

Technical Description

MEW01297

Revision 2

***External Presentation unit 1728,
ver. 1.4.x***

Author: Jan Pettersson	Date of issue: 2010-04-08	Date of rev: 2011-08-15
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1 Introduction

This document¹ describes the **External Presentation unit 1728** (Informationstablå). The shorter expression **EPU** will also be used in this document.

The 1728 unit can run in one of two SW modes:

SW mode **1728 - 1587**

or

SW mode **1728 - 1582**

See chapter "General description", page 5.

System EBL128 and EBL512

This document is valid for the 1728 software **version 1.4.x**, which require a software version $\geq 2.3.2$ in EBL512 and a software version $\geq 1.0.5$ in EBL128 only if the functions described below are to be used.

The 1728 software version 1.4.x can be used in the systems EBL512 and EBL128 with lower versions but then without the possibility to use these functions.

Functions²:

- The buzzer will sound (continuously) for any not acknowledged fault in the system or a fault in the unit.
- Push button "Silence buzzer" will silence the buzzer.
- Disablement(s) in the system will be presented as "General disablement in system".

System EBL512 G3

The 1728 software version 1.4.x has to be used in the system EBL512 G3.

¹ Original file name: L:\User documents\EBL\Doc\Eng\MEW01297 (Rev 2).doc

² Not valid for the Swedish convention (SBF).

2 Definitions / Explanations

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

EPU External Presentation Unit

C.i.e. Control and indicating equipment (=control unit)

C.U. Control unit (=Control and indicating equipment)

S/W Software

H/W Hardware

3 General description

The ext. Presentation unit is intended for pre-warning, co-incident, fire and heavy smoke / heat alarm presentation. Any fault in the system will be presented as "General fault in system".

Any disablement in the system will be presented as "General disablement in system".²

3.1 Ext. Presentation Unit 1728



Figure 1. Left: The External Presentation Unit 1728SE has a Swedish front. Right: 1728UK has an English front.

The enclosure is made of grey (RAL 7035) high impact ABS, with temperature resistance up to 85° C. Fitted with a supplementary "O" ring gasket, it will comply with IP65, in respect of dust and moisture. Dimensions (W x H x D): 220 x 145 x 50 mm.

The Ext. Presentation unit shall be wall mounted.

3.1.1 SW mode 1728 - 1587

This SW mode has the highest performance with regard to functionality, response time, ability to store fire alarms, etc.

The Ext. Presentation unit 1728SE, running in SW mode **1728 – 1587**, is intended to succeed the existing Display unit 2236SE and the External presentation display 2428SE.

In system EBL512, 1728 units running in SW mode **1728 – 1587** have to be connected to an **Ext. FBP / DU interface board 1587** mounted in the EBL512 c.i.e. EBL512 software version ≥ 2.2 is required.

In system EBL128, 1728 units running in SW mode **1728 – 1587** are connected directly to the main board but an optional **RS485 transceiver component 4552** is required on the main board.

In system EBL512 G3, 1728 units running in SW mode **1728 – 1587** are connected directly to the main board connector "J4".

3.1.2 SW mode 1728 - 1582

The Ext. Presentation unit 1728SE, running in SW mode **1728 – 1582**, is intended to be a spare part for the existing External presentation

display 2428SE. Note, the functionality / performance is the same but the size, the look and the front layout are different.

In system EBL512, 1728 units running in SW mode **1728 – 1582** have to be connected to an **Ext. FBP interface board 1582** mounted in the EBL512 c.i.e.

In systems EBL128 and EBL512 G3, 1728 units running in SW mode **1728 – 1582** can **NOT** be connected.

4 Selective alarm presentation

Normally all fire alarms will be presented in the c.i.e.s, ext. FBPs and Presentation units, etc. There are some possibilities to select which alarms that shall be presented in each unit. It is also programmable, if the fire alarm presentation shall be according to EN54, i.e. when only one point in a zone is in alarm status it will be presented as a point alarm (zone and address), else presented as a zone alarm.

4.1 Ext. Presentation unit 1728

The alarm presentation in 1728 will be like in the c.i.e. that it is connected to, i.e. point alarm or zone alarm presentation. See the Operating Instructions, chapter "Fire alarm" for the system respectively.

Via Win512 / Win128 / Win512 G3, it is possible to select which alarms that shall be presented in the unit respectively. For example, if there are many buildings in an installation, the units in one specific building shall only present alarms activated within this building.

The following, so called operands are available (CU alternatives not valid for EBL128):

1. Control unit (**CU**)
2. Consecutive control units (**CU1, CU2**)
3. Zone (**zone**)
4. Consecutive zones (**zone1, zone2**)
5. Zone – address (**zone, addr**)
6. Consecutive zone – addresses (**zone1, addr1, zone2, addr2**)

Explanations:

1. **CU** = Control unit number (c.i.e. no. 00-29)
2. **CU1** = The first control unit number in the sequence. **CU2** = The last control unit number in the sequence.
3. **zone** = Zone number (001-999) In EBL128 (01-32).
4. **zone1** = The first zone number in the sequence. **zone2** = The last zone number in the sequence.
5. **zone, addr** = Zone number and address within the zone (001, 01 – 999, 99)
6. **zone1, addr1** = The first zone number and address in the sequence. **zone2, addr2** = The last zone number and address in the sequence.

Up to 50 operands can be used to make a, so called selector for an ext. Presentation unit. Here follows a selector example:

Control unit (00), Consecutive zones (100, 500), Zone – address (900, 01) In this 1728 unit will only be presented alarms that origin from the c.i.e. no. 00 or from zone 100 up to and including zone 500 or from the alarm point 900-01.

Default in systems EBL512 and EBL512 G3 is: **Control units (00, 29)**, i.e. all alarms from all c.i.e:s will be presented in all ext. Presentation units 1728.

Default in system EBL128: **Zones (01 - 32)**, i.e. all alarms will be presented in all ext. Presentation units 1728.

5 LED indicators, Push buttons, etc.

The functions of the LEDs, push buttons, display and buzzer are described below.

