Alert Annunciation Units 1735 & 1736, ver. 1.4.x

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1   Introduction

This document[1] describes the **A**lert **A**nnunciation **U**nits **1735** & **1736** (Larmlagringstablå).

For a detailed description of the **AA** function, see Planning and Operating instructions for the system respectively.

The Alert annunciation units 1735 & 1736 shall run in **SW mode 1735 – 1587** and **SW mode 1736 – 1587** respectively.

See also chapter "General description", page 5.

This document is valid for the 1735 & 1736 software **version 1.4.x**.

The Alert annunciation units 1735 & 1736 can be used in the systems EBL512, EBL128 and EBL512 G3.

In system EBL512 G3 the 1735 / 1736 a software version $\geq$ 1.4.x. has to be used.

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[1] Original file name: L:\User documents\EBL\Doc\Eng\MEW01295 (Rev 2).doc

2   Definitions / Explanations

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

AA	Alert Annunciation
AAU	Alert Annunciation Unit
AA alarm	Alert Annunciation alarm
AA function	Alert Annunciation function
C.i.e.	Control and indicating equipment (=control unit)
C.U.	Control unit (=Control and indicating equipment)
SW	Software
HW	Hardware

3   General description

When the **A**lert **A**nnunciation function shall be used in the systems EBL512, EBL128 and EBL512 G3, one or more **AA** units are required to present the **AA** alarms and for the related manoeuvres, i.e. to acknowledge / reset the alarms.

The LED "L6" (Operation - *Drift*) is indicating if the "**A**lert **A**nnunciation" function is enabled or disabled[2].

When the **AA** function is enabled ("L6" on) and a fire alarm in the system, the LED "L3" (Fire brigade alerted – *Räddningstjänsten larmad*) is indicating if it is an **AA** alarm or not.
Off = **AA** alarm.   On = no **AA** alarm / Output "Fire brigade tx" activated.

The LED "L4" (Acknowledged - *Kvittering*) is indicating if the **AA** alarm has been acknowledged. See also chapter "Operation", page 29.

3.1   Alert Annunciation Unit 1735

Figure 1.   The Alert Annunciation Unit (AAU) 1735 has a Swedish front.

The Alert Annunciation Unit consists of a compact size enclosure 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. The unit has no door, i.e. the front is accessed directly, when required. The push buttons are disabled until they are supposed to be used, i.e. when an **AA** alarm is activated. The unit shall be wall mounted. The unit is intended for indoor use and in dry premises. Two compression glands TET 7-10 (IP67) for cable inlets are attached.

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[2] The **AA** function is normally enabled (during daytime) / disabled (during night-time) via a time channel.

3.1.1   SW mode 1735 - 1587

The Alert Annunciation Unit 1735 has to run in **SW mode 1735 – 1587**. 1735 succeeds the existing Display unit with alert annunciation 2235SE (with Swedish designation texts) but not as a spare part, since the 2235SE unit is connected to a COM loop.

In system <u>EBL512</u>, 1735 units running in SW mode **1735 – 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 <u>EBL128</u>, 1735 units running in SW mode **1735 – 1587** are connected directly to the main board connector "J1" but an optional **RS485 transceiver component 4552** has to be plugged on the main board.

In system <u>EBL512 G3</u>, 1735 units running in SW mode **1735 – 1587** are connected directly to the main board connector "J4".

3.2   Alert Annunciation Unit 1736

Figure 2. The Alert Annunciation Unit (AAU) 1736. A neutral front where the designation texts, by production, are made separately and put into the transparent "text slot" for the LED and push button respectively. (It also holds one extra LED & two extra push buttons.)

The Alert Annunciation Unit consists of a compact size enclosure 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. The unit has no door, i.e. the front is accessed directly, when required. The push buttons are disabled until they are supposed to be used, i.e. when an **AA** alarm is activated. The unit shall be wall mounted. The unit is intended for indoor use and in dry premises. Two compression glands TET 7-10 (IP67) for cable inlets are attached.

3.2.1   SW mode 1736 - 1587

The Alert Annunciation Unit 1736 has to run in SW mode 1736 – 1587. 1736 succeeds the existing Display unit with alert annunciation

2235cc (with designation texts in another language than Swedish) but not as a spare part, since the 2235cc unit is connected to a COM loop.

In system <u>EBL512</u>, 1736 units running in SW mode **1736 – 1587** have to be connected to an **Ext. FBP / DU interface board 1587** mounted in the EBL512 c.i.e. EBL512 software version $\geq$ 2.2 is required.

In system <u>EBL128</u>, 1736 units running in SW mode **1736 – 1587** are connected directly to the main board connector "J1" but an optional **RS485 transceiver component 4552** is required on the main board.

In system <u>EBL512 G3</u>, 1736 units running in SW mode **1735 – 1587** are connected directly to the main board connector "J4".

4   Selective Fire alarm presentation

Normally all fire alarms will be presented in the c.i.e:s, ext. FBP:s 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 <u>a point alarm</u> (zone and address), else presented as <u>a zone alarm</u>.

4.1   Alert Annunciation Units 1735 & 1736

The alarm presentation in an **AA** unit will be like in the c.i.e. that the **AA** unit is connected to, i.e. <u>point alarm or zone alarm presentation</u>. See 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 **AA** unit respectively. For example, if there are many buildings in an installation, the **AA** unit in one specific building shall only present alarms activated within this building.

The following, so called <u>operands</u> 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 <u>selector</u> for an **AA** unit. Here follows a selector example:
Control unit (**00**), **Consecutive zones** (**100, 500**), **Zone – address** (**900, 01**) In this **AA** unit will only be presented alarms that origin from the c.i.e. no. 00 <u>or</u> from zone 100 up to and including zone 500 <u>or</u> from the alarm point 900-01.

Default for each **AA** unit is, in system EBL512 and EBL512 G3: **Control units** (**00, 29**), i.e. all alarms from all c.i.e:s will be presented in all **AA** units.

