Commissioning Instruction

Fire Alarm Control Panel Compact

Intended use

This product may only be used for the applications outlined in the catalogue and the technical description and in combination with external devices and components which have been recommended or approved by us.

Warning

To ensure correct and safe operation of the product, all instructions concerning its proper transport, storage, installation and mounting must be observed and it must be operated with care.

Safety-relevant user information

These instructions include all information required for the intended use of the products described

The term "qualified personnel" in the context of the safety information included in these instructions or on the product itself designates:

- project planning personnel that are familiar with the safety guidelines concerning fire alarm and extinguishing systems.

- maintenance personnel that have been instructed in the operation of the components of fire alarm and extinguishing systems and are familiar with the information on their operation as included in these instructions.

- trained installation and service personnel with the necessary qualification for carrying out repairs on such components of fire alarm and extinguishing systems or who are authorised to commission, ground and label electrical circuits and devices/systems according to the standards of security technology.

Safety warnings

The following information is given in the interest of your personal safety and to prevent damage to the product described in these instructions and all devices connected to it.

Safety information and warnings to prevent hazards to life and health of users or maintenance personnel and to prevent damage to property are marked by the symbols defined below. Within the context of these instructions, these symbols have the following meaning:

Indicates that serious injury, fatality or considerable property damage might result if the specified precautions are not complied with.

Draws particular attention to important information about the product or a part of the instructions.

Instructions regarding the configuration and commissioning according to national and local regulations, requirements and applicable standards must be complied with.

Dismantling

In accordance with Directive 2002/96/EC (WEEE), the electrical and electronic equipment can be returned to the manufacturer for proper disposal after it has been dismantled.

Table of contents

1 General / Application

The operating and data entry sequences and also the contents of the display of the fire alarm control panel Compact are dependent on the installed software and programming and can also differ from the illustrations shown in this manual due to current software updates.

The FACP is configured using service and programming software tools 8000 from version V1.20 onwards.

The fire alarm control panel ES Line may only be commissioned by trained personal with training specific to this FACP.
The object specific design and planning documents of the FAS must be observed.

Additional and updated Information

The described features, specifications and product related information in this manual correspond to the date of issue (refer to date on the front page) and may differ due to modifications and/or amended Standards and Regulations of the System design, Installation and Commissioning.

Updated information and declaration of conformity are available for comparison on the www.esser-systems.com homepage.

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Associated Documents

798236.xx	Operating Instruction Fire Alarm Control Panel Compact
798237.xx	Installation Instruction Fire Alarm Control Panel Compact
798239.xx	Brief instruction Fire Alarm Control Panel Compact
798654	Technical Information Manufacturer's instruction for the commissioning and maintenance of fire alarm systems
	Online help for the tools 8000 programming software

2 Preparing for commissioning

The information in this documentation refers to the following software versions:

FACP system software	tools 8000 programming software
from version V02.05R000 onwards	from version V1.20 R000 onwards

2.1 Installation of the programming software tools 8000

When installing the programming software tools 8000 of version V1.16 or higher, it is also necessary to update the USB drivers for the PC interface. This update takes place automatically along with the installation.

Fig. 1: Installation of the programming software tools 8000

Fig. 2: Installation of the required USB drivers

USB drivers

If the USB drivers have accidentally been deleted or damaged on the service PC, they can be installed later as well, after installation of the programming software.
The USB drivers are located in the directory >Firmware | USB> on the installation CD for the programming software tools 8000.

2.2 Connection between the FACP and service PC

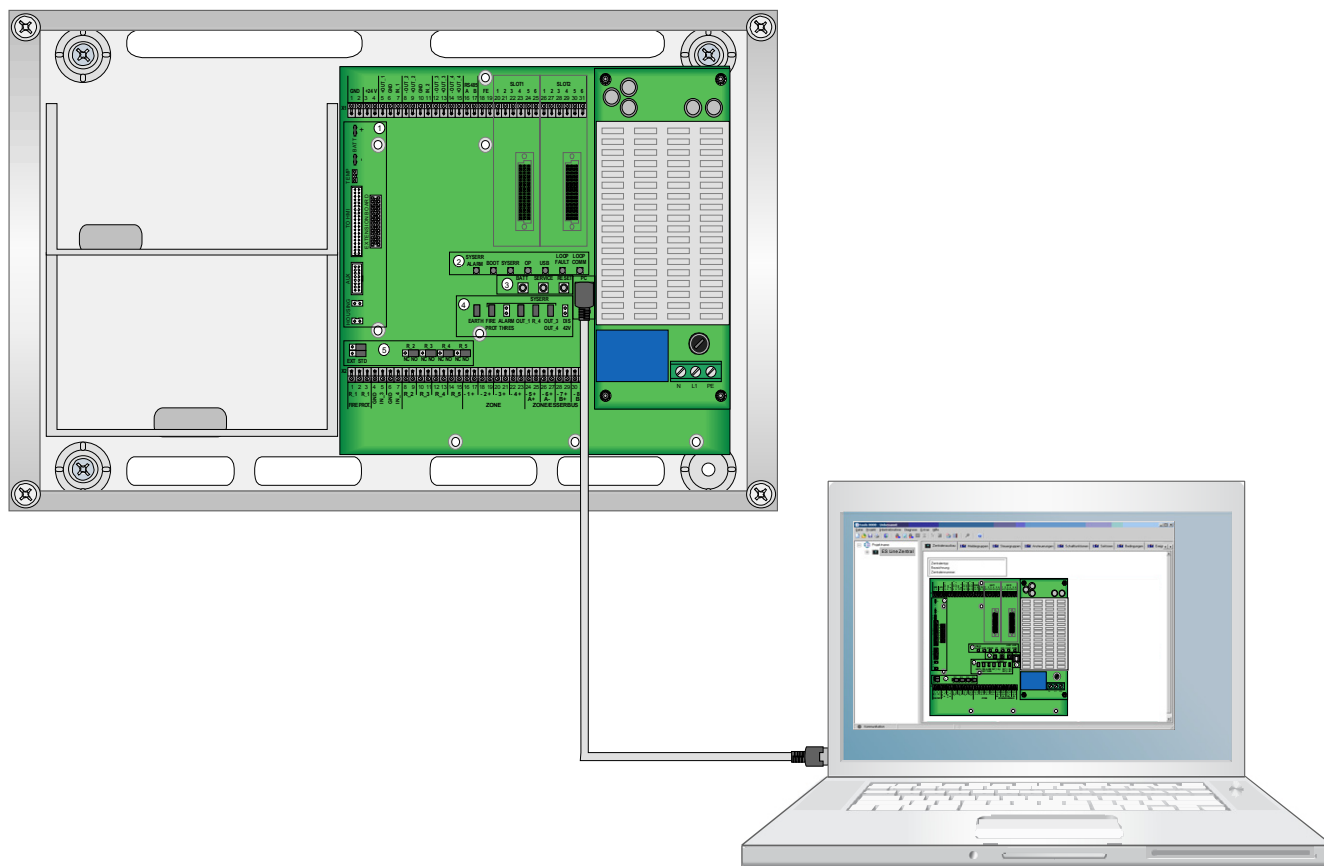The service PC and the FACP are connected via USB for configuring / programming the FACP Compact.

Fig. 3: Service PC ➔ FACP at USB port on the 1st control module

The communication between the service PC and the fire alarm control panel Compact is shown in the lower left corner of the programming interface tools 8000 with the green symbols for data exchange and USB connection.

3 System configuration via panel keyboard

The FACP Compact is configured by using the programming software tools 8000.
Quick and some usual temporary settings, excepted esserbus® devices, may be configured via the display menu of the Fire Alarm Control Panel.

Basically there are two different access levels to operate the FACP with level 3 (Installer) and 4 (System) features. The menu of the system level (4) provides extended configuration options.

- The service functions for the installer are only displayed in access level 3!

- The display content can differ from the illustrations in this document due to building-specific programming.

```
configuration
1 language  : english
2 date      : 01.06.2012
3 time      : 17:44:55
4 template  : factory setting
5 safe modifications
```
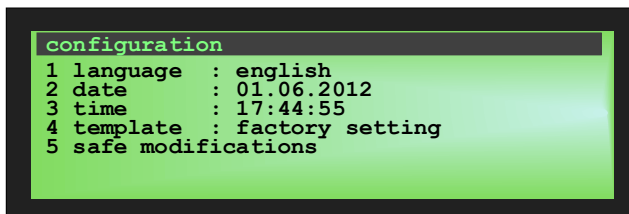
The language, date, time and optionally the configuration template settings are displayed after the FACP has been switched on for the first time.

Fig. 4: Settings
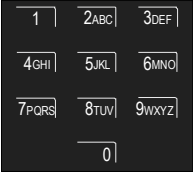
3.1 Display and keyboard
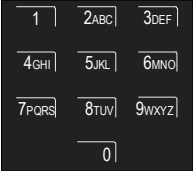
Fig. 5: Symbols in the display

①	Unchangeable option
②	Selected / found ➔ in quick selection menus, the current selection is shown
③	Cursor position (blinks during operation)
④	Option cannot be selected at this stage of extension
⑤	Function is being executed
⑥	2 ➔ Access level 2 (operator password)
	3 ➔ Access level 3 (installer level)
	4 ➔ Access level 4 (system level)

Navigation

Key	Function
	Selection of a menu item and branching off to submenus. For some menu items, the keys allow a direct selection (toggle function) for changing the configuration. In the case of menu items with value entry, the cursor jumps directly to the value to be changed and the new value can then be entered directly.
	Navigation between data records (recognisable by the arrows on the right and left in the first line).
	Scrolling to the previous or next page in the case of a multi-page menu. Scroll the display with the ⬆ key and the ⬇ key; the current page number and number of pages will be displayed.
CLR	Deleting the character at the current cursor position. Cancelling the change is done with the ESC key.
ESC	Exiting the sub-menu. If the data was not saved, you will be asked if the data should be saved.
	Stores the set values.
	Exit levels 2...4 and query for saving the changes.

Entering text

Key	Function
	Entering a character. Entered character are "inserted" towards the left. Text can be entered in the same way as with an SMS keypad.
	Moving the cursor to the next position.
CLR	Deleting the current cursor position and moving the cursor and all following characters one place to the left.
ESC	Exiting the input mode without saving the data. The condition before the start of the text processing will be restored.
	Exiting the input mode with saving of the data. If the data record has not been changed, a "*" will appear at the top left. The ⬤ key must then be pressed again to save the data to RAM.

Function keys F1 to F3 *

The function keys are programmed in accordance with local requirements. The programmed functions can be entered in the following table:

Key	Function
F1	
F2	
F3	

* Please enter selected programming

3.2 Memory concept

The data processed during the configuration is always the customer data record that was loaded into the RAM memory. These are:

- the current customer data ① or
- the backup of the current customer data ② or
- the existing configuration templates ④.

If this data record is changed, the current customer data record is overwritten when the data is saved. The FACP works with this data record. The backup of the current data record may still contain the "old" data record.

It is therefore possible to test the new configuration and load the "old" data record again in the event of an incorrect programming. Save the new configuration③ if the fire alarm control panel works as wanted with the new data record. The current data record will then be the same as the backed-up data record. The "old" version is then irrevocably overwritten. If you do not save the configuration changes, the current customer data will remain unchanged.