5.1 Ext. Presentation Unit 1728

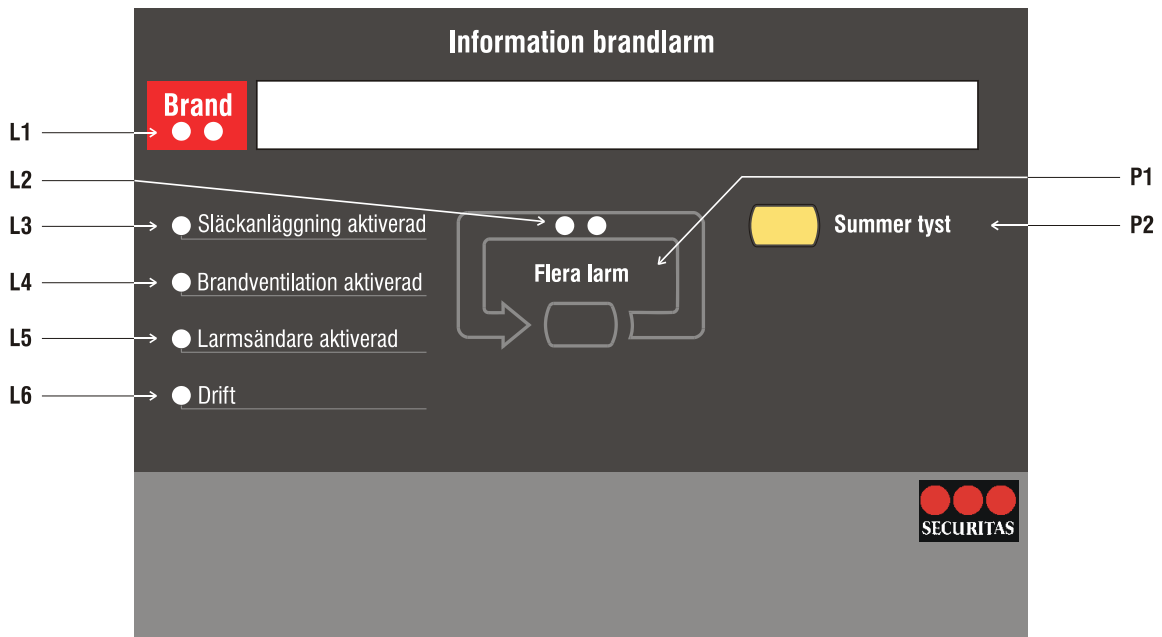


Figure 2. The Ext. Presentation unit 1728SE front has the designation texts in Swedish. Explanations and English texts, see the following tables.

The following is valid in quiescent (normal) condition:

- The LED "L6" (Operation) is turned on if 24 V DC is connected and the communication with the c.i.e. is working normally, else it is turned off.
- Buzzer is silent.
- No text in the display and no back-light.
- No button is possible to use.

Table of LED indicators:

LED indicator		Colour	Indicating	
L1	Fire (Brand)	2 x Red	Blinking+ Buzzer (interm.)	Fire alarm. (Also indicating heavy smoke / heat alarm the same way as in the c.i.e.)
L2	Alarms queued (Flera larm)	2 x Red	Blinking	More than one alarm (also pre-warning and co-incident alarms) ³ . Use push button "P1" (Alarms queued) to scroll.
L3	Extinguishing (Släckanläggning aktiverad)	Red	Cont.	Outputs for Extinguishing equipment are activated. ⁴
L4	Ventilation (Brandventilation aktiverad)	Yellow	Cont.	Outputs for (fire / smoke) ventilation equipment are activated. ⁴
L5	Fire brigade tx (Larmsändare aktiverad)	Red	Cont.	Output(s) for fire brigade tx (routing equipment) is/are activated. ⁴
L6	Operation (Drift)	Green	Cont.	24 V DC is connected and the communication with the c.i.e. is working normally, i.e. the Ext. Presentation unit is in operation.

NOTE! Regarding "L2", see also chapter "SW mode & Address setting, page 12.

³ Co-incident alarms = 2-zone / address dependence.

⁴ Indicating the same way, as in the c.i.e. the Presentation unit is connected to, i.e. by activated output(s) of the corresponding type alternatively an activated input for the LED respectively.

Table of push buttons:

Push button		Colour	Operation / function
P1	Alarms queued (Flera larm)	Black	Used, when LED "L2" (Alarms queued) is turned on, to scroll through the queued alarms. (The first alarm will automatically be shown again after 20 seconds, if no button is used during that time.)
P2	Silence buzzer (Summer tyst)	Yellow	Used to silence the buzzer in the Ext. Presentation unit. The buzzer will re-sound for an alarm from another zone. ⁵

NOTE! Regarding "P1" and "P2", see also chapter "SW mode & Address setting", page 12. See also chapter "S/W version", page 25.

Table of others:

Component	Indicating	
Buzzer ⁶	Intermittent	Fire alarm, pre-warning and co-incident ³ , like in the c.i.e.
	Continuously ²	Not acknowledged fault in the system or a fault in the unit.
	Cont. + All LEDs turned off as well.	There is a CPU / memory fault in the unit.
Display	<p>Pre-warning, co-incident³, Fire alarm and Heavy smoke / heat alarm presentation like in the c.i.e. the Ext. Presentation unit is connected to including a user definable text message (alarm text), if programmed.</p> <p>Fault(s) in the system (not corrected / serviced and not acknowledged) will be presented as "General fault in system".</p> <p>(NOTE! A fault message may be shown, indicating a communication fault (i.e. no connection between the unit and the c.i.e. All LEDs are turned off as well.).</p> <p>Disablement(s) in the system will be presented as "General disablement in system".²</p>	

NOTE! Regarding the Display, see also chapter "SW mode & Address setting", page 12.

⁵ When point alarm presentation is valid (set via Win512) the buzzer will re-sound for an alarm from another alarm point.

⁶ The buzzer may be programmed as "disabled" (via Win128 / Win512 / WinG3), i.e. it will never sound.

