Panasonic

Operating Instructions

MEW01091

Revision 3

Fire Alarm System EBL128

V1.1.x

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Table of contents

1   Introduction

EBL128 Operating Instructions is a document[1] with information of special interest for the **end user** and the **fire brigade personnel**, as well as **service / commissioning engineers**.

It should be read in conjunction with the <u>EBL128 Planning Instructions</u>, 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 <u>EBL128 drawings</u>[2], according to the valid Table of drawings.

A <u>Product Leaflet</u> is also available at:
http://www.panasonic-fire-security.com/pewfste/en/html (Data sheets)

Due to continual development and improvement, different S/W versions are to be found. This document is valid for **S/W version 1.1.x**. On the date of the document is x=2.

NOTE! Regarding upgrade from S/W version 1.0.x to version 1.1.x see chapter "Software (S/W) download", page 71.

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

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 type no. but sometimes is a country code added (e.g. **4550SE**)

- a **product name** (e.g. **EBL128 Control & Indicating Equipment, 128 addresses**)

H/W

A H/W (e.g. a **p**rinted **c**ircuit **b**oard) has:

- a **type number** (e.g. **1556**)

- an **article number**, often = the type no. but sometimes is a country code added (e.g. **1556SE**)

- a **product name** (e.g. **Main Board 128 addr.**)

- a **p.c.b. number** (e.g. **9261-3A**) and can also have a configuration (e.g. **CFG: 1**) and a revision (e.g. **REV: 2**)

- sometimes a **S/W**

S/W

A S/W has:

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[1] File name: K:\PRO\FIRE\128\Doc\V1.1.x\MEW01091 (Rev 3).doc

[2] Dimensions & overviews, connection diagrams, etc.

- a **version number** (e.g. **V1.11** or **V1.1.0**)
- sometimes <u>additional information</u>, such as **Convention** (different functions / facilities), **Language**, etc.

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   PEWN AB

Panasonic **E**lectric **W**orks **N**ordic **AB**

2.2   Alarm point

Unit, which can generate a fire alarm in EBL128, i.e. a sensor, a conventional detector, a manual call point, etc.

2.2.1   Smoke detector

Two types of analog and conventional smoke detectors are available: photo electric (optical) and ionization.

2.2.2   Sensor

Sensor = Analog detector

2.2.3   Analog detector

Contains an A/D-converter. EBL128 pick up the digital values ("sensor values") for each detector individually. All evaluations and "decisions" are then made in EBL128. Analog detectors are addressable – an address setting tool is used. 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 states, <u>normal</u> or <u>fire alarm</u>. The detector contains a closing contact and a series alarm resistor. Some types are plugged in a **CDB** (see below) but some types are water proof and are not plugged in any base.

(Conventional detectors are normally plugged in a **CDB** (see below) and connected to a conventional zone line with end-of-line device.)

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 <u>individually</u> 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 an I/O unit, intended for one or more conventional alarm points. End-of-line dive 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 disconnection of a part of a COM loop (see below) in case of a short circuit on the loop.

2.6 **Display unit**

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

2.7 **COM loop**

Loop = a cable with two wires, to which all the addressable MFSTech units can be connected. It starts in EBL128 and it returns back to EBL128

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

Control **U**nit = **C.U.** = **C**ontrol and **I**ndicating **E**quipment = A unit, e.g. **EBL128**, to which the alarm points are connected. Indicates fire alarm, fault condition, etc. on the front, i.e. 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

2.11   LED

LED (**L**ight **E**mitting **D**iode) = 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 (**L**iquid **C**rystal **D**isplay) = 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   SSD / Site Specific Data

This data is unique for each installation. All alarm points, presentation numbers, alarm texts, programmable outputs, etc. are programmed (configured) in the PC program **Win128** and has to be downloaded in EBL128.

2.16   S/W / Software / System program

The S/W makes the microprocessor in EBL128 work. It is factory downloaded but a new version can be downloaded on site.

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 128 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://www.panasonic-fire-security.com

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 **Win128**) and commissioning is very easy.

3.5   PC S/W

Win128 is used for programming and commissioning, i.e. to:

- create / download / upload (backup) the site specific data (SSD)
- download new S/W version / settings / conventions / configurations / EBL128 data / etc.
- create / download the alarm texts shown in the display in EBL128 / ext. FBP and/or AA units.

Win128 shall have the same version number as the EBL128 S/W version number, e.g. **1.1**.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 Win128 version before the download. If a backup is required, use the same Win128 version as the EBL128 version.

4   Control & Indicating Equipment

*Figure 1. The EBL128 **C**ontrol & **I**ndicating **E**quipment (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 **F**ire **B**rigade **P**anel (**FBP)** and the **C**ontrol **P**anel (**CP**).
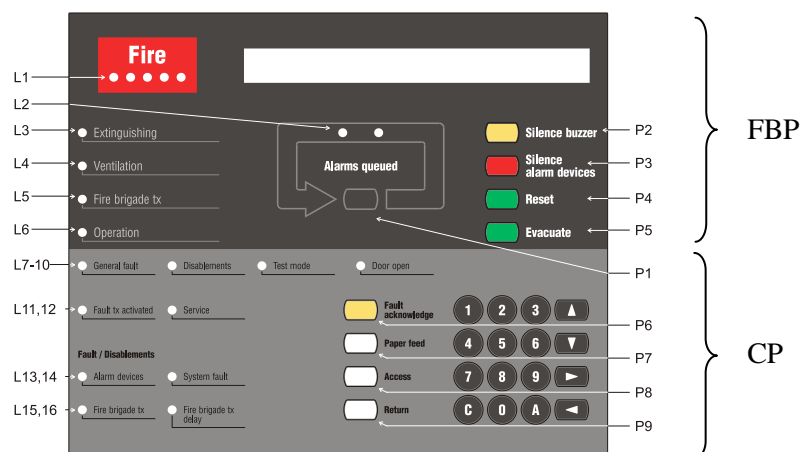
Figure 2. The EBL128 front. The look might vary depending on the country (language) configuration, etc. (e.g. English texts as in the figure). See also chapter "LED indicators and push buttons", page 14.

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 39.

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 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 12.

LED indicators on the Fire Brigade Panel (FBP)		
LED indicator		**Indicating**
L1	Fire (5 red) Blinking (0.4/0.4s)	Fire alarm (also pre-warning, heavy smoke/heat 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 extinguishing equipment. [4]
L4	Ventilation (yellow)	Output(s) activated for fire/smoke ventilation equipment.
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)

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

[4] L3 and L5 can as an alternative be programmed to indicate when a programmable input is activated, i.e. input trigger condition "Extinguishing system released" 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.

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

[6] Via Win128 can be set if the alarm devices shall be continuous off / disabled **or** re-sound for a new alarm.

[7] **Multiple reset** (Default): All fire alarms will be reset simultaneously.

Single encapsulated 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. The encapsulation function is described in chapter "Single encapsulated reset", page 50.

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" 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/U6.
[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 disabled. **Blinking**: One or more supervised outputs (type Alarm device) have generated fault(s).[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 disabled via menu (H2/B3) or via an open door.[11] **Blinking**: Routing equipment power supply output[15] or one or more supervised outputs (type Routing equipment) have generated fault(s).[16]

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[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. a 3377, 3378, 3361, etc.

[14] The LED is turned on during restart and stays on for restart code other than 00 and 03 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]

[17] The **A**lert **A**nnunciation 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/S1. [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 39.
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.

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[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:ss
User programmable information text.
```

Top (first) row[19]:

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
ss = seconds, e.g. 45

> **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 Win128, 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.

The LCD information priority order is as follows:

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[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.

1. Fire alarms (Normal fire alarms, Heavy smoke / heat alarms and Key cabinet alarms) [21]
2. Co-incidence alarms
3. Pre-warnings
4. Quiet alarms (Normally used on the Australian market only.)
5. AAF zone alarms (Used in the Australian convention only.[22])
6. Evacuate information (only valid in some conventions) [23]
7. Faults (not acknowledged)
8. Disablements
9. Zones in Test mode
10. Interlocking in- / outputs active

In the New Zealand convention:
a. Silence switch left active
b. Alarm routing equipment isolated
c. Fault routing equipment isolated

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[21] In the New Zealand convention also Acknowledged alarms (ACK) and Isolated alarms (ISO).

NOTE! A Fire alarm has a "log off function", i.e. if a menu window is open when a fire alarm is activated, the fire alarm will be presented instead.

Some information is available and some actions are possible to perform via the "Fire alarm menu" (X1-X9), see chapter "Fire alarm", page 39.

[22] Require special equipment available on the Australian market only.

[23] Require special equipment available on the New Zealand market only.

7   Access levels

EBL128 has six access levels for different kind of users.

Access level	Access code (password)	Required action	Users	Action
1	N/A	None (Door closed).	Anybody.	Scroll / browse through the queued alarms
2A	N/A	Fire brigade key. (To open the door.)	Fire brigade personnel.	Fire alarm handling. Use menu X1-9.
2B	****	Fire brigade key + access code for level 2B (or 3A).	Building occupier.	Installation handling (daily duties), e.g. monthly tests, dis-ablements, etc.
3A	****	Fire brigade key + access code for level 3A.	Service / maintenance personnel.	Service, maintenance.
3B	********	PC (Win128) connected + PC access code for level 3B.	Service / maintenance / commissioning engineer.	Service, maintenance, commissioning the system, etc. via Win128.
4	********	PC (Win128) connected + PC access code for level 4.	Service / maintenance / commissioning engineer.	Service, maintenance, commissioning the system, etc. via Win128.

The access codes can be changed. To change a code you have to know the valid code or use a code for a higher access level.

Retailers are informed regarding the default access code respectively.

7.1   **Access level 1**

With the door closed, **anybody** has access to the push button "Alarms queued" (P1) – via a circular hole in the plexiglass – to scroll / browse through the queued alarms.

7.2   **Access level 2A**

When the door has been opened via the fire brigade key and the door switch has been activated (LED "Door open" is lit), **the fire brigade personnel** have access to the push buttons / keypad to:

(P2) Silence the buzzer in EBL128
(P3) Silence the alarm devices (sounders) in the system.
(P4) Reset fire alarm(s).
(P5) Evacuate (start the sounders).[24]
(P7) Paper feed (not used in EBL128).
(P8) Access, in conjunction with a fire alarm: The **fire brigade personnel** can use "P8" (without any access code) to get access to the menu X1-X9, i.e. to scroll through all the fire alarms (see all point alarms), etc.

From access level 2A, the user can logon to access level 2B and 3A respectively. See the following chapters.

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[24] Only valid for the "Belgian" and "Ukrainian" conventions. See chapter "LED indicators and push buttons", page 14, for explanation of use in other conventions.

7.3   Access level 2B

When the door has been opened via the fire brigade key and the door switch has been activated (LED "Door open" is lit), **the building occupier** has access like in access level 2A <u>and</u> after access code for level 2B (or 3A) 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 alarm devices outputs
B5 Re-enable zone
B6 Re-enable zone / address
B7 Re-enable output
B8 Re-enable all control, ventil, exting or alarm devices outputs
B9 Disable / Re-enable outputs for routing equipment
B10 De-activate alert annunciation function
H3 Set calendar and clock.
H4 Present system status on display.
U1 Disablement
U2 Disablement by time channel.
U3 Show values.
U4 Sensors activating SERVICE signal
U5 Show event log
U6 Show configuration and alarm counter
H6 Acknowledge FAULTS.
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 access code for daily duties (access level 2B).

7.4   Access level 3A

When the door has been opened via the fire brigade key and the door switch has been activated (LED "Door open" is lit), **the service / maintenance personnel** have access like in access level 2A and 2B <u>and</u> after access code for level 3A[25] the following menus:

H5 Service
A1 Disconnect / Re-connect COM loop
A2 Disconnect/Re-connect zone line input
A3 Calibration of supervised outputs
A4 Sensitive fault detection mode
A5 Service mode for COM-loop
A6 Show information about site specific data
A7 Display current consumption on COM loop
A8 Display statistics for COM loop
A9 Activate address setting mode for DU
H8 Maintenance
S1 Acknowledge SERVICE signal.
S2 Clear weekly average.
S3 Test alarm devices.
S4 Safe shut down of control unit.
S5 Activate address in alarm mode.
S6 Change access code for service and maintenance (access level 3A).
S7 Change access code for PC-communication.

7.5   Access level 3B

Used by Service / maintenance / commissioning engineers when a PC (i.e. **Win128**) is to be connected to EBL128 for backup / download of site specific data.

Connect the PC and logon to EBL128 from the PC (Win128).

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[25] If the code for access level 3A has already been used to logon to access level 2B, a new logon is not required.

7.6   Access level 4

Used by Service / maintenance / commissioning engineers when a PC
(i.e. **Win128**) is to be connected to EBL128 for download of new S/W
/ settings / configurations / C.U. data, on-line status checking, etc.

Connect the PC and logon to EBL128 from the PC (Win128).

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 alarm[26] or a Co-incidence alarm, the following will happen:

- LEDs "Fire" (L1) and "Alarms queued" (L2)[27] continue to be **blinking** (0.4 / 0.4).
- Activated outputs[28], programmed for sounders (type Alarm devices), will be silenced.

In case of <u>a new alarm</u>, or if the <u>push button "Silence Alarm devices" is pressed again</u>, the sounders will automatically sound again and the LEDs "Fire" and "Alarms queued" starts blinking.

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

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 cannotbe 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 20.

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

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[26] In the New Zealand convention "Acknowledged alarm" (ACK) as well.

[27] When more than one fire alarm is activated.

[28] Including Addressable siren 3377 and Addressable sounder base 3379.

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 cannotbe activated. The "inside switch" (se above) has no function.

- LED:s "Fire" (on the front) changes from blinking to steady (continuous).[29]

- The c.i.e. built-in buzzer is silenced.

- A fault is generated[30]: "FAULT: FB Silence switch active".

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

- The fault "FAULT: FB Silence switch active" will be **Serviced**.[31]

- 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.
```

