Panasonic

Operating Instructions
MEW01473
Revision -

Fire Alarm System EBL512 G3
United version 2.7.x

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1   Introduction

EBL512 G3 Operating Instructions is a document intended to be used by the end-user and the fire brigade personnel as well as service / commissioning engineers.

Due to continual development and improvement, different S/W versions are to be found. This document is valid for **S/W version United version 2.7.**x. On the date / rev date of this document x = 0.

Since the EBL512 G3 control unit (c.i.e.) is produced for many countries the look, the texts, the functions, etc. might vary.

Products

Consists of one or more parts (HW) according to a **Product Parts List**. A product has:

- a **type number**

    5000 EBL512 G3 c.i.e. Configured for 128, 256 or 512 alarm points and with or without printer depending on article number.

    5001 EBL512 G3 c.i.e. No front panel and no Plexiglas in the door. Configured for 128, 256 or 512 alarm points depending on the article number.

- an **article number** is often the same as the type no. but a country code can be added (e.g. **SE** for Sweden). If also the letters **PRT** are added in the article number the product comes with a printer. If digits are added to the article number they are showing the number of alarm points configured (e.g. 5000PRTSE**-128**).

- a **product name** (e.g. **EBL512 G3 CU, 128 alarm points, with printer**)

HW

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

- a **type number** (e.g. **5010**)

- an **article number**, often = the type no. and sometimes is a country code added (e.g. **5010SE**)

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

- a **p.c.b. number** (e.g. **9290-3B**) and can also have a configuration (e.g. **CFG: 2**) and a revision (e.g. **REV: 2**)

- sometimes a **S/W**

S/W

A S/W has:

- a **version number** (e.g. **United version 2.7.x**)

- sometimes <u>additional information</u>, such as **Convention** (different functions / facilities), **Language**, **Number of addresses**, 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   PESN AB

Panasonic Eco Solutions Nordic AB

2.2   Alarm points

Units, which can generate a fire alarm (in the control unit), i.e. analog detectors (sensors), conventional detectors, manual call points, etc.

2.2.1   Smoke detector

Analog and conventional photoelectric (optical) smoke detectors are available.

2.2.2   Sensor

Sensor = Analog detector

2.2.3   Analog detector

Contains an A/D-converter. The **C**ontrol **U**nit pick up the digital values ("sensor values") for each detector individually.   All evaluations and "decisions" are then made in the c.i.e.   Analog detectors are addressable – an address setting tool is used for detector types **33**xx / **430**x.

An analog detector has to be plugged in an analog sensor base (**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 only two statuses, i.e. <u>normal</u> and <u>fire alarm</u>. The detector contains a closing contact and a series alarm resistor. Normally plugged in a conventional detector base **CDB** (see below) connected to a conventional zone line input, with an end-of-line device. Some types are connected directly on zone line.

2.2.6   (Conventional Detector) Base (CDB)

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

2.2.7   Addressable

A unit with a built-in address device, i.e. each unit is <u>individually</u> identified, handled and indicated in the c.i.e.

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

2.2.8   Conventional zone line input / External 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. Connected to a COM loop (see below).

2.4   Output / Control output

Defined or programmable function. Relay output or voltage output (supervised / monitored), in the c.i.e. or an output unit.

2.5   Short circuit isolator (ISO)

Addressable unit for automatic disconnection of a part (segment) of a COM loop (see below) in case of a short circuit on the loop. (According to EN54-2: One ISO is required per 32 alarm points on the COM loop.)

2.6   Display unit (DU)

Addressable unit for fire alarm presentation (incl. user definable text messages, if programmed).

2.7   COM loop

Loop = a cable, with two wires, to which all the addressable units can be connected. Starts in the c.i.e. and it returns back to the c.i.e.

2.8   Control Unit / C.U. / C.I.E.

Control Unit = Control and Indicating Equipment = Unit to which the alarm points are connected (via a COM loop). Indicates fire alarm, fault condition, etc. Fire Brigade Panel & Control Panel (see below) included or not included. Printer included or not included.

2.9   Fire Brigade Panel (FBP)

Unit intended for fire alarm presentation, etc. for the fire brigade personnel. Can be a part of the control unit (front) or a separate unit (external FBP).

In the ext. FBP, a printer can be included or not included.

2.10   Control panel (CP)

A part of the control unit (front), intended for the building occupier, service personnel, etc., to "communicate" with the control unit / system.

2.11 System

Several control units connected via a TLON network (co-operating control units).

2.12 Network / TLON® / LonWorks® / Echelon / Node / TLON Conn. board / Gateway / Sub net / Backbone net / Router / Repeater

Brief explanations to the words/expressions to be found in connection with a "network". See also separate TLON Technical description.

<u>TLON</u>® = TeleLarm Local Operating Network = a LonWorks®- based network for communication between several units/<u>nodes</u>.   The protocol is LonTalk and the transmission works with doubly-terminated bus topology (Echelon FTT-10). To connect a control unit to the network, a <u>TLON connection board</u> has to be plugged in the control unit. EBL512 G3 also supports redundant TLON system communication. In this case two <u>TLON connection boards</u> have to be plugged in each control unit.

A network can be <u>one</u> <u>channel</u> (FTT-10) or <u>several</u> channels, connected via <u>routers</u>. (In the TLON Network a sub net = a channel.)

<u>Routers</u> are also used to increase the maximum cable length, node to node, in a network.

Router or Repeater is the same type of unit (different configuration). All network programming (configuration) are made with the PC program "TLON Manager".

2.13 LED

LED (**L**ight **E**mitting **D**iode) = Yellow, green or red optical indicator ("lamp").

2.14 External Indicator (LED)

A unit with an LED. Connected to an ASB, CDB or a detector with a built-in LED. Old installations: Also connected to an ADB.
Lit when the built-in LED is lit.

2.15 Display / LCD

LCD (**L**iquid **C**rystal **D**isplay) = Display (in the c.i.e. or Display unit) for presentation of fire alarms, fault messages, etc. a graphical monochrome LCD (320 x 240 dots) and backlight.

2.16 Door open (Door / Key switch)

In EBL512 G3 there is a door switch, which is activated when the control unit door is open. In some other units this door switch is replaced with a key switch.

When the door is open a message "Door is open in this unit" is shown in the LCD.

2.17   Site Specific Data (SSD)

The SSD is unique for each installation.   All alarm points, presentation numbers, user definable text messages, programmable outputs, etc. are created in the PC program **Win512 version 2.7.x** and also downloaded in **EBL512 G3 United version 2.7.x** with **Win512 version 2.7.x**.

2.18   Software (S/W) / System program

The S/W makes the control unit (the microprocessor) work. It is factory downloaded but a new version can be downloaded in EBL512 G3 on site.

2.19   Mixed system

EBL512 units (1548 / 1549 / 1550) with software **EBL512 version 2.7.x** together with **EBL512 G3 units** (5000 / 5001) with software **EBL512 G3 United version 2.7.x**, in a **TLON Network**, i.e. a **mixed system**.

EBL512 G3 United version 2.7.x can **only** be used in a mixed system.

3   Overview

3.1   The EBL512 G3 system

EBL512 G3 is a microprocessor controlled intelligent fire alarm system, intended for analog addressable smoke detectors, as well as conventional detectors and manual call points. Programmable control outputs and output units are available. Up to 508 addresses can be connected to each control unit (c.i.e.).

EBL512 G3 is available in several types, versions and configurations. It can be connected to a TLON network, i.e. in a "system", with up to 30 control units. [1] Each control unit has access to all information.

Product type no.	Product name
5000	EBL512 G3 c.i.e. With or without a printer. <u>With</u> front and display.
5001	EBL512 G3 c.i.e. <u>Without</u> front, display and printer. No door.

EBL512 G3 is designed according to the European standard EN54, part 2 and 4. The Swedish front conforms to SS3654.

3.1.1   Printer

The control unit EBL512 G3 type **5000** can be delivered with a printer ("PRN" included in the article number) or without a printer.[2]
In Ext. Fire Brigade Panel 1826 it is possible to mount an optional Printer 1835.

3.1.2   Expansion boards

In the control unit (c.i.e.) it is possible to mount <u>up to six expansion boards</u>. The following types are available:

Product type no.	Product name
4580	8 zones expansion board
4581	8 relay outputs expansion board

Regarding the expansion boards, see also the EBL512 G3 Planning Instructions and drawings.

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[1] The control units can be EBL512 units (1548 / 1549 or 1550) with S/W version 2.7.x and EBL512 G3 units (5000 / 5001) with S/W United version 2.7.x.

[2] Printer 5058 is a <u>spare part</u> for the c.i.e. type 5000 with a printer, i.e. it comes without a mounting frame etc.

3.1.3   Power supply

The <u>main power source</u> is a built-in switched power supply (rectifier) 5037, 230 V AC / 24 V DC, 6.5 A.

The <u>second power source</u> is a backup battery (2 x 12 V). In the c.i.e. is space for two 27 Ah batteries. Larger batteries (up to 65 Ah) have to be placed outside the c.i.e.

The batteries and the power supply are connected to the <u>Main board</u> (5010), which handles the charging of the batteries, etc. See the EBL512 G3 Planning Instructions, chapter "Power supply" for more information.

3.2   S/W versions

Due to continual development and improvement, different S/W versions can be found. When installing a new control unit in a system with "older" control units, you might have to update the S/W in the old control units. T**he same S/W version is required in all control units**.

3.3   Documents

The following documents are available:

- Planning instructions MEW01472
- Operating instructions (this document)
- Drawings

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

3.4   Applications

The EBL512 G3 system is intended for small, medium and large installations. The intelligent control units offer the system designer and end user a technically sophisticated range of facilities and functions. Programming (PC software Win512 version 2.7.x and TLON Manager) and commissioning of the control unit / system is very easy.

Start with one control unit and then later when it is required, add more units. The TLON network makes it possible to install the control units in one building or in many buildings.

3.5   PC S/W

3.5.1   Win512

EBL512 G3 software **United version 2.7.x** is only used in a mixed system (see chapter "Mixed system", page 12). For this reason **Win512 version 2.7.x** is used for programming and commissioning of one or more control units, i.e. to:

- create / download / backup (upload) site specific data (SSD)
- conventions / configurations / control unit & system properties / etc.

- create / download the user definable text messages (alarm texts) shown in the display in the C.U. and ext. FBP / Display units.

NOTE! WinG3 version 1.1.x is however used for download software to an EBL512 G3 control unit.

3.5.2   TLON Manager

TLON Manager is used for the TLON Network programming.

3.5.3   Web512 II Config tool

The **EBL512 G3 United version 2.7.x** software is used for an EBL512 G3 control unit in a **mixed system** (see chapter "Mixed system", page 12). For this reason **Web512 II Config tool version 2.7.x** is used for configuration of the Web-server II (1598).

4   Control Unit

*Figure 1. **Left**: The EBL512 G3 Control Unit 5000, with printer. The look might vary according to configuration, country, etc. **Right**: The EBL512 G3 Control Unit 5001.*

Depending on country, convention, configuration, etc. the look, language and functions might vary. Figure 1 shows an EBL512 G3 type **5000** with a front with texts in English. Fronts with texts in other languages are available. EBL512 G3 is housed in a grey metal cabinet. The door has a Plexiglas ahead of the front and display, 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**).

EBL512 G3 type **5001** has no front, display and printer and is housed in a grey metal cabinet without a door.
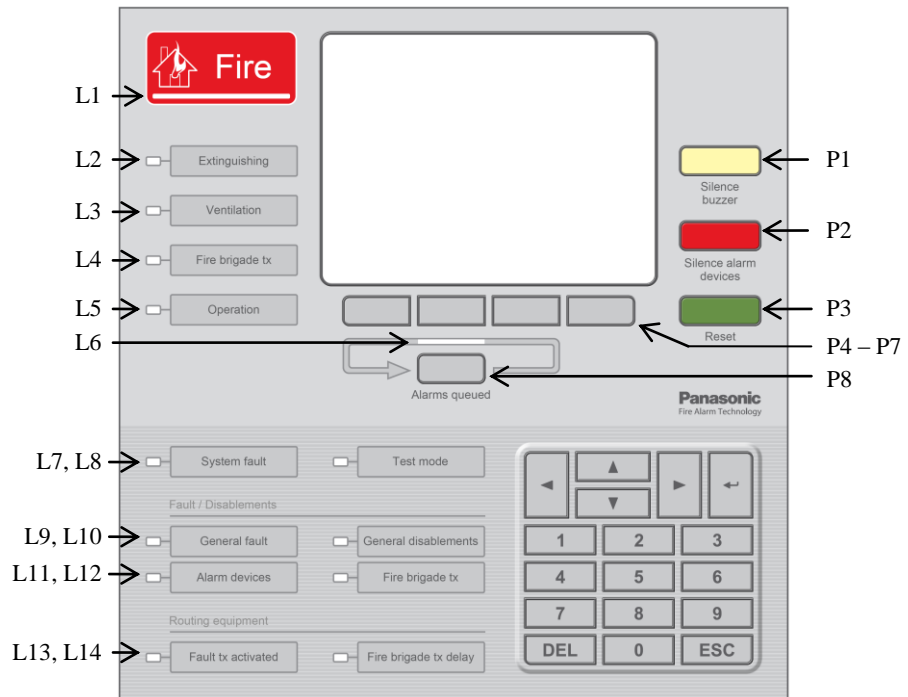
Figure 2. The EBL512 G3 front with display; The Fire Brigade Panel (FBP) is the upper part and the Control Panel (CP) is the lower part. The look might vary according depending on language, country, etc. (A front with texts in English is shown in the figure).   See also chapter "LED indicators and push buttons", page 18.

The fire brigade personnel use the **FBP** to see which alarm point / zone(s) having activated fire alarm and to take required operational control of the system. In the graphical display, the information in the upper part is depending on how many alarm points / zones having generated fire alarm. In the middle part a user definable text message (alarm text) is shown for each alarm point / zone in alarm - if programmed.

The **CP** is to "communicate" with the system, i.e. for commissioning, monthly tests, maintenance, etc. Access codes for different access levels are required. A keypad is used to get access to the system (a menu tree with main and sub menus) and for different manoeuvres. The CP has several LEDs for system status.

In the Australian front only, below the "P3" button, there is also a "Disable" push button, with which you can "Disable zones in alarm".

5   LED indicators and push buttons

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

See also Figure 2, page 17.

LED indicators on the Fire Brigade Panel (FBP)		
LED indicator		**Indicating**
L1	Fire (5 red)	Fire alarms (see below) Quiet alarm (normally Australia only) See also chapter "Alarm types", page 39.
L2	Extinguishing (red)	Output(s) for extinguishing equipment activated. (Or a programmable input type "Extinguishing" is activated.)
L3	Ventilation (yellow)	Output(s) for fire/smoke ventilation equipment activated. (Or a programmable input type "Ventilation" is activated.)
L4	Fire brigade tx (red)	Output "Fire alarm" for fire brigade tx (routing equipment) and/or corresponding programmable output(s) of type "Routing equipment" is/are activated. (Or a programmable input type "Activated routing equipment" is activated.) Test of routing equipment in progress (see menu H1).
L5	Operation (green)	The c.i.e. is powered via the rectifier and/or the battery.
L6	Alarms queued (2 red)	More than one alarm point / zone have activated fire alarm. Use push button "Alarms queued" (P8) to scroll amongst the <u>alarm points</u> (zone-address) or the soft key "Next zone" (P5) to scroll amongst the <u>zones</u>.

NOTE! Fire alarms are:
Fire alarm (incl. test mode alarm)
Heavy smoke/heat alarm
Alert Annunciation (AA) alarm
Key cabinet alarm
Acknowledged alarm (New Zealand only)

Push buttons on the Fire Brigade Panel (FBP)		
Push button		**Operation/function**
P1	Silence buzzer (yellow)	Used to silence the buzzer in the c.i.e. when it is sounding.
P2	Silence Alarm devices (red)	Used to silence alarm devices / sounders[3] in the building when they are sounding. Silenced Alarm devices is indicated to the right in the display's soft key area (a symbol near this button), see page 22.
P3	Reset (green)	Used to reset: Fire alarms (see below) Co-incidence alarms (if not automatically reset) For more information see "Alarm reset", page 50. **NOTE!** P3 has to be pressed for > 0.5 sec.
	Disable (yellow)	**NOTE!** *This button exists in the Australian front only!* Disable zones in alarm.
P4 – P7	Soft keys (grey)	The operation/function is shown above the key in the display (i.e. the soft key area). The function of a soft key may vary depending on the situation. If nothing is shown above the key in the display, the key has no function for the moment.[4]
P8	Alarms queued (grey)	Used when LEDs "Alarms queued" (L6) are lit, to scroll/browse through the queued <u>alarm points</u> (zone–address). Function, see chapter "Fire alarm", page 40, under **LEDs "Alarms queued"**. **NOTE!** To scroll/browse through the queued <u>zones</u>, use the soft key "Next zone" (P5).

NOTE! Fire alarms are:
Fire alarm
Heavy smoke/heat alarm
Alert Annunciation (AA) alarm
Key cabinet alarm
Acknowledged alarm (New Zealand only)
Isolated alarm (New Zealand only)

Encapsulated reset (aut. disablement):   Press "Reset" (P3) and approx. 0.1 sec. later also "Alarms queued" (P8). See also page 51.

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[3] Outputs of type "Alarm devices" will be de-activated.

[4] The soft key "P7" has the function **Evacuate** in the following conventions: Belgian, British Standard, Hungarian, Spanish and Ukrainian. In all other conventions it has the function **Alert Annunciation Acknowledge**.

LED indicators on the Control Panel (CP)		
LED indicator		**Indicating**
L7	System fault (yellow)	EBL512 G3 is not running because of S/W, CPU or memory fault, no contact between main board and MMI board or c.i.e. restart (fault code ≠ 00 / 03).
L8	Test mode (yellow)	Zones are in "test mode", see page 100 and 143.
	Fault / Disablements	
L9	General fault (yellow)	Fault(s) in the system, i.e. not acknowledged fault(s) and/or not corrected fault(s). See also page 142.
L10	General disablements (yellow)	Disablement(s) in the system. Also valid for "Single with automatic disablement", see page 51.
L11	Alarm devices (yellow)	**Steady / cont.**: Output(s) type "Alarm device" are disabled. **Blinking**: One or more supervised outputs type "Alarm device" have generated fault(s). This is also valid when the c.i.e. has no "contact" with a unit with such an output, e.g. 3377, 3379, 3364, etc.
L12	Fire brigade tx (yellow)	**Steady / cont.**: Output(s) for "Routing equipment" disabled via menu (H2/B3 or B9) or via open door. **Blinking**: Routing equipment power supply output[5] or one or more supervised outputs (of type "Routing equipment" have generated fault(s). This is also valid when the c.i.e. has no "contact" with a unit with such an output, e.g. 3361, etc.
	Routing equipment	
L13	Fault tx activated (yellow)	One or more not acknowledged faults.[6] Output "Fault condition" for fault tx (routing equipment) is activated.
		Test of routing equipment in progress (see menu H1).
		Sensitive fault detection mode (see menu H5/A2) is on.
L14	Fire brigade tx delay (yellow)	The **A**lert **A**nnunciation function is enabled, i.e. time channel controlling this function is "on". The **AA** function is described in the EBL512 G3 Planning Instructions, chapter "Alert Annunciation". LED "L14" 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".

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[5] Main board 5010 term. block "J3:3-4", fuse F8 (T500mA L 250 V – TR5).

[6] See also chapter "Fault acknowledge", page 81.

Push buttons / Keypad on the Control Panel (CP)	
Key/push button	**Operation/function**
↵ (Enter)	Used to log on, i.e. to get access to the menu tree (via an access code) and to accept a menu and accept input of data. Also used by fault signal and service signal to acknowledge the selected fault / analog smoke detector.
◄ ► ▲ ▼	Left / right keys are used to move the cursor in a menu. Up / down keys are used to scroll between the menus.
1 – 9 and **0**	Numeric key pad for the digits 0-9. Can be used to input data and in the menu system to jump to a menu with a corresponding number (e.g. **5** for a jump to menu H**5**).
DEL	Used to **clear** /delete all visible entry fields.
ESC	Used to stop input of data or to step "one step up" in the menu system (e.g. from a sub menu to the main menu). NOTE! To leave the menu system use the soft key "Escape menu" (P4).

6   The display (LCD)

6.1   Areas in the display

Symbol area

Information area

Soft key area

| Menu | Next zone | Re-enable | Evacuate |
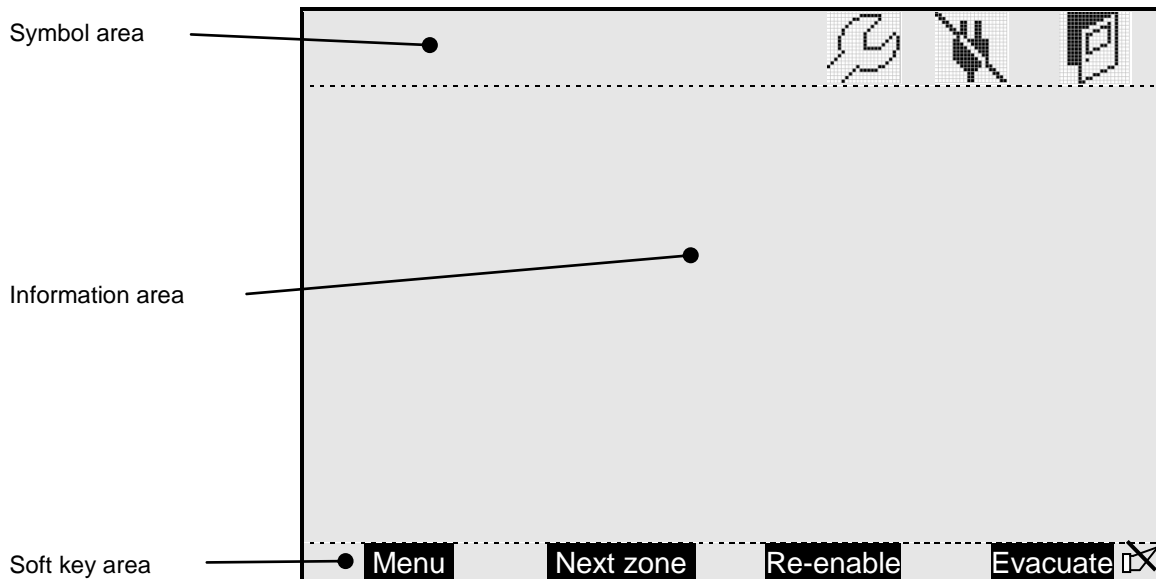
- **Symbol area:**   Some events are indicated with symbols, see 6.2 below.
- **Information area:** General area for all kind of information and the menu system.
- **Soft key area:** The function of the soft key respectively is shown here, i.e. it will vary depending on the situation, convention and language. If no text is shown, the soft key has no function. When "Evacuate" is not used this soft key may be used for "Alert Annunciation acknowledge".   In the New Zealand convention it is used for "Acknowledge alarm".).
Silenced Alarm devices is indicated by the symbol to the right in this area.

6.2   The symbol area

The symbol area is at the top of the display, see 6.1 above.

The symbol area	
Symbol	**Indicating**
	The door is open in any c.i.e. or external FBP in the system. See also page 36.
	Loss of mains in any c.i.e. or ext. power supply unit in the system, i.e. the unit respectively is out of 230 V AC and is power supplied via batteries.
	The week average sensor value is over the service level for one or more analog smoke detectors in the system. See also page 124.

Note that the symbol area may be suppressed see 6.3.

6.3　　The information area priority order

When the control unit / system is in normal operation (quiescent state), i.e. no fire alarms, no faults, no disablements, no service signals, no zones in test mode, no activated interlocking in / outputs, and/or Alert Annunciation function not enabled, only the LED "Operation" (L5) should be lit and some **system information** is shown in the control unit display. However, the system information has the lowest priority and more important information suppresses less important. In some cases also valid for the symbol area.

The priority order is:

Priority	Event	Symbol area is visible
1	Fire alarms (see below)	No
2	Quiet alarm	No
3	Co-incidence alarm	No
4	Pre-warning	No
5	AAF alarm[7]	Yes
6	Evacuate information	Yes
7	*New Zealand convention only:* Routing equipment left isolated	Yes
8	Fault (not acknowledged)	Yes
9	Disablement	Yes
10	Zones in "Test mode"	Yes
11	Interlocking input / output active	Yes
12	System information	Yes

NOTE! Fire alarms are:
Fire alarm
Heavy smoke/heat alarm
Alert Annunciation (AA) alarm
Key cabinet alarm
Acknowledged alarm (New Zealand only)
Isolated alarm (New Zealand only)

The different type of events and the menu system are described in other parts of this document. Regarding "System information", see 6.4.