6 SW mode & Address setting

Each Ext. Presentation unit can in system EBL512 run in SW mode **1728 - 1587** or SW mode **1728 - 1582**, i.e. it can be used as two different types of units. It shall also have a unique **address** on the RS485 line connected to the 1587 or 1582 board in the EBL512 c.i.e. See EBL512 Planning Instructions.

The SW mode **1728 - 1587** shall be used in system EBL128 and an optional **RS485 transceiver component 4552** is required on the main board in the EBL128 c.i.e. It shall also have a unique **address** on the RS485 line connected to the main board connector "J1". See EBL128 Planning Instructions.

The SW mode **1728 - 1587** shall be used in system EBL512 G3. It shall also have a unique **address** on the RS485 line connected to the main board connector "J4". See EBL512 G3 Planning Instructions.

6.1 SW mode setting

A brand new ext. Presentation unit has no SW mode. It is factory set to "**Not selected**" (and is hereby not addressable). When it is **powered** it will automatically be ready for the "SW mode setting".

As an alternative, an ext. Presentation unit **in operation**⁷ can be ready for the "SW mode setting" via the jumper "J4" in the unit. See the following chapter.

When the ext. Presentation unit is ready for the "SW mode setting" this is indicated by the LED "L2" (Alarms queued). The back-light is turned on and the following information is shown in the display:

MODE SETTING!	Change = Black
Type xxxxxxxxxxxxxx	Store = Yellow

xxxxxxxxxxxx can be changed to one of the following:

- 1735 - 1587
- 1736 - 1587
- 1826 - 1587 2nd Cab
- 1826 - 1582 2nd Cab
- 1826/28 - 1587
- 1826/28 - 1582
- **1728 - 1587**
- **1728 - 1582** (Not for systems EBL128 & EBL512 G3.)
- **Not selected**

Scroll to the wanted SW mode with the push button "P1" (black). Store the selected SW mode with the push button "P2" (yellow) and the unit will automatically be ready for the "Address setting", see below.

⁷ Also when a unit not in operation but with the mode and address set before, is powered.

NOTE!

If the stored SW mode is **1728 – 1582** a **language** has to be set before the address can be set⁸. The following information will be shown in the display:

LANGUAGE SETTING!	Change = Black
Language: xxxxxxxx	Store = Yellow

xxxxxxx can be changed to one of the following languages:

- **English**
- **Danish**
- **Swedish**

Scroll to the wanted language with the push button "P1" (black). Store the selected language with the push button "P2" (yellow) and the unit will automatically be ready for the "Address setting", see below.

6.1.1

SW mode setting via jumper "J4"

An ext. Presentation unit **in operation**⁷ will be ready for the "SW mode setting" via the jumper "J4" in the unit. Shunt "J4" momentarily.⁹

When the ext. Presentation unit is ready for the "SW mode setting" this is indicated by the LED "L2" (Alarms queued). The back-light is turned on and the following information is shown in the display:

MODE SETTING!	Change = Black
Type: xxxxxxxxxxxx	Store = Yellow

Continue in accordance with chapter "SW mode setting", page 12.

6.2

Address setting

After the SW mode setting or after the language setting (see above), the ext. Presentation unit is ready for the "address setting".

As an alternative, one¹⁰ ext. Presentation unit **in operation** can be ready for the "address setting" directly via a c.i.e. menu. See the following chapter.

When the ext. Presentation unit is ready for the "address setting" this is indicated by the LED "L2" (Alarms queued). The back-light is turned on and the following information is shown in the display:

ADDRESS SETTING	Change = Black
Address: XX	Store = Yellow

XX can be changed to the following:

⁸ If the stored SW mode is **1728 – 1587** a language will be downloaded via the c.i.e.

⁹ If "J4" is not removed, the ext. Presentation unit will not enter its normal operation mode after the restart but start from the beginning again, ready for the SW mode setting.

¹⁰ Or all the ext. Presentation units connected to the same Ext. FBP / DU interface board 1587.

For an ext. Presentation unit with SW mode 1728 - **1587**, the address can be set to **00-15**.¹¹ (Default is "00".)

For an ext. Presentation unit with SW mode 1728 - **1582**, the address can be set to **01-08**. (Default is "01".)

Scroll to the wanted address with the push button "P1" (black).
Store the selected address with the push button "P2" (yellow) and the unit will automatically restart and enter its normal operation mode.¹²

6.2.1

Address setting mode via the c.i.e.

One specific ext. Presentation unit or all the ext. Presentation units connected to the same line (RS485) can, in normal operation, from the c.i.e. receive a command and get ready for the "Address setting" directly. This is done via menu H5/A9 (A7 in system EBL512 G3), see Operating instructions for the system respectively.