---

[29] This is valid also if the fire alarm is activated <u>after</u> the outside switch is turned ON.

[30] Always latched, regardless of if faults are programmed to be <u>not</u> latched.

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

9   Disable / Re-enable alarm devices

All outputs[28] programmed for sounders (type Alarm devices) can via menu H2/B4 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/B8.

See also chapter "Disable all control, extinguishing, ventilation and alarm device outputs (H2/B4)", page 85.

10   "Silence buzzer"

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

- pre-warning (0.8 / 5 sec.)
- co-incidence alarm: When only one **zone / address** (alarm point) is in alarm status (0.8 / 5 sec.)
- fire alarm and acknowledged alarm[32] (0.4 / 0.4 sec.)
- fault (continuous)
- activated interlocking input (0.8 / 0.8 sec.), if this option is selected via Win128.
- quiet alarm (0.8 / 5 sec.)

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.[33]

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

Silence buzzer by open door

In Win128, 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 28) 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.

---

[32] Acknowledged alarm in the New Zealand convention only.

[33] Not valid if the buzzer is silenced by the open door.

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

All control outputs programmed as type:

- Control (general)

- Fire ventilation

- Extinguishing system

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

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

See also chapter "Disable all control, extinguishing, ventilation and alarm device outputs (H2/B4)", page 85.
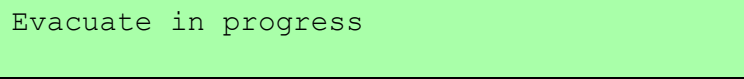
12   Evacuate, LED Test, Alert Annunciation Acknowledge and Disable

These functions are only valid in some conventions.

A front with the push button (P5) is required.

See also chapters "Control & Indicating Equipment", page 12 and "LED indicators and push buttons", page 14.

12.1   Evacuate

When the push button "Evacuate" (P5) is pressed, all outputs programmed for sounders (type Alarm devices)[28] 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   LED Test

When the push button "LED Test" (P5) is pressed, all LEDs on the front, the LCD back light and all LCD pixels are lit.

12.3   Alert Annunciation Acknowledge

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

12.4   Disable

When the push button "Disable" (P5) is pressed, all zones in fire condition will 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 de-activated. 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 all alarm devices" (H2/B4) 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:

In the c.i.e.	In the FAT	
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 "Access levels", page 22. The same type of key is also used to open the ext. FBP door / the key switch. Door open[34] 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 Win128 the following can be programmed:

○ **Disable by door in the control unit**: Door open in EBL128 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:

```
Fire alarm routing disabled
(by open door in CU)
```

14.3   Silence buzzer

In Win128 the following can be programmed:

○ **Silence buzzer by door switch**: The buzzer will be turned off as long as the EBL128 door is open.

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

---

[34] 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 Win128) 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.[35]

Addresses 001 – 127 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 Win128).

NN – NN

> 00 – 99

01 – 99 = The **Address** within the zone.
00 = Zone number only will be displayed.
E.g. for one or more conventional detectors connected to a MIO (3361) or a zone line input (4580)
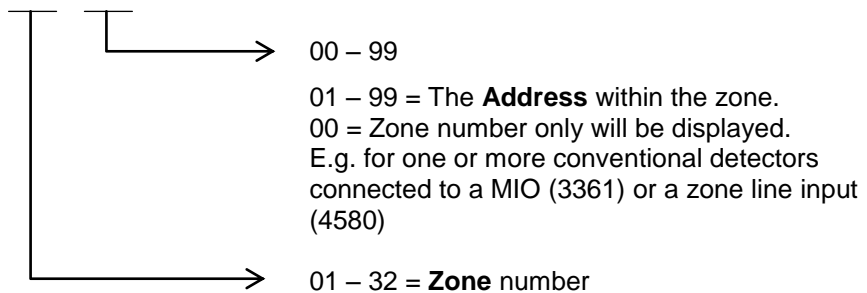
> 01 – 32 = **Zone** number

NOTE! Only the zone numbers **01-32** can be used.

---

[35] The Addressable Base station for wireless units (4610) has a DIL-switch for the COM loop address. See the Technical description for 4610.

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**.[36] If somebody illegally breaks into a key cabinet, this will also generate a "fire alarm" (a Key cabinet alarm).[37]

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-incidence alarm**.[38] In the Australian convention only, **Quiet alarm** is used for fan control.

EBL128 can handle and present up to 128 fire alarms (alarm points and/or zones). Zone numbers 01-32 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.[39] 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.).
- LEDs "Fire" (L1) are blinking (0.4 / 0.4 sec.).
- Outputs programmed for pre-warning are activated.[40]

---

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

[37] This is done via a programmable input.

[38] This function is normally used for smoke detectors only.

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

[40] Outputs programmed for General pre-warning and outputs programmed for the activated pre-warning(s).

- On the first row in the EBL128 display, the presentation number (zone-address) is shown (for the first pre-warning).
- On the second row, an alarm text (= the fire alarm message) 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 50.

16.2   Fire alarm

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

See also chapter "The display in EBL128", page 20. 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 0.4th 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.[41]
- 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:

---

[41] Programmable outputs for "General fire alarm" and for the activated fire alarm(s).

- **Two or more** analog addressable smoke, heat or multi detectors.
- **Any** manual call point
- **Any** zone line input
- **Any** programmable input with the trigger condition "General Fire"

Fire alarm presentation in the EBL128 display[42]:
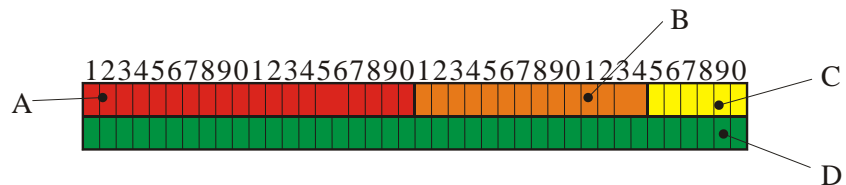
A: Field for the **first alarm point or zone** in alarm.
   By **scrolling** each alarm will be shown in this field.

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 fields[42]:

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 $01 - 32$. **AA** = address $01 - 99$

The information in the field **B**:

LAST ZONE **zz**

zz = zone number $01 - 32$ 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 = $01 - 32$ = 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".

---

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

Some Fire alarm examples:

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

```
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 LED:s "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 LED:s "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

LED:s "**Alarms queued**" (L2) are blinking (0.4 / 0.4 sec.), indicating <u>more than one fire alarm</u>.[43] 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 alarm[44], e.g.:

---

[43] Up to 128 alarms can be presented in the display. Alarm = ZONE and/or ZONE-ADDRESS.

[44] 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.

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

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 50.

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 53), "ALM" will be replaced with "ACK".

If the fire alarm or the acknowledged alarm is isolated (see page 53), "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 Win128), it is a violation to the EN54-2 standard).

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.

During the fire alarm presentation press button "Access" [45] and **the alarm text** will be replaced with the following:

---

[45] 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 78. 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 39.

Second row: All fire alarms (up to 128 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 not connected CU
```

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 – 32) 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, extinguishing, ventilation and alarm device outputs (H2/B4), page 85.

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 "Re-enable all control, extinguishing, ventilation or alarm device outputs (H2/B8), page 90.

16.2.2   Alert Annunciation alarm (AA alarm)

Indications, actions etc. as for a normal fire alarm **except that EBL128 output for routing equipment (Fire brigade tx) will not be activated directly.** An **AA** alarm is indicated by the LED "Fire brigade tx delay" (L16). The **AA** alarm has to be acknowledged within an acknowledge time and reset within and 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. Acknowledgement[46] 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 50.

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

When only one two-unit dependent alarm point, (i.e. one **zone – address)** is in alarm status[47] or when only one two-zone dependent zone is in alarm status[48], the buzzer sounds (0.8 / 5 sec.) and there is a **Co-incidence alarm** presentation in the display.

```
        Co-incidence alarm detector ZZ/AA
```

or

```
            Co-incidence alarm zone ZZ
```

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

Co-incidence 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 50.

16.3 Heavy smoke alarm / Heavy heat alarm

An analog detector generates heavy smoke / heat alarm for a higher alarm level[49] 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.[50]

---

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

[47] 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.

[48] 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.

[49] See EBL128 Planning Instructions.

[50] General heavy smoke / heat alarm and individual alarm points / zones.

- If an ext. FBP with a built-in printer (1826) is connected, the printer will print[51] 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 50.

16.4   Key cabinet alarm

One programmable input[52] can be used to connect a key cabinet.