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

6.4   System information in the LCD

EBL512 G3, control unit number, date and time are displayed. The exact look is convention / language dependent.

One example:

```
                    EBL512 G3
                 Control Unit:  XX




                 yyyy-mm-dd  hh:mm
```
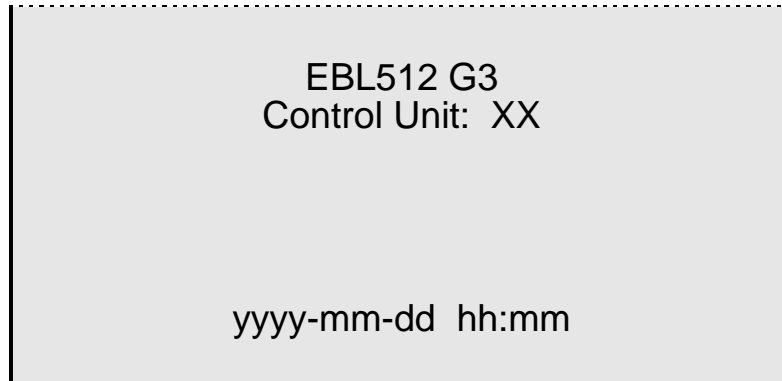
yyyy-mm-dd = (Date) Year-Month-Day
Control Unit; XX = 00-29
hh:mm = (Time) hour:minute

NOTE!
When the Russian, Ukraine, Australian or the New Zealand language is selected the date is shown as follows: **dd-mm-yyyy**.

6.4.1   User definable system information

User definable system / installation information (created and downloaded via Win512) can be displayed in the middle of the display. One row à 40 characters is available

This information is shown in all control units in the system.

One example:

```
                    EBL512 G3
                 Control Unit:  00

         Panasonic Electric Works Nordic AB



                 2011-02-02  10:58
```
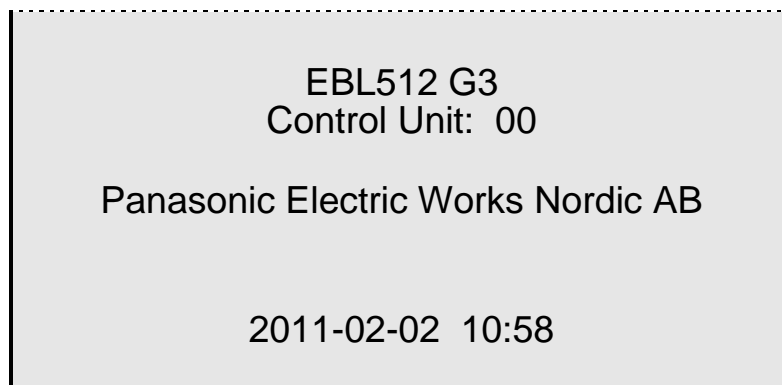
7   Access levels

EBL512 G3 has different access levels (1-4) for different kind of users. Access levels 2 and 3 are divided in sub levels (A-B).

Access level	Access code (password)	Required action	Users	Action
1	N/A	None (Door closed).[8]	Anybody.	Scroll / browse through the queued alarms.
2A	N/A	Fire brigade key.	Fire brigade personnel.	Fire alarm handling.
2B	****	Fire brigade key + access code for level 2B (or 3A).	Building occupier / installation owner.[9]	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, commissioning, etc.
3B	********	PC (Win program) connected + PC access code for level 3B.	Service / maintenance / commissioning engineer.	Service, maintenance, commissioning, etc. via Win512 version 2.7.x.
4	********	PC (Win program) connected + PC access code for level 3B and level 4.	Manufacturer.	Changing factory settings.

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

Retailers are informed regarding the default access code respectively.

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[8] The c.i.e. door is closed but the Plexiglas in the door is provided with a hole for access to the "Alarms queued" button (P8), see Figure 1, page 16.

[9] Normally a person on site, trained in order to perform monthly tests, dis-ablements, etc.

7.1   Access level 1

With the door closed[8], **anybody** has access to the push button "Alarms queued" (P8) to scroll / browse through the queued alarms.

7.2   Access level 2A

After the door has been opened ("Door open" symbol in the symbol field), **the user / fire brigade personnel** have access to the push buttons / keypad to do the following:

Push button	Operation/function
P1	Silence the buzzer in the c.i.e.
P2	Silence all alarm devices (sounders).
P3	Reset fire alarms. (see below)

NOTE! Fire alarms are:
Fire alarm (incl. heavy smoke/heat alarm)
Alert Annunciation (AA) alarm
Key cabinet alarm
Co-incidence alarm (if not reset automatically)
Acknowledged alarm (New Zealand only)
Isolated alarm (New Zealand only)

7.3   Access level 2B

After the door has been opened ("Door open" symbol in the symbol field), **the building occupier** has access to level 2A <u>and</u> after access code for level 2B (or 3A), access to the following menus:

H1 Perform monthly test
H2 Disable or re-enable
B1 Disable zone
B2 Disable zone / address
B3 Disable output
B4 Re-enable zone
B5 Re-enable zone / address
B6 Re-enable output
B7 Disable / re-enable output type
B8 Disable / re-enable alarm devices
B9 Disable / re-enable routing equipment
B10 De-activate alert annunciation function
H3 Set calendar and clock
H4 Present system status
U1 Disablement
U2 Disablement by time channel
U3 Open doors
U4 Sensor values
U5 Sensors activating SERVICE signal
U6 Event log
U7 Information
H6 FAULT acknowledge
H7 Perform zone test   (Test mode)
H9 Interlocking outputs and inputs
C1 Activated interlocking outputs/inputs
C2 Activate interlocking output
C3 Reset interlocking output
C4 Disable interlocking output
C5 Re-enable interlocking output
H10 Change access code for daily duties

7.4   Access level 3A

After the door has been opened ("Door open" symbol in the symbol field), **the service / maintenance personnel** have access to level 2A <u>and</u> after access code for level 3A, access to the following menus:

Same menus as in access level 2B **plus** the following:
H5 Service
A1 Calibration of supervised outputs
A2 Sensitive fault detection mode
A3 Service mode for COM-loop
A4 Display current consumption in CU
A5 Display current consumption on COM-loop
A6 Display statistics for communication
A7 Activate address setting mode for DU
A8 Service mode for BS4-loop
A9 Display current consumption for BS4-loop
H8 Maintenance
S1 Disconnect loop / zone line input
S2 Re-connect loop / zone line input
S3 Acknowledge SERVICE signal
S4 Clear weekly average
S5 Test of alarm devices
S6 Safe shut down of control unit
S7 Activate address in alarm mode
S8 Synchronize the control units
S9 Change code for service / maintenance
S10 Change code for PC-communication

7.5   Access level 3B

Used by Service / maintenance / commissioning engineers when a PC (i.e. **Win512 version 2.7.x**) is to be connected to EBL512 G3 for backup (upload) and download of site specific data (SSD).

7.6   Access level 4

Used by manufacturer or by personnel authorised by the manufacturer when a PC is to be connected to the control unit, i.e. when Win512 version 2.7.x shall be used.

8 "Silence Alarm devices"

In the control unit front (the FBP part) there is a push button "Silence alarm devices" (P2).

When the alarm devices are activated (sounding)[10] and the push button "Silence alarm devices" is pressed, the following will happen:

- ⊠ is shown in the display (i.e. to the right in the "Soft key area").

- The activated outputs programmed for sounders (i.e. type "Alarm devices", will be turned OFF (de-activated)[11]

If the push button "Silence alarm devices" is pressed again, the sounders will automatically sound again.

In case of a new alarm the sounders will automatically sound again.

8.1 Silence alarm devices (inside switch)

> **NOTE!** The functions in this chapter are normally used in **New Zealand**.

The button "Silence alarm devices" (P2) is called the "inside switch" and has the following function:

The inside switch toggles between two states.

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

- **Alarm devices not disabled**
  All programmable outputs of type "Alarm devices" are 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 steady (continuously) and the message "Silence switch left active" will be shown in the display. For priority order see chapter "The information area priority order", page 23.

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

---

[10] E.g. during Fire alarm or Alert Annunciation alarm.

[11] Including Addressable siren 3377, Addressable sounder base 3379 and Addressable beacon 4380.

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

The outside switch can be in two states.

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

- All programmable outputs of type "Alarm devices" are disabled, i.e. they cannot be activated. The "inside switch" (see above) has no function.
- The c.i.e. built-in buzzer is silenced.
- A fault is generated:
  "FAULT: FB Silence switch active".

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

- **"FAULT: FB Silence switch active"** will be **Serviced**.[12]
- Any fire alarm ("ALARM") and acknowledged alarm ("ACKNOWLEDGED") will automatically be disabled / isolated. (I.e. it has to be re-enabled via menu H2/ B5.) Indicated by LED "General disablements" on the c.i.e. front.
- Any fire alarm ("ALARM") and acknowledged alarm ("ACKNOWLEDGED") will automatically change the state to "Isolated alarm" (see below) and in the fire alarm list (presented in the display) **"ALARM"** or **"ACKNOWLEDGED"** will be replaced with **"ISOLATED"**.
  An example:

---

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

12345678901234567890123456789012345678901234567890

1. First alarm: 002-03   Alarm number 1 (of 1)
2.   ISOLATED alarm
   Zone   Address

3.
4.
5.   002-03 SMOKE
6.
7.
8.
9.   User definable alarm text for 002-03.
10.
11.
12.
13.
14. Menu

9   Disable / Re-enable alarm devices

Outputs programmed for sounders[11] (i.e. type "Alarm devices") can via menu H2/B8 be collective disabled for one, several or all control units.   This is indicated by LED **Fault / Disablements** "General disablements" (L10) and "Alarm devices" (L11), which are steady ON.

In case of a fire, the sounders will **remain** disabled, i.e. the alarm devices will not sound until they are re-enabled again via menu H2/B8.

See also chapters "Disable output (H2/B3)", page 107 and "Disable / re-enable alarm devices (H2/B8)", page 114.

10   "Silence buzzer"

The **buzzer** in the control unit will sound for:

- Fire alarm[13] (0.4 / 0.4 sec.)

- Co-incidence alarm (2-zone or 2-unit dependent fire alarm): When only one **zone** or one **zone / address** (alarm point) is in alarm status (0.8 / 5 sec.)

- Pre-warning (0.8 / 5 sec.)

- Quiet alarm (0.8 / 5 sec.)

- Fault (continuous)

- Disablements and Faults (2 sec. directly after the door to the c.i.e. is closed.)

- Activated interlocking input (0.8 / 0.8 sec.), if this option is selected via Win512 version 2.7.x.

Press "Silence buzzer" (P1) **to silence the buzzer.**

In case of a new alarm (pre-warning, co-incidence alarm, etc.) or if the push button "Silence buzzer" is pressed again, the buzzer will automatically sound again.

Silence buzzer by open door

In Win512 can the function "Silence Buzzer by Door Switch" be selected. The buzzer will then be turned off as long as the control unit door is open. (This function is a violation to the EN54-2 standard.)

EBL512 G3 c.i.e. type no. 5001

This unit has no front and no built-in buzzer.

---

[13] Incl. Heavy smoke/heat alarm, AA alarm, Key cabinet alarm and Acknowledged alarm (New Zealand only).

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

All control outputs programmed as type:

- Control (general)

- Extinguishing

- Fire ventilation

- Control / Extinguishing / Fire ventilation

… can via menu H2/B7 be collective disabled for one, several or all control units.   This is indicated by LED **Fault / Disablements** "General disablements" (L10).
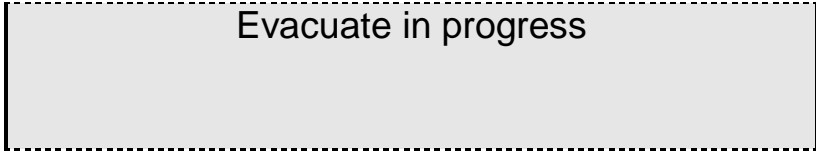
They will remain disabled until they are re-enabled again via menu H2/B7.

12   Evacuate

When the soft key "Evacuate" (P7)[14] is pressed[15], all outputs[11], programmed for sounders (i.e. type "Alarm devices"), will be collective turned ON (steady). This is indicated in the LCD:

Evacuate in progress

The sounders will remain turned ON until they are turned OFF by pressing the soft key "Evacuate off" (P7).[16]

NOTE 1! The alarm devices (sounders) will always be activated steady (sound continuously) irrespective of the fact that the outputs can be set to anything else for fire alarm (e.g. intermittent).

NOTE 2! The text "Menu" above the soft key (P4) is visible in the display only if the door in the c.i.e. is open, while the text "Evacuate" / "Evacuate off" above (P7) is always visible in the current conventions.

NOTE 3! The outputs will be turned ON even if they are disabled.

---

[14] The soft key "Evacuate" is only visible / valid for the Belgian, British Standard, Hungarian, Spanish and Ukrainian conventions.

[15] Alt. when a programmable input is activated. One input per c.i.e.

[16] Alt. when the programmable input is de-activated.

13   Open door

A special key is used to open the control unit door to get access to the front / system. The same type of key is also used to open the ext. FBP door.

If any door in the system is open the following symbol is shown in the display's symbol area:

See also chapter Open doors (H4/U3), page 121.

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

Via Win512 version 2.7.x the following can be programmed (default settings shown):

Disable routing equipment by door switch

- ⊙ **None**: <u>Open door in a C.U. or an ext. FBP</u> will **not** disable the output(s) for routing equipment (Fire brigade tx and fault tx).
- ○ **Any control unit door**: <u>Open door in any C.U.</u> will disable the output(s) for routing equipment (Fire brigade tx and fault tx) in all C.U:s.
- ○ **Any door**: <u>Open door in any C.U. or any ext. FBP</u> will disable the output(s) for routing equipment (Fire brigade tx and fault tx) in all C.U:s.

Disabled outputs for routing equipment are indicated by the LEDs **Fault / Disablements** "General disablements" (L10) and "Fire brigade tx" (L12) and listed in menu H4/U1.

14   Technical number / Presentation number

14.1   Technical number for COM loop units

The technical number, NNNNNN, is used when programming all units connected to the COM loops.

Technical number is also used to identify which unit has generated a fault.

NN N NNN

→ 001 - 127

The technical address on the COM loop.
The addresses don't have to be in sequence.
The connections on the COM loop don't have to be in sequence.
The address is for each unit set with the programming tool 3314

→ 0 - 3

COM loop number

→ 00 - 29

The control unit address (number).
Don't have to be in sequence.
The connections to the TLON network don't have to be in sequence.
The address is set with a PC SW;
TLON Manager.

NOTE!

A brand new detector is factory set to COM loop **(technical)** address 000. Connected on the COM loop, the detector LEDs will start blinking every second, indicating that an address (001 - 127) has to be set before the detector will work.

14.2   Presentation number

For each fire alarm point / input / zone, a presentation number, **NNN-NN**, has to be programmed. The presentation number is shown in the c.i.e. display and ext. FBP display[17], to identify the point / zone activating fire alarm. It is also used to disable / re-enable fire alarm points / zones and as trigger conditions in control expressions to activate programmable outputs.

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

NNN -   NN

→ 00 - 99

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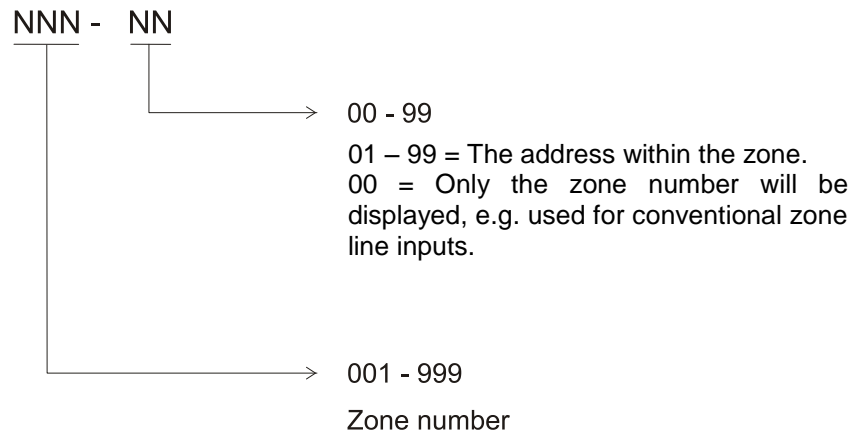
→ 001 - 999

Zone number

NOTE! Zone **numbers** 001-999 can be used but not more than **512** alarm points and/or zones can be used per c.i.e.

This is in accordance with the EN54-2 standard.

[17] Also in the Alert Annunciation Units and Presentation Units ("Display Units").

15   Alarm types

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

A fire alarm could be an **Alert Annunciation alarm**, i.e. the activation of the routing equipment (fire brigade tx) is delayed during an acknowledgement time and an investigation time respectively.

The analog detectors can also activate two other types of "alarm", i.e. **Pre-warning** and **Heavy smoke alarm** / **Heavy heat alarm**.

"Two unit dependent" addressable alarm points (normally only smoke detectors) and "2-zone dependent" zones, can activate a **Co-incidence alarm**.

Quiet alarm is normally used for fan control only and will **not** activate fire alarm.

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

Acknowledged and **Isolated alarm** is a fire alarm function only used in New Zealand.

Regarding the different alarm types, etc., see the following chapters.
NOTE!
In the following chapters are all different alarm types described.

The figures in this document show the essential information and **might not look exactly** as shown in the display.

15.1   Pre-warning

Activation of Pre-warning is an option that has to be enabled (via Win512) for the control unit respectively. **Note!** Pre-warnings activated in <u>any control unit in the system</u> will always be presented in all control units and all programmable outputs in the system (with trigger condition pre-warning) will be activated (if not disabled).

An analog detector will generate a <u>pre-warning</u> for a lower alarm level than the fire alarm level.[18] Pre-warning can be used when <u>an early warning</u> and/or an <u>early action</u> is required (e.g. a "soft" computer shut down). Normal alarm devices (output type "Alarm devices"), routing equipment, etc. will <u>not</u> be activated.

In case of a pre-warning, the following happens:

---

[18] See EBL512 G3 Planning Instructions. Any programmable input can also be used to activate a pre-warning, e.g. for a High Sensitivity Smoke Detector system.

- The buzzer in the c.i.e. sounds 0.8 sec. each 5th sec. (0.8 / 5 sec.).
- Outputs programmed for pre-warning are activated.[19]
- In the c.i.e. display, a presentation number (zone/address) is shown (for the first pre-warning).
- In the c.i.e. display, a user definable text message (= the alarm text for fire alarm) is shown (if programmed).

Example; pre-warning zone 123, address 45 (within zone 123):
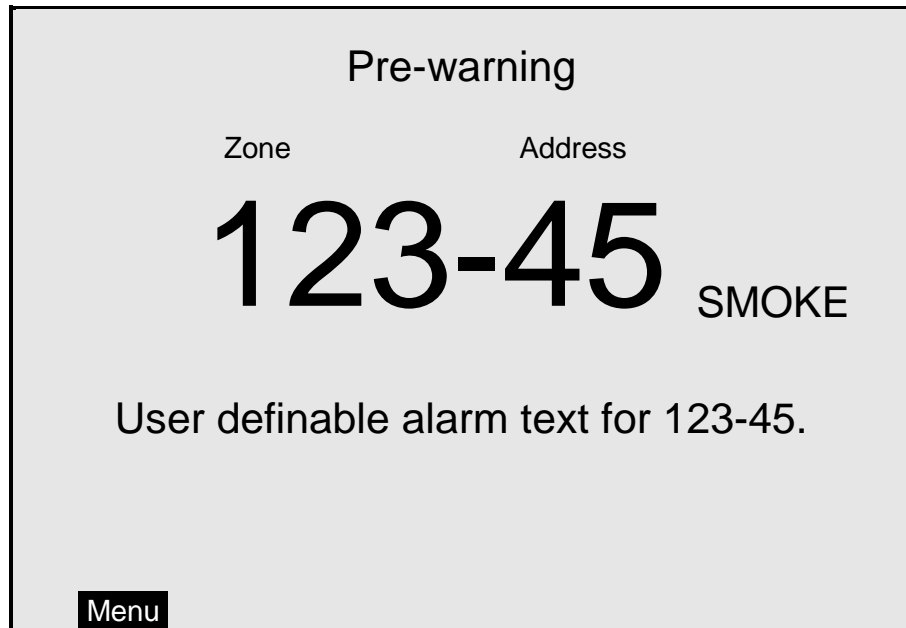
<div style="border:1px solid black; padding:1em; text-align:center;">

Pre-warning

Zone   Address

123-45 SMOKE

User definable alarm text for 123-45.

`Menu`

</div>

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

NOTE! The text "Menu" (P4) is visible in the display, only if the door in the CU is open.

If more than one pre-warning is activated, the LEDs "Alarms queued" (L6) are blinking and the pre-warnings will be automatically scrolled (each five seconds).
Pre-warnings are automatically reset see chapter "Alarm reset", page 50.

15.2   Fire alarm

The system can handle up to 15360 fire alarms but only 512 fire alarms can be shown in the c.i.e. display. If more than 512 fire alarms are activated, no more fire alarms will be shown until one or more of the first 512 fire alarms are reset.

---

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

It is possible to have **Selective alarm presentation**, i.e. only fire alarms from selected control units will be presented Set in Win512. (Normally all fire alarms will be presented in all control units.)

See also chapter "The information area priority order", page 23. In accordance with the EN54-2 standard, the following happens in case of a fire alarm:

- The buzzer in the c.i.e. 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) and outputs type "Routing equipment" are activated.[20]
- Outputs for fire alarm are activated.[21]
- In the c.i.e. display, a presentation number (zone/address) is shown (for the first fire alarm).
- In the c.i.e. display, a user definable text message (alarm text) is shown (if programmed).
- In the c.i.e. display, is also some additional information presented.

One alarm point activating fire alarm.

Example; fire alarm zone 002, address 03 (within zone 002):

First alarm: 002-03   Alarm number 1 (of 1)

                Zone   Address

002-03 SMOKE

            User definable alarm text for 002-03.

Menu

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

---

[20] In case of **Selective alarm presentation** only for the selected alarms.

[21] Outputs programmed for General fire alarm and outputs programmed for the activated fire alarm(s).

More than one alarm point activating fire alarm.

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

```
First alarm: 002-03                        Alarm number 1 (of 10)


              Zone                 Address

       002-03 SMOKE


         User definable alarm text for 002-03.


Latest alarm: 003-11                           4 zones in alarm

    Menu            Next zone
```

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

User definable alarm text For each alarm point can an individual alarm text be shown (if programmed) or the default control unit alarm text (if programmed). For each zone it is an individual alarm text (if programmed). Up to 40 alphanumeric characters can be used.

Additional information

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

LEDs "**Alarms queued**" (L6) blinking (0.4 / 0.4 sec.) are indicating that more than one fire alarm is activated. To scroll through the alarm points, use the push button "Alarms queued" (P8).

Next zone. Use the soft key "Next zone" (P5) to scroll through the **zones** in alarm.

When scrolling through the zones, the first alarm point activated in the next zone will be shown. The "Next zone" button will be available only if there are alarms in more than one zone.

The first alarm will be automatically displayed again, 20 seconds after the latest time the "Alarms queued" or "Next zone" buttons where used.

The printer (if available) will print each fire alarm, e.g.:

```
** Fire Alarm **
Zone 002 Address 03
SMOKE
YYYY-MM-DD  hh:mm
User definable alarm text
(if progr.)
```

Reset of the fire alarms, see chapter "Alarm reset", page 50.