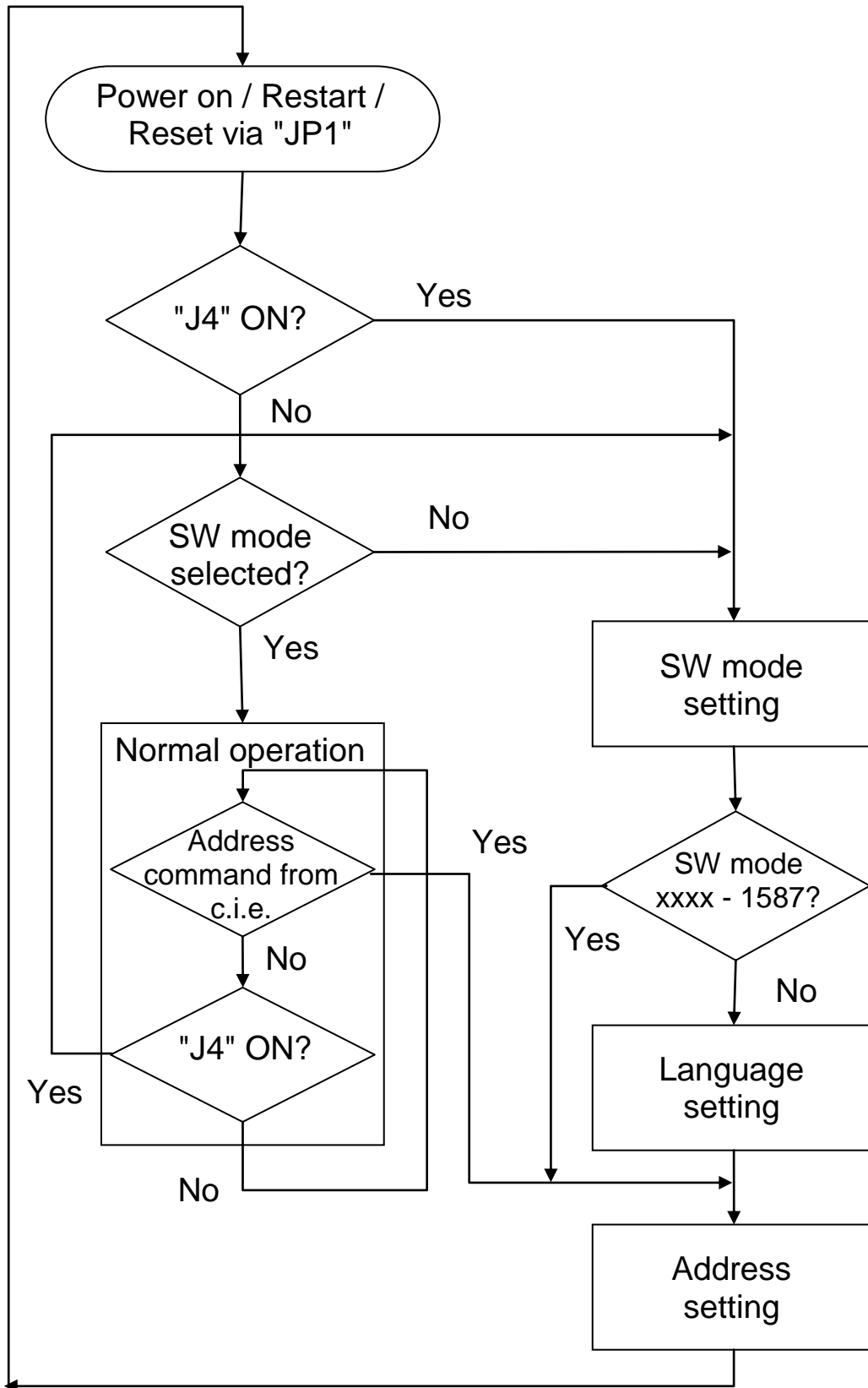
6.3

Flow chart

On the following page is a flow chart, showing the SW mode setting, Language setting, Address setting, etc.

¹¹ Normally should not more than eight units be connected to one Ext. FBP / DU interface board 1587, if not ext. power supply is used.

¹² If the unit has no SW mode, i.e. "Not selected", it will not enter its normal operation mode after the restart but start from the beginning again, ready for the SW mode setting.



7 User definable text messages (alarm texts)

The user definable text messages (alarm texts) are depending on which mode the unit is running in.

In SW mode 1728 - 1587

In the c.i.e., each alarm point (zone – address) and each zone can have an individual user definable text message (alarm text)¹³ presented in the display by fire alarm, see the Planning and Operating Instructions for the system respectively.

The alarm texts shown in the c.i.e. will also be sent to each ext. Presentation unit and shown in its display.

As an alternative, text messages for all or selected alarm points / zones can be stored in each ext. Presentation unit¹⁴. If so, these alarm texts will be shown instead of the alarm texts sent out from the c.i.e.

The priority order is as follows:

1. Point alarm text stored in the ext. Presentation unit.
2. Zone alarm text stored in the ext. Presentation unit.
3. Default alarm text stored in the ext. Presentation unit.
4. Text sent out from the c.i.e.

When alarm texts shall be stored in all or in some ext. Presentation units, the unique alarm texts are created in Win512 / Win128 / Win512 G3 and downloaded when the c.i.e. site specific data (SSD) is downloaded.

NOTE! It is also possible to select which fire alarms that shall be presented in the ext. Presentation unit respectively, see chapter "Selective alarm presentation", page 7.

In SW mode 1728 - 1582

The user definable text messages (alarm texts) shown in the c.i.e. will also be sent out to each ext. Presentation unit and shown in its display.

¹³ Each alarm text (up to 40 alphanumeric characters) will be shown on the second row. The texts are created and downloaded via Win512 / Win128 / Win512 G3.

¹⁴ At least 617 text messages can be stored in each unit.

8 Commissioning a new unit / SSD download

The cable (RS485 line) to the ext. Presentation unit(s)¹⁵ shall be connected.

In the EBL512 c.i.e. the 1582 / 1587 board shall be mounted. Remove the fuse "F1" on the 1582 / 1587 board.

The EBL128 c.i.e. shall be powerless and the "RS485 transceiver component 4552" shall be plugged on the main board (4556).

On the EBL512 G3 main board (5010) remove the fuse "F19".

The SW mode and the address have to be set in each new unit according to chapter "SW mode & Address setting", page 12. Here follows a brief summary (a recommended sequence of actions):

1. Connect the cable from the c.i.e. to the ext. Presentation unit's terminal block "J1".
2. When all connections are done put back the fuse "F1" on the 1582 / 1587 board in the EBL512 c.i.e. / power up the EBL128 c.i.e. / put back the fuse "F19" on the main board (5010) in the EBL512 G3 c.i.e., i.e. the ext. Presentation unit(s) will now be powered up.
3. A brand new unit will automatically be ready for the SW mode setting.
4. After SW mode and address setting press "P2" (yellow) and the unit will restart, see chapter "Restart", page 19.
5. Since the SSD is not downloaded in the c.i.e. there will be a fault message in the ext. Presentation unit's display:

"No contact with Control unit".

All LEDs in the ext. Presentation unit will be turned off.

6. Now the SSD have to be downloaded via Win512 / Win128 / Win512 G3.¹⁶ Connect the PC to the c.i.e. In the "Win512 / Win128 / Win512 G3 download SSD" dialog box, verify that the "Download FBP / AAU" checkbox is marked. Start the download of SSD.

