Technical Description

1728

Rev 1.0

External Presentation Unit

1728

S/W Ver. 1.4.x

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1 Introduction

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

The 1728 unit shall only run in SW mode **1728 - 1587** .

See chapter "General description", page 6.

System FT128 and FT512

This document is valid for the 1728 software **version 1.4.x**, which requires a software version ≥ 2.3.2 in FT512 and a software version ≥ 1.0.5 in FT128, only if the functions described below are to be used.

System FT1020G3

The 1728 software version 1.4.x and higher **must** be used in system FT1020G3.

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 external Presentation unit is intended for pre-warning, co-incidence, 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".

3.1 External Presentation Unit 1728

Figure 1. External Presentation Unit 1728

Note: 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 External Presentation unit shall be wall mounted.

3.1.1 SW mode 1728 - 1587

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

In system **FT512**, 1728 units running in SW mode **1728 – 1587** have to be connected to a **DU interface board 1587** mounted in the FT512 C.I.E.

In system **FT128**, 1728 units running in SW mode **1728 – 1587** are connected directly to the main board or via the termination board terminals 15 & 16 (Australian convention) but an optional **RS485 transceiver component (Chip) 4552** is required on the main board.

In system **FT1020G3**, 1728 units running in SW mode **1728 – 1587** are connected directly to the main board connector "J4". No additional interface required.

4 Selective alarm presentation

Normally all fire alarms will be presented in the C.I.E's, External FBPs and Presentation units, etc. There are some possibilities to select which alarms that shall be presented in each unit. It is also programmable, 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 External Presentation unit 1728

The alarm presentation in 1728 will be similar to the one in the C.I.E. that it is connected to, i.e. point alarm or zone alarm presentation. See the Operation Manual, chapter "Fire alarm" for each system.

Via Win512 / Win128 / WinG3, 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 FT128):

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 FT128 (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 selector for an External 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 originated 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 FT512 and FT1020G3 is: **Control units** (**00, 29**), i.e. all alarms from all C.I.E's will be presented in all External Presentation units 1728.

Default in system FT128: **Zones** (**01 - 32**), i.e. all alarms will be presented in all External Presentation units 1728.

5 LED indicators, Push buttons, etc.

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

5.1 External Presentation Unit 1728

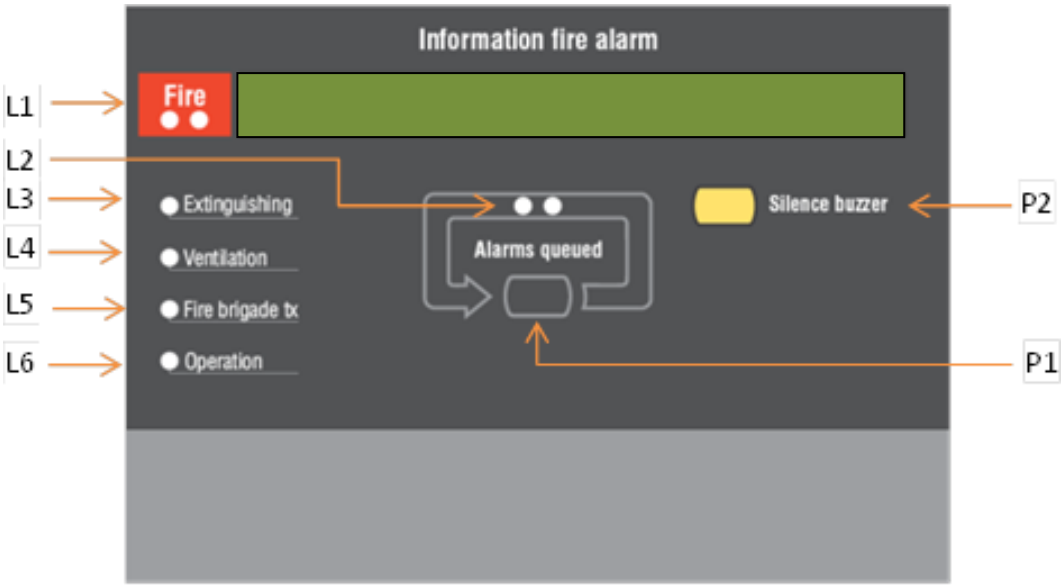

Figure 2. The External Presentation unit 1728 front

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 can be used.