15.2.1   Enter the menu during fire alarm

By pressing the soft key "Menu" (P4) during fire alarm, you will get access to the menu system (see Access, page 98). **NOTE!** Access code is required. In this case a part of the display's alarm window will be temporarily suppressed to permit the display of the menu system.

```
First alarm: 002-03                          4 zones in alarm
Latest alarm: 003-11
          menu
  H1  Perform monthly test
  H2  Disable or re-enable
  H3  Set calendar and clock
  H4  Present system
  H5  Service
  H6  FAULT acknowledge
  H7  Perform zone test (Test mode)
  H8  Maintenance
  H9  Interlocking outputs and inputs
  H10 Change access code for daily duties

 Esc menu
```
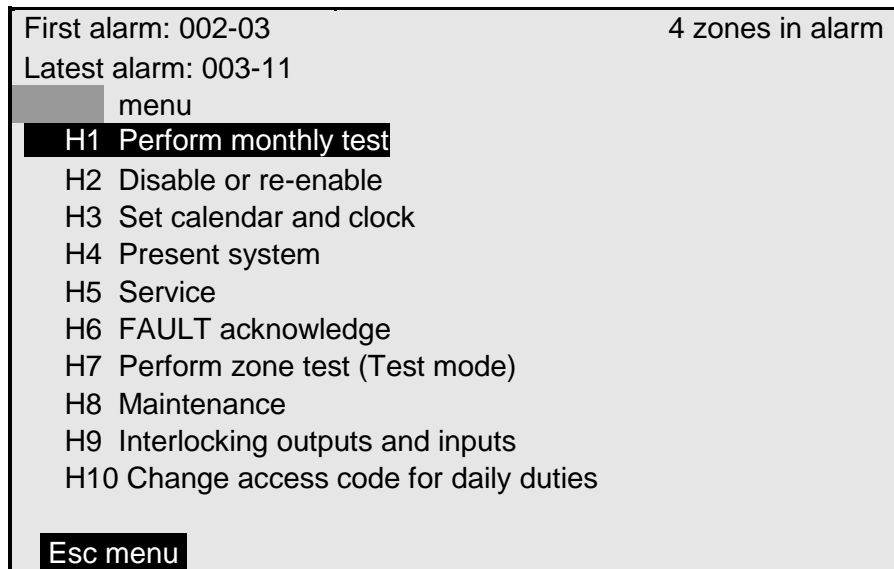
The normal alarm window will be automatically displayed again after the menu system is escaped or 5 minutes after the latest manoeuvre in the menu system.

The alarm window will also be automatically displayed again if any of the soft keys "Esc menu" (P4) or "ESC" is pressed or push button "Alarms queued" (P8).

15.2.2   Acknowledged and Isolated alarm

Acknowledged and **Isolated alarm** is a fire alarm function only used in New Zealand.

Acknowledged alarm

A fire alarm presented in the display can be acknowledged by pressing the soft key "Acknowledge" (P7).

Acknowledged alarms are indicated in the display by "Acknowledged alarm" in the same position as "Heavy smoke" / "Heavy heat", see below. This indication is the only difference between a normal fire alarm and an acknowledged alarm.

Acknowledged alarms have to be reset like normal fire alarms.

Isolated alarm

A normal fire alarm or an acknowledged alarm presented in the display 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).[22]

Isolated alarms are indicated in the display by "Isolated alarm" in the same position as "Heavy smoke" / "Heavy heat", see below.

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 LEDs "Fire" (L1) in the c.i.e.

Isolated alarms have to be reset like normal fire alarms.

Isolated alarms also have to be re-enabled via menu H2/B5 or B4 before they can activate a new fire alarm again.

15.3   Heavy smoke alarm / Heavy heat alarm

An analog detector can activate a heavy smoke / heat alarm for a higher alarm level[23] than the normal fire alarm level, i.e. a normal fire alarm is already activated by a detector activating a heavy smoke / heat alarm.

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

The following happens in case of a heavy smoke / heat alarm:

- Outputs programmed for heavy smoke / heat alarm are activated.[24]
- Each heavy smoke / heat alarm is presented with a "title", i.e. "Heavy smoke" or "Heavy heat" will be added to the normal fire alarm information:

---

[22] LED **Fault / Disablements** "General disablements" (L10) is indicating that one or more zones / alarm points are isolated (disabled).

[23] See EBL512 G3 Planning Instructions.

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

```
First alarm: 002-03                    Alarm number 1 (of 1)
                      Heavy smoke
             Zone               Address


            002-03 SMOKE


         User definable alarm text for 002-03.




 Menu
```

The printer (if available) will print each heavy smoke / heat alarm, e.g.:

```
** Heavy Smoke **
Zone 002 Address 03
SMOKE
YYYY-MM-DD  hh:mm
User definable alarm text
(if progr.)
```

Heavy smoke / heat alarm will be reset when the fire alarm respectively is reset, see chapter "Alarm reset", page 50.

15.4   Alert Annunciation alarm (AA alarm)

When the **AA** function is enabled, indicated by the LED **Routing equipment** "Fire brigade tx delay" (L14), the indications, print-outs, actions etc. are the same as for a normal fire alarm (see above) **except for the c.i.e. output for routing equipment (fire brigade tx), which will not be activated directly.** There will also be a "title", i.e. "Alert annunciation" or "Alert annunciation acknowledged" will be added to the normal fire alarm information. The **AA** alarm has to be acknowledged within an acknowledge time and reset within an investigation time, otherwise the output(s) for routing equipment (fire brigade tx) will be activated. See EBL512 G3 Planning Instructions for more information regarding the **AA** function. Acknowledgement and reset of the **AA** alarm can be done on an **AA** unit 1735 / 1736 or an **AA** controller 1740. See also chapter "Alert Annunciation", page 52.

15.5   Key cabinet alarm

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

One programmable input per c.i.e. can be used to connect a key cabinet.

15.5.1   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 will be activated.

Example; Key cabinet alarm. xx = Control Unit number (00-29):
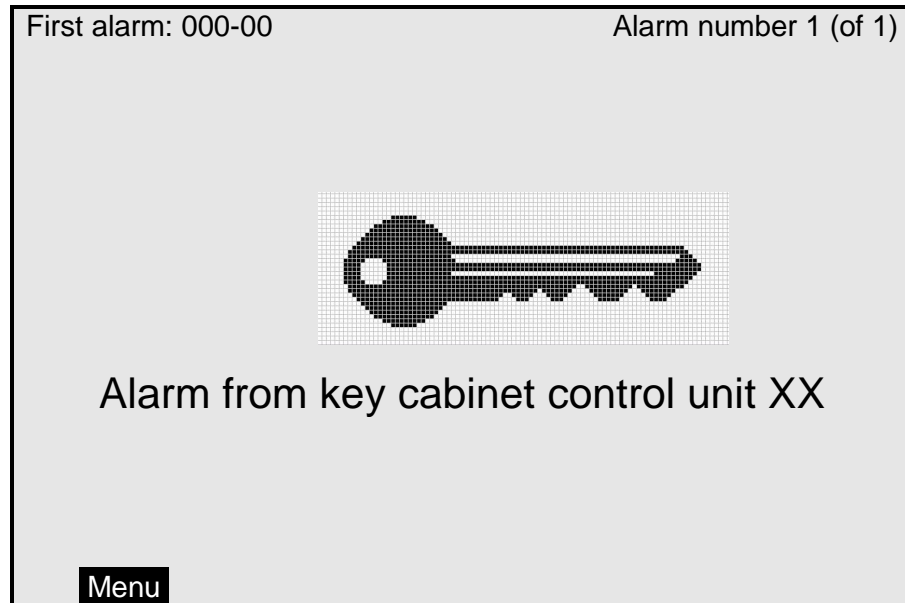
When printer is available the Key cabinet alarm will be printed like a normal fire alarm (see above).

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" (L9). **NOTE!** The "Fault tx" output(s) will **not** be activated by this fault.

15.5.2   Key cabinet opened in conjunction with a fire alarm

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

15.5.2.1   Restoring the key after a fire alarm

When **all** fire alarms in the system are reset (see chapter "Alarm reset", page 50), the key has to be restored into the key cabinet **within 5 minutes**. If not, a fault will be generated, see chapter "Key cabinet alarm reset", page 52.

15.6   Co-incidence alarm (2-address / -zone dependence)

The co-incidence alarm function is programmed via Win512 version 2.7.x for the alarm points / zones in question.

When only one **zone** or one **zone / address** (alarm point) is in alarm status, the c.i.e. buzzer sounds (0.8 / 5 sec.) and there is a **Co-incidence alarm** presentation in the display. Note that LEDs "Fire" (L1) are not indicating a co-incidence alarm.

The co-incidence alarm will be automatically **Reset** after 5 minutes (i.e. if the zone / alarm point is no longer in alarm status) or via the "Reset" button (P3). See chapter "Alarm reset", page 50.

Example;   Co-incidence alarm zone 123, address 45 (within zone 123):
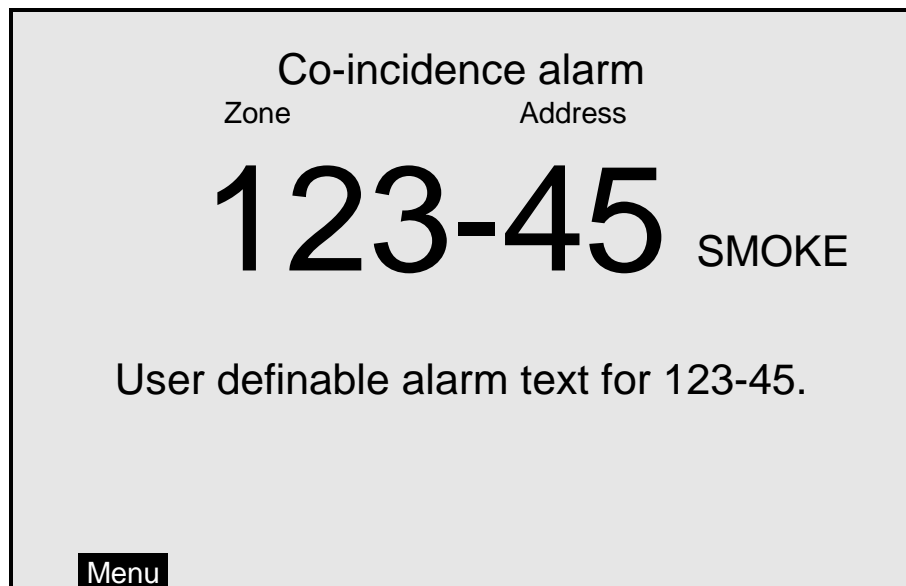
If more than one Co-incidence alarm **not** dependent on each other are activated, the LEDs "Alarms queued" (L6) are blinking and the Co-incidence alarms will be automatically scrolled (each 5th second).

If two or more **zones** or **alarm points** (zone / addresses) dependent on each other are in alarm status at the same time, normal fire alarm (see above) will be activated in the system.

The co-incidence alarm function can be turned on / off via a time channel.

15.7   Alarm Acknowledgement Facility (AAF)

One or more **A**larm Acknowledgement **F**acility **C**ontrols[25] are used in the system.

See EBL512 G3 Planning Instructions chapter "Alarm Acknowledgement Facility (AAF)" for more information regarding the **AAF** function.

During the Acknowledgement Period (10-60 sec.), the following information (a list if many) is shown in the c.i.e. display:

```
AAF zone zz, activated
dd-mm-yyyy  hh:mm
```

During the Investigation Period (0-3 min.), the following information (a list if many) is shown in the c.i.e. display:

```
AAF zone zz, investigation in progress
dd-mm-yyyy  hh:mm
```

15.8   Quiet alarm

One or more smoke detectors, via Win512 version 2.7.x programmed for Quiet alarm, have passed the fire alarm level. Quiet alarm is used for fan control (stop or start is depending on the type of fan).

Quiet alarm is normally used in conjunction with one I/O Matrix board 4582, one application board for fan control[26] and one I/O unit for fan control 3361, for control of each fan.

Indications and actions:

Detector LEDs are turned on (i.e. also a connected ext. LED).

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

---

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

[26] The Fan control panel 4593 can be used for control of up to eight fans.

Quiet alarm

Zone   Address

123-45 SMOKE

User definable alarm text for 123-45.

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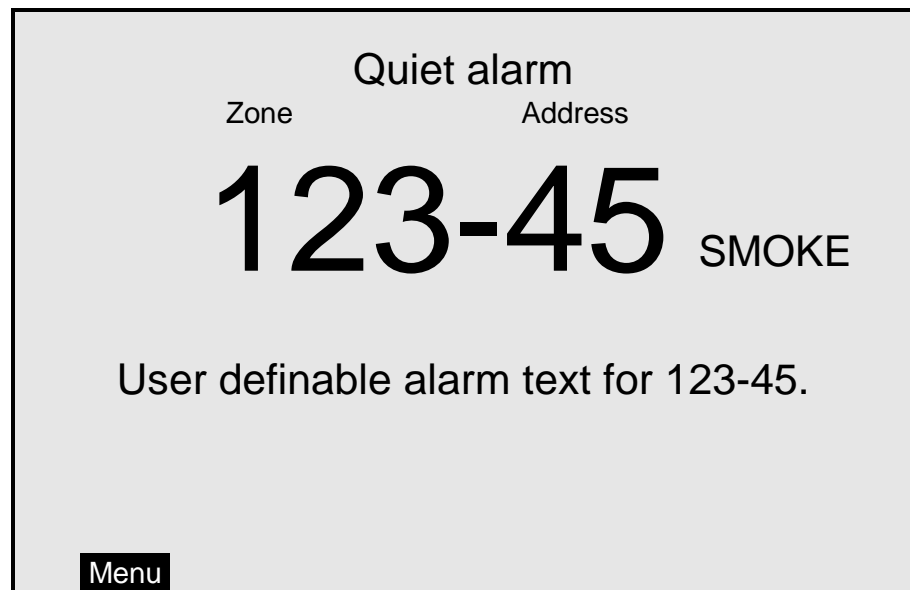
Programmable outputs for quiet alarm, e.g. 3361 outputs controlling supply air fans and standard fans, i.e. any output with a control expression containing the trigger conditions "Quiet Alarm Zone" or "Quiet Alarm Zone Address".

Quiet Alarms are automatically reset, see page 53.

16   Alarm reset

16.1   Pre-warning reset

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

16.2   Fire alarm reset

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

One of the following alarm reset alternatives is valid. This is selected via Win512 version 2.7.x. "All" is default.

16.2.1   All

All activated fire alarms (alarm points / zones) will be reset by pressing "Reset" (P3) once. (This is in accordance with the EN54-2 standard).
NOTE! The push button has to be pressed for min. 0.5 sec.

When all fire alarms are reset, LEDs "Fire" (L1) and "Alarms queued" (L6) are turned off. If there are other conditions (e.g. a fault condition) the corresponding information will be shown (e.g. a fault message), for the priority order see chapter "The information area priority order", page 23.

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

If a key cabinet is installed, the key (to the building) has to be put back into the key cabinet **within 5 minutes**. If not, a fault will be generated and a fault message will be shown in the display, see chapter "Key cabinet alarm reset", page 52.

16.2.2   Single

Each fire alarm (alarm point / zone) has to be reset one by one.
NOTE! This function is available only if it is set in Win512 version 2.7.x.

Press "Reset" (P3) to reset the fire alarm currently shown in the middle of the display with large digits.
NOTE! The push button has to be pressed for min. 0.5 sec.

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

If more than one fire alarm is activated (i.e. LEDs "Alarms queued" (L6) are lit) the next fire alarm in the queue will be shown in the middle of the display. It has to be reset the same way as the first one.

When all fire alarms are reset, LEDs "Fire" (L1) and "Alarms queued" (L6) are turned off. If there are other conditions (e.g. a fault condition) the corresponding information will be shown (e.g. a fault message), for the priority order see chapter "The information area priority order", page 23.

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

If a key cabinet is installed, the key (to the building) has to be put back into the key cabinet **within 5 minutes**. If not, a fault will be generated and a fault message will be shown in the display, see chapter "Key cabinet alarm reset", page 52.

16.2.3   Single with automatic disablement

Like "Single reset" but incl. the so called <u>encapsulation function</u>:

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

When "Single with automatic disablement" reset is performed, an alarm point or zone, still in alarm status, will not only be reset but also disabled, i.e. it will <u>not</u> activate a new fire alarm within 20 seconds.
<u>It has to be re-enabled via menu H2/B5 before it can activate a new fire alarm.</u> (This function, set via Win512 version 2.7.x, is a violation to the EN54-2 standard.)

LED **Fault / Disablements** "General disablements" (L10) is indicating one or more disablements in the system.

NOTE!
When "All" or "Single" reset is used, "automatic disablement" (encapsulation function) can be used by pressing "Reset" (P3) and approx. 0.1 sec. later also press "Alarms queued" (P8) and hold them pressed for > 0.5 sec.
The alarm point **or** the whole zone (conventional) currently shown in the middle of display with large digits will be reset and disabled.

16.2.4   Acknowledged and Isolated alarm

Acknowledged alarm and **Isolated alarm** are fire alarm functions only used in New Zealand.

Acknowledged alarm

Acknowledged alarms have to be reset like normal fire alarms.

Isolated alarm

Isolated alarms have to be reset like normal fire alarms.

<u>Isolated alarms also have to be re-enabled via menu H2/B4 or B5 before they can activate a new fire alarm again.</u>

16.3   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.

16.4   Alert Annunciation

Regarding the function, see chapter "Alert Annunciation alarm (AA alarm)", page 45 and EBL512 G3 Planning Instructions, chapter "Alert annunciation". Reset of the **AA** alarm(s) can be done via push button "Reset" on an **AA** unit 1735 / 1736 or an **AA** controller 1740 (or in the c.i.e.).

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

16.5   Key cabinet alarm reset

A key cabinet alarm has to be reset like the normal fire alarms.

After reset a fault message is shown in the display to inform the user that the key cabinet has been opened.

```
FAULT: Key cabinet, control unit xx
yyyy-mm-dd   hh:mm
```

NOTE! The date is for the Australian, New Zealand, Russian and Ukrainian languages shown as **dd-mm-yyyy**.
xx = control unit number (00-29).

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

This key cabinet fault message is to be acknowledged the same way as "normal" faults, see chapter "Fault acknowledge", page 81.

When the key cabinet fault is acknowledged, the LED **Fault / Disablements "**General fault" (L9) will be turned off (i.e. if the key cabinet is closed and if there are no other faults in the system).

16.6   Co-incidence alarm

A Co-incidence alarm can be manually reset with the "Reset" button (P3) on the c.i.e. front **or** automatically reset after 5 minutes (i.e. if the alarm point / zone is no longer in alarm status). See also chapter "Co-incidence alarm (2-address / -zone dependence)", page 47.

16.7   Alarm Acknowledgement Facility (AAF) reset

NOTE! The AAF function is used in conjunction with an AAF Control, which today 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.)

16.8   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   Fault

All faults are delayed in order not to generate any unnecessarily faults, e.g. for COM loop and zone line input faults the delay time is approx. 45 seconds. [27]

In case of a fault condition, the following will happen in the c.i.e.:

- The buzzer in the c.i.e. will sound continuously (steady).[28]

- The fault condition output for routing equipment (Fault tx) will be activated.

- Programmable output(s) for general fault will be activated and output(s) for general charge fault might be activated.

- LED **Routing equipment** "Fault tx activated" (L13) will be turned on (indicating that the fault condition output for routing equipment (Fault tx) is activated).

- LED **Fault / Disablements** "General fault" (L9) will be turned on.

- LEDs **Fault / Disablements** "Alarm devices" (L11), "System fault" (L7) and/or **Fault / Disablements** "Fire brigade tx" (L12) might be turned on as well.

- A fault message incl. date, time and status will be shown in the c.i.e. display.

Example; fault message:

```
FAULT: No reply zone: xxx address: xx
technical number xxxxxx
yyyy-mm-dd   hh:mm          serviced




Number of not ackn. faults in system: 1
```
Menu

NOTE!
When the Russian, Ukraine, Australian or the New Zealand language is selected the date is shown as follows: **dd-mm-yyyy**.

---

[27] Some units may also have an internal delay time, which makes the delay time even longer, e.g. the Multipurpose I/O unit 3361 has an internal delay time of 30 seconds, which results in 45+30=75 seconds delay time in total.

[28] The buzzer in the control unit can be suppressed for faults generated in other control units. "Suppressed buzzer during fault" is set via Win512 version 2.7.x.

- In the c.i.e. display can up to three fault messages be shown simultaneously. In the display, down to the left, is displayed the number of not acknowledged faults.

- If a fault has been corrected (serviced) before it has been acknowledged, the status information is "serviced", see above.

- Fire alarm presentation has higher priority than the fault messages, however during fire alarm presentation the faults can be shown via the menu system, see page 43.

Faults (normally latched[29]) have to be acknowledged, which is done via menu H6 (see page 142). This menu is a list of all faults in the system:

not corrected / serviced and not acknowledged fault

not corrected / serviced but acknowledged fault   (acknowledged)

corrected / serviced but not acknowledged fault   (serviced)

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

NOTE!

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

---

[29] Can via Win512 version 2.7.x be set to be "not latched".

17.1   Fault messages

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

Some of the fault messages are valid for ==EBL512 control units only==, some of the fault messages are valid for EBL512 G3 control units only and some of the fault messages are valid for ==both types of control units==.

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

A fault in the downloaded Site Specific Data (SSD). After the restart a new fault will be generated:
FAULT: Site Specific Data (SSD), control unit xx.

A new SSD download will probably solve the problem.

```
FAULT: 1580 8 zones board x, Control unit
xx
```

(8 zones expansion board, DET8)

Fault on / no communication to 1580 board No. x in control unit No. xx. Check address setting and connections on the board. Check programming (Win512 version 2.7.x).

```
FAULT: 1581 Relay board x, Control unit xx
```

(8 relays expansion board)

Fault on / no communication to 1581 board No. x in control unit No. xx. Check address setting and connections on the board. Check programming (Win512 version 2.7.x).

```
FAULT: 1582 FBP interface board x, CU xx
```

(External Fire Brigade Panel interface board)

Fault on / no communication to 1582 board No. x in control unit No. xx. Check address setting and connections on the board. Check programming (Win512 version 2.7.x).

```
FAULT: 1583 Extinguishing system, Control
unit xx
```

Fault in the extinguishing system / equipment connected to the 1583

German Fire Brigade Panel interface board, in control unit No. xx.

FAULT: 1583 GFBP interface board, Control
unit xx

(German Fire Brigade Panel interface board)
*   Fault on / no communication to 1583 board in control unit No.
   xx. Check address setting and connections on the board. Check
   programming (Win512 version 2.7.x).
 *   Check the fuses F1 and F2 on the 1583 board.

FAULT: 1584 Autronica board x, CU xx

(Autronica interface board)

Fault on / no communication to 1584 board No. x in control unit No.
xx. Check address setting and connections on the board. Check
programming (Win512 version 2.7.x).

FAULT: 1587-board x, CU xx

(External Fire Brigade Panel / DU interface board)

Fault on / no communication to 1587 board No. x in control unit No.
xx. Check address setting and connections on the board. Check
programming (Win512 version 2.7.x).

FAULT: 24 V for ext. equipment, Control
unit xx

Check the fuses F2 and F4 on the connection board 1555. (Supervised
output S2 is also supplied via F2 and F4).

FAULT: 24V for external equipment output x,
control unit xx

x = Power supply output 1-4 (J3:5-12).   xx = 00-29.
Check fuse F9, F10, F11 and F12 respectively on the Main board 5010
in control unit no. xx. Fuse: T**4A** L 250V (TR5).

FAULT: 24V for routing equipment,
control unit xx

512: Check the fuses F1 and F3 on the connection board 1555.
(Supervised output S3 is in some conventions / configurations

supplied via F1 and F3). Indicated by LED "L15" blinking in EBL512 and LED "Fire brigade tx" (L12) blinking in EBL512 G3.

512 G3: Power supply output 0 (J3:3-4). xx = 00-29.
Check fuse F8 on the main board 5010 in control unit no. xx.
Also indicated by LED **Fault / Disablement** "Fire brigade tx" (L12) blinking. Fuse: **T500mA** L 250V (TR5).

FAULT: 24V out, output unit xxxxxx

This is valid for the external power supply 3366 connected on the COM loop. The output might be turned off or the current output limit (4A) is exceeded.

FAULT: Alert annunciation unit xx, control unit xx

1735 / 1736. (Alert Annunciation Unit - AAU.)

The AAU unit xx, connected to control unit no. xx, is programmed as another type in the SSD or a fault in the unit.

FAULT: Alert annunciation unit xx, expansion board x, control unit xx

AAU=1735 / 1736

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

FAULT: Alarm input x, 1580 board x, CU xx

The zone line input x on the 1580 board placed in control unit xx ("master") is used for a single "slave" unit (control unit) or several control units connected in parallel, i.e. the board is used for "Redundancy in distributed system".