Default for each **AA** unit is, in system EBL128: **Zones** (**01 - 32**), i.e. all alarms will be presented in all ext. FBPs.

5   LED indicators, Push buttons, etc.

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

5.1   Alert Annunciation Unit 1735 front
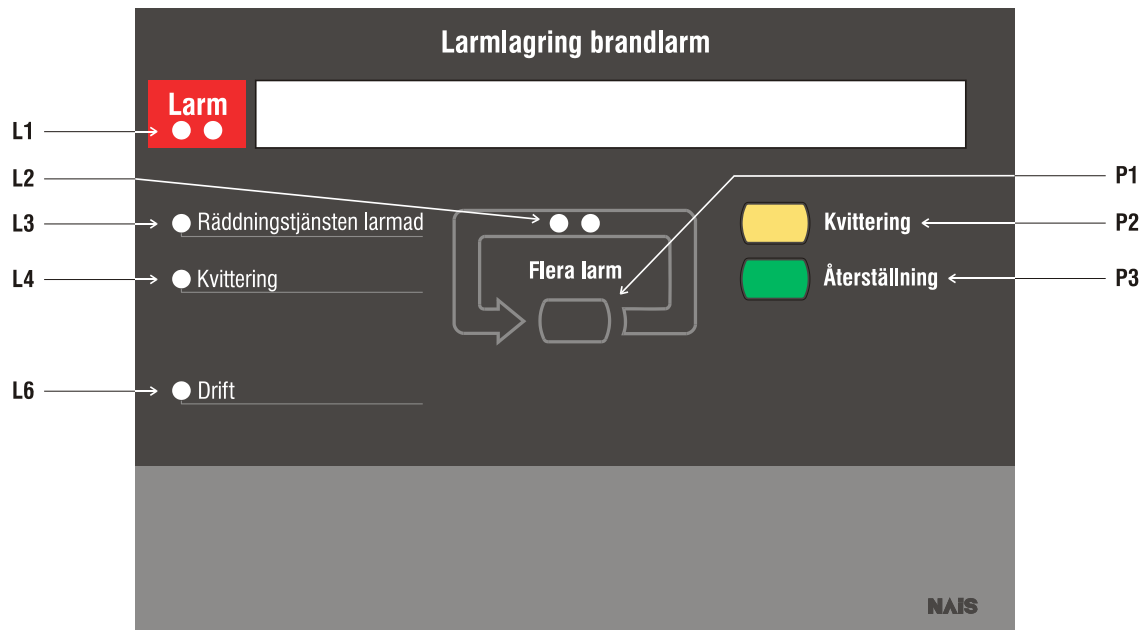
Figure 3.   The Alert Annunciation Unit (AAU) 1735 front.   The designation texts are in Swedish. See also tables below.

The following is valid in quiescent (normal) condition:

- LED "L6" (Operation) is turned on if the alert annunciation function is enabled[3], else turned off.

- Buzzer is silent.

- No text in the display and no back-light.

- No button possible to use.[4]

In the following tables, **AA** = **A**lert **A**nnunciation.

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[3] The **AA** function is normally enabled (during daytime) / disabled (during night-time) via a time channel.

[4] Press simultaneously "P2" (Acknowledge) & "P3" (Reset) for a test of the LEDs, the buzzer and the display (back-light and dots). **NOTE!** This must be done only in quiescent condition.

Table of LED indicators:

LED indicator		**Colour**	**Indicating**	
L1	Alarm (Larm)	2 x Red	Blinking+ LED "L6" turned on + Buzzer (interm.)	**AA** alarm (Acknowledge time starts.)
			Blinking+ LED "L3" turned on (no buzzer).	Fire alarm (i.e. not an **AA** alarm).
			Cont. (no buzzer)	**AA** alarm(s) is/are acknowledged.
L2	Alarms queued (Flera larm)	2 x Red	Blinking	More than one alarm. Use push button "P1" (Alarms queued) to scroll.
L3	Fire brigade alerted (Räddningstjänsten larmad)	Red	Cont.	Output(s) for "Fire brigade tx" are activated.[5]
L4	Acknowledge (Kvittering)	Yellow	Cont.	All **AA** alarms have been acknowledged by the push button "P2" (Acknowledge) and new **AA** alarms will be automatically acknowledged.
L5	-	-	-	-
L6	Operation (Drift)	Green	Cont.	The **AA** function is <u>enabled</u>.
			Off	The **AA** function is <u>not enabled</u>.

NOTE! Regarding "L2", see also chapter "SW mode & Address setting, page 16.

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[5] Indicating the same way as in the c.i.e. the **AA** unit is connected to, i.e. by activated output(s) of the corresponding type or an activated input.

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	Acknowledge (Kvittering) [6]	Yellow	Used to acknowledge an **AA** alarm. The unit's buzzer will also be silenced. (Investigation time starts.) Acknowledged **AA** alarm is indicated by LED "L4" (Acknowledge).
P3	Reset (Återställning) [6]	Green	Used to reset all **AA** alarm(s). (Fire alarms, i.e. <u>not</u> **AA** alarms, have to be reset in the c.i.e.). So called "encapsulation" is not possible to do.

NOTE! Regarding "P1" and "P2", see chapter "SW mode & Address setting, page 16 and regarding "P3", chapter "SW version", page 27.

Table of others:

Component	Indicating	
Buzzer[7]	1 beep/5 s	**AA** alarm.
	Cont. + **All** LEDs turned off as well.	There is a CPU / memory fault in the unit.
Display	All or selected Fire alarms[8] / **AA** alarms presented like in the c.i.e. that the **AA** unit is connected to and an alarm text (if programmed). (**NOTE!** A fault message may be shown, indicating a communication fault (i.e. no connection between the unit and the c.i.e.).	

NOTE! Regarding the Buzzer and the Display, see also chapter "SW mode & Address setting, page 16.