Table 1 LED Indicators

LED indicator		Colour	Indicating	
L1	Fire	2 x Red	Blinking + Buzzer (intermittent)	Fire alarm. (Also indicating heavy smoke / heat alarm same as in the C.I.E.)
L2	Alarms queued	2 x Red	Blinking	More than one alarm (also pre-warning and co-incidence alarms)[1]. Use push button "P1" (Alarms queued) to scroll.
L3	Extinguishing	Red	Steady	Outputs for Extinguishing equipment are activated. [2]
L4	Ventilation	Yellow	Steady	Outputs for (fire / smoke) ventilation equipment are activated. [2]
L5	Fire brigade tx	Red	Steady	Output(s) for fire brigade tx (routing equipment) is/are activated. [2]
L6	Operation	Green	Steady	24 V DC is connected and the communication with the C.I.E. is working normally, i.e. the External Presentation unit is in operation.

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

Table 2 Push Buttons

Push button		Colour	Operation / function
P1	Alarms queued	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	Yellow	Used to silence the buzzer in the External Presentation unit. The buzzer will re-sound for an alarm from another zone.[3]

[1] Co-incidence alarms = 2-zone / address dependence.

[2] Indicating same as indicated in the C.I.E. where the Presentation unit is connected, i.e. by activated output(s) of the corresponding type alternatively an activated input for the LED respectively.

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

NOTE! Regarding "P1" and "P2", see also chapter "SW mode & Address setting, page 12. See also chapter "S/W version", page 23.

Table 3 Buzzer and LCD

Component	**Indicating**	
Buzzer[4]	Intermittent	Fire alarm, pre-warning and co-incidence1, same as in the C.I.E.
	Continuously	Not acknowledged fault in the system or a fault in the unit.
	Continuously + **All** LEDs turned off as well.	There is a CPU / memory fault in the unit.
Display	Pre-warning, co-incidence1, Fire alarm and Heavy smoke / heat alarm presented same as the C.I.E. that the External Presentation unit is connected to, including a user definable text message (alarm text), if programmed. Fault(s) in the system (not corrected / serviced and not acknowledged) will be presented as "General fault in system". (**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.). Disablement(s) in the system will be presented as "General disablement in system".	

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

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

6 SW mode & Address setting

Each External Presentation unit runs in SW mode **1728 - 1587** or. It shall also have a unique **address** on the RS485 line connected to the 1587 board in the FT512 C.I.E. See FT512 Planning Instructions.

The SW mode **1728 – 1587** shall be used in system FT128 and an optional **RS485 transceiver component 4552** is required on the main board in the FT128 C.I.E. It shall also have a unique **address** on the RS485 line connected to the main board connector "J1" or pin 15 & 16 on the FT128 termination board. See FT128 Technical Manual.

The SW mode **1728 – 1587** shall be used in system FT1020G3. It shall also have a unique **address** on the RS485 line connected to the main board connector "J4". See FT1020G3 Technical Manual.

6.1 SW mode setting

A brand new External Presentation unit has no SW mode. It is factory set to **"Not selected"** (and is hereby not addressed). When it is **powered** it will automatically be ready for the "SW mode setting".
As an alternative, an External Presentation unit **in operation**[5] can be ready for the "SW mode setting" via the jumper "J4" in the unit. See the following chapter.

When the External Presentation unit is ready for the "SW mode setting" this is indicated by 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**

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 FT128 & FT1020G3.)
- **Not selected**

Scroll to the required 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.

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

6.1.1 SW mode setting via jumper "J4"

An External Presentation unit **in operation**[5] will be ready for the "SW mode setting" via jumper "J4" in the unit. Shunt "J4" momentarily.[6]

When the External 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

Following the SW mode setting, the External Presentation unit is ready for the "address setting".
As an alternative, one[7] External Presentation unit **in operation** can be ready for the "address setting" directly via the C.I.E. menu. See the following chapter.

When the External 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:

For an External Presentation unit with SW mode 1728 - **1587**, the address can be set to **00-15**.[8] (Default is "00".)

Scroll to the required 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.[9]

6.2.1 Address setting mode via the C.I.E.

One specific External Presentation unit **or** all the External 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

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[6] 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.

[7] Or all the external Presentation units connected to the same Ext. FBP / DU interface board 1587.