> **ℹ** The FACP always works with the current customer data record.
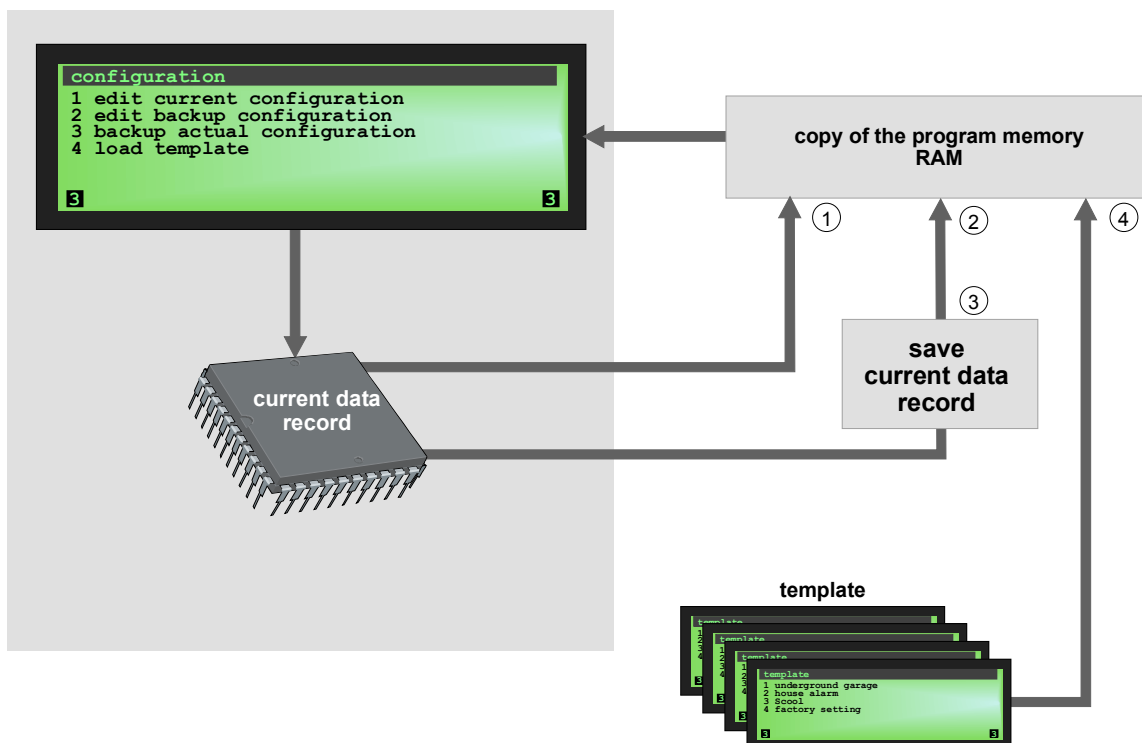
Fig. 6: Principle of the memory management

Working with configuration templates

Various templates are available for a quick configuration. These have been pre-programmed in factory-set for the desired use (e.g. underground car park, house alarm, construction site operation, etc.) and can be loaded into the RAM memory as the current data record. Specific data relating to the object requirements and the loop operation must be configured with the programming software tools 8000.

Own "building-specific" configuration templates

Own templates can be produced by creating a data record or by loading a configuration template. You do this by programming the configuration as desired and then writing this data record into the backup memory area ③. If changes were made to this building configuration, a "*" will be displayed in front of the building name at the building level. These changes can be saved in the RAM memory with the ⏎ key.

> **⚠** When a template is loaded the existing configuration for the loop is deleted.
> For configuration templates see Chapter 10.

3.1   Access authorisation

Keyboard entry is inhibited during normal operation. Access is only possible at access level 2.

Fig. 7: *Display during normal operation of the FACP*

    Press key and enter the code for access level 2.

Access level 3 (installer level)

Only qualified staff may make changes, settings or enter data at this access level. An incorrect setting or data entry can impair the function of the FACP.
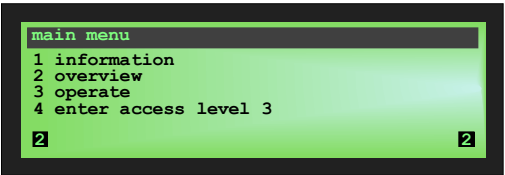
        Selection by entering digits 1-4.

Fig. 8: *Service menu*
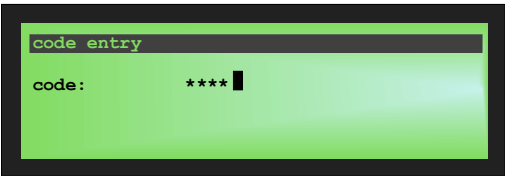
    To enable, enter the access code (which must not exceed 8 digits) and then confirm by pressing the key.

Fig. 9: *Entry of access code*

Access code for keyboard enable at the installer level

The numeric code for access level 3 (installer level) set by the factory is listed in the following table.

This code should be changed after the installation technician has finished commissioning and the new code should be entered in the table.

123	factory default setting for access level 3 (no more than 8 digits)

```
main menu
1 information
2 overview
3 operate
4 service
5 revision
3                    3
```

The main menu of the installer level is displayed after entry of the access code.

Fig. 10: *Main menu of the installer level*

1. *information*
2. *overview*
3. *operate*
4. service ➔ see Chapter 3
5. revision➔ see Chapter 6

Refer to the Operating Instruction (Part No. 798236.GB0) for information on menu items >Information<, >Overview< and >Operate< .

4   Service menu

This menu contains the main functions for the configuration of the FACP.

```
service
1 event log
2 battery information
3 earth fault information
4 configuration
5 access level 4
- maintenance mode
3
```

```
  1    2ABC   3DEF
4GHI   5JKL   6MNO
7PQRS  8TUV   9WXYZ
ESC    0     CLR
```
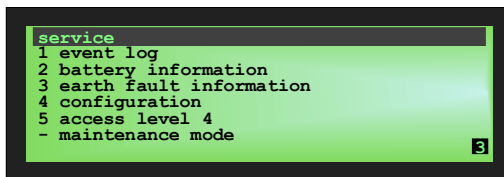
Selection by entering digits 1 - 5

Fig. 11: *Service menu*

1. Event log	The event log is displayed with serial number and the current event in chronological order.
2. Battery information	Information on the batteries.
3. Earth fault information	Display of the values for the automatic earth fault measurement and the setting for the earth fault information display.
4. Configuration	Individual options can be deleted from and/or added to the FACP configuration in this menu.
5. Access level 4	Service functions (event log / delete, alarm counter / delete)
- Maintenance mode	Future function expansion

Only qualified staff may make changes, settings or enter data at access level 3. An incorrect setting or data entry can impair the function of the fire alarm control panel.

4.1 Event log

Display of the event log

The event log can be displayed at access level 3. The last 10,000 events, such as alarm, fault, switch-off, keyboard enable, are stored in the event log in chronological order. The last event is always displayed first.

The events are automatically assigned with a message serial number. A higher number therefore means a later event (i.e. serial number 001 = oldest event).


```
service
1 event log
2 battery information
3 earth fault information
4 configuration
5 access level 4
- maintenance mode          3
```
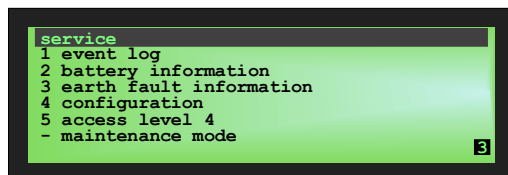
[1] Select >Event log< menu item.

Fig. 12: *>Service< menu screen*


```
event log
1 Show    :
2 Time    : off
3 Object  : All
4 Event   : 5/5
3                           3
```
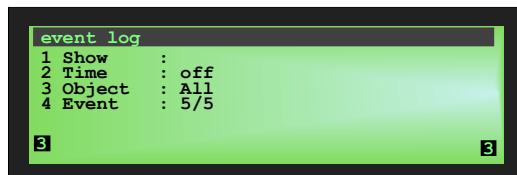
The event display can be filtered by 'Time', 'Object' and 'Event' here.

Fig. 13: *>event log< menu screen*

The event log can be searched for specific events with the cursor keys.


```
eventlog              <-01360-> 01360
↑ event no. : 01360
  time      : 09:58:06  19.06.2012
  event     : access level 3 com.
  object    : panel
  label 1   :
  label 2   :
↓ add. info :                      3
```
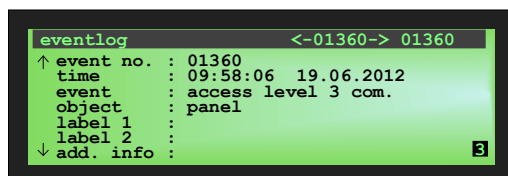
Fig. 14: *Event log menu and cursor keys*
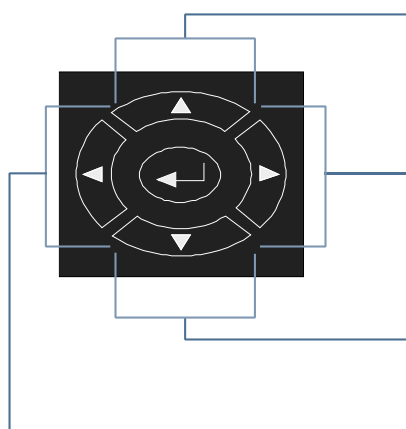
① Next 10 events (+10)

② Next event (+1)

③ Previous 10 events (-10)

④ Previous event (-1)

Fig. 15: *Cursor keys*

⑤ ➔ Confirm selection/entry shown in the display

4.2 Battery information

Information on the batteries of the emergency power supply is shown in the display. The permissible limit values are shown in the brackets.

```
battery information              1/2
↑ 1 refresh
    main board
    voltage in V         [>21.2] : 26.9
    int. resistance mOhm [< 600] : 290
    temp. (degree C)  [-5...+45] : 24.0
↓   charging current    [<1.4] : 0.0
```
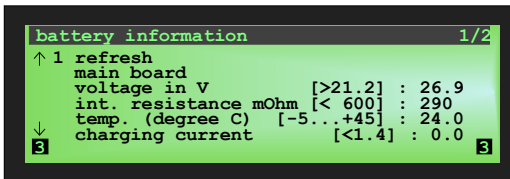
Fig. 16: >Battery information< menu screen

[1] Select the >Refresh< function.
In this example, the current battery voltage is 26.9 V and in the permissible range of > 21.2 V.

A battery fault alarm occurs if the battery voltage is less than < 21.2 V.

4.3 Earth fault information

The current measurement value for the earth fault monitoring is shown in the display. A fault alarm occurs if an earth fault measurement is outside of the tolerance range. The earth fault measurement can be switched off (ON) permanently or temporarily for commissioning or service work in order to suppress fault alarms. All other fault alarms can be diverted via the fault output. The earth fault monitoring can also be switched off.

```
earth fault information
  1 suppress earth fault information
    lower threshold : 10539
    upper threshold : 18539
    nominal value   : 13539
    actual value    : 13500
```
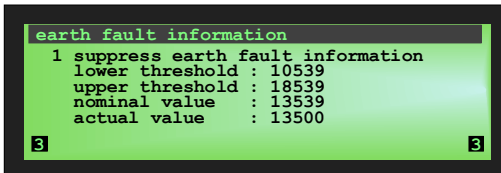
Fig. 17: >Earth fault information< menu screen

Select >Suppress earth fault information< menu item.

```
suppress earth fault information
  1 status          : off
  2 duration (days) : 99
```
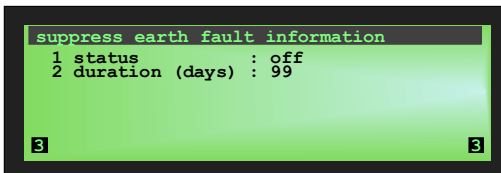
Fig. 18: >Suppress earth fault information< menu screen

Suppression of the earth fault information:
Status OFF: ➔ Display of the earth fault measurement (factory default)
Status ON: ➔ Earth fault information suppressed

A time period (in days) can be selected if the suppression of the earth fault information is switched on. The earth fault measurement is switched off and the display of the fault is suppressed during this period. The remaining days of the period are shown in the "Duration in days" line.

```
suppress earth fault information
  1 status          : off
  2 duration (days) : 9
```
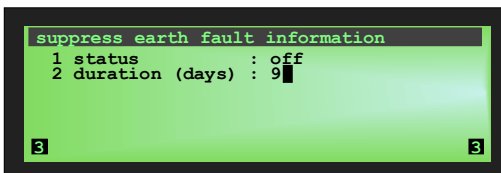
Fig. 19: >Duration in days< menu screen

[2] Switch on earth fault information suppression (ON)

A number between 0 and 99 can be entered directly after the "Duration in days" menu item has been selected.