The input x is in "fire alarm state" but there is no activated fire alarm in any control unit <u>and</u> no fault on the TLON Network. Check the connections (e.g. of the alarm resistor) in the "slave" unit (units).

FAULT: Alarm input, tech.no. xxxxxx

The zone line input (Input 0) on the 3361 unit with technical number xxxxxx is used for a single "slave" unit (control unit) or several "slave" units connected in parallel, i.e. the unit is used for "Redundancy in distributed system".

The Input 0 is in "fire alarm state" but there is no activated fire alarm in any control unit <u>and</u> no fault on the TLON Network. Check the connections (e.g. of the alarm resistor) in the "slave" unit (units).

FAULT: ASF COM-loop x, control unit xx

(ASF=2370, Addressable short circuit isolator)

This message is only shown when the control unit works in <u>Sensitive fault detection mode</u> (menu H5/A2).

A short circuit, shorter / faster than the time delay for an ordinary fault, has occurred on the COM loop. Can be used for commissioning / maintenance purposes.

FAULT: Battery not connected,
control unit xx

512:

- Batteries (2 x 12 V) are missing or not connected correctly.
- Fuse(es) F2, F3 on the charger board 1557 / 1657 is(are) blown.
- Other battery fuse is blown (e.g. when the batteries are placed outside the control unit).
- In the New Zealand convention only:
  Battery voltage is below 24.4 V).

This check is done every 14th minute (every 30th second in the New Zealand convention), i.e. after correcting the fault it might take up to 14 min. (30 seconds) until it disappears from the fault list.

512 G3:

- Battery voltage is below 18.9 V.
- Batteries (2 x 12 V) are missing or not connected correctly.
- Fuse F2 on the Main board 5010 is blown.
- Other battery fuse is blown.

This check is done every 14th minute but when the fault is generated the check is done every 30th sec. Fuse: T6.3A H 250V (5x20 mm ceramic).

FAULT: Battery, technical number xxxxxx

The charging function in the external power supply 3366 connected on the COM loop is not OK. The p.c.b. has to be replaced.

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

Check the output unit battery / connections / fuse F3 (on the power supply board) in the output unit.

```
FAULT: Charger, control unit xx
```
The battery charging function is not OK. The main board 5010 may have to be replaced.

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

```
FAULT: Charging, output unit xxxxxx
```
The charging function in the external power supply unit is not OK. The p.c.b. has to be replaced.

```
FAULT: Checksum MMI program,
control unit xx
```
A fault in the control unit xx MMI board 5011 software. LED "System fault" is turned on. This is a very serious fault. Call for service personnel/engineer immediately.

```
FAULT: Checksum system program,
control unit xx
```
512: A fault in the control unit xx S/W. The main board 1556 might have to be replaced. This is a very serious fault. Call for service personnel/engineer immediately.

512 G3: A fault in the control unit xx Main board 5010 software. LED "System fault" is turned on. This is a very serious fault. Call for service personnel/engineer immediately.

```
FAULT: Control unit xx has no contact
with control unit xx, network x
```
network x = network 0

- Check the TLON network cables / connections.
- Faulty TLON connection board 1590/5090.
- The control unit has no power.
- Can be shown in conjunction with new S/W download.

FAULT: Control unit xx has wrong information

Can be shown in conjunction with new software download and/or when commissioning a system. This fault can be generated due to a bad TLON network, i.e. communication problems.
One or more control units might have data stored that is not the same in all control units. If a control unit restarts in conjunction with this fault, a synchronization will start automatically, otherwise a synchronization has to be started (via menu H8).
NOTE! It is important that all control units that are supposed to exist (SSD downloaded via Win512) are running and are connected to the TLON network. The TLON network programming has to be done.
It could take 90-120 seconds until this fault is corrected.

FAULT: Control unit xx high current consumption

512: The control unit current consumption is > 2.5A (> 3.6A in alarm state) and because of this, the <u>battery charging is turned off</u> and will be so until the current consumption has decreased to < 2.5A (< 3.6 A) again.

512 G3: The control unit current consumption is > 3.3A (> 6.3A in alarm state) and because of this, the <u>battery charging is turned off</u> and will be so until the current consumption has decreased to < 3.3A (< 6.3 A) again.

FAULT: Cut-off COM-loop x, control unit xx

This is indicating a single break on the loop. Communication has to be performed in both directions, to find all the units.
(A double break will give the message: FAULT: No reply …..).

It can also be indicating a too long COM loop cable (i.e. all units are not found until the communication is performed in both directions).

NOTE! Communication in <u>both</u> directions lasts for about ten minutes, before a new attempt to communicate in <u>one</u> direction is performed. If the break remains, a new ten minutes period starts, and so on. If the fault is acknowledged and the break is corrected during a ten minutes period, it will not disappear from the list until the end of the ten minutes period.

FAULT:Cut-off input x,1580 board x,CU xx

(8 zones expansion board, DET8)

This is indicating a break (cut-off) or a missing end-of-line resistor on input x (zone line) on the 1580 board placed in control unit xx. (It can also be a detector that have been removed (stolen) from its base.)

NOTE! The input can, as an alternative, be used for a single "slave" unit (control unit) or several control units connected in parallel, i.e. it is used for "Redundancy in distributed system". In such a case the output for routing equipment (fire brigade tx) in the "slave" unit respectively works as a "detector".

```
FAULT: Cut-off loop x, BS4 x, CU xx
```

(1584 Autronica interface board, BS4)

Cut-off (break) on the BS4 loop. This is indicating a single break on the loop. Communication has to be performed in both directions, to find all units.
Each 10th minute is an attempt made to comm. in one direction again.

```
FAULT:Cut-off loop x,CU xx, CU<->ASF0
FAULT:Cut-off loop x, CU xx,ASF 0<->ASF 1
FAULT:Cut-off loop x, CU xx,ASF 1<->ASF 2
FAULT:Cut-off loop x, CU xx,ASF 2<->ASF 3
FAULT:Cut-off loop x, CU xx,ASF 3<->ASF 4
FAULT:Cut-off loop x, CU xx,ASF 4<->ASF 5
FAULT:Cut-off loop x, CU xx,ASF 5<->ASF 6
FAULT:Cut-off loop x, CU xx,ASF 6<->ASF 7
FAULT:Cut-off loop x, CU xx,ASF 7<->CU
FAULT:Cut-off loop x, CU xx,ASF 6<->CU
FAULT:Cut-off loop x, CU xx,ASF 5<->CU
FAULT:Cut-off loop x, CU xx,ASF 4<->CU
FAULT:Cut-off loop x, CU xx,ASF 3<->CU
FAULT:Cut-off loop x, CU xx,ASF 2<->CU
FAULT:Cut-off loop x, CU xx,ASF 1<->CU
FAULT:Cut-off loop x, CU xx,ASF 0<->CU
```

This is indicating a single break on the COM loop "x" **when one or more short circuit isolators are connected on the loop**.
Communication has to be performed in both directions, to find all units. The break is to be found in the specified segment (e.g. `ASF 3<->CU` = between short circuit isolator no. 3 and the control unit).
Each 10th minute is an attempt to comm. in one direction made again.

```
FAULT: Cut-off loop x, control unit xx
SCI n <-> SCI n
```

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

`SCI n <->SCI n` describes between which **S**hort **C**ircuit **I**solators (4313) the cut-off is located.
n = A, B, 0, 1, 2, 3, 4, 5, 6 & 7. A & B is the built-in isolator in the EBL512 G3 A-direction and B-direction respectively, i.e. if no SCI is used the information will always be: `SCI A <-> SCI B.`
If only one SCI is used (i.e. 4313 no. 0), the information will be:
`SCI A <-> SCI 0` or `SCI 0 <-> SCI B`
...and so on.

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

If there are several breaks on the loop the message shows the last isolator before the break in the A-direction (incl. the following isolator). There will also be a "FAULT: No reply ….." message for each unit that EBL512 G3 cannot find and "FAULT: Multiple faults …".

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

```
FAULT: Display unit xxxxxx
```

Display unit out of work. Fault in the display unit EEPROM ("site specific data"). Download the data again or change the EEPROM and download the data again.

```
FAULT: Double addresses techn. no.: xxxxxx
```

Two (or more) units, connected to a BS4 loop (1584 board), have been given the same address. Check the units.

```
FAULT: Earth fault (plus),
control unit xx
```
```
FAULT: Earth fault (minus),
control unit xx
```

Earth fault is detected in control unit no. xx. 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 of the control unit cannot be guaranteed. Call for service personnel/engineer.

FAULT: Earth fault, output unit xxxxxx

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

FAULT: Expansion board x, control unit xx

This is valid for the exp. boards 4580 & 4581, i.e. no. x, mounted in the control unit no. xx.

There is some internal fault on the board, which has to be replaced.

FAULT: Expansion board x, loop x, control unit xx

This is valid for the I/O Matrix board (4582) no. x, connected on COM loop x (0-3) in the control unit no. xx.

There is some internal fault on the board, which has to be replaced.

FAULT: External FBP x, board x, CU xx

The control unit (i.e. the 1582 board) cannot communicate with the ext. FBP (or data converter).

* 	Check the connections.
 * 	Check the cable (break?).
 * 	Check the address DIL-Switch in the ext. FBP. Is correct address set?
 * 	Several ext. FBPs have the same address.
 * 	Faulty ext. FBP.

FAULT: External fuses, control unit xx

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

FAULT: External power supply, control unit xx

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

unit xx.

FAULT: External presentation unit xx,
control unit xx

1728 (Ext. Presentation Unit - EPU.)

The EPU xx, connected to control unit no. xx, is programmed as another type in the SSD or a fault in the unit.

FAULT: External presentation unit xx,
expansion board x, control unit xx

EPU=1728

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

FAULT: Configuration,
control unit xx

512: Fault in the **SSI** = EBL512 settings downloaded via Win512.

512 G3: The configuration settings have been "changed", in control unit no. xx, e.g. because of some external disturbance. The main board has to be replaced.

FAULT: Fan xx, control unit xx

The LED "Fault" is lit on a fan control module connected to control unit xx. Fan no. xx has been activated but the corresponding I/O unit 3361 input has not been activated within the programmed time.
Check the fan and the cables / connections.
NOTE! In the Australian and New Zealand conventions this fault is "not latched" irrespective of if all other faults are "latched".

FAULT: FB Silence switch,
control unit xx

Only valid in the New Zealand convention.
New Zealand FB Silence switch ("outside switch") is turned on, in control unit no. xx, i.e. from not activated to activated state.

FAULT: Fire brigade panel xx,
control unit xx

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

The ext. FBP xx, connected to control unit no. xx, is programmed as another type in the SSD or a fault in the unit.

FAULT: Fire brigade panel xx, expansion board x, control unit xx

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

The ext. FBP xx, connected to expansion board x in control unit no. xx, is programmed as another type in the SSD or a fault in the unit.

FAULT: Fuse, 1580 8 zones board x, control unit xx

(DET8=1580, 8 zones expansion board)

Check for blown fuse on the 1580 board.

FAULT: Fuse, 1582 FBP board x, CU xx

(External Fire Brigade Panel interface board 1582)

Check for blown fuses on the 1582 board.

FAULT: Fuse, 1584 Autron. board x, CU xx

(BS4=1584 Autronica interface board)

Blown fuse on the 1584 board. The fuse is not replaceable. The board has to be replaced.

FAULT: Fuse, 1587-board x, CU xx

(External Fire Brigade Panel / DU interface board 1587)

Check for blown fuses on the 1587 board.

FAULT: Fuse on COM-loop x, control unit xx

512: The fuse is not replaceable. More components might also be broken. The main board 1556 has to be replaced.

512 G3: Blown fuse F15 (Loop 0), F16 (Loop 1), F17 (Loop 2) or F14 (Loop 3) on the main board 5010, in control unit no. xx. Fuse T**1.6A** L 250V (TR5). **NOTE!** The fuse shall **not** be replaced. The main board 5010 shall be replaced, since more components are broken

as well.

FAULT: Fuse, output unit xxxxxx

Fuse F9 (on the output unit p.c.b.) is blown.

FAULT: High current loop x, 1584 x, CU xx

(Autronica interface board, BS4)

The current consumption is >60 mA on the BS4 loop.

FAULT: High voltage, 1584 board x, CU xx

(Autronica interface board, BS4)

The BS4 loop voltage is >16V (normally it is 14V ±0.1V).

FAULT: ID fault, display unit xxxxxx

The display unit is not the same type as programmed. Change the programming **or** the unit.

FAULT: Interlocking input AAA/PP

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

FAULT: Internal short circuit, COM-loop x
control unit xx

Short-circuit on the connection (ribbon cable) to or between the expansion boards (458x) in the control unit xx (EBL512 G3).

FAULT: Key cabinet, control unit xx

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

FAULT: L-C mixed COM-loop x, control unit xx

The two wires L (SA) and C (SB) for COM-loop no. x (0-3), in control unit no. xx, have been mixed (alternated). Check / correct the wire connections.

FAULT: Loop unit technical number xxxxxx

The communication with the unit (not a detector) is **not** all right, i.e. the unit is out of order / faulty and has to be replaced.

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

The unit/detector is **not** all right, i.e. the unit is out of order / faulty and has to be replaced.

FAULT: Low battery capacity, control unit xx

512: Battery internal resistance is too high.

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

NOTE! The battery check is performed every 12th hour, i.e. it can take up to 12 hours until the fault status will be "corrected".

In the New Zealand convention only:
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.

512 G3: Battery (in control unit no. xx) internal resistance > 0.6 Ω.

* The battery might be too old.
* Cables, fuses etc. for externally placed batteries might cause a voltage drop.
* Check / adjust the rectifier (power supply) voltage (24 V DC).

- Check the charging voltage over the battery respectively (13.5-13.8 depending on the actual charging step).
- Check the voltage over a disconnected battery (fully charged $\geq$ 13 V).
- **In the New Zealand convention only**: 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.

The battery should normally be replaced. **NOTE!** The battery check is performed every 4th hour, i.e. it can take up to 12 hours until the fault status will be "corrected".

FAULT: Low voltage, control unit xx

System voltage < 21 V DC, in control unit no. xx. Check the power supply (rectifier) 1537 / 5037 output voltage, which shall be 24 V DC. Replace 1537 / 5037 if required.

FAULT: Low voltage, output unit xxxxxx

System voltage < 21 V DC in the external power supply unit 3366. Check the power supply (rectifier) 1537 output voltage, which shall be 24 V DC. Replace 1537 if required.

FAULT: Mains, control unit xx

The delay time (1-300 minutes) is programmable via Win512 version 2.7.x. Max. 30 min. according to the EN54-2 standard. Default value depending on convention.

512: The fault is activated 1-300 minutes after:
- ∗ Loss of mains, i.e. no 230 V AC
- ∗ Blown mains fuse.
- ∗ Blown fuse "F1" on Charger board 1557 / 1657
- ∗ Battery charging has been turned off for some security reason, e.g. too high current consumption. (Valid for Charger board 1657.)

512 G3: The fault is activated 1-300 minutes after:
- Loss of mains, i.e. no 230 V AC
- Blown mains fuse.
- Blown fuse F1 on main board 5010. Fuse T**6.3A** H 250V (5x20 mm ceramic).

FAULT: Mains, external power supply, control unit xx

The delay time (1-300 minutes) is the same as programmed for the control unit, see above.

This fault is valid for external power supply equipment, which has a fault output connected to a programmable **input** in the EBL system.

The fault is activated 1-300 minutes after the **input** is activated.

- Loss of mains, i.e. no 230 V AC to the ext. power supply equipment.

- Blown mains fuse.

- Check the programmable input connections.

FAULT: Mains, output unit xxxxxx

The delay time is the same as for the control unit, see above.
This fault is valid for the external power supply unit 3366 and the addressable 2 voltage outputs unit 3364, connected on the COM loop.
The fault is activated after 1-300 minutes) after:

- Loss of mains, i.e. no 230 V AC to the **3366** unit.
- Blown mains fuse.
- Fuse F1 blown on the 3366 unit's charger board 3367. Fuse **T5A** L (5x20 mm).
- 3364 unit:
    o Terminal no. 8 (/Mains OK) not connected to the 3366 unit (J7:4) or 0 V.
    o "No mains signal" from the 3366 unit.

FAULT: Multiple faults, COM-loop x, control unit xx

Break (cut-off) / short-circuit in more than one segment on the COM loop, in control unit no. xx.

FAULT: No connection with MMI board, control unit xx

This fault message cannot be shown in the control unit's display, only via Win512 version 2.7.x, via Web-server and in other control units in the system.

Fault in the MMI board 5011 software or the MMI board. Check the cable between the boards. This is a very serious fault. Call for service personnel/engineer immediately.

FAULT: No reply, expansion board x, control unit xx

Valid for the 8 zones exp. board 4580 and the 8 relays exp. board 4581, mounted in the control unit no. xx.

- EBL512 G3 cannot communicate with the board. Check / change the address. Check the cables / connections.

- Check if the Main board fuse F13 is broken. Fuse: **T4A** L 250V (TR5).

FAULT: No reply expansion board x loop x control unit xx

This is valid for the I/O Matrix board (4582) no. x, connected on COM loop x in the control unit no. xx.

- Check the board's address, i.e. the I/O Matrix board no. (Jumpers JP1, JP2 and JP3 on the board).
- Check if the board is disconnected from the loop.

FAULT: No reply techn.no. xxxxxx

In spite of the control unit is communicating in both directions, one or more units cannot be found.

- Check the unit's address. (DIL-Switch in some unit or with programming tool 3314 in some units).
- Faulty unit.
- Detector removed from its base.
- Double break on the COM / BS4 loop. (Note! Single break gives the fault message: FAULT: Cut-off …….).

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

The unit cannot be found by the control unit.

- Check the unit's COM loop address (with the programming tool 3314).
- Check the downloaded site specific data (SSD).
- The unit might be faulty.
- The detector might be removed from its base.
- There might be a double break on the COM loop. (Note! A single break gives the fault message: FAULT: Cut-off …….).

FAULT: No reply, alert annunciation unit xx, control unit xx

FAULT: No reply, external presentation unit

```
xx, control unit xx
```

```
FAULT: No reply, fire brigade panel xx,
control unit xx
```

Alert Annunciation Unit 1735 / 1736.
External Presentation Unit 1728
External Fire Brigade Panel 1826 / 1828

- The contact with the unit is interrupted. Check the cable, all connections, etc. Is correct / complete SSD downloaded (via Win512 version 2.7.x)? Check the address and SW mode settings.
- Check if the Main board fuse F19 is broken. Fuse: **T1.6A** L 250V (TR5).
- If there is a program memory fault in the unit, there will be a fault message, shown briefly in the unit's display during start up: **"Memory fault in program area (n)"** (n=1 or 2). The unit will <u>not</u> work.

```
FAULT: No reply, alert annunciation unit
xx, expansion board x, control unit xx
```

```
FAULT: No reply, external presentation unit
xx, expansion board x, control unit xx
```

```
FAULT: No reply, fire brigade panel xx,
expansion board x, control unit xx
```

Alert Annunciation Unit 1735 / 1736.
External Presentation Unit 1728
External Fire Brigade Panel 1826 / 1828

- The contact with the unit is interrupted. Check the cable, all connections and the 1587 board. Is correct / complete SSD downloaded (via Win512)? Check the address setting (1587 board / the unit), SW mode setting, etc.
- If there is a program memory fault in the unit, there will be a fault message in the unit's display: **"Memory fault in program area (n)"** (n=1 or 2). The unit will not work.

```
FAULT: Output unit xxxxxx
```

- Fault in the output unit RAM
- Fault in the output unit EPROM
- Fault in the output unit EEPROM ("site specific data")

Replace the output unit / output unit p.c.b.

```
FAULT: Printer, control unit xx
```

This is valid for an EBL512 G3, type 5000 with printer. Control unit no. xx.

- Faulty printer
- Printer not correctly connected.
- No paper.

FAULT: Read/write site data (SSW), control unit xx

SSW = the data that is changed during operation, i.e. week average sensor values (not for 512 G3), access codes, calibration values and event logs, in control unit no. xx.

- If the C.U. was made powerless (i.e. mains and battery disconnected) without first doing a Safe shut down of control unit via menu H8, this fault might be generated when the C.U. is powered again. After fault acknowledge the SSW will get default values and the fault will be corrected (serviced). Supervised outputs have to be calibrated via menu H5/A1.

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

FAULT: Restart control unit nn, code xx, address yyyyyyyyy

Control unit restart has occurred in control unit no. nn. See also page 94.

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 download**
xx=04-19:	Unexpected interrupt.
xx=20:	S/W monitoring fault

NOTE!
xx=00 and 03 are normal. Acknowledge the "fault".
xx=01, 02 or 04-20 appearing often: call for service personnel / engineer.
yy…y = memory address (before restart). Write down the address and inform the service personnel/engineer.

FAULT: Sensor technical number xxxxxx

The analog smoke, heat or multi detector is not all right, i.e. the detector is faulty. The detector's built-in self verification function has reported a fault. The detector has to be replaced.

```
FAULT: Sensor zone: xxx address: xx
technical number xxxxxx
```

The analog smoke, heat or multi detector is not all right, i.e. the detector is faulty. The detector's built-in self verification function has reported a fault. The detector has to be replaced.

```
FAULT: Short-circuit COM-loop x, control
unit xx
```

Short circuit on COM loop "x" (**short circuit isolator is not connected on the loop**). Check the loop
NOTE! As long as there is a short circuit, the COM loop is disabled. Each 10th minute is an attempt made to re-enable the loop again.

```
FAULT:Sh-circ input x,1580 board x,CU xx
```

(8 zones expansion board, DET8)

This is indicating short-circuit on input x (zone line) on the 1580 board. The wires (cable) might have been damaged.
NOTE! As long as there is a short circuit, the zone is disabled. Each minute is an attempt made to re-enable the zone again.

```
FAULT: Short circ. loop x, BS4 x, CU xx
```

(1584 Autronica interface board, BS4)

Short circuit, or current consumption >167mA, on the BS4 loop (**short circuit isolator is not connected on the loop**). Check the loop
NOTE! As long as there is a short circuit, the BS4 loop is disabled. Each 10th minute is an attempt made to re-enable the loop again.

```
FAULT:Sh-circ loop x, CU xx, CU <->ASF0
FAULT:Sh-circ loop x, CU xx,ASF0<->ASF1
FAULT:Sh-circ loop x, CU xx,ASF1<->ASF2
FAULT:Sh-circ loop x, CU xx,ASF2<->ASF3
FAULT:Sh-circ loop x, CU xx,ASF3<->ASF4
FAULT:Sh-circ loop x, CU xx,ASF4<->ASF5
FAULT:Sh-circ loop x, CU xx,ASF5<->ASF6
FAULT:Sh-circ loop x, CU xx,ASF6<->ASF7
FAULT:Sh-circ. loop x, CU xx, ASF7<->CU
FAULT:Sh-circ. loop x, CU xx, ASF6<->CU
```

```
FAULT:Sh-circ. loop x, CU xx, ASF5<->CU

FAULT:Sh-circ. loop x, CU xx, ASF4<->CU

FAULT:Sh-circ. loop x, CU xx, ASF3<->CU

FAULT:Sh-circ. loop x, CU xx, ASF2<->CU

FAULT:Sh-circ. loop x, CU xx, ASF1<->CU

FAULT:Sh-circ. loop x, CU xx, ASF0<->CU
```

Short circuit on the COM loop "x" (**one or more short circuit isolators are connected on the loop**). Check the specified and isolated segment on the loop (e.g. `CU <->ASF0` = between the control unit and short circuit isolator no. 0). Each 10th minute is an attempt made to re-enable the isolated segment again.

```
FAULT: Short circuit loop x, control unit
xx, SCInn<->SCInn
```

`SCI` **nn** `<->` `SCI` **nn** describes between which **S**hort **C**ircuit **I**solators 4313 the short-circuit is located.

nn = A, B, 00, 01, 02, 03, 04, 05, 06 & 07. A & B is the built-in isolator in the EBL512 G3 c.i.e. A-direction and B-direction respectively.

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** `<->` `SCI00`
or
`SCI00` `<->` `SCI` **B**
...and so on.

There will also be a "FAULT: No reply ….." message for each unit not found by the c.i.e.