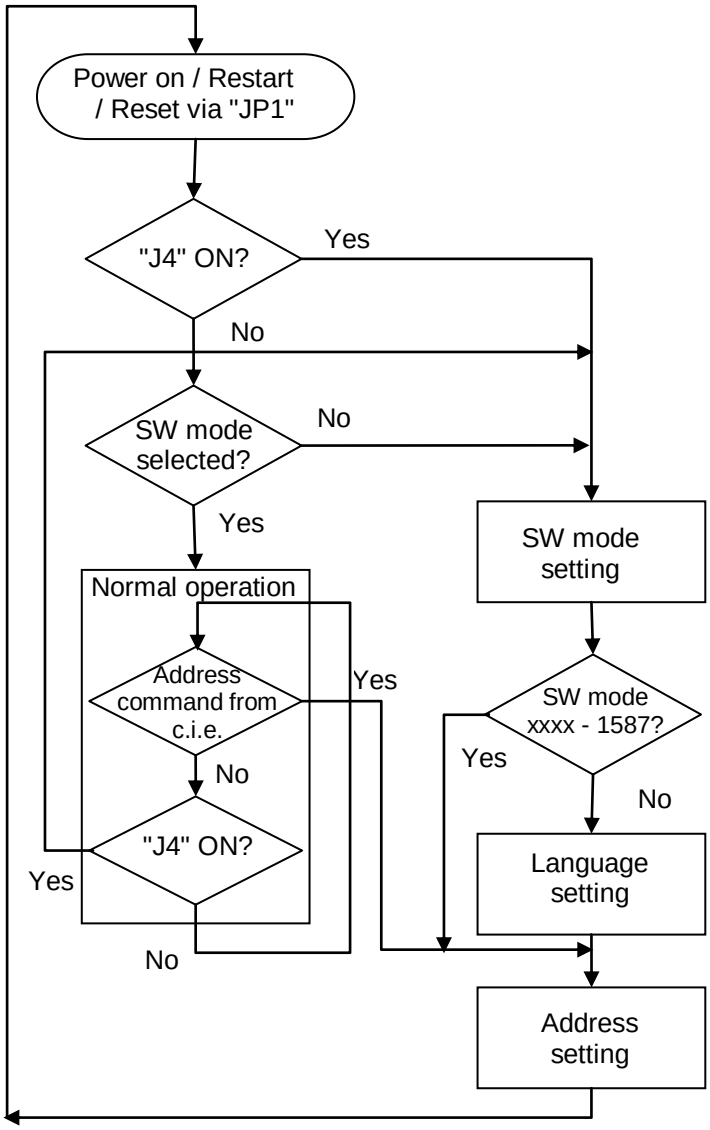
[8] Normally should not more than eight units be connected to one Ext. FBP / DU interface board 1587, if not ext. power supply is used.

[9] 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.

done via menu H5/A9 (A7 in system FT1020G3), see Operation Manuals 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.



7 User definable text messages (alarm texts)

In the C.I.E., each alarm point (zone – address) and each zone can have an individual user definable text message (alarm text)[10] presented in the display by fire alarm, see the Technical and Operation Manuals for the system respectively.

The alarm texts shown in the C.I.E. will also be sent to each External Presentation unit and shown in its display.

As an alternative, text messages for all or selected alarm points / zones can be stored in each External Presentation unit[11]. 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 External Presentation unit.
2. Zone alarm text stored in the External Presentation unit.
3. Default alarm text stored in the External Presentation unit.
4. Text sent out from the C.I.E.

When alarm texts shall be stored in all or in some External 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 External Presentation unit respectively, see chapter "Selective alarm presentation", page 7.

[10] Each alarm text (up to 40 alphanumeric characters) will be shown on the second row. The texts are created and downloaded via Win512 / Win128 / WinG3.

[11] At least 617 text messages can be stored in each unit.

8 Commissioning a new unit / SSD download

The cable (RS485 line) to the External Presentation unit(s)[12] shall be connected. See connection diagram for the system respectively.

In the **FT512** C.I.E. the 1587 board shall be mounted. Remove the fuse "F1" on the 1587 board.

The **FT128** C.I.E. shall be switched off and the "RS485 transceiver component 4552" shall be plugged on the main board (4556).

On the **FT1020G3** 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 External Presentation unit's terminal block "J1".
2. When all connections are done put back the fuse "F1" on the 1587 board in the FT512 C.I.E. / power up the FT128 C.I.E. / put back the fuse "F19" on the main board (5010) in the FT1020G3 C.I.E., i.e. the External 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 18.
5. Since the SSD is not downloaded in the C.I.E. there will be a fault message in the External Presentation unit's display:

   "No contact with Control unit"

   All LED's in the External Presentation unit will be turned off.
6. Now the SSD have to be downloaded via Win512 / Win128 / WinG3.[13] Connect the PC to the C.I.E. In the "Win512 / Win128 / WinG3 download SSD" dialog box, verify that the

[12] One or more external Presentation units and/or external FBPs and/or Alert Annunciation Units can be connected.