The remaining time will be automatically displayed if a suppression has already been set. This value can be increased or reduced.

Observe standards and local requirements!

- Observe the information on the configuration and commissioning of the FACP in accordance with national standards/directives and local requirements.
- The set earth fault information suppression is automatically deleted if a different configuration template is selected.

5 Configuration

The current configuration can be saved and the current data record can be edited with one of the 6 configurations (current, backup + 4 templates).The selected configuration will then be loaded into RAM. A query for the permanent saving of the edited configuration in RAM occurs when you exit the configuration menu.
A warning message appears if the current or saved configuration is protected by an access code.
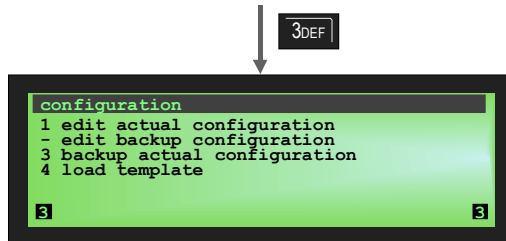
Fig. 20: >*Configuration< menu screen*

Backup current configuration (3)

The hourglass shows that the backup of the current configuration is in progress. If the current configuration was saved or if there is already a backup configuration in memory, option (2) "Edit backup configuration" will be displayed.

The configuration of the FACP can be edited as desired. In the event of an incorrect programming, the previously saved "old" configuration can be loaded again from the backup memory (see Chapter 3.2 "Memory concept").
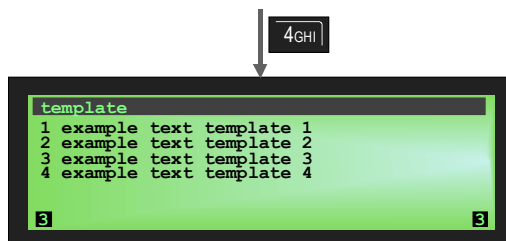
Fig. 21: >*Template< menu screen*

New from template

Select the >Load template< function.

A query will appear if the configuration is protected by a code entry. The configuration can be edited after entry of the correct code and confirmation with the ⊕ keys.

Fig. 22: >*Code entry< menu screen*

In the case of a protected configuration, enter the correct code and confirm with the ⊕ key.

5.1 Configuration exit
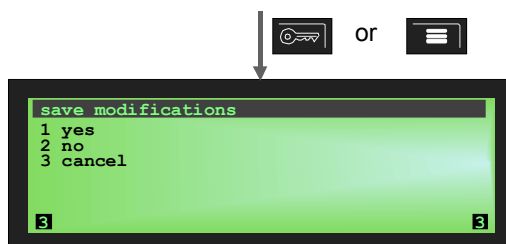
Fig. 23:*: >Save modifications< menu screen*

The display for exiting the configuration appears after the >Menu< or the >Key< is pressed. The entry mode is terminated immediately without modification of the configuration.

Yes   ➔ Save the current configuration
No   ➔ Cancel changes
Cancel ➔ Back to the configuration menu

> ℹ️ If the modifications are saved, the modified configuration is saved to RAM memory of the FACP. However, an older configuration may still be stored in the backup memory (see Chapter 3.2 "Memory concept").

5.2 Zone menu

The menu of the 8 zones (1) allows the display of an overview of the configured zones and a programming of individual zones.
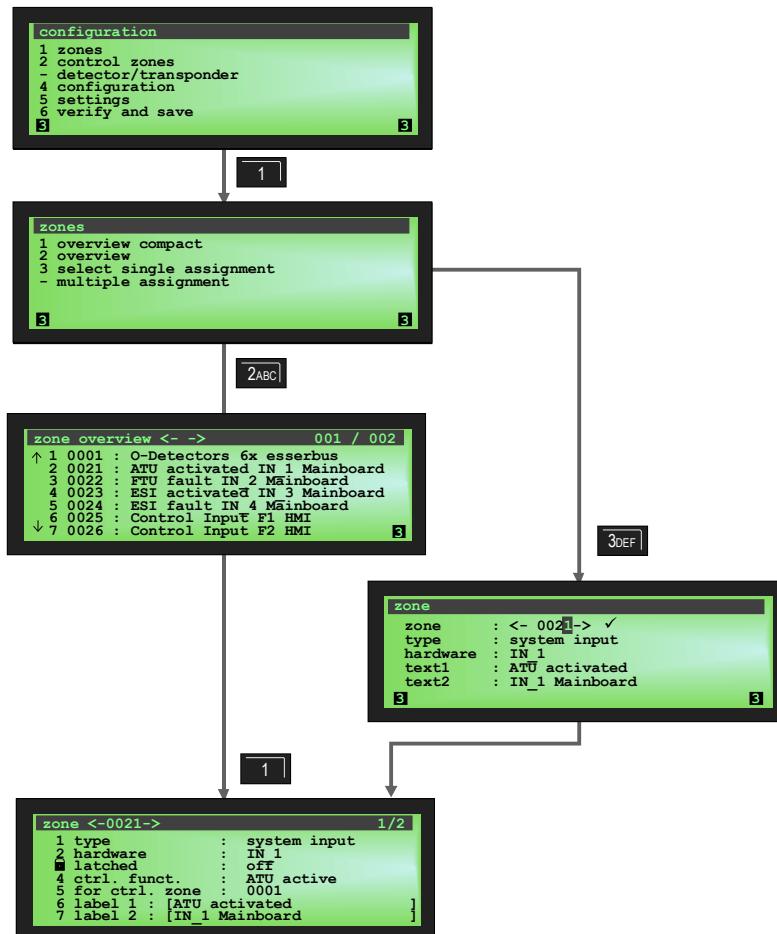
Fig. 24: >Zone< menu screens

The panel keyboard can only be used to edit zones that are not assigned to the loop. The esserbus® subscribers must be configured using the service and programming software tools 8000.

5.3   >Overview zones< / >Overview< / >Select single assignment< menu

Select the zone with the 0-9 key.

In the >Select single assignment< menu, an existing zone can be selected by searching with the left/right arrow keys or by directly entering the number with the panel keyboard.
The additional text – if programmed – and the "tick" are displayed if the entered number is found in the customer data.

```
zones
 -  overview compact
 2  overview
 3  select single assignment

 3                          3
```
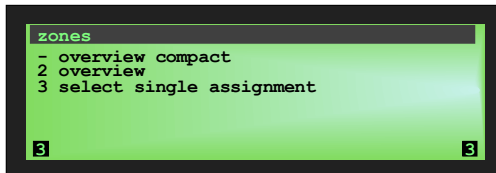
Select the desired zone from the corresponding list (1, 2, 3) – example with zone 0021.


```
2ABC    1
```

```
zone
zone     : <-002[1]-> ✓
type     : system input
hardware : IN 1
text 1   : ATU activated
text 2   : IN_1 Mainboard
 3                          3
```

```
↵
```

```
zone <-0021->
1 type          :   system input
2 hardware      :   IN 1
▪ latched       :   off
4 ctrl. funct.  :   ATU active
5 for ctrl. zone :  0001
6 label 1  : [ATU activate      ]
7 label 2  : [IN_1 Mainboard     ]
```
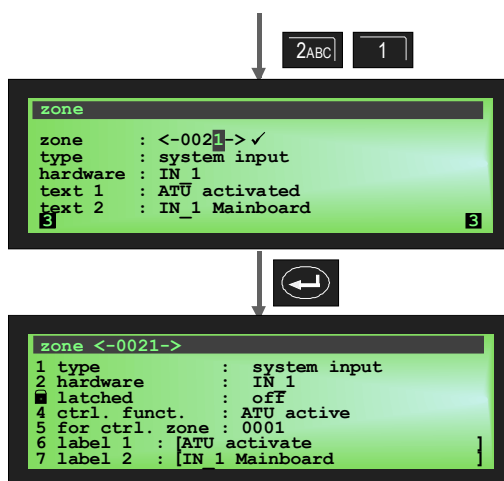
Fig. 25: Control inputs

When the panel keyboard is used for configuration, <u>no new</u> zones can be created. Only existing zones can be edited.

The zone menu has several pages. The individual items toggle between On and Off or, in the case of multiple options, have a sub-menu. The menu items are displayed dynamically according to type (see next Fig.). In the case of >Hardware<, the location and an identification number is assigned and displayed.

If "control input" is selected as a type, all now no longer available menu items will be directly filtered. The number of coming and going events are displayed for the control function menu item.

```
Gruppe <-0021->
1 type          :   system input
2 hardware      :   IN 1
▪ latched       :   off
4 ctrl. funct.  :   ATU active
5 for ctrl. zone :  0001
6 label 1 : [ATU activated       ]
7 label 2 : [IN_1 Mainboard       ]
```
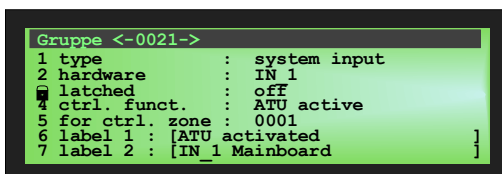
Fig. 26: System inputs

In the case of system inputs, the individual control function (e.g. ATU triggered) is directly displayed because a system input is only assigned to a single control function.

5.4 Type menu

The desired zone type is selected in this menu.
A zone type is always assigned certain functions and parameters.

```
zones
- overview compact
2 overview
3 select single assignment
- multiple assignment

3                        3
```
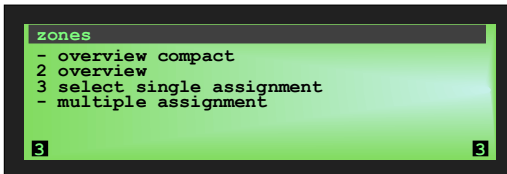
Select the desired zone from the list (1,2,3) -
(example with zone 0001)

The currently selected type is marked with a tick in the >Type< sub-menu of a zone.

After a zone type has been selected, the program automatically jumps to the sub-menu for the configuration of the selected zone type.

This means that the zone menu and the possible setting options change automatically according to the selected type.

```
         1
```

```
type
1 fire ✓
2 techn. alarm
3 pre-alarm
4 fault
5 control input
6 system input
7 unused                3
```
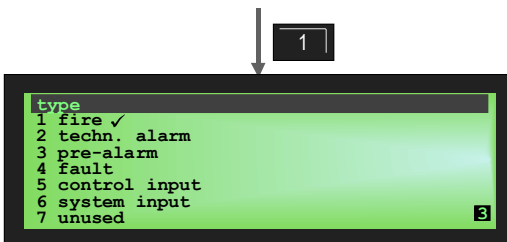
Fig. 27: >Type< menu screen

Unused zones

The setting (if programmed) for zones with the >unused< function type remains stored for any future applications.