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[6] Press simultaneously "P2" (Acknowledge) & "P3" (Reset) for a test of the LEDs, the buzzer and the display (back-light and dots).
NOTE! This must be done only in quiescent condition.

[7] The buzzer may be programmed as "disabled" (via Win512 / Win128 / Win512 G3), i.e. it will **never** sound.

[8] Also Heavy smoke / heat alarms.

5.2   Alert Annunciation Unit 1736

The Alert Annunciation unit is also available with a neutral front. The designation texts for the LEDs and push buttons have to be made separately and put into a "text slot" for the LED / push button respectively.
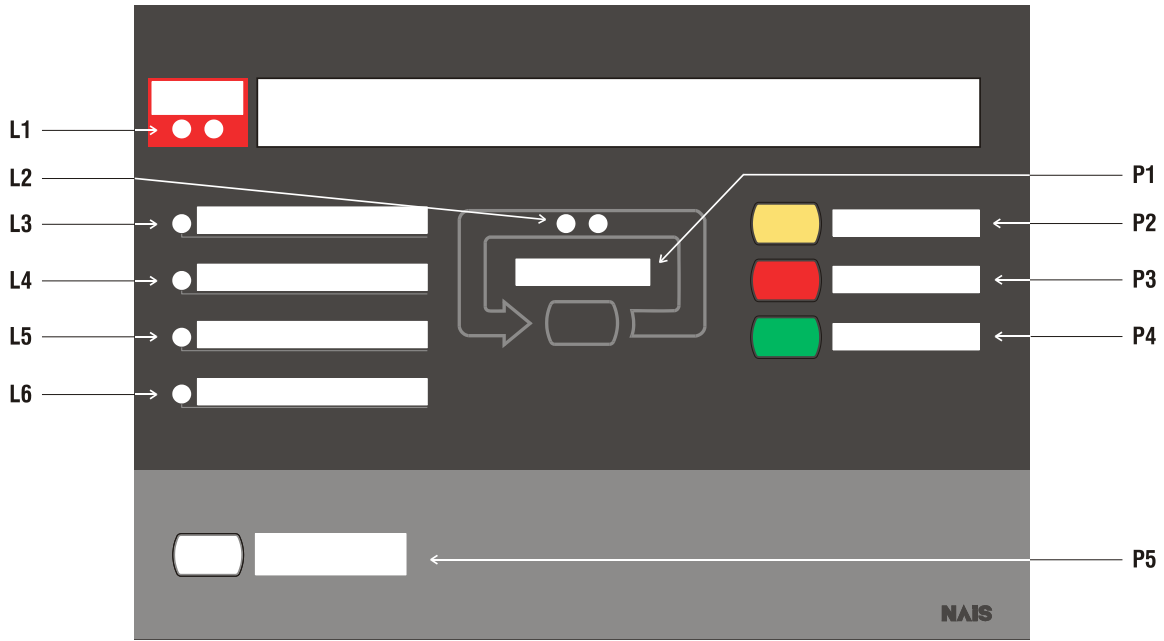
Figure 4. The Alert Annunciation Unit (AAU) 1736 neutral front.

The following is valid in quiescent (normal) condition:

- LED "L6" is turned on if the alert annunciation function is enabled[9], else turned off.

- Buzzer is silent.

- No text in the display and no back-light.

- No button possible to use.[10]

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[9] The **AA** function is normally enabled (during daytime) / disabled (during night-time) via a time channel.

[10] Press "P5" (Test) for a test of the LEDs, the buzzer and the display (back-light and dots). **NOTE!** This must be done only in quiescent condition.

Table of LED indicators:

LED indicator		Colour	Indicating	
L1	(Depending on language, etc. "Alarm")	2 x Red	Blinking+ LED "L6" turned on + Buzzer (interm.)	**AA** alarm (Acknowledge time starts.)
			Blinking+ LED "L3" turned on (no buzzer).	Fire alarm (i.e. not an **AA** alarm).
			Cont. (no buzzer)	**AA** alarm(s) is/are acknowledged.
L2	(Depending on language, etc. "Alarms queued")	2 x Red	Blinking	More than one alarm. Use push button "P1" to scroll.
L3	(Depending on language, etc. "Fire brigade alerted")	Red	Cont.	Output(s) for "Fire brigade tx" are activated.[11]
L4	(Depending on language, etc. "Acknowledge")	Yellow	Cont.	All **AA** alarms have been acknowledged by the push button "P2" and new **AA** alarms will be automatically acknowledged.
L5	(Depending on language, etc. "Extinguishing")	Red	Cont.	Output(s) for "Extinguishing" are activated.[11]
L6	(Depending on language, etc. "Operation")	Green	Cont.	The **AA** function is <u>enabled</u>.
			Off	The **AA** function is <u>not enabled</u>.

NOTE! Regarding "L2", see also chapter "SW mode & Address setting, page 16.

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[11] Indicating the same way as in the c.i.e. the **AA** unit is connected to, i.e. by activated output(s) of the corresponding type or an activated input for the LED respectively.

Table of push buttons:

Push button		Colour	Operation / function
P1	(Depending on language, etc. "Alarms queued")	Black	Used, when LED "L2" 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	(Depending on language, etc. "Acknowledge")	Yellow	Used to acknowledge an **AA** alarm. The unit's buzzer will also be silenced. (Investigation time starts.) Acknowledged **AA** alarm is indicated by LED "L4".
P3	(Depending on language, etc. "Silence alarm devices")	Red	Used to silence the alarm devices. (Normal fire alarms & **AA** alarms.) [12]
P4	(Depending on language, etc. "Reset")	Green	Used to reset all **AA** alarm(s). (Fire alarms, i.e. <u>not</u> **AA** alarms, have to be reset in the c.i.e.). So called "encapsulation" is not possible to do.
P5	(Depending on language, etc. ("Test")[13]	White	Used for testing the LEDs, the buzzer and the display (back-light and dots). **NOTE!** This must be done only in quiescent condition.