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

NOTE! Each 10th minute a check is performed if all short-circuits are corrected (repaired). If so, the communication automatically returns to communicate in the A-direction only.[30]

```
FAULT: Site specific data (SSD), control
```

---

[30] **NOTE!** The fault has to be acknowledged, i.e. and it can last up to 10 minutes after the acknowledgement before the communication returns to communicate in the A-direction only.

```
unit xx
```
The Site Specific Data (SSD) in control unit no. xx is not downloaded correctly (a checksum fault, etc.).   A new SSD download (via Win512) is required.

```
FAULT: Site specific data, alert
annunciation unit xx, control unit xx
```
```
FAULT: Site specific data, external
presentation unit xx, control unit xx
```
```
FAULT: Site specific data, fire brigade
panel xx, control unit xx
```
Alert Annunciation Unit 1735 / 1736 .
Ext. Presentation Unit 1728.
Ext. Fire Brigade Panel 1826 / 1828.

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

```
FAULT: SSD, alert annunciation unit xx,
expansion board x, control unit xx
```
AAU=1735 / 1736

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

```
FAULT: SSD, external presentation unit xx,
expansion board x, control unit xx
```
EPU=1728

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

```
FAULT: Site specific data , fire brigade
panel xx, exp. board x, control unit xx
```
FBP=1826 / 1828

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

```
FAULT: Supervised output x,
control unit xx
```

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

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

512:

> **x=0** (S0): Short circuit/break on the connected cable/ equipment and/or blown fuse F5 or F6, on the connection board.
> **x=1** (S1): Short circuit/break on the connected cable/ equipment and/or blown fuse F7 or F8, on the connection board.
> **x=2** (S2): Short circuit/break on the connected cable/ equipment
> **x=3** (S3): Short circuit/break on the connected cable/ equipment
> - Connected equipment might be "stolen".
> - Resistor(s) missing or not correct value (see dwg. 512-42).

512 G3:

> **x=0** (S0): Short circuit/break on the connected cable/ equipment and/or blown fuse F4 on the main board 5010.
> **x=1** (S1): Short circuit/break on the connected cable/ equipment and/or blown fuse F5 on the main board 5010.
> **x=2** (S2): Short circuit/break on the connected cable/ equipment and/or blown fuse F6 on the main board 5010.
> **x=3** (S3): Short circuit/break on the connected cable/ equipment and/or blown fuse F7 on the main board 5010.
> Fuse T**500mA** L 250V (TR5).
> - Calibration not performed via menu H5/A1.
> - Connected equipment might be "stolen".
> - Resistor(s) missing or not correct value. (1-5 resistors 33K)

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

FAULT: Supervised output x, technical number xxxxxx

This fault message is valid for a COM loop output unit 3364 <u>output</u>.

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

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

> - Calibration not performed via menu H5/A1.
> - Short-circuit / break on the connected cable / equipment.
> - Connected equipment might be "stolen".
> - End-of-line capacitor(s) missing or not correct value, 1-5 capacitors (470 nF).

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

470 nF (2350 nF).

FAULT: Temperature sensor control unit xx

The sensor is not correctly connected or is missing.

FAULT: TLON-board 1590 (Network 0), control unit xx

TLON connection board 1590/5090.

No communication / connection with the TLON network. The board for the TLON Network in control unit no. xx has to be replaced.

FAULT: Wire to exting. system, control unit xx

Short circuit / cut-off on the wires from the 1583 German Fire Brigade interface board, in control unit No. xx, to the connected extinguishing system / equipment.

FAULT: Wrong type expansion board x loop x control unit xx

This is valid for the I/O Matrix board 4582 no. x connected on COM loop x in the control unit no. xx.

Check the board type, set with jumpers JP4 and JP5 on the I/O Matrix board. The type should be the same as programmed via Win512.

FAULT: Wrong type, expansion board x, control unit xx

Valid for the 8 zones exp. board 4580 and the 8 relay outputs exp. board 4581, mounted in control unit no. xx.

Check the type of board, which should be the same as programmed via Win512 version 2.7.x.

FAULT: Wrong type of unit technical number xxxxxx

The unit is not the same type as programmed. Change the programming **or** the unit.

FAULT: Wrong type of unit zone: xxx

```
address: xx
technical number xxxxxx
```
Check the type of unit, which should be the same as programmed via Win512.

```
FAULT: Zone line input, technical number
xxxxxx
```

Detector mounted in an ADB 2330: faulty / removed detector
or
Ext. line (input) to an ADB 2330: break on a wire or wrong / no end-of-line resistor
or
Zone interface 2335 / 2226 (input): break on a wire or wrong / no end of line resistor.
or
Zone interface 2226: No ext. power supply.
or
Multi purpose I/O unit 3361, monitored zone line (input Z): break on a wire or wrong / no end-of-line capacitor / short circuit (if not programmed for fire alarm at short circuit).

```
FAULT: Zone line input, Zone xxx Address xx
CU xx, expansion board x, input x
```
Valid for the 8 zones exp. board 4580 zone line input x (xxx-xx = zone – address). The board is mounted in control unit xx.
Break on the zone line, wrong / no end-of-line device / short-circuit (if not programmed for fire alarm at short-circuit).

```
FAULT: Zone line input, zone xxx address xx
technical number xxxxxx
```
Valid for the Multipurpose I/O unit 3361 monitored zone line input Z.
Break on the zone line or wrong / no end-of-line capacitor (470 nF) or short-circuit (if not programmed for fire alarm at short-circuit).

```
No contact with main board
```
Shown only in the affected control unit.

- Check that "EBL512 G3 type 5000" is selected in the SSD (Control unit properties).

- Fault in the Main board 5010 software or hardware. Check the cable between the Main board and MMI board. This is a very

> serious fault.   Call for service personnel/engineer immediately.

(User programmable text; External fault)

Programmable input is connected to any external equipment's fault output. User definable fault message programmed via Win512.

17.2   Fault acknowledge

The LEDs **Routing equipment** "Fault tx activated" (L13) and **Fault / Disablements** "General fault" (L9) are turned on[31].
(LEDs **Fault / Disablements** "Alarm devices" (L11), "System fault" (L7) and/or **Fault / Disablements** "Fire brigade tx" (L12) might be turned on as well.

Output(s) for routing equipment (Fault tx) is (are) activated.

Output(s) for general fault is (are) activated.

Output(s) for general charge fault might be activated.

One or more fault messages incl. date and time are shown in the control unit display.

If **Fault latching** is selected in Win512 version 2.7.x (default), after the time might be shown `"serviced"` = the fault is already serviced / corrected.

Example: Fault messages shown in the control unit display:

```
FAULT: No reply zone: 123 address: 01
technical number 000025
2009-10-02   15:22          serviced

FAULT: No reply zone: 123 address: 03
technical number 000027
2009-10-06   09:25

FAULT: No reply zone: 234 address: 01
technical number 002112
2009-11-06   15:25



Number of not ackn. faults in system: 5
```

- Login, according to chapter "Access", page 98.
- Use **menu H6** (access level 2B) for fault acknowledge, see chapter "FAULT Acknowledge (H6)", page 142. Menu H6 is a list showing a maximum of 300 faults (not acknowledged faults and/or acknowledged but not serviced / corrected faults).
- All faults have to be individually acknowledged one by one by the key pad button ↵ . Use ▲ or ▼ to scroll.
- If a fault has been corrected before it has been acknowledged, the text `"serviced"` is added after the time. It still has to be acknowledged.

---

[31] Indicating that output for routing equipment (Fault tx) is activated.

- When a fault is <u>corrected / serviced and acknowledged</u>, it will disappear from the list (H6).

- When **all** faults have been <u>acknowledged</u>, output(s) for routing equipment (Fault tx) is (are) reset (i.e. the LED **Routing equipment** "Fault tx activated" (L13) will be turned off). [32]

- As long as there are faults (i.e. <u>not acknowledged</u> faults and/or <u>acknowledged but not corrected</u> faults) the LED **Fault / Disablements** "General fault" (L9) will be lit and general fault (and maybe general charge fault) output(s) are activated.

- Faults, corrected faults and acknowledged faults are shown in the General event log (menu H4/U6).

---

[32] In the Australian and New Zealand conventions the LED "L13" is turned on and the output(s) for routing equipment (Fault tx) is (are) activated until there are no faults in the system.

18   Commissioning an installation

Before you connect the power supply to a control unit, all other cable connections shall be made. Check once more that they are correct.

18.1   Single Control Unit

1.   Take away the rectifier fuse (F1) and the battery fuse (F2) on the main board 5010. **NOTE!** In a single / standalone control unit there shall be no TLON connection board (1590/5090) plugged on the main board.

2.   Connect the batteries to the main board 5010, terminal block "J2". **NOTE!** There shall be an in line fuses (F) on the cable between the batteries, see drawing 512 G3 – 21.
     CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY INCORRECT TYPE.   DISPOSE USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

3.   Connect the rectifier to the mains (230 V AC).[33]
     NOTE! It shall be connected to a household removable fuse for the fire alarm c.i.e. only, via a two-way circuit breaker.[34]
     The mains cable shall be securely clamped and the wires shall be as short as possible.   The mains safety earth (ground) shall, however, be longer than the other wires, to ensure that it is the last to be disconnected if the mains cable clamp should fail.
     The lid protecting the screw terminals shall after the installation be correctly applied.

4.   First replace the battery fuse (F2) and then the rectifier fuse (F1) on the main board 5010.

5.   LED "Operation" (L5) indicate that the 24 V DC power supply is okay (rectifier and/or battery).

6.   The c.i.e. will now restart (see chapter "Restart", page 94).

7.   The site specific data (SSD) – created in Win512 version 2.7.x - can now be downloaded, see chapter "Programming (SSD download)", page 87.

8.   See also chapter "Calibration of supervised outputs (H5/A1)", page 130.

---

[33] Cable tie shall be mounted to keep the mains wires well separated from the 24 V DC wires.

[34] Follow National regulations.

18.2   Control Units in a TLON network

In a TLON network there is two or more control units connected. A **TLON connection board 1590/5090** is required in each control unit connected to the network.[35]

One TLON connection board (1590/5090) has to be plugged in each control unit (Network no. 0). [36]

Network no. 0
When the 1590/5090 board is on place and the network cables are connected **for each control unit**, do as for a single control unit, see 1-6 above.

When all control units are powered, the TLON network installation (see below) has to take place **before** the site specific data (SSD) can be downloaded, see chapter "Programming (SSD download)", page 87.

If you know that one or more of the control units are to be started-up later, do as follows:
- In Win512 version 2.7.x create the SSD only for the control units that shall be connected now. Wait to download the SSD until the TLON Network installation is ready.
- In TLON Manager, do the TLON Network programming for the project, i.e. only the control units that shall be connected now.
-   When the TLON Network installation – see below – is ready, download the SSD.

Later, when one or more control units shall be added to the TLON Network:

- Open the project in **TLON Manager**, add the control unit(s) and install (download) it according to the separate TLON network documentation.
- Open the SSD in Win512 version 2.7.x and add the control unit(s) and download the SSD to all control units.

18.2.1   TLON network installation

A project (a system with two or more control units) is created in the PC program **TLON Manager** (or has been created earlier). A PC is connected to the modular connector "J10" (Network no. 0) in the control unit (main board 5010). Open the project in **TLON Manager**

---

[35] In a mixed system (see chapter "Mixed system", page 12) the EBL512 c.i.e. **has to have** the software version **2.7.x** and .the EBL512 G3 c.i.e. **has to have** the software EBL512 G3 United version 2.7.x.

[36] The TLON connection board is mounted on the main board 5010. Network cable connections are made on the main board 5010, terminal block "J4".

and install (download) the project, see separate TLON network documentation.

NOTE! After the TLON Network installation (download) it is highly recommended to restart the control units.

18.3   Add a Control Unit in a TLON network

When adding a control unit to a "running" installation you have to have the same software (S/W) version in all control units. Often the new control unit has a newer version than the existing control units. Normally the latest version is the best to use, i.e. the control units in the "running" installation have to be upgraded. As an alternative, it is possible to download an earlier S/W version in the new control unit. Both alternatives are described in chapter "New system program (S/W) version download", page 89.

Open the current project in **TLON Manager**, add one control unit and install (download) it according to the separate TLON network documentation. Also see 18.2.1 above.

Open the SSD for the current system via Win512 version 2.7.x. Add one control unit (and the units connected to it) and download the new SSD according to chapter "Programming (SSD download)", page 87.

18.4   Make two TLON networks one.

It is very important that two or more presentation numbers (Zone or Zone-Address) in the systems are not the same. The system properties have to be the same.

Use one of the systems, e.g. the largest and add to it the control units etc. from the other system.[37]

If it is known from the beginning that two systems shall be one in the future, it is possible to give the control units in the system respectively, the "final" control unit numbers right from the beginning in order to get the correct technical numbers in the system documents. **NOTE!** Two or more presentation numbers (Zone or Zone-Address) in the systems must not be the same.

18.5   Delete a Control Unit in a TLON network

Physically disconnect the control unit. This action will generate faults in the other control units. Acknowledge the faults.

Open the current project in **TLON Manager**, delete the control unit according to the separate TLON network documentation.

---

[37] It is not possible to merge two TLON Networks into one or copy one system and paste into another system.

Open the SSD for the current system via Win512 version 2.7.x. Delete the control unit (and the units connected to it) and download the new SSD according to chapter "Programming (SSD download)", page 87.

19   Programming (SSD download)

The PC program **Win512 version 2.7.x** is - in a mixed system - used for programming of the site specific data (SSD) and to download it into the EBL512 control unit(s), the EBL512 G3 control unit(s) and/or the 1728, 1735, 1736, 1826 & 1828 display units.

When the units are running, i.e. the power is turned on and the TLON network is running, the SSD download can take place.

The PC **has to be connected to** the "D" connector J1 in **an EBL512 control unit**[38]. Start Win512 version 2.7.x. Log on to the control unit, access code for level 3B shall be entered via the PC (Win512 version 2.7.x).

In Win512 version 2.7.x (menu "Tools" | "Download SSD..."), you select the unit(s) to which the SSD shall be downloaded.[39]

19.1   Check All Loop Units

In the Win512 version 2.7.x COM loop icon pop-up menu, select "Check All Loop Units". This function can be used after (or before) the download of SSD. The function is as follows:
The control unit will find all units that are connected on the COM loop. The addresses (0-127) will be reported to Win512. For all 430x / 33xx units and some of the other units, the type of unit will also be reported. All differences compared to the Win512 SSD will be listed in the Win512 log view and can be saved and/or printed out.
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" (L10).

19.2   Single Control Unit

Start the downloading from Win512 version 2.7.x. A text message will be shown in the control unit display "Downloading SSD".

When the download is completed the control unit will restart (see chapter "Restart", page 94.

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

> FAULT: Restart control unit nn, code 03
> YYYY-MM-DD   HH:MM

---

[38] **NOTE!** The PC can only be connected to an EBL512 control unit, i.e. not to an EBL512 G3 control unit.

[39] After SSD download the control unit will restart. A number of faults might then be generated, e.g. due to not connected units. This will cause "heavy traffic" on the network, which might affect (delay) the SSD download to the other units.

If the download was <u>not ok</u> another fault will be generated.

```
FAULT: Site specific data (SSD), CU nn
YYYY-MM-DD   HH:MM
```

This text message means that <u>the SSD have **not** been downloaded properly</u>, i.e. a new download has to be performed.

19.3   Control Units in a TLON network

The SSD for all control units can be downloaded via a PC (Win512 version 2.7.x), connected to one EBL512 control unit. The download will be performed to the control units, one at a time, according to the chapter "Single Control Unit" above. The download is performed in a consecutive order, i.e. 0-1-2-3-4-……-29 amongst the selected control units **but** the control unit where the PC is connected will automatically be the last one to get the SSD downloaded.

When the SSD download to a control unit is completed, that control unit will automatically restart, see chapter "Restart", page 94.

19.4   User definable text messages download

When a fire alarm is activated (e.g. an addressable alarm point), the presentation number (Zone - Address) will be shown in the control unit display (see page 40) as well as in the ext. FBP 1826 / 1828 display[40]. There will also be shown a user definable alarm text, if programmed.

All user definable text messages, up to 40 alphanumeric characters each, are <u>created and downloaded</u> (included in the site specific data – SSD) via Win512 version 2.7.x. See Planning Instructions, chapter "User definable text messages".

Each alarm point can have a unique text message.

Each zone can have a unique text message.

Each zone line input can have a unique text message.

The user definable text messages will be printed out when a printer is available.

---

[40] This is also valid for the Ext. Presentation unit 1728 and the Alert Annunciation units 1735 / 1736.

20   New system program (S/W) version download

The latest software (S/W) version of the EBL512 G3 system program is factory downloaded before the delivery.   Due to continual development and improvement, different S/W versions can be found.

An **EBL512 G3 control unit in a mixed system** has to have the software **EBL512 G3 United version 2.7.x**.

The valid S/W version for the Main board 5010 and the MMI board 5011 respectively, can be read in menu H4/U7 (system information) or via a Web-server.   On site, new S/W can be downloaded via **WinG3 version 1.1.x**.[41]

EBL512 G3 type **5000** has both a Main board 5010 and an MMI board 5011. EBL512 G3 type **5001** has only a Main board 5010.

On site, new S/W for the 1728, 1735, 1736, 1826 & 1828 units can be downloaded via Win512 version 2.7.x.   See the "Technical Description" for the unit respectively.

20.1   Single control unit (c.i.e.)

To download a new software (system program) version in an EBL512 G3 control unit, a PC and **WinG3 version 1.1.x** has to be used. The BIN file that shall be downloaded contains software for the main board 5010, software for the MMI board 5011 and a text file, i.e. there is one BIN file for each language / country.

1.   Connect the PC to the USB connector in the c.i.e. and start **WinG3 version 1.1.x**. In the "Tools" menu select "Download Software…" to open the dialog box and do the required settings:
- Select the path and the software file name, e.g.
English_EBL512G3_United270.BIN (United270 = United version 2.7.0.)
- Mark the checkbox "No MMI board" if it is an EBL512 G3 type **5001**, i.e. the MMI software and the text file will **not** be downloaded.
- Select the COM port to be used on your PC.

---

[41] Software cannot be downloaded to an EBL512 G3 control unit via Win512 version 2.7.x. WinG3 version 1.1.x has to be used.

Progress bar
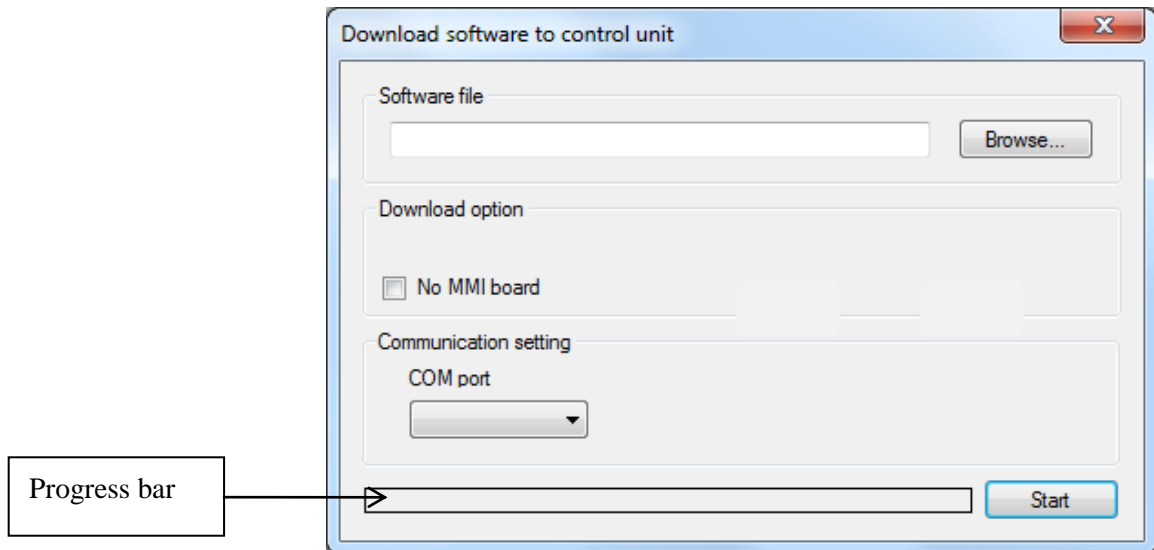
2. Set the Main board 5010 in "boot" mode, i.e. hold the Main board "Boot" button (SW2) down and push the Main board "RESET" button (SW1) momentarily. Release the "BOOT" button. The Main board LED "D24" will be turned off while the Main board is in "boot" mode.

3. Start the download, i.e. click "Start".
LED "Operation" (L5) will be turned off.
LED **Fault / Disablements** "General fault" (L9) is turned on, indicating that EBL512 G3 is in the "boot" mode.
LED "System fault" (L7) will be turned on.
If it is an EBL512 G3 type **5000** (i.e. with front), another dialog box opens:
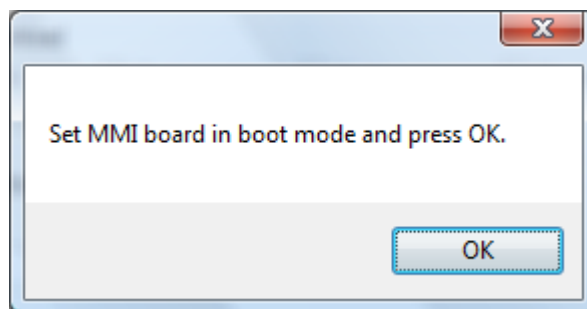
Set the MMI board 5011 in "boot" mode, i.e. hold the MMI board "BOOT" button (SW2) down and push the MMI board "RESET" button (SW1) momentarily. The buzzer stats sounding. Release the "BOOT" button. The MMI board LED "D18" will be turned off while the MMI board is in "boot" mode.

4. Click "OK". The buzzer will be silenced and the download starts. The download status is indicated by the progress bar.

5. When the progress bar has gone from "red to green" the download is completed and the following dialog box opens:
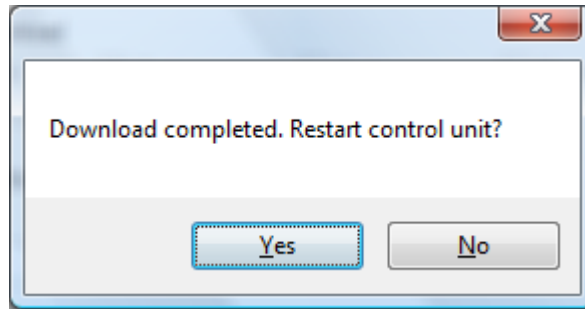
Click "Yes" and the control unit will restart. Regarding the restart, see also chapter "Restart", page 94.

6. LED "Operation" (L5) will be turned on and the other LEDs will be turned off.

20.2   Control Units in a TLON network

All control units connected to a TLON network **shall** have the same software version.

For download of new software in each control unit, follow the procedure described above.

Since some control units do not have contact with some control units during the downloading, the following faults might be generated:

```
FAULT: Control unit xx has no contact with control unit xx,
network x
yyyy-mm-dd   hh:mm
```

```
FAULT: CU xx has wrong information
yyyy-mm-dd   hh:mm
```

The faults have to be acknowledged.

21   Upgrade number of addresses

All EBL512 G3 settings are normally factory downloaded before delivery. An EBL512 G3 control unit in a mixed system[42] can be configured for 128, 256 or 512 **addresses**, i.e. not <u>alarm points</u> as in a normal EBL512 G3 control unit. On site it is possible to upgrade the maximum number of **addresses** (128 → 256 → 512) but it requires a special sequence of actions:

- Use **WinG3 version 1.1.x** to download the normal software, i.e. EBL512 G3 version 1.1.x. See the chapter "New system program (S/W) version download", page 89.

- Use **WinG3 version 1.1.x** to upgrade the maximum number of **alarm points** (128 → 256 → 512), see below.
  NOTE! In a mixed system the maximum number of **alarm points** is equal to the maximum number of **COM loop addresses**.

- Use **WinG3 version 1.1.x** to download the software for use in a mixed system, i.e. **EBL512 G3 United version 2.7.x**.

How to change the maximum number of alarm points:

Connect the PC via USB to the EBL512 G3 control unit. Start **WinG3 version 1.1.x**, open a new installation and add a control unit with "correct" control unit number.

