



**Panasonic**

# **Operation Manual**

## **FT1020G3**

**Rev 2.2**

**For Software V2.2.X**

**firetracker**

## **FT1020G3 CIE**

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# 1 Introduction

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## 1.1 Overview

**FT1020G3 Operation Manual** is a document intended to be used by the end-user and the fire brigade personnel as well as service / commissioning engineers, who should read this document in conjunction with the FT1020G3 Technical / Programming manual, since most of the information in one of the documents is not found in the other document and vice versa.

The block wiring diagrams of a standard FT1020G3 system and general arrangement are shown in chapter 35 page 149.

Due to continual development and improvement, different S/W versions are to be found. This document is valid for software (firmware) **version 2.2.x**. On the date of printing this manual  $x = 0$ .

The software version is the firmware (system software) downloaded in to the Control Unit via PC windows based software e.g. EBL512 G3 V2.2.X. The latest system software is factory downloaded in FT1020G3 before delivery. However, new software may be upgraded to a newer revision on site.

The software version is dependent on the country where the control panel to be installed, that is due to the variations in the standard in each country. Two separate software versions are available, Australian (AU) and New Zealand (NZ).

The PC software is a windows based software **EBLWin** which has to be installed in your PC, and must have a version number similar to the software (firmware) version number i.e. version 2.2.x. The **EBLWin** is used to download the firmware and the Site Specific Data (SSD) into the CIE.

Only the first two digits **must be** the same in the software and the **EBLWin** version number i.e. 2.2.x ( $x$  = minor modifications).

## 1.2 Definitions / Explanations

Definitions / explanation and abbreviations are used frequently in this document and shown in the following sections.

### 1.2.1 Alarm Points

Units, which can generate a fire alarm signal in FT1020G3, i.e. analogue detectors (sensors), conventional detectors, manual call points, COM loop modules e.g. 3361 when used as a zone line input, etc.

#### 1.2.1.1 Smoke Detector

Only one type of analogue and conventional smoke detectors is available: the photoelectric (optical) smoke detector.

#### 1.2.1.2 Sensor

Sensor = analogue detector

#### 1.2.1.3 Analogue Detector (sensor)

Contains an A/D - converter. The **FT1020G3** picks up the digital values ("sensor values") for each detector individually. All evaluations and "decisions" are then made in the CIE. Analogue detectors are addressable, an address setting tool 4314 / 4414 is used to set up the addresses.

An analogue detector has to be plugged in an analogue sensor base (**ASB**).

#### 1.2.1.4 Analogue Detector (Sensor) Base (ASB)

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



### 1.2.1.5 Conventional Detector

Detector with only two status, either normal or fire alarm. A conventional detector in alarm simulates low resistance (560 Ohm) across the zone line input. Normally plugged in a conventional detector base **CDB** (see below) which is connected to a conventional zone line input. Some types are water proof and cannot be plugged in the standard base. An end-of-line device is connected in the last unit on the conventional zone line.

### 1.2.1.6 Conventional Detector Base (CDB)

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

### 1.2.1.7 Addressable

A unit with a built-in address device, i.e. each unit is individually identified, handled and indicated in the CIE.

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

### 1.2.1.8 Conventional Zone Line Input

Input intended for one or more conventional alarm points. End-of-line device in the last alarm point must be fitted.

## 1.2.2 Output Unit

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

## 1.2.3 Output / Control Output

Defined or programmable function, relay clean contact output or voltage output (supervised / monitored) in the CIE or an output unit connected to a COM loop.

## 1.2.4 Short Circuit Isolator (ISO)

Addressable unit for automatic disconnection of a COM loop segment (see below) in case of a short circuit on the loop. As per AS1670.1, one isolator is required every 40 alarm points on the COM loop.

## 1.2.5 Remote Display Unit (RDU)

The RDU is an addressable unit for fire alarm presentation (including user definable text messages, if programmed). Two types are normally used: External presentation unit 1728 (EPU) and alert annunciation unit 1736 (AAU).

**Note:** In standard FT1020G3 up to 16 display units (1728 / 1736) can be connected, end of line resistor must be set via a jumper link on the last unit. For more information, refer to the technical manual of 1728 and 136

## 1.2.6 COM Loop

Loop = twisted pair cable, to which all the addressable units can be connected. Starts in the CIE and it returns back to the CIE.

## 1.2.7 Control Unit (C.U.) / CIE

**Control Unit** = **C**ontrol and **I**ndicating **E**quipment = Unit to which the alarm points are connected (via a COM loop). Indicates on the front, fire alarms, fault conditions, etc. A printer can also be included in the Control Unit.

### **1.2.8 Fire Brigade Panel (FBP)**

The fire brigade panel is an integral part of FT1020G3 intended for fire alarm, fault and disablement presentation, etc. The FBP comprises the top part of the front display.

### **1.2.9 Control Panel (CP)**

A part of the FT1020G3 intended for the building occupier, service personnel, etc., to "communicate" with the Control Unit / system. It comprises the bottom part of the front display.

### **1.2.10 System / Installation**

One or several Control Units connected via a TLON network (co-operating Control Units).

### **1.2.11 LED**

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

### **1.2.12 Remote Indicator LED (RIL)**

A unit with an LED, connected to an ASB, CDB or a detector with an output for an external LED. Illuminates when the built-in LED in the detector is lit.

### **1.2.13 Display / LCD**

LCD (Liquid Crystal Display) = Display for presentation of fire alarms, fault messages, etc. In FT1020G3, it is a graphical monochrome LCD (320 x 240 dots) with backlight.

### **1.2.14 Door Open**

In FT1020G3 there is a door switch, which is activated when the CIE door is open. Door open feature can be used to disable strobes or OWS.

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

### **1.2.15 Site Specific Data (SSD)**

The SSD is unique for each system. All alarm points, presentation numbers, user definable text messages, programmable outputs, etc. are created in the PC program **EBL Win** and has to be downloaded in FT1020G3 unit(s).

### **1.2.16 Software (S/W) / Firmware / System Program**

The software (also called Firmware and system program), it makes the microprocessor in FT1020G3 work. It is factory downloaded but a new version can be downloaded in FT1020G3 on site using the PC program **EBL Win**.

### **1.2.17 EBLWin**

PC program used to create and download the SSD in FT1020G3 unit(s). It is also used to download another / new software version and to upgrade the maximum number of alarm points in FT1020G3. Can be used during commissioning / maintenance of the FT1020G3 system (auto generate COM loop SSD, acknowledge faults, etc.)

### **1.2.18 Web-server**

The **Web-server** is used to transfer FT1020G3 information to other systems e.g. nurse call systems as well as remote control via a PC (browser) and an intranet / internet. The Web-server is configured via the PC tool **EBLWeb**.

### **1.2.19 TLON Network**

Brief explanations to the words / expressions may be found in the relevant documents. See also separate TLON Technical manual.

TLON = TeleLarm Local Operating Network = a LonWorks - based network for communication between several units / nodes. 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 TLON connection board 5090 has to be plugged in the Control Unit. FT1020G3 also supports redundant TLON system communication. In this case two TLON connection boards have to be plugged in each Control Unit.

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

The PC program "TLON Manager" (V2 or V1.2) must be used to configure the TLON network and create the number of Control Units in a system.

**Note:** The TLON configuration must be performed prior creating the Site Specific Data (SSD).

### 1.2.19.1 Routers

In a TLON network, it is recommended to use routers in order to split the TLON network into separate FTT-10 channels / segments with the following objectives:

- Provide galvanic isolation between TLON segments.
- Increase the maximum cable length between TLON segments.
- Reduce unnecessary communications traffic on the respective network links.
- Improve efficiency of the communications channel.
- Up to 6 control panels can be connected to one channel.

If a TLON network consists of only one segment i.e. no FTT-10 router and a short circuit occurs, it will affect every Control Unit in the network in a non-redundant system. The Control Units will continue to work as stand-alone but no communication between them, fault messages will be generated in all Control Units. In a redundant system, the network will continue to communicate via the second TLON.

When the TLON is divided into more than one segment, the short circuit will affect the communication between the Control Units in this segment only, the communication between Control Units in other segments are not affected. The fault messages will be generated in every Control Unit.

Dividing the TLON network into segments may assist in fault finding, faults on the network e.g. disturbances etc., will be easier to locate and service.

**Note:** In retrofit network applications where the cable integrity is uncertain, routers may also be required to improve the communications between the TLON segments. Please refer to the TLON Technical Manual.

### 1.2.19.2 TCP/IP TLON Network

LonWorks Internet server such as iLON 600, can be used as an internet (or any IP-based LAN or WAN) pathway for TLON.

The transition from TP/FT10 to IP network opens the opportunity to use the large range of infrastructure products e.g. IP network.

**Note:** a network of fire alarm system is always connected via a dedicated network wiring, great attention must be taken when choosing an IP network as a pathway for TLON and should be used for autonomous Control Units only. The efficiency of the IP based communication is dependent on the infrastructure of the IP network.

### 1.2.19.3 Fibre Optic TLON Network

Unfortunately, many third party fibre optic routers have become obsolete e.g. LRW112 series. However, fibre optic to TP/FT10 repeaters are still available.

With a fibre optic to TP/FT10 router, it is possible to connect a TP/FT10 channel to a fibre optic channel.

A fibre optic network can be achieved by using fibre optic repeater e.g. LRW102 in conjunction with a TP/FT10 router e.g. LPR10. This combination replaces the fibre optic routers LRW112 series. The fibre optic link offers an easy way to extend the distance between TLON network segments using high speed back bone fibre optic network link. The maximum distance between the fibre optic routers varies between 5 Km and 30 Km depending on the type of fibre.

The type of fibre optic repeater is dependent on the cable type e.g. single or multi-mode, distance between C.U.'s, etc. Care must be taken when selecting the repeater type.

**Note:** A network of FT1020G3 control panels may consist of fibre optic segments and twisted pair segments.

## 2 Overview

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### 2.1 The FT1020G3 CIE

**FT1020G3** is a microprocessor controlled intelligent fire alarm system, intended for analogue addressable smoke or heat detectors, as well as conventional detectors and manual call points. Programmable control outputs and output units are also available. Up to 1020 addresses can be connected to each FT1020G3.

**FT1020G3** 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. Each Control Unit has access to all information.

**FT1020G3** is designed and assessed to the Australian Standard AS7240.2, AS7240.4 and NZS4512:2010. The Fire Brigade Panel controls are incorporated as part of the front fascia and conforms to AS4438.3 - 2010.

#### 2.1.1 Printer

The Control Unit FT1020G3 can be fitted with an optional printer.

#### 2.1.2 Expansion Boards

In the Control Unit (CIE) it is possible to mount up to six Expansion Boards. The following types are available:

Product Type No.	Product Name
4580	8 Zones Expansion Board
4581	8 Relay Outputs Expansion Board
4583	Inputs and Outputs Expansion Board

For more information, see also the FT1020G3 Technical Manual and drawings.

#### 2.1.3 Power Supply

The primary power source is a switch mode power supply, 230V<sub>AC</sub> / 24V<sub>DC</sub>, 6.5 A 150 Watt).

The secondary power source is a standby batteries (2 x 12V). In the standard enclosure, up to 17 Ah batteries can be fitted. Larger batteries (up to 65 Ah) require additional battery box.

The batteries and the DC output of the switch mode power supply are connected to the Main Board (5010) as shown in the block wiring diagram Dwg. No. F725 page 149. The power supply and battery capacity must be sufficient to run the system as required by AS1670.1. See the FT1020G3 Technical Manual, chapter "Power Supply" for more information.

### 2.2 Software (S/W) Versions

Due to continual development and improvement, different S/W versions may be found. When installing a new Control Unit in a system with "older S/W" Control Units, you must upgrade the S/W in the old Control Units with the current S/W or downgrade the new control panel software by downloading the same older S/W version in the new Control Unit. **The same S/W version is required in all Control Units** in a TLON Network

### 2.3 Documents

The following documents are available:

- Operation Manual (this document)

- Technical / Programming Manual (planning instructions)<sup>1</sup>
- Block Wiring Diagrams

Normally information found in one document may not be found in another document, i.e. the documents complement each other. Also a product leaflet is available

For TLON Network / TLON Manager, Web server, etc, separate documents are available.

## 2.4 Applications

The FT1020G3 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 programs EBLWin, TLON Manager and EBLWeb) and commissioning of the Control Unit / system is an easy process. Start with one Control Unit and then, when required, add more units. The TLON network allows the installer to install the Control Units in one building or in different buildings.

## 2.5 PC Programs

The following PC programs are used together with the FT1020G3 system.

### 2.5.1 EBLWin

The PC program **EBLWin** is used for programming and commissioning of one or more Control Units i.e. to:

- Auto-generate, i.e. to identify the units connected on a COM loop and create default settings, which can be edited, saved and used as a Site Specific Data (SSD).
- Create and download / backup (upload) of Site Specific Data (SSD)
- Download new software (firmware), settings, conventions, configurations, Control Unit & system properties, etc.
- Create / download the user definable text messages shown in the display in the C.U. and Display units.
- Download software to the Web-server.
- Create and download the Web-server configuration.
- See alarms, faults, disablements, etc. and reset, acknowledge fault, re-enable respectively.

**EBLWin** must have the same version number as the **EBL512G3** S/W version number e.g. **2.2.x** and **2.2.x** respectively (x indicates only a small correction and is not required to be the same). Old SSD files can be opened in a newer (higher) version of **EBLWin**, then edited, saved and thereafter downloaded to FT1020G3 Control Units with the corresponding version. If a backup is required, use the same EBLWin version as the EBL512 G3 S/W version.

**EBLWin Key 5094** is a USB dongle that has to be plugged in the PC in order to log on to the CIE.

### 2.5.2 TLON Manager

TLON Manager is an installation and maintenance tool used for the TLON Network programming and setup, it is windows based PC software. Both TLON Manager V1.2 and TLON Manager ≥ V2.0 can be used.

### 2.5.3 Web-server Configuration

A tool used for configuration of the Web-server II (1598) is a part of the EBLWin PC program, see above.

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<sup>1</sup> On the date of printing this manual, the help tap in EBLWin contains the Panasonic planning instructions.

## 3 Control & Indicating Equipment (CIE)

### 3.1 FT1020G3 Specifications

Table 1 Control unit specifications

Item	Specifications
Mains Voltage	230V <sub>AC</sub> (176-264), 1.6A
System Voltage	24V <sub>DC</sub> @ 6.5A
Current Consumption	Depends on no. of Expansion Board, external equipment, type of loop devices, etc. <sup>2</sup> .
Ambient Temperature (°C)	Operating 0 to + 40, Storage -40 to +70
Ambient humidity (%RH)	Maximum 90, non-condensing
Size (mm)	Large cabinet 920H x 450W x 210D (with metal door closed) <sup>3</sup>
Enclosure Material	1.5 Zinc annealed steel
Enclosure Colour	Oyster, ripple finish
Approvals	AS7240.2, AS7240.4, AS4428.3:2010 and NZS4512:2010
Standard Inputs / Outputs <sup>4</sup>	Four COM loops (0-3), each loop can connect up to 255 devices
	Four non-supervised inputs
	Four Programmable Supervised Voltage Outputs, 0.75 Amp each
	Two Programmable Relay Outputs, contact rating 2 Amp
	Four programmable clean contact (N/O or N/C) inputs (I0-I3) <sup>5</sup>
	Two non-programmable relay outputs for ASE (fire & fault)
Expansion Boards	Max. 6 of 4580, 4581 or 4583 or any combination <sup>6</sup> .
I/O Matrix 4582 board	Max. 24, 6 per COM loop if no Expansion Boards on Loop 0 <sup>7</sup> fitted. Up to 6 modules can be used as zone or generic + 18 Fan Control Modules (4 fans per module) <sup>8</sup>

<sup>2</sup> Refer to the Technical Manual and the current calculation spread sheet.

<sup>3</sup> Medium size enclosure 630H x 450W x 210D can be used if the options are limited. A combination of large and medium size enclosures can be used to fit more options. In 19" rack cabinets, a series of different face plates are also available.

<sup>4</sup> Refer to G3 block wiring diagram, drawing no. F765, page 149

<sup>5</sup> First input I0 cannot be used in NZ convention, only 3 programmable inputs are available.

<sup>6</sup> Expansion boards are internally connected to COM loop 0, ensure total number of Expansion Boards and I/O matrix boards connected to COM loop 0 does not exceed 6. Software 2.1.1 allows to use 6 x 4583.

<sup>7</sup> Reduce the number of 4582 connected to COM loop 0 by one for every Expansion Board used.

<sup>8</sup> If no Expansion Boards fitted, up to 24 fan control modules can be used i.e. 96 individual fans



## 3.2 FT1020G3 Limitations

In addition to increasing the number of each COM loop units to 255 in software  $\geq$  V2.0, other limitations have also been increased as well as adding new types e.g. technical warning. The following table lists some of the limitations in V2.2.0 software.

Table 2 Control Unit limitations

Item	CIE	Network System
General fire alarm via programmable input	100	
External fault via programmable input	50	30 x 50
Programmable inputs	512	
Programmable outputs (= control expressions) <sup>9</sup>	512	
Technical warnings	100	30 x 100
Addressable 2 voltage outputs unit 3364	40	
External Display Units	16	30 x 16
Interlocking Combinations	400	4000 <sup>10</sup>
Presentation numbers / alarm points <sup>11</sup> that can be presented in the display(s) in case of fire alarm	512	512
Presentation numbers <sup>8</sup> that can be programmed	512	30 x 512 = 15 360
Zones that can be programmed	512 <sup>12</sup>	999
Faults		300
Disabled Zones		512
Disabled Alarm Points (zone/address) + Disabled COM loops		200 <sup>13</sup>
Disabled Outputs		200 <sup>14</sup>
Disabled Interlocking Outputs		200 <sup>15</sup>
Sensors activating SERVICE signal		200
AAF zones (Max. 5 detectors per AAF zone.) <sup>16</sup>	100	30 x 100
Total number of Expansion Boards 4580, 4581 and 4583 <sup>17</sup>	6	30 x 6
Number of I/O Matrix Boards 4582 <sup>18</sup>	24	30 x 24
Total number of 4582 for Zone Control & Generic applications	6	30 x 6
Number of user definable text message programmed per 1728 and 1736	617	

<sup>9</sup> Approx. 4000 trigger conditions can be used in these control expressions, more outputs can be used without control expression (V2.1.1 and higher).

<sup>10</sup> Max. 100 user definable texts can be displayed "at the same time".

<sup>11</sup> Presentation number is a ZONE only or ZONE – ADDRESS.

<sup>12</sup> Any zone number between 001 and 999 can be used for the 512 zones.

<sup>13</sup> Zone/address disabled via time channel not included.

<sup>14</sup> Control outputs disabled via menu H2/B2 and Alarm devices disabled via menu H2/B4 are not included.

<sup>15</sup> Interlocking outputs disabled via menu H9/C1 are not included.

<sup>16</sup> Used in conjunction with the Alarm Acknowledgement Module (AAM).

<sup>17</sup> Expansion boards 4580, 4581 and 4583 are physical connected to COM loop 0

<sup>18</sup> Reduce no. of 4582 boards by one for every Expansion Board used (4580, 4581 or 4583).



### 3.3 FT1020G3 CIE Layout

The FT1020G3 available in many configurations depending on the number of options fitted in the CIE.



Figure 1 FT1020G3 Control Unit with printer and options

Figure 1 above shows the standard FT1020G3 in large cabinet fitted with some options e.g. printer, Occupant Warning System, Zone Control Module and AS1668 fan control module.

The appearance and functions of FT1020G3 may vary depending on the convention e.g. AU or NZ and the number of fitted options

**Note:** Special hardware is required to add the options.

The FT1020G3 Control and Indicating Equipment (CIE) shown in Figure 1 is housed in an oyster coloured powder coated metal cabinet. The cabinet has an inner and outer door. The outer door is fitted with a 003 key to provide access level 1 and is made of tinted high impact plastic and allows easy viewing of all indicators and controls. The look of the Control Unit might vary based on the number of fitted options, cabinet size, etc.

Access to the inner door is gained by opening the outer door which then provides access to the inner door fixing screws. Opening the inner door allows access to the Control Unit hardware for the purpose of maintenance or servicing.



Figure 2 FT1020G3 front display

The fire brigade or fire services personnel use the integrated **FBP** inside red boarder to see which alarm point / zone(s) have activated a fire alarm and take the required operational control of the system. Fire brigade personnel can control active alarms via the buttons and keys P1-P9 within the FBP. In the graphical display, the information displayed in the upper part is dependent on how many alarm points / zones have generated fire alarm. In the middle part, the fire alarms will be shown, i.e. one alarm point or one zone together with a user definable alarm text (if programmed) plus some other information.

The **CP** is used to "communicate" with the system, i.e. for commissioning, monthly tests, maintenance, etc. Access codes for different access levels are required. To get access to the system (a menu tree with main and sub menus) and for operational control of the system, up to ten **User names** can be used for three different **User level types**. A **Password** (six digits) for each User name is required.<sup>19</sup>







<sup>19</sup> The same User names and Passwords (for the different user levels) will be used for logon to the Web-server.

## 3.4 LED Indicators and Push Buttons

LED's and push buttons are contained on the front panel display and are described in the tables below. See also Figure 2 above, for the LEDs and push buttons.

### 3.4.1 Fire Brigade Panel Display and Control







Table 3 LED indicators on Fire Brigade Panel (FBP)

LED indicator		Indicating
L1 	FIRE (5 red)	Fire alarms (see below) Quiet alarm See also chapter "Alarm types", page 46.
L2 	FIRE PROTECTION ACTIVATED (red)	Output(s) for extinguishing (suppression) equipment activated. (Or a programmable input type "Extinguishing" is activated.)
L3 	SMOKE CONTROL ACTIVATED (yellow)	Output(s) for fire / smoke ventilation equipment activated (fire fan). Or a programmable input type "Ventilation" is activated.
L4 	ALARM ROUTING ACTIVATED (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 	POWER (green)	The CIE is powered via the primary power supply and/or the battery.
L6 	SEVERAL ALARMS (2 red)	More than one unit / zone have activated fire alarm. Use push button "SEVERAL ALARMS" (P9) to scroll amongst the <u>alarm points</u> (zone-address) or soft key "Next zone" (P6) to scroll amongst the zones.

Different types of Fire alarms as follows:

- Fire alarm (including test mode alarm)
- Heavy smoke/heat alarm
- Alert Annunciation (AA) alarm
- Acknowledged alarm (New Zealand only)
- Isolated alarm (New Zealand only)

Table 4 Push buttons on Fire Brigade Panel (FBP)

Push button		Operation/function
P1 	SILENCE BUZZER (white)	Used to silence the buzzer in the CIE when it is sounding
P2 	SILENCE ALARM (red)	Used to silence alarm devices e.g. OWS / sounders <sup>20</sup> in the building when they sound. Silenced Alarm devices is indicated to the right in the display's soft key area (a symbol near this button), see page 29
P3 	RESET (green)	Used to reset: <ul style="list-style-type: none"> <li>• Fire alarms (see below)</li> <li>• Co-incidence alarms (if not automatically reset), for more information see "Fire alarm reset", page 57.</li> </ul> <b>Note:</b> P3 has to be pressed for > 0.5 sec.
P4 	DISABLE (yellow)	Used to disable active alarm(s), all outputs of the device or zone in alarm will be disabled.
P5 - P8 	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 CIE condition. If nothing is shown above the key in the display, the key has no function at this moment <sup>21</sup> .
P9 	<b>SEVERAL ALARMS</b> (grey)	Used when LEDs "SEVERAL ALARMS" (L6) are lit to scroll / browse through the several <u>alarm points</u> (zone-address). For more details, see chapter "Fire alarm" page 47, under LEDs "SEVERAL ALARMS". <b>Note:</b> To scroll/browse through the queued <u>zones</u> , use the soft key "Next zone" (P5).

Different types of Fire alarms as follows:

- Fire alarm (including test mode alarm)
- Heavy smoke/heat alarm
- Alert Annunciation (AA) alarm
- Acknowledged alarm (New Zealand only)
- Isolated alarm (New Zealand only)

**Encapsulated reset** (auto disablement): Press "RESET" (P3) and approx. 0.1 sec. later also press "SEVERAL ALARMS" (P9). See also page 58. This function **must not** be used in the Australian convention.









**Multiple reset** (when single reset is selected), press "RESET" (P3) and approx.. 0.1 sec. later, press also "↓" (Enter).

<sup>20</sup> Outputs of type "Alarm devices" will be de-activated.

<sup>21</sup> The soft key "P8" has the function Alert Annunciation Acknowledge, if a COM loop unit is configured for alert annunciation.

### 3.4.2 Control Panel Display and Control

Table 5 LED indicators on Control Panel (CP)

LED indicator		Indicating
L7 	System fault (yellow)	FT1020G3 is not running due to S/W, CPU or memory fault, no contact between main board and MMI board or CIE restart (fault code ≠ 00 / 03).
L8 	Test mode (yellow)	One or more zones are in "test mode", see page 90 and 127.
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 125.
L10 	General disablements (yellow)	Disablement(s) in the system. Also valid for "Single reset with automatic disablement", see page 58.
L11 	Alarm devices (yellow)	<b>Steady:</b> Output(s) type "Alarm devices" is <u>disabled</u> . <b>Blinking:</b> One or more supervised outputs type "Alarm devices" have generated <u>fault(s)</u> . This is also valid when the CIE has no "contact" with a unit with such an output, e.g. 3379, 4477, 3364, etc.
L12 	Fire brigade TX (yellow)	<b>Steady:</b> Output(s) for "Routing equipment" <u>disabled</u> <sup>22</sup> via menu (H2/B5) or via open door. <b>Blinking:</b> Routing equipment power supply output <sup>23</sup> or one or more supervised outputs (of type "Routing equipment" have generated <u>fault(s)</u> . This is also valid when the CIE 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 <sup>24</sup> . 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 <b>Alert Annunciation</b> function is enabled, i.e. time channel controlling this function is "on". The <b>AA</b> function is described in the FT1020G3 Technical Manual, chapter "Alert Annunciation". LED "L14" will be "on" if the <b>AA</b> function is enabled for at least one alarm point / zone. Normally one only time channel is used for this function but two or more channels can also be used. As an alternative, the <b>AA</b> function can be continuously "on".






**Note:** Acknowledged alarm and isolated alarm are used only in the NZ convention.

<sup>22</sup> In the AU convention, it is not allowed to disable routing equipment or via the menu, only via the ASE.

<sup>23</sup> Main board 5010 Terminal Block "J3:3-4", fuse F8 (T500mA L 250 V – TR5).

<sup>24</sup> See also chapter "Fault acknowledge", Page 73

Table 6 Push buttons / keypad on 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 / analogue 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 H5).
	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). <b>Note:</b> The soft key "Escape menu" (P5) is used to leave the menu system.

## 4 Control Unit Options

### 4.1 I/O Matrix 4582

The I/O matrix board is an interface between the CIE (COM loop) and various types of application boards e.g. AS1668 fan control board, Zone Disable and indication board, LED mimic board, etc.

Up to 24 of the I/O matrix boards 4582 can be used in FT1020G3 if no Expansion Boards type 4580, 4581 or 4583 are used. The limitation of the I/O matrix configuration as follows:

- Up to six I/O matrix boards can be programmed in FT1020G3 CIE as type “Zone control” and / or “Generic” e.g. NZ fire brigade panel, LED mimic, etc.
- Up to 24 I/O matrix boards can be programmed as type “Fan control” if no other I/O matrix are used for generic or zone control i.e. up to 96 fans can be controlled and displayed in FT1020G3.
- A combination of any of the two previous options can be used if the maximum number of each application is maintained.

In the generic applications, each I/O matrix board can operate up to 48 LEDs (outputs) and 16 switches (inputs). All outputs and inputs can be configured individually via EBLWin.

The I/O matrix board can be used remotely, it requires 24VDC and COM loop in addition to an application board.

**Note:** Jumper links JP1-JP3 are used to set the I/O matrix board number (0-3) and JP5-JP6 are used to set the application type (generic, fan control or zone control). For more details refer to the Technical / Programming manual or Technical Datasheet TDS040

### 4.2 AS1668 Fan Control

The fan control module is designed to meet the requirements of the Australian standard AS1668.2. The front display is shown in Figure 3 below.

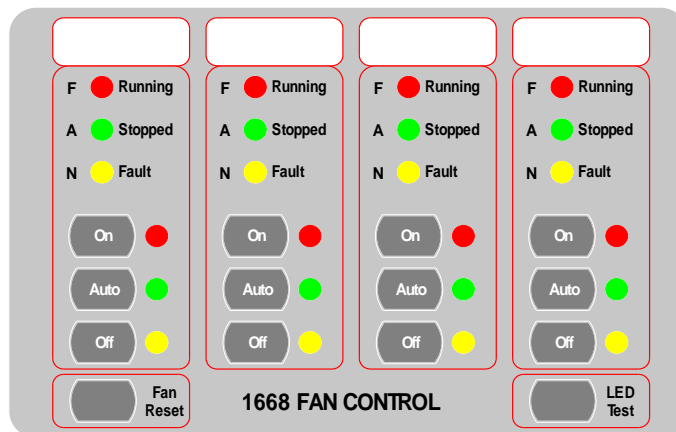


Figure 3 1668 Fire fan control

Each fan control module consists of an I/O matrix 4582 and display / control board (SUB902). Each module can control and indicate the status of up to 4 different fans. Up to 24 x AS1668 fan modules can be used to provide 96 fan interfaces if no other Expansion Boards or 4582 are used in different applications.

**Note:** the total number of fan modules must be reduced by one for every other option fitted, e.g. zone module, generic module, Expansion Board, etc.







A fan reset switch is provided to independently reset the fan module as required by AS1668.2 i.e. reset the alarm in the CIE will not restore the fans to the non-fire condition until the reset switch is pressed.

A remotely located (mechanical services) 3361 module is required for each fan and configured in the control panel using EBLWin. For standard fan configuration e.g. smoke exhaust fans, the simple standard mode can be used to program 3361 while for more configuration options e.g. supply air fans, the enhanced mode can be used.

The I/O matrix board 4582 is a COM loop unit which can be fitted with the front display board inside the control panel or remotely in a separate enclosure.