NOTE! Regarding "P1" and "P2", see chapter "SW mode & Address setting, page 16 and regarding "P3", chapter "SW version", page 27.

Table of others:

Component	Indicating	
Buzzer[14]	1 beep/5 s	**AA** alarm.
	Cont. + **All** LEDs turned off as well.	There is a CPU / memory fault in the unit.
Display	All or selected Fire alarms / **AA** alarms presented like in the c.i.e. that the **AA** unit is connected to and an alarm text (if programmed). (**NOTE!** A fault message may be shown, indicating a communication fault (i.e. no connection between the unit and the c.i.e.).	

NOTE! Regarding the Buzzer and the Display, see also chapter "SW mode & Address setting, page 16.

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[12] If the "Silence alarm devices" button in the c.i.e. has been programmed to "Disable alarm devices", "P3" will have the same function. "P3" cannot be used until a fire or **AA** alarm is activated in the system.

[13] Press "P5" (Test) for a test of the LEDs, the buzzer and the display (back-light and dots). **NOTE!** This must be done only in quiescent condition.

[14] The buzzer may be programmed as "disabled" (via Win512 / Win128 / Win512 G3), i.e. it will never sound.

6   SW mode & Address setting

Alert Annunciation Unit **1735** can run in SW mode **1735 - 1587** only. It shall also have a unique **address** on the RS485 line connected to the 1587 board in the EBL512 c.i.e. See EBL512 Planning Instructions.

Alert Annunciation Unit **1736** can run in SW mode **1736 - 1587** only. It shall also have a unique **address** on the RS485 line connected to the 1587 board in the EBL512 c.i.e. See EBL512 Planning Instructions.

The SW mode **1736 – 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 **1736 – 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 **AA** unit has no SW mode. It is factory set to **"Not selected"** (and is hereby not addressable). When it is **powered** it will <u>automatically</u> be ready for the "SW mode setting".

As an alternative, an **AA** unit **in operation**[15] can be ready for the "SW mode setting" <u>via the jumper "J4"</u> in the unit. See the following chapter.

When the **AA** 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
```

xxxxxxxxxxxx can be changed to one of the following:

- **- 1735 – 1587** (1735 only)
- **- 1736 - 1587** (1736 only)
- - 1826 – 1587 2nd Cab
- - 1826 – 1582 2nd Cab
- - 1826/28 - 1587
- - 1826/28 - 1582
- - 1728 - 1587
- - 1728 - 1582
- **- 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

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

the unit will automatically be ready for the "Address setting ", see below.

6.1.1 SW mode setting via jumper "J4"

An **AA** unit **in operation**[15] will be ready for the "SW mode setting" via the jumper "J4" in the unit. Activate "J4" **momentarily**.[16]

When the **AA** 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 16.

6.2 Address setting

After the SW mode setting, the **AA** unit is ready for the "address setting".

As an alternative, an **AA** unit **in operation**[17] can be ready for the "address setting" directly via a c.i.e. menu. See the following chapter.

When the **AA** 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 **AA** unit, the address can be set to **00-15**.[18] (Default is "00".)

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.[19]

6.2.1 Address setting mode via the c.i.e.

A specific **AA** unit **or** all the **AA** 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

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[16] If "J4" is not removed, the **AA** unit will not enter its normal operation mode after the restart but start from the beginning again, ready for the SW mode setting.

[17] Or all the **AA** units connected to the same Ext. FBP / DU interface board 1587.

[18] This is the max. no. of addresses. The max. no. of units connected to a board is depending on the type of units and if ext. power supply is used.

[19] 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.

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[20], Address setting, etc.

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[20] Language setting is not valid for the **AA** units 1735 & 1736.