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

NOTE! In the Danish (DBI) convention the key cabinet alarm function is a little different, see below.

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 39.

Key cabinet alarm is reset like a normal fire alarm, see chapter "Fire alarm reset, page 50.

This alarm will also generate a fault message, see chapter "Key cabinet alarm reset", page 52. It is indicated by LED "Fault" (L8). **NOTE!** The "Fault tx" output will not be activated by this fault.

---

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

[52] Input I0 or COM loop I/O unit 3361 can be used.

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 50), 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 52.

16.4.3   Key cabinet alarm, Danish (DBI) convention

NOTE! Only valid for the Danish (DBI) convention.

When the key cabinet is opened, the "Fault tx" output will be activated and a "key cabinet fault" will be generated:

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

(In Danish: "FEJL: Nøgleskab")

When this fault is acknowledged (see chapter "Acknowledge FAULTS (H6)", page 115), there is a 5 minutes delay before a new "key cabinet fault" can be generated again.

16.5   Quiet alarm

Normally used on the Australian market only.

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 the I/O Matrix board 4582, an application board for fan control and an I/O unit 3361 for fan control.
NOTE! These units are available on the Australian market only.

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, 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 **A**larm Acknowledgement **F**acility **C**ontrols[53] are used in the system.

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

```
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.

---

[53] The AAF Control is available on the Australian market only.

17   Alarm reset

17.1   Pre-warning reset

Pre-warning is automatically reset.

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.

<u>One</u> of the following alarm reset alternatives is valid. This is selected via Win128. "Multiple reset" is default.

17.2.1   Multiple reset

All the fire alarms will be reset by pressing "Reset" (P4). (According to the EN54-2 standard).
NOTE! The push button has to be pressed in for min. 0.5 sec.

When all fire alarms are reset, LEDs "Fire" (L1) and "Alarms queued" (L2) are turned OFF and the display is empty.[54]

All outputs (for fire alarm) have also been 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 52.

17.2.2   Single encapsulated reset

This function, set in Win128, is a violation to the EN54-2 standard.)[55]

Fire alarm reset

Each fire alarm has to be reset one by one.

Press "Reset" (P4) to reset the fire alarm, shown in the display, on the first row to the left
NOTE! The push button has to be pressed in for min. 0.5 sec.

Output(s) programmed for this fire alarm will also be reset, i.e. de-activated.

If more than one fire alarm is activated (i.e. if LED:s "Alarms queued" (L2) are lit) the next fire alarm in the queue is now shown in the

---

[54] If there is a fault condition (e.g. caused by the fire), a fault message will now be shown in the display.

[55] 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.

display, on the first row to the left. It has to be reset the same way as the first one.

When all fire alarms are reset, LED:s "Fire" (L1) and "Alarms queued" (L2) are turned OFF and the display is empty.[54]

All outputs (for fire alarm) are now also 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 52.

Encapsulation function

Normally if an alarm point or zone is <u>reset while still in alarm status</u>[56], it will activate a new fire alarm within 20 seconds. (According to the EN54-2 standard.)

When "Single encapsulated reset" is performed, an alarm point or zone still in alarm status will <u>not</u> activate a new fire alarm. It becomes automatically disabled (encapsulated) and <u>has to be re-enabled via menu H2/B5 or B6 before it can activate a new fire alarm again</u>.

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

NOTE!
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 whole zone (conventional) will be encapsulated.

17.2.3   Alert Annunciation

Regarding the function, see chapter "Alert Annunciation alarm (AA alarm)", page 45 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!   <u>Reset via an external unit</u> is only possible during the investigation time and only **AA** alarm(s) can be reset, not normal fire alarms.

17.2.4   Co-incidence alarm

Co-incidence 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-incidence alarm (two-unit / -zone dependence)", page 46.

---

[56] E.g. a manual call point with a broken glass.

17.3   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.

17.4   Key cabinet alarm reset

Not valid for the Danish (DBI) convention, see chapter "Key cabinet alarm, Danish (DBI) convention", page 48.

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 67.

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).

17.5   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.)

17.6   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.)

17.7   Acknowledged alarm

NOTE! Valid for the New Zealand convention only.

A fire alarm presented in the LCD can be acknowledged by pressing the button "Acknowledge fault" (P6).

Acknowledged alarms are indicated in the fire alarm list in the LCD by "ACK" in front of the alarm, see page 42. 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").

17.8   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).[57]

Isolated alarms are indicated in the fire alarm list in the LCD by "ISO" in front of the alarm respectively, see page 42.

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 or B6 before they can activate a new fire alarm again.

---

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

Example of a fault message:

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

Press "→" to see the technical address:

```
FAULT: No reply techn. address xxx          ←
Date: MM-DD    Time: HH:MM
```

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.[58]
- 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 43.

All faults are normally latched and have to be acknowledged, which is done via menu H6 (see page 115). In this menu (H6) can up to 100 faults be listed:

- Not corrected and not acknowledged faults
- Not corrected but acknowledged faults
- Corrected (serviced) but not acknowledged faults

---

[58] In Win128, <u>fault latching</u> or <u>not fault latching</u> can be selected.
Fault latching (default) = each fault always have to be acknowledged.
No fault latching = corrected faults will automatically be removed from the fault list (menu H6).

If a fault cannotbe 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, techn address xxx
```

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 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 ext. 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 n <-> SCI n
```

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 **n** <->SCI **n** describes between which **S**hort **C**ircuit **I**solators
(SCI:s) the cut-off is located.
n = A, B, 0, 1, 2, 3, 4, 5, 6 or 7. A & B is the built-in isolator in the
EBL128 A-direction and B-direction respectively, i.e. if no SCI
(4370) is used the information will always be: SCI **A** <-> SCI **B.**
If one SCI (4370 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 <u>several breaks</u> on the loop the message shows the last isolator before the break <u>in the A-direction</u> (incl. the following isolator). There will also be a "FAULT: No reply ….." message for each unit that EBL128 cannotfind 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.[59]

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 cannotbe 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.

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

FAULT: External fuses

---

[59] 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.

The fault is to be found in the <u>external power supply</u> (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 <u>external power supply</u>. 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 <u>extinguishing system</u>. 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 cannotbe 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 30 seconds.

Check the fan and the cables / connections.

FAULT: Fault warning routing equipment

The fault is to be found in the <u>Fault warning routing equipment</u>. 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: 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

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 xx-xx   →

Press "→" to see the technical address.

FAULT: Loop unit techn. address xxx   ←

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

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

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 < 19 V DC.

FAULT: Mains

- Loss of mains, i.e. no 230 V AC (the fault is activated after 1-300 minutes).[60]
- 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).[60] Check 230 V AC fuses. A fault output is connected to a programmable input in the EBL128 system. Check the input as well.

---

[60] The time is programmable in Win128. Max. 30 min. according to the EN54-2 standard. Default value depending convention.

> **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).[61]
> - Fuse for 230 V AC blown.
> - Fuse "F1" blown on the charger board 3367.

> **FAULT: No reply xx-xx   →**
>
> Press "→" to see the technical address.

> **FAULT: No reply techn. address xxx   ←**
>
> In spite of communication in both directions (COM loop A-direction
> and B-direction), the unit cannotbe found.
> - Check the unit's address (with the programming tool 3314).
> - 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**
>
> AAU=1735 / 1736. (Alert Annunciation Unit)
>
> EBL128 cannotcommunicate 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 cannotcommunicate 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.

---

[61] The time is programmable in Win128. Max. 30 min. according to the
EN54-2 standard. Default value depending convention.

EBL128 cannotcommunicate with the board. Check / edit the address.
Check the cables / connections.

FAULT: No reply FBP x

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

EBL128 cannotcommunicate 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/A3.
- 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/A3.
- 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 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/A3.
- 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)

Some external influence has caused a fault in the SSW (the data that is changed during operation, i.e. sensor values, access codes, etc.). This is very serious. Call for service personnel / engineer immediately.

FAULT: Restart, code xx addr yyyyyyyyyy

C.i.e. (EBL128) restart has occurred. See also page 74.

xx=00:	**Power up Restart. (Power supply connected)**
xx=01:	Watchdog Reset.
xx=02:	Accidental jump to reset vector.
xx=03:	**Restart after SSD / Software / text file download**
xx=04-19:	Unexpected interrupt.
xx=20:	S/W monitoring fault

NOTE!
xx=00 and 03 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: 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 **n** <-> SCI **n**

SCI **n** <-> SCI **n** describes between which **S**hort **C**ircuit **I**solators (SCI:s) 4370 / 4313 the short-circuit is located.

n = A, B, 0, 1, 2, 3, 4, 5, 6 or 7. 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 cannotfind.

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.[62]

> FAULT: Site specific data (SSD)

The Site Specific Data (SSD) is not downloaded correctly (a checksum fault, etc.). A new SSD download (via Win128) is required. If the fault cannotcorrected 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

---

[62] 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.

EPU=1728 (Ext. Presentation 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), 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 Win128) **or** the board.

```
FAULT: Wrong type of unit xx-xx
```

Press "→" to see the technical address.

```
FAULT: Wrong type of unit t.addr xxx
```

The unit is not the same type as programmed in the SSD. Change the programming (via Win128) **or** the unit.

```
FAULT: Zone line input xx-xx
```

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

```
FAULT: Zone line input t.addr xxx
```

```
FAULT: Zone line input x exp board x
```

a. Valid for the Multi purpose 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 "**Fault / Disablements** 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 to be "Not latched".

- Login, according to chapter "Access", page 78.
- Use **menu H6** (access code for level 2B required) for fault acknowledge, see chapter "Acknowledge FAULTS (H6)", page 115. Menu H6 is a list showing a maximum of 100 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 acknowledged and corrected it will be removed from the list (and a new fault can be shown, if there are more than 100). Corrected faults are shown in the event log (menu H4/U5).
- All faults have to be individually acknowledged one by one with 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.[63] 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.

---

[63] Via Win128 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.

1. Remove the rectifier (power supply) fuse (F1) and the battery fuse (F2) on the main board (or the fuse between the batteries).

2. Connect the batteries to the main board.

3. Connect the rectifier to the mains (230 V AC).

4. Put back the rectifier fuse (F1) on the main board.[64]

5. Put back the battery fuse.

6. LED "Operation" (L6) indicates that the 24 V DC power supply (rectifier and/or battery) is okay.

7. An automatic restart will now take place (see chapter "Restart", page 74.

8. The site specific data (SSD) is now to be downloaded, see chapter "SSD programming & download", page 69.

See also chapter "Calibration of supervised outputs (H5/A3)", page 107.

---

[64] Regarding especially the previous main board 4556 version (P.c.b. No. 9285-**5**A): If a lot of units (especially units with high internal capacitance) are connected to EBL128, the total momentary inrush current consumption for these units might be too high for the power supply's electronic short circuit protection and EBL128 will not start working properly. In such a case, put back the battery fuse before the rectifier fuse (i.e. the batteries have to be reasonably charged) <u>or</u> temporarily disconnect some of the units in order to reduce the current consumption while EBL128 is powered.

20   SSD programming & download

The **S**ite **S**pecific **D**ata (SSD) for an installation is created (programmed) via the PC program **Win128**, 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.Win128**.[65]

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 Win128, connect the PC to the RS232 connector J3 in EBL128 (on the main board) and log on.[66]   In "Tools" menu select "Auto generate…".   The COM loop units[67] and the FBP/AAU units connected to EBL128, will now be identified and listed in Win128, i.e. the SSD will be auto generated with default settings for all units.   Save the installation (SSD).   The SSD can be downloaded (see below) to EBL128 directly or be edited before the download.

20.3   SSD download

The PC with Win128 has to be connected to the RS232 connector J3 in EBL128 (on the main board).   Open the wanted installation (xxxxx.Win128) and log on to EBL128.[66]   In "Tools" menu select "Download SSD…" to open the dialog box.
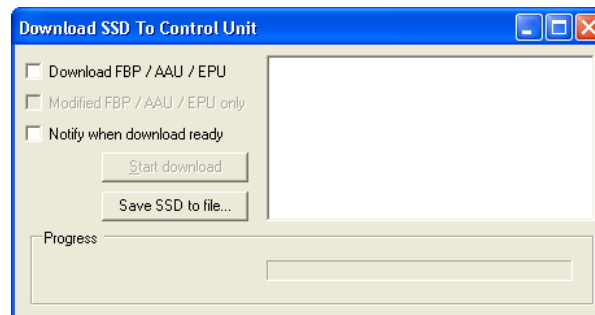
Mark the required checkbox(es).   Click "Start download". Information will be shown in the dialog box (progress bar) and in the display in EBL128:

---

[65] **xxxxx** = A suitable name of the installation.

[66] Access code for level 4 shall be entered via the PC (i.e. via Win128).

[67] 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).