For more information refer to FT1020G3 Technical / Programming manual and to drawing no. F765

Table 7 Indicators and buttons in AS1668 module

LED indicator & buttons		Indicating
Running 	Fan running - Red	Illuminates to indicate fan running.
Stopped 	Fan Stopped - Green	Illuminates to indicate fan stopped.
Fault 	Fan Fault - Yellow	Illuminates when the signal to the fan to change state is restored, either via manual override switch or by the CIE in Auto mode <u>but</u> the feedback signal confirming the change of state has not been received by 3361 input in the field within 30 seconds. Or There is an open circuit in the 3361 supervised input where the feedback from the pressure switch is connected. Or The pressure switch is faulty
On 	LED – Red	Indicates “On” position of the button, fan starts up manually
	Button	Fan is running in manual mode independent of an alarm in CIE.
Auto 	LED – Green	Indicates “Auto” position of the button, normal operation
	Button	Fan may run or stop automatically depending on the alarm condition in the CIE
Off 	LED - Yellow	Indicates “Off” position of the button, fan stops manually
	Button	Fan is stopped in manual mode independent of an alarm in CIE.



## 4.3 Zone Control & Indication Module

The Zone Control Module is used as a simple and easy method to disable (isolate) individual zones for service and maintenance purposes as well as providing alarm and fault indications for these zones. The front display layout is shown in Figure 4 below.

Each Zone Control Module consists of a universal I/O matrix 4582 and application board SUB900 specifically configured to provide up to 12 individual zone alarm and zone fault indicators as well as a disablement control with indicator to indicate switch activation. The module is normally mounted in the CIE but it is also possible to connect the module externally via a COM loop.

The Zone Control Module provides a simplified indication of zone status without the need for a liquid crystal display. The disable control allows a specific zone to be temporarily disabled without the need to access the CIE menu. This is typically used where building works or maintenance procedures are being carried out in a localised area of a building.

For more information refer to the Technical / Programming manual and to drawing no. F765.

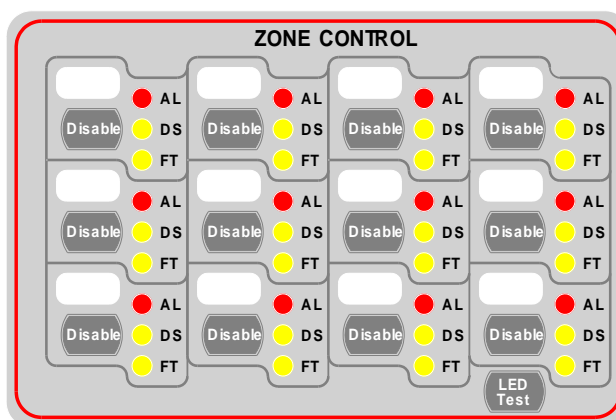







Figure 4 Zone disable and indications

Table 8 Zone control LEDs and Buttons

LED indicator & buttons		Indicating
AL 	Alarm – Red 1-12	Illuminates when an alarm from a conventional zone or an addressable device or group of addressable devices designated as a zone enters an alarm state.
DS 	Disable-Yellow 1-12	Illuminates when a zone is disabled either by the disable switch on the zone control card or where the zone is disabled via menu H2/B1
FT 	Fault – Yellow 1-12	Illuminates when either a short circuit or open circuit fault on conventional zone or any fault that prevents an addressable alarm point in a designated zone to operate properly.
Disable 	Button 1-12	Pressing the disable switch will disable the specific zone selected. Pressing the switch a second time will re-enable the zone. Functions same as menu H2/B1.
LED Test 	Button	Is selectable to be activated either from the CIE or at the Zone Control Module itself, this feature can be utilised when the module is mounted externally via the COM loop.

## 4.4 NZ Fire Brigade (LED) Mimic Board

The generic feature in EBLWin software supports the mimic applications of the I/O matrix board 4582. This feature is used in the New Zealand fire brigade mimic panels.

Each NZ mimic board provides 12 LED indicators and screw terminals for 4 inputs (switches). The first 3 LEDs used for Normal (green), Defect (yellow) and common alarm (red). The remainder 9 LEDs (red) used to indicate separate zone alarm indication or sprinkler flow switch indication. Two of the four inputs are used to interface the bulgin keys to the CIE. Additional mimic boards provide 12 red LED indicators for each board.

Up to 4 mimic boards can be interfaced to each I/O matrix board 4582 to provide indications for up to 48 LED's, up to six I/O matrix boards can be used in the NZ mimic applications, if no Zone Control Modules used.

Figure 5 below shows an example of a mimic display used in conjunction with FT1020G3 in New Zealand Steel project.

The new design of NZ mimic boards provides an option to allow for remote mounting of LED's via screw terminals. This can be used (if required) to mount individual LEDs on a building layout

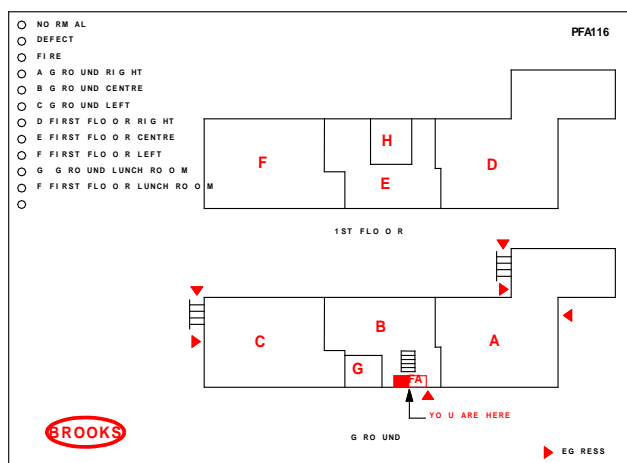


Figure 5 NZ Fire Brigade Mimic Sample Drawing

## 4.5 Occupant Warning System (OWS)

The standard BROOKS OWS display and control layout is shown in Figure 6. For more details, refer to the standalone OWS manual MA380 or OWS kit manual MA385.

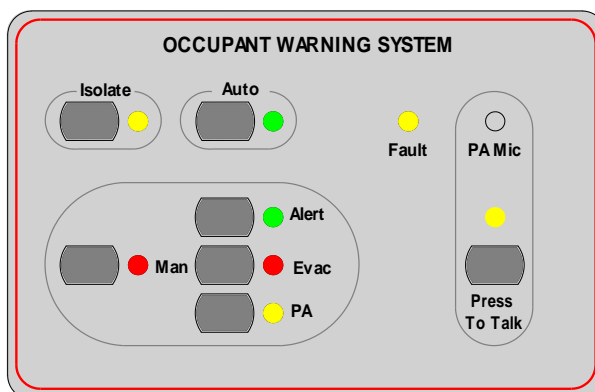


Figure 6 Occupant Warning System display

Brooks Occupant Warning System is a single zone intelligent system designed to warn the occupant to evacuate the building in the event of fire or emergency. It can be incorporated in FT1020G3 with some options depending on the available space in the standard cabinet, larger enclosures can be used to allow for more options.

The OWS comprises of an amplifier, control / indication front and speakers / strobes distributed within the building to provide audible and visual warning to the occupant as well as PA notifications. In addition to the T3 and AS2220 tones, the OWS provides in its standard configuration alert and evacuation messages as well as electret microphone for PA purposes.

The Brooks OWS provides high quality audio output utilising high efficiency class D amplifier, sizes available: 60W, 120W and 250W<sup>25</sup>.

The front display push buttons / indicators and its function are explained in Table 9.









### Features:

- High power efficient class D audio amplifiers with standby input to maximize power conservation in quiescent condition.
- Selectable time delay between alert tone / message and evacuation tone / message, time is configurable via DIP switch to 1, 3 or 5 minutes.
- Configurable audio warnings with pre-recorded digital voice messages.
  - ☞ For Australian applications, it meet the requirements of the ISO7731, ISO8201 standards, clause 3.22 of AS1670.1-2004 and relevant clauses of AS1670.4-2004.
  - ☞ For New Zealand applications, it meets the requirements of NZS4512 and the AS2220.1 standards.
  - ☞ For non-regulatory applications, the tones and voice message can be customized.
- Auxiliary input to connect to Brooks single or multiple zone remote microphone.
- Supervised speaker circuit, trigger input and strobe output.
- Speaker output can be split into a max of 16 individual speaker circuits using the optional 4 zone split board. Each circuit is individually supervised for short and open-circuit faults.
- OWS fault changeover relay output to report a fault condition in the FT1020G3

<sup>25</sup> 60W OWS can be powered directly from FT1020G3 power supply while 120W or 250W require separate power supply. Care must be taken when the battery capacity is calculated, refer to FT1020G3 battery calculation spreadsheet.

- Powered from the CIE power supply for 60W version, larger size amplifiers require separate power supply and PSU supervision module.

Table 9 OWS controls and indications

LED indicators & Buttons		Indicating
Auto 	LED - Green	Illuminates to indicate the “Auto” position of the button, normal position.
	Button	OWS controlled only by alarm condition
Isolate 	LED - Yellow	Illuminates to indicate “Isolate” position of the button.
	Button	Disable all outputs to the speakers, CIE fault is generated if the isolate button remains active for more than 5 minutes
Manual 	LED – Red	Illuminates to indicate the “Manual” position
	Button	Enables manual activation of Alert, Evac or PA. OWS fault is generated if the manual button remains active for more than 5 min.
Alert 	LED – Green	Indicates that alert tone/message is active
	Button	Manual trigger of the alert tone/message
Evac 	LED - Red	Indicates that evacuation tone/message is active
	Button	Manual trigger of the evacuation tone/message
PA 	LED - Yellow	Indicates that PA is enabled
	Button	Enables PA mode
Press to Talk 	LED - Yellow	Indicates PA is broadcasting
	Button	Press and hold to broadcast via the electret mic
Fault 	Yellow	Indicates common fault in OWS i.e. speaker fault, trigger fault, strobe fault, etc.

**Notes:**

The 60W OWS can be powered from FT1020G3 however 120W or 250W OWS requires separate power supply as well as power supply supervision board.

A fault signal will be generated if the isolate or manual mode is kept active for more than 5 minutes (OWS software V1.5 and higher)

## 4.6 Gaseous Extinguishing Control Module

### 4.6.1 Overview

The gaseous extinguishing system control module is provided for use as an option in FT1020G3. The module is comprised of the following:

Control Board SUB928, software is configured to interface with CIE.

Display Board SUB929

CIE interface board SUB943.

Front panel decal with interconnection cable

In addition to the control module, system ancillaries will include:

- A combination of BROOKS Warning Signs
- BROOKS Local Control Station (LCS)
- Voice / Tone Electronic Sounder
- Dual Strobe Module

The gas control module combined with other Brooks system components has been designed to provide the monitoring and control functions of a complete gaseous extinguishing system that meets the requirements of the relevant clauses 7.1 to 7.6 of the Australian Standard AS4214-2002 (including amendment 1). For more details, refer to FT2GAS Operation / Technical Manual MA400.

The control module has the following inputs / outputs:

- Three fully supervised external input circuits e.g. gas lock-off valve input, manual release input and gas discharged sensor input.
- Fully supervised system inoperative sign 24V output rated @ 0.5A maximum.
- Fully supervised 2 wire system output for level 1 and level 2 alarm to Brooks warning signs (alarm 1 [+/-] & alarm 2 [-/+]) rated @ 3A maximum.
- Fully supervised gas release output rated @ 5A maximum.
- Gas release clean-contact relay output rated @ 2A maximum.
- Gas Fault clean-contact relay output rated @ 2A maximum.
- Gas Isolate clean-contact relay output rated @ 2A maximum.
- One four-wire Local Control Station (LCS) interface. Both the local gas isolate control and the local gas release control are fully supervised for open and short circuit faults.
- Adjustable gas release timer settings via a built-in DIP switch.

**Note:** the current rating above is the maximum current capacity of the outputs, a power supply calculations must be performed to ensure that the power supply capacity is sufficient to run the system in full alarm condition without exceeding the maximum current rating of the power supply.

### 4.6.2 Display Board & Decal

The gaseous extinguishing front display is shown in Figure 7 on page 28. All LED indicators on the front display are covered by a polycarbonate decal clearly labelled with their functions.

When the system is in normal condition, all LED indicators will be extinguished.

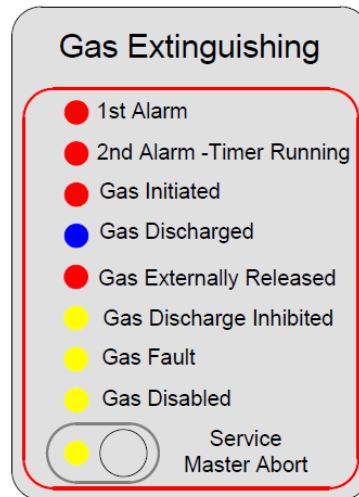











Figure 7 Gas Extinguishing Display Layout

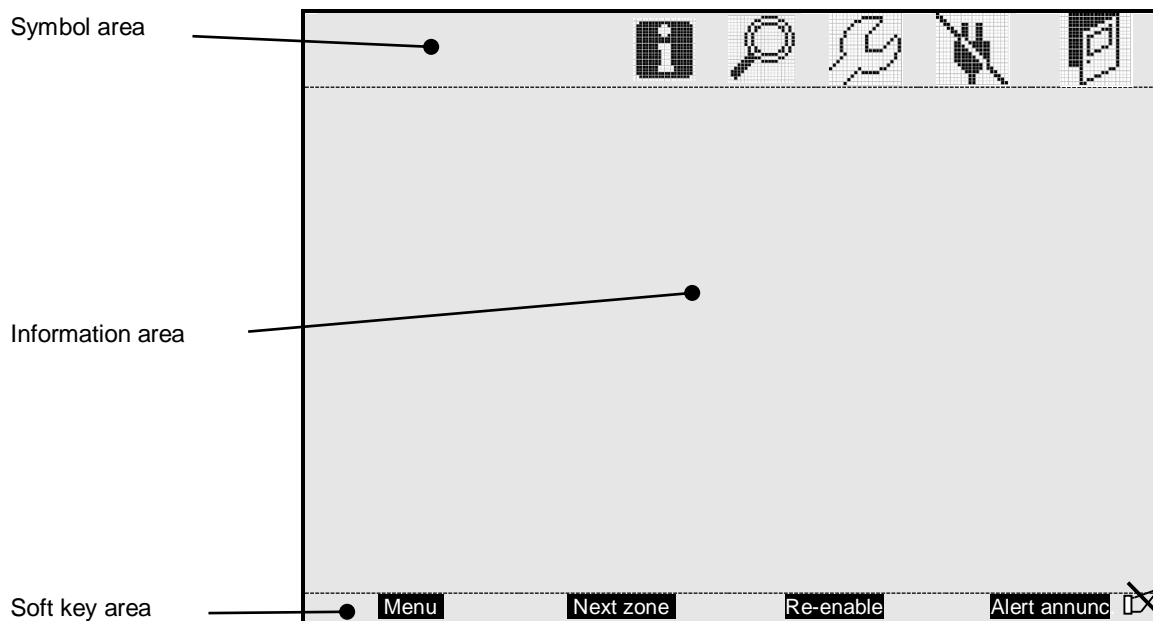
The gaseous extinguishing system status indicating LEDs and flash patterns are described in the following table. The default state of the LED indicators is OFF, if it is not defined in Table 10 below.

Table 10 Gas Front Status LED Indication and flash Pattern

Type	LED Name	Module Conditions	LED Pattern
Alarm	1st Alarm 	One zone or zone address in alarm	Fast Flash
	2nd Alarm – Timer Running 	Both zones or zone addresses in alarm	
	Gas Initiated 	Gas release output activated	
	Gas Externally Released 	External gas release control activated	
	Gas Discharged 	Gas discharged sensor input activated	
Fault	Gas Fault 	Fault in any of the supervised inputs or outputs	Steady ON
Disable	Gas Discharge Inhibited 	Gas discharge inhibited via LCS isolate switch	Steady ON
	Gas Discharge Disabled 	Gas discharge disabled by the service master abort switch or the gas lock-off valve controls	
	Service Switch Active 	Illuminates when the master abort switch is activated	
	Service, Master Abort	Gas service master abort switch	


## 5 The Display (LCD)

### 5.1 Areas in the Display



The display is divided into three areas:






- **Symbol area:** Some events are indicated with symbols, see Table 11 below.
- **Information area:** General area for all other information and the menu system.
- **Soft key area:** The functions of the soft keys are shown in the bottom section of the display. The keys will vary depending on the situation and convention. If no text is shown, the soft key has no function. The last soft key is used to acknowledge an "Alert Annunciation" alarm. In the New Zealand convention it is used to "Acknowledge Alarm".

Silenced Alarms is indicated by the symbol  to the right in this area.

### 5.2 Symbol Area

The symbol area is located at the top of the display, see chapter 5.1 above.

Table 11 Symbol indications

Symbol area	
Symbol	Indicating
	The door is open in any CIE. See "Open Door" page 43. See also menu H4/U3.
	Loss of mains in any CIE or external power supply unit in the system, i.e. blackout or mains is switched off and the power is supplied via battery backup.
	The <u>week average sensor value</u> has exceeded the service level for one or more analogue smoke sensors in the system. See also page 112 and menu H4/U5.
	The CIE is set in "Sensitive fault detection mode" via menu H5/A2, see page 118.
	One or more "Technical warnings" are generated in the system. See also menu H4/U6.

Note that the symbol area may be suppressed see chapter Priority Order, Table 12.

## 5.3 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 inputs/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 shown in Table 12.

Table 12: Priority Order

Priority	Event	Symbol area is visible
1	Fire alarms (see below)	No
2	Quiet alarm	No
3	Co-incidence alarm	No
4	Delayed alarm	No
5	Pre-warning	No
6	Test mode alarm	No
7	AAF alarm <sup>26</sup>	Yes
9	<i>New Zealand convention only:</i> Routing equipment left isolated	Yes
10	Fault (not acknowledged)	Yes
11	Disablement	Yes
12	Zones in "Test mode"	Yes
13	Interlocking input / output active	Yes
14	System information	Yes

Different types of fire alarms as follows:

- Fire alarm
- Heavy smoke/heat alarm
- Alert Annunciation (AA) 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 in the LCD", see section "System Information in the LCD" below.

## 5.4 System Information in the LCD

FT1020G3, Control Unit number, date and time are displayed. The exact look is convention dependent

an example of the information area:



<sup>26</sup> The AAF function is used in conjunction with BROOKS Alarm Acknowledgement Module AAM



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

#### 5.4.1 User Definable System Information

User definable system / installation information (created and downloaded via EBLWin) can be displayed in the middle of the display. Two rows are available, 40 characters in total. This information is shown in all Control Units in the system.

One example:



## 6 User Level, User Name & Password

EBLWin software supports different user levels for different users.

To log on to an FT1020G3 (version  $\geq 2.0$ ) a **User name** and **Password** are required. Ten different User names with individual Passwords can be used. Each User name has access to a specific user level allowing access to specific menus according to Table 13.

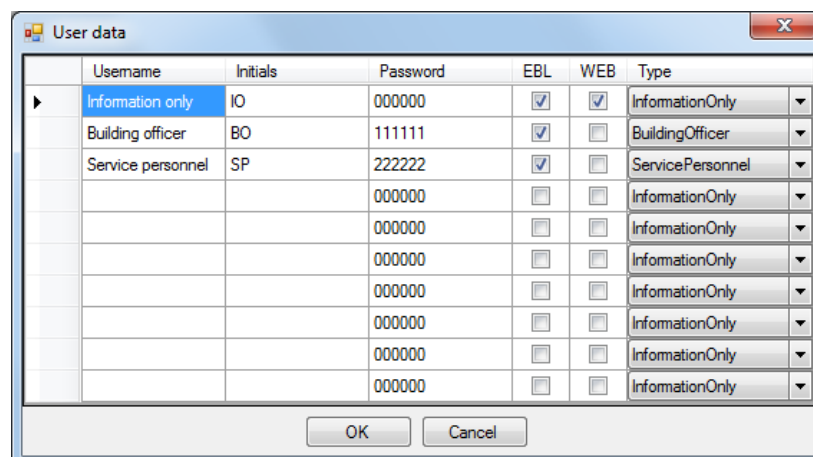
Table 13: Access Levels and user names

User level	User level name / type	Required action / equipment	Access to
0	None	None (Door closed).	View indications and controls
1	Fire service personnel	Open door (003 key required).	Fire alarm response via fire brigade section, fan control, hot buttons zone disablement
2A	Information only	003 key + log on as "Information only"	Same as 1 + keypad. Menu H4, H6 <sup>a)</sup> , H7, H9 <sup>b)</sup> & H10
2B	Building officer	003 key + log on as "Building officer"	Same as 1 + keypad. Menu H1-H4, H6, H7, H9 & H10
3A	Service personnel	003 key + log on as "Service personnel"	Same as 1 + keypad. Menu H1-H10
3B	-	PC + EBLWin + H/W key	SSD & S/W download
4	-	PC + EBLWin + H/W key + special password	SSD & S/W download + reset of alarm counter

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

b) Menu H9/C1 only.

Ten different User names with individual Passwords are available and can be defined Via EBLWin (menu "System") in the "User data" dialog box. They can be used to log on to an FT1020G3 (version  $\geq 2.0$ ) and/or Web-server access. Three User names and Passwords are set as default as shown in the "User data" dialog box below.



Username	Initials	Password	EBL	WEB	Type
Information only	IO	000000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	InformationOnly
Building officer	BO	111111	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BuildingOfficer
Service personnel	SP	222222	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ServicePersonnel
		000000	<input type="checkbox"/>	<input type="checkbox"/>	InformationOnly
		000000	<input type="checkbox"/>	<input type="checkbox"/>	InformationOnly
		000000	<input type="checkbox"/>	<input type="checkbox"/>	InformationOnly
		000000	<input type="checkbox"/>	<input type="checkbox"/>	InformationOnly
		000000	<input type="checkbox"/>	<input type="checkbox"/>	InformationOnly
		000000	<input type="checkbox"/>	<input type="checkbox"/>	InformationOnly

It is recommended to change the default passwords and to add a number of new user names and passwords. However, these access codes can be changed by typing over the previous password and reassigning the EBL and/or Web check boxes with the appropriate access level in the Type field.


**Note:** Initials are required in system FT1020G3 since they will be used in the event log instead of the User names.






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

## 6.1 User level 0


With the door closed, **no** access, controls indicators are viewed through outer door.

## 6.2 User level 1

After the door has been opened using 003 key ("Door open"  symbol in the symbol field), **the designated user / fire brigade personnel** will have access to the following push buttons:


Push button	Operation/function
P1 	Silence the buzzer in FT1020G3
P2 	Silence all alarm devices (OWS or sounders).
P3 	Reset fire alarms (S) (see below)
P4 	Disable active alarm (S)
P9 	Scroll / browse through the active queued alarms
OWS	OWS controls, if fitted
AS1668 Fan Control	Manual override of AS1668 fans, if fitted
Zone Disablement	Quick access to zone disable / re-enable, if fitted

## 6.3 User level 2A

After the door has been opened with 003 key ("Door open" symbol in  the symbol area), you have access as per access level and log on as "Information only" (level only" (level 2A), the following menus are accessible:


<b>H4 Present system status</b>
U1 Disablement
U2 Disablement by time channel
U3 Open doors
U4 Sensor values
U5 Sensors activating SERVICE signal
U6 Technical warning
U7 Event log
U8 Information
<b>H6 FAULT Acknowledge, Note: <i>Information only</i></b>
<b>H9 Interlocking outputs and inputs</b>
C1 Activated interlocking outputs / inputs
<b>H10 Change password (In this case for "Information only")</b>

## 6.4 User Level 2B

After the door has been opened using 003 key ("Door open" symbol  in the symbol area), you have access to level 1 and after log on as "Building officer" (level 2B), access to the following menus:

<b>H1 Perform monthly test</b>
<b>H2 Disable or re-enable</b>
B1 Zone or Zone / Address
B2 Output
B3 Output type
B4 Alarm devices
B5 Routing equipment
B6 Alert annunciation function
<b>H3 Set calendar and clock</b>
<b>H4 Present system status</b>
U1 Disablement
U2 Disablement by time channel
U3 Open doors
U4 Sensor values
U5 Sensors activating SERVICE signal
U6 Technical warning
U7 Event log
U8 Information
<b>H6 FAULT Acknowledge</b>
<b>H7 Perform ZONE TEST ("Test mode")</b>
<b>H9 Interlocking outputs and inputs</b>
C1 Activated interlocking outputs / inputs
C2 Activate / deactivate interlocking output
C3 Disable / re-enable interlocking output
<b>H10 Change password</b> (In this case for "Building officer".)

## 6.5 User level 3A

After the door has been opened using 003 key ("Door open" symbol  in the symbol field), **the service / maintenance personnel** have access to level 1 and after log on as "Service personnel" (level 3A), access to all menus, i.e. same as level 2B and also to the following menus:

Same menus as in access level 2B <b>plus</b> the following:
<b>H5 Service</b>
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 SSD information
<b>H8 Maintenance</b>
S1 Dis- / Re-connect loop / zone line input
S2 Acknowledge SERVICE signal
S3 Clear weekly average
S4 Test of alarm devices
S5 Safe shut down of Control Unit
S6 Activate address in alarm mode
S7 Synchronize the Control Units
S8 Activate / Reset outputs
<b>H10 Change password</b> (In this case for "Service personnel".)

## 6.6 Access level 3B

Used by Service / maintenance / commissioning engineers when a PC (i.e. **EBLWin**) is to be connected to FT1020G3 for backup (upload), download of Site Specific Data and/or download of software.

An **EBLWin** key in the PC is required.

## 6.7 Access level 4

Used by manufacturer or by personnel authorised by the manufacturer for re-initialisation (reset) of the alarm counter, change software configurations, on-line status checking, etc. A special password is required.

## 6.8 Passwords / Change of Password

Normally, the user names and passwords are downloaded / changed via EBLWin (menu system I User data) i.e. SSD download.

A logged on person (user name) can change his password via menu H10. If "Safe shutdown of control unit" (menu H8/S5) is done following the password change, this password will be valid also after power down else not.

A password changed via menu H10 (+ H8/S5) will be valid until it is changed via menu H10 again or it is erased via EBLWin (menu Tools I Reset user passwords).

### 6.8.1 Password for Web-server access only


Normally a password consists of 6 digits, this allows the same user to get access to the control unit as well as to the Web-server if both are selected.

If a user should have access to the Web-server only, it is possible to choose a stronger password. It consists of 6 to 10 characters and digits as well as letters and alphanumeric characters. Note that the letters are case sensitive.

## 7 Silence Alarm Devices

In FT1020G3 front (the FBP part) there is a push button "**SILENCE ALARM**" (P2).

If the push button "**SILENCE ALARM**" is pressed during a pre-warning, a fire alarm<sup>27</sup> or a Co-incidence alarm, the following will happen:

- The symbol  is shown in the display, to the right of the "Soft key" area.
- Activated outputs programmed for OWS or sounders (type "Alarm devices"), will be silenced<sup>28</sup>.

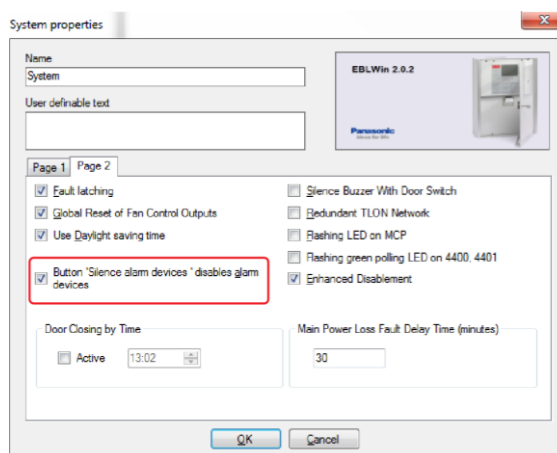
If the push button "**SILENCE ALARM**" is pressed again, the fire alarm devices will automatically re-sound.

In case of a new alarm, the alarm devices will automatically re-sound.

In EBLWin, if the option button "*Silence alarm devices*" disables alarm devices is selected, the button "**SILENCE ALARM**" (P2) will have the same function as the menu "Alarm Devices (H2/B4)" page 99. See chapter "Disable / Re-enable alarm devices", page 38.

**Note 1:** This option (Button Silence alarm devices disables alarm devices) must not be used in the Australian convention as this is a violation to AS4428.3: 2010.

**Note 2:** In the NZ convention, the function is already implemented in the firmware i.e. there is no need to tick the check box.



The "FIRE" LEDs will indicate steady instead of blinking when the alarm devices are disabled.

### 7.1 SILENCE ALARM (inside switch)

**Note:** The functions in this chapter are used only in the New Zealand convention.

The button "SILENCE ALARM" (P2) is called inside switch, it operates slightly different in the NZ convention and has the following function:

The button SILENCE ALARM (inside switch) toggles between two states.

- **Alarm devices disabled**  
when the button is pressed, all programmable outputs of type "Alarm devices" are disabled, i.e. silences sounders, OWS, strobes, etc. and prevents new alarms from activating the warning devices.
- **Alarm devices not disabled**  
when the button is pressed again, all programmable outputs of type "Alarm devices" will be enabled, i.e. any alarm can activate the warning devices.

<sup>27</sup> In the New Zealand convention "Acknowledged alarm" (ACK) as well.

<sup>28</sup> Including Addressable siren 3377/4477, Addressable sounder base 3379, Addressable beacon 4380 and Addressable light indicator 4383.

If the “SILENCE ALARM” button is left in its disabled state when the CIE door is being closed, the buzzer will beep continuously and the message **"Silence switch left active"** will be shown in the display. This feature is required in NZS4512:2010 to ensure that the door cannot be closed while the alarm devices are disabled. For priority order see chapter “The information area priority order” page 30.

**Note:** The "SILENCE ALARM" button on the front display has no function if the “Silence alarms” Bulgin key in the FT1020G3 cabinet or in the remote fire brigade panel (see below) is turned to the “Silence Alarms” position.

## 7.2 NZ FB “Silence Alarms” Bulgin key (outside switch)

The **New Zealand FB “Silence Alarms” Bulgin key switch** is connected to NZ mimic application board via a programmable input in the IO matrix board 4582 with the trigger condition "NZ Silence switch".