1. Logon (Tools | Log on Control unit...)
2. Select the control unit icon, right click and in the pop-up menu select "Upgrade number of alarm points". A dialog box opens.
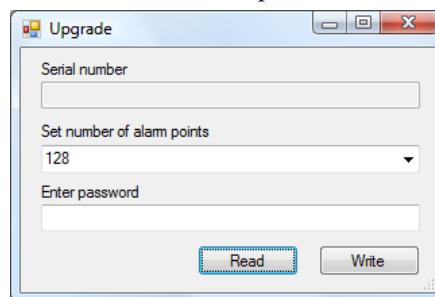
3. Click "Read" to get the **Serial number** for the control unit you are connected to, as well as the valid number of "alarm points".
4. Report the **Serial number** to the producer in order to get a password.[43]
5. Write the new <u>number of alarm points</u>[44] and the received <u>password</u> in the field respectively and click "Write".

Follow the same procedure in each control unit.

---

[42] Software EBL512 G3 United version 2.7.x.

[43] To upgrade the maximum number of alarm points, a special PC program is used to generate a password. The password will be unique for every serial number and number of alarm points combination.

[44] In a mixed system the maximum number of alarm points (128, 256 or 512) is equal to the maximum number of addresses.

21.1   Control Units in a TLON network

All control units connected to a TLON network do not have to have the same max. number of alarm points (addresses) set.

22   Restart

A restart will delete or not delete the data in EBL512 G3. Below 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 min. / max. values & performance factor, access codes, supervised output calibration values and event logs.
WASV = **W**eek **A**verage **S**ensor **V**alues

SSD = **S**ite **S**pecific **D**ata, i.e. all the installation programming created and downloaded via Win512 version 2.7.x.
S/W = Software, i.e. the system program EBL512 G3 United version 2.7.x.

Safe shut down of control unit (menu H8/S6) will save the **SSW** data (i.e. not the week average sensor values) in a Flash ROM **before you power off** (de-energize) **EBL512 G3**. Before the first "Safe shut down" this memory is empty. After each "Safe shut down" the latest SSW data is saved. When EBL512 G3 is powered up, the RAM (working memory) will, after the restart, read the SSW data saved in the Flash ROM.

The date & time and alarm counter values are stored in the memory of the real time clock, 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. During these two minutes all fire alarms from analog smoke detectors will be suppressed. Thereafter a new average sensor value will be calculated each week.

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

Action	Data, etc. which will be deleted	Data, etc. which will be not deleted	Restart code
Power down (de-energize) [45] and then **power up** again. ("Cold restart")	SSW FFD, WASV	SSD, S/W	00
Via menu H8/S6 Safe shut down of control unit. ("Cold restart")	FFD, WASV	SSD, S/W, SSW	00 alt. 03
Main board **RESET** button.	FFD, WASV	SSD, S/W, SSW[46]	03
MMI board **RESET** button.		SSD, S/W, SSW,[46] FFD, WASV	(no fault)
Reset command via Win512 version 2.7.x or TLON Manager.	FFD, WASV	SSD, S/W, SSW	
Automatically after download of site specific data (SSD) via a PC & Win512 version 2.7.x. ("**Warm restart**")	FFD, WASV	SSD, S/W, SSW	03
Automatically after download of S/W via a PC & Win512 version 2.7.x. ("Cold restart")	FFD, WASV	SSD, S/W,[47] SSW	00 alt. 03
Automatically due to external disturbance.[48] ("Cold restart")	FFD, WASV	SSD, S/W, SSW[49]	01, 02 alt. 04-20

NOTE! During the restart, the fault output (relay) for the Fault tx will be "activated", the supervised 24 V DC outputs S0-S3 will be not supervised and S0-S3 programmed as normally high will be low for a few seconds.

During the "restart", no fire alarm can be activated and the following is shown in the display:

---

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

[46] If in the middle of a process, also the SSW might be deleted.

[47] The old S/W will be deleted.

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

[49] Depending on the restart reason, also the SSW might be deleted.

And after a few seconds (if everything is all right, else see <u>Memory fault</u> below):

> Booting......

A **fault** will be generated and the following text message will be shown in the display and the buzzer will sound:

> FAULT: Restart control unit nn, code xx,
> address yyyyyy

Regarding code **xx** and address **yyyyyy**, see page 73. This fault is also indicated by LEDs **Routing equipment** "Fault tx activated" (L13) and **Fault / Disablements** "General fault" (L9).

After the fault is acknowledged (via menu H6), the LEDs will be turned OFF if there are no other faults.

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

Memory fault
In case of a fault in the Main board 5010 S/W (system program) or the MMI board 5011 S/W, the following fault message might be shown:

> FAULT: Checksum system program, control unit xx

(Main board software.)

> FAULT: Checksum MMI program, control unit xx

(MMI board software.)

> FAULT: No connection with MMI board, control unit xx

(Not shown in the display, only via Win512 version 2.7.x, in other control unit in the system or via the Web-server.)

> No contact with Main board

This is also indicated by LED "System fault" (L7) and the buzzer sounds steady (continuous). The Fault tx output is "activated".
A new download of the S/W (system programs) are required and/or the Main board and/or the MMI board have to be replaced.

NOTE!   After **SSD download** - see chapter "Programming (SSD download)" - page 87, the following messages <u>might</u> be shown:

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

After restart:

FAULT: Restart control unit nn, code xx,
address yyyyyyyy

FAULT: Site specific data (SSD)

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

23   Access

To use the key pad in the control unit (to get access to the menu tree), it is necessary to logon with an access code for level 2B or 3A. See also chapter "Access levels", page 25.

Open the door in the control unit (= level 2A), press the soft key "Menu" (P4) and continue as follows:

Action	Text in display	Comments
	EBL512 G3 United Control Unit: XX User definable text. User definable text. yyyy-mm-dd hh:mm Menu	**United** = A mixed system. **XX** = 00 – 29 **y**ear-**m**onth-**d**ate **h**our:**m**inute
"Menu"	Access code: ▮	
Enter the code (4 digits)	Access code: ∗∗∗∗	The digits are replaced by ∗∗∗∗ in the display.
	NO ACCESS!	The access code was not correct. Try again.
	▦ menu H1 Perform monthly test H2 Disable or re-enable H3 Set calendar and clock H4 Present system status H5 Service H6 FAULT Acknowledge H7 Perform ZONE TEST H8 Maintenance H9 Interlocking outputs and inputs H10 Change access code for daily duties Escape menu	The access code was correct. A main menu list is displayed. Press "↵ " to accept (menu H1) **or** scroll / jump to the wanted menu (H2-H10) and press "↵ ".

NOTE!

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

Explanations:
Action (in the table) = use push button / key (e.g. "↵ ").
Text in display (in the table) = what is shown in the control unit (c.i.e.) display.
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 "↵ " ("Enter") to accept.
Some main menus have sub menus. Use "▲" and "▼" to scroll between the sub menus (e.g. B1-B9). Use "↵ " 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.

Quick jump can be used within each menu, e.g. in menu H1 press "6" for a quick jump to menu H6. ("1" and then "0" within 1 sec. = 10).

In some cases a cursor appears e.g. `Disable zone: 0`00
It is then possible to type in digits with the numeric keys 0 – 9.
Use "◄", "►", "▲" and "▼" to move the cursor in a menu.
Use "**ESC**" to go one step up in the menu system, e.g. return from a sub menu to the main menu (H1-H10).
Use "**ESC** " or the soft key "Esc menu" to leave a main menu (H1-H10).
Use "**DEL**" to delete all visible entry fields.

Use the soft key "Esc menu" to leave the menu system. It is always possible to leave any menu whenever the soft key "Esc menu" is available.

There will be an automatic log off 60 minutes after the last action (i.e. if the key pad or a push button has not been used for 60 min.) and also when you close the door. If you leave the menu system and if you don't close the door you don't need any access code to open the menu system again.

Some lists are dynamic lists, i.e. the number of items per page depends on the size of each item.

Some lists are static lists, i.e. a fixed maximum number of items per page.

NOTE!
In the following chapters are all the menus described.

The "Text in display" column shows the essential text and might **not look exactly** as shown in the display.

24   **Perform monthly test (H1)**

The control unit and the installation shall be tested on a regular basis. If one twelfth of the alarm points are tested each month, the whole installation will be tested after one year.

In test mode, only the alarm points are tested, i.e. no outputs (no sounders) will be activated during the test. (Alarm devices can be tested via menu H8/S5.)

If <u>a real fire alarm</u> is activated, for example by **an alarm point <u>not in</u> 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.

See also chapter "The information area priority order", page 23.

NOTE! If the control unit door is left open, the output(s) for routing equipment (fire brigade tx) might be disabled (if set so in Win512 version 2.7.x).

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 143.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
	H1 Perform monthly test	
"↵"	Check that all LEDs light up! Press ↵	
"↵"	 [All dots are visible]	The buzzer (in the C.U.) sounds and all dots in the display are shown. All LEDs light up, incl. LEDs in units connected via I/O Matrix board 4582. If printer 5058 - an option for control unit 5000 – is mounted, it will print out: ABCDE…………Z abcde…………z
"↵"	Zones to be set in test mode: ??? ??? ??? ??? Start test: ↵	

Write zone numbers (e.g. 001, 002, 003, 004)	Zones to be set in test mode 001 002 003 004	Press "↵ " to start the test mode.
"↵"	Zones in test mode: 001 002 003 004 End test: ↵	LED "Test mode" (L8) will light up. Perform the tests.

The zone(s) will stay in test mode until the test mode is ended but after 60 minutes <u>or</u> if you press "Esc menu", 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 the c.i.e. will light up approx. 10 seconds, then the alarm point will be automatically reset. The printer, if available, will print out every tested alarm point (Zone: xxx Address: xx Time: HH.MM).

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

After 60 minutes **or** "Esc Menu"	Zones in test mode: 001 002 003 004 End test: ↵ *(NOTE! See chapter "The information area priority* order*", page 23 regarding priority order.)*	You are no longer in menu H1 but still in test mode.
(When required: "Menu", "code")	Zones in test mode: 001 002 003 004 End test: ↵	Press "↵ " to end test.
"↵ "	Please wait....	
	Test of routing equipment? No Yes	The LED "Test mode" is turned OFF.

Some national regulations also require a <u>routine test of the routing equipment</u>.
Press press "↵ " (i.e. select "No") for no test. If so, the monthly test is completed (see below).
<u>or</u>
Press "▼" and "↵ " (i.e. select "Yes") to start such a test. If so, the following will happen in the system:

- The c.i.e. "Fault tx" output will be de-activated (note that this output is **activated** in normal state), indicated by the LED "Fault tx activated" (L13).
    60 seconds count-down starts.
- After 30 seconds, also the c.i.e. "Fire brigade tx" output (and corresponding programmable outputs type "routing equipment") will be activated, indicated by the LED "Fire brigade tx" (L3).
- After another 30 seconds, the test will be ended and the outputs and LEDs will return to "normal".

"▼" and "↵ "	Test of routing equipment in progress. nnn seconds left.	"nn" starts at 060 and will count down to 000.
	Monthly test is completed! Press ↵	
"↵ "	▨▨▨ menu	Scroll to another menu or

| | H1 Perform monthly test | press "ESC". |
| | H2 ..... | |

NOTE_1! During the test, the following information will be shown in all other c.i.e. displays:

Zones in test mode: 001, 002, 003, 004

NOTE_2! 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 and has to be re-enabled again via menu H2/B5.

NOTE_3! When the "Fire door closing" function is used, the fire door will be closed when the detectors controlling the door are tested, in test mode.

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.).

The function **Enhanced disablement** is enabled as default i.e. disabled alarm points cannot activate Pre-warning, fire alarm or fault.

If this function is not enabled (via Win512 version 2.7.x), fault can be activated but not pre-warning or fire alarm. (This is a violation to the EN54-2 standard.

Addressable manual call points can be disabled (but shall normally not be disabled).   However, when a whole zone is disabled, the addressable manual call points will not be disabled for safety reasons. (This function can depend on convention / country.)

Up to 512 whole zones can be disabled via menu H2/B1.
Up to 200 alarm points (zones / address) can be **individually** disabled via menu H2/B2 and/or COM loops, zone interface inputs and/or MIO inputs can be disabled via menu H8/S1. (Alarm points disabled via time channels are not limited and must not be counted!)
Up to 200 outputs can be **individually** disabled via menu H2/B3. Disabled output will stay in (or return to) the normal condition for the output respectively. (Collectively disabled outputs via menus H2/B7 - B9 are not limited and must not be counted!)
Up to 200 Interlocking outputs can be **individually** disabled via menu H9/C4.

It is not possible to exceed the limits. A warning will be shown:

> Max. disablements reached!
> Disablement not performed.

Don't forget to re-enable (via menus H2/B4-B9, H8/S3, H9/C5 or use automatic re-enablement for zones and alarm points.
Disablements are indicated by LED **Fault / Disablements** "General disablements" (L10) and are also shown in the display. An example:

> Zone 001 disabled
> yyyy-mm-dd hh:mm
>
>
> Zone 002 address 01 disabled
> yyyy-mm-dd hh:mm
>
> ....
>
> Number of disablements in system: 2

NOTE! See chapter "The information area priority order", page 23, regarding priority order.

Disablements (and faults) are indicated by a 2-sec. beep when you close the control unit door.

25.1   Disable zone (H2/B1)

When a whole zone is disabled, <u>all</u> alarm points within the zone will be disabled <u>except the addressable manual call points</u>. (Not valid for the Australian and New Zealand conventions.)

Disabled zones are listed in menu H4/U1 from which it is also possible to get a print-out.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
"↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
"↵ "	Disable zone: 000 (press ↵)	
Write the zone number (e.g. 001)	Disable zone: 001 (press ↵)	Press "↵ " to disable.
"↵ "	Re-enable time: HH:MM No Yes *(Default is current time + 3 hours)*	Press "↵ " to disable without automatic re-enablement. <u>or</u> Accept the time (+ 3 hours) <u>or</u> set another time (max + 24 hours), select "Yes" and press "↵ " to disable with automatic re-enablement.
"↵ "	Disable zone: 000 (press ↵)	LED **Fault / Disablements** "General disablements" (L10) will light up. Disable another zone or press "ESC". Scroll to another menu or press "ESC".

25.2   Disable zone / address (H2/B2)

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

Disabled alarm points, zone / addresses, are listed in menu H4/U1 from which it is also possible to get a print-out.

Regarding disabled analog smoke detector: The sensor values for a disabled analog smoke detector will not be saved, i.e. only the values saved before and after the disablement will be used when calculating the week average sensor value.

Disabled alarm points, zone / addresses, have to be re-enabled via menu H4/B5.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
" ↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
Scroll to menu B2.	B2 Disable zone / address	
" ↵ "	Disable zone: 000 address: 00 (press ↵)	
Write zone number and the address (e.g. 001 and 01)	Disable zone: 001 address 01 (press ↵)	Press " ↵ " to disable.
" ↵ "	Re-enable time: HH:MM No Yes *(Default is current time + 3 hours)*	Press " ↵ " to disable without automatic re-enablement. <u>or</u> Accept the time (+ 3 hours) <u>or</u> set another time (max + 24 hours), select "Yes" and press " ↵ " to disable with automatic re-enablement.

| " ↵ " | Disable zone: 000 address: 00
(press ↵) | LED **Fault /**
Disablements "General disablements" (L10) will light up.
Disable another zone or press "ESC". Scroll to another menu or press "ESC". |

25.3   Disable output (H2/B3)

All outputs can be individually disabled. Disabled output will stay in (or return to) the normal condition for the output respectively.

Disabled outputs are listed in menu H4/U1 from which it is also possible to get a print-out.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
" ↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
Scroll to menu B3.	B3 Disable output	
" ↵ "	Disable output type: 3361/3364 S R Expansion board	Select output type. **3361/3364** also used for RU4/SU4 outputs (conn. to EBL512). **S**=CU voltage output S0-S3. **R**=CU relay output R0-R1. Press " ↵ " to accept.
" ↵ " Depending on the selected type the following will be shown:	Disable 000000 output 0 (press ↵) Disable CU: 00 S: 0 (press ↵) Disable CU: 00 R: 0 (press ↵) Disable control unit: 00 exp. board: 0 output: 0	Write the data for the output respectively. Press " ↵ " to accept. LED **Fault / Disablements** "General disablements" (L10) will light up.
" ↵ "	Disable output type: 3361/3364 S R Expansion board	Disable another output or press "ESC". Scroll to another menu or press "ESC".

25.4   Re-enable zone (H2/B4)

Disabled zones are listed in menu H4/U1 from which it is also possible to get a print-out.

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

When all zones have been re-enabled, The LED **Fault / Disablements** "General disablements" (L10) will be turned OFF, if there are no other disablements in the system.

NOTE! It is not possible to collectively re-enable a number of alarm points (zone-address) that are individually disabled via menu H2/B2.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
"↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
Scroll to menu B4.	B4 Re-enable zone	

"↵ "	Re-enable zone 001
	          zone 002
	          zone 006
	          zone 073
		If there are no zones to re-enable, menu B4 will be shown again. The disabled zones will be shown in a list. Use "▼" or "▲" to select the zone (or write the zone number) and press "↵ ".

"↵ "	Re-enable zone 002
	          zone 006
	          zone 073
		Re-enable another zone or press "ESC". Scroll to another menu or press "ESC".

25.5   Re-enable zone / address (H2/B5)

Disabled alarm points, zone / addresses, are listed in menu H4/U1 from which it is also possible to get a print-out.

Alarm point(s) and/or zones disabled via the "Single reset with automatic disablement ("encapsulation function"), see page 51, have to be re-enabled via this menu. A **zone** will be displayed as ZZZ-00 (i.e. zone number and address 00).

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

When all zone / addresses have been re-enabled, The LED **Fault / Disablements** "General disablements" (L10) will be turned OFF, if there are no other disablements in the system.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
" ↵ " Scroll to menu B5.	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
" ↵ "	B5 Re-enable zone / address	

" ↵ "	Re-enable zone / address 001-02
	            zone / address 002-01
	            zone / address 006-03
	            zone / address 073-01
		If there are no zone / addresses to re-enable, menu B5 will be shown again. The disabled zone / addresses will be shown in a list. Use "▼" or "▲" to select the zone / address (or write the zone / address) and press " ↵ ".

" ↵ "	Re-enable zone / address 002-01
	            zone / address 006-03
	            zone / address 073-01
		Re-enable another zone / address or press "ESC". Scroll to another menu or press "ESC".

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25.6   Re-enable output (H2/B6)

Disabled outputs are listed in menu H4/U1 from which it is possible to get a print-out.

When all outputs have been re-enabled, The LED **Fault / Disablements** "General disablements" (L10) will be turned OFF, if there are no other disablements in the system.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
"↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
Scroll to menu B6.	B6 Re-enable output	

"↵ "	Re-enable output type: 3361/3364
	                                              S
	                                              R
	                                              Expansion board
		Select output type.
		3361/3364 also used for RU4/SU4 outputs (conn. to EBL512).
		S=CU voltage output S0-S3.
		R=CU relay output R0-R1.
		Press "↵ " to accept.

"↵ "
Depending on the selected type the following will be shown:
	Re-enable 000001 output 0
	           000001 output 1
	
	Re-enable control unit: 00 S0
	           control unit: 00 S1
	
	Re-enable control unit: 00 R0
	           control unit: 00 R1
	
	Re-enable CU: 00 exp. board 0 output 0
	           CU: 00 exp. board 0 output 1
		If there are no outputs to re-enable, menu B6 will be shown again.
		
		Use "▼" or "▲" to select the output in the list (or write the output) and press "↵ ".

" ↵ "	Re-enable output type:	3361/3364	Re-enable another output or press "ESC". Scroll to another menu or press "ESC".
		S	
		R	
		Expansion board	

25.7   Disable / re-enable output type (H2/B7)

All outputs[50] programmed as type <u>control</u> (general), <u>fire ventilation</u> and <u>extinguishing system</u> can for the type respectively be disabled all at the same time **or** all outputs of these types can be disabled all at the same time.

Disabled control output means that even if the control expression (trigger condition) for the output respectively is fulfilled (true), the output will not be activated.

The outputs in <u>one or more</u> control units can be disabled or the outputs in <u>all</u> control units.
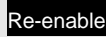
Disabled control outputs are indicated by LED **Fault / Disablements** "General disablements" (L10) and shown in menu H4/U1 from which it is possible to get a print-out.

When all outputs have been re-enabled, The LED **Fault / Disablements** "General disablements" (L10) will be turned OFF, if there are no other disablements in the system.

The outputs will be disabled until re-enabled again (via this menu).

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
" ↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
Scroll to menu B7.	B7 Disable/re-enable output type	

" ↵ "	Select output type control
	                              extinguishing
	                              ventilation
	                              contr/exting/vent ⟶
		Use "▼" or "▲" to select the output type in the list and press "↵ ".
		See NOTE! below.

---

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

" ↵ "	Select control unit **0**0 All [Blank space] Escape menu Disable Re-enable	Write the CU number or press "►" and select "All" (all CUs)[51]. Press "Disable" or "Re-enable".
"Disable" or "Re-enable".	Select control unit **0**0 All [Blank space] Escape menu Disable Re-enable	Disable or Re-enable another output type / control unit (the procedure is similar for all types) or press "ESC". Scroll to another menu or press "ESC".

NOTE!

When the output type **contr/exting/vent** is selected, outputs of these three types will be disabled, **all** at the same time. This can be done for one or more **Selected** control units or **All** control units.

To indicate such a disablement, the output trigger conditions "Control Disabled Control Unit (xx)" and "General Control Disabled" respectively, can be used.

---

[51] **NOTE!** Outputs disabled for a specific control unit (e.g. CU 03) can not be collectively re-enabled via all CUs. You have to re-enable the outputs for the specific control unit(s), e.g. CU 03.

25.8   Disable / re-enable alarm devices (H2/B8)

Outposts[50] programmed as type <u>alarm device</u> (sounder) can be disabled all at the same time. **Disabled alarm devices** means that even if the control expression (trigger condition) for the output respectively is fulfilled (true), the output will not be activated.

The outputs in <u>one or more</u> control units can be disabled or the outputs in <u>all</u> control units.
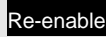
Disabled alarm devices are indicated by LEDs **Fault / Disablements** "Alarm devices" (L11) and "General disablements" (L10) and shown in menu H4/U1 from which it is possible to get a print-out.

> When all outputs have been re-enabled, The LEDs **Fault / Disablements** "Alarm devices" (L11) and "General disablements" (L10) will be turned OFF, if there are no other disablements in the system.

The outputs will be disabled until re-enabled again (via this menu).

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
" ↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
Scroll to menu B8.	B8 Disable/re-enable alarm devices	
" ↵ "	Select control unit 00 All [Blank space] Escape menu Disable Re-enable	Write the CU number or Press "►" and select "All" (all CUs). Press "Disable" or "Re-enable".

"Disable" or "Re-enable"	Select control unit 00 All [Blank space] Escape 　menu　　　　Disable　Re-enable	Press "ESC". Scroll to another menu or press "ESC".

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

Disabled outputs are listed in menu H4/U1 from which it is possible to get a print-out.

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

Disabled output is indicated by LEDs **Fault / Disablements** "General disablements" (L10) and "Fire brigade tx" (L12).

Disabled output will stay disabled until re-enabled again via this menu.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
"↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
Scroll to menu B9.	B9 Disable/Re-enable routing equipment	

"↵ "	Routing equipment for Fire
	                                      Fault
	                                      Fire and fault
	
	[Blank space]
	
	Escape
	    menu Disable Re-enable
		Use "▼" or "▲" to select output type(s).
		
		Press "Disable" or "Re-enable".

"Disable" or "Re-enable"	Routing equipment for Fire
	                                      Fault
	                                      Fire and fault
	
	[Blank space]
	
	Escape
	    menu Disable Re-enable
		Disable or Re-enable another output type or press "ESC". Scroll to another menu or press "ESC".

25.10 De-activate Alert Annunciation function (H2/B10)

Normal function:

For alarm points / zones programmed for **A**lert **A**nnunciation (via Win512 version 2.7.x) 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

Via this menu (H2/B10) it is possible to de-activate (continuously 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
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H2.	H2 Disable or re-enable	
"↵ "	B1 Disable zone B2 Disable zone / address B3 Disable output B4 Re-enable zone B5 Re-enable zone / address B6 Re-enable output B7 Disable / re-enable output type B8 Disable / re-enable alarm devices B9 Disable / re-enable routing equipment B10 De-activate alert annunciation function	
Scroll to menu B10.	B10 De-activate alert annunciation function	
"↵ "	Alert annunciation function: Normal Off	Select "Normal" or "Off".
"↵ "	B10 De-activate alert annunciation function	Scroll to another menu or press "ESC".