```
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 74).

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 74.

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 (i.e. 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.[68] On the second row is a user definable alarm text shown, if programmed. See also chapter "Fire alarm", page 39.

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

Each zone line input can have a unique text message.

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 created and downloaded via **Win128**. See Planning Instructions, chapter "Alarm texts".

See also the Win128 help chapters (help topics), e.g. "Download" and the "Display unit menu" respectively.

---

[68] 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 software[69] is factory downloaded before the 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 Win128. The valid (current) EBL128 S/W version is shown in menu H3 or via Win128.

See also the Win128 help chapter (help topic) "Download Software".

NOTE! Upgrade **from S/W version 1.0.x to version 1.1.x**, is performed as described below in chapter "Upgrade of S/W version 1.0.x to version 1.1.x in EBL128 (c.i.e.)".

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

To download new software (S/W), a PC and **Win128** are used. Before download, the PC has to be connected to the RS232 connector J3 in EBL128 (on the main board).

1. Start Win128. <u>Log on to EBL128</u>. In the "Tools" menu select "Download Software…" to open the dialog box and do the required settings, i.e. mark the checkbox "Download software", select the path and the S/W file, e.g. EBL128_V.V.bin.
   (V.V = version number, e.g. 1.1.)
   If also a text file[70] shall be downloaded do not forget to mark the checkbox "Download texts" and select the path and the text file, e.g. English_texts_EBL128_V.V.sst).
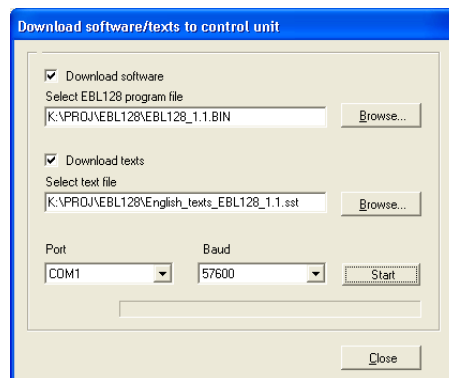
2. Select "Port" (on the PC) and baud rate. (If the download is not successful it might depend on to high baud rate.)

3. Start the download, i.e. click "Start". The download status is indicated in the progress bar. LED "Operation" (L6) will be

---

[69] The software (firmware) makes the microprocessor work.

[70] The text file contains all the text that will be shown in the EBL12 display. Normally a new text file will come together with a new S/W file.
NOTE! If only the text file shall be downloaded, do not mark the checkbox "Download software".

turned off. LED "General fault" (L7) is indicating that EBL128 is in the so called "Boot mode". LEDs "Alarms queued" (L2) are indicating the Flash memory programming. In the EBL128 display is the following information shown:

> Software download in progress......

4. To the left of the progress bar is a "% indicator". It will show approx. 90 % when the download is ready and EBL128 will automatically do a restart.

5. After the restart the "% indicator" will show 100 %. Close the dialog box. Regarding the restart, see also chapter "Restart", page 74.

6. LED "Operation" (L6) will be turned on and LED "General fault" (L7) and LEDs "Alarms queued" (L2) will be turned off.

21.2   Upgrade of S/W version 1.0.x to version 1.1.x in EBL128 (c.i.e.)

The specific upgrade of **S/W version 1.0.x to version 1.1.x** is unique, i.e. the normal software download procedure described above **must not** be followed.

Before download, the PC has to be connected to the RS232 connector J3 in EBL128 (on the main board).

1. Start Win128. Do **not** log on to EBL128. In the "Tools" menu select "Download EBL128 Software…" to open the dialog box and do the required settings, i.e. mark the checkbox "Download software", select the path and the S/W file, i.e. **EBL128_110.BIN**. Also a text file[71] shall be downloaded. Do not forget to mark the checkbox "Download texts" and select the path and the text file, e.g. **English_texts_EBL128_110.sst**.

---
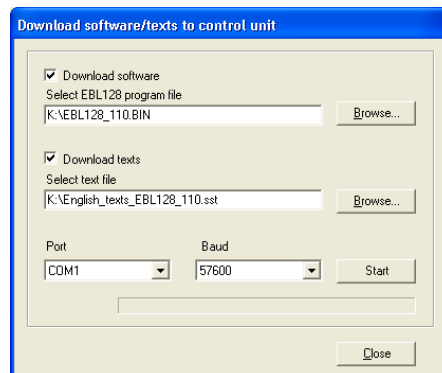
[71] The text file contains all the text that will be shown in the EBL12 display. Normally a new text file will come together with a new S/W file.

NOTE! If only the text file shall be downloaded, do not mark the checkbox "Download software".

2.   Select "Port" (on the PC) and baud rate. (If the coming download is not successful, it might depend on to high baud rate.)

3.   SET EBL128 IN **BOOT MODE**. On the c.i.e. main board, up to the left, is a jumper "JP2" (BOOT) situated. Short jumper "JP2". Restart[72] EBL128 by disconnecting the mains **and** the battery and connect them again. The buzzer sounds continuously.

4.   Start the download, i.e. click "Start" in the dialog box. The buzzer will be turned off. The download status is indicated in the progress bar. LED "Operation" (L6) will be turned off. LED "General fault" (L7) is indicating that EBL128 is in the so called "Boot mode". LEDs "Alarms queued" (L2) are indicating the Flash memory programming.

5.   To the left of the progress bar is a "% indicator". It has to show 100 % when the download is ready. (If not, lower the "Baud rate" and make a new download.)

6.   Open jumper "JP2" (BOOT). Restart EBL128. Close the dialog box. Regarding the restart, see also chapter "Restart", page 74.

7.   LED "Operation" (L6) will be turned on and LED "General fault" (L7) and LEDs "Alarms queued" (L2) will be turned off.

21.3   Earlier S/W version download

For some reason it might by required to "downgrade" to an earlier S/W version. The download procedure is the same as for a new S/W.

21.4   S/W download in Display Units

New S/W for the 1728, 1735 / 1736 & 1826 / 1828 units can also be downloaded via Win128. The PC has to be connected to the RS232 connector "J2" in the unit respectively.

See the Win128 help chapter (help topic) "Display unit menu" and the "**Technical Description**" for the unit respectively.

---

[72] As an alternative a restart can be done by momentarily short the two solder pads marked "JP1" (RESET) – placed close to jumper "JP2".

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 = **F**ire alarms and **F**aults.
D = **D**isablements
FFD = **F**ire 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 Win128.
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/S4) 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 two minutes, for all the analog smoke detectors.[73] 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:

---

[73] During these two 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 [74] 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 & Win128. ("**Warm restart**")	FF, WASV	SSD, S/W, SSW D[75]	03
Automatically after <u>download of S/W</u> or <u>text file</u> via a PC & Win128. ("Cold restart")	FFD, WASV	SSD, S/W, SSW	00 alt. 03
Automatically due to <u>external disturbance</u>.[76] ("Cold restart")	FFD, WASV	SSD, S/W, SSW	01, 02 alt. 04-20

NOTE! <u>During</u> the <u>restart</u>, 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 <u>Memory fault</u> 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
```

---

[74] Both rectifier (mains) and battery disconnected.

[75] All alarm points, zones, units, outputs, COM loop etc. that were disabled (disconnected) before a **warm restart** will remain disabled after the restart <u>provided they also exists in the new downloaded SSD</u>. If not, this disablement will be terminated.

[76] If this happens often, call for service personnel / engineer.

Regarding code **xx** and **yyyy**, see page 63. 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.

After a "cold 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 69), the following messages might be shown:

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

```
FAULT: Restart code 03 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 personal.

23   Access

To use the key pad in EBL128 (to get access to the menu tree), it is necessary to log on with an access code for level 2B or 3A.

See also chapter "Access levels", page 22.

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

Action	Text in display	Comments
"Access"	Access code: _	
Enter code for level 2B or 3A (four digits).	Access code: ****	The digits are replaced (****) in the display.
	NO ACCESS!	Wrong access code was entered. Try again.
	Perform monthly test ACCEPT? H1	Correct access code was entered. Menu H1 is shown. Press "A" to accept (to perform monthly test) **or** scroll / jump to the next menu (H2-H10).

Explanations:

Action (in the table) = use push button / key (e.g. signed "Access").

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

Comments (in the table) = 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 "↑" and "↓" to scroll between the sub menus (e.g. B1-B10). Use "A" to accept.

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 H10).

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 the main menu (H1-H10). Use "Return" to log off from a main menu (H1-H10).

There will be an automatic log off 60 minutes after the last action (i.e. if the key pad / push buttons have not been used for 60 min.).

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/S3.)

If a real fire alarm is activated by **an alarm point <u>not</u> 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 44.

See also chapter "The display in EBL128", page 20.

NOTE! If the EBL128 door is left open, the output(s) for routing equipment (fire brigade tx) might be disabled (if set so in Win128).

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 116.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
	`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"	`Zone to be set in TEST MODE:` `2?  ??  ??  ??    Start test:  ACCEPT`	NOTE! In Danish (DBI) convention, only one zone.
Write zone numbers (e.g. 01, 02, 03, 04)	`Zone to be set in TEST MODE:` `01  02  03  04    Start test:  ACCEPT`	Press "A" to start the test mode.
"A"	`Zones are set in test mode` `wait....`	LED "Test mode" (L9) will light up.
	`Zone in TEST MODE:` `01  02  03  04      End test:  ACCEPT`	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 light up, and the LEDs "Fire" (L1) in EBL128 will light up, about ten seconds, then the alarm point will be automatically reset.