The fire brigade Bulgin key switch can be in only two states:

1. **The Bulgin key switch is turned ON** (i.e. from non-activated to activated state).
  - a. All programmable outputs of type "Alarm devices" are disabled. The "SILENCE ALARM" switch in FT1020G3 front display (see above) has no function.
  - b. LEDs "Fire" (on FT128 front display) changes from blinking to steady (continuous).<sup>29</sup>
  - c. The CIE built-in buzzer is silenced.
  - d. A fault is generated<sup>30</sup> **"FAULT: FB Silence switch active"**
2. **The Bulgin key switch is turned OFF** (i.e. from activated to non-activated state).
  - a. The fault **"FAULT: FB Silence switch active"** will be Serviced<sup>30</sup>
  - b. Any fire alarm “Alarm” and acknowledged alarm “Acknowledged alarm” will be automatically disabled (isolated), i.e. it must be re-enabled via menu H2/B5 and is indicated by LED “General disablement” on the CIE front.
  - c. Any fire alarm "Alarm" and acknowledged alarm "Acknowledged alarm " will automatically change state to "Isolated alarm" (see below) and in the fire alarm list (presented in the display) "Alarm" or “Acknowledged alarm” will be replaced by "Isolated alarm".

An example:

1234567890123456789012345678901234567890

1.	First alarm: 002-03	Alarm number 1 (of 1)
2.	Isolated alarm	
	Zone	Address
3.	002-03	
4.	SMOKE	
5.	User definable alarm text for 002-03.	
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.	Menu	

<sup>29</sup> This is valid also if the fire alarm is activated after the Bulgin key switch (outside switch) is turned ON (Silence Alarms position).

<sup>30</sup> The fault (defect) in the NZ convention is always non-latched, no need to be acknowledged via menu H6.

## 8 Disable / Re-enable Alarm Devices

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Outputs programmed for sounders or OWS<sup>31</sup> i.e. type "Alarm devices" can be **collectively** disabled via menu H2/B4 for 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 or OWS will **remain** disabled, i.e. the alarm devices will not sound until they are re-enabled again via menu H2/B4.

**Note:** Outputs of type "Alarm devices" cannot be individually disabled, not even via menu H2/B2 "Disable or Re-enable Output"

See also chapters "Test of alarm devices" (H8/S4), page133. All outputs of type "Alarm devices" for a specified or all Control Units, can be activated for an alarm device test.

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<sup>31</sup> Including Addressable siren 4477, Addressable sounder base 3379, Addressable beacon 4380, Indicator light 4383 and Occupant Warning System (OWS).

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## 9 "SILENCE BUZZER" Button

The **buzzer** in the CIE will sound for:

- Fire alarm<sup>32</sup> (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)
- Disablenents and Faults (1 sec. directly after the door to the CIE is closed.)
- Activated interlocking input (0.8 / 0.8 sec.), if this option is selected via EBLWin.

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 re-sound.

### 9.1 Silence buzzer by open door

In EBLWin, the function "Silence Buzzer by Door Switch" can be selected. The buzzer will then be disabled as long as the FT1020G3 cabinet door is open.

### 9.2 Silence buzzer by the "FB Bulgin Key"

Note: Valid only for the New Zealand convention.

When the **New Zealand FB "Silence Alarms" Bulgin key switch** (outside switch) is turned ON (i.e. "Silence Alarms" position) the buzzer is silenced until the Bulgin key is turned to the "Normal" position.

### 9.3 Buzzer

If there is a fault or disablement whilst the door to FT1020G3 is closed, the FT1020G3 **buzzer** will sound continuously directly after the door is closed, the fault and disablements messages will be shown in the display.

**Note:** In the New Zealand convention, if any of the outputs for routing equipment ("Fire Brigade TX" and "Fault TX") or outputs for alarm devices is disabled when the door of FT1020G3 is being closed, the buzzer will sound continuously immediately after the door is closed. "**Alarm routing equipment left isolated**", "**Fault routing equipment left isolated**" and "**Silence switch left active**" will be shown in the LCD. This information has higher priority than the normal fault messages and disablements.

<sup>32</sup> Incl. Heavy smoke/heat alarm, AA alarm and Acknowledged alarm (New Zealand only).

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## 10 Disable or Re-enable Output

---

All control outputs (except outputs of type “Alarm devices”) can be **individually** disabled via menu H2/B2:

- Loop unit xxxxxx output x
- Control unit xx S0
- Control unit xx R0
- Control unit xx Expansion Board x output x

This is indicated by LED **Fault / Disablements** "General disablements" (L10).

They will remain disabled until they are re-enabled again via menu H2/B2.

See also chapter Output Type (H2/B3), page 97

See also chapter “Activate / Reset Outputs (H8/S8)”, page 139. An output can be activated for an output test.

---

## 11 Disable/Re-enable all Control, Ventilation, Extinguishing and Interlocking Outputs<sup>33</sup>

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All control outputs programmed as type:

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

..... can be collectively disabled via menu H2/B3 for a specified control unit or all Control Units. This is indicated by LED **Fault / Disablements** "General disablements" (L10).

They will remain disabled until re-enabled again via menu H2/B3.

See also chapter "Activate / Reset Outputs (H8/S8)", page 139. An output can be activated for an output test.

See also chapter "Activate / Deactivate Interlocking Output (H9/C2)", page 142. An interlocking output can be activated for an output test.

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<sup>33</sup> Terminology of Extinguishing and Ventilation has been changed in the fire brigade panel standard AS4428.3:2010. Extinguishing re-named to "FIRE PROTECTION ACTIVATED" and Ventilation to "SMOKE CONTROL ACTIVATED".

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## 12 “DISABLE” Button

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When the push button “**DISABLE**” (P4) is pressed whilst there is an active alarm, all outputs configured for either the device(s) or zone(s) in alarm, will be disabled. This is indicated by the “General disablement” LED L10.

The “**DISABLE**” push button (P4) is provided in the fire brigade section on the front display to enable the fire brigade personnel to disable (isolate) an active alarm such as a zone of addressable sensors, conventional zone or individual addressable device.

A single operation of the “**DISABLE**” button (P4) whilst there is an active alarm will initiate the following:

- Disablement of all zones in alarm and/or addressable devices in alarm.
- Illuminate the “General Disablement” LED L10.
- Disablement of all the outputs configured for zone(s) or device(s) in alarm.

The output indicators activated as a result of an alarm will not clear automatically after disablement. A subsequent reset operation is required to restore the CIE to the normal condition.


**Note:** The “Disable” button will not function unless the “SILENCE ALARM” button has been activated first as required by AS4428.3:2010 <sup>34</sup>.

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<sup>34</sup> This function is not required in NZ convention.

## 13 Open Door

A standard 003 key is used to open FT1020G3 door to get access to the front membrane and other optional modules e.g. OWS, zone disable, AS1668 fan control, etc.

If a door in the system (any Control Unit) is open, the following symbol is shown in the display's symbol area: 

Door open may be programmed via EBLWin to disable any external strobe or sounder/strobe combination located at the designated building entry point. See also chapter Open doors (H4/U3), page 108.

### 13.1 Outputs for Routing Equipment (Fire Brigade TX and Fault TX)

The outputs for routing equipment can be disabled via EBLWin by the door switch. The following can be programmed (default settings shown):

Disable Routing Equipment By Door Switch

☒ None

☐ Any Control Unit Door

☐ Any Door

**None:** The output(s) for routing equipment (Fire Brigade and Fault TX) will not be disabled by an open door.

**Any Control Unit door:** Open door in any CIE will disable the output(s) for routing equipment (Fire brigade TX and fault TX) in all CIE's.

**Any door:** Open door in any CIE and/or external fire brigade panel will disable the output(s) for routing equipment (Fire brigade TX and fault TX) in all CIE'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.

**Note:** Do not use the door open function to disable (isolate) the routing equipment. This option cannot be selected in Both Australia and New Zealand.

### 13.2 Silence Buzzer by Door Switch

In EBLWin the following can be programmed:

☒ Silence Buzzer With Door Switch

The buzzer will be turned off as long as any FT1020G3 door is open.

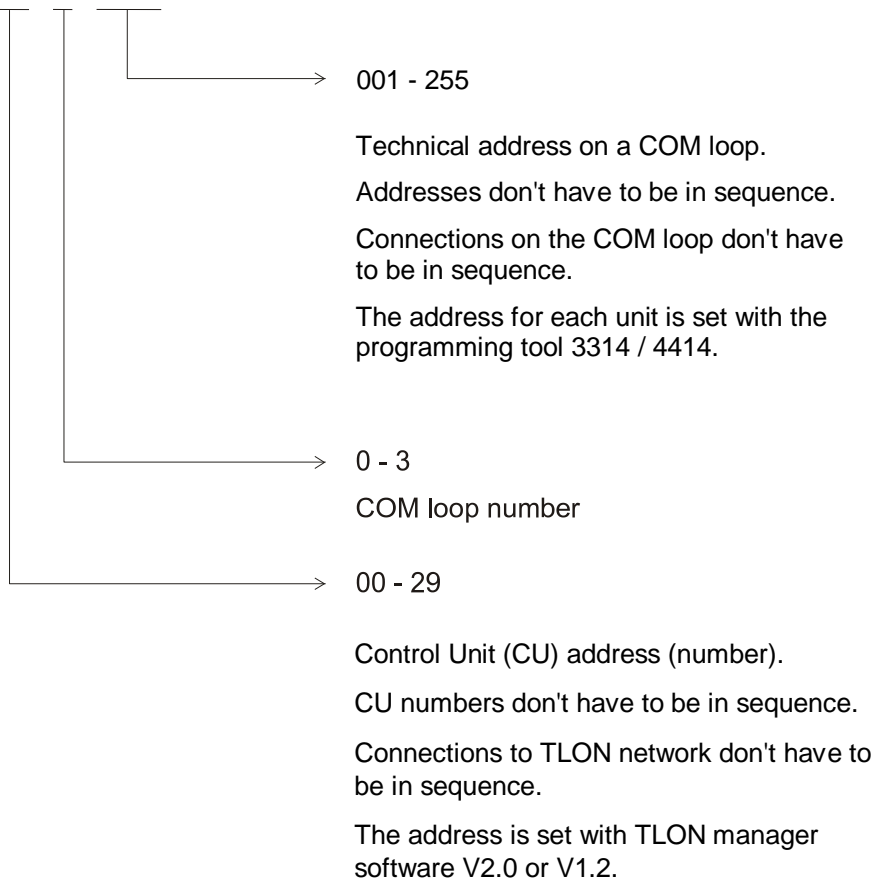
## 14 Technical / Presentation Number

### 14.1 Technical Number for COM Loop Units

The technical number “NN N NNN” 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



#### NOTES:

Maximum of 1020<sup>35</sup> COM loop (technical) addresses can be used in one Control Unit. Any address can be used for alarm point i.e. detector.

A brand new detector is factory set to COM loop (technical) address 000. If a detector is connected on a COM loop without setting up an address (001 – 255), the detector LEDs will start blinking every second, indicating that the detector has not been addressed.

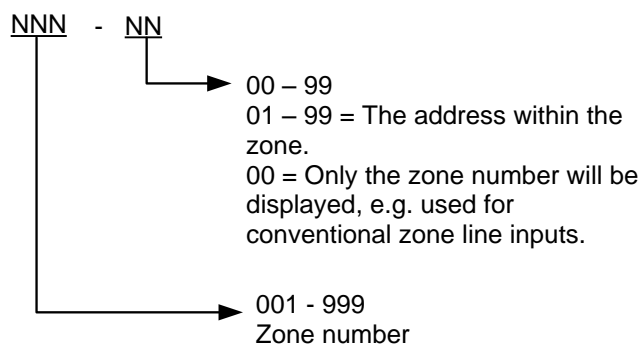
<sup>35</sup> Since **(technical)** address 000 cannot be used, the total number of addresses is 4 x 255 = 1020

## 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 CIE display, alarm presentation unit 1728 and alert annunciation unit 1736 to identify the point / zone activating fire alarm. It is also used to disable / re-enable fire alarm points / zones and as a trigger conditions in the 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).



## 15 Alarm Types

In case of a fire, analogue detectors (sensors), conventional smoke and/or heat detectors, manual call points and programmable inputs can activate **fire alarm**.<sup>36</sup>

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 and investigation time.

**AAF alarm**<sup>37</sup> (Alarm Acknowledgement Facility) is similar to the alert annunciation function and normally used to control the brigade call alarms. If the AAF function is used, during the acknowledgment and the investigation periods, there will be an indication in the CIE display and the Fire Brigade TX will be delayed. The AAF function requires an Alarm Acknowledgement Module (AAM 3340), a smoke detector (sensor) 4300/4400 or 4301/4401 and sounder base 3379.

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

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

**Quiet alarm** is an alarm type that can be used for AS1668 fan control and other applications that require a non-latching / non-brigade call alarm.

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

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

In the following chapters, all different alarm types are described.

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

### 15.1 Pre-warning

Activation of Pre-warning is an option enabled via EBLWin for the Control Unit.

**Note:** Pre-warnings activated in any Control Unit in the system 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 analogue detector generates a pre-warning at a lower alarm level than the fire alarm level.<sup>38</sup> Pre-warning can be used when an early warning and/or an early action is required (e.g. a "soft" computer shut down). Normal alarm devices (output type "Alarm devices"), routing equipment, etc. will not be activated.

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

- The buzzer in the CIE sounds 0.8 sec. each 5<sup>th</sup> sec. (0.8 / 5 sec.).
- Outputs programmed for pre-warning are activated.<sup>39</sup>
- In the CIE display, a presentation number (zone/address) is shown (for the first pre-warning).
- In the CIE 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):

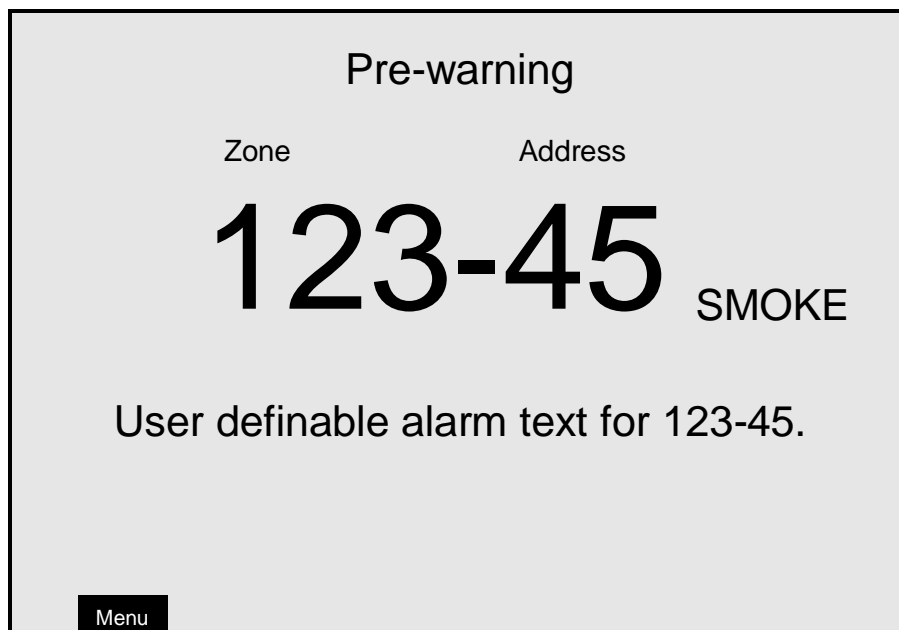
<sup>36</sup> In the New Zealand convention only, a Fire alarm (ALARM) can be "changed" to an Acknowledged alarm (ACKNOWLEDGED) or an isolated alarm (ISOLATED).

<sup>37</sup> New LAA is the European version of the AAF.

<sup>38</sup> See FT1020G3 Technical Manual. Any programmable input can also be used to activate a pre-warning, e.g. for a High Sensitivity Smoke Detector system.

<sup>39</sup> Outputs programmed for General pre-warning and outputs programmed for the activated pre-warning(s).





"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" for the soft key "P5" is visible in the display, only if the door in the CIE is open.

If more than one pre-warning is activated, the LEDs "SEVERAL ALARMS" (L6) are blinking and the pre-warnings will be automatically scrolled (each five seconds). Pre-warnings are automatically reset see chapter "Alarm reset", page 57.

## 15.2 Fire Alarm

The FT1020G3 system can handle up to 15360 fire alarms but only 512 fire alarms can be presented in the CIE display. If more than 512 fire alarms are activated, no additional fire alarms can be displayed until one or more of the first 512 fire alarms are reset.

It is possible to have **Selective alarm presentation**, i.e. only fire alarms from selected Control Units will be presented in the Control Unit, set in EBLWin for each Control Unit.

See also chapter "The information area priority order", page 30. The following occurs in case of a fire alarm:

- The buzzer in the CIE sounds 0.4 sec. each 0.4<sup>th</sup> 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.<sup>40</sup>
- Programmable outputs for fire alarm are activated.<sup>41</sup>
- In the CIE display, a presentation number (zone/address) is shown (for the first fire alarm).
- In the CIE display, a user definable text message (alarm text) is shown (if programmed).
- In the CIE display, some additional information is also presented.

**One alarm point** activating fire alarm.

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

<sup>40</sup> In case of **Selective alarm presentation** only for the selected alarms.

<sup>41</sup> Outputs programmed for General fire alarm and outputs programmed for the activated fire alarm(s).

First alarm: 002-03		Alarm number 1 (of 1)	
Zone	Address		
002-03		SMOKE	
User definable alarm text for 002-03.			
		1 zone in alarm	
Menu			

The presentation number is automatically followed by: SMOKE, HEAT, MULTI or MCP depending on type of alarm point.

**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" next to 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, an individual alarm text or the default Control Unit alarm text (if programmed) can be shown. Each zone has its own individual alarm text (if programmed). Up to 38 alphanumeric characters can be used.

**Additional information**

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

**LEDs "SEVERAL ALARMS"** (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 "SEVERAL ALARMS" (P9).

**Next zone.** Use the soft key "Next zone" (P6) 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 "SEVERAL ALARMS" or "Next zone" buttons were used.

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

```

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

```

To **reset** fire alarms, see chapter "Alarm reset", page 57.

### 15.2.1 Entering the Menus during Fire Alarm

By pressing the soft key "Menu" (P5) during fire alarm, you will get access to the menu system (see Access, page 88).