```
        ┌──────────────────────────────┐
        │                              ▼
        │              ╭───────────────────────────╮
        │              │  Power on / Restart /     │
        │              │  Reset via "JP1"          │
        │              ╰───────────────────────────╯
        │                              │
        │                              ▼
        │                         ◇ "J4" ON? ◇ ──────Yes──────────────┐
        │                              │                              │
        │                              No                             │
        │              ┌───────────────┤◄──────────────────┐          │
        │              │               ▼                   │          │
        │              │        ◇ SW mode selected? ◇ ──No──┼──────────┤
        │              │               │                   │          ▼
        │              │               Yes          ┌──────────────┐
        │              │               ▼            │  SW mode     │
        │              │        ┌──────────────┐    │  setting     │
        │              │        │ Normal operation   └──────────────┘
        │              │        │   ◇ Address           │
        │              │        │   command from ◇ ─Yes─ │
        │              │        │   c.i.e.              ▼
        │              │        │     │ No      ◇ SW mode xxxx - 1587? ◇
        │              │        │     ▼          Yes │              No
        │              Yes      │  ◇ "J4" ON? ◇      │              ▼
        │              │        │     │ No          │      ┌──────────────┐
        │              │        └─────┘             │      │  Language    │
        │              │                            │      │  setting     │
        │              │                            │      └──────────────┘
        │              │                            ▼              │
        │                                   ┌──────────────┐
        │                                   │  Address     │
        │                                   │  setting     │
        │                                   └──────────────┘
        │                                           │
        └───────────────────────────────────────────┘
```
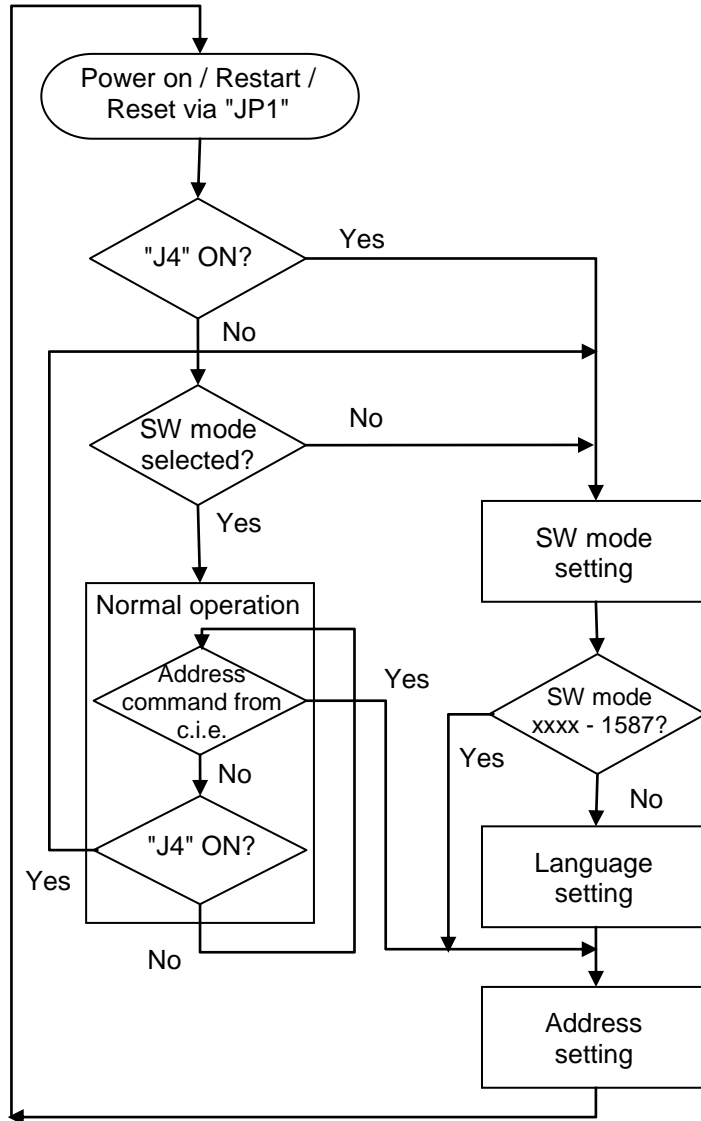
7 User definable text messages (alarm texts)

In the c.i.e., each alarm point (zone – address) and each zone can have an individual user definable text message (alarm text)[21] presented in the display by fire alarm, see the Planning and Operating Instructions for the system respectively.

The user definable text messages shown in the c.i.e. will also be sent to each Alert Annunciation Unit and shown in its display.

As an alternative, text messages for all or selected alarm points / zones can be stored in each **AA** unit.[22] If so, these text messages will be shown instead of the text messages sent out from the c.i.e.

The priority order is as follows:

    1. Point alarm text stored in the **AA** unit.

    2. Zone alarm text stored in the **AA** unit.

    3. Default alarm text stored in the **AA** unit.

    4. Text sent out from the c.i.e.

When alarm texts shall be stored in <u>all</u> or in <u>some</u> **AA** 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 **AA** unit respectively, see chapter "Selective Fire alarm presentation", page 8.

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

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

8   Commissioning of a new unit / SSD download

The cable (RS485 line) to the **AA** unit(s)[23] shall be connected. See connection diagram for the system respectively.

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

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

On the <u>EBL512 G3</u> 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 16. Here follows a brief summary (a recommended sequence of actions):

1. Connect the cable from the c.i.e. to the **AA** unit 's terminal block "J1".

2. When all connections are done put back the fuse "F1" on the 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 **AA** unit(s) will now be powered up.

3. A brand new unit will automatically be ready for the <u>SW mode setting</u>.

4. After SW mode and address setting press "P2" (yellow) and the unit will restart, see chapter "Restart", page 23.