Unused zones are not active. The wiring of the connection terminals with a terminating element (EOL-I or 10K resistor) is not necessary.

Selection	Type	Zone activation function
1	fire	The FACP buzzer will be activated and the "FIRE" LED goes on. All control devices programmed as "FIRE" type will be activated. (ATU, alarm signalling devices, etc.)
2	techn. alarm	The FACP buzzer will be activated and the "TECH. ALARM" LED goes on. All control devices programmed as "TAL" type will be activated. (ATU, Alarm signalling devices, fire protection equipment will not be activated)
3	Pre-alarm	Die "Pre-Alarm" LED goes on. All control devices programmed as "Pre-Alarm" type will be activated. (ATU, alarm signalling devices or fire protection equipment will not be activated until the fire alarm condition (e.g. 2-zone dependency) is fulfilled.)
4	fault	The FACP buzzer will be activated and the "FAULT" LED goes on. All control devices programmed as "FAULT" type will be activated. (ATU, alarm signalling devices, etc.)
5	control input	One switching function will be executed when the zone is activated. 4 functions per fire alarm zone can be executed for each "coming" and "going" activation.
6	system input	A system state will be set on activation of the zone. Control functions that react to this system state will be executed. The relating control zone must be defined during the programming.
7	not used	Unused zones are not active. The settings (if programmed) are retained for later activation. A wiring of the connection terminals with a termination element (10K resistor or EOL-I) is not necessary.

5.4.1 zone-type control input

If control input was selected as type, two functions can be defined for both the coming and going event.

```
type
1 fire
2 techn. alarm
3 pre-alarm
4 fault
5 control input ✓
6 system input
7 unused                    3
```

[5 JKL]

```
zone <-0021->
↑ 1 type          :  control input
  2 hardware      :  IN 1
  3 latched       :  off
  4 crtl. funct.  :  0 coming / 0 going
↓ 5 label 1 : [ATU activated    ]
  6 label 2 : [IN_1 Mainboard   ]
3                             3
```

[4 GHI]

```
1 coming 1  : panel reset
2 going  1  : none
3 coming 2  : none
4 going  2  : none
5 coming 3  : none
6 going  3  : none
7 coming 4  : none
8 going  4  : none          3
```

[1] to [8 TUV]

```
function
↑ 1 delay on
  2 delay off
  3 sound on
  4 sound off
  5 start evacuation
  6 stop evacuation
↓ 7 signal 1 on (IQ8)       3
```

```
function
↑ 1 signal 2 on (IQ8)
  2 signal 3 on (IQ8)
  3 signal 3 on (IQ8)
  4 signal off (IQ8)
  5 disable control
  6 enable control
↓ 7 line on                 3
```

```
function
↑ 1 start OTG testmode
  - start verification mode
  3 start testmode zone
  4 O-sensor line off
  5 G-sensor line off
  6 sensors line on
↓ 7 O-sensor zone off       3
```

```
function
↑ 1 G-sensor zone off
  2 sensors zone off
  3 zone/detector on
  4 sensor detector off
  5 zone/detector off
  6 zone/detector on
↓ - start verification mode line  3
```

```
function
↑ 1 none


↓                           3
```

Fig. 28 : >Control input< menu screens

If system input was selected:

Fig. 29 : >System input< menu screens

5.4.2 Latching

This setting relates to the triggering of the zone and can be switched between ON or OFF 🔑 unless already predefined via the "Fire" type.
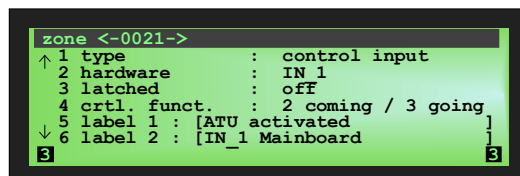
Fig. 30 : >Latching< menu screen

5.5   Configuration

The interfaces and the inputs and outputs of the mainboard are configured in this menu. Only the EDP protocol is implemented for the RS485 interface.

```
configuration
1 zones
2 control zones
- detector/transponder
4 configuration
5 settings
6 verify and save
3                          3
```

            ↓ 4GHI

```
configuration
1 mainboard
2 slot 1
3 slot 2
4 expansion module

3                          3
```

            ↓ 1

```
mainboard                1/2
↑ 1 Out-1 : monitored
  2 Out-2 : monitored
  3 Out-3 : EOL-O
  4 Out-4 : EOL-O
  ■ IN-1  : open / closed
  ■ IN-2  : open/ closed
↓ 7 IN-3  : 3.3k / 680 Ohm  3
```

```
mainboard                2/2
↑ 1 IN-4   : open / closed
  - zones
  - esserbus
  4 RS485 : unused
  5 RS232 : unused
↓                          3
```

RS485 ➜   toggle between unused, FIP / FOP and WINMAG
The WINMAG setting serves the connection to a higher-level
Management Systems with the EDP protocol.

RS232 ➜   for future use

Fig. 31: > Configuration< menu screens

5.5.1 esserbus® subscribers

When the menu is selected a submenu appears with functions for replacing and configuring esserbus® detectors.

The esserbus® subscribers must be configured using the service and programming software tools 8000. For information on the connection between the FACP and service PC, see Chapter 2.2.


```
Mainboard                  2/2
↑ 1 IN-4  : open / closed
  - zones
  3 esserbus
  4 RS485 : unused
  - RS232 : unused
↓                          3
```

`3DEF`

```
esserbus
  - wiring recognition
  2 detector data assignment
  3 detector exchange
3                          3
```

Select 'detector data assignment' with numeric key 2.
This function transfers the configuration data and detectors on the esserbus®. The process is shown on the display step-by-step und allows for diagnosis in error cases.

`2ABC`

Fig. 32: esserbus® subscribers

5.5.2 Detector exchange

There are two ways to exchange a detector:

1. The FACP detects which detectors have been removed and which have been newly added. The missing and newly added detectors are then assigned.

2. Alternatively the detectors to be exchanged are manually selected from a list and the serial numbers for the new detectors are entered.

Detector exchange mode 1

At the detector installation location	Exchange the detector in question connected to the loop. The primary loop 0114 (loop) reports an error, as communication to the exchanged detector is no longer functioning.
At the FACP	Enter the installer access code and switch on the primary loop. The serial numbers and type of the detector to be identified as new are transmitted.
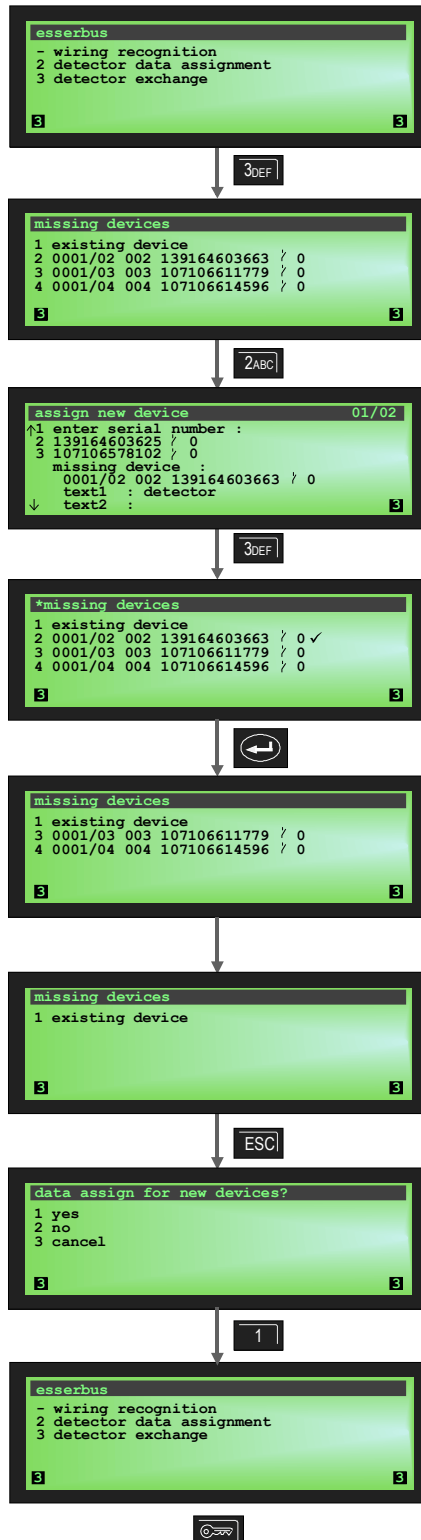
Open the menu 'configuration/mainboard / esserbus®'.

Open the menu 'detector exchange'.

The removed (missing) subscribers are listed.
Select the first subscriber in the list. The selection [1] is used to display all existing subscribers.

Select the exchanged (new) subscriber from the list of new subscribers.

The detector exchange is marked with a 'tick'.
Confirm with ⏎.

The list of missing detectors is updated.

Continue the process until all detectors have been reassigned and no more missing detectors are displayed.

Exit the menu with ESC.

A detector data assignment must now be carried out for the new subscribers.

Following completion of the detector data assignment, the esserbus® menu appears again.
You can now exit the configuration.

An FACP restart is performed.
Then check the new detectors to ensure they are functioning properly.

Fig. 33: **Detector exchange mode 1**

Detector exchange mode 2

At the FACP   Enter the installer access code and switch on the primary loop.
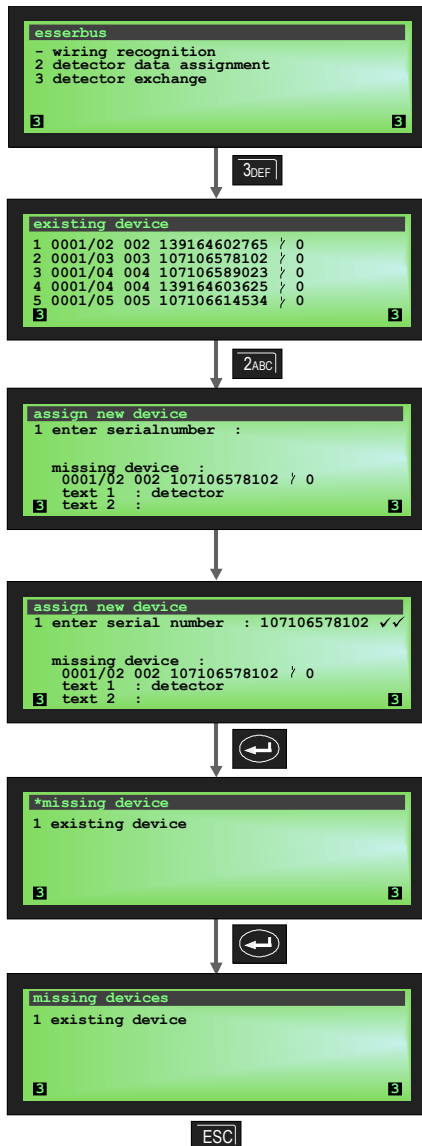
```
esserbus
- wiring recognition
2 detector data assignment
3 detector exchange
```

Open the menu 'configuration/mainboard / esserbus®'.

Open the menu 'detector exchange'.

[3DEF]

```
existing device
1 0001/02 002 139164602765  ⎤ 0
2 0001/03 003 107106578102  ⎤ 0
3 0001/04 004 107106589023  ⎤ 0
4 0001/04 004 139164603625  ⎤ 0
5 0001/05 005 107106614534  ⎤ 0
```

The existing loop subscribers are listed.

Select the subscribers to be exchanged.

[2ABC]

```
assign new device
1 enter serialnumber   :

  missing device  :
   0001/02 002 107106578102  ⎤ 0
   text 1   : detector
   text 2   :
```

Enter the serial number of the subscriber to be used in place of the selected subscriber.