26   Set calendar and clock (H3)

The RTC component has a capacitor as a backup power supply. Normally, date, day of the week and time only have to be set when the power is turned on the control unit for the first time.[52] If required, the clock might be corrected, so that the "time stamps" for fire alarms, faults, etc. will be correct.

The calendar and clock can be set in any c.i.e. for the whole system. Every day (at midnight) the calendar and clock will be synchronised.

NOTE! If you don't want to change anything, press "ESC" instead of "↵ " to return to menu H3.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H3.	H3 Set calendar and clock	
"↵ "	YYYY-MM-DD hh:mm Monday Tuesday Wednesday Thursday Friday Saturday Sunday	The date & time shown was valid when this menu was opened. When required, change the date, time and/or weekday (press "▼" or "▲" to select the weekday). The "clock" starts again as from the date, time, etc. *shown in the display* when you press "↵ ". **If no changes shall be done, press "ESC" instead of "↵ ".**
"↵ "	H3 Set calendar and clock	Scroll to another menu or press "ESC".

NOTE!

When the Russian, Ukraine, Australian or the New Zealand language is selected the date is shown as follows: **DD-MM-YYYY**.

---

[52] The capacitor can supply the RTC for a couple of days. When the power has been turned off, it is recommended to check / set the date and time in menu H3.

27   Present system status (H4)

If printer 5058 - an option for control unit 5000 – is mounted, it is possible to get a print-out from some of the menus. In this case, the soft key "Print" (P5) shall be used. **NOTE!** During printing "Print" will be replaced with "Abort printing". When "Abort printing" is pressed the soft key text immediately changes back to "Print" but the items already stored in the buffer will be printed (up to five items).

27.1   Disablement (H4/U1)

This is a dynamic list of all disablements in the system. Also alarm point(s) and/or zones disabled via "Single reset with automatic disablement" (see page 51) are shown in the list. In this case a **zone** will be displayed as ZZZ-00 (i.e. a zone number and address 00).

Disablements by time channels are listed in menu H4/U2.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H4.	H4 Present system status	
" ↵ "	U1 Disablement U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Event log U7 Information	Press " ↵ " to show all disablements in the system (U1).
" ↵ "	*(When " ↵ " is pressed, the disablements will be shown in the display. Some examples:)* Zone XXX address XX disabled yyyy-mm-dd hh:mm Zone XXX is disabled yyyy-mm-dd hh:mm Automatic re-enabl Alarm points are disabled by time channel in CU XX yyyy-mm-dd hh:mm .... Disablement 1 to 3 of 7 Escape menu Print	A dynamic list in which you can scroll with "▼" or "▲". If printer is mounted the soft key "Print" will be visible, else not. Press "Print" for a print-out of all items in the list. If there are no disablements when " ↵ " is pressed, the list view will not open.
"ESC"	U1 Disablement	Scroll to another menu or press "ESC".

27.2   Disablement by time channel (H4/U2)

A static list (4 items per page) of all disablements by time channel(s) in the system.

NOTE! <u>All other disablements</u> are listed in menu H4/U1.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H4.	H4 Present system status	
"↵ "	U1 Disablement U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Event log U7 Information	
Scroll to menu U2.	U2 Disablement by time channel	
"↵ "	*(When "↵ " is pressed, the disablements will be shown in the display. Some examples:)* Zone XXX address XX disabled by time channel Zone XXX address YY disabled by time channel. .... Number of disablements by time channel: 2 Escape menu	A static list (4 items per page) in which you can scroll with "▼" or "▲". If there are no disablements when "↵ " is pressed, the list view will not open.
"ESC"	U2 Disablement by time channel	Scroll to another menu or press "ESC".

27.3   Open doors (H4/U3)

If any door in the system is open the following symbol is shown in the display's symbol area:

See also chapter "Open door", page 36.

This menu is a dynamic list of all open doors in the system.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H4.	H4 Present system status	
" ↵ "	U1 Disablement U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Event log U7 Information	
Scroll to menu U3.	U3 Open doors	
" ↵ "	*(When " ↵ " is pressed, the disablements will be shown in the display. Some examples:)* Door open control unit 00 yyyy-mm-dd hh:mm Door open FBP x CU xx yyyy-mm-dd hh:mm .... Open door 1 to 2 of 2 Escape menu Print	A dynamic list in which you can scroll with "▼" or "▲". If printer is mounted the soft key "Print" will be visible, else not. Press "Print" for a print-out of all items in the list. If there are no open doors when " ↵ " is pressed, the list view will not open.
"ESC"	U3 Open doors	Scroll to another menu or press "ESC".

NOTE!   During printing "Print" will be replaced with "Abort printing".

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27.4   Sensor values (H4/U4)

The <u>very first</u> week average sensor value is calculated within 2 minutes after SSD download & restart. During these 2 minutes can no fire alarm be activated and the "Weekly" value "00.0" 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.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H4.	H4 Present system status	
"↵ "	U1 Disablement U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Event log U7 Information	
Scroll to menu U4.	U4 Sensor values	
"↵ "	Start sensor: 000000	Write the technical number and/or press "↵ " to start as from sensor 000001.
"↵ "	*(When "↵ " is pressed, the sensor values will be shown in the display. An examples which shows the values from an analog multi detector 4300 and an analog heat detector 3308:)* Sensor: 001-01 (technical address 000001) Momentary: XX.X%/m Weekly: XX.X%/m Perf factor: X.XX%/m Min: XX.X%/m Algorithm: X-XX Max: XX.X%/m Momentary: XX°C Min: XX°C Algorithm: XX Max: XX°C Sensor: 001-03 (technical address 000002) Momentary: XX°C Min: XX°C Algorithm: XX Max: XX°C Escape menu Print	A list in which you can scroll with "▼" or "▲". If printer is mounted the soft key "Print" will be visible, else not. Press "Print" for a print-out. If there are no sensors (analog detectors) when "↵ " is pressed, the list view will not open.
"↵ "	Start sensor: 000000	Write another technical number and press "↵ " or press "ESC".
"ESC"	U4 Sensor values	Scroll to another menu or press "ESC".

$$\frac{\sum\limits_{m=0}^{14400} \left| X_m - X_{wa} \right|}{14400} = Pf$$

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

Regarding the **Performance factor**:

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

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

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

Algorithms

Table showing the algorithms and the shortenings respectively:

Algorithm	Short name[53]
Normal sensitivity (3%/m) & Normal detection (**15** s)	**N-15**
High sensitivity (2.4%/m) & Normal detection (15 s)	H-15
Low sensitivity (3.6%/m) & Normal detection (15 s)	L-15
Normal sensitivity (3%/m) & Slow detection (35 s)	N-35
High sensitivity (2.4%/m) & Slow detection (35 s)	H-35
Low sensitivity (3.6%/m) & Slow detection (35 s)	L-35
Heat algorithm, Class A1	A1
Heat algorithm, Class A2 (S)	A2
Heat algorithm, Class B (S)	B
Decision algorithm	Dec[54]

Default is N-15 and A1 respectively.

---

[53] If some other short name is wanted, it can be changed in Win512 version 2.7.x. Up to six characters can be used.

[54] Analog multi detector 4300 only.

27.5   Sensors activating SERVICE signal (H4/U5)

When SERVICE signal is generated in the system, following symbol is shown in the display's symbol area:

Regarding the SERVICE signal levels, see Planning Instructions, chapter "SERVICE signal".

Menu H4/U5 is a list of the sensor(s) activating SERVICE signal.

NOTE! SERVICE signal is only information that the sensor has to be replaced with a new/clean sensor soon. The SERVICE signal has to be acknowledged, see chapter "**Error! Reference source not found.**", page 149.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H4.	H4 Present system status	
" ↵ "	U1 Disablement U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Event log U7 Information	
Scroll to menu U5.	U5 Sensors activating SERVICE signal	
" ↵ "	Sensor, Zone ZZZ address AA needs service technical address xxxxxx 2009-12-03 09:09:15 Sensor, Zone ZZZ address AA needs service technical address xxxxxx 2010-02-03 19:09:35 Number of sensors: xx Escape menu Print	A list in which you can scroll with "▼" or "▲". If printer is mounted the soft key "Print" will be visible, else not. Press "Print" for a print-out of all items in the list. If there are no sensors having generated SERVICE signal when " ↵ " is pressed, the list view will not open.
"ESC"	U5 Sensors activating SERVICE signal	Scroll to another menu or press "ESC".

NOTE!   During printing "Print" will be replaced with "Abort printing".

27.6   Event log (H4/U6)

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

1. Alarm log (alarm events, e.g. fire alarm, fire alarm reset, etc.)

2. Interlocking log (only interlocking events)

3. General event log (all other type of events)

The origin of the event, e.g. **CU00** (see below), can instead be **Win512**, **Web512** or **Ext#** (External system no. # connected via Web-server.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H4.	H4 Present system status	
" ↵ "	U1 Disablement U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Event log U7 Information	
Scroll to menu U6.	U6 Event log	

" ↵ "	Select event log: Alarm log
	
	                              Interlocking log
	                              General event log
		Use "▼" or "▲" to select a log. (E.g. the "Alarm log".)

" ↵ "	*(When " ↵ " is pressed, the events will be shown in the display. The most recent event is on top of the list. Some examples are shown below.)* Reset all alarms 2009-12-03 09:25:30 CU00 FIRE ALARM zone 123 address 45 2009-12-03 09:09:15 CU00 FIRE ALARM zone 123 address 46 2009-12-03 09:07:01 CU00 Event 15 to 13 of 21 Escape menu Print	A dynamic list in which you can scroll with "▼" or "▲". If printer is mounted the soft key "Print" will be visible, else not. Press "Print" to select and print the events the latest **hour, day, week or month**. Scroll with "▼" or "▲" to view more events. If there are no events in the list when "↵" is pressed, the list view will not open.
"ESC"	U6 Event log	Scroll to another menu or press "ESC".

NOTE!   During printing "Print" will be replaced with "Abort printing".

27.7   Show information (H4/U7)

Menu H4/U7 can be used to show the following information <u>for the specific control unit you currently use</u>:

Main board version The S/W (system program) version of the Main board 5010, e.g. United version 2.7.x.

MMI board version The S/W (system program) version of the MMI board 5011, e.g. United version 2.7.x.

Max. number of allowed loop units that can be used in this control unit, i.e. 128, 256 or 512.

Convention Different countries have different conventions, i.e. country specific functions, default settings, etc. The convention is set in conjunction with the installation of Win512 version 2.7.x. (The convention can, if required, be changed via Win512 version 2.7.x).[55]

Serial number The manufacturer's serial number (year, week, number of the main board).

Name As written in the Win512 version 2.7.x dialog box "System Properties" (Logical name).
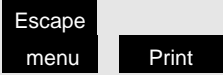
Downloaded Date and time when the site specific data (SSD) was downloaded.

Control unit number 00-29.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H4.	H4 Present system status	
"↵ "	U1 Disablement U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Event log U7 Information	
Scroll to menu U7.	U7 Information	

---

[55] To change the convention in Win512 version 2.7.x, "Level 2" has to be selected, which require a special password.

"↵"	Main board version: vvvvvvvvvvvv MMI board version: vvvvvvvvvvvv Max number of allowed loop units: xxx Convention: cccccccccc Serial number: xxxxxxx Name: sssssssssssssssssssssssss Downloaded: YYYY-MM-DD hh:mm Control unit: NN Escape menu Print	If printer is mounted the soft key "Print" will be visible, else not. Press "Print" for a print-out.
"ESC"	U7 Information	Scroll to another menu or press "ESC".

28   Service (H5)

When commissioning an installation and by maintenance (e.g. when you power on and when you are programming a control unit / system), menu H5 can be used for certain information and help.

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

Via a PC[56] and Win512 version 2.7.x (+ access code for level 3B) you can:

- download / backup (upload) the site specific data (SSD)

- create and download software (S/W), settings, configurations, control unit and system properties.

- create and download the user definable text messages (alarm texts) shown in the display in the control unit, ext. FBP and other Display units.

Via a PC[57] and **TLON Manager** you can create and download (install) the TLON network configuration (project).

---

[56] Has to be connected to the "RS232" connector (J1) in an **EBL512** control unit.

[57] Connected to the modular connector (J10 – for TLON network 0) in an EBL512 G3 control unit or (J2) in an EBL512 control unit.

28.1   Access code for service and maintenance (H5 and H8)

Access code to level 3A is required.

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

Action	Text in display	Comments
"Menu"		According to chapter "Access", page 98
Scroll to menu H5 or H8	H5 Service	
	H8 Maintenance	
" ↵ "	Access code: ▮	If login was made with code for level 3A, no code is needed.
Enter code for level 3A (4 digits)	Access code: ****	The digits are replaced with **** in the display
	NO ACCESS!	This info. is shown if you enter a not correct access code. Try again.
H5 Code for level 3A (4 digits)	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in control unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	The access code was correct. Press " ↵ " or scroll to the wanted menu and press " ↵ ".
alt.		
H8 Code for level 3A (4 digits)	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	The access code was correct. Press " ↵ " or scroll to the wanted menu and press " ↵ ".

28.2   Calibration of supervised outputs (H5/A1)

Supervised (monitored) outputs

The voltage outputs (S0-S3) in each control unit.
The voltage outputs (VO0-VO1) in the COM loop output unit 3364.

When all alarm devices (sounders, etc.) have been connected, including required end-of-line devices[58] and when the SSD is downloaded, a calibration has to be done.

Function: The calibrated range is 4K7 – 50K and 470 – 5x470 nF respectively. If the actual value at any time differs from the calibrated value ± a small tolerance or if the calibrated value is outside the calibration range, a fault will be generated.

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
"↵ "	Calibration in progress Please wait......	
	A1 Calibration of supervised outputs	Calibration is ready. Scroll to another menu or press "ESC".

NOTE! After the calibration it is recommended do a "Safe shutdown of the control unit" (see menu H8/S6). This will save the SSW data (e.g. the calibration values) in a Flash ROM (see page 154).

---

[58] Control unit outputs S0-S3: 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.

28.3   Sensitive fault detection mode (H5/A2)

To increase the possibilities to detect faults during the commissioning, it is possible to use the "Sensitive fault detection mode". The time delay for each fault will then be reduced, i.e. you might find some faults now instead of in the future.

The "Sensitive fault detection mode" turned on is indicated by the LED **Routing equipment** "Fault tx activated" (L13) and the "Fault" output for routing equipment is "activated".

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

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
Scroll to menu A2	A2 Sensitive fault detection mode	
"↵ "	Sensitive fault detection mode: Off On	Press "↵ " to turn off <u>or</u> select "On" and press "↵ " to turn on the sensitive fault detection mode.
"On" "↵ "	A2 Sensitive fault detection mode	Scroll to another menu or press "ESC".

28.4   Service mode for COM-loop (H5/A3)

NOTE! The following is valid for an <u>EBL512 G3 control unit</u>. If the control unit number (CU: XX) is valid for an EBL512 control unit, the function is different. See system EBL512 Operating Instructions.

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

A volt meter can be used, e.g. to check the voltage / voltage drop on different places on the loop or to find a single break on the loop.

It is recommended to do this check also when EBL512 G3 is power supplied via the backup battery only, since the battery voltage can be different (compared with the rectifier voltage) due to the battery condition, backup duration, etc.

The "Service mode for COM-loop" is indicated by LED **Fault / Disablements** "General disablements" (L10).

If you log off this menu, the "Service mode for COM-loop" will be terminated automatically.

NOTE! If short-circuit is detected when a COM loop is in service mode, the loop will be disabled and a fault message will be displayed:

```
FAULT: Short-circuit SCI A <-> SCI B,
loop x, control unit xx
```

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

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
Scroll to menu A3	A3 Service mode for COM-loop	

"↵ "	Service mode for COM-loop: 0 CU: 00 A Direction
	
	                                                B Direction
	
	                                                Both
		Write COM-loop number and control unit number, then select "A-direction", "B-direction" or "Both". Press "↵ ".

E.g. COM-loop 3, CU 03 and "A-direction". "↵ "	Service mode for control unit 03 COM-loop 3 Supplied from A-direction only Escape menu	Press "↵ ", "ESC" or "Esc menu" to terminate the service mode.
"↵ " or "ESC"	A3 Service mode for COM-loop	Scroll to another menu or press "ESC".

28.5   Display current consumption in unit (H5/A4)

NOTE! The following is valid for an <u>EBL512 G3 control unit</u>. If the control unit number (CU: XX) is valid for an EBL512 control unit, some information is not shown.

Control unit: The <u>total current consumption</u> (including the charging current at 24V) for the selected <u>control unit</u> (c.i.e.) when it is connected to the mains (230 V AC), i.e. this function is not working by battery backup.

Charging: The <u>battery charging current</u> for the selected <u>control unit</u> (c.i.e.). Also the battery temperature is shown.

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
Scroll to menu A4	A4 Display current consumption in unit	
"↵ "	Select control unit: : 00 (press ↵)	Write control unit number and press "↵ "
"↵ "	Wait......	
	No reply from control unit.....	If the control unit don't exist or don't answer.

	Current consumption in control unit 00:
	  From rectifier: xxxx mA
	  Charging: xxxx mA (battery temperature xx°C)
	Low capacity voltage diff: xxxxx mV[59]	

"↵ " or "ESC"	A4 Display current consumption in unit	Scroll to another menu or press "ESC".

[59] During the battery capacity check the voltage is measured with and without a resistor. A <u>difference</u> between these two voltages > 700 mV will result in a "Low battery capacity" fault.

28.6 Display current consumption on COM-loop (H5/A5)

The current consumption (an average value) for each COM loop can be displayed.

NOTE! No or very small current consumption (< 10 mA) cannot be presented correctly / precisely.

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
Scroll to menu A5	A5 Display current consumption on COM-loop	
"↵ "	Display current consumption on COM-loop: 0, control unit: 00 (press ↵)	Write loop number and control unit number and press "↵ ".
"↵ "	Wait......	
	No reply from control unit.....	If the control unit don't exist or don't answer.
	Current consumption on COM-loop: 0 control unit 00 is xxxx mA	The current consumption accuracy is ±5 mA.
"↵ " or "ESC"	A5 Display current consumption on COM-loop	Scroll to another menu or press "ESC".

28.7   Display statistics for communication (H5/A6)

The statistics can be used during commissioning, service, etc.

Number of pollings is the number of pollings / "questions" sent out by the control unit to all the units connected on the COM loop.
Parity fault is the received number of parity faults and % (faults in relation to pollings).
Number of bit faults is the received number of bit faults and % (faults in relation to pollings).
No answer is the received number of answer faults / no answers and % (faults in relation to pollings).

Bit length fault is the received number of bit length faults and % bit length faults in relation to the pollings.

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

All values are set to "0" after restart and/or after re-connection of COM loop (via menu H8/S2).

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
Scroll to menu A6	A6 Display statistics for communication	
"↵ "	Display statistics for control unit: 00 COM-loop: 0	Write control unit number and loop number and press "↵ ".
"↵ "	Please wait......	
	No reply from control unit.....	If the control unit don't exist or don't answer.

	Number of pollings: nnnnnnn Parity fault: 000000 00.0% Number of bit faults: 000000 00.0% No answer: 000000 00.0% Bit length fault: 000000 00.0%	Note! The values are not live updated.
"↵ " or "ESC"	A6 Display statistics for communication	Scroll to another menu or press "ESC".

28.8   Activate address setting mode for DU (H5/A7)

This function can be used by commissioning / service engineer to activate the address setting mode in the following Display Units connected to the c.i.e.:

- Ext. Presentation unit 1728

- Alert Annunciation units 1735 & 1736

- Ext. FBPs 1826 & 1828

A specific unit or all units connected to one c.i.e. 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 already.

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
Scroll to menu A7	A7 Activate address setting mode for DU	
"↵ "	Activate address setting mode for DU: Control unit: 00, 1587-board: 0, display unit: 00 All	Write control unit number, **1587-board no. only for EBL512** and the unit's address or select (press "►") "All" (i.e. all display units on the selected control unit 1587-board).
"↵ "	A7 Activate address setting mode for DU	Scroll to another menu or press "ESC".

The address is thereafter edited in the display unit (DU) respectively.

28.9   Service mode for BS4-loop (H5/A8)

NOTE! The following is valid only for an <u>EBL512 control unit</u> (with one or more BS4 boards 1584. If the control unit number (CU: XX) is valid for an EBL512G3 control unit, this menu is not valid.

The communication direction is normally automatically changed every minute, to ensure that the wires are okay all the way. To make trouble shooting easier (e.g. during the commissioning) it is possible to lock the communication on a BS4[60] loop in one direction. `FAULT: No reply techn. no. xxxxxx` will be generated with a reduced delay time. This function can be used to list all technical numbers "behind" a loop cut-off.

NOTE! Loop cut-off and short-circuit faults cannot be generated, since they require communication in both directions at the same time.

When you leave this menu or if you are automatically logged out (after 60 min.), the "Service mode for BS4-loop" will be terminated automatically and the communication will start in the A-direction.

NOTE! If short-circuit is detected when a BS4 loop is in service mode, the loop will be disabled and a fault message will be displayed:

```
FAULT: Short-circuit SCI A <-> SCI B,
loop x, control unit xx
```

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

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
Scroll to menu A8	A8 Service mode for BS4-loop	

[60] An Autronica interface board 1584 is required in the control unit.

"↵ "	Service mode loop: 0, board:0, CU: 00 A Direction B Direction	Write BS4-loop number, board number and EBL512 control unit number, then select "A-direction" or "B-direction". Press "↵ ".
E.g. BS4-loop **3**, board **0**, CU **03** and "**A-direction**". "↵ "	Service mode CU 03, board 0, loop 3 Supplied from A-direction Escape menu	Press "↵ ", "ESC" or "Esc menu" to leave the menu and terminate the service mode.
"↵ " or "ESC"	A8 Service mode for BS4-loop	Scroll to another menu or press "**ESC**".

28.10   Display current consumption on BS4-loop (H5/A9)

NOTE! The following is valid only for an <u>EBL512 control unit</u> (with one or more BS4 boards 1584. If the control unit number (CU: XX) is valid for an EBL512G3 control unit, this menu is not valid.

The current consumption (an average value) for each BS4 loop[61] can be displayed.

NOTE! The resolution is not very high, i.e. the displayed values give only a rough idea of the current consumption. A very small current consumption cannot be presented correctly / precisely.

Action	Text in display	Comments
"Menu"		According to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
" ↵ "	A1 Calibration of supervised outputs A2 Sensitive fault detection mode A3 Service mode for COM-loop A4 Display current consumption in unit A5 Display current consumption on COM-loop A6 Display statistics for communication A7 Activate address setting mode for DU A8 Service mode for BS4-loop A9 Display current consumption on BS4-loop	
Scroll to menu A9	A9 Display current consumption on BS4-loop	
" ↵ "	Display current consumption on BS4-loop: 0, board: 0, control unit: 00 (press ↵)	Write BS4-loop number, board number and EBL512 control unit number and press " ↵ ".
E.g. BS4-loop **3**, board **0**, CU **03** and " ↵ "	Wait......	
	No reply from control unit.....	If the control unit don't exist or don't answer.
	Current consumption on BS4-loop: 3, board 0, control unit 03 is xxxx mA	The current consumption accuracy is ±5 mA.
" ↵ " or "ESC"	A9 Display current consumption on BS4-loop	Scroll to another menu or press "ESC".

---

[61] An Autronica interface board 1584 is required in the control unit.

29   FAULT Acknowledge (H6)

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

See also chapter "Fault acknowledge", page 81.

All faults and the status / action are stored in the event log and can be listed, see chapter "Event log (H4/U6)", page 125.

In menu H6 can be listed up to 300 faults:

Not corrected (not serviced) and not acknowledged faults   (no status)

Not corrected (not serviced) but acknowledged faults   (acknowledged)

Corrected (serviced) but not acknowledged faults   (serviced)

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H6.	H6 Acknowledge FAULTS	
"↵ "	*Some examples of fault messages:* FAULT: Low battery capacity, control unit 00 yyyy-mm-dd hh:mm FAULT: No reply zone: 045 address: 06 technical number 000005 yyyy-mm-dd hh:mm serviced FAULT: No reply zone: 021 address: 05 technical number 000114 yyyy-mm-dd hh:mm acknowledged Fault 1/3 is selected	This is a list in which you can scroll. The most recent fault is on top of the list. A corrected fault is indicated by **serviced**. An acknowledged fault is indicated by **acknowledged**. To acknowledge a fault, select it and press "↵ ". The selected fault has a boarder around it.
"↵ " "↵ "	FAULT: Low battery capacity, control unit 00 yyyy-mm-dd hh:mm acknowledged FAULT: No reply zone: 021 address: 05 technical number 000114 yyyy-mm-dd hh:mm acknowledged Fault 1/2 is selected	A corrected / serviced fault that you acknowledge will disappear from this list.[62]
"ESC"	H6 Acknowledge FAULTS	Scroll to another menu or press "ESC".