¹⁵ One or more ext. Presentation units and/or ext. FBPs and/or Alert Annunciation Units can be connected.

¹⁶ Via Win512 is the 1582 / 1587 board programmed (incl. its address). Via Win512 / Win128 / Win512 G3 is each unit (e.g. an ext. Presentation unit) programmed regarding the Address, Selective alarm presentation and if the buzzer should be disabled. When required, also "User definable text messages" (alarm texts).

7. When the download of SSD to the c.i.e. is finished, it will restart. Then the download of SSD to the ext. Presentation unit(s) will take place. During the download to an ext. Presentation unit the following will be shown in its display:

"SSD download in progress....."

8. After the download of SSD to an ext. Presentation unit, there will be shown in its display (very quickly):

"SSD Download Memory OK"

or

"SSD Download Memory Fault"

After that the ext. Presentation unit will restart, see chapter "Restart", page 19.

9. The unit will then start working in normal operation mode.

9 Restart

The ext. Presentation unit will **restart**:

- When it is powered up
- If the jumper "JP1" is shunted momentarily
- After address setting (i.e. after "P2" is pressed).
- If the contact with the Control unit is OK again after:

"No contact with Control unit".

During the restart will in the display be shown (no back-light):

"Checking program memory..."

and after that (very quickly)

"Program memory OK."

and after that

"SSD memory OK."

All LEDs will be turned on during the restart.

If there is a program memory fault, there will be a fault message in the display:

"Memory fault in program area (n)" (n=1 or 2).

The ext. Presentation unit will not work.

There will also be a fault message in the c.i.e.:

In system EBL512:

"FAULT: Comm, EPU xx, 1587 board x, CU xx".

In system EBL128:

"FAULT: No reply EPU x"

In system EBL512 G3:

**"FAULT: No reply, external presentation unit xx,
control unit xx"**

If there is an SSD (Site Specific Data) memory fault or no SSD downloaded, there will be a fault message in the display:

"SSD memory fault"

The ext. Presentation unit will work since the alarm texts will be sent out from the c.i.e.

There will also be a fault message in the c.i.e.:

In system EBL512:

"FAULT: SSD, EPU xx, 1587 board x, CU xx".

In system EBL128:

"FAULT: Site specific data (SSD), EPU x"

In system EBL512 G3:

"FAULT: Site specific data, external presentation unit xx, control unit xx"

10 Fault messages

The buzzer will sound continuously for any not acknowledged fault in the system² or a fault in the unit. The buzzer will be silenced when all faults are acknowledged (in any c.i.e.) or with the push button "P2" (Silence buzzer).

When a fault is displayed, the display back-light is turned on.

The fault messages will be displayed on the first row in the display.

A fire alarm has higher priority, i.e. it will be displayed instead of any fault message.

Here follows a list of the fault messages that might be displayed in the ext. Presentation unit and in the c.i.e. respectively.

10.1 Fault messages in the Ext. Presentation Unit (EPU)

"General fault in system" Any not corrected / serviced fault in the system and any not acknowledged fault in the system. To see the fault(s), use any c.i.e. in the system.

"No contact with control unit" The contact with the c.i.e. is interrupted for ≥ 45 sec. In a brand new ext. Presentation unit this message will be in English. After commissioning of the ext. Presentation unit (i.e. after SSD download) the message will be in the same language as in the c.i.e. Check the cable, all connections, the 1582 / 1587 board in the EBL512 c.i.e. and the RS485 transceiver component 4552 in the EBL128 c.i.e. Is a correct / complete SSD download (via Win512 / Win128 / Win512 G3) performed? Check the address setting on the 1582 / 1587 board in EBL512 and check the address and SW mode settings in the ext. Presentation unit, etc.

"SSD memory fault" See chapter "Restart", page 19.

"SSD Download Memory Fault" in conjunction with SSD download, see chapter "Commissioning a new unit / SSD download", 17.

"Memory fault in program area (n)" See chapter "Restart", page 19.

10.2 Fault messages in the c.i.e.

10.2.1 System EBL512

"FAULT: 1587 board x, CU xx"

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

"FAULT: Comm, EPU xx, 1587 board x, CU xx"

The contact with the ext. Presentation unit is interrupted. Check the cable, all connections and the 1582 / 1587 board. Is a correct / complete SSD download (via Win512) performed? Check the address setting (1582 / 1587 board / the ext. Presentation unit), SW mode setting, etc. See also chapter "Restart", page 19.

"FAULT: EPU xx, 1587 board x, CU xx"

The ext. Presentation unit is programmed (via Win512) as another type of unit or there is a fault in the ext. Presentation unit.

"FAULT: Fuse, 1587 board x, CU xx"

Check for blown fuse(s) on the 1587 board.

"FAULT: SSD, EPU xx, 1587 board x, CU xx"

See chapter "Restart", page 19.

10.2.2

System EBL128

"FAULT: No reply EPU x"

The contact with the ext. Presentation unit is interrupted. Check the cable and all connections. Is a correct / complete SSD download (via Win128) performed? Check the address setting, SW mode setting, etc. See also chapter "Restart", page 19.

"FAULT: EPU x"

The ext. Presentation unit is programmed (via Win128) as another type of unit or there is a fault in the ext. Presentation unit.

"FAULT: Site specific data (SSD), EPU x"

See chapter "Restart", page 19.

10.2.3

System EBL512 G3

"FAULT: No reply, external presentation unit xx, Control unit xx"

The contact with the ext. Presentation unit is interrupted. Check the cable and all connections. Is a correct / complete SSD download (via Win512 G3) performed? Check the address setting, SW mode setting, etc. See also chapter "Restart", page 19.

"FAULT: External presentation unit xx"

The ext. Presentation unit is programmed (via Win128) as another type of unit or there is a fault in the ext. FBP.

"FAULT: External presentation unit xx control unit xx"

The ext. Presentation unit is programmed (via Win512 G3) as another type of unit or there is a fault in the ext. Presentation unit.