ℹ️ Only detectors of the same type can be exchanged. The check is carried out with the serial number entry.

```
assign new device
1 enter serial number   : 107106578102 ✓✓

  missing device  :
   0001/02 002 107106578102  ⎤ 0
   text 1   : detector
   text 2   :
```

The first 'tick' indicates that the serial number format is correct. The second 'tick' indicates that the detector is the correct type for this detector exchange.

[⏎]

```
*missing device
1 existing device
```

Confirm the entry with ⏎.

Confirm with ⏎ again, that no other detector exchange is being performed.

[⏎]

```
missing devices
1 existing device
```

If another detector exchange is being performed, select the subscriber again from the list of detectors to be exchanged.

[ESC]

Exit the menu with ESC.

Fig. 34: Detector exchange mode 2

At the detector installation location   Exchange the detector in question connected to the loop.

At the FACP   Start the detector data assignment.

```
data assign for new devices?
1 yes
2 no
3 cancel
```

A detector data assignment must now be carried out for the new subscribers.

[1]

```
esserbus
- wiring recognition
2 detector data assignment
3 detector exchange
```

Following completion of the detector data assignment, the esserbus® menu appears again.
You can now exit the configuration.
An FACP restart is performed.
Then check the new detectors to ensure they are functioning properly.

[🔑]

Fig. 35: 2nd Detector exchange

5.6   Single assignment ➜ ATU output incl. parallel triggering

The esserbus® subscribers must be configured using the service and programming software tools 8000. The menus displayed here can be used for smaller temporary changes and may differ from the figures.

```
configuration
1 zones
2 control zones
- detector/transponder
4 configuration
5 settings
6 verify and save
3                          3
```

⬇ 2ABC
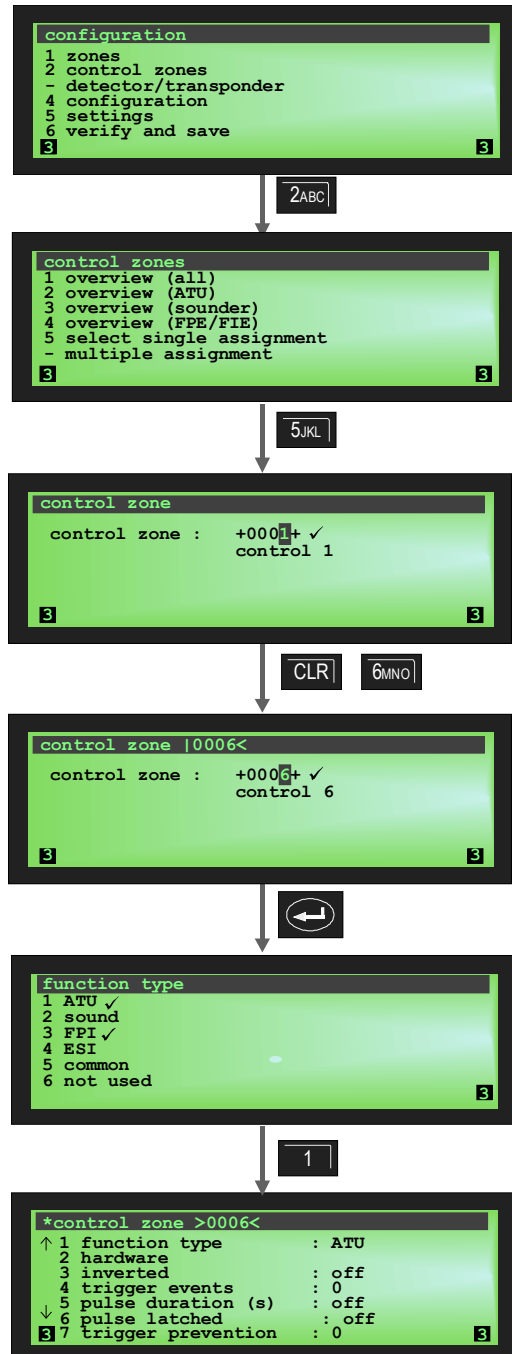
```
control zones
1 overview (all)
2 overview (ATU)
3 overview (sounder)
4 overview (FPE/FIE)
5 select single assignment
- multiple assignment
3                          3
```
Control zones select single assignment

⬇ 5JKL

```
control zone

 control zone :   +0001+ ✓
                  control 1


3                          3
```

⬇ CLR 6MNO

```
control zone |0006<

 control zone :   +0006+ ✓
                  control 6


3                          3
```
Select control zone e.g. 6

⬇ ⏎

```
function type
1 ATU ✓
2 sound
3 FPI ✓
4 ESI
5 common
6 not used
                           3
```
Select ATU function type

⬇ 1

```
*control zone >0006<
↑1 function type        : ATU
 2 hardware
 3 inverted             : off
 4 trigger events       : 0
↓5 pulse duration (s)   : off
 6 pulse latched        : off
3 7 trigger prevention  : 0    3
```

Fig. 36: >Select single assignment< menu screens

Trigger events

```
*control zone >0006<
↑1 function type       : ATU
 2 hardware
 3 inverted            : off
 4 trigger events      : 0
↓5 pulse duration (s)  : off
 6 pulse latched       : off
3 7 trigger prevention : 0              3
```

Trigger events

↓ 4GHI

```
trigger events
↑1 event 1    : none
 2 event 2    : none
 3 event 3    : none
 4 event 4    : none
 5 event 5    : none
 6 event 6    : none
↓7 event 7    : none                   3
```

Event 1

↓ 1

```
event 1
 1 type        :   none



3                                      3
```

Type

↓ 1

```
type                             1/4
↑1 none
 2 panel state
 3 activation zone(s)
 4 activation detector(s)
 5 fault zone(s)
 6 fault detector(s)
↓7 deactivation zone(s)                3
```

Panel state

↓ 2ABC

```
*event 1
 1 type        : panel state
 2 state       : fire



3                                      3
```

In the event of alarm, all zones programmed with '"fire" will trigger the ATU.

Fig. 37: >Trigger events< menu screens

5.6.1 Hardware

```
┌─────────────────────────────────┐
│ hardware                        │
│  1 location    : not assigned   │
│                                 │
│                                 │
│ ▣                            ▣  │
└─────────────────────────────────┘
```

         │ 1 │
         ▼

```
┌─────────────────────────────────┐
│ location                        │
│ ↑ 1 OUT_1                       │
│   2 OUT_2                       │
│   3 OUT_3                       │
│   4 OUT_4                       │
│   5 OUT_5                       │
│ ↓ 6 OUT_6                       │
│ ▣ 7 OUT_7                    ▣  │
└─────────────────────────────────┘
```

         │ 1 │
         ▼

```
┌─────────────────────────────────┐
│ *hardware                       │
│  1 location   :   OUT_1         │
│                                 │
│                                 │
│ ▣                            ▣  │
└─────────────────────────────────┘
```
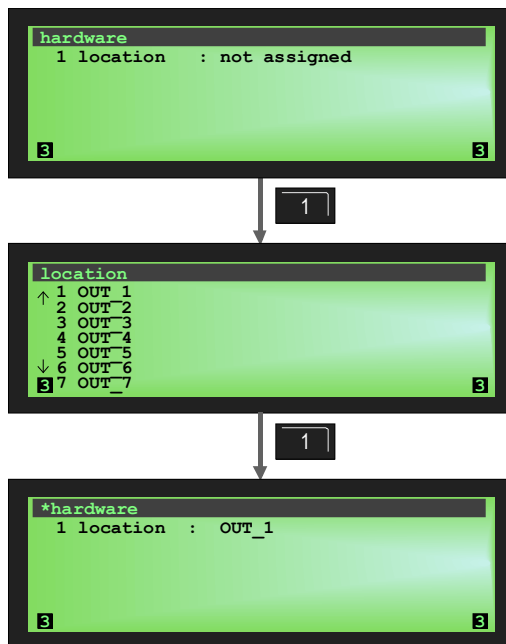
Fig. 38: >Hardware< menu screens

No hardware was programmed. Each control zone is usually assigned one output. For example, OUT_1 is selected to trigger the ATU.

Each HW output can only be assigned one control zone – the plausibility check will otherwise show an error during data saving.

The following monitored outputs can be selected:
OUT_1 - OUT_4 and the potential-free contacts
REL_1 - REL_5.

5.6.2 Fire protection equipment (FPE) / fire interface extinguishing (FIE) outputs

```
configuration
1 zones
2 control zones
- detector/transponder
4 configuration
5 settings
6 verify and save
```

Control zones

`2ABC`

```
control zones
1 overview (all)
2 overview (ATU)
3 overview (sounder)
4 overview (FPE/FIE)
5 select single assignment
- multiple assignment
```

Single assignment

`5JKL`

```
control zone

 control zone :    +0001+ ✓
                   control 1
```

Select control zone

`CLR` `7PQRS` ⏎

```
function type
1 ATU
2 sound
3 FPE ✓
4 FIE
5 common
6 not used
```

Select FPE

`3DEF`

```
*control zone >0007<
↑1 function type       : FPE
 2 hardware            : R 1
 3 inverted            : off
 4 trigger events      : 1
↓5 pulse duration (s)  : off
 6 pulse latched       : off
 7 trigger prevention  : 2
```

Control zone 7 is now an FPE control zone and will no longer be triggered when the fire protection equipment is switched off.

Fig. 39: >FPE/FIE outputs< menu screens

5.6.3 Trigger programming

```
configuration
1 zones
2 control zones
- detector/transponder
4 configuration
5 settings
6 verify and save
```
Control zones

`2ABC`

```
control zones
1 overview (all)
2 overview (ATU)
3 overview (sounder)
4 overview (FPE/FIE)
5 select single assignment
- multiple assignment
```
Single assignment

`5JKL`

```
control zone

 control zone :   +0001+ ✓
                  control 1
```
Select control zone

`CLR` `3DEF` `⏎`

```
*control zone >0006<
↑ 1 function type      : common
  2 hardware
  3 inverted           : off
  4 trigger events     : 0
  5 pulse duration (s) : off
↓ 6 pulse latched      : off
  7 trigger prevention : 0
```
Trigger events

`4GHI`

```
trigger events
↑ 1 event 1   : fire
  2 event 2   : none
  3 event 3   : none
  4 event 4   : none
  5 event 5   : none
  6 event 6   : none
↓ 7 event 7   : none
```
`2ABC` → Event 2 next page

`1`

```
*event 1
 1 type      : panel state
 2 state     : fire
```
Select type

`2ABC`

```
type
1 fire ✓
2 techn. alarm
3 pre-alarm
4 fault
5 control input
6 system input
7 unused
```
Panel state
Pre-alarm

`5JKL`

```
*event 1
 1 type      : panel state
 2 state     : pre-alarm
```
⏎ ➔ save and exit sub-menu

Fig. 40: >Programming outputs< menu screen

2ABC

```
event 2
  1 type        : none




3                                         3
```

Event 2

1

```
type                                  1/4
↑ 1 none ✓
  2 panel state
  3 activation zone(s)
  4 activation detector(s)
  5 fault zone(s)
  6 fault detector(s)
↓ 7 deactivation zone(s)              3
```

Type

3DEF

```
*event 2
  1 type        : activation zone(s)
  2 range from  :
  3 range to    :


3                                         3
```

Activation zone(s)

2ABC   3DEF

```
range from
  zone   :        +000 1 + ✓
                   zone 1



3                           3
```

```
range to
  zone   :        +000 1 + ✓
                   zone 1



3                           3
```

Range from / to

CLR 5JKL ⏎   CLR 8TUV ⏎

```
event 2
  1 type        : activation zone(s)
  2 range from  : 005
  3 range to    : 008


3                                         3
```

Control zone 1 was programmed with the second assignment to "pre-alarm panel" and activation zones 5-8.