5. Since the SSD is not downloaded in the c.i.e. there will be a fault message in the unit's display:

   "No contact with Control unit".

   All LED:s in the unit will be turned off.

6. Now the <u>SSD have to be downloaded</u> via Win512 / Win128 / Win512 G3.[24] 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.

7. When the download of SSD to the c.i.e. is finished, it will restart. Then the download of SSD to the **AA** unit(s) will take

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[23] One or more ext. FBPs and/or Alert Annunciation Units can be connected.

[24] Via Win512 is the 1587 board programmed. Via Win512 / Win128 / Win512 G3 is each unit (e.g. an **AA** unit) programmed regarding Address, Selective alarm presentation, if the buzzer should be disabled etc. When required, also "User definable text messages" (alarm texts).

place. During the download to an **AA** unit, the following will be shown in its display:

`"SSD download in progress....."`

8. After download of SSD to an **AA** unit, the following will be shown in its display (very quickly):

`"SSD Download Memory OK"`

or
`"SSD Download Memory Fault"`

After that the AAU will restart, see chapter "Restart", page 23.

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

9   Restart

The **AA** unit will **restart**:

- When the unit is powered up

- If the jumper "JP1" is activated momentarily

- After address setting (i.e. "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 **AA** unit will not work.
There will also be a fault message in the c.i.e.:

In system EBL512:

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

In system EBL128:

"FAULT: No reply AAU x".

In system EBL512 G3:

"FAULT: No reply, alert annunciation unit ##, control unit ##"

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 **AA** 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.:

<u>In system EBL512</u>:

`"FAULT:  SSD, AAU xx, 1587 board x, CU xx"`.

<u>In system EBL128</u>:

`"FAULT:  Site specific data (SSD), AAU x.`

<u>In system EBL512 G3</u>:

`"FAULT: Site specific data, alert annunciation unit ##, control unit ##"`

10   Fault messages

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

10.1   Fault messages in the AA unit

"No contact with control unit"   The contact with the c.i.e. is interrupted for $\geq$ 45 sec. In a brand new **AA** unit this message will be in English. After commissioning of the **AA** 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 as well as the 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 1587 board in EBL512 and check the address and SW mode settings in the **AA** unit), etc.

"SSD memory fault"   See chapter "Restart", page 23.

"SSD Download Memory Fault" in conjunction with SSD download, see chapter "Commissioning of a new unit / SSD download", page 21.

"Memory fault in program area (n)" See chapter "Restart", page 23.

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 programming (Win512).

"FAULT: Comm, AAU xx, 1587 board x, CU xx"
The contact with the **AA** unit 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 **AA** unit), SW mode setting, etc. See also chapter "Restart", page 23.

"FAULT: AAU xx, 1587 board x, CU xx"
The **AA** unit is programmed (via Win512) as another type of unit <u>or</u> there is a fault in the **AA** unit.

"FAULT: Fuse, 1587 board x, CU xx"
Check for blown fuse(s) on the 1587 board.

"FAULT: SSD, AAU xx, 1587 board x, CU xx"
See chapter "Restart", page 23.

10.2.2   System EBL128

"FAULT: No reply AAU x.

The contact with the **AA** 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 23.

"FAULT: AAU x "

The **AA** unit is programmed (via Win128) as another type of unit <u>or</u> there is a fault in the **AA** unit.

"FAULT: Site specific data (SSD), AAU x.

See chapter "Restart", page 23.

10.2.3   System EBL512 G3

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

The contact with the ext. AAU 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 23.

"FAULT: Alert annuniciation unit xx"

The AAU is programmed (via Win512 G3) as another type of unit <u>or</u> there is a fault in the AAU.

"FAULT: External presentation unit xx, control unit xx"

The AAU is programmed (via Win512 G3) as another type of unit <u>or</u> there is a fault in the AAU.

"FAULT: Site specific data, alert annunciation unit xx, control unit xx.

See chapter "Restart", page 23.