[13] Via Win512 is the 1587 board programmed (incl. its address). Via Win512 / Win128 / WinG3 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).

"Download FBP / AAU" checkbox is marked. Start the download of SSD.

7. When the download of SSD to the C.I.E. is finished, it will restart. Then the download of SSD to the External Presentation unit(s) will take place. During the download to an External Presentation unit the following will be shown in its display:

   "SSD download in progress....."

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

   "SSD Download Memory OK"

   or

   "SSD Download Memory Fault"

   Then, the External Presentation unit will restart, see chapter "Restart", page 18.

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

9 Restart

The External Presentation unit will **restart**:

- When the 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, the LCD will display the following (no back-light):

"Checking program memory…"

followed by (very quickly)

"Program memory OK"

followed by

"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 External Presentation unit will not work.

There will also be a fault message in the C.I.E.:

In system FT512:

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

In system FT128:

"FAULT: No reply EPU x"

In system FT1020G3:

"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 External 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 FT512:

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

In system FT128:

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

In system FT1020G3:

"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 system 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 External Presentation unit and in the C.I.E. respectively.

10.1 Fault messages in the EPU Unit

"General fault in system"

Any fault not corrected or serviced in the system and any fault not acknowledged 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. Check the cable, all connections, the 1587 board in the FT512 C.I.E. and the RS485 transceiver component 4552 in the FT128 C.I.E. Is a correct / complete SSD download (via Win512 / Win128 / WinG3) performed? Check the address setting on the 1587 board in FT512 and check the address and SW mode settings in the External Presentation unit, etc.

"SSD memory fault"

See chapter "Restart", page 18.

"SSD Download Memory Fault"

In conjunction with SSD download, see chapter "Commissioning a new unit / SSD download", 16.

"Memory fault in program area (n)"

See chapter "Restart", page 18.

10.2 Fault messages in the C.I.E.

10.2.1 System FT512

"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 EPU is interrupted. Check the cable, all connections and the 1587 board. Is a correct / complete SSD download (via Win512)

performed? Check the address setting (1587 board / the External Presentation unit), SW mode setting, etc. See also chapter "Restart", page 18.

"FAULT: EPU xx, 1587 board x, CU xx"
The EPU is programmed (via Win512) as another type of unit or there is a fault in the External 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 18.

10.2.2 System FT128

"FAULT: No reply EPU x"
The contact with the EPU 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 18.

"FAULT: EPU x"
The External Presentation unit is programmed (via Win128) as another type of unit or there is a fault in the External Presentation unit.

"FAULT: Site specific data (SSD), EPU x"
See chapter "Restart", page 18.

10.2.3 System FT1020G3

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

The contact with the External Presentation unit is interrupted. Check the cable and all connections. Is a correct / complete SSD download (via WinG3) performed? Check the address setting, SW mode setting, etc. See also chapter "Restart", page 18.

"FAULT: External presentation unit xx"
The External Presentation unit is programmed (via WinG3) as another type of unit or there is a fault in the External FBP.

"FAULT: External presentation unit xx control unit xx"
The External Presentation unit is programmed (via WinG3) as another type of unit or there is a fault in the External Presentation unit.

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

See chapter "Restart", page 18.

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.

12 Software (S/W)

The software is stored in a flash memory in each External Presentation unit. This software can be replaced / updated (i.e. downloaded via Win512 / Win128 / WinG3). All units connected to the same RS485 line **must 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: aaaaaaaa`	`Version: V.vvvv`
`Return = Yellow`	`Erase SSD = Black`

nn = restart type (code) and `aaaaaaaa` = 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 External Presentation unit will restart (Restarting....), i.e. the buzzer will sound for approx. two seconds and the unit will return to normal operation.

6. Continue 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 External 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 External Presentation unit respectively.

1. Prepare the PC and start Win512 / Win128 / WinG3. In Win512 select the External Presentation unit icon and click the right mouse button. In Win128 and WinG3, 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 / WinG3 help.
2. Connect the PC to the External Presentation unit ("J2").
3. Put the jumpers "JP3" and "JP4" in position "A".
4. Shunt the jumper "JP2" (BOOT).
5. Put the External 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 External Presentation unit will return to normal operation.
10. Regarding fault messages, see chapter "Restart", page 18.

