ACCEPT? S10	Scroll or press "Return" to menu H8.
"Return"	Maintenance ACCEPT? H8	Scroll or press "Return".

32 Interlocking outputs and inputs (H9)

32.1 Activated interlocking outputs/inputs (H9/C1)

The way the date is presented can be different for different languages.

If there are no output / input activated, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H9.	Interlocking outputs and inputs ACCEPT? H9	
"A"	Activated interlocking outputs/inputs ACCEPT? C1	
"A" Depending on activated output and/or input, the following will be shown:	Output AA/PP activated at HH:MM Information text (if progr.) ----- Output AA/PP act HH:MM, input act HH:MM Information text (if progr.) ----- Input AA/PP activated at HH:MM Information text (if progr.)	This is a list in which you can scroll. AA = interlocking combination Area PP = interlocking combination Point (within the area). HH=Hour MM=Minute Press "Return" to menu C1.
"Return"	Activated interlocking outputs/inputs ACCEPT? C1	Scroll or press "Return" to menu H9.
"Return"	Interlocking outputs and inputs ACCEPT? H9	Scroll or press "Return".

32.2 Activate interlocking output (H9/C2)

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.

Reset has to be performed via menu H9/C3.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H9.	Interlocking outputs and inputs ACCEPT? H9	
"A"	Activated interlocking outputs/inputs ACCEPT? C1	
Scroll to menu C2.	Activate interlocking output ACCEPT? C2	
"A"	Activate interlocking output area <u>00</u> point 00 ACCEPT?	
E.g. "01-01" "A"	Interlocking output 01-01 activated	
"A"	Activate interlocking output area 01 point 01 ACCEPT?	If more outputs shall be activated do as above, else press "Return" to menu C2.
"Return"	Activate interlocking output ACCEPT? C2	Scroll or press "Return" to menu H9.
"Return"	Interlocking outputs and inputs ACCEPT? H9	Scroll or press "Return".

32.3 Reset interlocking output (H9/C3)

All activated interlocking outputs are listed in this menu.

Interlocking output activated via its control expression and with latching output selected (in EBLWin): The output has to be reset via this menu (C3).

Interlocking output activated via its control expression and with latching output **not** selected: The output can be reset via this menu (C3).

Interlocking output activated via menu H9/C2: The output has to be reset via this menu (C3).

If there are no outputs to reset, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H9.	Interlocking outputs and inputs ACCEPT? H9	
"A"	Activated interlocking outputs/inputs ACCEPT? C1	
Scroll to menu C3.	Reset interlocking output ACCEPT? C3	
"A"	Reset interlocking output area <u>00</u> point 00 ACCEPT?	This is a list in which you can scroll. Press "A" (for reset) or "Return" (no reset) to menu C3.
"A" or "Return"	Reset interlocking output ACCEPT? C3	Scroll or press "Return" to menu H9.
"Return"	Interlocking outputs and inputs ACCEPT? H9	Scroll or press "Return".

32.4 Disable interlocking output (H9/C4)

Up to 100 Interlocking outputs (Type = Interlocking) can be individually disabled via this menu but not via menu H2.

The "Interlocking Combination" (Area / Point) is to be entered to disable the output. **All** interlocking outputs can be collectively disabled via menu H2/B4.

Disabled interlocking outputs are listed in menu H4/U1.

The LED "Disables" (L8) is also indicating one or more disabled interlocking outputs.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H9.	Interlocking outputs and inputs ACCEPT? H9	
"A"	Activated interlocking outputs/inputs ACCEPT? C1	
Scroll to menu C4.	Disable interlocking output ACCEPT? C4	
"A"	Disable interlocking output area 00 point 00 ACCEPT?	
E.g. "01", "01" "A"	Disable interlocking output area 01 point 01 ACCEPT?	Press "A" to accept and/or "Return" to menu C4.
"A"	Interlocking output 01-01 disabled	
"A"	Disable interlocking output ACCEPT? C4	Scroll or press "Return" to menu H9.
"Return"	Interlocking outputs and inputs ACCEPT? H9	Scroll or press "Return".