11   Software (SW)

The software is stored in a flash memory in each **AA** 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 SW version and it is **highly recommended** to have the same SW version in all the display units in the system.

11.1   SW version

The SW version can be presented as follows:

1 Do the same as by SW mode and address setting, see chapter "SW mode setting", page 16.

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.

If nn=01, 02 or 04-19 appear often, call for service personnel / engineer.

V.vvvv = SW 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 **AA** 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 **AA** unit will restart (Restarting....), i.e. the buzzer will sound for approx. two seconds and the unit will return to normal operation.

11.2   SW download

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

1. Prepare the PC and start Win512 / Win128 / Win512 G3. In Win512 G3 select the AAU 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 G3 help.

2. Connect the PC to the **AA** unit ("J2").

3. Put the jumpers "JP3" and "JP4" in position "A".

4. Put the jumper "JP2" (BOOT) in position.

5. Put the **AA** unit in "bootstrap" mode, i.e. put the jumper "JP1" (RESET) in position **momentarily**. The buzzer will sound.

6. Start the downloading. (The buzzer will be silenced.)

7. When the download is ready remove the jumper "JP2" (BOOT).

8. Put the jumpers "JP3" and "JP4" in position "B".

9. Do a restart, i.e. put the jumper "JP1" (RESET) in position **momentarily**. The buzzer will sound for approx. two seconds and the **AA** unit will return to normal operation.

10. Regarding fault messages, see chapter "Restart", page 23.

12   Operation

The LED "Operation" (L6) is indicating if the "Alert Annunciation" function is enabled or disabled[25].

When the "Alert Annunciation" function is enabled, the LED "L3" (Fire brigade alerted) is indicating if it is an **AA** alarm or not. Off = **AA** alarm.   On = no **AA** alarm / Output "Fire brigade tx" activated.

The LED "L4" (Acknowledged) is indicating if the **AA** alarm has been acknowledged.

The following page / figure show an operation summary for the Alert Annunciation units 1735 & 1736.

See also chapter "SW mode & Address setting, page 16.

AA alarm acknowledged in any Alert Annunciation unit will be indicated in all "Alert annunciation units".

AA alarm reset in any Alert annunciation unit (or in the c.i.e.) will also be "reset" in all other Alert Annunciation units.

NOTE! The Alert Annunciation unit in the figure is only schematic, i.e. the positions of the different LEDs, push buttons, etc. are not according to Figure 3, on page 10.

---

[25] The AA function is normally enabled (during daytime) / disabled (during night-time) via a time channel.
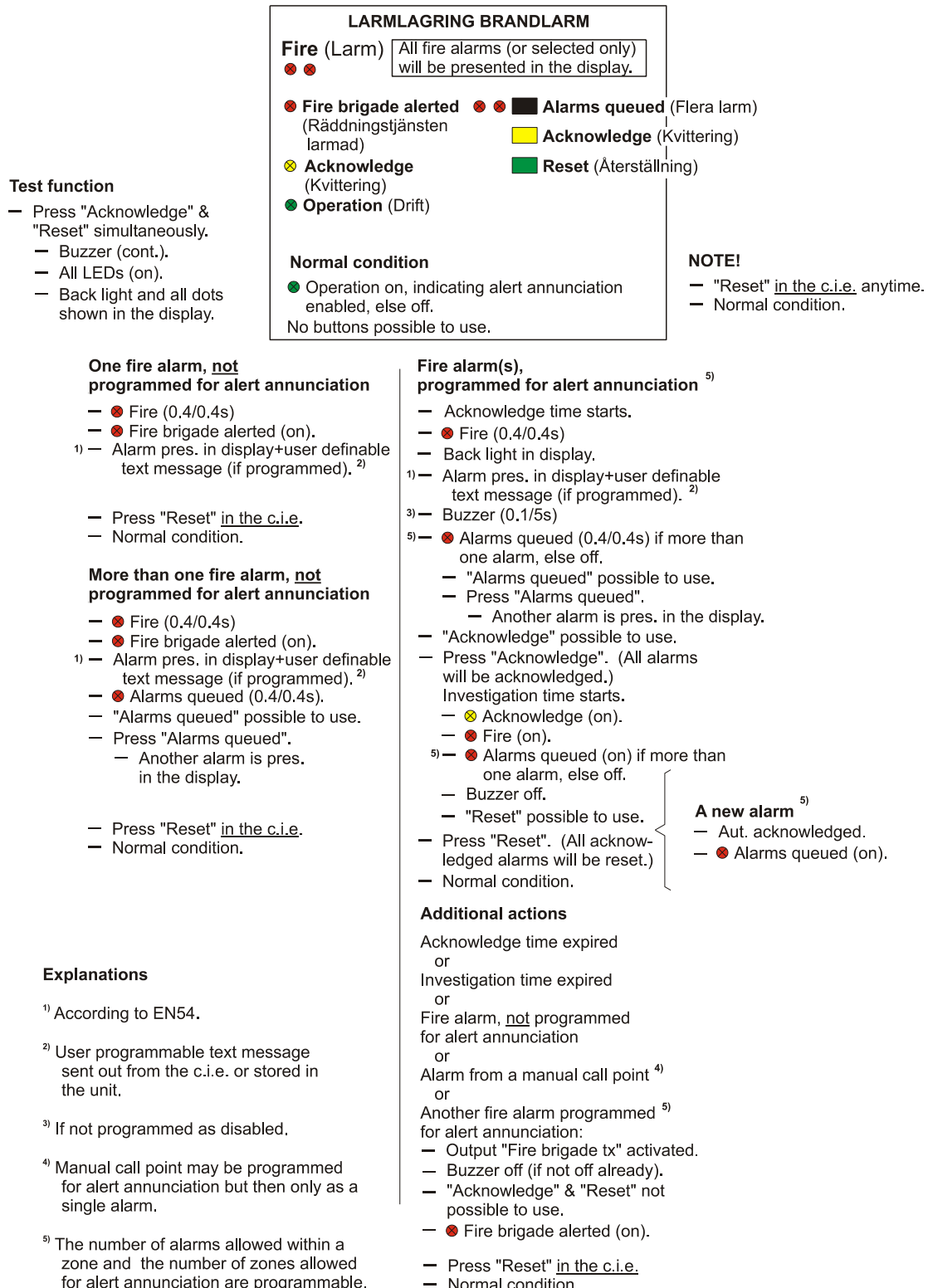
Alert annunciation unit (Larmlagringstablå) 1735

LARMLAGRING BRANDLARM

Fire (Larm) | All fire alarms (or selected only) will be presented in the display.

⊗ ⊗

⊗ **Fire brigade alerted**   ⊗ ⊗ ▪ **Alarms queued** (Flera larm)
(Räddningstjänsten
larmad)   ▪ **Acknowledge** (Kvittering)
⊗ **Acknowledge**
(Kvittering)   ▪ **Reset** (Återställning)
● **Operation** (Drift)

Normal condition

● Operation on, indicating alert annunciation
enabled, else off.
No buttons possible to use.

Test function
– Press "Acknowledge" &
"Reset" simultaneously.
– Buzzer (cont.).
– All LEDs (on).
– Back light and all dots
shown in the display.

NOTE!
– "Reset" in the c.i.e. anytime.
– Normal condition.

**One fire alarm, not
programmed for alert annunciation**
– ⊗ Fire (0.4/0.4s)
– ⊗ Fire brigade alerted (on).
1) – Alarm pres. in display+user definable
text message (if programmed). 2)

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

**More than one fire alarm, not
programmed for alert annunciation**
– ⊗ 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.
– Press "Alarms queued".
– Another alarm is pres.
in the display.

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

**Fire alarm(s),
programmed for alert annunciation** 5)
– Acknowledge time starts.
– ⊗ Fire (0.4/0.4s)
– Back light in display.
1) – Alarm pres. in display+user definable
text message (if programmed). 2)
3) – Buzzer (0.1/5s)
5) – ⊗ Alarms queued (0.4/0.4s) if more than
one alarm, else off.
– "Alarms queued" possible to use.
– Press "Alarms queued".