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

See chapter "Restart", page 19.

11 **Disablement message**

Any disablement in the system, i.e. when the LED "Disablements" in any c.i.e. is turned on, will be displayed as "General disablement in system" in the 1728 unit's display.

When the disablement message is displayed, the display back-light is turned on.

The disablement messages will be displayed on the second row in the display.

A fire alarm has higher priority, i.e. it will be displayed instead of the disablement message.

NOTE!

The disablement presentation described above is not valid in the Swedish convention (SBF).

12 Software (S/W)

The software is stored in a flash memory in each ext. Presentation unit. This software can be replaced / updated (i.e. downloaded via Win512 / Win128 / Win512 G3). All units connected to the same RS485 line **have to have** the same S/W version and it is **highly recommended** to have the same S/W version in all the display units in the system.

12.1 S/W version

The S/W version can be presented as follows:

- 1 Do the same as by SW mode and address setting, see chapter "SW mode setting", page 12.
- 2 When the following is displayed:

```
MODE SETTING!           Change = Black  
Type: xxxxxxxxxxxx     Store = Yellow
```

...press push button "P2" (yellow) and the following will be displayed:

```
ADDRESS SETTING        Change = Black  
Address: XX           Store = Yellow
```

...press push buttons "P1" (black) and "P2" (yellow) simultaneously and the following will be displayed:

```
Rst: nn Addr: aaaaaaa  Version: V.vvvv  
Return = Yellow Erase SSD = Black
```

nn = restart type (code) and **aaaaaaa** = memory address before restart.

- nn=00: Power On Reset. (Power supply connected)
- nn=01: Watchdog Reset.
- nn=02: Accidental jump to reset vector.
- nn=03: External reset caused by external watchdog/user (e.g. after SSD download) or jumper "JP1" (RESET) has been used.
- nn=4-19: Unexpected interrupt.
- nn=20: S/W monitoring fault

If nn=01, 02 or 04-20 appear often, call for service personnel / engineer.

V.vvvv = S/W version (e.g. 1.4.x).

- 3 Press **yellow** push button ("P2") – or see 6 below – and the following will be displayed:

```
ADDRESS SETTING        Change = Black  
Address: XX           Store = Yellow
```

- 4 Press **yellow** push button ("P2").

- 5 The ext. Presentation unit will restart (**Restarting...**), i.e. the buzzer will sound for approx. two seconds and the unit will return to normal operation.
- 6 **Cont. from 3 above: Or press black push button ("P1") and the SSD will be erased (Erasing SSD...). The Presentation unit will restart (Restarting...), i.e. the buzzer will sound for approx. two seconds and the unit will return to normal operation.**

12.2 S/W download

Each ext. Presentation unit is equipped with an RS232 interface ("J2"), which makes it possible to connect a PC and carry out the downloading directly in the ext. Presentation unit respectively.

1. Prepare the PC and start Win512 / Win128 / Win512 G3. In Win512 select the ext. Presentation unit icon and click the right mouse button. In Win128 and Win512 G3, in menu "Tools" select "Download FBP/ EPU / AAU Software". Select "Download program" and select the SW file to be downloaded, i.e. DU_version.BIN (where "version" is the valid program version, e.g. 14x=program version 1.4.x). Check / set the port and baud rate. See also the Win512 / Win128 / Win512 G3help.
2. Connect the PC to the ext. Presentation unit ("J2").
3. Put the jumpers "JP3" and "JP4" in position "A".
4. Shunt the jumper "JP2" (BOOT).
5. Put the ext. Presentation unit in "bootstrap" mode, i.e. shunt the jumper "JP1" (RESET) **momentarily**. The buzzer will sound.
6. Start the downloading. The buzzer will be silenced.
7. When the download is ready, open the jumper "JP2" (BOOT).
8. Put the jumpers "JP3" and "JP4" in position "B".
9. Do a restart, i.e. shunt the jumper "JP1" (RESET) **momentarily**. The buzzer will sound for approx. two seconds and the ext. Presentation unit will return to normal operation.
10. Regarding fault messages, see chapter "Restart", page 19.

13 Operation

In normal operation (quiescent condition) the LED "L6" (Operation) is turned on, the display is blank (back-light off) and the buttons are not possible to use.

NOTE!

In the ext. Presentation unit 1728 there has to be an alarm activated in order to get access to the buttons. If the buzzer sounds in case of a fault in the system, it can be silenced by the push button "P2" (Silence buzzer). The unit also has, a "test function", i.e. if you press push buttons "P1" (black) and "P2" (yellow) simultaneously, the buzzer will sound (cont.), all LEDs will be turned on and all dots will be shown in the display (plus back-light).

Pre-warnings, co-occurrence³, fire alarms and heavy smoke / heat alarms will be presented like in the c.i.e. the ext. Presentation unit is connected to including a user programmable text message (alarm text), if programmed.

See also chapter "Selective alarm presentation, page 7.

Any not corrected / serviced fault and not acknowledged fault in the system will be presented as "General fault in system".

The buzzer sounds for any not acknowledged fault in the system.²

Any disablement in the system will be presented as "General disablement in system".²

Fire alarm reset has to be done in any ext. FBP or c.i.e.

When all fire alarms are reset, all ext. Presentation units will return to normal operation (quiescent condition).

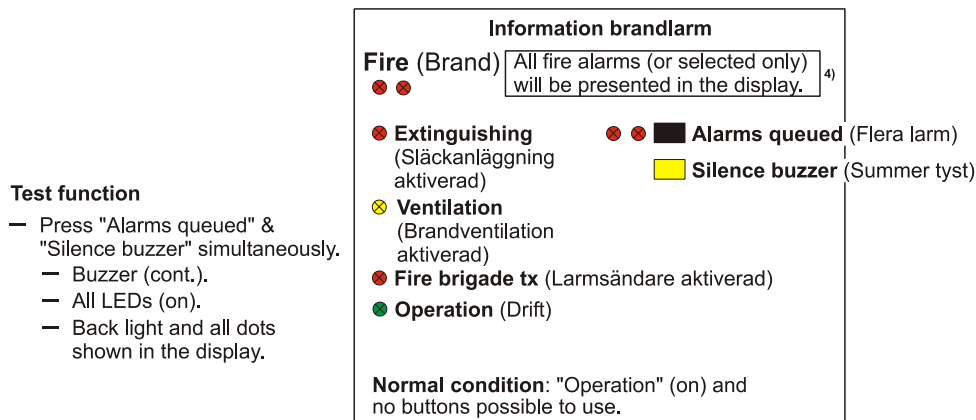
Faults have to be acknowledged in any c.i.e.