32.5 Re-enable interlocking output (H9/C5)

Disabled interlocking outputs are listed in menu H4/U1.

Interlocking outputs (Type = Interlocking) will be re-enabled via this menu but not via menu H2.

All interlocking outputs, disabled via menu H2/B4, has to be re-enabled via menu H2/B8.

If there are no outputs to re-enable, --- List is empty --- will be shown.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H9.	Interlocking outputs and inputs ACCEPT? H9	
"A"	Activated interlocking outputs/inputs ACCEPT? C1	
Scroll to menu C5.	Re-enable interlocking output ACCEPT? C5	
"A"	Re-enable interlocking output area 00 point 00 ACCEPT?	This is a list in which you can scroll. Press "A" (for re-enable) or "Return" (not re-enable) to menu C5.
"A" or "Return"	Re-enable interlocking output ACCEPT? C5	Scroll or press "Return" to menu H9.
"Return"	Interlocking outputs and inputs ACCEPT? H9	Scroll or press "Return".

33 Change password (H10)

The password can be changed for the user (user name) that is logged in but it is recommended to do it via EBLWin instead.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 81.
Scroll to menu H10.	Change password ACCEPT? H10	
"A"	Password: __ New password: Verify:	
Enter the old and new passwords and the new password again.	Password: ***** New password: ***** Verify: *****	The digits are replaced (*****) in the display.
	Incorrect password, NO change	Wrong password was entered. Try again.
	Password is changed	Correct password was entered.
"Return"	Change password ACCEPT? H10	Scroll or press "Return" to log off.

As long as you don't close the door you can enter the menu system again without a password.

NOTE! After change of password it is recommended do a "Safe shutdown of the control unit" (see menu H8/S7). This will save the SSW data (e.g. the new password) in a Flash ROM (see page 77).

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

34 Annual control

The building occupier is highly recommended, once a year, to do some tests, beside the monthly tests. To avoid the Fault tx output to be activated, it can be disabled via menu H2/B10 (or via an open door, see chapter "Door open", page 39.).

Regarding the fault condition, see chapters "Fault", page 57 and "Fault messages", page 58.

NOTE! Most faults have a time delay.

EBL128 should be tested as follows:

- Perform monthly test (menu H1).
- Remove the battery fuse "F2" on the main board 4556. The following fault message is to be shown:

FAULT: Battery not connected CU

- Put back the fuse and acknowledge the fault (Menu H6).
- Check the manual call point glasses. Take required measures. Use the manual call point alarm test key to activate some fire alarms.
- Check that the control outputs that should be activated really are activated according to programmed control expressions?
- Reset the fire alarms.

35 Battery maintenance

The batteries (2 x 12 V, 15-18 Ah) are placed inside EBL128. (Larger batteries have to be placed outside.)

EBL128 supervises the batteries and a fault will be activated if something goes wrong.

They are rechargeable sealed Lead-Acid batteries and maintenance-free but the producer's instructions are always to be followed.

The ambient temperature affects the battery capacity, self discharge and life span. It should if possible not be higher than normal room temperature. For highest safety, batteries used in a fire alarm installation should never be older than four years.

36 **How to avoid unnecessary (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 connection with bad ventilation can cause a fire alarm.

Welding, grinding, cutting, sawing & drilling

This kind 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. Warning! Be careful when there are smoke detectors (sensors) near such activity.

Special environments

Certain premises and environments can influence smoke detectors (sensors) and cause alarms. 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, e.g. from an oven, dry-blower, heater, etc.

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 EBL128) a Service signal is given when it is time to clean or exchange the smoke detectors (sensors). The alternative is to exchange detectors at even intervals, 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 altering. Due to special environments, see above, an inappropriate detector type might have been chosen from the beginning and thus cause unnecessary alarms.

Miscellaneous

Choosing another type of detector, e.g. a multi detector (with both heat and smoke detection), can solve certain problems. Note 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.
- Co-incident (two units) fire alarm activation can be used.
- In an installation with addressable detectors / sensors (e.g. EBL128), the affected detectors can be individually disabled (or whole zones) when the work is in progress. 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 menu (H2/B1-B2). 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.

37 **Revision history**

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