– Another alarm is pres. in the display.
– "Acknowledge" possible to use.
– Press "Acknowledge". (All alarms
will be acknowledged.)
Investigation time starts.
– ⊗ Acknowledge (on).
– ⊗ Fire (on).
5) – ⊗ Alarms queued (on) if more than
one alarm, else off.
– Buzzer off.
– "Reset" possible to use.
– Press "Reset". (All acknow-
ledged alarms will be reset.)
– Normal condition.

A new alarm 5)
– Aut. acknowledged.
– ⊗ Alarms queued (on).

Additional actions

Acknowledge time expired
or
Investigation time expired
or
Fire alarm, not programmed
for alert annunciation
or
Alarm from a manual call point 4)
or
Another fire alarm programmed 5)
for alert annunciation:
– Output "Fire brigade tx" activated.
– Buzzer off (if not off already).
– "Acknowledge" & "Reset" not
possible to use.
– ⊗ Fire brigade alerted (on).

– 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) Manual call point may be programmed
for alert annunciation but then only as a
single alarm.

5) The number of alarms allowed within a
zone and the number of zones allowed
for alert annunciation are programmable.

*Figure 5. Operation summary for the **AA** unit 1735. The **AA**
unit 1736 is like 1735 but it also has an LED "Extinguishing" and
push buttons "Silence alarm devices" and "Test".*

13   Connections

The AA units 1735 & 1736 main board 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.
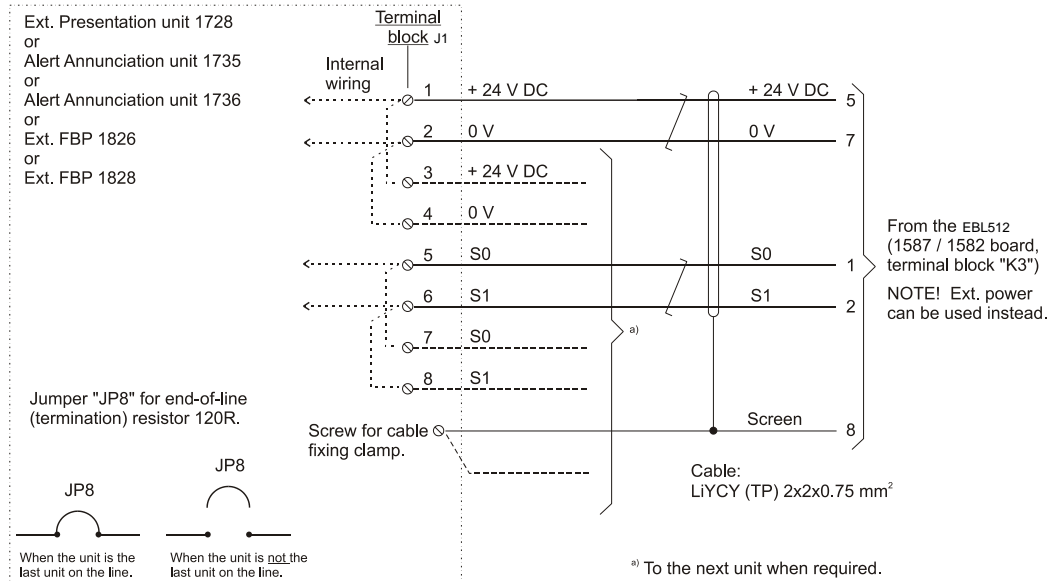

Figure 6. *The Alert Annunciation units 1735 & 1736 connections to the terminal block "J1". The jumper "JP8" only has to be on place (shunted) if the unit is the last unit on the line. NOTE! The **AA** units 1735 & 1736 can in EBL512 only be connected to a 1587 board (not 1582).*
In EBL128: +24 V / 0V / 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.
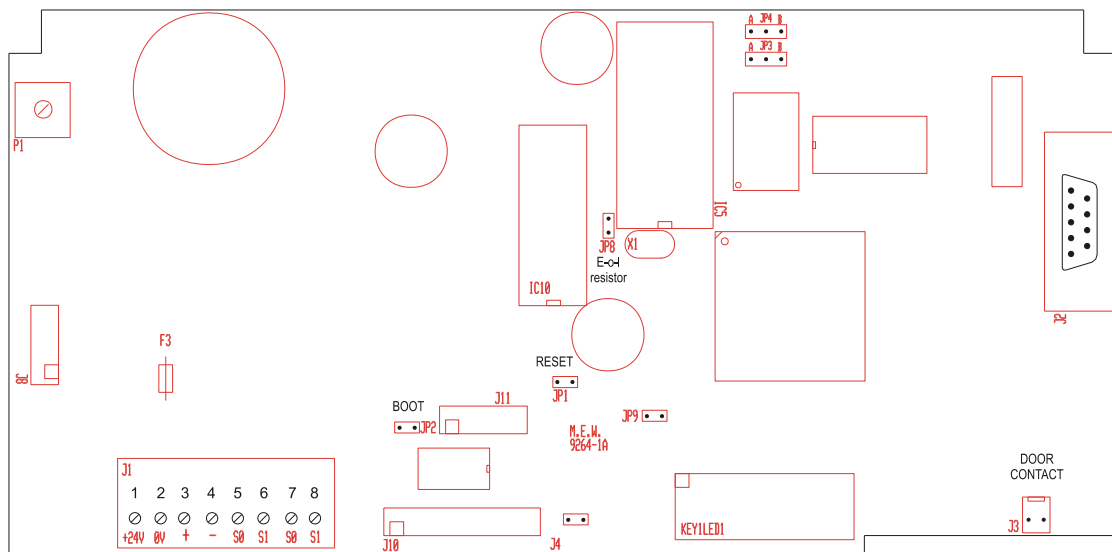

Figure 7. *The Alert Annunciation units 1735 & 1736 main board p.c.b. Position of the terminal block "J1", the jumper "JP8", etc.*

Comments to the components:

F3	1.5 A fuse (not replaceable; the whole p.c.b. should be replaced).
J1	Terminal block for the unit's connections.
J2	"D" connector (9 ways, male), RS232 interface for SW 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 unit.)
JP2	Boot. (The unit has to be in "bootstrap" mode before SW download.)
JP3	Pos. "A": PC, for SW download, connected via "J2". Pos. "B": The unit is connected to the c.i.e. (default).
JP4	Pos. "A": PC, for SW download, connected via "J2". Pos. "B": The unit is connected to the c.i.e. (default).
JP8	Used when the 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 adjustment.

14   Technical data

14.1   Power supply

Nominal voltage for the **AA** units 1735 & 1736 is 24 V DC.[26]

The number of **AA** units[27] 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 supply.

14.2   RS485

The **AA** 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) 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 **AA** units 1735 & 1736 this is done via jumper "JP8". ("JP8" mounted = the termination resistor is connected.)

14.2.1   Cable

The cable to be used in systems EBL512 and EBL512 G3 is LiYCY (**T**wisted **P**airs) 2 x 2 x 0.75 mm^2 (screened - tinned copper braid) or equivalent. Cable length up to 1200 m (theoretically) but the cable length is also 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 mm^2) can then be used.

14.3   RS232

The **AA** units are equipped with an RS232 interface (J2), which makes it possible to download new SW directly to the **AA** unit respectively.

14.4   Connection

The **AA** 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.

14.5   Current consumption

The current consumption is depending on the type of units and the actual voltage on the line.

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

---

[26] Allowed voltage is 12 – 30 V DC.

[27] On each 1587 board are up to sixteen <u>addresses</u> available.

Unit	Current consumption			
	Quiescent (mA)		Active (mA)	
	12 V DC	24 V DC	12 V DC	24 V DC
AA unit 1735	48	26	79	42
AA unit 1736	48	26	79	42

15   Revision history

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

Revision 1

1   Info. revised.

3.2   Figure 2 corrected.

5.1   Info. added.

5.2   Info. added.

6.1   Info. added.

Revision 2

5.2   "P3", footnote 12 added.
11.1   Display text revised. Info. added.

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