**Note:** Access code is required, in this case, 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 status
H5 Service
H6 FAULT Acknowledge
H7 Perform ZONE TEST ("Test mode")
H8 Maintenance
H9 Interlocking outputs and inputs
H10 Change password
Escape
menu

```

The normal alarm window will be automatically displayed again after the menu system is left as 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" (P5) or "ESC" is pressed or push button "SEVERAL ALARMS" (P9).

### 15.2.2 Test Mode Alarm

Regarding Test mode, see chapter "Perform Monthly Test (H1)", page 88 and chapter "Perform Zone Test (Test mode) (H7)", page 125.

When an alarm point in a zone set in test mode is tested, it is presented in the display as a fire alarm but with the information "Test mode" added. If a printer is available the test mode alarm will be printed with the information "(test mode)" added.

The LEDs "Fire" will be blinking (same as fire alarm) but no outputs will be activated except the fire door outputs. The test mode alarm will be automatically reset after approx. 10 seconds.

### 15.3 Heavy Smoke Alarm / Heavy Heat Alarm

An analogue detector (sensor) can activate a heavy smoke / heat alarm for a higher alarm level<sup>42</sup> than the normal fire alarm level, i.e. a normal fire alarm is already activated by a detector activating a heavy smoke / heat alarm.

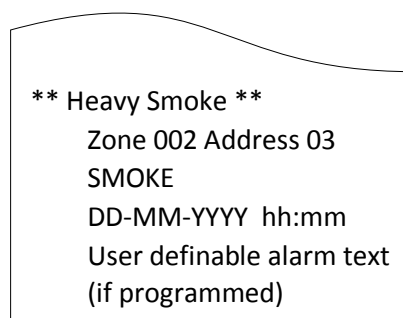
Heavy smoke / heat alarm is a confirmation that the smoke or heat is increasing and can be used for special actions, e.g. activation of smoke ventilation, etc.

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

- Outputs programmed for heavy smoke / heat alarm are activated.<sup>43</sup>
- 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:



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



Heavy smoke / heat alarm will be reset when the fire alarm is reset, see chapter "Alarm reset", page 57.

<sup>42</sup> See FT1020G3 Technical Manual.

<sup>43</sup> For both general heavy smoke / heat alarm and individual alarm points / zones.

## 15.4 Alert Annunciation Alarm (AA alarm)

When the **AA** function is enabled, indicated by the LED "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 CIE 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" 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 FT1020G3 Technical Manual for more information regarding the **AA** function. Acknowledgement and reset of the **AA** alarm can be performed on an **AA** unit 1736. See also chapter "Alert Annunciation", page 58.

First alarm: 010-01
Alarm number 1 (of 1)

### Alert annunciation

Zone
Address

010-01

SMOKE

User definable alarm text for 010-01.

Menu
Ackn. alert  
annunciation

**Note:** The "Ackn. alert annunciation" text is only visible if an AA alarm is activated.

## 15.5 Co-Incidence Alarm (2-Address / -Zone Dependence)

The co-incidence alarm is programmed via EBLWin for the alarm points/zones in question.

Example; Co-incidence alarm zone 123, address 45 (within zone 123):

### Co-incidence alarm

Zone
Address

123-45

SMOKE

User definable alarm text for 123-45.

Menu

When only one **zone** or one **zone / address** (alarm point) is in alarm status, the CIE buzzer sounds (0.8 / 5 sec.) and there is a **Co-incidence alarm** presentation 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 57.

If more than one Co-incidence alarm **not** dependent on each other are activated, the LEDs "SEVERAL ALARMS" (L6) are blinking and the Co-incidence alarms will be automatically scrolled (each 5<sup>th</sup> 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.

## 15.6 Delayed Alarm

Delayed alarm is an option that can be enabled via EBLWin for a specific alarm point. Two applications for delayed alarm are shown below.

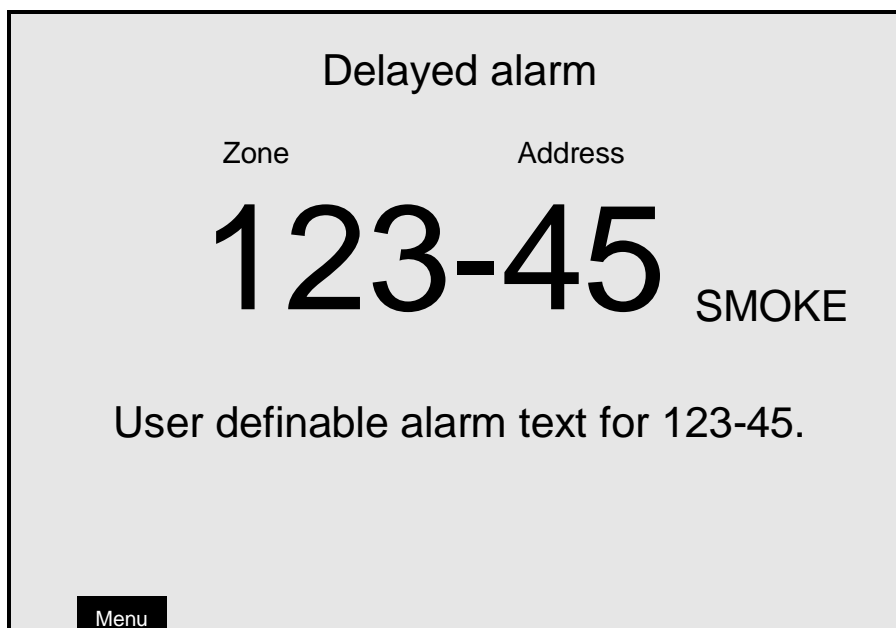
### 15.6.1 General Time Delay Applications

In some premises delayed fire alarm activation from analogue smoke detectors can be used to avoid nuisance alarms. The delay time will be added at the end<sup>44</sup> when a fire alarm normally would have been activated in the CIE.

Each analogue detector in the system can be programmed (in EBLWin) to delayed fire alarm activation, "Delayed alarm" check box in the detector properties must be ticked. (Heat detectors and manual call points must not have delayed fire alarm activation). The delay time interval can be set (in EBLWin, System Properties) to 0-255 seconds. In this application, the time delay must be as short as possible (less than 30 seconds). In fact, if the C.I.E. is connected to the brigade, it is not recommended to use this function.

The Delayed alarm will be activated when the delay time countdown has started and a normal fire alarm will not be activated until the delay time has run out. No outputs will be activated.

Example; Delayed alarm zone 123, address 45 (within zone 123):



<sup>44</sup> This function is added in EBLWin software version V2.1.2

### **Function**

An alarm point has to be in "fire alarm state" for the duration of the delay time, in order to activate a fire alarm in the CIE. If an alarm point restores back to "normal state" during the delay time, the delay time will reset and start again when the alarm point activates a "fire alarm" again.

In case of a Delayed alarm, the following occurs:

- The buzzer in the CIE sounds 0.8 sec. each 5<sup>th</sup> sec. (0.8 / 5 sec.).
- In the CIE display, a presentation number (zone/address) is shown (for the first delayed alarm). Also a user definable text message (= the alarm text for fire alarm) is shown (if programmed).

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

**Note:** The text "Menu" for the soft key "P5" is visible in the display, only if the door in the CU is open.

If more than one Delayed alarm is activated, the LEDs "SEVERAL ALARMS" (L6) are blinking and the Delayed alarms will be automatically scrolled (each 5<sup>th</sup> second). Delayed alarms are automatically reset see chapter "Alarm Reset", page 57.

**Note:** The delayed alarm function for a conventional Zone Line Input e.g. 3361 Input 0 (Z), zone expansion board 4580 inputs is different. The "Delayed alarm" check box in the Zone Line Input properties is called "AVF", the general delayed alarm function will not be used and is replaced by the alarm verification function.

## **15.6.2 Time delay in Residential Applications**

In this specific application, the alarm activation type for an output unit (3379) must be set (in EBLWin) to "DelayedAlarmZoneAddress" (or zone). In this case, when the alarm point (only analogue smoke or multi detectors) activates an alarm, the output unit 3379 will sound during the time delay period without signalling alarm to the CIE. If the alarm point remains in alarm after the time delay elapsed, the CIE will generate a general fire alarm. The delay for this application can be selected in EBLWin system properties for up to 255 seconds.

### **Application Example:**

A typical application for the delayed alarm function would be a residential accommodation where false alarms may cause a brigade call. A sounder base(s) 3379 mounted inside the apartment will activate upon receiving a delayed alarm from a smoke detector for the delay period configured in the system properties (0-255 sec). If the smoke has not been cleared from the smoke detector during the time delay, the control panel will generate a general fire alarm. If the smoke clears up within the delay time, the alarm will automatically reset, 3379 will be silenced and the system restores to the normal condition.

Several control expressions are available to cover any possible configuration:

- DelayedAlarmZoneAddress (Zone, Address), true when a certain zone / address is in delayed alarm state.
- DelayedAlarmZone (Zone), true when a certain zone or any detector in a certain zone is in delayed alarm state.
- GeneralDelayedAlarm, true when any zone or zone/address is in delayed alarm state.

## 15.7 Alarm Acknowledgement Facility (AAF)

One or more Alarm Acknowledgement Facility Controls (AAM) can be used in the system.

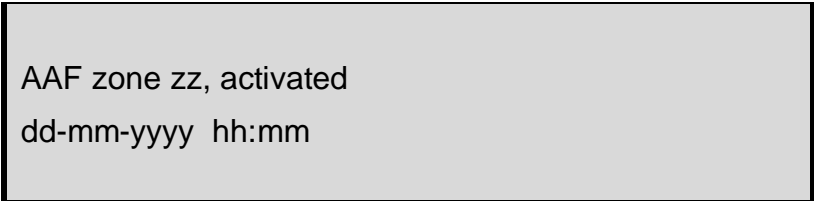
The AAF is a function requires wall mounted Alarm Acknowledgement Module 3340<sup>45</sup> (AAM) used in residential applications to provide the occupant with a local control facility to avoid nuisance alarms within the occupancy e.g. cooking fumes, smoking, aerosol spray, steams, etc. from generating general fire alarm within the building. It provides the occupant inside the sole occupancy unit with a pre-determined time to acknowledge a nuisance alarm and time to clear the smoke of the smoke chamber.

A complete AAF requires an AAM 3340, one or more sounder base 3379 and up to 5 smoke detectors (sensors).

Each AAF unit is configured as an AAF zone which may include up to 5 smoke detectors (sensors).

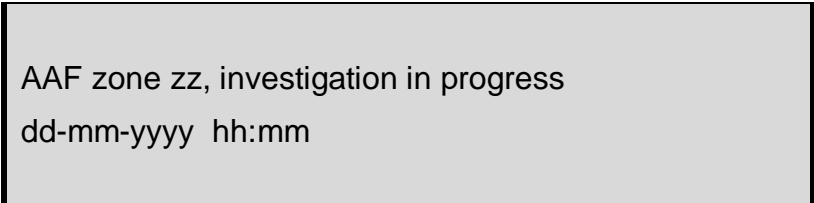
See FT1020G3 Technical Manual chapter "Alarm Acknowledgement Facility (AAF)" for more information.

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



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

During the Investigation Period (0 - 9 min.), the following information (a list if many) is shown in the CIE display:



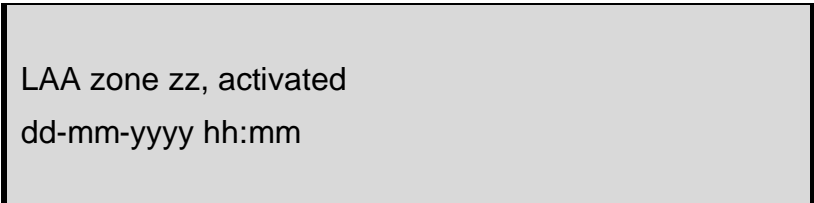
AAF zone zz, investigation in progress  
dd-mm-yyyy hh:mm

## 15.8 Local Alarm Acknowledgement (LAA)

One or more Local Alarm Acknowledgement Units are used in the system.

See FT1020G3 Technical Manual Instructions more information regarding the LAA function.

During the Acknowledgement Period (10-120 sec.), the following information (a list if any) is shown in the CIE display:



LAA zone zz, activated  
dd-mm-yyyy hh:mm

During the Investigation Period (1-9 mins.), the following information (a list if any) is shown in the CIE display:

---

<sup>45</sup> 3340 is Brooks stock number for the Alarm Acknowledgement Module (AAM), in EBLWin it is programmed as "AAFC Alarm acknowledgement facility control". The European version is the "Local Alarm Acknowledgement Unit (LAAU) 4445"

---



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

**Note:** The Local Alarm Acknowledgement unit is the Panasonic's version of the Australian Alarm acknowledgement module. In V2.2.0, the Australian AAFC function has been moved to the obsoleted units and replaced by the LAA. The function of AAFC and LAA are identical, only the wall control unit is different.

## 15.9 Quiet Alarm

One or more smoke detectors, via EBLWin programmed for Quiet alarm, have passed the fire alarm level.

A smoke detector can be programmed via EBLWin to quiet alarm i.e. non-latching or self-resetting alarm. This feature is used in AS1668 supply air / stair pressurization fan control applications or in residential units as a non-latching smoke alarm.

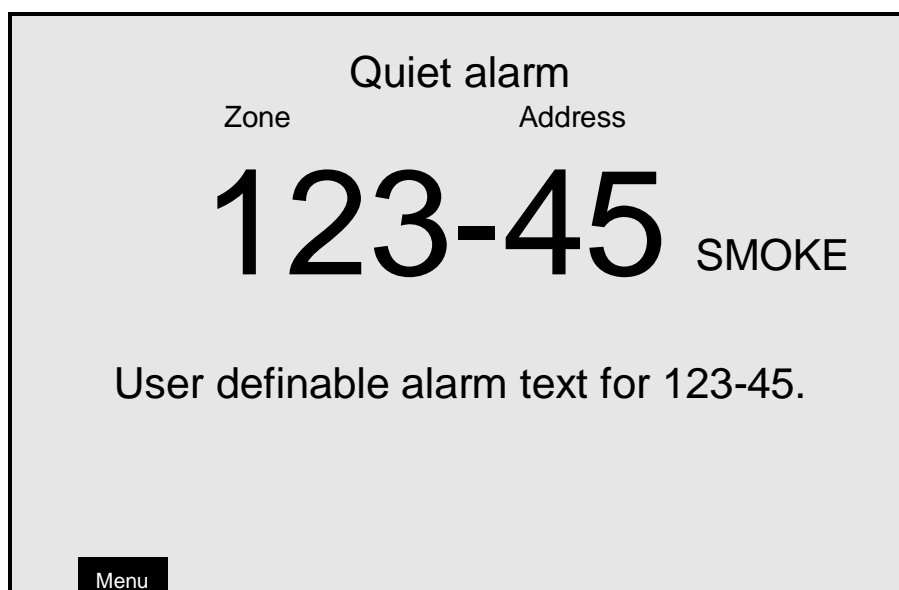
In AS1668 supply air fan applications, the type "Quiet alarm" is used to set the duct detector to be non-latching and resets automatically after the post timing<sup>46</sup> is completed which is configured in EBLWin.

In AS1668 fire fan control applications, the "Quiet alarm" is normally used in conjunction with one I/O Matrix board 4582, one application board SUB902 (fan control & display board)<sup>47</sup> and one I/O unit 3361 (for fan control) to control each fan.

In residential applications, type "Quiet alarm" is used in conjunction with the sounder base 3379 and AAM 3340 as a local warning inside the sole occupancy unit.

Quiet alarm Indications and actions:

- Detector LEDs are turned on (also a connected RIL).
- LEDs "Fire" (L1) are blinking (0.4 / 0.4 sec.).
- The buzzer sounds (0.8 / 5 sec.),
- A Quiet alarm presentation (incl. a title "Quiet alarm") in the display.



<sup>46</sup> When the smoke clears up from the smoke chamber, the detector resets after predetermined time (normally 60 sec.)

<sup>47</sup> The SUB902 can be used for control of up to four fans.

Programmable outputs for quiet alarm is required e.g. 3361 outputs controlling fan operation 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, non-brigade call alarm and do not activate any common alarm output, see "Quiet Alarm Reset" page 59.

## 15.10 Acknowledged and Isolated Alarm

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

### 15.10.1 Acknowledged alarm

A fire alarm presented in the display can be acknowledged by pressing the soft key "Acknowledge" (P8).

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 same as normal fire alarms.

### 15.10.2 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 non-activated), any fire alarm and acknowledged alarm will be isolated (=disabled).

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

Isolated alarms do not activate any control outputs, do not activate the output for routing equipment (Fire brigade TX), do not activate the CIE buzzer and do not activate the LEDs "Fire" (L1) in the CIE.

Isolated alarms have to be reset same as normal fire alarms.

Isolated alarms also have to be re-enabled via menu H2/B1 before they can activate a new fire alarm again.

## 16 Alarm Reset

**Note:** The alarm "RESET" button will not function unless the programmed alarm devices have been silenced i.e. "SILENCE ALARM" button is activated.

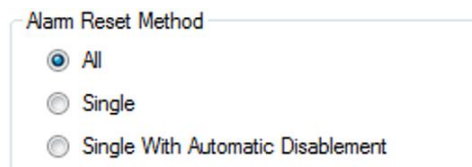
### 16.1 Pre-warning Reset

Pre-warnings are non-latching i.e. they will be automatically reset when the alarm point / zone is no longer above 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 should, after reset, be inspected, tested and replaced when required.

One of the following alarm reset options can be selected via EBLWin. "All" is the default setting.



**Note:** When "Single" or "Single with automatic disablement" is used, all alarms can be reset by pressing "RESET" (P3) and approx. 0.1 sec. later also press "Enter" and hold them pressed for > 0.5 sec. **This function must not be used in the Australian or NZ conventions.**

#### 16.2.1 All (Default)

All activated fire alarms (alarm points / zones) will be reset by pressing "RESET" (P3) once but must be preceded by "SILENCE ALARM" button (P2) activation (this is in accordance with AS4428.3:2010).

The push button has to be pressed for minimum 0.5 sec.

**When all fire alarms are reset,** LEDs "FIRE" (L1) and "SEVERAL ALARMS" (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 30.

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

#### 16.2.2 Single

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

Press "RESET" (P3) to reset the fire alarm currently shown in the middle of the display with large digits.

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 "SEVERAL ALARMS" (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 "SEVERAL ALARMS" (L6) are turned off. If there is other conditions e.g. fault condition, the corresponding information will be shown (fault message), for priority order see chapter 5.3, page 30.

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

### 16.2.3 Single Reset with Automatic Disablement

Similar to "Single reset" but includes the encapsulation function:

Normally when an alarm point or zone having activated fire alarm is reset whilst it is still in alarm status, it will activate a new fire alarm within 20 seconds (In accordance with the AS7240.2 standard).

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

It has to be re-enabled via menu H2/B1 before it can activate a new fire alarm. (This function, set via EBLWin, is a violation to the AS7240 standard.)

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

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 "SEVERAL ALARMS" (P9) 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 fonts will be reset and disabled.

### 16.3 Test Mode Alarm Reset

Test mode alarm is automatically reset after approx. 10 seconds.

### 16.4 Acknowledged and Isolated Alarm (for only NZ) Reset

Acknowledged alarms "ACK" or isolated alarm "ISO" have to be reset same as normal fire alarms "ALM".

### 16.5 Heavy Smoke / Heat Alarm Reset

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

### 16.6 Alert Annunciation Alarm Reset

Regarding the function, see chapter "Alert Annunciation alarm (AA alarm)", page 51 and FT1020G3 Technical / Programming Manual, chapter "Alert annunciation". Reset of the **AA** alarm(s) can be performed via push button "Reset" on an **AA** unit 1736 (or in the CIE).

**Note:** Reset via an AA unit (1736) is only possible during the investigation time and only if the alarm is an **AA** alarm (not normal fire alarms). If more than one **AA** alarm is activated, they will be reset all at the same time.

### 16.7 Co-incidence Alarm

A Co-incidence alarm can be manually reset with the "RESET" button (P3) on the CIE 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 51.

### 16.8 Delayed Alarm

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

### 16.9 Alarm Acknowledgement Facility (AAF) reset

In software V2.2.0, the same function is called Local Alarm Acknowledgement (LAA).

**Note:** The AAF function is used in conjunction with an Alarm Acknowledgement module AAM (3340).

---

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

## **16.10 Local Alarm Acknowledgement (LAA) Reset**

The indication in the Control Unit display, during the Acknowledgement Period (10-120 sec.) and the Investigation Period (1-9 min.) respectively, will automatically clear when:

- The **AA process** ends because no detector in the **LAA zone** is over the fire alarm level.
- The **AA process** ends up in a fire alarm, which has higher priority.

## **16.11 Quiet Alarm Reset**

Quiet alarms are non-latching, i.e. they will be automatically reset when the alarm point / zone is no longer in the alarm state. 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 to avoid generating unnecessarily faults e.g. the delay time for COM loop and zone line input faults is approx. 45 seconds<sup>48</sup>.

In case of a fault condition, the following will occur in the CIE:

- The buzzer in FT1020G3 sounds continuously (steady)<sup>49</sup>.
- The fault relay output for routing equipment (Fault TX) is de-activated (fault relay is normally activated).
- Programmable output(s) for general fault is activated and output(s) for general charger fault may be activated.
- LED Routing equipment "Fault TX activated" (L13) is illuminating.
- LED Fault / Disablements "General fault" (L9) is illuminating.
- LEDs Fault / Disablements "Alarm devices" (L11), "System fault" (L7) and/or Fault / Disablements "Fire brigade TX" (L12) may also illuminate.
- A fault message including date, time and status is shown in the CIE display. If the fault is generated by an alarm point or zone, the user definable alarm text will be shown.

Example; fault message:

FAULT: No reply zone: xxx address: xx  
 technical number xxxxxx  
 User definable alarm text  
 dd-mm-yyyy hh:mm /Serviced

Number of not ackn. faults in system: 1

**Menu**

- In the CIE display up to three fault messages can be shown simultaneously. In the display, down to the left, the number of not acknowledged faults is displayed.
- 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 "Enter the menu during fire alarm" page 49.

**Note:** Also during fire alarm, two faults have their own separate information texts shown close to the soft key area: Extinguishing fault i.e. a fault output connected to a programmable supervised input type "Extinguishing" in the extinguishing system. The second fault "Extinguishing wire fault" i.e. a fault in a supervised output programmed as type "Extinguishing".

<sup>48</sup> 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.

<sup>49</sup> The buzzer in the Control Unit can be suppressed for faults generated in other Control Units. "Suppressed buzzer during fault" is set via EBLWin.

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Faults are normally latched<sup>50</sup> and have to be acknowledged, this is done via menu H6 (see page 49). 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 CIE door is being closed.

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<sup>50</sup> Can via EBLWin be set to be "not latched", in NZ convention is set to non-latching.

## 17.1 Fault Messages

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

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: 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: **T4A** L 250V (TR5).

FAULT: 24V for routing equipment,  
Control Unit xx  
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  
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: Battery not connected,  
Control Unit xx

- 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 14<sup>th</sup> minute but when the fault is generated the check is done every 30<sup>th</sup> 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 functioning.

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

FAULT: Charger, Control Unit xx  
The battery charging function is not OK. The main board 5010 may have 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 fault is to be found in the external power supply unit 3366. Charging is stopped due to too high output current.

**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**

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 or network 1

Network 0: In a **redundant network**, the communication is normally on Network 0 only.

Network 1: In a **redundant network**, Network 1 is normally in a supervised quiescent state until there is a fault (cut-off or short circuit) on Network 0.

- Check the TLON network cables / connections. (Also for mixed Network 0 and Network 1 cables.)
- Faulty TLON connection board 1590 / 5090.
- The Control Unit has no power.
- Can be shown in conjunction with new S/W download.

**FAULT: Cut-off loop x, Control Unit xx  
SCI nn <-> SCI nn**

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.

SCI n <-> SCI n describes between which Short Circuit Isolators the cut-off is located.

n = A, B, 0, 1, 2, 3, 4, 5, 6 .....63. A & B is the built-in isolator in the FT512 G3 A-direction and B-direction respectively.

If no SCI is used, the information will always be: SCI A <-> SCI B.

If only one SCI is used (e.g. 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 FT1020G3 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: 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<sub>DC</sub>.  
+24V to earth is normally 12.5 V. 0V to earth is normally 11.5V.  
Voltage to earth < 3.4V = Earth fault (minus).  
Voltage to earth > 18.3V = 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 & 4583, 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 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 CU 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: Extinguishing system,  
Control Unit xx

The fault is to be found in the extinguishing system (FIRE PROTECTION ACTIVATED), which has a fault output connected to a programmable supervised input in the FT1020G3 system, in Control Unit no. xx. Also check the input connections.  
**Note:** Close to the soft key area in the display there will be an additional information text: "Extinguishing fault".

**FAULT: Factory settings,  
Control Unit xx**

The factory 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, technical number xxxxxx**

The LED "Fault" is lit on a fan control module connected to Control Unit xx. Fan no. xx has been triggered but the corresponding I/O unit 3361 input has not been activated within the programmed time.

Check the pressure switch in MSSB 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: Fault warning routing equipment,  
Control Unit xx**

The fault is to be found in the Fault warning routing equipment. A routing equipment fault output is connected to a programmable supervised input in the FT1020G3 system, in Control Unit no. xx. Check the input connections as well. (Normally used for German routing equipment connected to an Expansion Board 4583 input 0.)

**FAULT: FB Silence switch,  
Control Unit xx**

Only valid in the New Zealand convention.

New Zealand FB Silence Alarms Bulgin key (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=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: Fuse on COM-loop x, Control Unit xx**

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 **T1.6A L 250V** (TR5). **Note:** The fuse should **not** be replaced. The main board 5010 shall be replaced, since more components are damaged as well.

**FAULT: High current, COM loop X, Control Unit xx**

When starting up the Control Unit or when the COM-loop is re-connected the loop current in normal condition is measured and stored.

If the stored value is below 100 mA this fault will later be generated for a measured value higher than the stored value plus 20mA.

(an example: 75mA (stored) + 20mA = 95mA = fault limit)

If the store value is over 100 mA, this fault will later be generated for a measured current higher than the stored value plus 20%.

(an example: 150mA (stored) + 20% = 180mA = fault limit).

Note! This fault is not checked in alarm condition.

The reason could be not full short circuit on the COM loop but very close to short circuit, e.g. due to moisture / corrosion / bad contact. Check connections etc.

**FAULT: High current consumption, Control Unit xx**

The Control Unit current consumption is  $> 3.3\text{A}$  ( $> 6.3\text{A}$  in alarm state) and because of this, the battery charging is turned off and will be so until the current consumption has decreased to  $\leq 3.3\text{A}$  ( $\leq 6.3\text{A}$ ) again.

**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 (FT1020G3).

**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 xxxxxx**

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

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

The unit (not a detector) is not working properly, i.e. the unit may be faulty. The unit has to be replaced.

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

The unit (not a detector) is not working properly, i.e. the unit may be faulty. The unit has to be replaced.

**FAULT: Low battery capacity,  
Control Unit xx**

Battery (in Control Unit no. xx) internal resistance  $> 1\ \Omega$ .

The "Low capacity voltage diff." value shown in menu H5/A4 is  $> 700\text{mV}$ .

- The battery may be too old.
- Cables, fuses etc. for externally placed batteries may cause a voltage drop.
- Battery cables are long and the conductor is less than 2.5mm
- Check / adjust the power supply voltage (24 V<sub>DC</sub>).

- 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 for 60 minutes every 24 hours to perform auto battery test. A battery voltage  $< 24.4$  V during these 60 minutes will generate a fault.  
If a fault is generated it will be automatically **Serviced** after these 60 minutes.

The battery should normally be replaced.

**Note:** The battery check is performed every 4<sup>th</sup> hour, i.e. it can take up to 4 hours until the fault status is "corrected".

**FAULT: Low voltage, Control Unit xx**

System voltage  $< 21.6$  V<sub>DC</sub>, in Control Unit no. xx. Check the power supply output voltage, it should be 24 V<sub>DC</sub>. Replace power supply if required.

**Note:** A Control Unit powered by only batteries back-up will shut down at a battery voltage of 18 V, in order to avoid damaging the batteries.

**FAULT: Low voltage, output unit xxxxxx**

System voltage  $< 21$  V<sub>DC</sub> in the external power supply unit 3366. Check the power supply output voltage, which shall be 24 V<sub>DC</sub>. Replace power supply if required.

**FAULT: Mains, Control Unit xx**

The fault is activated within 1-300 minutes<sup>51</sup> after:

- Loss of mains, i.e. no 230 V<sub>AC</sub>
- Blown mains fuse.
- Blown fuse F1 on main board 5010. Fuse **T6.3A** H 250V (5x20 mm ceramic).

**FAULT: Mains, external power supply, Control Unit xx**

This is valid for external power supply equipment, which has a fault output connected to a programmable **input** in the FT1020G3 system. The fault is activated 1-300 minutes<sup>51</sup> after the **input** is activated.

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

**FAULT: Mains, output unit xxxxxx**

This is valid for the external power supply unit 3366AU and the addressable 2 voltage outputs unit 3364, connected on the COM loop.

The fault is activated within 1-300 minutes<sup>51</sup> after:

- Loss of mains, i.e. no 230 V<sub>AC</sub> to the **3366** unit.
- Blown mains fuse.
- Fuse F1 blown on the 3366 unit's charger board 3367. Fuse **T5A** L (5x20 mm).

<sup>51</sup> The time is programmable via EBLWin. Default value is 30 minutes.

- 3364 unit:
  - ☞ Terminal no. 8 (/Mains OK) not connected to the 3366 unit (J7:4) or 0 V.
  - ☞ "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: Network cables mixed Control Unit xx**  
In a redundant TLON Network, Network 0 cables and Network 1 cables are mixed. Check the network installation / connections.

**FAULT: No connection with MMI board, Control Unit xx**  
This fault message cannot be shown in the Control Unit's display, only via EBLWin, 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, the 8 relays exp. board 4581 and the Inputs and outputs exp. board 4583, mounted in the Control Unit no. xx.

- FT1020G3 cannot communicate with the board. Check / change the address. Check the cables / connections.
- Check if the Main board fuse F13 is blown. 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, alert annunciation unit xx, Control Unit xx**  
**FAULT: No reply, external presentation unit xx, Control Unit xx**  
Alert Annunciation Unit 1736.  
External Presentation Unit 1728

- The contact with the unit is interrupted. Check the cable, all connections, etc. Is correct / complete SSD downloaded (via EBLWin)? Check the address and SW mode settings.
- Check if the Main board fuse F19 is blown. 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 not work.

**FAULT: No reply Loop unit xxxxxx**

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

- Check the unit's COM loop address (with the programming tool 3314 / 4414). Printer not correctly connected.
- Check the downloaded Site Specific Data (SSD).
- The unit might be faulty.
- The unit might be removed from the COM loop.
- There might be a double break or short-circuit on the COM loop.

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

The unit cannot be found by the Control Unit.

- Check the unit's COM loop address (with the programming tool 3314 / 4414).
- Check the downloaded Site Specific Data (SSD).
- The unit might be faulty.
- The detector may be removed from its base.
- There may be a double break or short circuit on the COM loop.

**FAULT: Printer, Control Unit xx**

This is valid for an FT1020G3, with printer. Control unit no. xx.

- Faulty printer
- Printer not correctly connected.
- No paper.
- Printer selected in EBLWin but no printer mounted in the CIE and vice versa.

**FAULT: Read / write site data (SSW),  
Control Unit xx**

SSW = the data that is changed during operation, i.e. week average sensor values, access codes, calibration values and event logs, in Control Unit no. xx.

- If the C.U. was powered down (i.e. mains and battery disconnected) without first doing a Safe shut down of Control Unit via menu H8/S6 (see page 134), this fault may 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 yyyyyyyyyy**

A restart has occurred in Control Unit no. nn.

SSD and S/W download will automatically be followed by a restart. Also, you can manually do a restart, see chapter "Restart", page 85. Regarding the restart codes **00, 03, 13, 25, 50 & 53**, see chapter "Restart" page 85.

The following restart codes are due to some external disturbance and are not normal, i.e. call for service personnel / engineer:

xx=01: Watchdog Reset.



xx=02: Accidental jump to reset vector.  
xx=04-19: Unexpected interrupt.  
xx=20: S/W monitoring fault  
xx=13 will always be followed by an address (yyy....), which is important to write down.  
yy...y = memory address (before restart). Write down the address and inform the service personnel/engineer.

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

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

**FAULT: Short circuit loop x, Control Unit xx, SCInn<->SCInn**

SCI nn <-> SCI nn describes between which **Short Circuit Isolators** 4313 the short-circuit is located.

nn = A, B, 00, 01, 02, 03, 04, 05, 06, 07 - - 63. A & B is the built-in isolator in the FT1020G3. 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 <-> SCI 00 or

SCI 00 <-> SCI B

...and so on.

There will also be a "FAULT: No reply ....." message for each unit not found by the CIE.

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 isolators). 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<sup>52</sup>.

**FAULT: Site specific data (SSD),**  
Control 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 EBLWin) is required.

**FAULT: Site specific data, alert annunciation unit xx, Control Unit xx**

**FAULT: Site specific data, external presentation unit xx, Control Unit xx**

Alert Annunciation Unit 1736 .

Ext. Presentation Unit 1728.

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

**FAULT: Supervised input x Expansion Board x,**  
Control Unit xx

A fault on the supervised input x on the Expansion Board 4583 with address x, in Control Unit no. xx.

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

<sup>52</sup> **Note:** The fault has to be acknowledged i.e. it can remain up to 10 minutes after the acknowledgement before the communication returns to communicate in the A-direction only.



**FAULT: Supervised output x,  
Control Unit xx**

If the output is programmed for **sounders or OWS** (type "Alarm devices"), it is also indicated by LED **Fault / Disablements** "Alarm devices" (L11) blinking.

If the output is programmed for **Fire Brigade TX** (type "Routing equipment"), it is also indicated by LED **Fault / Disablements** "Fire brigade TX" (L12) blinking.

If the output is programmed for an **extinguishing system** (type "Extinguishing"), there will be an additional information text close to the soft key area in the display: *Extinguishing wire fault*.

**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 **T500mA** L 250V (TR5).
- Calibration not performed via menu H5/A1.
- Connected equipment might be "missing".
- End of line resistor(s) missing or not correct value (1-5 resistors 33K)

**Note:** *The calibrated value has to be in the range 1K-50K.*

**FAULT: Supervised output x Expansion Board x,  
Control Unit xx**

A fault on the supervised output x on the Expansion Board 4583 with address x, in Control Unit no. xx.

If the output is programmed for sounders (type Alarm devices), it is also indicated by LED **Fault / Disablements** "Alarm devices" (L11) blinking.

If the output is programmed for Fire Brigade TX (type Routing equipment), it is also indicated by LED **Fault / Disablements** "Fire brigade TX" (L12) blinking.

- Calibration not performed via menu H5/A1.
- Short-circuit / break on the connected cable / equipment.
- Blown fuse F1 (Output 0) or F2 (Output 1) on the 4583 board. Fuse **T200mA** L 250V (TR5).
- Connected equipment may be "missing".
- End-of-line resistor(s) missing or not correct value, 1-5 resistors (33K).

**Note:** *The calibrated value has to be in the range 1K-50K.*

**FAULT: Supervised output x,  
technical number xxxxxx**

This fault message is valid for a COM loop output unit 3364 output.

If the output is programmed for sounders or OWS (type Alarm devices), it is also indicated by LED **Fault / Disablements** "Alarm devices" (L11) blinking.

If the output is programmed for Fire Brigade TX (type Routing

equipment), it is also indicated by LED **Fault / Disablements** "Fire Brigade TX" (L12) blinking.

- Calibration not performed via menu H5/A1.
- Short-circuit / break on the connected cable / equipment.
- Connected equipment might be "missing".
- 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 (Network 0), Control Unit xx**

**FAULT: TLON-board (Network 1), Control Unit xx**

TLON connection board 5090.

No communication / connection with the TLON network. The board for Network 0 or 1 in Control Unit no. xx has to be replaced.

**FAULT: Wrong information, Control Unit xx**

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 may have data stored that is not the same in all Control Units. If a Control Unit restarts in conjunction with this fault, a synchronisation will start automatically, otherwise a synchronisation has to be started via menu H8/S8 (or via EBLWin).

**Note:** *It is important that all Control Units that are supposed to exist (SSD downloaded via EBLWin) are running and are connected to the TLON network. The TLON network programming has to be done. It will take 90-120 seconds until this fault is corrected.*

**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 it is programmed via EBLWin.

**FAULT: Wrong type, Expansion Board x, Control Unit xx**

Valid for the 8 zones exp. board 4580, the 8 relay outputs exp. board 4581 and the Inputs and outputs exp. board 4583, mounted in Control Unit no. xx.

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

**FAULT: Wrong type of unit xxxxxx**

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

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

technical number xxxxxx

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

**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 "MMI board" is selected in the SSD (EBLWin 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.
- In conjunction with SSD download: Erase the SSD in the Control Unit and download the SSD again.

(External fault; User programmable text)

Programmable input is connected to any external equipment's fault output. User definable fault message ( $\leq 40$  characters) has to be programmed via EBLWin. Note, The prefix "**FAULT:**" will **not** be automatically added.

## 17.2 Fault Acknowledge

When a fault is generated in FT1020G3, the following may occur:

- The LEDs **Routing equipment** "Fault TX activated" (L13) and **Fault / Disablements** "General fault" (L9) are turned on<sup>53</sup>.
- LEDs **Fault / Disablements** "Alarm devices" (L11), "System fault" (L7) and/or **Fault / Disablements** "Fire brigade TX" (L12) may be turned on as well.
- Output for routing equipment (Fault TX) is activated.
- Output for general fault is activated.
- Output for general charger fault may be activated.
- One or more fault messages including date and time are shown in the Control Unit display.

If **Fault latching** is selected in EBLWin (default), once the fault is corrected, the "Serviced" message will be shown after the time i.e. the fault is already serviced / corrected.

Any already Acknowledged fault in the list is indicated by "Acknowledged".

<sup>53</sup> Indicating that the output for routing equipment (Fault tx) is activated.

Example: Fault messages shown in the Control Unit display:

```
FAULT: No reply zone: 123 address: 01
technical number 000025
30-07-2015 15:22 /Serviced

FAULT: No reply zone: 123 address: 03
technical number 000027
"Ground Floor East Wing"
30-07-2015 09:25

FAULT: No reply zone: 234 address: 01
technical number 002112
"First Floor corridor"
30-07-2015 15:25 /Acknowledged

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

To acknowledge the faults shown:

- Login, according to chapter "Access", page 88.
- Use **menu H6** (access level 2A) for fault acknowledge, see chapter "FAULT Acknowledge (H6)", page 125. 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, still has to be acknowledged to remove it on the display.
- When a fault is corrected / serviced and acknowledged, it will disappear from the list (H6).
- When **all** faults have been acknowledged, the output for routing equipment (Fault TX) will not reset and the LED for **Routing equipment** "Fault TX activated" (L13) remains activated until there are no faults in the system<sup>54</sup>.
- As long as there are faults still not corrected in the system (Acknowledged faults corrected or not corrected), the LED **Fault / Disables** "General fault" (L9) will be lit and general fault (and maybe general charger fault) output(s) are activated. The fault relay also stays energised.
- Faults, corrected faults and acknowledged faults are shown in the General event log (menu H4/U6).

---

<sup>54</sup> The fault outputs will not reset in the Australian and New Zealand conventions even if all faults have been acknowledged.

## 18 Commissioning an FT1020G3

### 18.1 General

No connection, other than the mains power supply should be made, prior to checking the operation of the CIE.

Mains power should be turned on and charger voltage levels checked / set. If these levels are correct, batteries can then be connected.

Basic operation of the CIE should be confirmed, ensure no earth fault shown on the LCD.



**Note:** To avoid generating earth fault when connecting a PC to FT1020G3, it is strongly recommended that Brooks USB isolator **BA-PCISO** be used. If no isolator is used and if there are several earth faults in the system when a PC is connected, damages may result on both PCBs and the PC.

The only “fault” seen by the system, which cannot be fixed at this point of time, should be “Cut-off COM-loop x, CU xx”. This is due to some loop units e.g. panel MCP, I/O matrix boards, etc. in the C.I.E. being wired to the COM loop as Class B wiring (no loop return wiring used). In NZ control panels, the MCP mounted on the outer door may be replaced by the fire brigade Bulgin keys if required.

**Before connecting any field wiring, the battery supply and mains power must be turned off.**

Cable resistance readings and field connections must then be checked to ensure they are correct prior to their connection to the CIE.

**Tip!** Measure the resistance of each loop wire (L & C respectively) before turning on the power. Check that the L-wire (SA) that goes out on terminal J5:1 comes back at terminal J5:3 and so on. If the loop has short circuit isolators, only the C-wire (SB) can be measured. Also measure the resistance between the loop wires and 24V, 0V and Earth (J2:1, 2 and 3). The resistance should be very high (mega ohm).

### 18.2 Single Control Unit

Once the cabinet is mounted and secured in place, the following power up procedures must be followed:

1. Connect the incoming mains power feed to the GPO, ensure the mains isolator switch is “OFF”.
2. Turn “ON” the incoming mains power from the circuit breaker in the switch board.

**Note:** It should be connected to a household removable fuse for the fire alarm CIE only, via a two-way circuit breaker.  
The mains cable should be securely clamped and the wires be as short as possible<sup>55</sup>. The mains safety earth (ground) should, however, be longer than the other wires, to ensure that it is the last to be disconnected if the mains cable clamp should fail. After the installation, the lid protecting the power supply screw terminals should be correctly applied.

3. Remove the battery fuse F2 on the main board 5010 (or the in-line fuse between batteries).
4. Connect the batteries to the battery leads.

<sup>55</sup> Cable tie should be mounted to keep the mains wires well separated from the 24 V DC wires

**Note:** An in-line fuse (F) rated 6.3A fitted on the cable between the batteries, see drawing F725-02 FT1020G3 Block Wiring Diagram.