---

[62] When the list is empty, i.e. when <u>all faults</u> are <u>acknowledged and corrected</u>, 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. Via this 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/S5.)

If <u>a real fire alarm</u> 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.

See also chapter "The information area priority order", page 23.

NOTE! If the control unit door is left open, the output(s) for routing equipment (fire brigade tx) might be disabled (if set so in Win512 version 2.7.x).

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

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H7.	H7 Perform ZONE TEST	
"↵ "	Zones to be set in test mode: ??? ??? ??? ???	
Write the zone numbers (e.g. 001, 002, 003, 004).	Zones to be set in test mode: 001 002 003 400	Press "↵ " to start the test mode.
"↵ "	Zones in test mode: 001 002 003 004 End test: ↵	LED "Test mode" (L8) will light up. Perform the tests.

The zone(s) will stay in test mode until the test mode is ended but after 60 minutes <u>or</u> if you press "Esc menu" you will be logged out 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 LEDs "Fire" (L1) in the c.i.e. will light up, approx. 10 seconds, then the alarm point will be automatically reset. The printer, if available, will print out every tested alarm point (Zone: xxx Address: xx Time: HH.MM).

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

After 60 minutes **or** "Esc Menu"	Zones in test mode: 001 002 003 004 End test: ↵ *(NOTE! See chapter "The information area priority order", page 23 regarding priority order.)*	You are no longer in menu H7 but still in test mode.
(When required: "Menu", "code") Scroll to menu H7 " ↵ "	Zones in test mode: 001 002 003 004 End test: ↵	Press " ↵ " to end test.
" ↵ "	Please wait....	
"ESC"	H7 Perform ZONE TEST	The LED "Test mode" (L8) is turned OFF. If more zones are to be tested, continue as above. If not, scroll to another menu or press "ESC".

NOTE_1! During the test, the following information will be shown in all other c.i.e. displays:
Zones in test mode: 001, 002, 003, 004

NOTE_2! 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 and has to be re-enabled again via menu H2/B5.

NOTE_3! When the "Fire door closing" function is used, the fire door will be closed when the detectors controlling the door are tested, in test mode.

31   Maintenance (H8)

31.1   Access code for service / maintenance

Access code to level 3A is required for menu H8.

31.2   Disconnect loop (H8/S1)

Before physical connection / disconnection of loop units, etc. the loop (or zone line) shall be disconnected (disabled), i.e. there will be no voltage on the "loop", to avoid damage on the units and the c.i.e.

Zone line input requires an 8 zones expansion board 4580/1580 in the control unit, an Addressable multipurpose I/O unit 3361 or an Addressable zone interface 2226/2335/2821 connected on a COM loop.

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	

"↵ "	Disconnect type: COM-loop
	                          BS4-loop
	                          Zone line input
	                          Addr zone interface
		Use "▲" or "▼" to select a type and press "↵ ".

"↵ " Depending on the selected type, the following will be shown:	Disconnect COM-loop COM-loop: 0, control unit: 00 Disconnect BS4-loop: 0, board: 0, CU: 00 Disconnect zone line input Zone line input: 0, exp board: 0, control unit: 00 Disconnect addressable zone interface Input technical number: 000000	Write the required data or use "▲" or "▼" to select and press "↵ ".

" ↵ "	Disconnect type: COM-loop BS4-loop Zone line input Addr zone interface	Continue to disconnect or press "ESC" to menu S1.
"ESC"	S1 Disconnect loop / zone line input	LED **Fault / Disablements** "General disablements" (L10) will light up. Scroll to another menu or press "ESC".

Don't forget to re-connect the loop / zone line again, via menu H8/S2.

31.3   **Re-connect loop (H8/S2)**

Disconnected (disabled) loops / zone lines (via menu H8/S1) are indicated by LED **Fault / Disablements** "General disablements" (L10) and listed in menu H4/U1.

NOTE! When you re-connect a COM loop all the statistics shown in menu H5/A6 will be erased and set to "0".

When all loops / zone lines have been re-enabled, The LED **Fault / Disablements** "General disablements" (L10) will be turned OFF, if there are no other disablements in the system.

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S2.	S2 Re-connect loop / zone line input	

"↵ "	Re-connect type: COM-loop
	                              BS4-loop
	                              Zone line input
	                              Addr zone interface
		Use "▲" or "▼" to select a type and press "↵ ".

"↵ " Depending on the selected type, the following will be shown:	Re-enable COM-loop: 0, control unit: 00 Re-enable BS4-loop: 0, board: 0, CU: 00 Re-enable zone line input Zone line input: 0, exp board: 0, control unit: 00 Re-enable addressable zone interface Input technical number: 000000	Write the required data and press "↵ ".
"↵ "	Re-connect type: COM-loop BS4-loop	Continue to re-connect or press "ESC" to menu S2.

	Zone line input Addr zone interface	
"ESC	S2 Re-connect loop / zone line input	Scroll to another menu or press "ESC".

31.4   Acknowledge SERVICE signal (H8/S3)

When SERVICE signal is generated in the system, following symbol is shown in the display's symbol area: See also chapter "Sensors activating SERVICE signal (H4/U5)", page 124.

When service signal from a sensor is acknowledged, the sensor is given a default week average sensor value (same as for a new / clean sensor, i.e. "1"), i.e. **first** replace the sensor and **then** acknowledge the service signal **as soon as possible**. The first week average sensor value (after acknowledge) will be calculated within one hour, then each week.

NOTE!   If a sensor is replaced without having generated service signal, it has to be reset to the default week average sensor value via menu H8/S4, page 151.

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
" ↵ "	**S1 Disconnect loop / zone line input** S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S3.	**S3 Acknowledge SERVICE signal**	
" ↵ "	Sensor, Zone ZZZ address AA needs service technical address xxxxxx 2009-12-03 09:09:15 Sensor, Zone XXX address AA needs service technical address xxxxxx 2010-02-03 19:09:35 Number of sensors: xx	This is a dynamic list in which you can scroll. Use "▼" or "▲" to select a sensor (the selected sensor has a border). Press " ↵ " to acknowledge the sensor.

" ↵ "	*(The service signal for the selected sensor is now acknowledged and the next sensor will be shown.)*	Continue like above or press "ESC" to menu S3.
	Sensor, Zone XXX address AA needs service technical address xxxxxx 2010-02-03 19:09:35 Sensor, Zone YYY address AA needs service technical address xxxxxx 2011-01-03 09:19:55 Number of sensors: xx	
"ESC"	S3 Acknowledge SERVICE signal	Scroll to another menu or press "ESC".

The "Service symbol" and the "Service message" will be turned off when all sensors have been acknowledged.

31.5   Clear weekly average (H8/S4)

If a sensor (analog smoke detector) is replaced without having generated SERVICE signal, its week average sensor value has to be cleared and set to the default value otherwise the new / clean sensor will inherit the old sensor's value. It is possible to clear the week average sensor value for each sensor individually via this menu.

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

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

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S4.	S4 Clear weekly average	
"↵ "	Clear weekly average zone: 000 address: 00 (press ↵)	Write the wanted zone and address and press "↵ ".
"ESC"	S4 Clear weekly average	Continue like above or scroll to another menu or press "ESC".

31.6   Test of alarm devices (H8/S5)

The programmable outputs[63] of type "Alarm device" can be collectively activated via this menu (H8/S5), which makes it possible to test the alarm devices.

The test cannot be started if a fire alarm already is activated in the system.

One or all control units can be selected. When the test starts, the alarm devices will sound continuously (steady) for approx. 5 seconds, be silent for approx. 25 seconds, sound for approx. 5 seconds and so on.[64]

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

The test will continue for one hour if not stopped via this menu (H8/S5) or if a fire alarm is activated in the system.

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S5.	S5 Test alarm devices	
"↵ "	Test alarm devices control unit: 00 All	Write control unit number or press "►" for "All". Press "↵ " to start the test.

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

[64] For the alarm devices 3377 and 3379 the tone with the highest priority level (and type "alarm device") will be automatically selected.

" ↵ "	Test of alarm devices in progress. End test?	The test will continue for one hour if not stopped via this menu (S5) or if a fire alarm is activated in the system. Press " ↵ " to stop the test.
" ↵ "	Test alarm devices control unit: 00 All	Continue (like above) to test alarm devices in other control units or press "ESC".
"ESC"	S5 Test alarm devices	Scroll to another menu or press "ESC".

31.7   Safe shut down of control unit (H8/S6)

It's not recommended to power off a control unit (i.e. no 230 V AC and no battery) without first doing a safe shut down of control unit.[65] Safe shut down will save the SSW in a Flash ROM and put the CPUs at rest. See also chapter "Restart", page 94.

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

Safe shut down can be performed from any control unit and any control unit can be selected. A control unit without a front has to be shut down from another control unit.

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

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S6.	S6 Safe shut down of control unit	
"↵ "	Shut down control unit 00? No Yes	Write control unit number and press "▼" for "Yes".

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[65] If not, a fault ("FAULT: Read/write site data (SSW), CU xx") might be generated when you power up the control unit again.

"▼" "↵ "	Ready for shut-down, break the power. Automatic restart within xxx seconds! *xxx will start at 300 seconds and countdown to 000 before the control unit will restart automatically.*	The SSW is now saved and the Main board and MMI board CPUs are at rest. <u>You can now power off the control unit.</u> If not, the control unit will restart automatically after 5 minutes (300 seconds).
Power off / Power on <u>or</u> after 5 min.	FAULT: Restart control unit nn, code xx, address yyyyyyyyy yyyy-mm-dd hh:mm	After a restart / power on (see page 94), there will always be a fault generated. The code will be 00 and the address 0. This fault has to be acknowledged, see chapter "FAULT Acknowledge (H6)", page 142.

NOTE!

Before the very first *safe shut down* the Flash ROM is empty. Then every time *safe shut down* is performed the valid data will be saved in the Flash ROM, i.e. any old data will be overwritten.

When the c.i.e. is powered up, the data stored in the Flash ROM will be used.

WARNING!

If *safe shut down* is **not** performed just before a c.i.e. power down, then by power on the Flash ROM might be empty or the stored data might be old / not valid.

31.8   Activate address in alarm mode (H8/S7)

One alarm point (zone-address), not a whole zone, can be set in alarm. The built-in LED in the alarm point (detector) will be turned on to indicate the alarm.

NOTE! All outputs, standard and programmable, which would have been activated by a real fire alarm from the same alarm point, will now also be activated.

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S7.	S7 Activate address in alarm mode	
"↵ "	Select zone: 000 address: 00 (press ↵)	Write the zone number and address (e.g. 123-45). Press "↵ " to start the fire alarm.

" ↵ "	First alarm: 123-45 Alarm number 1(of 1) Test mode Zone Address # 123-45 SMOKE 1 zone in alarm `Menu`	This manually activated fire alarm will be presented in all control unit displays and all ext. FBP displays and indicated by the LEDs "Fire" (L1) and "Fire brigade tx" (L4). This manually activated fire alarm has to be reset by the push button "Reset" (P3)

31.9   **Synchronize the control units (H8/S8)**

After any control unit restart, synchronization will start automatically.

Synchronization can also be started via Win512 version 2.7.x and via this menu (H8/S8).

The control units have to be synchronized when the following fault message is shown: FAULT: Control unit xx has wrong information.

During the synchronization there will be information displayed for all control units in the system.

↻ (rotating clockwise) = Synchronization in progress for the control unit (CU) respectively.

✓ = Synchronization completed successfully for the control unit (CU) respectively.

<Blank> = Synchronization failed for the control unit (CU) respectively.

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S8.	S8 Synchronize the control units	
"↵ "	Start synchronization? No Yes	Press "▼", i.e. select "Yes". Press "↵ " to start the synchronization.

..to be cont. on the next page.

"▼" "↵ "	Synchronization in progress...			During the synchronization the progress symbol for each control unit is shown.
	CU00 ↻	CU10 ↻	CU20 ↻	In the example are CU15 & CU16 not programmed.
	CU01 ↻	CU11 ↻	CU21 ↻	
	CU02 ↻	CU12 ↻	CU22 ↻	
	CU03 ↻	CU13 ↻	CU23 ↻	
	CU04 ↻	CU14 ↻	CU24 ↻	
	CU05 ↻		CU25 ↻	
	CU06 ↻		CU26 ↻	
	CU07 ↻	CU17 ↻	CU27 ↻	
	CU08 ↻	CU18 ↻	CU28 ↻	
	CU09 ↻	CU19 ↻	CU29 ↻	
	Escape menu			
After a few minutes	Synchronization completed yyyy-mm-dd hh:mm			Date and time for the latest completed synchronization.
	CU00 ✓	CU10 ✓	CU20 ✓	The symbol "✓" means that the synchronization succeeded.
	CU01 ✓	CU11 ✓	CU21 ✓	
	CU02 ✓	CU12 ✓	CU22 ✓	
	CU03 ✓	CU13 ✓	CU23 ✓	If the symbol "✓" is missing the synchronization has failed.
	CU04 ✓	CU14 ✓	CU24 ✓	
	CU05 ✓		CU25 ✓	
	CU06 ✓		CU26 ✓	
	CU07 ✓	CU17 ✓	CU27 ✓	
	CU08 ✓	CU18 ✓	CU28 ✓	
	CU09 ✓	CU19 ✓	CU29 ✓	
	Escape menu			
"ESC"	S8 Synchronize the control units			Scroll to another menu or press "ESC".

31.10   Change code for service / maintenance (H8/S9)

For security reasons, the default code should be changed.

Action	Text in display	Comments
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
"↵ "	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S9.	S9 Change code for service / maintenance	
"↵ "	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 by **** in the display.
	Incorrect access code, NO change	The access code was not correct. Try again.
	S9 Change code for service / maintenance	The access code was correct and is now changed to the new code. Scroll to another menu or press "ESC".

NOTE!   After change of access code it is recommended do "Safe shutdown of the control unit" (see menu H8/S6). This will save the SSW data (e.g. the new code) in a Flash ROM (see page 154).

If the valid access code is unknown a "back door code" is available.

31.11   Change code for PC-communication (H8/S10)

As a protection against unauthorised personnel programming the system (via Win512 version 2.7.x), an access code (level 3B & 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
"Menu"		Procedure according to chapter "Access code for service and maintenance (H5 and H8)", see page 129.
" ↵ "	S1 Disconnect loop / zone line input S2 Re-connect loop / zone line input S3 Acknowledge SERVICE signal S4 Clear weekly average S5 Test of alarm devices S6 Safe shut down of control unit S7 Activate address in alarm mode S8 Synchronize the control units S9 Change code for service / maintenance S10 Change code for PC-communication	
Scroll to menu S10	S10 Change code for PC-communication	
" ↵ "	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 by ******** in the display.
	Incorrect access code, NO change	The access code was not correct. Try again.
	S10 Change code for PC-communication	The access code was correct and is now changed to the new code. Scroll to another menu or press "ESC".

NOTE!   After change of access code it is recommended do "Safe shutdown of the control unit" (see menu H8/S6). This will save the SSW data (e.g. the new code) in a Flash ROM (see page 154).

32   Interlocking outputs and inputs (H9)

32.1   Activated interlocking outputs / inputs (H9/C1)

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H9.	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	
Scroll to menu C1	C1 Activated interlocking outputs / inputs	
" ↵ " Depending on activated output and/or input, the following will be shown:	Interlocking area AAA point PP output active User definable text message (if progr.) yyyy-mm-dd hh:mm - Interlocking area AAA point PP input/output active User definable text message (if progr.) yyyy-mm-dd hh:mm - Interlocking area AAA point PP input active User definable text message (if progr.) yyyy-mm-dd hh:mm	Menu C1 is a list in which you can scroll. Press "ESC" to menu C1.
"ESC"	C1 Activated interlocking outputs / inputs	Scroll to another menu or press "ESC".

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
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H9.	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	
Scroll to menu C2.	C2 Activate interlocking output	
" ↵ "	Activate interlocking output area: 000 point: 00 (press ↵)	Write the area number and point. Press" ↵ ".
" ↵ "	C2 Activate interlocking output	Scroll to another menu or press "ESC".

32.3   Reset interlocking output (H9/C3)

All activated interlocking outputs are listed in this menu.

- If the interlocking output is activated via its programmed control expression and with <u>latching output selected</u> (in Win512 version 2.7.x), the output **has to** be reset via this menu.

- If the interlocking output is activated via its programmed control expression and with <u>latching output **not** selected</u>, the output **can** be reset via this menu.

- If the interlocking output is activated via menu H9/C2, the output **has to** be reset via this menu.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H9.	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	
Scroll to menu C3.	C3 Reset interlocking output	
"↵ "	Reset interlocking output area 001 point 10 area 001 point 11 area 001 point 12 ... Escape menu Reset All	Menu C3 is a list in which you can scroll. If there are no activated outputs, menu C3 will not open. Press "↵ " to reset the selected output. Press "Reset All" to reset all interlocking outputs. Press "ESC" to menu C3.
"↵ " (reset) alt. "ESC"	C3 Reset interlocking output	Scroll to another menu or press "ESC".

32.4   Disable interlocking output (H9/C4)

Interlocking outputs (Type = Interlocking) can be individually disabled via this menu but <u>not via menu H2/B3</u>.

All interlocking outputs can be collectively disabled by entering 000/00.

The "Interlocking Combination" (Area / Point) is to be entered to disable the output. Up to 200 interlocking outputs can be disabled.

Disabled interlocking outputs are listed in menu H4/U1 from which it is also possible to get a print-out.

The LED **Fault / Disablements** "General disablements" (L10) is also indicating one or more disabled interlocking outputs.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H9.	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	
Scroll to menu C4.	C4 Disable interlocking output	
"↵ "	Disable interlocking output area: 000 point: 00 (press ↵)	Write the area number and point and press "↵ ". 000/00=All interlocking outputs. If more interlocking outputs shall be disabled continue the same way. Press "ESC" to menu C4.
"↵ " (disable) alt. "ESC"	C4 Disable interlocking output	Scroll to another menu or press "ESC".

32.5   Re-enable interlocking output (H9/C5)

Disabled interlocking outputs are listed in menu H4/U1 from which it is also possible to get a print-out.

Interlocking outputs (Type = Interlocking) can be re-enabled via this menu but not via menu H2/B6.

If all interlocking outputs have been collectively disabled via 000/00 in menu H9/C4, they have to be re-enabled via this menu and 000/00.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 98.
Scroll to menu H9.	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	
Scroll to menu C5.	C5 Re-enable interlocking output	
"↵ "	Re-enable interlocking output area 001 point 01 area 004 point 01	This is a list in which you can scroll. If there are no disabled outputs, menu C5 will not open. 000/00=All interlocking outputs. Press "↵ " to re-enable the selected output. Press "ESC" to menu C5.
"↵ " alt. "ESC"	Re-enable interlocking output area 004 point 01	Scroll to another menu or press "ESC".

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 98.
Scroll to menu H10.	H10 Change access code for daily duties	
" ↵ "	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 by **** in the display.
	Incorrect access code, NO change	The access code was not correct. Try again.
	H10 Change access code for daily duties	The access code was correct and is now changed to the new code. Scroll to another menu or press "ESC".

NOTE!   After change of access code it is recommended do "Safe shutdown of the control unit" (see menu H8/S8). This will save the SSW data (e.g. the new code) in a Flash ROM (see page 154).

If the valid access code is unknown a "back door code" is available.

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(s) to be activated, they can be disabled via menu H2/B9 (or via an open door, se chapter "Open door", page 36.).
Regarding the fault condition, see chapters "Fault", page 54 and "Fault messages", page 56.

NOTE! Most of the faults have a delay.

Each control unit should be tested as follows:

- Perform monthly test (menu H1).
- Remove one battery fuse (e.g. F2 on the Main board 5010). The following fault message is to be shown:

  FAULT: Battery not connected CU xx
  NOTE! xx is depending on control unit (xx=00-29).
- Put back the fuse and acknowledge the fault (menu H6).
- Remove fuse F4 on the Main board 5010. The following fault message is to be shown:

  FAULT: Supervised output 0, CU xx
  NOTE! xx is depending on control unit (xx=00-29).
- Put back the fuse and acknowledge the fault.
- Check the manual call points (the glass). Take required measures. Use the manual call point test key to activate fire alarm.
- Check some control outputs. Are they activated according to programmed control expressions?

35   How to change paper in the printer

When the paper roll is almost empty, a red line appears on one edge of the paper. Change the paper roll before it is completely empty! Always have a spare paper roll on site (paper width 58 mm).

Change the paper roll as follows:

- Read all instructions before changing the paper roll.
- Open the control unit door.
- Open the printer cover, i.e. press the green illuminated release button (in the middle) on top of the printer front.
- Remove the remains of the old paper roll.
- Place the new paper roll in the printer. Make sure that it unrolls in the proper direction – like the old one.
- Pull out 50 mm paper and close the cover.
- Tear off the paper, then press the Paper feed button (to the right) on top of the printer front, to check the paper feed function and tear off the paper.
- Acknowledge the printer fault.
- Close the control unit door.

36   Replacing a TLON connection board and/or the Main board

By the TLON network programming, some unique data will be stored in a memory on the 1590/5090 TLON connection board and some will be stored in a memory on the 5010 main board.

Replacing a TLON connection board 1590/5090
After replacing the board:
In TLON Manager version 1.2 do "Replace", "Update" and "Save".
In TLON Manager version 2.0 do "Replace" and "Update" ("Save" is aut. done).

Replacing a TLON connection board 1590/5090 and also the Main board 5010
After replacing the boards:
In TLON Manager version 1.2 do "Replace", "Update" and "Save".
In TLON Manager version 2.0 do "Replace" and "Update" ("Save" is aut. done).

Replacing the Main board 5010
After replacing the main board, move the TLON connection board from the old main board to the new main board:
In TLON Manager version 1.2 do "Update" and "Save".
In TLON Manager version 2.0 do "Update" ("Save" is aut. done).

37   **Battery maintenance**

The batteries - 2 x 12 V, 28 Ah (e.g. Panasonic LC-P1228AP) - are placed inside the control unit. Larger batteries ($\leq$ 65 Ah) have to be placed outside the control unit, e.g. in a separate battery cabinet, etc.

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

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

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

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

38   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 advices and tips.

Tobacco smoke

The detectors (sensors) cannot sense the difference between "smoke" and "smoke". They cannot separate tobacco smoke from smoke from a fire. Intensive tobacco smoking in conjunction with bad ventilation can cause a fire alarm.

Welding, grinding, cutting, sawing & drilling

These 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 smoke detectors (sensors) are mounted near / close to such activities.

Special environments

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

Steam / hot air

Smoke and heat detectors are influenced by steam and hot air, 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 EBL512 G3) a Service signal is given when it is time to exchange the smoke detectors (sensors) to new ones. The alternative is to exchange detectors at given periods, to be on the safe side.

Change in activities or wrong choice of detector

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

Miscellaneous

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

It is however not always the best action to change detector type. Here is a list of other actions, programmed via Win512 version 2.7.x, which can be used:

- Another alarm algorithm can be used (e.g. during working hours).
- Alarm delay for smoke detectors / sensors can be used.
- Two-zone or two-unit dependent (co-incidence) fire alarm activation can be used.
- In an installation with addressable detectors / sensors (e.g. EBL512 G3), the affected detectors can be individually disabled (or whole zones) for temporary work in the premises. Bear in mind that the smoke spreads, and consideration must be taken to adjacent detectors / zones. Disablements can be done automatically via a time channel (built-in or external) or via menu (H2/B1-B2). Automatic re-enabling can be used.
- If there is an alarm organisation for the personnel on site, the alert annunciation function can be used.
- Pre-warning can be used as information before a fire alarm is activated.

39   Information regarding radioactive radiation source

Today, Panasonic have no ionization smoke detectors but old detectors connected to the EBL512 G3 installation might be old smoke sensors / detectors of the <u>ionization type</u>. They contain a small radioactive radiation source, normally Americium 241.

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

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

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

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

National regulations have to be followed.

40   Revision history

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Panasonic ideas for life

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