⏎

```
trigger events
↑ 1 event 1    : pre-alarm panel
  2 event 2    : activation zone(s)
  3 event 3    : none
  4 event 4    : none
  5 event 5    : none
  6 event 6    : none
↓ 7 event 7    : none                 3
```

⏎ ➔ save to RAM or continue with the programming.

ESC

```
control zone >0003<
↑ 1 function type       : common
  2 hardware
  3 inverted            : off
  4 trigger events      : 2
  5 pulse duration (s)  : off
↓ 6 pulse latched       : off
3 7 trigger prevention  : 0            3
```

Fig. 41: >Programming outputs< menu screens

5.6.4   Trigger prevention setting

```
control zone >0003<
↑1 function type      : common
  2 hardware
  3 inverted          : off
  4 trigger events    : 2
↓ 5 pulse duration (s) : off
  ▪ pulse latched      : off
▣ 7 trigger prevention : 0          ▣
```

Trigger prevention

[7PQRS]

```
tigger prevention
  1 operation access level 2  : none
  2 installer access level 3  : none
  3 access level 4            : none
  4 cover contact open        : none
  5 revision activ            : none
  6 fire control functions off : none
▣                                    ▣
```

Cover contact open (yes/no)

[4GHI]

```
tigger prevention
  1 operation access level 2  : no
  2 installer access level 3  : no
  3 access level 4            : no
  4 cover contact open        : yes
  5 revision activ            : no
  6 fire control functions off : no
▣                                    ▣
```

Control zone 3 will no longer be triggered when the cover of the fire alarm control panel is open.

⏎ ➔ save to RAM or continue with the programming.
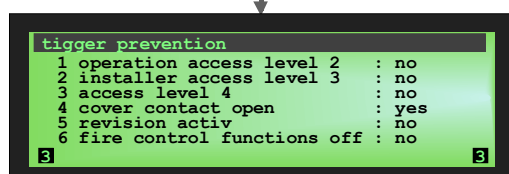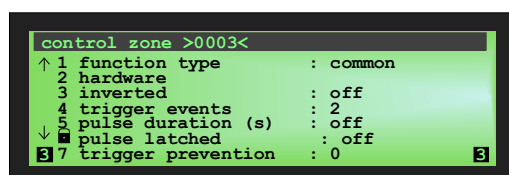
Fig. 42: >Trigger prevention< menu screens

5.6.5   Pulse duration setting

```
control zone >0003<
↑1 function type      : common
  2 hardware
  3 inverted          : off
  4 trigger events    : 2
↓ 5 pulse duration (s) : off
  ▪ pulse latched      : off
▣ 7 trigger prevention : 0          ▣
```

Pulse duration

[6MNO]

```
control zone >0003<
↑1 function type      : common
  2 hardware
  3 inverted          : off
  4 trigger events    : 2
  5 pulse duration (s) : 30
↓ 6 pulse latched      : off
▣ 7 trigger prevention : 0          ▣
```

Enter value, e.g. 30

[3DEF] [0] [⏎]

```
control zone >0003<
↑1 function type      : common
  2 hardware
  3 inverted          : off
  4 trigger events    : 2
↓ 5 pulse duration (s) : 30
  6 pulse latched      : off
▣ 7 trigger prevention : 0          ▣
```
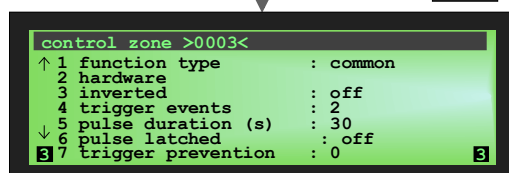
Control zone 3 will only be activated for 30 seconds after the triggering event and only shown as activated in the display for 30 seconds.
The control zone can be activated again for 30 seconds on the next event.
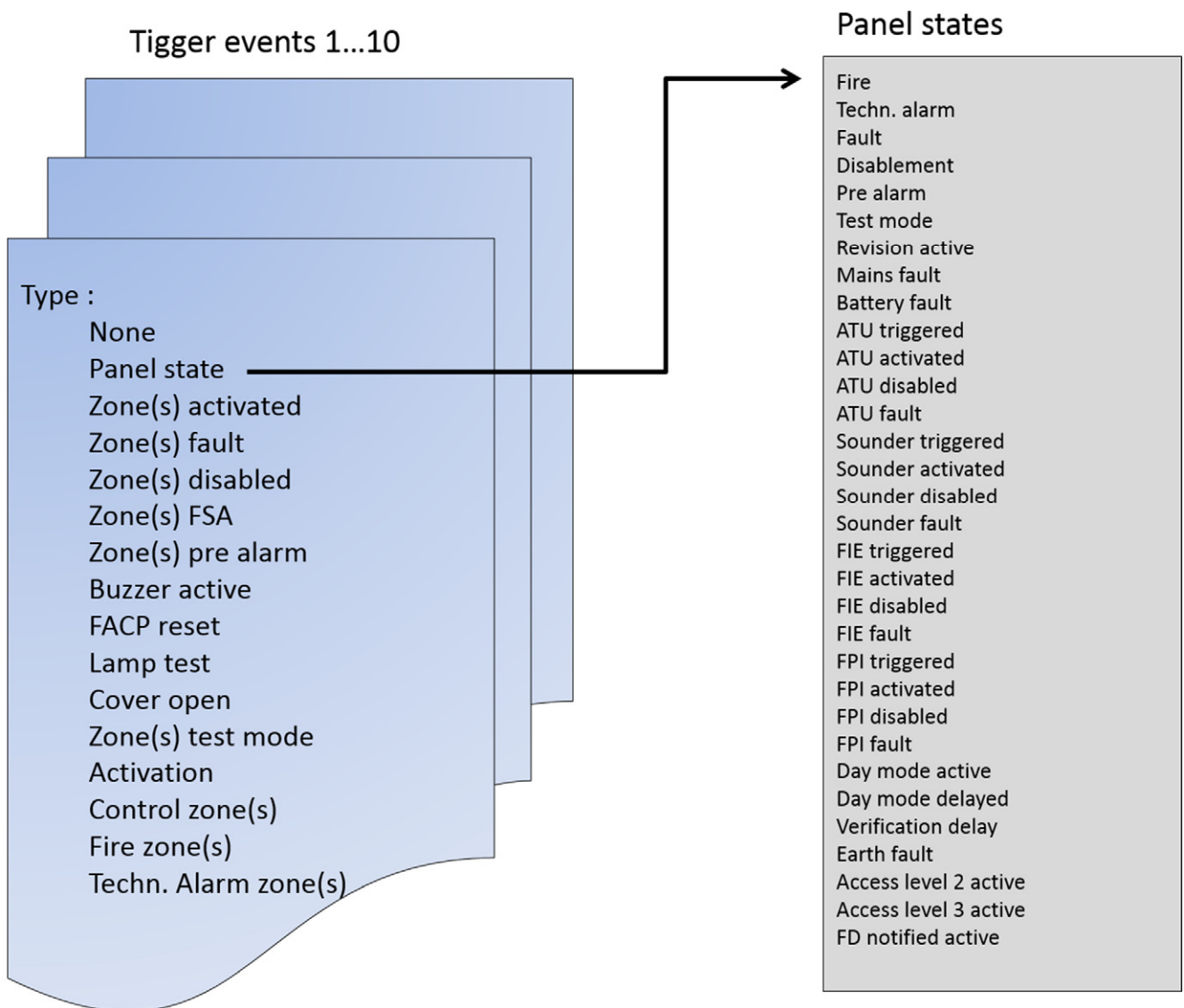
⏎ ➔ save to RAM

Fig. 43: >Pulse duration setting< menu screens

5.6.6 Output delay configuration

A delay cannot be configured for the individual control zone because it is configured via the function type. If the function type is, for example, ATU and the assigned zone has the ‚ATU delayed' property, the relay will be activated with a delay.

5.6.7 Programmable from trigger events

Tigger events 1...10

Type :
> None
> Panel state
> Zone(s) activated
> Zone(s) fault
> Zone(s) disabled
> Zone(s) FSA
> Zone(s) pre alarm
> Buzzer active
> FACP reset
> Lamp test
> Cover open
> Zone(s) test mode
> Activation
> Control zone(s)
> Fire zone(s)
> Techn. Alarm zone(s)

Panel states

Fire
Techn. alarm
Fault
Disablement
Pre alarm
Test mode
Revision active
Mains fault
Battery fault
ATU triggered
ATU activated
ATU disabled
ATU fault
Sounder triggered
Sounder activated
Sounder disabled
Sounder fault
FIE triggered
FIE activated
FIE disabled
FIE fault
FPI triggered
FPI activated
FPI disabled
FPI fault
Day mode active
Day mode delayed
Verification delay
Earth fault
Access level 2 active
Access level 3 active
FD notified active

6 Settings
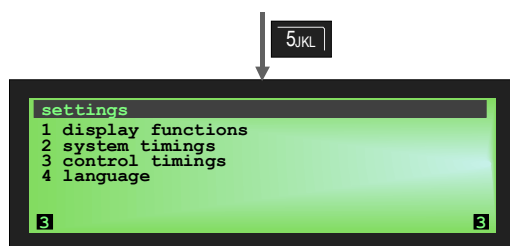

Fig. 44: >Settings< menu screen

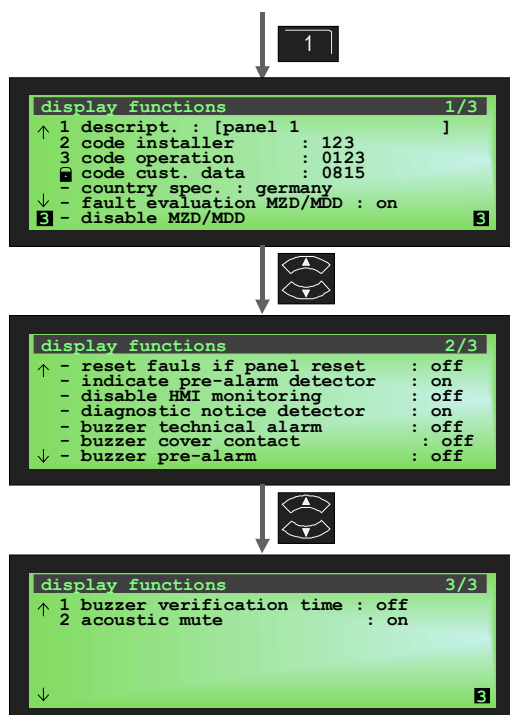## 6.1 Display functions

Fig. 45: >Settings< menu screens

Acoustic mute available `2ABC`

Switching this function On or Off programs the "acoustic alarm device" (buzzer) key to have either a mute or alarm device switch-off effect.

 Switch-off /mute acoustic alarm devices

The buzzer switch-off or muting is shown in each case with the yellow LED on the control panel.

Switch-off	➔ acoustic alarm devices are switched off and will not be activated by an alarm event.
Mute:	➔ The triggered acoustic alarm devices were reset and muted. They will be triggered with each new alarm signal.

Observe standards and requirements!