**CAUTION:** RISK OF EXPLOSION IF BATTERY IS REPLACED BY INCORRECT TYPE. DISPOSE USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

5. Turn "ON" the mains isolate switch (230 V<sub>AC</sub>)<sup>56</sup>

**Note:** The Control Unit will be supplied pre-wired, the installer has to connect the incoming mains to the GPO only.

6. Re-place the battery fuse (F2) on the main board 5010.  
7. LED "Operation" (L5) indicate that the 24 V<sub>DC</sub> power supply is okay (PSU and/or battery).  
8. An automatic restart will now take place (see chapter "Restart", page 85).  
9. The Site Specific Data (SSD) – created in EBLWin can now be downloaded, see chapter "SSD Download", page 78.

See also chapter "Calibration of supervised outputs (H5/A1)", page 117.

**Note:** A "Safe shutdown" must be performed once FT1020G3 is cleared of all faults and the system becomes in normal operational mode.

## 18.3 Control Units in a TLON Network

The FT1020G3 system can be build up as a single TLON Network or as a redundant TLON Network, i.e. 2 networks (dual path).

In the **single TLON Network**, one TLON connection board (5090) has to be plugged in each Control Unit (Network no. 0) whereas in the **redundant TLON Network**, two connection boards (5090) have to be plugged in each Control Unit.

**Note:** Single TLON network is used only when additional 5010 board is to be fitted inside the same enclosure otherwise a redundant TLON network is used i.e. two TLON boards 5090 must be used in each control panel. A single TLON Network is a violation to the Australian standard AS1670.1.

The redundant TLON Network supports full functionality in case of a network path failure, i.e. open circuit or short circuit in one of the TLON networks.

When the 5090 boards are in place and the network cables are connected<sup>57</sup>, **for each Control Unit**, follow the same procedures as for a single Control Unit, see 1-10 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 "SSD Download", page 78.

If you know that one or more of the Control Units may be added at a later date, follow the procedures below:

- In EBLWin, create the SSD only for the Control Units that should be connected now. Do not download the SSD until the TLON Network installation is ready.
- In TLON Manager, perform the TLON Network programming for the project, i.e. only the Control Units that will be connected now.
- When the TLON Network installation – see below – is ready, download the SSD.

**Later**, when one or more Control Units is to 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 EBLWin, add the Control Unit(s) and download the SSD to all Control Units.

<sup>56</sup> The Control Unit is supplied with a GPO which has the mains isolate switch and a power point outlet used during programming to connect the power cable to your PC.

<sup>57</sup> The TLON connection board is mounted on the main board 5010. Network cable connections are made on the main board 5010, terminal block "J4".



### 18.3.1 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** and install (download) the project, see separate TLON Technical Manual.

In a redundant network, **two Projects** have to be created and installed. The Projects have to be identical but with different Project names. One project has to be installed for Network no. 0 and one has to be installed for Network no. 1.

In a redundant TLON system, a PC is connected to the second modular connector "J11" (Network no. 1) and same procedure as for Network no. 0 is repeated for Network no. 1.

**Note:** After the TLON Network installation (download) is completed, it is highly recommended to restart the Control Units.

### 18.4 Add a Control Unit in a TLON Network

When adding a Control Unit to an "existing" installation, the same software (S/W) version must be used 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 "existing" installation have to be upgraded. As an alternative, it is possible to download an earlier S/W version in the new Control Unit. Both options are described in chapter "New system program (S/W) version download", page 81.

Open the current project in **TLON Manager**, add one Control Unit and install (download) it according to the TLON technical manual. Also see 18.3.1 above.

Open the SSD for the current system in EBLWin. Add one Control Unit (and the units connected to it) and download the new SSD according to chapter "SSD Download", page 78.

### 18.5 Merge Two TLON Networks

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 then, add to it the Control Units etc. from the other system.<sup>58</sup>

If it is known from the beginning that two systems are to 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.

### 18.6 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 TLON technical manual.

Open the SSD for the current system via EBLWin. Delete the Control Unit (and the units connected to it) and download the new SSD according to chapter "SSD Download", page 78.

---

<sup>58</sup> It is not possible to merge two TLON Networks into one or copy one system and paste into another system.

## 19 SSD Download

**Note:** An EBLWin USB key must be used to communicate with the control panel and download the SSD using EBLWin V2.x.x.

The PC program **EBLWin** is used for creating the Site Specific Data (SSD) and to download it into the FT1020G3 Control Unit(s), the Web-server and/or display units 1728, 1736 units.

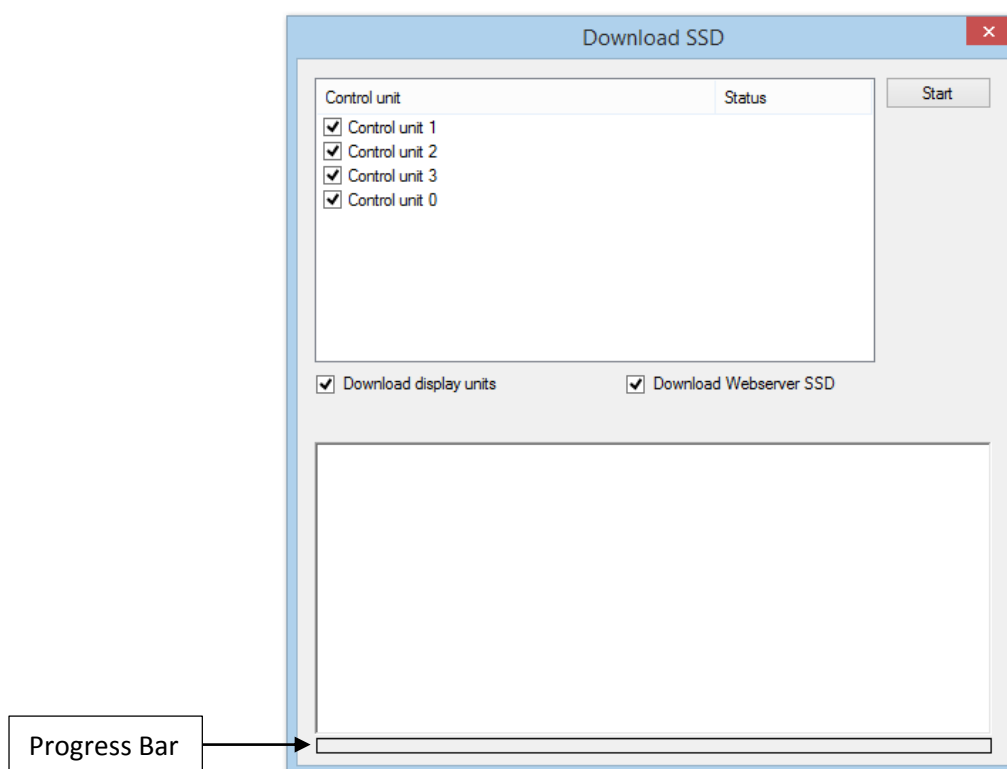
The EBLWin key is a protection USB device required to log on to the Control Unit, it has a unique number. The EBLWin key identification number will be registered in the control panel event log with the date and time stamp for every SSD download performed in the control panel.

When the installation is ready, i.e. all units connected and the power is turned on, the SSD download can take place. When a number of Control Units are connected in a TLON network, the network should be running before the SSD download can take place.

The PC has to be connected to the USB port (type "B") in one of the Control Units. Start EBLWin and open the required installation. Log on to the Control Unit via the PC (EBLWin).

**Note:** No password / access code is required to log on to the Control Unit, instead an EBLWin 5094 key is required. This key is plugged in a USB-port in your PC / laptop.

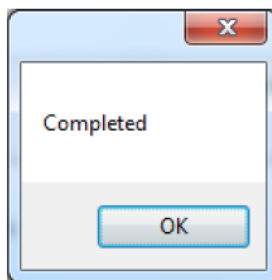
In EBLWin (menu "Tools" | "Download SSD..."), select the control unit(s). SSD can also be downloaded to the Web-server and connected Display Units, if the check box "Download display units" and "Download Webserver SSD" respectively is marked.



Click "**Start**" to start the download. The progress bar will indicate the download status for each control unit.

The download is not completed until the following box is shown:





Click **"OK"**

After the SSD download the Control Unit will restart. A number of faults may then be generated, e.g. due to Control Units not connected yet. This will cause "heavy traffic" on the network, which may affect (delay) the SSD download to the other units.

### Disconnected at start up

In the COM loop properties dialog box, it is possible to select the option **"Disconnected at start up"**. The COM loop will then be disabled directly after the download restarts and therefore no faults will be generated.

Name:

☐ Disconnected at startup

Summary of loop units

Type	Amount	Quiescent Consumption	Max Consumption
AMD 4300	0	0.0	0.0
OPT 4301	4	1.2	9.2

**Note:** A COM loop "Disconnected at start up" can be re-enabled via menu H8/S1 but it will be disabled again after next restart. Finally the SSD for that Control Unit has to be downloaded again with the option "Disconnected at start up" not selected.

## 19.1 COM Loop Menu

### 19.1.1 Check Loop

In the EBLWin COM loop icon pop-up menu select, **"Check Loop"**. This function can be used after (or before) the SSD download.

The function is as follow: the Control Unit will find all units that are connected on the COM loop. If there is a break (cut-off) or short circuit on the loop, only the units in the A-direction will be found and shown, i.e. an indication where the break (cut-off) or short circuit is located.

For all units, the address (1-255) and the type of unit will be reported to EBLWin. All differences compared to the system (SSD) will be listed in EBLWin and can be saved and/or printed out.

**"Unknown device"** means that the type cannot be identified e.g. due to faulty unit.

**"Several reply"** means that more than one unit have the same address or bad loop communication.

**Note:** During this check loop operation, the COM loop will be disconnected (disabled) and no alarms or faults can be activated. Disconnected COM loop is indicated by the LED Fault / Disablements "General disablements" (L10).

### 19.1.2 Auto Generate Loop

If you are on site, the **Auto generate** function can be used to create the SSD. Open a new installation in EBLWin, connect the PC to FT1020G3 and log on<sup>59</sup>. Select a COM loop, right click then select "Auto generate...". The selected COM loop units<sup>60</sup> connected on the COM loop will now be identified and listed in EBLWin i.e. the SSD will be auto generated with default settings for all units (01-01, 01-02, 01-03, etc.). The SSD can be edited, saved before the download can take place. Repeat the same procedures for every other Com loop. The SSD can now be downloaded (see below) to FT1020G3 directly.

## 19.2 SSD Download to Single Control Unit

Start the SSD download from EBLWin. A text message will be shown in the Control Unit display "Downloading SSD".

When the download is completed, the Control Unit will restart, a fault message will be shown in the display:

FAULT: Restart Control Unit nn, code 25  
DD-MM-YYYY HH:MM

Code 25 indicates a normal restart after the SSD download. Acknowledge the restart fault. If the download was unsuccessful, another fault will be generated.

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

This text message means that the SSD file has not been downloaded successfully, i.e. a new download has to be performed.

## 19.3 SSD Download to Control Units in a TLON Network

The SSD for all Control Units can be downloaded via a PC / EBLWin, connected to one Control Unit. The download will be performed to the Control Units, one at a time, according to 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 and generate a restart fault.

## 19.4 User Definable Text Messages Download

Each alarm point, zone and zone line input should have a unique user definable alarm text programmed via **EBLWin**. When a fire alarm is activated (e.g. an addressable alarm point), the presentation number (Zone - Address) will be shown in the Control Unit and in the 1728/1736 display together with its user definable alarm text.

All user definable text messages, up to 40 alphanumeric characters each, are created and downloaded (included in the Site Specific Data – SSD) via **EBLWin**.

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

A Fault message for an alarm point, zone or zone line input will also show the text message (software ≥ V2.0.0).

<sup>59</sup> An EBLWin key 5094 (a hardware key) is required, i.e. plugged in a USB port in the PC.

<sup>60</sup> Each unit have to be running i.e. be connected, power supplied and the address, mode etc. have to be set. NOTE: During this check, the COM loop will be disconnected (disabled) and no alarms or faults can be activated. Disconnected COM loop is indicated by the LED "Disablesments" (L8).

## 20 Download Software (System Firmware)

**Note:** When existing system requires software upgrade, first, logon to the Control Unit using a compatible EBLWin (or WinG3) software version with the existing firmware version in FT1020G3 then perform SSD backup to save the existing Site Specific Data file. This must be performed prior to any software download.

The latest software version of the EBL512G3 system software<sup>61</sup> is factory downloaded before delivery. Due to continual development and improvement, different S/W versions may be found.

The valid (current) S/W version for the Main board 5010 and the MMI board 5011 is shown in menu H4/U8 (information) or via EBLWin (Control Unit pop-up menu; Software version...). On site, new S/W can be downloaded via EBLWin.

FT1020G3 can be upgraded with a new S/W version, downloaded on site via EBLWin as well as the display units 1728, 1736. See the 1728 and 1736 manuals respectively.

### 20.1 Single Control Unit

**Note:** Before downloading new software in existing system, SSD<sup>62</sup> backup (upload) must be performed using compatible Win and EBL software then saved in the new version of EBLWin.

A standard single CIE **should not** have a TLON connection board 5090 mounted. (When a CIE has a TLON connection board 5090 mounted, it is expected to be one CIE in a TLON network and TLON network programming is required.)

To download a new software (system firmware) version, a PC and **EBLWin** are used. The BIN file that should 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 convention.

#### 20.1.1 Establish communications between the PC and CIE for software download

**Note:** Brooks strongly recommends using the USB isolator device when you connect your PC to the Control Unit.

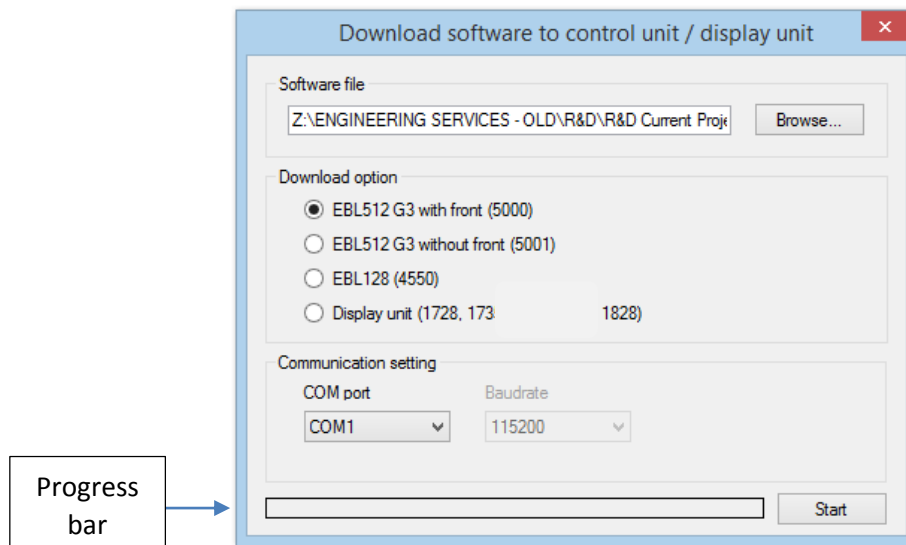
The following procedures must be performed to establish the communications between the PC and the control panel:

1. Plug in the **USB dongle** into a USB port on the PC.
2. Connect the PC to the CIE using the USB connector.
3. Start EBLWin, (**Do not logon**).
4. In the "Tools" menu, select "Download Software..." to open the dialog box and do the required settings.
5. Select the path and the software file name, e.g. **Australian\_EBL512G3\_220.BIN** (220 = version 2.2.0).
6. Mark the checkbox "No MMI board" if the control panel is not fitted with front display, i.e. the MMI software and the text file will **not** be downloaded.
7. Select the COM port to be used on your PC<sup>63</sup>.

<sup>61</sup> The software (firmware) is the system software and always uses "EBL" abbreviation.

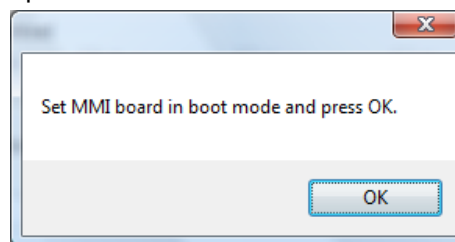
<sup>62</sup> It is highly recommended to make a copy of the SSD file in its original version as well.

<sup>63</sup> If several USB ports are used on your PC, and you want to find which COM port is connected to the panel, go to Device Manager and look for EBL G3 Serial Port (COM#) under Ports (COM & LPT). # will be the COM port number.

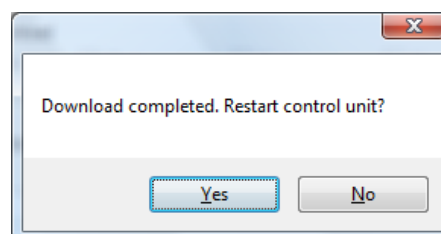


## 20.1.2 Download the Software

1. Set the Main board 5010 in "boot" mode, i.e. press and hold the "**Boot**" button (SW2) then press the "**RESET**" button (SW1) momentarily. Release the "BOOT" button. The Main board LED "D24" is turned off while the Main board is in "boot" mode.
2. Start the download, i.e. click "Start".  
Another dialog box opens.



3. Set the MMI board 5011 in "boot" mode, i.e. press and hold the "**BOOT**" button (SW2) and press the "**RESET**" button (SW1) momentarily. Release the "**BOOT**" button. The MMI board LED "D18" will be turned off and the buzzer is turned on while the MMI board is in "boot" mode.
4. Click "OK", the buzzer is turned off and the download continues. The download status is indicated by the progress bar.
5. When the progress bar goes from "red to green", the download will be completed and the following dialog box opens:



6. Click "Yes" and the Control Unit will restart.  
After the restart, the following messages will be shown:

FAULT: Restrt control unit nn, code 00  
DD-MM-YYYY HH:MM

FAULT: Restart control unit nn, code 50  
DD-MM-YYYY HH:MM

Code 00 / 50 indicates a normal restart of the main board / MMI board after the software download. Acknowledge the restart faults.

7. LED “Operation” (L5) on the FT1020G3 front should now be turned on and all other LEDs are normally turned off.

**Note:** After a new software download, the login password reverts back to the default setting i.e. “000000”. The user names and passwords will be changed when the SSD is downloaded.

## 20.2 Control Units in a TLON Network

**All Control Units connected to a TLON network must have the same software version.**

To download new software in each Control Unit, follow the procedures described above.

Since some Control Units do not have contact with other Control Units during the downloading, the following faults may be generated:

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

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

The faults should be acknowledged.

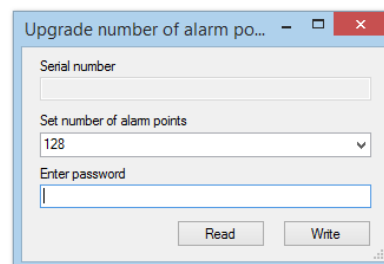
## 21 Upgrade Number of Alarm Points

All FT1020G3 settings are normally factory downloaded before delivery, default setting is 512 addresses. It is however, possible to upgrade the maximum number of **alarm points** (512 → 1020) on site. Note that the maximum number of COM loop addresses is always 1020, i.e. address 1 – 255 on each COM loop.

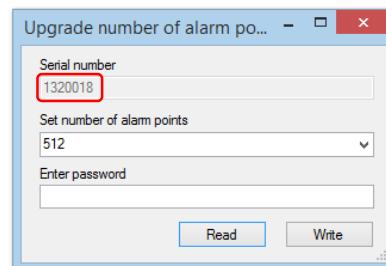
**Note:** Standard FT1020G3 CIE is supplied with 510 addresses except when a request to upgrade the number of addresses is received before manufacturing.

If you require upgrading the number of addresses, a PC and **EBLWin** are used. Before download, the PC has to be connected to the USB connector in the Control Unit and the hardware key is also plugged in. Open EBLWin and the CIE where the upgrade is to be performed and follow the procedures below:

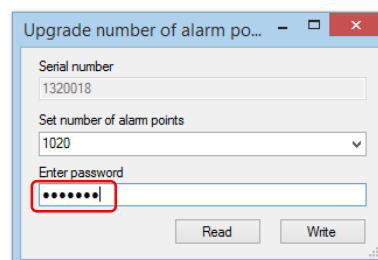
1. Logon (Tools | Log on Control unit...)
2. Select the Control Unit icon, right click and in the pop-up menu select "Upgrade number of alarm points". A dialog box opens as shown.



3. Click "Read" to get the valid data from the Control Unit you are connected to, normally the no. of alarm points is 512 as shown below. .



4. Report the **Serial number** to Brooks head office in order to get the password.<sup>64</sup>
5. Write the new number of alarm points and the received password in the field respectively and click "Write".



Follow the same procedure in each Control Unit if a TLON network requires upgrade.

After you enter the password, right click on the respective Control Unit icon and choose "Properties". The Control Unit Properties dialog box opens:

Depending on the upgrade password you received, under the "Misc" section, the "Configured number of alarm points" will be made available.

**Note:** All Control Units connected in a TLON network do not have to have the same maximum number of alarm points.

<sup>64</sup> 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.

## 22 Restart

---

A restart may delete some data in FT1020G3. Below is an explanation of the different data and abbreviations, also Table 14 describes the different reset alternatives and how the data respectively is affected (**cold** or **warm restart**).

**FF** = Fire alarms and **F**aults.

**D** = **D**isablements

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

**SSW** = Sensor min. / max. values & performance factor, passwords<sup>65</sup>, 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 EBLWin.

**S/W** = Software, i.e. the EBL512 G3 system program.

**Safe shut down of Control Unit** (menu H8/S6) will save the **SSW** data in a Flash ROM **before you power down FT1020G3**. Before the first "Safe shut down" of the Control Unit, this memory is empty. After each "Safe shut down" the latest SSW data is saved. When FT1020G3 is powered up, a restart takes place and the RAM (working memory) will read the SSW data saved in the Flash ROM.

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

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

Table 14 describes the different reset alternatives and how the data respectively is affected.

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<sup>65</sup> Changed via menu H10

Table 14 Data affected by restart

Action	Data, etc. which will be <u>deleted</u>	Data, etc. which will be <u>not deleted</u>	Restart code
<b>Power down</b> <sup>66</sup> and then <b>power up</b> again.	SSW FFD, WASV	SSD, S/W	00 (+ 50) <sup>67</sup>
<b>Via menu H8/S5</b> Safe shut down of Control Unit.	FFD, WASV	SSD, S/W, SSW	00 (+50) <sup>67</sup> <sup>68</sup> 03 (+53) <sup>67</sup>
Via <b>RESET</b> button on Main board	FFD, WASV	SSD, S/W, SSW <sup>69</sup>	03
Via <b>RESET</b> button on MMI board		SSD, S/W, SSW FFD, WASV	53
<b>Reset</b> command via EBLWin or TLON Manager.	FFD, WASV	SSD, S/W, SSW	03 (+53) <sup>67</sup>
<b>Automatically</b> after <u>download of Site Specific Data (SSD)</u> via EBLWin.	FFD, WASV	SSD, S/W, SSW	25
<b>Automatically</b> after <u>download of S/W</u> via EBLWin.	FFD, WASV	SSD, S/W <sup>70</sup> , SSW	00 (+50) <sup>67</sup>
<b>Automatically</b> (by the S/W itself) S/W watchdog.	FFD, WASV	SSD, S/W, SSW <sup>71</sup>	13 <sup>72</sup>
<b>Automatically</b> due to <u>external disturbance</u> . <sup>73</sup>	FFD, WASV	SSD, S/W, SSW <sup>71</sup>	01, 02 alt. 04-12 & 14-20

**Note:** During a restart, the fault output (relay) for the Fault TX will be "activated" for few seconds, the supervised 24 V<sub>DC</sub> outputs S0-S3 will not be supervised and S0-S3 programmed as normally high will be low for few seconds.

During "restart", no fire alarms will be activated and the following is shown on the display:

**Panasonic**

And after few seconds (the control panel starts the normal restart procedures else see Memory fault below):

Booting.....

<sup>66</sup> Both mains power supply and battery disconnected.

<sup>67</sup> Code 50 / 53 only if the c.i.e. has an MMI board (5011).

<sup>68</sup> If the time runs out, i.e. no safe shut down, the c.i.e. will do a restart (code 03/53).

<sup>69</sup> If in the middle of a process, also the SSW may be deleted.

<sup>70</sup> The old S/W will be deleted.

<sup>71</sup> Depending on the restart reason, also the SSW may be deleted.

<sup>72</sup> Always followed by an address.

<sup>73</sup> If this happens, call for service personnel / engineer.



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 "Fault messages" page 62. This fault is also indicated by LEDs **Routing equipment** "Fault TX activated" (L13) and **Fault / Disablesments** "General fault" (L9).

After the fault is acknowledged (via menu H6 or EBLWin), the LEDs will be turned OFF, if no other faults exist in the system.

After any restart, if any units was disabled before restart, an individual disablesments for these unit should 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 will 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 EBLWin, the Web-server or via another unit in the system).

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) is required and/or the Main board and/or the MMI board have to be replaced.

**Note:** After **SSD download**, the following messages may be shown:

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

After restart:

FAULT: Restart Control Unit nn, code xx,  
address yyyyyyyyyy




FAULT: Site specific data (SSD), control unit xx

This means that the SSD has **not** been successfully 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 **log in** with a **User name** and a **Password** for level 2A, 2B or 3A. See also chapter "User Level, User Name & Password" page 32.

Open the Control Unit door (= level 1), press soft key "Menu" (P5) to log in.

Action	Text in display	Comments
	 <p>FT1020G3 Control Unit: XX</p> <p>User definable text. User definable text.</p> <p>dd-mm-yyyy hh:mm</p> <p>Menu</p>	<p>Door open.</p> <p><b>XX</b> = 00 – 29</p> <p><b>day-month-year</b> <b>hour:minute</b> Soft key "Menu".</p>
"Menu"	<p>Log in as:</p> <ul style="list-style-type: none"> <li>① Information only<sup>74</sup></li> <li>① Building officer</li> <li>② Service personnel</li> </ul>	<p>0, 1 and 2 are default. More users can be added to the list, if programmed via EBLWin.</p>
Enter 0, 1 or 2 (or 3-9 if available) e.g. "2"	<p>Service personnel</p> <p>Password: ?</p>	<p><u>If you enter "0" no password is required.</u></p> <p>The digits will be replaced by ***** in the display.</p>
Enter the password (six digits)	<p>Service personnel</p> <p>Password: *****?</p>	
	<p>NO ACCESS!</p>	<p>No access if the password is not correct. Try again<sup>75</sup>.</p>
"2", "Password" (six digits)	 menu  <p>H1 Perform monthly test</p> <p>H2 Disable or re-enable</p> <p>H3 Set calendar and clock</p> <p>H4 Present system status</p> <p>H5 Service</p> <p>H6 FAULT Acknowledge</p> <p>H7 Perform ZONE TEST</p> <p>H8 Maintenance</p> <p>H9 Interlocking outputs and inputs</p> <p>H10 Change password</p> <p>Escape menu</p>	<p>If the password is correct a main menu list is displayed. Press "↵" to accept (menu H1) or scroll / jump to the required menu (H2-H10) and press "↵".</p> <p><b>Note:</b> The menu list will be different for user levels "Information only" and "Building officer".</p>

<sup>74</sup> Before any SSD download e.g. brand new system, only "0" is shown and no password is required. After SSD download, the downloaded user names and passwords will be valid.

<sup>75</sup> The log in function will be blocked for one hour after 3 wrong passwords for this user.

**Explanation:**

The above table has 3 sections as follows:

1. **Action** (in the table) = use push button / key (e.g. "↵").
2. **Text in display** (in the table) = what is shown in the Control Unit display.
3. **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 ½ sec. = 10).

In some cases a cursor appears e.g. **Disable zone: 000**

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 return from a sub menu to the main menu (H1-H10) or from a main menu to leave the menu system.

Use the soft key "Escape menu" (when it is available) to leave the menu system from any menu.

**Note:** no text above a soft key = the key is not available (i.e. it has no function).

You will be automatically logged out 15 minutes after the last action (i.e. if the key pad or a push button has not been used for 15 min.) and directly when you close the door. A new login is then required.

If you leave the menu system without closing the door, you have access to the menu system again only by using the soft key "Menu". A new login is not required.

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. fixed maximum number of items per page.

**Note:** In the following chapters, all the menus are described.

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

## 24 Perform Monthly Test (H1)

The Control Unit and the installation must be tested on a regular basis, please refer to the Australian Maintenance standard AS1851.

In test mode, only the alarm points are tested, i.e. no outputs (no OWS or sounders) will be activated during the test. (Alarm devices can be tested via menu H8/S4.)

If a real fire alarm is activated, for example by **an alarm point not in test mode**, the normal fire alarm functions will be activated, i.e. fire alarm presentation, outputs (sounders or OWS) activated, routing equipment (Fire Brigade TX) activated, etc.

See also chapter "The information area priority order", page 30.

**Note:** If the Control Unit door is left open, the output(s) for routing equipment (Fire Brigade TX) may be disabled (if set so in EBLWin)<sup>76</sup> however this function does not comply with the ASE standard.

The test mode will be automatically terminated one hour after the latest alarm test.

See also chapter "Perform ZONE TEST (Test mode) (H7)", page 127.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
	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, including LEDs in units connected via I/O Matrix board 4582. If a printer is mounted in the CIE it will print out: ABCDE.....Z abcde.....z
"↵"	Zones to be set in test mode: ??? ??? ??? ??? Start test: ↵	
Write zone no, (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 **remain in test mode until the test mode is terminated**. The test mode is terminated in this menu or automatically one hour after the latest alarm test.

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

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).

<sup>76</sup> It is prohibited in Australia to disable routing equipment via the door switch.