The following page / figure show an operation summary overview for the ext. Presentation unit 1728.

See also chapter "SW mode & Address setting, page 12.

NOTE! The ext. Presentation unit in the figure is only schematic, i.e. the positions of the different LEDs, push buttons, etc. are not according to Figure 2, on page 9.

Ext. Presentation unit (Informationstablå) 1728



- One fire alarm**
- ● Fire (0.4/0.4s)
 - ● Fire brigade alerted (on).
 - ¹⁾ - Alarm pres. in display+user definable text message (if programmed). ²⁾
 - ³⁾ - Buzzer (0.4/0.4s)
 - "Silence buzzer" possible to use.

- Press "Reset" in the c.i.e.
- Normal condition.

- More than one fire alarm**
- ● Fire (0.4/0.4s)
 - ● Fire brigade alerted (on).
 - ¹⁾ - Alarm pres. in display+user definable text message (if programmed). ²⁾
 - ● Alarms queued (0.4/0.4s).
 - "Alarms queued" possible to use.
 - ³⁾ - Buzzer (0.4/0.4s)
 - "Silence buzzer" possible to use.

- Press "Reset" in the c.i.e.
- Normal condition.

Explanations

¹⁾ According to EN54.

²⁾ User programmable text message sent out from the c.i.e. or stored in the unit.

³⁾ If not programmed as disabled

⁴⁾ One or more faults in the system will be presented as "General fault in system".

Possible additional actions

- Press "Silence buzzer".
- Buzzer off.

A new alarm

- ³⁾ - Buzzer (0.4/0.4s)

NOTE!

Not only fire alarms will be presented in the display, pre-warnings, co-incident and heavy smoke / heat alarms will be presented as well (the same way as in the c.i.e.).

Transmission / communication fault
(i.e. no connection with the c.i.e.)

- All LEDs off.
- Fault message in the display.

CPU / memory fault

- All LEDs off.
- Buzzer (cont.).

Figure 3. Operation summary for the Ext. Presentation Unit 1728. (Co-incident alarm = 2-zone / -address dependence.). The buzzer sounds continuously for any not acknowledged fault in the system and "Silence buzzer" is possible to use.² Any disablement in the system will be presented as "General disablement in system".²

14 Connections

The ext. Presentation unit is equipped with a plug-in terminal block (J1:1-8) for the cable connections. Up to 1.5 mm² conductor area can be used.

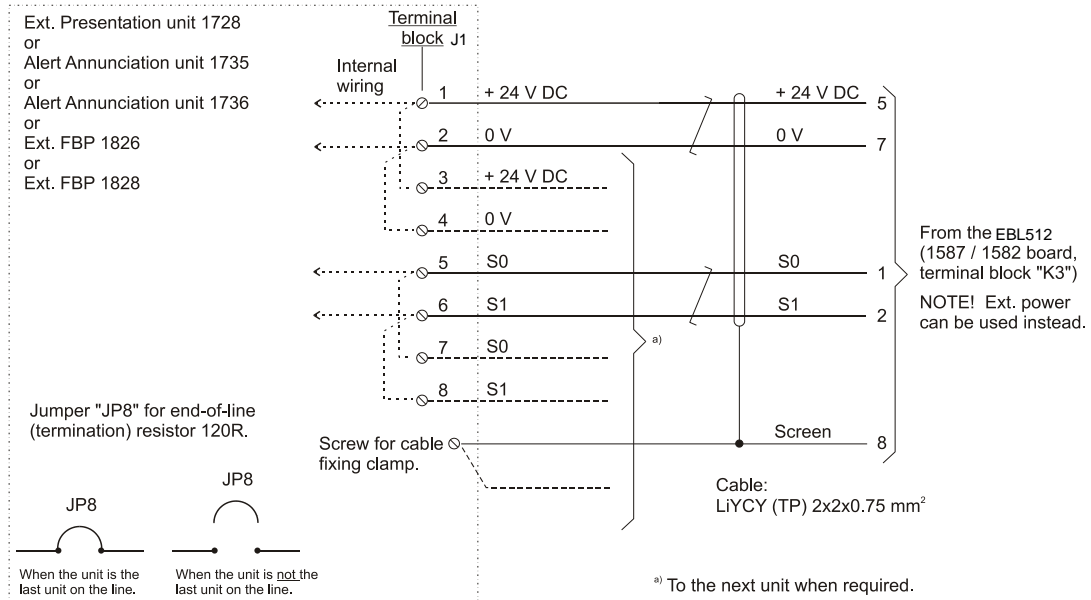


Figure 4. The ext. Presentation unit 1728 connections to the terminal block "J1". The jumper "JP8" must only be shunted if the unit is the last unit on the line.
NOTE!
In EBL128: +24 V / 0V / S0 / S1 to terminal block J1: 13 / 14 / 15 / 16.
In EBL512 G3: +24 V / 0V / S0 / S1 to terminal block J4: 35 / 36 / 37 / 38.