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 External Presentation unit 1728, an alarm has to be 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-incidence[1], fire alarms and heavy smoke / heat alarms will be presented same as in the C.I.E. the External Presentation unit is connected to, including a user programmable text message (alarm text), if programmed.
See also chapter "Selective alarm presentation, page 7.

Any fault not corrected or serviced 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.

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

Fire alarm reset has to be done in any C.I.E.

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

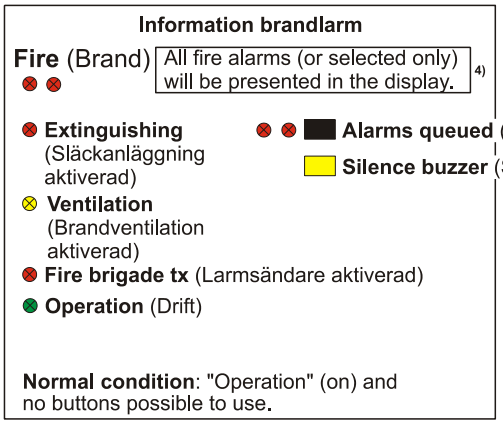
Faults have to be acknowledged in any C.I.E.

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

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

NOTE! The External 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



Test function

- Press "Alarms queued" & "Silence buzzer" simultaneously.
  - Buzzer (cont.).
  - All LEDs (on).
  - Back light and all dots shown in the display.

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.

Possible additional actions

- Press "Silence buzzer".
  - Buzzer off.

A new alarm

- 3) Buzzer (0.4/0.4s)

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".

NOTE!
Not only fire alarms will be presented in the display, pre-warnings, co-incidence 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 EPU 1728.

(Co-incidence alarm = 2-zone / -address dependence.). The buzzer sounds continuously for any not acknowledged fault in the system and "Silence buzzer" is possible to use. Any disablement in the system will be presented as "General disablement in system".

14 Connections

The External Presentation unit is equipped with a plug-in terminal block (J1:1-8) for the cable connections. Up to 1.5 mm^2 conductor area can be used.

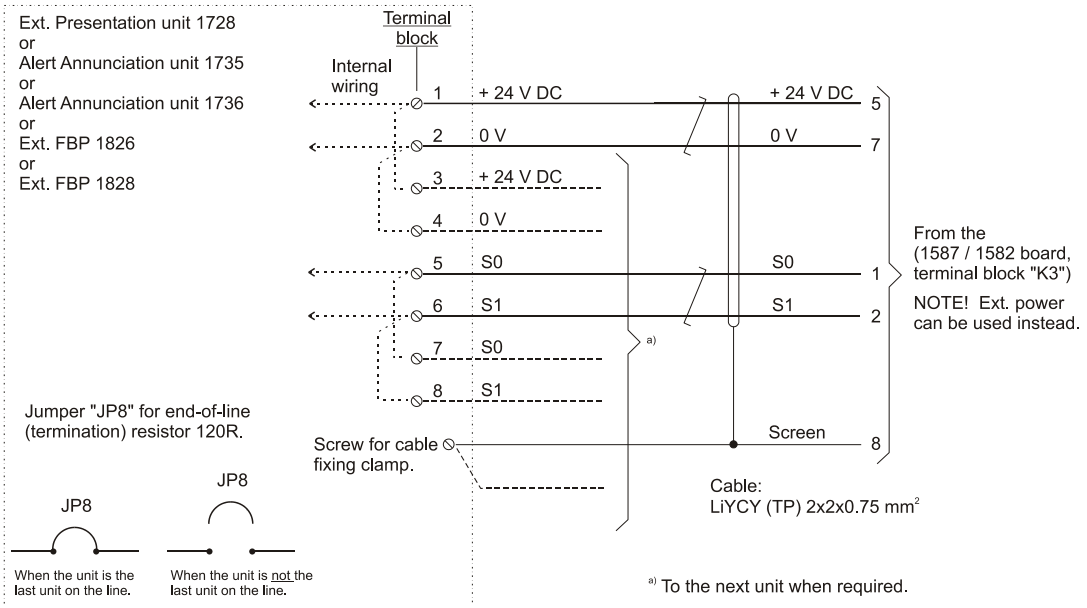


Figure 4. External Presentation unit 1728 connections

The connection of 1728 is via terminal block "J1". The jumper "JP8" must only be shunted if the unit is the last unit on the line.

NOTE! The **EPU** units 1728 can in FT512 only be connected to a 1587 board. In FT128: +24 V / 0V / S0 / S1 to terminal block J1: 13 / 14 / 15 / 16. In FT1020G3: +24 V / 0V / S0 / S1 to terminal block J4: 35 / 36 / 37 / 38.