<p>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 normal conditions.</p> <p>In the tested alarm point, the built-in LED will illuminate and the LEDs "Fire" (L1) in the CIE will illuminate for 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).</p> <p>A detector in test mode is not able to generate a fault.</p>		
<p>After 15 minutes <b>or</b> "ESC" and "Escape menu"</p>	<p>Zone 001 in test mode Zone 002 in test mode Zone 003 in test mode Zone 004 in test mode</p> <p>(<b>Note:</b> See chapter "The Information Area Priority Order", page 30, regarding priority order.)</p>	<p>You are logged out but the zone(s) are still in test mode.</p>
<p>"Menu" Log in (see above), select menu H1, step down to this view.</p>	<p>Zones in test mode: 001 002 003 004    End test: ↵</p>	<p>Press "↵" to end test.</p>
<p>"↵"</p>	<p>Please wait....</p>	
	<p>Test of routing equipment?<sup>77</sup> <b>No</b> Yes</p>	<p>The LED "Test mode" is turned OFF.</p>
<p>Press "↵" (i.e. select "No") to bypass the routing equipment test. If so, the monthly test is completed, <u>or</u> Press "▼" and "↵" (i.e. select "Yes") to start the test (not recommended). If so, the following will happen in the system:</p> <ul style="list-style-type: none"> <li>The CIE "Fault tx" output will be de-activated (note that, this output is <b>activated</b> in normal state), indicated by the LED "Fault tx activated" (L13). 60 seconds count-down starts.</li> <li>After 30 seconds, also the CIE "Fire Brigade TX" output (and corresponding programmable outputs type "routing equipment") will be activated, indicated by the LED "Fire Brigade TX" (L3).</li> <li>After another 30 seconds, the test will be terminated and the outputs and LEDs will return to "normal".</li> </ul>		
<p>"▼" and "↵"</p>	<p>Test of routing equipment in progress. nnn seconds left.</p>	<p>"nn" starts at 060 and will count down to 000.</p>
	<p>Monthly test is completed! Press ↵</p>	
<p>"↵"</p>	<p>menu H1 Perform monthly test H2 .....</p>	<p>Scroll to another menu or press "ESC".</p>

**NOTE\_1:** During the test, the following information will be shown in all other CIE displays:

Zone 001 in test mode                      Zone 002 in test mode  
Zone 003 in test mode                      Zone 004 in test mode

**NOTE\_2:** If an alarm point (e.g. a manual call point) is in alarm state when the test mode is terminated, there will not be a fire alarm activated.

**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.

<sup>77</sup> Prior testing the routing equipment, the ASE must be isolated or set to test mode.

## 25 Disable or Re-enable (H2)<sup>78</sup>

A whole zone<sup>79</sup>, one or more alarm points within a zone and/or control outputs can be disabled via menus H2/B1-B2. This function can be used for temporary disablement (e.g. building maintenance, etc.).

If the function Enhanced disablement is enabled (default), disabled alarm points cannot activate Pre-warning, fire alarm and fault.

If this function is not enabled (via EBLWin), disabled alarm points cannot activate Pre-warning and fire alarm but fault can be generated.

An Addressable manual call point can be disabled (normally should not be disabled). However, when a whole zone is disabled, the addressable manual call points will not be disabled for safety reasons. (This function is dependent on the convention)<sup>80</sup>.

Up to 512 whole zones can be disabled via menu H2/B1.

Up to 200 alarm points (zones / addresses) can be individually disabled via menu H2/B1. 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/B2. Disabled output will stay in (or return to) the normal condition for the output respectively. (Collectively disabled outputs via menus H2/B3 – B4 are not limited and must not be counted).

Up to 200 Interlocking outputs can be individually disabled via menu H9/C3.

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/B1-B2, H8/S1, H9/C3 or use automatic re-enablement for zones and alarm points.

Disablements are listed in menus H4/U1 & U2 from which it can also be printed.

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

Disablements are also shown in the display. An example:

Zone 001 disabled  
dd-mm-yyyy hh:mm

Zone 002 address 01 disabled  
dd-mm-yyyy hh:mm

.....

Number of disablements in system: 2

**Note:** See chapter "The Information Area Priority Order", page 30, for priority order.  
Disablements (and faults) are indicated by a 2-sec. beep when you close the CU door.

<sup>78</sup> The word "Disable" or "Re-enable" is used in the Australian convention while "Isolate" and "De-Isolate" are used in the New Zealand convention.

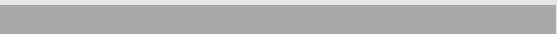


<sup>79</sup> When the zone control module is used, a whole zone can be disabled without entering the menu.

<sup>80</sup> Currently, the function has not been implemented in the Australian convention.

## 25.1 Zone or Zone Address (H2/B1)

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

Alarm points can be individually disabled

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H2.	<b>H2 Disable or re-enable</b>	
"↶"	<b>B1 Zone or Zone/Address</b> B2 Output B3 Output type B4 Alarm devices B5 Routing equipment B6 Alert annunciation function  <b>Escape menu</b>	- Via <b>menu B1</b> , a Zone or an alarm point (Zone / Address) can be disabled. - A time for automatic re-enablement can be set. - Disabled zones and alarm points are shown in a Re-enable list.
"↶"	Disable  Zone <b>000</b> Automatic re-enable: No  <b>Change type of disablement</b>	Use the soft key "Change type of disablements" to toggle between: <b>Zone 000</b> and <b>Zone 000..address 00</b> .
"Change type of disablements"	Disable  Zone <b>000</b> address 00 Automatic re-enable: No  <b>Change type of disablement</b>	Write the zone number and address. To set an automatic re-enable time press "▼" and "►". Write the time (default is current time + 3 hours). Press "↵" to disable, which will be indicated with "√" and a beep. The zone will be automatically shown in the Re-enable list.
Write the zone number and address (e.g. 003, 01). "▼" "►" "↵"	Disable  Zone <b>003</b> address 01 <span style="float: right;">√</span> Automatic re-enable: No Yes, at 17:05 -- Re-enable list (1) ----- Zone 003 address 01 auto. re-enable at 17:05  <b>Change type of disablement</b>	If the specified zone / unit is not exist, it will be indicated with "X" instead of "√" and a beep. Use the soft key "→ " to toggle between <b>Disable</b> and <b>Re-enable list</b> .

<p>"→"</p>	<p>Disable ----- Zone _ _ _ address _ _ Automatic re-enable: No ■ Re-enable list (1) <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1em;"></span> <b>Zone 003 address 01 autom. re-enable at 17:05</b></p> <p style="text-align: right;"><b>→   Change type of disablement</b></p>	<p>Select in the Re-enable list "▼" (in this example there is only one item) and press "↓". Re-enabled zone or zone / address will disappear from the list, indicated with a beep.</p>
<p>"↓"</p>	<p>Disable <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1em;"></span> Zone 000 address 00 Automatic re-enable: No</p> <p style="text-align: right;"><b>Change type of disablement</b></p>	<p>Disable (or Re-enable) another Zone, Zone / Address or press "ESC".</p>
<p>"ESC"</p>	<p><b>B1 Zone or Zone/Address</b> B2 Output B3 Output type B4 Alarm devices B5 Routing equipment B6 Alert annunciation function</p> <p><b>Escape menu</b></p>	<p>Scroll to another menu or press "ESC" or "Escape menu".</p>

**Note:** The sensor values for disabled analogue smoke detectors in NORMAL mode will not be used for calculation of the week average sensor value, i.e. only the values saved before and after the disablement will be used for this calculation.



## 25.2 Output (H2/B2)

All programmable outputs in the CIE and outputs in units connected to the COM loops (**except outputs of type "Alarm device"**) can be individually disabled.

If you try to disable an output of type "Alarm device" it will be treated as if it does not exist, see below.

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

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H2.	H2 Disable or re-enable	
"↓"	B1 Zone or Zone/Address B2 Output B3 Output type B4 Alarm devices B5 Routing equipment B6 Alert annunciation function  Escape menu	
Scroll to menu B2.	B2 Output	Via menu B2, a loop unit output, C.U. output S0-S3 / R0-R1 and exp. board 4581 output can be disabled.
"↓"	Disable output Loop unit 000000 output 0          Change type of disablements	Use the soft key "Change type of disablements" to toggle between: <b>Loop unit output</b> <b>Control unit output S</b> <b>Control unit output R</b> <b>Exp. board output</b> Write loop unit technical number and output number and press "↓" to disable, which will be indicated with "√" and a beep. The output will be automatically shown in the Re-enable list
Write loop unit technical number and output number, (e.g. 000001 and 0). "↓"	Disable output Loop unit 000000 output 0 -- Re-enable list (1) ----- Loop unit 000001 output 0   Change type of disablements	If the specified output does not exist, it will be indicated with "X" instead of "√" and a beep. Use the soft key "→ " to toggle between <b>Disable</b> and <b>Re-enable list</b> .

"→"	<p>Disable output -----</p> <p>Loop unit _ _ _ output _</p> <p>Automatic re-enable: No</p> <p>Re-enable list (1)</p> <p>Loop unit 000001 output 0</p> <p>Change type of disablement</p>	<p>Select in the Re-enable list with "▼" (in this example there is only one item) and press "↵".</p> <p>Re-enabled output will disappear from the list, indicated with a beep.</p>
"↵"	<p>Disable output</p> <p>Loop unit 000000 output 0</p> <p>Change type of disablements</p>	<p>Disable (or Re-enable) another output or press "ESC".</p>
"ESC"	<p>B1 Zone or Zone/Address</p> <p>B2 Output</p> <p>B3 Output type</p> <p>B4 Alarm devices</p> <p>B5 Routing equipment</p> <p>B6 Alert annunciation function</p> <p>Escape menu</p>	<p>Scroll to another menu or press "ESC" or "Escape menu".</p>

### 25.3 Output Type (H2/B3)

All outputs of type "Control", "Ventilation", "Extinguishing" and Interlocking can be collectively 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.







[illegible]


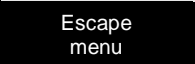
"→ "	<p>Disable output type -----</p> <p>Control outputs in Control unit 00 All</p> <p>■ Re-enable list (1) <span style="background-color: #cccccc; display: inline-block; width: 100px; height: 1em;"></span></p> <p><span style="background-color: black; color: white; display: inline-block; width: 150px; height: 1em;"></span> All control outputs</p> <p style="text-align: right;"><span style="background-color: black; color: white; padding: 2px 10px;">→  </span> Change type of disablement</p>	<p>Select in the Re-enable list with "▼" (in this example there is only one item) and press "↓".</p> <p>Re-enabled type will disappear from the list, indicated with a beep.</p>
"↓"	<p>Disable output type <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1em;"></span></p> <p>Control outputs in Control unit 00 <span style="background-color: black; color: white; padding: 0 5px;">All</span></p> <p style="text-align: right;"><span style="background-color: black; color: white; padding: 2px 10px;">Change type of disablements</span></p>	<p>Disable (or Re-enable) another type or press "ESC".</p>
"ESC"	<p>B1 Zone or Zone/Address</p> <p>B2 Output</p> <p><span style="background-color: black; color: white; display: inline-block; width: 150px; height: 1em;"></span> B3 Output type</p> <p>B4 Alarm devices</p> <p>B5 Routing equipment</p> <p>B6 Alert annunciation function</p> <p><span style="background-color: black; color: white; padding: 2px 10px;">Escape menu</span></p>	<p>Scroll to another menu or press "ESC" or "Escape menu".</p>

## 25.4 Alarm Devices (H2/B4)

All outputs of type "Alarm device" can be collectively 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 88.
Scroll to menu H2.	<b>H2 Disable or re-enable</b>	
"↓"	<b>B1 Zone or Zone/Address</b> B2 Output B3 Output type B4 Alarm devices B5 Routing equipment B6 Alert annunciation function  <b>Escape menu</b>	
Scroll to menu B4.	<b>B4 Alarm devices</b>	Via menu B4, outputs of type "Alarm device" can be collectively disabled in a selected Control Unit or all Control Units.
"↓"	Disable  <b>All alarm devices</b>	Press "↓" to disable, which will be indicated with "√" and a beep. The "type" will be automatically shown in the Re-enable list
"↓"	Disable  <b>All alarm devices</b>  -- Re-enable list ----- All alarm devices  	Use the soft key "→ " to toggle between <b>Disable</b> and <b>Re-enable list</b> .
"→ "	Disable ----- All alarm devices <b>Re-enable list</b>  <b>All alarm devices</b>  	Press "↓" to re-enable.  Re-enabled type will disappear from the list, indicated with a beep.

"↓"	Disable  <b>All alarm devices</b>	Disable (or Re-enable) another type or press "ESC".
"ESC"	B1 Zone or Zone/Address B2 Output B3 Output type <b>B4 Alarm device</b> B5 Routing equipment B6 Alert annunciation function  	Scroll to another menu or press "ESC" or "Escape menu".

## 25.5 Routing Equipment (H2/B5)

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 and Fault TX) can be disabled and re-enabled via this menu. Can be useful during an installation and test period, when only local alarms are required.

Disabled output for routing equipment 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 88.
Scroll to menu H2.	H2 Disable or re-enable	
"↓"	B1 Zone or Zone/Address B2 Output B3 Output type B4 Alarm devices B5 Routing equipment B6 Alert annunciation function  Escape menu	
Scroll to menu B5.	B5 Routing equipment	Via menu B5 the standard outputs (fire and fault) for routing equipment can be disabled.
"↓"	Disable Routing equipment Fire Fault	Use "◀", "▶" to toggle between: <b>Fire</b> <b>Fault</b> Press "↓" to disable, which will be indicated with "√" and a beep. The "type" will be automatically shown in the Re-enable list
"↓"	Disable routing equipment Fire Fault -- Disabled routing equipment ----- Fire alarm routing  →	Use the soft key "→" to toggle between <b>Disable</b> and <b>Disabled</b> .

"→"	<p>Disable routing equipment -----</p> <p>Fire Fault</p> <p>Disabled routing equipment</p> <p>Fire alarm routing</p> <p>→</p>	<p>Press "↓" to re-enable.</p> <p>Re-enabled routing equipment will disappear, indicated with a beep.</p>
"↓"	<p>Disable Routing equipment</p> <p>Fire Fault</p>	<p>Disable or press "ESC".</p>
"ESC"	<p>B1 Zone or Zone/Address</p> <p>B2 Output</p> <p>B3 Output type</p> <p>B4 Alarm devices</p> <p>B5 Routing equipment</p> <p>B6 Alert annunciation function</p> <p>Escape menu</p>	<p>Scroll to another menu or press "ESC" or "Escape menu".</p>



## 25.6 Alert Annunciation (H2/B6)

### Normal function:

The **AA** function For alarm points / zones programmed for **Alert Annunciation** (via EBLWin) is normally enabled via a time channel, e.g. enabled daytime (during working hours) and disabled night time.

As an alternative, the **AA** function can be continuously enabled (always on).

The **AA** function can be disabled via this menu (H2/B6) i.e. the **AA** function will be turned off for the alarm points / zones programmed for **Alert Annunciation** in spite of the time channel is "on" or if they are programmed to be continuously enabled.

The **AA** function will remain off until re-enabled again via this menu.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H2.	H2 Disable or re-enable	
"↓"	B1 Zone or Zone/Address B2 Output B3 Output type B4 Alarm devices B5 Routing equipment B6 Alert annunciation function  Escape menu	
Scroll to menu B6.	B6 Alert annunciation function	Alert Annunciation function can be disabled via menu B6
"↓"	Disable Alert annunciation	Press "↓" to disable, which will be indicated with "√" and a beep. The disablement will be automatically shown in the Re-enable list
"↓"	Disable Alert annunciation -- Re-enable list ----- Alert annunciation off  →	Use the soft key "→" to toggle between <b>Disable</b> and <b>Re-enable</b> .

"→ "	<p>Disable -----</p> <p>Alert annunciation</p> <p>Re-enable list</p> <p>Alert annunciation off</p> <p>→ </p>	<p>Press "↓" to re-enable.</p> <p>Alert annunciation off will disappear from the list, indicated with a beep.</p>
"↓"	<p>Disable</p> <p>Alert annunciation</p>	<p>Disable or press "ESC".</p>
"ESC"	<p>B1 Zone or Zone/Address</p> <p>B2 Output</p> <p>B3 Output type</p> <p>B4 Alarm devices</p> <p>B5 Routing equipment</p> <p>B6 Alert annunciation function</p> <p>Escape menu</p>	<p>Scroll to another menu or press "ESC" or "Escape menu".</p>

## 26 Set Calendar and Clock (H3)

The real time clock (RTC) component has a capacitor as a backup supply. When the Control Unit is turned on for the first time<sup>81</sup>, only the date, time and day of the week required to be set. Upon the completion of the commissioning work, the clock must be checked and corrected if required, so that the "time stamps" for event log is correct.

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

**Note:** If no changes required, press "ESC" instead of "↵" to return to menu H3.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H3.	<b>H3 Set calendar and clock</b>	
"↵"	DD=MM-YYYY hh:mm <b>Monday</b> Tuesday Wednesday Thursday Friday Saturday Sunday	The date & time shown is valid when this menu is opened. If required, change the date, time and/or weekday (press "▼" or "▲" to select the weekday). <u>The "clock" starts again as from the date, time, etc. shown in the display when you press "↵".</u> <b>If no changes required, press "ESC" instead of "↵".</b>
"↵"	<b>H3 Set calendar and clock</b>	Scroll to another menu or press "ESC".

<sup>81</sup> The capacitor can supply the RTC for a couple of days. When the power is turned off, it is recommended to check / set the date and time in menu H3.

## 27 Present System Status (H4)

If a printer is mounted (an option for Control Unit FT1020G3), it is possible to get a print-out from some of the menus. In this case, the soft key "Print" (P6) is 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 that has already been 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. A disabled **zone** programmed with address 00 will be displayed as ZZZ-00. Disablements by time channels are listed in menu H4/U2.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H4.	<b>H4 Present system status</b>	
"↓"	<b>U1 Disablement</b> U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Technical warning U7 Event log U8 Information	All disablements in the system, except disablements by time channels, will be shown in menu U1. Press "↓".
"↓"	Zone XXX address XX disabled dd-mm-yyyy hh:mm  Zone XXX is disabled Automatic re-enable hh:mm dd-mm-yyyy hh:mm  Alarm points disabled by time channel in Control Unit XX dd-mm-yyyy hh:mm ....  <div style="text-align: center;">             Disablement 1 to 3 of 7  <div style="border: 1px solid black; padding: 2px 10px; display: inline-block;">Print</div> </div>	If there are no disablements --List is empty-- will be shown. It is a dynamic list in which you can scroll with "▼" or "▲". (Information is shown about disablements by time channels.) If a printer is mounted, the soft key "Print" will be visible. Press "Print" for a print-out of all items in the list.
"ESC"	<b>U1 Disablement</b>	Scroll to another menu or press "ESC".


## 27.2 Disablement by Time Channel (H4/U2)

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

**Note:** All other disablements are listed in menu H4/U1.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H4.	<b>H4 Present system status</b>	
"↵"	<b>U1 Disablement</b> U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Technical warning U7 Event log U8 Information	All disablements by time channels, will be shown in menu U2. Press "↵".
Scroll to menu U2.	<b>U2 Disablement by time channel</b>	
"↵"	Zone XXX address XX disabled by time channel Zone XXX address YY disabled by time channel. .... ....  Number of disablement by time channel: 2	If there are no disablements --List is empty-- will be shown. It is a static list (up to 4 items per page) in which you can scroll with "▼" or "▲".
"ESC"	<b>U2 Disablement by time channel</b>	Scroll to another menu or press "ESC".

## 27.3 Open Doors (H4/U3)

If any door in the system is open, the door open symbol  is shown in the symbol area of the display.

See also chapter "Open door" page 43.

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 88.
Scroll to menu H4.	<b>H4 Present system status</b>	
"↓"	<b>U1 Disablement</b> U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Technical warning U7 Event log U8 Information	All open doors in the system will be shown in menu U3. Press "↓".
Scroll to menu U3.	<b>U3 Open doors</b>	
"↓"	Door open Control Unit 00 dd-mm-yyyy hh:mm  Door open Control Unit 01 fire brigade panel 00 dd-mm-yyyy hh:mm .... ....  Open door 1 to 2 of 2  <div>Print</div>	It is a dynamic list in which you can scroll with "▼" or "▲".  If a printer is mounted, the soft key "Print" will be visible. Press "Print" for a print-out of all items in the list.
"ESC"	<b>U3 Open doors</b>	Scroll to another menu or press "ESC".

**Note:** During printing, "Print" will be replaced with "Abort printing".

## 27.4 Sensor Values (H4/U4)

The "Momentary" value in this menu will be updated after every detector polling, i.e. approximately every 6 seconds.

The very first week average sensor value for the 430x and 440x detectors in **NORMAL mode** is calculated within 2½ minutes after SSD download & restart. During these 2½ minutes, no fire alarm can be activated and "Weekly: 00.0%/m" will be shown. The "Weekly" value will thereafter be updated every week.

For the 440x detectors in **Advanced Mode** the "Weekly" value is 00.0%/m on delivery. It will be updated the very first time after 13 minutes. Thereafter, it will be calculated every 13 minutes but then will only be changed downwards if required. After 18 hours it can be changed downwards or upwards and after additional 18 hours (36 hours in total) it can be changed downwards or upwards and it is also saved in the detector's EEPROM, i.e. that value will be used after the power is disconnected from the detector. The "Weekly" value for the 440x detectors in Advanced Mode is also called the "Contamination Compensation Value (CCV).

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

"Algorithm" shows the algorithm currently in use.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H4.	<b>H4 Present system status</b>	
"↓"	<b>U1 Disablement</b> U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Technical warning U7 Event log U8 Information	
Scroll to menu U4.	<b>U4 Sensor values</b>	
"↓"	Start sensor: 000000	Write the technical number and/or press "↓" to start as from sensor 000001.
"↓"	<p><i>For an Analog multi detector 4300 / 4400 in <b>NORMAL mode</b>:</i></p> <p>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</p> <p><i>For an Analogue heat detector 3308 / 3309 in <b>NORMAL mode</b>:</i></p> <p>Sensor: 001-03 (technical address 000002)            Momentary: XX°C      Min: XX°C            Algorithm: XX      Max: XX°C</p>	<p>If there are no sensors (analogue detectors) when "↓" is pressed, the list view will not open. It is a list in which you can scroll with "▼" or "▲".</p> <p>If printer is mounted, the soft key "Print" will be visible. Press "Print" for a print-out.</p>

	<p>For an Analogue multi detector <b>4400</b> in <b>Advanced Mode</b>:</p> <p>Sensor: 001-01 (technical address 000001)</p> <p>Momentary: XX.X%/m      Weekly: XX.X%/m</p> <p>Perf factor: X.XX%/m      Min: XX.X%/m</p> <p>Algorithm: Xxxxxx      Max: XX.X%/m</p> <p>Momentary: XX°C      Min: XX°C</p> <p>   Max: XX°C</p> <p style="text-align: center;"><b>Print</b></p>	
"↓"	Start sensor: 000000	Write another technical number and press "↓" or press "ESC".
"ESC"	U4 Sensor values	Scroll to another menu or press "ESC".

**Note:** During printing, "Print" will be replaced with "Abort printing".

### 27.4.1 Performance Factor:

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

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.

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

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.

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

### 27.4.2 Algorithms

Table 15 Algorithms and abbreviations in normal mode

Algorithm	Abbreviation <sup>82</sup>
Detectors 3308/3309, 430x and 440x, all in <u>NORMAL mode</u> .	
Normal sensitivity (3%/m) & Normal detection (15 s)	<b>N-15</b>
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	<b>A1</b>
Heat algorithm, Class A2 (S)	A2

<sup>82</sup> If some other short name is required, it can be changed in EBLWin. Up to six characters can be used.



Heat algorithm, Class B (S)	B
Decision algorithm	Dec <sup>83</sup>

Default is N-15 and A1 respectively.

Table 16 Algorithms for 4400 in advanced mode

<b>Algorithm</b> Detector 4400 in <u>Advanced Mode</u> .	<b>Abbreviation</b>
Normal area	<b>Normal</b>
Clean area	Clean
Cooking-Welding area	Welding
Heater area	Heater
Smoke-Steam area	Smoke

Default is Normal.

Table 17 Algorithms for 4401 in advanced mode


<b>Algorithm</b> Detector 4401 in <u>Advanced Mode</u> .	<b>Abbreviation</b>
Normal area	<b>Normal</b>
Clean area	Clean
Smoke-Steam area	Smoke

Default is Normal.

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<sup>83</sup> Analogue multi detector 4300 only.

## 27.5 Sensors Activating SERVICE Signal (H4/U5)

When SERVICE signal is generated in the system, the search symbol  is shown in the display's symbol area.

Regarding the SERVICE signal levels, see Technical / Programming Manual, chapter "SERVICE signal".


Menu H4/U5 is a list of the sensor(s) activating SERVICE signal.


**Note:** SERVICE signal provides only information to indicate that the sensor has to be replaced soon with a new/clean sensor. After the replacement, the SERVICE signal has to be acknowledged, see chapter "Acknowledge SERVICE signal (H8/S2)", page 130.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H4.	<b>H4 Present system status</b>	
"↓"	<b>U1 Disablement</b> U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Technical warning U7 Event log U8 Information	
Scroll to menu U5.	<b>U5 Sensors activating SERVICE signal</b>	
"↓"	Sensor, Zone ZZZ address AA needs service technical number xxxxxx 30-07-2015 09:09:15 Sensor, Zone ZZZ address AA needs service technical number xxxxxx 30-07-2015 19:09:35 Number of sensors: 2 <div style="text-align: center; margin-top: 10px;"> <div style="background-color: black; color: white; padding: 2px 10px; display: inline-block;">Print</div> </div>	If there are no sensors activating service signal, --List is empty-- will be shown. It is a list in which you can scroll with "▼" or "▲". If printer is mounted the soft key "Print" will be visible. Press "Print" for a print-out of all items in the list.
"ESC"	<b>U5 Sensors activating SERVICE signal</b>	Scroll to another menu or press "ESC".

**Note:** During printing "Print" will be replaced with "Abort printing".

## 27.6 Technical Warning (H4/U6)

A technical warning is an event that is neither a fire alarm nor a fault. It is information to indicate that an event has occurred as a result of activating a programmable input. The text message, shown in the CIE display, is user definable message (up to 40 characters). One or more activated technical warnings are indicated by  in the display's symbol area.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H4.	<b>H4 Present system status</b>	
"↶"	<b>U1 Disablement</b> U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Technical warning U7 Event log U8 Information	
Scroll to menu U6.	<b>U6 Technical warning</b>	
"↶"	<div>  </div> Technical warning text message 29-07-2015 09:09:15 (User definable text message) 29-07-2015 19:09:35  1 to 2 of 2  <div>Print</div>	<p>If there are no technical warnings, --List is empty-- will be shown. It is a list in which you can scroll with "▼" or "▲".</p> <p>If printer is mounted, the soft key "Print" will be visible. Press "Print" for a print-out of all items in the list.</p>
"ESC"	<b>U6 Technical warning</b>	Scroll to another menu or press "ESC".

**Note:**

During printing, "Print" will be replaced by "Abort printing".

Technical warnings can be used to activate programmable output.

## 27.7 Event Log (H4/U6)

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

- Alarm log (alarm events, e.g. fire alarm, fire alarm reset, etc.)
- Interlocking log (only interlocking events)
- General event log (all other type of events)

The origin of the event, e.g. **CU00** (see below), may be originated from **EBLWin**, **WebG3** or **Ext#** (External system no. # connected via Web-server).

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H4.	<b>H4 Present system status</b>	
"↩"	<b>U1 Disablement</b> U2 Disablement by time channel U3 Open doors U4 Sensor values U5 Sensors activating SERVICE signal U6 Technical warning U7 Event log U8 Information	
Scroll to menu U7.	<b>U7 Event log</b>	
"↩"	Select event log: <b>Alarm log</b> Interlocking log General event log	Use "▼" or "▲" to select a log. (e.g. the "Alarm log".)
"↩"	Command: Reset all alarms 28-05-2014 09:25:30 CU00  FIRE ALARM zone 123 address 45 28-05-2014 09:09:15 CU00  FIRE ALARM zone 123 address 46 28-05-2014 09:07:01 CU00   Event 15 to 13 of 21  <div>Print</div>	If there are no events, -- List is empty-- will be shown. The list is dynamic in which you can scroll with "▼" or "▲". The most recent event is on top of the list.  If printer is mounted, the soft key "Print" will be visible. Press "Print" to select and print the events during the latest <b>hour, day, week, month</b> or <b>All</b> . Scroll with "▼" or "▲" to view more events.
"ESC"	<b>U7 Event log</b>	Scroll to another menu or press "ESC".

**Note:** During printing, "Print" will be replaced with "Abort printing".

## 27.8 Information (H4/U8)

This menu can be used to show the following information for the specific Control Unit you currently use:

**Main board version:** The S/W (software / firmware / system program) version downloaded to the Main board 5010.

**MMI board version:** The S/W (software / firmware / system program) version downloaded to the MMI board 5011.

**Alarm counter:** The alarm counter is increased with "1" every time the CIE enters a real "fire alarm condition" (i.e. fire alarm indication in the display, LEDs "Fire" are illuminating and the CIE buzzer is sounding). Alarms from zones in test mode will not be counted. The alarm counter starts at 000 and goes to 999. It can be reset to 000 via EBLWin (Control unit menu "Reset alarm counter..."). The value will be retained also after the CIE has been completely powered off.

**Max. number of allowed alarm points** that can be used in this Control Unit, i.e. 512 or 1024. (Configured number of alarm points.)

**Serial number:** The manufacturer's serial number (year YY, week WW, number of the main board NNN) used e.g. when upgrading max. no. of allowed alarm points.

**Control unit number:** 00-29.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
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 Technical warning U7 Event log U8 Information	
Scroll to menu U8.	U8 Information	
"↓"	Main board version: 2.2.0 MMI board version: 2.2.0 Alarm counter: nnn Max number of allowed alarm points: xxx Serial number: xxxxxxxx Control unit: NN <div>Print</div>	If printer is mounted the soft key "Print" will be visible, else not. Press "Print" for a print-out.
"ESC"	U8 Information	Scroll to another menu or press "ESC".

## 28 Service (H5)

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Menu H5 can be used to display certain information to help during commissioning an installation or maintaining existing system (e.g. when you power on and when you are programming a Control Unit / system).

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

Via a PC<sup>84</sup> and EBLWin you can:

- download / backup (upload) the Site Specific Data (SSD)
- create and download software (S/W), settings, configurations, Control Unit and system properties.
- create and download the user definable text messages (alarm texts) shown in the display in the Control Unit and Display units (if used).