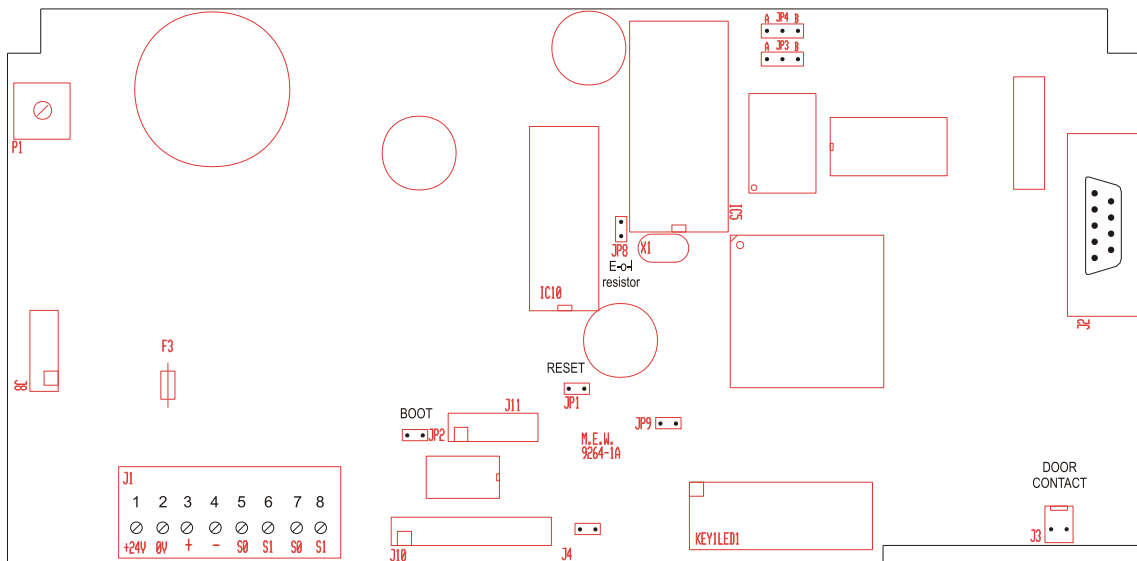


Figure 5. The ext. Presentation unit 1728 p.c.b. Position of the terminal block "J1", the jumper "JP8", etc.

Comments to the components:

- F3** 1.5 A fuse (not replaceable, i.e. the whole p.c.b. has to be replaced).
- J1** Terminal block for the ext. Presentation unit connections.
- J2** "D" connector (9 ways, male), RS232 interface for S/W download.
(Note, jumpers "JP3" and "JP4" have to be in pos. "A".)
- J3** Not used in this unit.
- J4** Used when SW mode and address setting shall be done.
- J8** Not used in this unit.
- J10** Not used in this unit.
- J11** Not used in this unit.
- JP1** Reset. (Restart of the ext. Presentation unit.)
- JP2** Boot. (The ext. Presentation unit has to be in "bootstrap" mode before S/W download.)
- JP3** Pos. "A": PC, for S/W download, connected via "J2".
Pos. "B": The ext. Presentation unit is connected to the c.i.e. (default).
- JP4** Pos. "A": PC, for S/W download, connected via "J2".
Pos. "B": The ext. Presentation unit is connected to the c.i.e. (default).
- JP8** Used when the ext. Presentation unit is the last unit on the line, i.e. to connect the built-in end-of- line resistor (120R).
- JP9** For future use.
- KEY1LED1** Connector for the front panel.
- P1** Potentiometer for LCD contrast.

15 Technical data

15.1 Power supply

Nominal voltage for the Ext. Presentation unit 1728 is 24 V DC.¹⁷

The number of Ext. Presentation units¹⁸ that can be power supplied from the c.i.e. is depending on all other units connected to the same RS485 line (i.e. the current consumption).

As an alternative, the units can be power supplied from an external power supply¹⁹.

15.2 RS485

The Ext. Presentation units communicate with the c.i.e. via RS485, i.e. in system EBL512 via the "Ext. FBP / DU interface board" 1587 (data rate 9600 baud) or an "Ext. FBP interface board" 1582 (1200 baud), mounted in the c.i.e. and in system EBL128 via the "RS485 transceiver component 4552" plugged on the mother board in the c.i.e. In system EBL512 G3 the required components are mounted on the main board by delivery.

In the last unit on the line, a termination resistor (120R) has to be connected. In the Ext. Presentation unit this is done via jumper "JP8". ("JP8" shunted = the termination resistor is connected.)

15.2.1 Cable

The cable to be used should be LiYCY (Twisted Pairs) 2 x 2 x 0.75 mm² (screened - tinned copper braid) or equivalent. Cable length up to 1200 m (theoretically). Note! The cable length is depending on the current consumption, i.e. the type and number of units connected.

NOTE! In system EBL128 the screen is not used / connected.

2 x ELQYB 2 x 1 mm (0.75 mm²) can then be used.

15.3 RS232

The Ext. Presentation units are equipped with an RS232 interface (J2), which makes it possible to download new software (S/W) directly to the Ext. Presentation unit respectively.

15.4 Connection

The Ext. Presentation units are equipped with a plug-in terminal block (J1) for the cable connections. Up to 1.5 mm² conductor area can be used.

¹⁷ Allowed voltage is 12 – 30 V DC.

¹⁸ On each 1582 board are up to eight addresses available. On each 1587 board are up to sixteen addresses available.

¹⁹ In this case, up to 16 units can be connected to a 1587 board. Note! Ext. power supply fault should be indicated in the c.i.e.

15.5 Current consumption

The current consumption is depending on the actual voltage on the line.

The following table shows the current consumption for the unit in relation to the actual line voltage (min. and normal respectively):

Unit	Current consumption			
	Quiescent (mA)		Active (mA)	
	12 V DC	24 V DC	12 V DC	24 V DC
Ext. Pres. unit 1728	48	26	88	42

16 Revision history

Revisions are, when possible, written with red font colour.

Revision 1

- 1 Info. revised.
- 5 Info. added in footnote 6.
- 6.1 Info. revised and added.

Revision 2

- 5.1 "L1" & "L2", info added.
- 12.1 Display text revised. Info. added.

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Panasonic ideas for life

Panasonic Electric Works Nordic AB

Jungmansgatan 12, SE-211 19 Malmö, Sweden

Tel: +46 (0)40 697 70 00 • Fax: +46 (0)40 697 70 99

info-fste@eu.pewg.panasonic.com • www.panasonic-fire-security.com