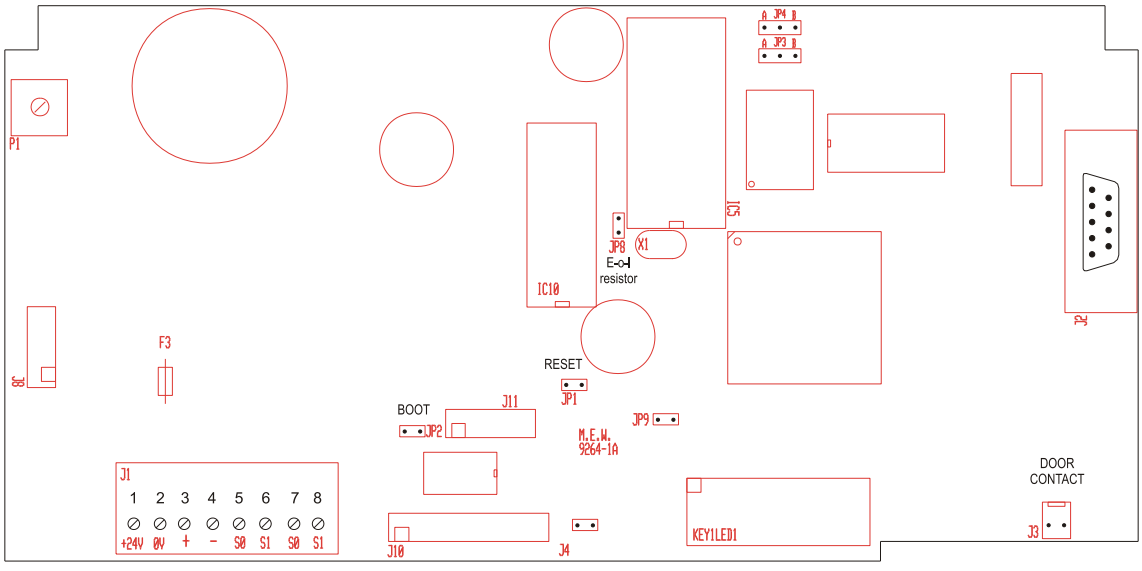


Figure 5. 1728 PCB Position of terminal block "J1", jumper "JP8"

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 External 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 External Presentation unit.)
JP2	Boot. (The External 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 External Presentation unit is connected to the C.I.E. (default).
JP4	Pos. "A": PC, for S/W download, connected via "J2". Pos. "B": The External Presentation unit is connected to the C.I.E. (default).
JP8	Used when the External 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 External Presentation unit 1728 is 24 V DC.[14]

The number of External Presentation units that can be power supplied from the C.I.E. is dependent 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 supply[15].

15.2 RS485

The External Presentation units communicate with the C.I.E. via RS485, i.e. in system FT512 via the "External FBP / DU interface board" 1587 (data rate 9600 baud), mounted in the C.I.E. and in system FT128 via the "RS485 transceiver component 4552" plugged on the mother board in the C.I.E.

In system FT1020G3 the required components are mounted on the main board as standard feature.

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

15.2.1 Cable

The cable to be used in systems FT512 and FT1020G3 should be Twisted Pairs 2 x 2 x 1 mm2 (screened - tinned copper braid). Cable length up to 1200 m (theoretically) depending on the cable type but the cable length is also dependent on the current consumption, i.e. the type and number of units connected. For more details regarding cable type and current consumption, refer to the technical manual of each system.
NOTE! In system FT128 the screen is not used / connected.
A twisted pair not screened cable can then be used.

15.3 RS232

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

15.4 Connection

The External Presentation units are equipped with a plug-in terminal block (J1) for the cable connections. Up to 1.5 mm^2 conductor area can be used.

15.5 Current consumption

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

---

[14] Allowed voltage is 12 – 30 V DC.

[15] 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.

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

Table 4 Current consumption

Unit	**Current consumption**			
	Quiescent (mA)		Active (mA)	
	12 V DC	24 V DC	12 V DC	24 V DC
EPU unit 1728	48	26	88	42

16 Revision history

Issue	Date	Description	Software revision	Written By	Checked By
Initial	15/8/2011	Original Panasonic issue MEW01297 Rev 2	V1.4	Jan Patterson	
1.0	20/8/2012	Change Panasonic issue to suit AU / NZ Market	V1.4	Anis Shenouda	

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