**Note:** To be able to log on to an FT1020G3 CIE via a PC using EBLWin, the PC has to be provided with an EBLWin key (5094). This USB device has a number (a key) required for the log on.

Via a PC<sup>85</sup> and **TLON Manager** you can create and download (install) the TLON network configuration (TLON project).

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<sup>84</sup> Connected to the "USB" connector in the front panel.

<sup>85</sup> Connected to the modular connectors J10 (TLON network 0) or J11 (TLON network 1) on the main board 5010.

## 28.1 Calibration of Supervised Outputs (H5/A1)

Supervised (monitored) outputs:

- Voltage outputs (S0-S3) in each Control Unit.
- Voltage outputs (VO0-VO1) in the COM loop output unit 3364.
- Voltage outputs (0-2) on the I/O exp. board 4583.

When all alarm devices (sounders, etc.) are connected, including required end-of-line devices<sup>86</sup> and when the SSD is downloaded, a **calibration** of the supervised outputs must be performed.

Function: If the actual value at any time differs from the calibrated value  $\pm$  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", see page 88.
Scroll to menu H5.	H5 Service	
"↓"	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 Setup wireless detectors A9 SSD information	
"↓"	Start calibration of supervised outputs (press ↓)	
"↓"	Calibration completed successfully ✓	
"ESC"	A1 Calibration of supervised outputs	Calibration is ready. Scroll to another menu or press "ESC".


**Note:** After the calibration is completed, it is recommended to do a "Safe shut down of Control Unit (H8/S5)" page 134. This will save the SSW data (e.g. the calibration values) in a Flash ROM.

**Note:** Details of A8 have been removed, the wireless detectors are not available yet for the Australian market.


<sup>86</sup> 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.

## 28.2 Sensitive Fault Detection Mode (H5/A2)

During commissioning, the "Sensitive fault detection mode" can be used to enable the installation personnel to detect the faults faster than normal mode. The time delay for each fault will then be reduced, i.e. you may find some faults now instead of later on.

When the "Sensitive fault detection mode" is turned on, it is indicated by the LED **Routing equipment** "Fault TX activated" (L13), "Fault" output for routing equipment is "activated" and the search symbol  appears in the symbol area of the display.

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

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H5.	<b>H5 Service</b>	
"↵"	<b>A1 Calibration of supervised output</b> 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 Setup wireless detectors A9 SSD information	
Scroll to menu A2.	<b>A2 Sensitive fault detection mode</b>	
"↵"	Sensitive fault detection mode is not active Press ↵ to activate	
"↵"	Sensitive fault detection mode was activated Press ↵ to deactivate 	
"↵"	Sensitive fault detection mode is not active Press ↵ to activate	
"ESC"	<b>A2 Sensitive fault detection mode</b>	Scroll to another menu or press "ESC".



## 28.3 Service Mode for COM-Loop (H5/A3)

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

A voltmeter can be used to check the voltage / voltage drop on different segments on the loop or to find a single break on the loop. (Since there is voltage on the loop, short circuit isolators will work normally).

It is recommended to do this check also when the power of FT1020G3 is supplied via the backup battery only, since the battery voltage can be different (compared with the power supply voltage) due to the battery condition, backup duration, etc.

The "Service mode for COM-loop" is indicated by LED **Fault / Disables** "General disables" (L10). If you exit 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", see page 88.
Scroll to menu H5.	<b>H5 Service</b>	
"↓"	<b>A1 Calibration of supervised output</b> 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 Setup wireless detectors A9 SSD information	
Scroll to menu A3.	<b>A3 Service mode for COM-loop</b>	
"↓"	Service mode for loop: 0 CU: 00 <b>A Direction</b> B Direction Both	Write loop and Control Unit numbers. Use "▼" or "▲" to scroll to the required direction(s) and press "↓".
"↓"	Service mode Control Unit 00 COM-loop 0 Supplied from A-direction only	When you leave this menu by pressing "ESC" or "↓" the service mode will be terminated, i.e. the communication will return to the normal mode.
"ESC" or "↓"	<b>A3 Service mode for COM-loop</b>	Scroll to another menu or press "ESC".

## 28.4 Display Current Consumption in Unit (H5/A4)

**Control unit:** The total current consumption (including the charging current at 24V) for the selected Control Unit (CIE) when it is connected to the mains (230 V<sub>AC</sub>), i.e. this function is not working when the mains is switched off.

**Charging:** The battery charging current for the selected Control Unit (CIE). Also battery temperature and "low capacity voltage" will be shown.<sup>87</sup>

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H5.	<b>H5 Service</b>	
"↓"	<b>A1 Calibration of supervised output</b> 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 Setup wireless detectors A9 SSD information	
Scroll to menu A4.	<b>A4 Display current consumption in Control Unit</b>	
"↓"	Select Control Unit: : 00 (press ←)	Write Control Unit number and press "↓".
"↓"	Please wait.....	
	No reply from Control Unit.....	If the Control Unit is not exist or doesn't respond.
	Current consumption in Control Unit 00: From rectifier: xxxx mA Charging: xxxx mA (battery temperature xx°C) Low capacity voltage diff: xxxxx mV <sup>87</sup>	Info. automatically updated every 5 second.
"↓" or "ESC"	<b>A4 Display current consumption in unit</b>	Scroll to another menu or press "ESC".

<sup>87</sup> During the battery capacity check the voltage is measured with and without a resistor. A difference between these two voltages > 700 mV will result in a "Low battery capacity" fault.

## 28.5 Display Current Consumption COM-loop (H5/A5)

The current consumption (an average value) for each COM loop can be displayed.

**Note:** very small current consumption (< 10 mA) cannot be presented correctly / precisely since the accuracy is  $\pm 5$  mA.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H5.	<b>H5 Service</b>	
"↓"	<b>A1 Calibration of supervised output</b> 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 Setup wireless detectors A9 SSD information	
Scroll to menu A5.	<b>A5 Display current consumption on COM-loop</b>	
"↓"	Display current consumption on COM-loop: <b>0</b> Control Unit: 00 (press ↵)	Write loop number and Control Unit number and press "↓".
"↓"	Please wait.....	
	No reply from Control Unit.....	If the Control Unit is exist or doesn't respond.
	Current consumption on COM-loop: 0 Control Unit 00 is xxxx mA	The current consumption accuracy is $\pm 5$ mA. Info automatically updated every 5 second
"↓" or "ESC"	<b>A5 Display current consumption on COM-loop</b>	Scroll to another menu or press "ESC".

## 28.6 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 should be normally "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/S1).

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H5.	<b>H5 Service</b>	
"↓"	<b>A1 Calibration of supervised output</b> 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 Setup wireless detectors A9 SSD information	
Scroll to menu A6	<b>A6 Display statistics for communication</b>	
"↓"	Display statistics for COM-loop: <b>0</b> Control Unit: 00	Write loop number and Control Unit number and press "↓".
"↓"	Please wait.....	
	No reply from Control Unit.....	If the Control Unit is not exist or doesn't respond.
	Number of pollings: nnnnnnn Parity fault: 000000 00.0% Number of bits fault: 000000 00.0% No answer: 000000 00.0% Bit length fault: 000000 00.0%	<b>Note:</b> The values are not live updated.
"↓" or "ESC"	<b>A6 Display statistics for communication</b>	Scroll to another menu or press "ESC".

## 28.7 Activate Address Setting Mode for DU (H5/A7)

This function can be used by commissioning / service technicians to activate the address setting mode<sup>88</sup> in the following Display Units connected to the CIE:

- External Presentation unit 1728
- Alert Annunciation units 1736

A specific unit or all units connected to one CIE can be activated for address setting.

**Note:** The units should be in operation and in quiescent condition, i.e. the units should already have an address.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H5.	<b>H5 Service</b>	
"↓"	<b>A1 Calibration of supervised output</b> 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 Setup wireless detectors A9 SSD information	
Scroll to menu A7	<b>A7 Activate address setting mode for DU</b>	
"↓"	Activate address setting mode for DU: Control unit: 00, display unit: 00 All	Write Control Unit number, and the unit's address or press "▶" to select "All" (i.e. all display units on the selected Control Unit).
"↓"	Address setting mode for display unit 00, Control Unit 00 activated	The address can now be edited in the display unit (DU) respectively.
"↓" or "ESC"	<b>A7 Activate address setting mode for DU</b>	Scroll to another menu or press "ESC".

The address is thereafter edited in the display unit (DU) respectively.

## 28.8 Setup wireless detectors (H5/A8)

Not available for the Australian and NZ markets yet.

<sup>88</sup> Can as an alternative be done via jumper "J4" inside the D.U. respectively.

## 28.9 SSD Information (H5/A9)

**SSD name:** as written in the EBLWin dialog box "System Properties" (Name).

**Downloaded:** date and time when the SSD was downloaded.

**User:** user name for the person who performed the SSD download.

**Computer:** computer name (if programmed) for the PC that was used for the SSD download.

**Domain:** domain (if programmed) for the PC that was used for the SSD download.

**EBLWin key:** the unique number for EBLWin key.

**Convention:** (i.e. country specific functions, default EBLWin settings, etc.) is set in conjunction with the installation of EBLWin<sup>89</sup>.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H5.	H5 Service	
"↓"	A1 Calibration of supervised output 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 Setup wireless detectors <sup>90</sup> A9 SSD information	
Scroll to menu A8	A9 SSD information	
"↓"	SSD name: XXXXXXXXXXXXXXXX Downloaded: yyyy-mm-dd hh:mm User: Nnnnnnn Computer: Cccccccccccccc Domain: Dddddddddd EBLWin key: 1234567890 Convention: XXX	If printer is mounted the soft key "Print" will be visible. Press "Print" to print the SSD information.
	Print	
"↓" or "ESC"	A9 SSD information	Scroll to another menu or press "ESC".

<sup>89</sup> To change the convention via EBLWin, "Level 2" password has to be selected, which requires a special password. Alternatively, EBLWin can be re-installed.

<sup>90</sup> Wireless smoke detectors are not available yet for the Australian market

## 29 FAULT Acknowledge (H6)

Regarding fault indication, etc., see chapter "Fault", page **Error! Bookmark not defined..**

See also chapter "Fault acknowledge", page 73.

All faults and the status / action are stored in the event log and can be listed, see chapter "Event log (H4/U7)", page 114.

Up to 300 faults in menu H6 can be listed:

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

The most recent fault is shown on the top of the list

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H6.	<b>H6 FAULT Acknowledge</b>	
"↓"	<div> <b>FAULT: Low battery capacity, Control Unit 00</b>  dd-mm-yyyy hh:mm </div> <div> FAULT: No reply zone 045 address 06  technical number 000005  Alarm text for 045-06 (user definable)  dd-mm-yyyy hh:mm /Serviced </div> <div> FAULT: No reply zone 021 address 05  technical number 000114  Alarm text for 021-05 (user definable)  dd-mm-yyyy hh:mm /Acknowledged </div> <div> Fault 1/3 is selected </div> <div> Print Previous page Next page </div>	<p>If there are no faults --List is empty-- will be shown. It is a dynamic list in which you can scroll with "▼" or "▲".</p> <p>If printer is mounted, the soft key "Print" will be visible. Press "Print" for a print-out of all faults during the latest:</p> <p><b>hour</b> <b>day</b> <b>week</b> <b>month</b> <b>All</b></p> <p>To acknowledge a fault, select it and press "↓". The selected fault has a boarder around it.</p>
"↓"	<div> <b>FAULT: Low battery capacity, Control Unit 00</b>  dd-mm-yyyy hh:mm /Acknowledged </div> <div> FAULT: No reply zone 045 address 06  technical number 000005  Alarm text for 045-06 (user definable)  dd-mm-yyyy hh:mm /Serviced </div> <div> FAULT: No reply zone 021 address 05  technical number 000114  Alarm text for 021-05 (user definable)  dd-mm-yyyy hh:mm /Acknowledged </div> <div> Fault 1/3 is selected </div>	<p>A corrected / serviced fault that is acknowledged will disappear from this list.</p>

	Print	Previous page	Next page		
"ESC"	H6 FAULT Acknowledge				Scroll to another menu or press "ESC".



## 30 Perform Zone Test (Test mode) (H7)

Zones can be tested via menu H1, refer to the maintenance standard AS1851 for more information in regards to the requirements. However, it is also possible to perform a zone test via menu (H7). Up to 100 zones can be set in test mode.

In test mode, only the alarm points are tested, i.e. no outputs (e.g. OWS or sounders) will be activated during the test (Alarm devices can be tested via menu H8/S4 and any output via menu H8/S8 or via EBLWin (when you are logged on)).

If a real fire alarm is activated by an **alarm point not in test mode**, the normal fire alarm functions will be activated, i.e. fire alarm presentation, outputs (OWS or sounders) activated, routing equipment (Fire Brigade TX) activated, etc.

See also chapter "The Information Area Priority Order", page 30.


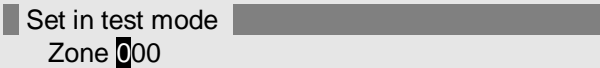

**Note:** If the Control Unit door is left open, the output(s) for routing equipment (Fire Brigade TX) may be disabled (if set so in EBLWin)<sup>91</sup>.

One or more zones in test mode are indicated by the LED "Test mode" (L8). The green polling LED in the 440x detectors will be turned off in test mode.

The zones are set one by one in test mode and the test mode has to be terminated for each zone one by one.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H7.	<b>H7 Perform ZONE TEST</b>	
"↓"	<div> <div>Set in test mode</div> <div>Zone 000</div> </div>	
Write the zone number (e.g. 001). "↓"	<div> <div>Set in test mode</div> <div>Zone 001 ✓</div> <div>-- End test mode -----</div> <div>Zone 001</div> <div>→</div> </div>	<p>Press "↓" to start the test mode. Indicated by "✓" and a beep. If the specified zone is not exist, it will be indicated with "X" instead of "✓" and a beep.</p> <p>All zones set in test mode will be shown in the "End test mode" list.</p> <p>Use the soft key "→ " to toggle between <b>Set in test mode</b> and <b>End test mode</b> list.</p>
"→ "	<div> <div>-- Set in test mode -----</div> <div>Zone _ _ _ ✓</div> <div>End test mode</div> <div>Zone 001</div> </div>	<p>After the testing, select a zone in the "End test mode" list and press "↓". The test mode has to be ended for all zones.</p>

<sup>91</sup> Not allowed in the Australian convention

		
<p>The zone(s) will <b>stay in test mode until the test mode is terminated</b>. The test mode is terminated in this menu or automatically after one hour.</p> <p>You will be automatically logged out 15 minutes after the latest "action" (using of any key) but the zone(s) will <b>stay in test mode until the test mode is terminated</b>, see above.</p> <p>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).</p> <p>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 normal.</p> <p>In the tested alarm point, the LED will light up, and the LEDs "Fire" (L1) in the CIE will light up for 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).</p> <p>An alarm point in test mode will <u>not</u> be able to generate a fault.</p>		
"↓" for each zone to end the test mode.		No zones in test mode. Set new zones in test mode or press "ESC".
"ESC"		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 CIE displays:

Zones 001 in test mode

Zones 002 in test mode

Etc.

**NOTE\_2:** If an alarm point (e.g. a manual call point) is in alarm state when the test mode is terminated, a fire alarm will be activated.

**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 Password for Service / Maintenance

Only authorised personnel have access to level 3A menus (e.g. H8) and a password for **level 3A** (Service technician) is required.

### 31.2 Disconnect / Reconnect Loop / Zone Line Input (H8/S1)



**Before physical connection / disconnection of loop units, etc. the loop (or zone line input) must be disconnected (voltage free) in order to avoid any damage to the units or the CIE, i.e. there will be no voltage on the "loop" or the zone line input.**

Zone Line Input requires an 8 zones Expansion Board 4580 in the Control Unit or an Addressable multipurpose I/O unit 3361 connected on a COM loop.

One or more disconnected "loops" are indicated by LED **Fault / Disablesments** "General disablesments" (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".

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H8.	<b>H8 Maintenance</b>	
"↓"	<b>S1 Dis- / Re-connect loop / zone line input</b> S2 Acknowledge SERVICE signal S3 Clear weekly average S4 Test of alarm devices S5 Safe shut down of Control Unit S6 Activate address in alarm mode S7 Synchronize the Control Units S8 Activate / Reset outputs	Via menu S1 a COM loop, a zone line input on Expansion Board and an addressable zone interface input can be Disconnected / Re-connected
"↓"	<div> <div>Disconnect</div> <div>COM loop 0, Control Unit 00</div> </div> <div>Change type of disablement</div>	Use the soft key "Change type of disablesments" to toggle between: <b>COM loop</b> <b>Zone Line Input</b> (exp. board) <b>Zone Interface Input</b> (loop unit) to disconnect, which will be indicated with "√" and a beep.
Write COM loop number and Control Unit number. "↓"	<div> <div>Disconnect</div> <div>COM loop 0, Control Unit 00</div> </div> <div>           -- Re-connect list (1) -----            COM loop 0, Control Unit 00         </div>	The loop will be automatically shown in the Re-connect list. If the specified loop etc. is not exist, it will be indicated with "X" instead of "√" and a beep. Use the soft key "→ " to toggle between the

	 Change type of disablements	<b>Disconnect and Re-connect list.</b>
"→ "	-- Disconnect ----- COM loop __, Control Unit __ Re-connect list (1) COM loop 0, Control Unit 0  Change type of disablements	Select in the Re-connect list with "▼" (in this example, there is only one item) and press "↓".  Re- connected loop will disappear from the list, indicated with a beep.
	Disconnect COM loop 0, Control Unit 00 Change type of disablements	Disconnect (or Re-connect) another "loop" or press "ESC".
"ESC"	S1 Dis- / Re-connect loop / zone line input	Scroll to another menu or press "ESC".

### 31.3 Acknowledge SERVICE Signal (H8/S2)



When SERVICE signal is generated in the system, the search symbol is shown in the display's symbol area. See also chapter "Sensors activating SERVICE signal (H4/U5)", page 112.

Sensor = analogue smoke detector.


Valid only for 430x and 440x sensors in NORMAL mode.

When service signal from a sensor (smoke detector) is acknowledged, the sensor is given a default week average sensor value (same as for a new / clean sensor, i.e. "1" = 0.1 %/m). **First** replace the sensor and **then** acknowledge the service signal **as soon as possible**. The first week average sensor value after acknowledge will be calculated within one hour, then each week.

**Note:** If a sensor 430x and 440x in NORMAL mode is replaced without having generated service signal, it has to be reset to the default week average sensor value via menu H8/S3, page **Error! Bookmark not defined.**

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H8.	H8 Maintenance	
"↓"	S1 Dis- / Re-connect loop / zone line input S2 Acknowledge SERVICE signal S3 Clear weekly average S4 Test of alarm devices S5 Safe shut down of Control Unit S6 Activate address in alarm mode S7 Synchronize the Control Units S8 Activate / Reset outputs	
Scroll to menu S2.	S2 Acknowledge SERVICE signal	

"↓"	<p>Sensor, Zone ZZZ address AA needs service technical address xxxxxx 28-05-2014 09:09:15</p> <p>Sensor, Zone XXX address AA needs service technical address xxxxxx 28-05-2014 19:09:35</p> <p>Sensor 1/2 is selected</p> <p>Previous page   Next page</p>	<p>If there are no sensors -- List is empty-- is shown. This is a dynamic list in which you can scroll. The most recent service signal / sensor is shown on top of the list.</p> <p>Use "▼" or "▲" to select a sensor (the selected sensor has a border).</p> <p>Press "↓" to acknowledge the sensor.</p>
"↓"	<p>Sensor, Zone XXX address AA needs service technical address xxxxxx 28-05-2014 09:09:35</p> <p>Sensor 1/1 is selected</p> <p>Previous page   Next page</p>	<p>The acknowledged sensor disappears from the list. Continue as above or press "ESC".</p>
"ESC"	<p>S2 Acknowledge SERVICE signal</p>	<p>Scroll to another menu or press "ESC".</p>

The "Service symbol"  and the "Service message" will be turned off when all sensors have been acknowledged.

## 31.4 Clear Weekly Average (H8/S3)

Valid only for 430x, 4400 and 4401 sensors in **NORMAL mode**.

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

**Note:** First, replace the sensor and then clear the week average value **as soon as possible**. Authorised service personnel only, must do this. Using the function incorrectly may 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"		According to chapter "Access", see page 88.
Scroll to menu H8.	<b>H8 Maintenance</b>	
"↓"	S1 Dis- / Re-connect loop / zone line input S2 Acknowledge SERVICE signal S3 Clear weekly average S4 Test of alarm devices S5 Safe shut down of Control Unit S6 Activate address in alarm mode S7 Synchronize the Control Units S8 Activate / Reset outputs	
Scroll to menu S3.	<b>S3 Clear weekly average</b>	
"↓"	Clear weekly average zone: 000 address: 00 (press ←)	Write the required zone and address and press "↓".
Write the zone and address numbers, (e.g. 001 and 01). "↓"	Weekly average zone 001 address 01 cleared	
"ESC"	<b>S3 Clear weekly average</b>	Continue as above or scroll to another menu or press "ESC".

## 31.5 Test of Alarm Devices (H8/S4)

The programmable outputs of type "Alarm device" <sup>92</sup> can be collectively activated via this menu (H8/S4), which allows for the alarm devices to be tested. The test cannot be started if a fire alarm in the system already exists.

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.<sup>93</sup>

**Note:** Disabled and silenced alarm devices will also be tested.

The test will continue for one hour if not stopped via this menu (H8/S4) or if a fire alarm is activated in the system.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H8.	<b>H8 Maintenance</b>	
"↓"	S1 Dis- / Re-connect loop / zone line input S2 Acknowledge SERVICE signal S3 Clear weekly average S4 Test of alarm devices S5 Safe shut down of Control Unit S6 Activate address in alarm mode S7 Synchronize the Control Units S8 Activate / Reset outputs	
Scroll to menu S4.	<b>S4 Test of alarm devices</b>	
"↓"	Test of alarm devices Control Unit: <b>00</b> All Press ↓ to start test.	Write Control Unit number or press "►" for "All". Press "↓" to start the test.
"↓"	Test of alarm devices, Control Unit 00 in progress. Press ↓ to end test	The test will continue for one hour if not stopped via this menu (S4) or if a fire alarm is activated in the system. Press "↓" to terminate the test.
"↓"	Test of alarm devices ended. Press ↓ to return to menu	
"↓"	<b>S4 Test alarm devices</b>	Scroll to another menu or press "ESC".

<sup>92</sup> Including Addressable siren 3377 /4477, Addressable sounder base 3379 and OWS.

<sup>93</sup> For the alarm devices 3377/ 4477 and 3379, the tone with the highest priority level (and type "alarm device") will be automatically selected.

### 31.6 Safe Shut Down of Control Unit (H8/S5)

**It's not recommended** to power down a Control Unit (i.e. no 230 V<sub>AC</sub> and no battery) without first performing a safe shut down of the Control Unit.<sup>94</sup> Safe shut down will save the SSW in a Flash ROM and put the CPUs at rest. See also chapter "Restart", page 85.

**It's highly recommended** to do a safe shut down after completing the commissioning of an installation and calibrating the supervised outputs, changing access codes 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 down, the Fault TX output(s) will be "activated".

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H8.	<b>H8 Maintenance</b>	
"↵"	<b>S1 Dis- / Re-connect loop / zone line input</b> S2 Acknowledge SERVICE signal S3 Clear weekly average S4 Test of alarm devices S5 Safe shut down of Control Unit S6 Activate address in alarm mode S7 Synchronize the Control Units S8 Activate / Reset outputs	
Scroll to menu S5.	<b>S5 Safe shut down of Control Unit</b>	
"↵"	Shut down Control Unit 00? <b>No</b> Yes	Write Control Unit number and press "▼" to select "Yes".
"▼" "↵"	Ready for shut-down, break the power. Automatic restart within xxx seconds!  <i>xxx will start at 300 seconds and countdown to 000 before the Control Unit will restart automatically. During the countdown the buzzer will start sounding since the communication between the Main and MMI boards has stopped. (Can be silenced via push button "Silence buzzer".)</i>	The SSW is now saved and the Main board and MMI board CPUs are at rest. <u>You can now power down the Control Unit.</u> If not, the Control Unit will restart automatically after 300 seconds (5 minutes).

<sup>94</sup> If no safe shutdown is performed, a fault ("FAULT: Read/write site data (SSW), CU xx") may be generated when you power up the Control Unit again.



<p>Power off / Power on <u>or</u> after 5 min.</p>	<div> <p>FAULT: Restart Control Unit 00, code 50, address 0 dd-mm-yyyy hh:mm /Serviced</p> <p>FAULT: Restart Control Unit 00, code 00, address 0 dd-mm-yyyy hh:mm /Serviced</p> <p>Fault 1/2 is selected</p> <div> <p>Print</p> <p>Previous page</p> <p>Next page</p> </div> </div>	<p>After a restart (see page 85), two restart faults will be always exist. The code will be 00 / 50 after Power off / Power on restart and 03 / 53 after a countdown restart, address 0. This fault has to be acknowledged, see chapter "FAULT Acknowledge (H6)", page 125.</p>
--	---	---

Code 50 and 53 are displayed only if the control panel has an MMI board (5011).

**Note:** Prior 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 CIE is powered up, the data stored in the Flash ROM will be used.

**WARNING:** If *safe shut down* is not performed just before a CIE power down, then when powered on, the Flash ROM may be empty (default setting will be used) or the stored data may be old / not valid.

## 31.7 Activate Address in Alarm Mode (H8/S6)

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

In all other Control Units in the system, the alarm will be presented as a Test mode alarm.

**Note:** A detector programmed for "Quiet alarm" will activate a Quiet alarm instead of a fire alarm

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H8.	<b>H8 Maintenance</b>	
"↓"	<b>S1 Dis- / Re-connect loop / zone line input</b> S2 Acknowledge SERVICE signal S3 Clear weekly average S4 Test of alarm devices S5 Safe shut down of Control Unit S6 Activate address in alarm mode S7 Synchronize the Control Units S8 Activate / Reset outputs	
Scroll to menu S6.	<b>S6 Activate address in alarm mode</b>	
"↓"	Select zone: 000 address: 00 (press ↵)	
Write the zone number and address e.g. 123-45. "↓"	Select zone: 123 address: 45 (press ↵)	
"↓"	First alarm: 123-45 Latest alarm: 123-45 ----- Select zone: 123 address: 45 (press ↵)	1 zone in alarm  Press "ESC" to exit this menu. <u>The fire alarm has to be reset as a normal fire alarm</u> (press "Reset").
"ESC" "Reset"	<b>S6 Activate address in alarm mode</b>	Scroll to another menu or press "ESC".
	First alarm: 123-45 Alarm number 1(of 1)  Test mode  Zone                      Address <b>123-45</b> SMOKE  Alarm text for 123-45  Menu	This manually activated fire alarm will be presented in the display of all Control Units and indicated by the LEDs "Fire" (L1) and "Fire Brigade TX" (L4).  This manually activated alarm must be reset by the push button "Reset" (P3)

## 31.8 Synchronise the Control Units (H8/S7)

After any Control Unit restart, synchronisation will start automatically.

Synchronisation can also be started via EBLWin and this menu (H8/S7).

The Control Units must be synchronised when the following fault message is shown:

**FAULT: Control unit xx has wrong information**

During the synchronisation, the following information will be displayed for all Control Units in the system:

↻ (rotating clockwise) = Synchronisation in progress for the Control Unit (CU).

✓ = Synchronisation completed successfully for the Control Unit (CU).

<Blank> = Synchronisation failed for the Control Unit (CU).

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H8.	<b>H8 Maintenance</b>	
"↓"	<b>S1 Dis- / Re-connect loop / zone line input</b> S2 Acknowledge SERVICE signal S3 Clear weekly average S4 Test of alarm devices S5 Safe shut down of Control Unit S6 Activate address in alarm mode S7 Synchronize the Control Units S8 Activate / Reset outputs	
Scroll to menu S7.	<b>S7 Synchronize the Control Units</b>	
"↓"	Start synchronization? <b>No</b> Yes	Press "▼", to select "Yes". Press "↓" to start the synchronisation.

<p>"▼" "↓"</p>	<p>Synchronisation in progress...</p> <table> <tr><td>CU00 ∅</td><td>CU10 ∅</td><td>CU20 ∅</td></tr> <tr><td>CU01 ∅</td><td>CU11 ∅</td><td>CU21 ∅</td></tr> <tr><td>CU02 ∅</td><td>CU12 ∅</td><td>CU22 ∅</td></tr> <tr><td>CU03 ∅</td><td>CU13 ∅</td><td>CU23 ∅</td></tr> <tr><td>CU04 ∅</td><td>CU14 ∅</td><td>CU24 ∅</td></tr> <tr><td>CU05 ∅</td><td></td><td>CU25 ∅</td></tr> <tr><td>CU06 ∅</td><td></td><td>CU26 ∅</td></tr> <tr><td>CU07 ∅</td><td>CU17 ∅</td><td>CU27 ∅</td></tr> <tr><td>CU08 ∅</td><td>CU18 ∅</td><td>CU28 ∅</td></tr> <tr><td>CU09 ∅</td><td>CU19 ∅</td><td>CU29 ∅</td></tr> </table>	CU00 ∅	CU10 ∅	CU20 ∅	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 ∅	<p>During the synchronisation, the progress symbol for each Control Unit is shown.</p> <p>In the example shown, CU15 &amp; CU16 are not programmed.</p>
CU00 ∅	CU10 ∅	CU20 ∅																														
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 ∅																														
<p>After a while.</p>	<p>Synchronisation completed dd-mm-yyyy hh:mm</p> <table> <tr><td>CU00 ✓</td><td>CU10 ✓</td><td>CU20 ✓</td></tr> <tr><td>CU01 ✓</td><td>CU11 ✓</td><td>CU21 ✓</td></tr> <tr><td>CU02 ✓</td><td>CU12 ✓</td><td>CU22 ✓</td></tr> <tr><td>CU03 ✓</td><td>CU13 ✓</td><td>CU23 ✓</td></tr> <tr><td>CU04 ✓</td><td>CU14 ✓</td><td>CU24 ✓</td></tr> <tr><td>CU05 ✓</td><td></td><td>CU25 ✓</td></tr> <tr><td>CU06 ✓</td><td></td><td>CU26 ✓</td></tr> <tr><td>CU07 ✓</td><td>CU17 ✓</td><td>CU27 ✓</td></tr> <tr><td>CU08 ✓</td><td>CU18 ✓</td><td>CU28 ✓</td></tr> <tr><td>CU09 ✓</td><td>CU19 ✓</td><td>CU29 ✓</td></tr> </table>	CU00 ✓	CU10 ✓	CU20 ✓	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 ✓	<p>Date and time for the latest completed synchronisation.</p> <p>The symbol "✓" means that the synchronisation process has been completed successfully.</p> <p>If the symbol "✓" is missing, the synchronisation is failed.</p>
CU00 ✓	CU10 ✓	CU20 ✓																														
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 ✓																														
<p>"ESC"</p>	<p>Start synchronization? <b>No</b> Yes</p>																															
<p>"ESC"</p>	<p><b>S7 Synchronize the Control Units</b></p>	<p>Scroll to another menu or press "ESC".</p>																														

### 31.9 Activate / Reset Outputs (H8/S8)

Any output<sup>95</sup> can be activated, i.e. the function can be tested (Can also be done via EBLWin).