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

After 60 minutes **or** "Return" "Return"	`Zones in test mode: 01, 02, 03, 04` NOTE! See chapter "The display in EBL128", page 20 regarding priority order.	You are no longer in menu H1 but still in test mode.
(When required: "Access", "code") "A"	`Zone 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 routine test of the routing equipment. Press "A" for no test or press "1" and "A" to start such a test. The following will happen:

- EBL128 "Fault tx" output will be de-activated[77], 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!** If an alarm point (e.g. a manual call point) is in alarm state when the test mode is ended, there will not be a fire alarm activated. Instead the alarm point will be disabled (the "encapsulation function") and has to be re-enabled again, see menu H2/B6.
>
> When the "Fire door closing" function is used, the fire door will be closed when the detectors controlling the door are tested via the test mode.

---

[77] **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-B3. 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 <u>Pre-warning</u>, <u>fire alarm</u> or <u>fault</u>.

NOTE! When a whole zone is disabled, the <u>addressable manual call points will **not** be disabled</u>.[78] When absolutely required, they can be individually disabled (as alarm points).

- **Zones 01-32** can be disabled via menu H2/B1.
- **All alarm points** (zone / address) can be **individually** disabled via menu H2/B2.
- **All outputs** can be **individually** disabled via menu H2/B3. Disabled output will stay in (or return to) the normal condition for the output respectively.

NOTE!

- **All Interlocking outputs** can be **individually** disabled via menu H9/C4.
- The **COM loop** can be disabled via menu H5/A1.
- A **zone line input** can be disabled via menu H5/A2.

Don't forget to re-enable (via menus H2/B4-B9) or use automatic re-enablement for zones and alarm points.

Disablements are indicated by LED "Disablements" (L8) and are also shown in the display[79]. An example:

```
Zone 01 is disabled

                              More...
```
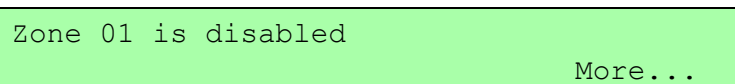
More... is indicating two or more disablements.

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

25.1   Disable zone (H2/B1)

When a whole zone is disabled, <u>all</u> alarm points within the zone are disabled <u>excluding the addressable manual call points</u>.[78]

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

---

[78] 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.

[79] See chapter "The display in EBL128", page 20 regarding priority order.

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 78.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
"A"	Disable zone: 00 ACCEPT?	
Write zone number (e.g. 01)	Disable zone: 01 ACCEPT?	Press "A" to accept.
"A"	Automatic re-enabling:0 (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 "Disablements" (L8) will light up.
"A"	Disable zone: 00 ACCEPT?	If more disablements shall be done, continue like above. If not, press "Return" to menu B1. Scroll or press "Return" to menu H2. Scroll or press "Return" to log off.

25.2   Disable zone / address (H2/B2)

All 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 78.

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: 00 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:0 (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 "Disablements" (L8) will light up.

"A"	`Disable zone: 00 Address: 00`
	
	`                         ACCEPT?`
		If more disablements shall be done, continue like above. If not, press "Return" to menu B2. Scroll or press "Return" to menu H2. Scroll or press "Return" to log off.

25.3   Disable output (H2/B3)

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 78.
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=Loop unit 1=S 2=R0 3=EXPB ACCEPT?
		Press:
		"**0**"=MIO (3361) or
		     ASI (3377) or
		     ASB (3379) or
		     AOU (3364)
		"**1**"=C.i.e. output S0-S1
		"**2**"=C.i.e. output R0
		"**3**"=C.i.e. exp. board output.[80]
		Press "A" to accept.

"A"
Depending on the chosen type, 0, 1, 2 or 3 the following will be shown:
	Disable technical address <u>0</u>00 output 0
	                              ACCEPT?
	
	Disable S<u>0</u>
	                              ACCEPT?
	
	Disable R0
	                              ACCEPT?
	
	Disable expansion board <u>0</u> output 0
	                              ACCEPT?
		Regarding the ASI (3377) & ASB (3379) unit outputs:
		0=high priority
		1=low priority
		Write the data.
		Press "A" to accept.
		LED "Disablements" (L8) will light up.

"A"	Disable output: Type: <u>0</u> 0=Loop unit 1=S 2=R0 3=EXPB ACCEPT?	If more disablements shall be done, continue like above. If not, press "Return" to menu B3. Scroll or press "Return" to menu H2. Scroll or press "Return" to log off.

---

[80] Expansion board (EXPB) 0-7.

Relay output 0-7 (4581) alt. Output 0-2 (4583).

25.4   Disable all control, extinguishing, ventilation and alarm device outputs (H2/B4)

Outputs programmed as type Control (general), type Fire ventilation, type Extinguishing system and type Alarm devices can for the type respectively be 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).

NOTE! This function for alarm devices is **not** the same as for push button "Silence alarm devices" (P3), see chapter "Silence Alarm devices", page 27. This function has higher priority than "Silence alarm devices".

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.

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 alarm device outputs    ACCEPT? B4`	
"A"	`Disable type: 0 0=Control 1=Ventilation` `2=Exting 3=Alarm devices    ACCEPT?`	Press: "**0**"=control output "**1**"= ventilation output "**2**"= extinguishing output "**3**"=alarm device output. Press "A" to accept. LED "Disablements" (L8) will light up. If type 3 = alarm devices are disabled also the LED "**Fault / Disablements** Alarm devices" (L13) will light up.
Press 0, 1, 2 or 3 "A"	`Disable all control, ventilation, exting` `or alarm device outputs     ACCEPT? B4`	Scroll or press "Return" to menu H2. Scroll or press "Return" to log off.

"Return"	`Disable or re-enable`
	
	`                    ACCEPT? H2`	

25.5   Re-enable zone (H2/B5)

Disabled zones are listed in menu H4/U1.

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

Zones disabled via the "Encapsulation function", see chapter "Single encapsulated reset" page 50, have to be re-enabled via this menu before they can activate a new alarm.

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 "Disablements" (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.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
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: 00 ACCEPT? L	If there are no zones to re-enable, menu B5 will be shown again. **L**=a list in which you can scroll. If it's the correct zone to re-enable, press "A" to accept. If not, scroll or write the wanted zone and press "A" to accept.
"A"	Re-enable zone ACCEPT? B5	If more re-enablements shall be done, continue like above. If not, scroll or press "Return" to menu H2. Scroll or press "Return" to log off.

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 disabled via the "Encapsulation function", see chapter "Single encapsulated reset" page 50, have to be re-enabled via this menu before they can activate a new alarm.

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.

See also chapter "Perform monthly test (H1)", page 79 and chapter "Perform ZONE TEST (test mode) (H7)", page 116.

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

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
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: <u>0</u>0 Address: 00 ACCEPT? L	If there are no zone - addresses to re-enable, menu B6 will be shown again. **L**=a list in which you can scroll. If it's the correct zone - address to re-enable, press "A" to accept. If not, scroll or write the wanted zone - address and press "A" to accept.
"A"	Re-enable zone / address ACCEPT? B6	If more re-enablements shall be done, continue like above. If not, scroll or press "Return" to menu H2. Scroll or press "Return" to log off.

25.7   Re-enable output (H2/B7)

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.

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

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
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: 0
	0=Loop unit 1=S 2=R0 3=EXPB ACCEPT?
		Press:
		"**0**"=MIO (3361) or
		   ASI (3377) or
		   ASB (3378) or
		   AOU (3364)
		"**1**"=C.i.e. output S0-S1
		"**2**"=C.i.e. output R0
		"**3**"=C.i.e. exp. board output.[81]
		Press "A" to accept.

"A" Depending on the chosen type, 0, 1, 2 or 3 the following will be shown:	Re-enable technical address 000 output 0 ACCEPT? L Re-enable S0 ACCEPT? L Re-enable R0 ACCEPT? L Re-enable expansion board 0 output 0 ACCEPT? L	If there are no outputs to re-enable, menu B7 will be shown again. L=a list in which you can scroll. Regarding the ASI (3377) & ASB (3378) unit outputs: 0=high priority 1=low priority If it's the correct output to re-enable, press "A" to accept. If not, scroll or write the wanted output and press "A" to accept.

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[81] Expansion board (EXPB) 0-7.
Relay output 0-7 (4581) alt. Output 0-2 (4583).

| "A" | Re-enable output: <u>0</u>
0=Loop unit 1=S 2=R0 3=EXPB   ACCEPT? | If more re-enablements shall be done, continue like above. If not, press "Return" to menu B7. Scroll or press "Return" to menu H2. Scroll or press "Return" to log off. |

25.8 Re-enable all control, extinguishing, ventilation or alarm device 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.

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

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
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 alarm device outputs     ACCEPT? B8`	
"A"	`Re-enable type:0 0=Control 1=Ventilation` `1=Exting  3=Alarm devices     ACCEPT?`	Press: "**0**"=control output "**1**"=extinguishing output "**2**"=ventilation output "**3**"=alarm devise output. Press "A" to accept. LED "Disablements" (L8) will turned off. If type 3 = alarm devices are re-enabled also the LED "**Fault / Disablements** Alarm devices" (L13) will be turned off.
Press 0, 1, 2 or 3 "A"	`Re-enable all control, ventil, exting` `or alarm device outputs     ACCEPT? B8`	Scroll or press "Return" to menu H2. Scroll or press "Return" to log off.
"Return"	`Disable or re-enable` `                    ACCEPT? H2`	

25.9   Disable or re-enable outputs for routing equipment (H2/B9)

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 78.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B9	Disable or re-enable outputs for routing equipment ACCEPT? B9	
"A"	Routing equipment for FIRE:<u>1</u>, FAULT:1 (1=enabled, 0=disabled) ACCEPT?	To move the cursor, press "→". Edit and/or press "A" to accept.
"A"	Disable or re-enable outputs for routing equipment ACCEPT? B9	Scroll or press "Return" to return to H2. Scroll or press "Return" to log off.

25.10 De-activate alert annunciation function (H2/B10)

Normal function (1):

For alarm points / zones programmed for **A**lert **A**nnunciation (via Win128) is normally the **AA** function <u>enabled via a time channel</u>, e.g. enabled daytime (during working hours) and disabled night time.
As an alternative, the **AA** function can be <u>continuously enabled</u>.

Off (0)

Via this menu (H2/B10) it is possible to de-activate (disable) the **AA** function, i.e. the **AA** function will be disabled for the alarm points / zones programmed for **A**lert **A**nnunciation <u>in spite of the time channel is "on" or if they are programmed to be continuously enabled</u>.

The **AA** function will stay de-activated (disabled) until re-activated (re-enabled) again via this menu.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H2.	Disable or re-enable ACCEPT? H2	
"A"	Disable zone ACCEPT? B1	
Scroll to menu B10.	De-activate alert annunciation function ACCEPT? B10	
"A"	Alert annunciation function? 1 (1 = Normal, 0 = Off) ACCEPT?	Write "0" or "1" and press "A" to accept.
"A"	De-activate alert annunciation function ACCEPT? B10	Scroll or press "Return" to menu H2. Scroll or press "Return" to log off.

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

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 <u>and</u> no battery backup), the date, day of the week and the time have to be set when EBL128 is powered-up again. In this menu is also the S/W (system program) version shown.