Observe the information on the configuration and commissioning of the FACP in accordance with national standards/directives and local requirements.
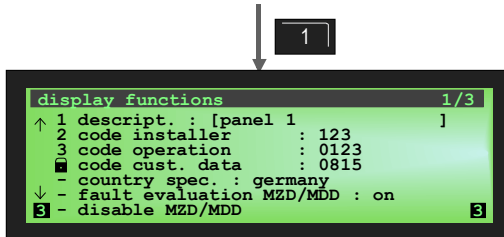
6.1.1 Panel name assignment

Fig. 46: >Description< menu screen

A name or building-specific description (25 characters max.) for the fire alarm control panel can be entered with the 'description' menu item. The FACP will be indicated with this name on the panels display as well as in the programming software tools 8000. The text entry is done with the front panel keyboard with multiple assigned character keys (like SMS text entry). The name appears under the logo if no event exists.

Enter the text and then exit the entry mode with the ⏎ key.

6.1.2 Code entry

Fig. 47: >Code entry< menu screen

The entry of a digit (0-9) pushes the already entered code to the left. The CLR key deletes the number under the cursor and pushes the code to the right. The cursor always remains to the extreme right.

Edit value and exit the entry mode with the ⏎ key.

The code entry for menu items 2 to 4 is done as described above.

6.2 System timings

System-dependant switching times can be configured in this menu.
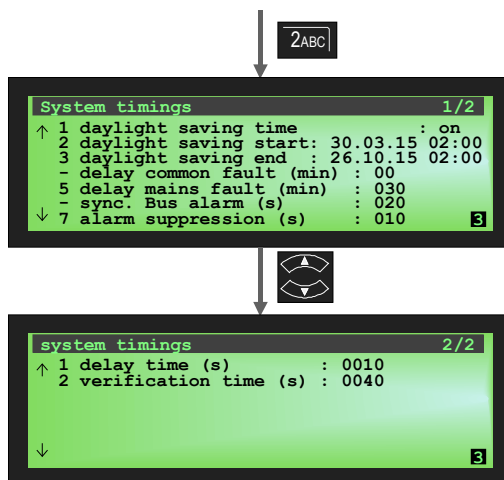
Menu page 1 of 2

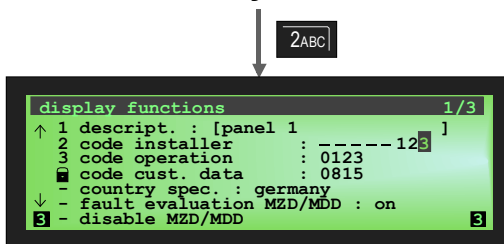Menu page 2 of 2

Fig. 48: >System timings< menu screens

Summer time (1,2,3)

The summer time ON/OFF setting determines whether or not the fire alarm control panel should automatically switch between summer time and winter time at the programmed time. The switching points for the ON/OFF switching must be entered.

Summer time start/end

Enter the date (1) on which the switching to summer time (+1 hour) should occur. The date is entered with the numeric keys.

Example: 250312 ➔ 25 March 2012

Enter the time (2) at which the switching to summer time (+ 1 hour) should occur.

Example: 0200 ➔ 02:00 am
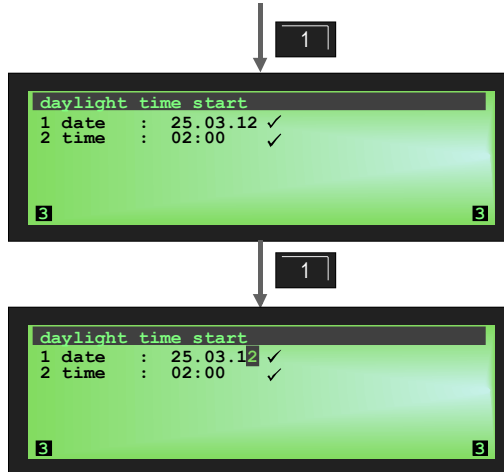
Fig. 49: >Daylight time start< menu screen

⏎   ➔   save entry (continue with ESC)
ESC   ➔   cancel entry and exit sub-menu

The next step is to enter the desired switching time for >summer time end< for the automatic switching (-1 hour).

Delay on common fault in minutes `4GHI`

```
system timings                1/2
↑ 1 daylight saving time        : on
  2 daylight saving start: 25.03.12 02:00
  3 daylight saving end  : 28.10.12 02:00
→ 4 delay common fault (min) : 15
  5 delay mains fault (min) : 30
  - sync. Bus alarm (s)      : 0
↓ - alarm suppression (s)   : 000    3
```

Fig. 50: >Delay common fault< menu screen

A system common fault message will be suppressed for the set time (00-99 minutes). No message display or activation will occur during this time. The message will be displayed and the assigned outputs activated if the fault cause still exists after the set suppression time has elapsed.

"00" entry ➔ no delay

Delay on mains failure in minutes `5JKL`

```
system timings                1/2
↑ 1 daylight saving time        : on
  2 daylight saving start: 25.03.12 02:00
  3 daylight saving end  : 28.10.12 02:00
  4 delay common fault (min) : 15
→ 5 delay mains fault (min) : 30
  - sync. Bus alarm (s)      : 0
↓ - alarm suppression (s)   : 000    3
```
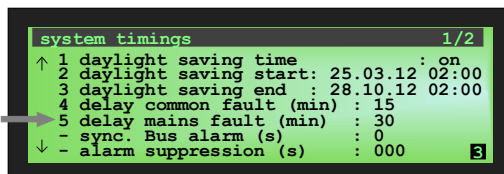
Fig. 51: >Delay mains fault< menu screen

A mains supply fault will be suppressed for the set time (00-99 minutes). This option is suitable for not displaying short-term mains failures as a fault.

"00" entry ➔ no delay

ℹ Observe standards and requirements!

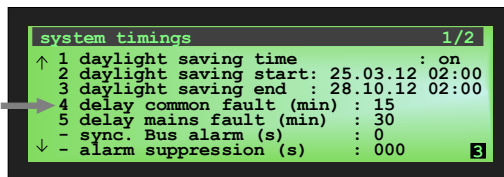Observe the information on the configuration and commissioning of the fire alarm control panel in accordance with national standards/directives and local requirements.
This function may not be permissible or the programmable time may have to be set in accordance with local requirements, depending on the specific use of the system or the country in which the system is used.

Alarm suppression in seconds

```
system timings                1/2
↑ 1 daylight saving time        : on
  2 daylight saving start: 25.03.12 02:00
  3 daylight saving end  : 28.10.12 02:00
  4 delay common fault (min) : 15
  5 delay mains fault (min) : 30
  - sync. Bus alarm (s)      : 0
→ - alarm suppression (s)   : 000    3
```

Fig. 52: >Alarm suppression< menu screen

If an alarm is detected during the 3 seconds shown here, after a reset of the FACP, no alarm from the detector will be shown on the control panel or analysed but instead only a pre-alarm.

⏎ ➔ save entry
ESC ➔ cancel entry or exit sub-menu

6.2.1 Delay time / verification time

This function allows a delayed activation of the transmission unit (ATU) and the alarm signalling devices and fire protection equipment in the day mode of the FACP.

This function can be used, for example, for areas and buildings in which persons are present and who can, in the event of a fire alarm, prevent a direct alerting by pressing the >verification< key and use the remaining (programmable) verification time until the automatic alerting, to ascertain why the alarm was triggered (see also the Operating Instruction, Part No. 798236.GB0).

Switch ON/OFF day/night mode (if programmed).

Start verification time.

Fig. 53: >Delay time< menu screen
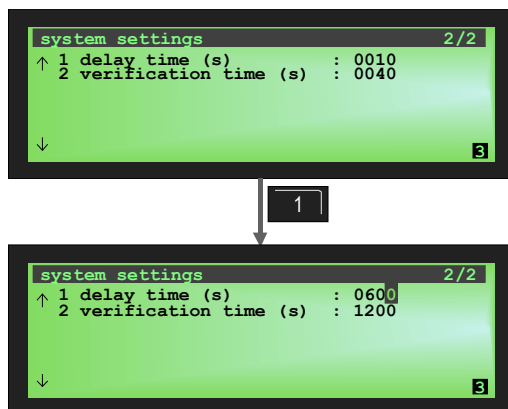
Example: delay time `1`

Enter desired delay time in the range 0000-9999 seconds for the external alerting.

"0000' entry" ➔ no delay

Example: verification time `2ABC`

Enter the desired verification time in the range 0000-9999 seconds for the verification of the alarm cause.

"0000" entry ➔ no delay

⏎ ➔ save entry (continue with ESC)
ESC ➔ cancel entry or exit sub-menu

Reset the FACP

- The transmission unit (ATU) of the alarm signalling devices and fire protection devices will be automatically activated after the elapse of the delay and verification time if the alarm signal was not reset by pressing the 'panel reset button' in order to cancel the alarm signal and thus prevent the activation.

- A manual alerting via the hand-operated fire alarm buttons is possible at any time and results in a direct activation depending on the programming.

- In the case of further (two or more) fire alarms, the delay time is ignored and the alerting is activated immediately.

- The delay and verification time must be programmed building-specifically and in accordance with the current German VdS directives and local requirements. The German VdS directives permit a maximum total delay (verification time + delay time) of 10 minutes ($\triangleq$ 600 seconds permissible).

Observe standards and requirements!

Observe the information on the configuration and commissioning of the fire alarm control panel in accordance with national standards/directives and local requirements.
This function may not be permissible or the programmable time may have to be set in accordance with local requirements, depending on the specific use of the system or the country in which the system is used.
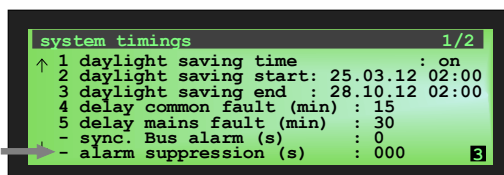
6.3   Switching times

settings
1 display functions
2 system timings
3 switching timings
4 language
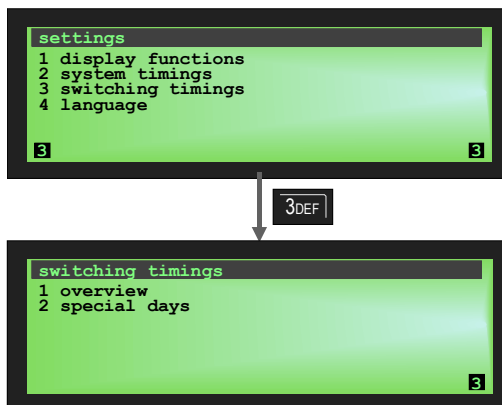
Select control timings with the 3DEF key.

switching timings
1 overview
2 special days

The switching timings are divided into an overview of the programmed switching times and a menu for programming special days.

Fig. 54: >Switching times< menu screen

6.3.1   Overview of switching times

overview switching times
1 **.**.** **:** delay on
2 **.**.** **:** delay off
3 create new switching time
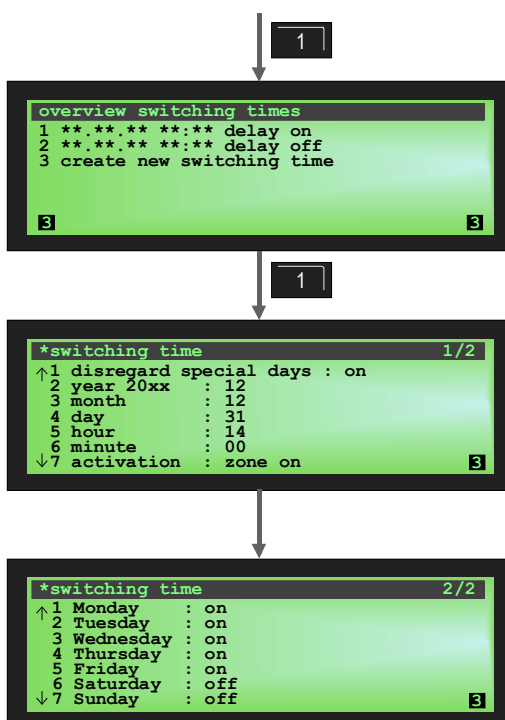
The overview shows the switching times and types configured in the system.