The selected output will be activated no matter if the control expression is true or not.

The selected output will be reset only if the control expression is false (not true). If the control expression is true when you reset the output via menu H8/S8, the output will remain activated until the control expression is false (not true) again.

[illegible]

<sup>95</sup>Including Addressable siren 3377 / 4477 and Addressable sounder base 3379.

"→"	<p>-- Activate -----</p> <p>Loop unit _ _ _ _ _ output _</p> <p>Reset list (1)</p> <p>Loop unit 000001 output 0</p> <p>→   Change type of output</p>	<p>Select in the Reset list with "▼" (in this example there is only one output) and press "↓".</p> <p>The reset output will disappear from the list, indicated with a beep.</p>
"↓"	<p>Activate</p> <p>Loop unit 000000 output 0</p> <p>Change type of output</p>	<p>Continue as above or press "ESC".</p>
"ESC"	<p>S8 Activate / Reset output</p>	<p>Scroll to another menu or press "ESC".</p>

## 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 88.
Scroll to menu H9.	<b>H9 Interlocking outputs and inputs</b>	
"↩"	<b>C1 Activated interlocking outputs / inputs</b> C2 Activate / deactivate interlocking output C3 Disable / re-enable interlocking output	
"↩"	<b>C1 Activated interlocking outputs / inputs</b>	Activated interlocking outputs and inputs can be listed in menu C1.
"↩" Depending on activated outputs, and/or inputs, the following will be shown:	<div>Interlocking area AAA point PP output active User definable text message (if programmed) dd-mm-yyyy hh:mm</div> <hr/> <div>Interlocking area AAA point PP input/output active User definable text message (if programmed) dd-mm-yyyy hh:mm</div> <hr/> <div>Interlocking area AAA point PP input active User definable text message (if programmed) dd-mm-yyyy hh:mm</div> <div>3 of 5</div> <div><b>Print</b></div>	<p>It is a dynamic list in which you can scroll with "▼" or "▲".</p> <p>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.</p>
"ESC"	<b>C1 Activated interlocking outputs / inputs</b>	Scroll to another menu or press "ESC".

## 32.2 Activate / Deactivate 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.

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

**Note:** The output will be deactivated if its control expression still true and can't be activated again until the control expression has been false. Also a latched output will be deactivated.

If an interlocking output is activated via its control expression and with latching output selected (in EBLWin), the output **has to** be deactivated via this menu.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H9.	<b>H9 Interlocking outputs and inputs</b>	
"↓"	<b>C1 Activated interlocking outputs / inputs</b> C2 Activate / deactivate interlocking output C3 Disable / re-enable interlocking output	
Scroll to menu C2.	<b>C2 Activate / deactivate interlocking output</b>	
"↓"	<div> <div>Activate</div> <div>Interlocking output area: 000 point: 00</div> </div>	Write area number and address and press "↓" to activate, which will be indicated with "√" and a beep. The output will directly be shown in the Deactivate list.
Write the area number and point (e.g. 001 and 01). "↓"	<div> <div>Activate</div> <div>Interlocking output area: 001 point: 01</div> <div>√</div> <div>-- Deactivate list (1) -----</div> <div>Interlocking output area: 001 point: 01</div> <div>→</div> </div>	If the specified output doesn't exist, it will be indicated with "X" instead of "√" and a beep. Use the soft key "→" to toggle between <b>Activate</b> and <b>Deactivate list</b> .
"→"	<div> <div>-- Activate -----</div> <div>Interlocking output area: _ _ _ point: _ _</div> <div>Deactivate list (1)</div> <div>Interlocking output area: 001 point: 01</div> <div>→</div> </div>	Select in the Deactivate list with "▼" (in this example there is only one output) and press "↓". The deactivated output will disappear from the list, indicated with a beep.
"↵"	<div> <div>Activate</div> <div>Interlocking output area: 000 point: 00</div> </div>	Continue as above or press "ESC".
"ESC"	<b>C2 Activate / deactivate interlocking output</b>	Scroll to another menu or press "ESC".









### 32.3 Disable / Re-Enable Interlocking Output (H9/C3)

Interlocking outputs (Type = Interlocking) can be individually disabled via this menu (and collectively via menu H2/B3).

The "Interlocking Combination" (Area / Point) is to be entered to disable the output. Up to 100 interlocking outputs can be disabled in the whole system.

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 88.
Scroll to menu H9.	H9 Interlocking outputs and inputs	
"↓"	C1 Activated interlocking outputs / inputs C2 Activate / deactivate interlocking output C3 Disable / re-enable interlocking output	
Scroll to menu C3	C3 Disable / re-enable interlocking output	Interlocking outputs can be disabled / re-enabled via menu C3.
"↓"	Disable  Interlocking output area: 000 point: 00	Write area number and address and press "↓" to disable, which will be indicated with "√" and a beep. The output will be automatically shown in the Re-enable list.
Write the area number and point (e.g. 001 and 01). "↓"	Disable  Interlocking output area: 001 point: 01 √ -- Re-enable list (1) ----- Interlocking output area: 001 point: 01 	If the specified output doesn't exist, it will be indicated with "X" instead of "√" and a beep. Use the soft key "→ " to toggle between <b>Disable</b> and <b>Re-enable list</b> .
"→ "	-- Disable ----- Interlocking output area: _ _ _ point: _ _ Re-enable list (1)  Interlocking output area: 001 point: 01 	Select in the Re-enable list with "▼" (in this example there is only one output) and press "↓". The re-enabled output will disappear from the list, indicated with a beep.
"↓"	Disable  Interlocking output area: 000 point: 00	Continue as above or press "ESC".

"ESC"	C3 Disable / re-enable interlocking output	Scroll to another menu or press "ESC".

## 32.4 Change Password (H10)

The password for the person (user name) logged on the control unit can be changed via menu H10 however, it should be normally changed via ENLWin i.e. new SSD download.

Action	Text in display	Comments
"Menu"		According to chapter "Access", see page 88.
Scroll to menu H10.	H10 Change password	
"↓"		
"↓"	Log in name Password: <input type="password"/> New password:                      Verify:	
Enter the old password, the new password and again the new password.	Log in name Password: ***** New password: *****                      Verify: *****	The six digits are replaced by ***** in the display.
	Incorrect password, NO change or Password changed	
"ESC"	 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 password  Escape menu	The password is now changed to the new one. Scroll to another menu or press "ESC" or "Escape menu".

As long as the door is left opened, the menu can be accessed without a password.

**Note:** After change of password, it is recommended to do a "Safe shutdown of the Control Unit" (see menu H8/S5). This will save the SSW data (e.g. the new password) in a Flash ROM (see page 134).

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

## 33 CIE Maintenance

The CIE shall be maintained and tested according to the Australian standard AS1851.

To avoid the Fault TX output(s) to be activated, they can be disabled via menu H2/B5 (or via an open door, see chapter "Open door" page 43. However, in Australia the routing equipment must be isolated via the ASE.

Regarding the fault condition, see chapters "Fault", page **Error! Bookmark not defined.** and "Fault messages", page 62.

**Note:** Most of the faults have approximately 60 seconds delay.

Each Control Unit should be tested as follows:

- Perform monthly / quarterly / yearly 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).

- Re-place 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).

### 33.1 Replacing Printer Paper

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 acrylic door.
- Open the printer cover, i.e. press the green illuminated release button (in the middle) on top of the printer front.
- Remove the remainder of the old paper roll.
- Place the new paper roll in the printer. Make sure the paper rolls in the proper direction – same as 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.
- Close the Control Unit door.

### 33.2 Replacing a TLON Connection Board and/or the Main Board

In a TLON network programming, some unique data is stored in a memory on the 5090 TLON connection board and some stored in a memory on the 5010 main board.

#### Replacing a TLON connection board 5090

After replacing the board:

In TLON Manager version 1.2 do "Replace", "Update" and "Save".

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In TLON Manager version 2.0 do "Replace" and "Update" ("Save" is automatically done).

**Replacing a TLON connection board 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 automatically done).

**Replacing the Main board 5010**

After replacing the main board, replace the TLON connection board(s) in the same position as on the replaced main board:

In TLON Manager version 1.2 do "Update" and "Save".

In TLON Manager version 2.0 do "Update" ("Save" is aut. done).

### 33.3 Battery Maintenance

The batteries 2 x 12 V, 12/17/24 Ah are placed inside the Control Unit. Larger batteries can be placed in a separate battery cabinet.

The Control Unit charges the batteries and continuously monitors its condition, a fault will be generated when the batteries are disconnected or outside the specified limits.

The batteries are rechargeable Sealed Lead-Acid batteries, it must be CSIRO approved batteries. The batteries are normally maintenance-free but the manufacturer's instructions should 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).

**CAUTION:** Risk of explosion may occur if batteries are replaced by incorrect type.

## 34 How to Avoid Nuisance Fire Alarms

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We all realise when life, buildings, production facilities, etc. should be protected, it is of utmost importance that an initial fire is detected as soon as possible. That's why more reliable 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 nuisance fire alarms.

To avoid troubles and unnecessary expenses there are a couple of things to bear in mind. Here are some advice and tips.

### **Tobacco smoke**

The detectors (sensors) cannot sense the difference between "smoke" and "smoke". They cannot separate tobacco smoke from smoke from a fire. Intensive tobacco smoking in conjunction with bad ventilation can cause a fire alarm.

### **Welding, grinding, cutting, sawing & drilling**

These 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**

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

### **Steam / hot air**

Smoke and heat detectors are influenced by steam and hot air, e.g. from an oven, dry-blower, heater, etc.

### **Exhausts**

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

### **Lack of maintenance**

Smoke detectors (sensors) are influenced by their environment and become "dirty". In an analogue system (like FT1020G3) a Service signal is given when it is time to exchange the smoke detectors (sensors) to new ones. An 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 may also need to be altered. Due to special environments, see above, an in-appropriate detector type may have been chosen from the beginning and thus cause nuisance 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. Listed here are other measures that can be taken by programming with EBLWin:

- Another alarm algorithm can be used (e.g. during working hours).
- Alarm delay or AVF for smoke sensors / detectors 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. FT1020G3), 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.

## 35 Block Wiring Diagram

A complete list of drawings for FT128 and FT1020G3 are added to a separate document except these three drawings that are given in this manual:

- F763 FT1020G3 General Arrangement
- F725-01 FT1020G3 Block Wiring Diagram Overview
- F765 FT1020G3 Standard Block Wiring Diagram

Table 18 Other Drawing Lists

<i>Item</i>	<i>Drawing No.</i>	<i>Issue</i>	<i>Description</i>
1	F725-01	1	FT1020G3 Block wiring diagram Sheet 1
2	F725-02	2	FT1020G3 Block wiring diagram Sheet 2
3	F726	1	FT1020G3 Main Board 5010
4	F727	1	FT1020G3 MMI Board 5011
5	F728	2	4580 - 8 Zone Expansion Board
6	F729	2	4581 - 8 Relay Expansion Board
7	F730	2	4582 - I/O Matrix Board
8	F731	2	4583 - 5 Inputs 3 Outputs Expansion Board
9	F732-01	2	FT1020G3 5010 AC & DC Power Connections
10	F732-02	1	FT1020G3 5010 Programmable Inputs & Outputs
11	F732-03	1	FT1020G3 5010 External Communications
12	F733	2	COM Loop Units Connection Diagram
13	F734	2	Web-Server II1598 Connection Diagram
14	F735	2	3361 Addressable Multi-purpose Module
15	F737	2	3364 / 3366AU Connection Diagram
16	F738-01	2	FT1020G3 TLON examples Sheet 1 of 3
17	F738-02	2	FT1020G3 TLON examples Sheet 2 of 3
18	F738-03	1	FT1020G3 TLON examples Sheet 3 of 3
19	F763	1	FT1020G3 General Arrangement
20	F765	6	FT1020G3 Standard connection Diagram
21	F768	2	FT1020G3 Gas Module Interface
22	F779	1	WA ASE Connection Diagram
23	F781	2	FT1020G3 Standard NZ Block Wiring Diagram
24	F784-01	0	COM Loop Cable Length & Specifications Sheet 1
25	F784-02	0	COM Loop Cable Length & Specifications Sheet 2
26	F786-01	1	FT1020G3 TP/FT10 TLON Connection Sheet 1
27	F786-02	1	FT1020G3 TP/FT10 TLON Connection Sheet 2

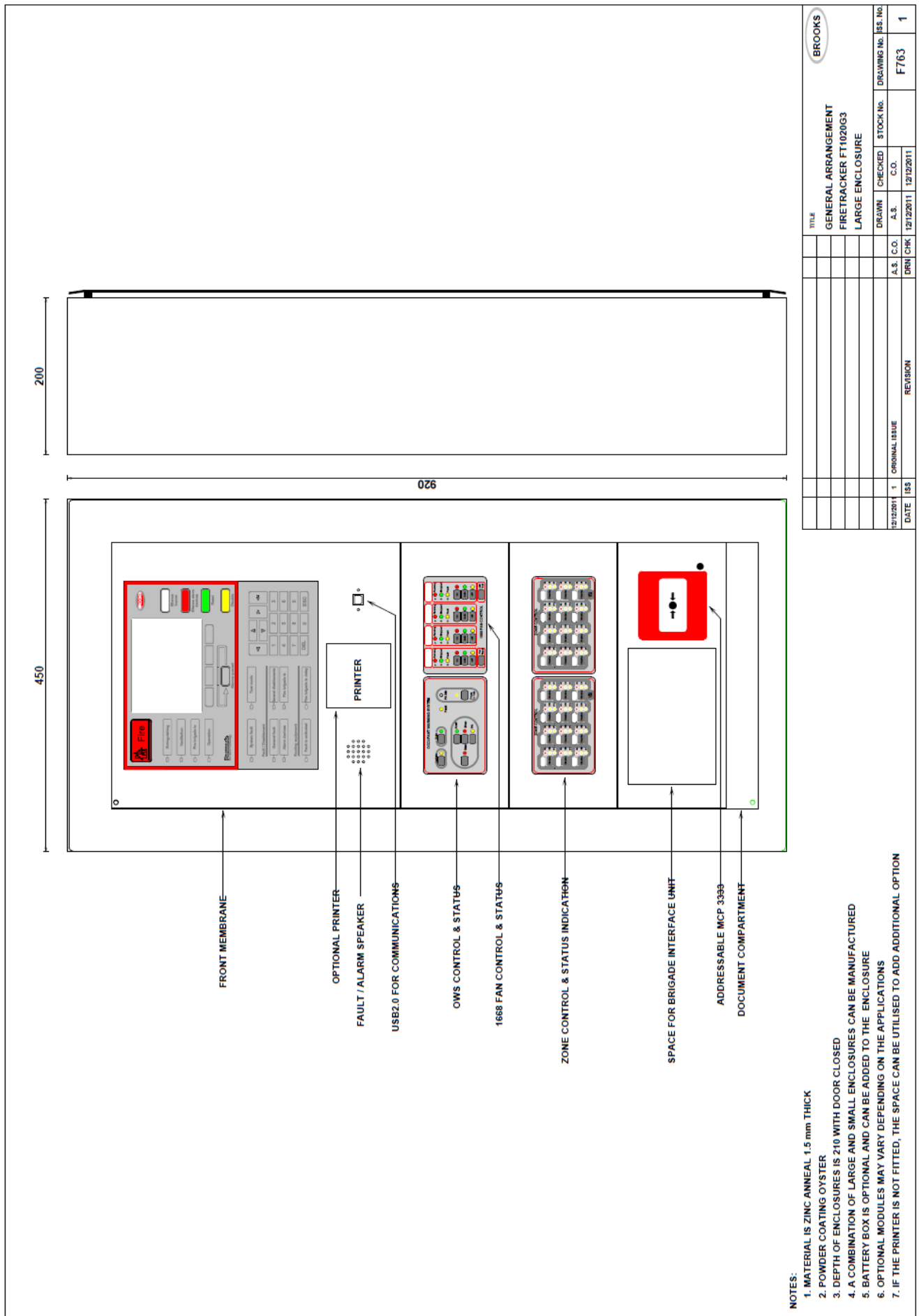


Figure 8 FT1020G3 General Arrangement



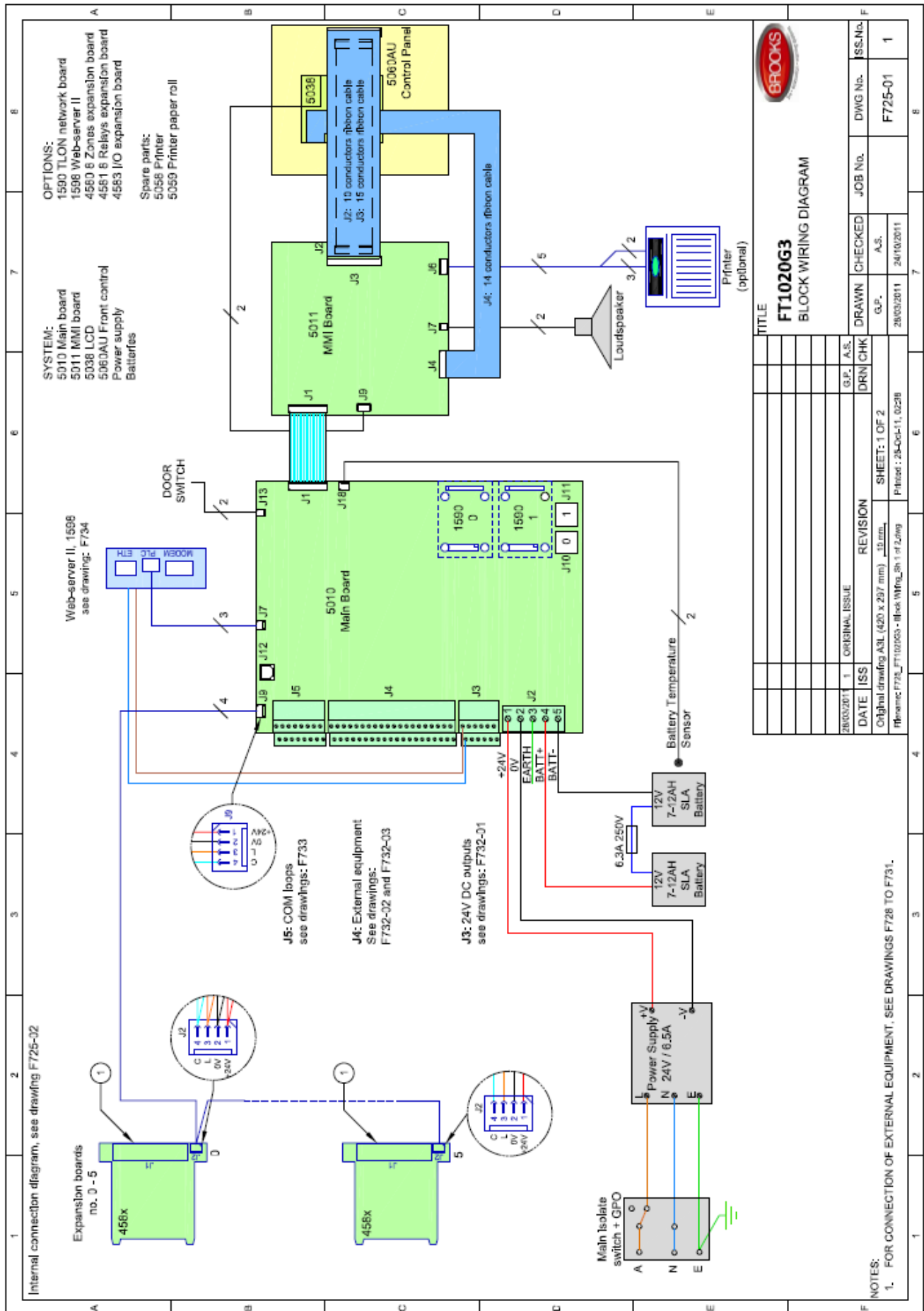
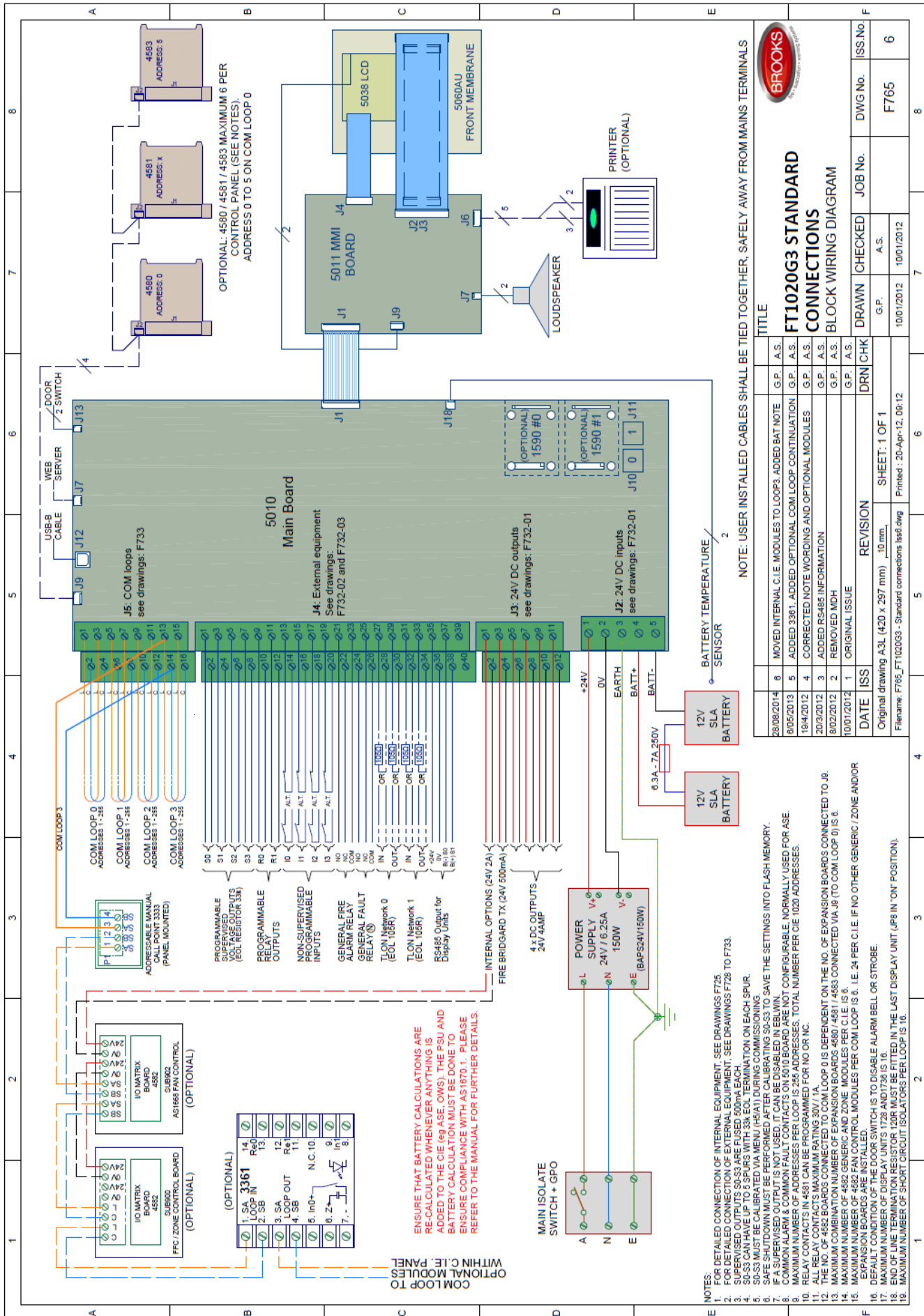


Figure 9 FT1020G3 Block Wiring Overview



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## 36 Guarantee

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If the product has any defect due to faulty workmanship or material it is to be returned to BROOKS freight paid. BROOKS will, at its sole discretion, repair or replace the item free of charge.

On returning a component or complete product, proof of purchase will be required. If returning the complete product all accessories and documentation **MUST** be returned.

This guarantee does not cover damage caused to the product or its components as a result of incorrect installation, accident, negligence, misuse, unauthorised dismantling or contamination howsoever caused, careless handling or where repairs have been made or attempted by others. Onsite warranty repairs will be carried out at the discretion of the manufacturer.

No other guarantees written or verbal are authorised to be made on behalf of BROOKS. All other conditions and warranties whether expressed or implied are, to the extent permitted by law, hereby excluded.

As BROOKS has no control over the system's design, installation to the relevant Australian Standard or maintenance, the Company and its agents take no responsibility for any damage, consequential loss or injury caused to any equipment, property or persons resulting from the use of FT1020G3.

Brooks guarantees FT1020G3 for a period of three years from the date of purchase the equipment.

## 37 Revision history

### 37.1 Operation Manual Revisions Table

Issue	Date	Description	Written By	Checked By
Rev 0	11/06/10	Original Panasonic manual	J.P.	
Rev 1	4/01/12	Update the original MEW01351 Rev 1 document to suit AU & NZ market	A.S.	ET / AS
Rev 1.1	20/04/12	Update drawing F765 to Issue 4	E.T.	A.S.
Rev 2.0	22/02/13	Update for S/W V2.0.0	A.S.	C. O.
Rev 2.1	30/05/14	Update for software V2.1	A.S.	
Rev 2.1.1	20/11/14	Minor update to include S/W V2.1.1	A.S.	
Rev 2.2	12/08/15	Minor update to include S/W V2.2.x & added Local Alarm Acknowledgement (LAA). Update Section 35 Block Wiring Diagram and drawings.	ET / AS	A.S.

### 37.2 Software Revision 2.2.0 Modifications

#### 37.2.1 New common features and additions

- **Local Alarm Acknowledgement Unit 4445**

The module is the Panasonic version of Brooks AAM, in EBLWin the module is called "Local Alarm Acknowledgement Unit" LAU.

**Note:** Brooks AAM (AAFC in EBLWin) has been moved to the obsolete loop unit section in EBLWin.



- **Zone Groups**

This is new control expressions that can be used to group unlimited number of zones into one zone group. A single zone can only be a member in one zone group. Maximum of 30 zone groups can be defined in a system. The new control expressions for zone groups are as follow:

- ☞ PreWarningZoneGroup (Zone Group, No. of alarms)
- ☞ FireAlarmZoneGroup (Zone Group, No. of alarms)
- ☞ HeavySmokeAlarmZoneGroup (Zone Group, No. of alarms)
- ☞ FirstAlarmInZoneGroup (Zone, Zone Group)

- **Pulse on 3361 and 3364**

The "Pulse" and "Delayed pulse" (defined in output signal period) can now be programmed for the outputs of 3361 and 3364. The pulse width should be fixed for 7 seconds.

- **Selectable fire alarm types for zone line inputs**

In previous revisions, all fire alarms from a zone line input via 3361 or 4580 are treated as a normal fire alarm (type A). In V2.2.0, the zone line input can be programmed in EBLWin V2.2.0 to one of the following five different alarm types:

- Smoke (B)
- Heat (B)
- MCP (A)
- Other (A)
- Other (B)

### **37.2.2 New or modified features in EBLWin only**

- Fault latching in the Australian convention is set as default in system properties.
- If the CIE time differs more than 60 minutes to the time shown in the PC, a dialog box will display when logon is performed. Via this dialog box, the PC time can be used to update the CIE time.
- A user that is defined to have access to Web-server (not the CIE) can have a password containing between 6 and 10 character (not only digits).
- In V2.2.0, the fault list can be sorted by CIE and COM loop.

### **37.2.3 New or modified feature in system software EBL only**

- Output without a control expression are considered to be non-existent in the system. In previous versions, an output with no control expression could be manually controlled from the menu system, fan control or via EBLnet. In V2.2.0, an output with no control expression is considered to be non-existent and cannot be controlled in any way.

If an output is to be controlled manually only, it must have a never-true control expression similar to "TimeChannelActivated" (Always off).

If an input is set to "Not used", or if an output has no control expression, the supervision fault is not generated even if the "Supervised" check box in EBLWin is checked.

**NSW - Head Office**

4 Pike Street Rydalmere NSW 2116

Ph: 02 9684 1466

Fax: 02 9684 4146

Website: [www.Brooks.com.au](http://www.Brooks.com.au)

**VIC**

1/3 Molan Street, Ringwood, VIC 3134

Ph: 03 9879 5294

Fax: 03 9879 5249

**SA**

729A Port Road, Woodville, SA 5011

Ph: 08 8347 0000

Fax: 08 8347 0600

**QLD**

2/49 Boyland Ave Coopers Plains, QLD 4108

Ph: 07 3373 8222

Fax: 07 3373 8022

**WA**

P.O. Box 2114, Midland DC W.A. 6936

Ph: 08 6262 8095

Fax: 02 9684 4146

**New Zealand**

Unit 106 "The Zone" 23 Edwin St, Mt Eden, Auckland 1024

Ph: +64 9 638 4644, Toll Free 0800 220 007 (NZ only)

Fax: +64 9 638 4645

Or National Australian Sales Number: 1300 78 FIRE (3473)

For the cost of local call.