NOTE! The information shown in the display will be saved when you press "A". **If you don't want to change anything** (e.g. if you only want to see the S/W version)**, press "Return"** instead of "A" **to return to menu H3.**

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H3.	Set calendar and clock ACCEPT? H3	
"A"	Date: <u>Y</u>Y-MM-DD Time: hh:mm:ss Weekday:W (1=M, 7=S) VER:vvvvvvvvvvvv **NOTE!** The date is in some conventions / languages shown as DD-MM-YY.	Here is the S/W version shown (e.g. VER: 1.1.0). 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> **NOTE! Press "Return"** (instead of "A") **to return to menu H3 if no changes are to be done.**
"A" **or** "Return"	Set calendar and clock ACCEPT? H3	Scroll or press "Return" to log off.

26.1   Daylight saving time

The time is automatically changed when the Daylight saving time period starts and stops respectively. This 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 on display (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.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H4.	Present system status on display ACCEPT? H4	
"A"	Disablement ACCEPT? U1	Press "A" for presentation in the display.
"A"	*When "A" is pressed, the disablements will be shown in the display. Some examples:* Zone XX address XX disabled 82 L or Zone XX is disabled 82 L	L = a list in which you can scroll. If there are no disablements and if "Return" is pressed, menu U1 will be shown again.
"Return"	Disablement ACCEPT? U1	Scroll or press "Return" to menu H4. Scroll or press "Return" to log off.

---

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

- Automatic re-enablement HH:MM
- (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.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H4.	Present system status on display ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U2.	Disablement by time channel ACCEPT? U2	Press "A" for presentation in the display.
"A"	*When "A" is pressed, the disablements will be shown in the display, e.g:* Zone XX address XX disabled (by time channel) L	L = a list in which you can scroll. If there are no disablements and if "Return" is pressed, menu U2 will be shown again.
"Return"	Disablement by time channel ACCEPT? U2	Scroll or press "Return" to menu H4. Scroll or press "Return" to log off.

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 <u>very first</u> week average sensor value is calculated within 2 minutes after SSD download & restart. During these 2 minutes, fire alarm from analog smoke detectors are suppressed and the sensor value "000" will be shown.

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

		Text in display	Comments
"Access"			According to chapter "Access", see page 78.

Scroll to menu H4.		`Present system status on display`
		
		`                          ACCEPT? H4`	

"A"		`Disablement`
		
		`              ACCEPT? U1`	

Scroll to menu U3.		`Sensor values`
		
		`              ACCEPT? U3`
			Press "A" to accept.

"A"		`Start Sensor : `<u>`0`</u>`0-00`	Write the presentation number and/or press "A" to accept.

E.g: "01-01"
 	
Depending on the type, the following will be shown (examples):
	"A"	***Type 4301:***
		
		`Sensor: 01-01 (technical address 001)`
		`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.

	"→"	`Sensor: 01-01              Min: XX.X%/m` `Perf Factor: X.XX%/m      Max: XX.X%/m`	Press "Return" back to "Start Sensor...".
	"→"	`Sensor: 01-01` `Current algorithm: nnnnnn`	Scroll or write a new presentation number or press "Return" to menu U3.

	"A"	***Type 3308/3309:***
		
		`Sensor: 01-02 (technical address 002)`
		`Momentary: XX°C   Min: XX°C   Max: XX°C`
			NOTE!
			`XX.X%/m` = XX.X % obscuration per meter".

	"→"	`Sensor: 01-02` `Current algorithm: nnnnnn`	Perf. Factor: see below this table.

	"A"	***Type 4300:***
		
		`Sensor: 01-03 (technical address 003)`
		`Momentary: XX.X%/m    Weekly: XX.X%/m`
			nnnnnn = algorithm short name, see separate table, page 98.

	"→"	`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 003) 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" to log off.

When scrolling the message "Please Wait….." might be shown for "a second" and "No more sensors found in the system" (before lowest and after highest possible number respectively).

Perf. Factor = Performance factor:

Low (min. 0) = The detector is mounted in a "stable" environment.

High (max. 2.55) = The detector is mounted in an "unstable" environment.

See also Planning Instructions, chapter "Performance factor".

Table showing the algorithms and the shortenings respectively:

Algorithm	Short name (nnnnnn)[83]
Normal sensitivity & Normal detection (15 s)	**N-15**
High sensitivity & Normal detection (15 s)	H-15
Low sensitivity & Normal detection (15 s)	L-15[84]
Normal sensitivity & Slow detection (35 s)	N-35[84]
High sensitivity & Slow detection (35 s)	H-35[84]
Low sensitivity & Slow detection (35 s)	L-35[84]
Heat algorithm, Class A1	**A1**
Heat algorithm, Class A2 (S)	A2
Heat algorithm, Class B (S)	B
Decision algorithm	Dec[85]

Default is **N-15** and **A1** respectively.

---

[83] If some other short name is wanted, it can be changed in Win128. Up to six characters can be used. In the DBI (Danish) convention, up to five characters.

[84] Low sensitivity and/or slow detection (35 s) might not fulfil the EN54-7 specifications.

[85] 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/S2)", page 120. See also chapter "Acknowledge SERVICE signal (H8/S1)", page 119.

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 cleaned / replaced soon. The service signal has to be acknowledged, see chapter "Acknowledge SERVICE signal (H8/S1)", page 119.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.

Scroll to menu H4.	`Present system status on display`
	
	`                              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. Press "Return" to menu U4. (If there are no sensors in the list, menu U4 will be shown again.)

"Return"	`Sensors activating SERVICE signal`
	
	`                              ACCEPT? U4`
		Scroll or press "Return" to menu H4. Scroll or press "Return" to log off.

27.5   Event log (H4/U5)

This is a list of the latest events in EBL128. The event list can also be read via Win128 and the Web-server II.

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

NOTE! The event logging is disabled as long as menu H4/U5 is open.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H4.	Present system status on display ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U5.	Event log ACCEPT? U5	Press "A" to accept.

"A"	*When "A" is pressed, an event will be shown in the display, e.g:*
	
	FIRE ALARM zone 12 address 45
	                         MM-DD HH:MM XX
	or
	FIRE ALARM zone 32
	                         MM-DD HH:MM XX
		The most recent event will be shown, i.e. use "↑" to scroll upwards in the list. Press "Return" to menu U5.
		XX = 00 = EBL128
		XX = 99 = Win128
		XX = 98 = Web128

"Return"	Show event log ACCEPT? U5	Scroll or press "Return" to menu H4. Scroll or press "Return" to log off.

27.6   Show configuration and alarm counter (H4/U6)

NOTE! …and alarm counter… is not valid for some conventions, e.g. the Swedish (SBF) and the Norwegian conventions.

Menu H4/U6 can be used to see the settings (done via Win128).

Alarm counter The alarm counter is increased with "1" every time the c.i.e. enters the real "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 Win512 (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.

Language The language for the texts shown in the EBL128 display. The text / language file (nnnn.sst) is selected and downloaded via the Win128 menu "Download software / texts to control unit" dialog box.[86]

Convention Because of country specific functions, etc. different conventions are used in different countries. The convention is selected the very first time Win128 is opened but can, if required, be changed in the "Win128 Settings" dialog box).[87]

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H4.	Present system status on display ACCEPT? H4	
"A"	Disablement ACCEPT? U1	
Scroll to menu U6.	Show configuration and alarm counter ACCEPT? U6	Press "A" to accept.
"A"	Alarm counter: yyy Language:nnnnnnnnnn Conv.:cccccccccc	Press "Return" to menu U6.
"Return"	Show configuration and alarm counter ACCEPT? U6	Scroll or press "Return" to menu H4. Scroll or press "Return" to log off.

---

[86] In order to present all language specific characters correct, also the "Control unit language" has to be set to the correct language. This is done in the "Win128 settings" dialog box.

[87] To set (change) the convention in Win128, Level 2 has to be selected and to do this a password is required.

28   Service (H5)

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

Only authorised personnel have access to the level 3A menus. Access code for level 3A is required.

Via a PC[88] and Win128 (+ access code 3B for levels 3B and 4) you can:

- download / upload (backup) Site Specific Data (SSD)

- download new S/W, text file, settings, configuration, etc.

- create and download the alarm texts shown in the display in EBL128 / ext. FBP / AAU / EPU.

---

[88] Connected to the "D" connector J3 (RS232) on the main board.

28.1   Access code for service and maintenance

Access code to level 3A is required.

If logon to level 2B was made with level 3A code, no code is required here.

Action	Text in display	Comments
"Access"		According to chapter "Access", page 78

	`Perform monthly test`
	
	                                `ACCEPT? H1`	

Scroll to menu H5	`Service`
	
	                                `ACCEPT? H5`	

"A"	`Access code: _`	If logon was made with code for level 3A, no code is needed.
Enter code for level 3A (four digits)	`Access code: ****`	The digits are replaced (****) in the display
	`NO ACCESS!`	Wrong access code was entered. Try again.

	`Disconnect / Re-connect COM loop`
	
	                                `ACCEPT? A1`
		Correct access code was entered. Sub menu H5/**A1** is shown. Press "A" to accept, scroll or press "Return" to menu H5.

Disconnect / Re-connect COM loop (H5/A1)

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).

Disconnected (disabled) loop is indicated by LED "Disablements" and is listed in menu H4/U1.

NOTE! When you disconnect and re-connect the COM loop, all the statistics shown in menu H5/A8 will be erased and set to "0".

Action	Text in display	Comments
"Access"		According to chapter "Access code for service and maintenance", see page 104.
	Disconnect / Re-connect COM loop ACCEPT? A1	
"A"	Disconnect (=0) or Re-connect (=1) COM loop? <u>1</u> ACCEPT?	
E.g. "0", "A"	Disconnect / Re-connect COM loop ACCEPT? A1	Scroll or press "Return" to H5. Scroll or press "Return" to log off.

28.2   Disconnect / Re-connect zone line input (H5/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).

Disconnected (disabled) zone line input is indicated by LED "Disablements" and is listed in menu H4/U1.

Action	Text in display	Comments
"Access"		According to chapter "Access code for service and maintenance", see page 104.
	Disconnect / Re-connect COM loop ACCEPT? A1	
Scroll to menu A2	Disconnect / Re-connect zone line input ACCEPT? A2	
"A"	Disconnect (=0) or Re-connect (=1) zone line input? 1 ACCEPT?	Write "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 0 expansion board 0 ACCEPT? Re-connect zone line input 0 expansion board 0 ACCEPT?	Write the 4580 board no. (0-7) and the zone line input no. (0-7). Press "A" to accept.
	Disconnect (=0) or Re-connect (=1) zone line input? 1 ACCEPT?	Write "0" or "1" and press "A" to accept or press "Return" menu A1.
"A"	Disconnect / Re-connect zone line input ACCEPT? A2	Scroll or press "Return" to H5. Scroll or press "Return" to log off.

28.3   Calibration of supervised outputs (H5/A3)

Supervised (monitored) outputs[89]:

- 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 devices[90] and when the SSD download is ready, a calibration has to be done.

Function: If the actual value differs from the calibrated value ± a small tolerance or if the calibrated value is outside the calibration range[91], a fault will be generated.

NOTE!
Each output's logic is programmable via Win128, 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 code for service and maintenance", see page 104.
	Disconnect / Re-connect COM loop ACCEPT? A1	
Scroll to menu A3	Calibration of supervised outputs ACCEPT? A3	
"A"	Calibration in progress Please wait......	
	Calibration of supervised outputs ACCEPT? A3	Calibration is ready. Scroll or press "Return" to H5. Scroll or press "Return" to log off.

---

[89] Supervised (monitored) outputs can via Win128 be set to be **not** supervised.

[90] 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.

[91] 4K7 – 50K and 470 – 5x470 nF respectively.

NOTE!   After the calibration it is recommended to do a "Safe shutdown of control unit" (see menu H8/S4). This will save the SSW data (e.g. the calibration values) in a Flash ROM (see page 74).

28.4   Sensitive fault detection mode (H5/A4)

"Sensitive fault detection mode" means that the time delay is reduced for all type of faults, which makes it possible find faults during the commissioning instead of later.

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

Action	Text in display	Comments
"Access"		According to chapter "Access code for service and maintenance", see page 104.
	Disconnect / Re-connect COM loop ACCEPT? A1	
Scroll to menu A4	Sensitive fault detection mode ACCEPT? A4	
"A"	Sensitive fault detection mode: <u>0</u> (0 = off, 1 = on)	Press "A" or "1" and "A" to accept. ON is indicated by LED "Fault tx activated" (L11) and the "Fault" output for routing equipment. This mode is ON until turned OFF in this menu (A4).
E.g. "1", "A"	Sensitive fault detection mode ACCEPT? A4	Scroll or press "Return" to H5. Scroll or press "Return" to log off.

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

28.5   Service mode for COM-loop (H5/A5)

This mode can be used when commissioning an installation and by maintenance. The COM loop communication (polling) will be turned off but there will still be 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, depending on if 1, 2 or 3 is selected in this menu.

A volt meter can be used, e.g. to check the voltage / voltage drop on different places on the loop. It is recommended to do this check also when EBL128 is power supplied via the backup battery only, since the voltage can be up to 3 V lower (compared with when it is power supplied via the rectifier, i.e. via 230 V AC) due to the battery condition, backup duration, etc.

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 code for service and maintenance", see page 104.
	Disconnect / Re-connect COM loop ACCEPT? A1	
Scroll to menu A5	Service mode for COM-loop ACCEPT? A5	Press "A" to accept.
"A"	Service mode for COM-loop: <u>0</u> 0=Off 1=A-dir 2=B-dir 3=Both ACCEPT?	Press: **0**=Service mode is off. **1**=Voltage in A-direction. **2**=Voltage in B-direction. **3**=Voltage in both directions. 1, 2 or 3 selected is indicated by LED "Disablements" (L8)
E.g. "1", "A"	Service mode for COM-loop: <u>1</u> 0=Off 1=A-dir 2=B-dir 3=Both ACCEPT?	The communication is now turned off on the COM loop but there is still voltage in the A-direction. This state will last until another alternative is selected or the service

		mode is turned off.[92]
E.g. "0", "A"	Service mode for COM-loop ACCEPT? A5	Scroll or press "Return" to H5. Scroll or press "Return" to log off.

[92] The service mode can also be turned off via menu H5/A1, i.e. Re-connect (=1) COM loop.

28.6 Show information about Site Specific Data (H5/A6)

Information about the latest downloaded Site Specific Data (SSD) is shown. New SSD can be downloaded via a PC and Win128.

> **NOTE!** The way the date and time is presented can be different for different languages since the format will be the same as the settings in Microsoft ® Windows for your PC.
>
> Start | Control Panel | Regional and Language Options | Regional Options ("Time" and "Short date" respectively).

Action	Text in display	Comments
"Access"		According to chapter "Access code for service and maintenance", see page 104.
	Disconnect / Re-connect COM loop <div align=right>ACCEPT? A1</div>	
Scroll to menu A6	Show information about site specific data ACCEPT? A6	
"A"	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx[93] YYYY-MM-DD hh:mm	YYYY=year, MM=month, DD=day. hh=hour, mm=minute See **NOTE!** above!!
"A"	Show information about site specific data ACCEPT? A6	Scroll or press "Return" to H5. Scroll or press "Return" to log off.

---

[93] As written in the field "Name" in the Win128 dialog box "Control Unit Properties". If there is no SSD downloaded to EBL128 the following text message will be shown: "No SSD downloaded".

28.7   Display current consumption on COM loop (H5/A7)

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.

Action	Text in display	Comments
"Access"		According to chapter "Access code for service and maintenance", see page 104.
	Disconnect / Re-connect COM loop ACCEPT? A1	
Scroll to menu A7	Display current consumption on COM loop ACCEPT? A7	
"A"	Wait......	
	Current consumption on COM-loop is xxxx mA	The accuracy is ±5 mA.
"Return"	Display current consumption on COM loop ACCEPT? A7	Scroll or press "Return" to H5. Scroll or press "Return" to log off.

28.8   Display statistics for COM loop (H5/A8)

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.

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 H5/A1).

Action	Text in display	Comments
"Access"		According to chapter "Access code for service and maintenance", see page 104.
	Disconnect / Re-connect COM loop ACCEPT? A1	
Scroll to menu A8	Display statistics for COM loop ACCEPT? A8	
"A"	Wait......	
	Pollings 1234567 Parity 000000 00.0% No reply 000000 00.0% -->	[94] Press "→" to go forward.
	Bit length 000000 00.0% <-- No. of bits 000000 00.0%	Press "←" to go back. or press "A" to menu A8.
"A"	Display statistics for COM loop ACCEPT? A8	Scroll or press "Return" to H5. Scroll or press "Return" to log off.

---

[94] **Note!** The values are not updated continuously, i.e. the shown values were valid when "A" was pressed in menu A8. To see the new actual values, go back to menu A8 and then press "A" again. Normally only the "Pollings" value should be changed.

28.9   Activate address setting mode for DU (H5/A9)

This function can be used by commissioning / service engineer to activate the address setting mode in the following **D**isplay **U**nits 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 code for service and maintenance", see page 104.

	`Disconnect / Re-connect COM loop`
	
	`                         ACCEPT? A1`	

Scroll to menu A9	`Activate address setting mode for DU`
	
	`                         ACCEPT? A9`	

"A"	`Activate address setting mode for` `DU 0  (9 = All)              ACCEPT?`	Write the unit's address. 9 = All units. Press "A" to accept.

"A"	`Activate address setting mode for DU`
	
	`                         ACCEPT? A9`
		Scroll or press "Return" to H5. Scroll or press "Return" to log off.

The address has thereafter to be edited in the unit respectively.

29   Acknowledge FAULTS (H6)

Regarding fault indication, etc., see chapter "Fault", page 54.

All faults are normally latched, i.e. all faults have to be acknowledged. See also chapter "Fault acknowledge", page 67.

All fault events are stored in the event log and can be listed. See also chapter "Event log (H4/U5)", page 101.

In this menu (H6) are up to 100 faults listed:

- Not corrected and not acknowledged faults
- Not corrected but acknowledged faults
- Corrected (serviced) but not acknowledged faults[95]

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

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H6.	```Acknowledge FAULTS

                    ACCEPT? H6``` | |
| "A" | ```FAULT: Xxxxxxxx............
Date: MM-DD   Time: HH:MM   See comments``` | This is a list in which you can scroll. The first fault in the list is the most recent fault. If a fault is corrected, the text: **Serviced** [95] is shown. To acknowledge the fault shown in the display, press "Fault acknowledge" (P6). |
| "Fault acknowledge" | ```FAULT: Xxxxxxxx............
Date: MM-DD   Time: HH:MM   Acknowledged``` | The fault is now **Acknowledged**. When the fault is **corrected** it will be removed from the list.[96] Scroll in the list e.g. to acknowledge more faults or press "Return" to menu H6. |
| "Return" | ```Acknowledge FAULTS

                    ACCEPT? H6``` | Scroll or press "Return" to log off. |

---

[95] If faults are set – via Win128 – to be "Not latched", Serviced will never be shown.

[96] When the list is empty, i.e. when all faults are acknowledged and corrected, you will automatically return to menu H6:

30   Perform ZONE TEST (test mode) (H7)

Normally, zones are tested during the monthly test via menu H1, see page 79. Via menu H7 it is possible to perform the zone test solely.

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/S3.)

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 44.

See also chapter "The display in EBL128", page 20.

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 Win128).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H7.	Perform ZONE TEST ACCEPT? H7	
"A"	Zone to be set in TEST MODE: ?? ?? ?? ?? Start test: ACCEPT	NOTE! In Danish (DBI) convention, only one zone.
Write zone numbers (e.g. 01, 02, 03, 04).	Zone to be set in TEST MODE: 01 02 03 04 Start test: ACCEPT	Press "A" to start the test mode. LED "Test mode" (L9) will light up.
"A"	Zone in TEST MODE: 01 02 03 04 End test: ACCEPT	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 out-logged from menu H7.

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 LED:s "Fire" (L1) in EBL128 will light up, about ten

seconds, then the alarm point will be automatically reset.

A sensor in test mode will <u>not</u> be able to activate fault.

After 60 minutes **or** "Return" "Return"	```Zones in test mode: 01, 02, 03, 04``` NOTE! See chapter "The display in EBL128", page 20 regarding priority order.	You are now out-logged from menu H7 but the zones are still in test mode.
(When required: "Access", "code") Scroll to menu H7, "A"	```Zone in TEST MODE:``` ```01 02 03 04 End test: ACCEPT```	Press "A" to end the test mode.

"A"	```Perform ZONE TEST```
	
	``` ACCEPT? H7```
		The LED "Test mode" is turned OFF. If more zones are to be tested, continue as above. If not, scroll or press "Return" to log off.

NOTE! If an alarm point (e.g. a manual call point) is in alarm state when the test mode is ended, there will not be a fire alarm activated. Instead the alarm point will be disabled (the "encapsulation function") and has to be re-enabled again, see menu H2/B6.

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

31   Maintenance (H8)

31.1   Access code for service and maintenance

Access code to level 3A is required.

If log on to level 2B was made with code for level 3A, no code is required here.

Action	Text in display	Comments
"Access"		According to chapter "Access", page 78
	Perform monthly test ACCEPT? H1	
Scroll to menu H8	Maintenance ACCEPT? H8	
"A"	Access code: _	If log on was made with code for level 3A, no code is needed.
Enter code for level 3A (four digits)	Access code: ****	The digits are replaced (****) in the display
	NO ACCESS!	Wrong access code was entered. Try again.
	Acknowledge SERVICE signal ACCEPT? S1	Correct access code was entered. Sub menu H8/**S1** is shown. Press "A" to accept, scroll or press "Return" to menu H8.

31.2 Acknowledge SERVICE signal (H8/S1)

See chapter "Sensors activating SERVICE signal (H4/U4)", page 100.

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/S2, see chapter "Restore weekly average to default (H8/S2)", page 120.

Action	Text in display	Comments
"Access"		According to chapter "Access code for service and maintenance", see page 118.
	Acknowledge SERVICE signal ACCEPT? S1	
"A"	Sensor : xx-xx (technical address xxx) needs service L	If there are no sensors to acknowledge, menu S1 will be shown again. L = a list in which you can scroll. If it is the correct sensor to acknowledge, press "Fault acknowledge". If not, scroll or write the wanted sensor and press "Fault acknowledge" **or** press "Return" to S1.
"Fault acknowledge"	*The service signal for that sensor is now acknowledged and the next sensor will be shown in the display.* 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 S1.
"Return"	Acknowledge SERVICE signal ACCEPT? S1	Scroll or press "Return" to menu H8. Scroll or press "Return" to log off.

LED "Service" (L12) will be turned off when all sensors have been acknowledged.

31.3   Restore weekly average to default (H8/S2)

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 code for service and maintenance", see page 118.
	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S2.	Restore weekly average to default ACCEPT? S2	
"A"	Enter zone-address to restore: 00-00 ACCEPT?	Write the wanted zone-address and/or press "A" to accept.
"A"	Restore weekly average to default ACCEPT? S2	Scroll or press "Return" to return to menu H8. Scroll or press "Return" to log off.

31.4   Test of alarm devices (H8/S3)

The programmable outputs[97] of type "Alarm device" can be collectively activated via this sub menu (S3), which makes it possible to test the alarm devices without to much disturbance on site.

The test cannotbe started if fire alarm is already activated in EBL128

When the test starts, the alarm devices will sound for approx. 5 seconds, be silent for approx. 25 seconds, sound for approx. 5 seconds and so on.[98]

NOTE! Also disabled (and silenced) alarm devices will be tested.

Action	Text in display	Comments
"*Access*"		According to chapter "Access code for service and maintenance", see page 118.
	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S3.	Test of alarm devices ACCEPT? S3	
"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 sub menu (S3) or automatically after one hour or if a fire alarm is activated. Press "A" to stop the test.
"A"	Test of alarm devices ACCEPT? S3	Scroll or press "Return" to return to menu H8. Scroll or press "Return" to log off.

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[97] Including Addressable siren 3377 and Addressable sounder base 3378.

[98] The output activation will be steady (continuous). For the alarm devices 3377 and 3378, the tone with the highest priority level (and type "alarm device") will be automatically selected.

31.5 Safe shut down of control unit (H8/S4)

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.[99] See also chapter "Restart", page 74.

It's recommended to do a safe shut down after commissioning the installation and after calibration of supervised outputs, change of access code 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 code for service and maintenance", see page 118.
	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S4.	Safe shut down of control unit ACCEPT? S4	
"A"	For safe shut down of control unit press ACCEPT	
"A"	Control unit ready for power down. To restart without power down press ACCEPT.	The SSW is now saved, the CPU is at rest and the CU is ready to be powered down. **NOTE!** If you change your mind regarding power down, press "A" to restart the CU (or wait 5 min. for an aut. restart). When the CU is powered up again there will be a restart.
Power down – up or "A" or after 5 min.	Normal restart indication, see page 74 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 "Acknowledge FAULTS (H6)", page 115. Restart = code 03) / power up = code 00.

[99] 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 "I0".

31.6   Activate address in alarm mode (H8/S5)

One alarm point (zone-address), not a whole zone, can be manually activated, i.e. be set in alarm status.

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 code for service and maintenance", see page 118.
	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S5.	Activate address in alarm mode ACCEPT? S5	
"A"	Select zone: 00 address: 00 ACCEPT?	
Write the zone and address.	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: 00 address: 00 ACCEPT?	
Write the zone and address.	Select zone: 12 address: 34 ACCEPT?	Press "A" to accept / start the fire alarm.
"A" "Alarms queued"	001 ZONE-ADDR 12-45 LAST ZONE 12 No. 01 "Alarm text for 12-45" 002 ZONE-ADDR 12-34 LAST ZONE 12 No. 01 "Alarm text for 12-34"	The LED:s "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

What happens by reset of the fire alarm(s) is depending on:
a) if you still are in menu H8/S5 and <u>single encapsulated reset</u> is used
b) if you still are in menu H8/S5 and <u>multiple reset</u> is used **or** if you are <u>logged out</u> (by pressing "Return" two times **or** automatically after 10 minutes).

Alternative a) "Reset"	Activate address in alarm mode ACCEPT? S5	Scroll or press "Return" to menu H8. Scroll or press "Return" to log off.

Alternative b) "Reset"	(Blank)	

NOTE!

<u>Multiple reset</u> is default.[100]

By <u>Single encapsulated reset</u> each point has to be reset individually.

See also chapter "Alarm reset", page 50.

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[100] Alarm reset is selected via Win128, "Control Unit Properties", tab "Advanced".

31.7   Change access code for service and maintenance (H8/S6)

For security reasons, the default code should be changed.

Action	Text in display	Comments
"*Access*"		According to chapter "Access code for service and maintenance", see page 118.
	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S6.	Change access code for service and maintenance ACCEPT? S6	
"A"	Access code: _ New code: Verify:	
Enter the old code, the new code and the new code again.	Access code: **** New code: **** Verify: ****	The digits are replaced (****) in the display.
	Incorrect access code, NO change	Wrong access code was entered. Try again.
	Change access code for service and maintenance ACCEPT? S6	Correct access code was entered. The access code is now changed and the sub menu H8/**S6** is shown. Scroll or press "Return" to menu H8. Scroll or press "Return" to log off.

NOTE! After change of access code it is recommended do a "Safe shutdown" of EBL128 (see menu H8/S4). This will save the SSW data (e.g. the new code) in a Flash ROM (see page 74).

31.8   Change access code for PC-communication (H8/S7)

As a protection against unauthorised personnel programming the system (via Win128), an access code 3B (for levels 3B and 4) for PC-connection is required. For security reasons, the default code should be changed.

NOTE! This code requires eight (8) digits.

Action	Text in display	Comments
"Access"		According to chapter "Access code for service and maintenance", see page 118.
	Acknowledge SERVICE signal ACCEPT? S1	
Scroll to menu S7	Change access code for PC-communication ACCEPT? S7	
"A"	Access code: _ New code: ******** Verify: ********	The digits are replaced (********) in the display.
	Incorrect access code, NO change	Wrong access code was entered. Try again.
	Change access code for PC-communication ACCEPT? S7	Correct access code was entered. The access code is now changed and the sub menu H8/**S7** is shown. Scroll or press "Return" to menu H8. Scroll or press "Return" to log off.

NOTE! After change of access code it is recommended do a "Safe shutdown" of EBL128 (see menu H8/S4). This will save the SSW data (e.g. the new code) in a Flash ROM (see page 74).

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.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
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 Alarm text (if progr.) - Output AA/PP act HH:MM, input act HH:MM Alarm text (if progr.) - Input AA/PP activated at HH:MM Alarm text (if progr.)	This is a list in which you can scroll. AA = interlocking combination Area PP = interlocking combination Point (within the area). Press "Return" to menu C1.
"Return"	Activated interlocking outputs/inputs ACCEPT? C1	Scroll or press "Return" to menu H9. Scroll or press "Return" to log off.

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 78.
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 00 point 00 ACCEPT?	
Write the area and point, e.g.: "01", "01"	Activate interlocking output area 01 point 01 ACCEPT?	Press "A" to accept and/or "Return" to menu C2.
"A"	Activate interlocking output ACCEPT? C2	Scroll or press "Return" to menu H9. Scroll or press "Return" to log off.

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 Win128): The output has to be reset via this sub menu (C3).

Interlocking output activated via its control expression and with latching output **not** selected: The output can be reset via this sub menu (C3).

Interlocking output activated via menu H9/C2: The output has to be reset via this sub menu (C3).

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H9.	Interlocking outputs and inputs <div align=right>ACCEPT? H9</div>	
"A"	Activated interlocking outputs/inputs <div align=right>ACCEPT? C1</div>	
Scroll to menu C3.	Reset interlocking output <div align=right>ACCEPT? C3</div>	
"A"	Reset interlocking output area 00 point 00 ACCEPT?	This is a list in which you can scroll. If there are no activated outputs, menu C3 will be shown again. Press "A" (for reset) or "Return" (no reset) to menu C3.
"A" or "Return"	Reset interlocking output <div align=right>ACCEPT? C3</div>	Scroll or press "Return" to menu H9. Scroll or press "Return" to log off.

32.4   Disable interlocking output (H9/C4)

Interlocking outputs (Type = Interlocking) will be disabled via this menu but not via menu H2/B3.

The "Interlocking Combination" (Area / Point) is to be entered to disable the output. If "00/00" is entered, **all** interlocking outputs will be disabled at the same time.

All interlocking outputs can be disabled.

Disabled interlocking outputs are listed in menu H4/U1.

The LED "Disablements" (L8) is also indicating one or more disabled interlocking outputs.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
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?	
Write the area and point, e.g.: "01", "01"	Disable interlocking output area 01 point 01 ACCEPT?	Press "A" to accept and/or "Return" to menu C4.
"A"	Disable interlocking output ACCEPT? C4	Scroll or press "Return" to menu H9. Scroll or press "Return" to log off.

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/B7.
If "00/00" is entered, **all** interlocking outputs, disabled via "00/00" in menu H9/C4, will be re-enabled at the same time.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
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. If there are no disabled outputs, menu C5 will be shown again. 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. Scroll or press "Return" to log off.

33   Change access code for daily duties (H10)

For security reasons, the default code should be changed.

Action	Text in display	Comments
"Access"		According to chapter "Access", see page 78.
Scroll to menu H10.	Change access code for daily duties ACCEPT? H10	
"A"	Access code: _ New code: Verify:	
Enter the old code, the new code and the new code again.	Access code: **** New code: **** Verify: ****	The digits are replaced (****) in the display.
	Incorrect access code, NO change	Wrong access code was entered. Try again.
	Change access code for daily duties ACCEPT? H10	Correct access code was entered. The access code is now changed and the menu H10 is shown. Scroll or press "Return" to log off.

NOTE! After change of access code it is recommended do a "Safe shutdown" of EBL128 (see menu H8/S4). This will save the SSW data (e.g. the new code) in a Flash ROM (see page 74).

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/B9 (or via an open door, se chapter "Door open", page 36.).

Regarding the fault condition, see chapters "Fault", page 54 and "Fault messages", page 55.

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) cannotsense the difference between "smoke" and "smoke". They cannotseparate 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 in-appropriate 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 Win128, which can be used:

- Another alarm algorithm can be used, e.g. during working hours.
- Co-incidence (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-B3). 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

Revisions are when possible written in red font colour.

Revision 1

> **NOTE!** A new / added chapter results consequently in re-numbering of the succeeding chapters.

> Information added / revised in the following chapters / paragraphs:

> 1

> 3.3

> 5 (Footnotes)

> 6.1, 6.1.1, 6.1.2

> 8.1, 8.2

> 10, 10.1

> 12

> 15.1 (Footnote)

> 16 (Footnote), 16.2, 16.5, 16.6

> 17.2, 17.7, 17.8

> 18.1, 18.2

> 19 (Footnote)

> 21, 21.2

> 25.5, 25.6

> 26.1

Revision 2

> Information added / revised in the following chapters / paragraphs:

> 5
> 7 - 7.4
> 10.1
> 18 (Footnote added.), 18.2
> 25.5, 25.6
> 26
> 29 (Footnote added.)

Revision 3

> **NOTE!** Chapter 13 German functions / units is added and consequently all the following chapters have been re-numbered.

Information added / revised in the following chapters / paragraphs:

1
5 (L1, L2, L10, L12 & Footnote 4 for L3 & L5 is revised and two footnotes are deleted)
8
13 German functions / units   New chapter.
17.2.1, 17.2.2
25.1 (Footnote 78), 25.3, 25.4, 25.8, 25.10
27.1 -- 27.6
30
31.6

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