The >**< symbols mean any desired value for day, month, year, hour and minute.

*switching time   1/2
↑1 disregard special days : on
 2 year 20xx   : 12
 3 month   : 12
 4 day   : 31
 5 hour   : 14
 6 minute   : 00
↓7 activation   : zone on

A switching time can be edited after it has been selected. The switching will then occur when the time and weekday has been reached.

If special days were configured, the "disregard special days" option can be used to program if the switching time for special days applies (OFF) or should not be executed (ON).

*switching time   2/2
↑1 Monday   : on
 2 Tuesday   : on
 3 Wednesday : on
 4 Thursday   : on
 5 Friday   : on
 6 Saturday   : off
↓7 Sunday   : off

The >*< star symbol will appear instead of a >0< if a value was cancelled with the CLR key.

Fig. 55: >Overview switching times< menu screens

Special days can be programmed differently (see Chapter 6.4).

6.4   Special days

This menu allows you to define up to 14 special days. "Special days" are days on which the FACP should operate with switching times different to those of "normal weekdays".

2ABC

```
overview special days
  1 25.12.12
  2 26.12.12
  3 04.05.13
  4 create new special day
```

Display of the special days stored in the system.

The already programmed special days can be edited or deleted and a new special day can be added with the 4GHI key.

4GHI

```
edit special day
1 year 20xx : **
2 month     : **
3 day       : **
```

Select create new special day with the 4GHI key.

The >**< symbol means "not defined". Example: the following entry is necessary to define 'every 10th of April of a year' as a special day:

The >**< symbol is set with the ESC key.

year: **
month: 04
day: 10

⏎   → save entry / continue

Fig. 56: >Overview special days< menu screen

```
edit special day
1 year 20xx : **
2 month     : 05
3 day       : 01
4 remove special day : yes
```

Remove special day
An already programmed special day can be deleted with the remove special day function.

Select >remove special day< with the 4GHI key and toggle between yes/no (toggle function).

⏎   → save entry / continue
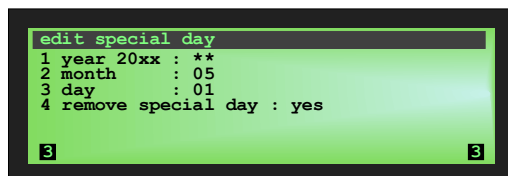
Fig. 57: >Remove special day< menu screen

```
remove special day
1 yes
2 no
3 cancel
```

Yes   → save the current configuration
No   → cancel change
Cancel   → return to the configuration menu
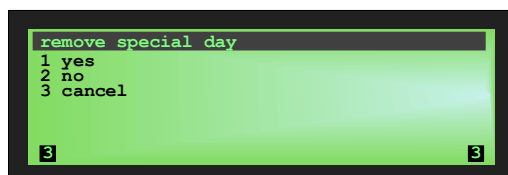
Fig. 58:: >Confirm change< menu screen

See also Chapter 6.3 "Switching times".

6.4.1 Language selection

The language for the system text shown in the display can be selected in this menu.
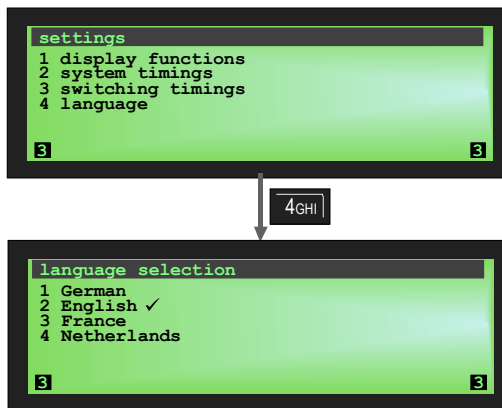
Select language menu item with the `4GHI` key.

Select the desired language with the digit keys.

ESC ➔ exit sub-menu

Fig. 59: >Language selection< menu screens

7   Verify and save

The data record is verified before it is saved. Detailed warning and error messages will be displayed in the case of an incorrect or invalid configuration and the cause(s) must be corrected before the data record can be saved.

Only a correct data record without warnings can be saved as the current data record.
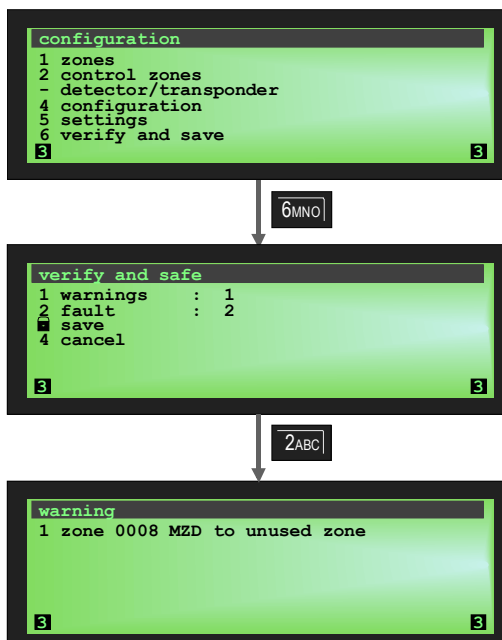
Select the verify and save menu item with the `6MNO` key.

Display of warnings (1) and faults (2).
Details are displayed in the relating sub-menu.

The >save< function can only be selected when warnings or faults are no longer displayed and a correct data record exists.

Example:
The detector zone 8 was programmed with 2-zone dependency. The assigned second detector zone is not available (e.g. configured as >unused<).

Pressing the `1` key will take you directly to the editing menu for zone 0008.

Fig. 60:: >Verify and save< menu screens

8 Revision menu

This function allows service work on the fire alarm control panel without triggering an external alerting.

```
main menu
1 information
2 overview
3 operate
4 service
5 revision
3               3
```
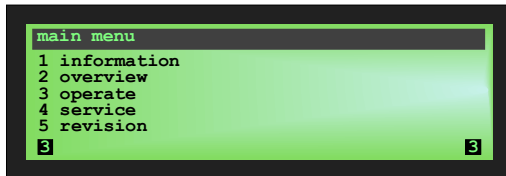
Select the >Revision< function with the `5JKL` key.

```
revision
1 on
2 off


3               3
```
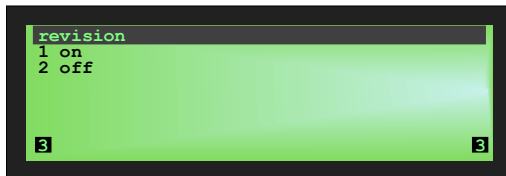
Fig. 61: *>Revision< menu screens*

| 1 | Press key ➔ Revision ON |

The 'DISABLEMENT' LED and the (yellow) LED for Fire Department alarm, Sounder and Fire Protection Equipment (if a trigger prevention is programmed) blink on the control panel.

| 2 | Press key ➔ Revision off |

The FACP is in normal mode again.

Only authorised and instructed persons may operate an installed and ready-for-alerting fire alarm control panel and such persons must then operate the FACP in accordance with safety precautions and, if applicable, the instruction of the emergency service (i.e. local fire brigade).

In the Revision mode, the Alarm Transmission Unit (ATU) and all other external alerting and fire protection equipment may not be activated, depending on the configuration.

8.1 Programming an output as 'unused'

This function allows an output (control zone) to be configured as >unused<. Outputs with the >unused< function type are not activated.

```
configuration
1 zones
2 control zones
- detector/transponder
4 configuration
5 settings
6 verify and save
```

>Configuration< menu item

Select control zones

⬇ 2ABC

```
control zones
1 overview (all)
2 overview (ATU)
3 overview (sounder)
4 overview (FPE/FIE)
5 select single assignment
6 multiple assignment
```

Select single assignment

⬇ 5JKL

```
control zone

 control zone :    +0001+ ✓
                   control 1
```

Select control zone (Example: control zone 0001)

⬇ 1 ⏎

```
*control zone >0001<
↑ 1 function type       : ATU
  2 hardware
  3 inverted            : off
  4 trigger events      : 0
  5 pulse duration (s)  : off
↓ 6 pulse latched       : off
  7 trigger prevention  : 0
```

Function type

⬇ 1

```
function type
1 ATU
2 sound
3 FPI
4 FIE
5 common
6 not used ✓
7 unchanged
```

Select not used

⬇ 6MNO

```
*control zone >0001<
↑ 1 function type       : not used
  2 hardware
  3 inverted            : off
  4 trigger events      : 0
  5 pulse duration (s)  : off
↓ 6 pulse latched       : off
  7 trigger prevention  : 0
```

⏎ ➜ Save entry (continue with ESC)
ESC ➜ Cancel entry or exit sub-menu

Fig. 62: Output with >unused< function type

8.2 Deactivation of FIP / FOP activation

This function allows the deactivation of an FIP / FOP (Fire Brigade Indicating Panel / Fire Brigade Operating Panel). These devices are connected to the RS485 interface of the fire alarm control panel. Devices connected to this interface are not activated when the RS485 interface is switched off (i.e. configured as 'unused').

Select configuration

Select mainboard

Use the >down< cursor key

Select RS485 and set to >not used< by pressing the [4GHI] key several times (toggle function) until 'not used' is displayed.

⏎ ➜ Save entry
ESC ➜ Cancel entry or exit sub-menu

Fig. 63: Switch-off FIP/FOP

9 Fault diagnosis and correction

9.1 Battery fault

```
1. battery fault        14:45   12.08
              low voltage
```
Example: battery fault warning

```
code entry

code:        ****█
```
Enter access code

Code

```
main menu
1 information
2 overview
3 operate
4 enter access level 3
2                        2
```
Main menu

4GHI

```
service
1 access level 3
```
Service

1

```
code entry

code:        ****█
```
Enter access code for installer level.

Code

```
service
1 event log
2 battery information
3 earth fault information
4 configuration
5 access level 4
- maintenance mode
                         3
```
Battery information

2ABC

```
battery information          1/2
↑ 1 refresh
    main board
    voltage in V        [>21.2] : 20.8
    int. resistance mOhm [< 600] : 290
    temp. (degree C)  [-5...+45] : 24.0
↓   charging current      [<1.4] : 0.0
3                             3
```

Check voltage in V:
Current value is = 20.8 V (voltage is too low – correct fault)

The target value for the battery voltage is shown in the brackets – here (> 21.2 V).

Fig. 64: Battery fault

Press the [1] key to update the measurement.
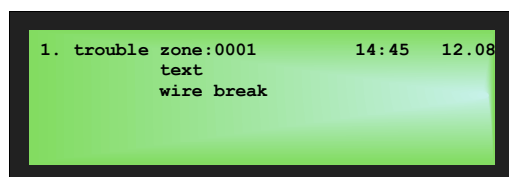
9.2   Zone fault

```
1. trouble zone:0001        14:45   12.08
            text
            wire break
```

Example: Fault warning for detector zone (here zone 0001)

🔑

```
code entry

code:        ****█
```

Enter access code

Code ↵   ☰

```
main menu
1 information
2 overview
3 operate
4 enter access level 3
2                          2
```

Main menu

3DEF

```
operate
1 zone/detector
2 control zone
3 primary loop

2                          2
```

Zone / detector

1

```
zone / detector
1 zone      :    0001
2 detector  :    ---
3 on
4 off
5 test
6 sensors
2 state     :    idle      2
```
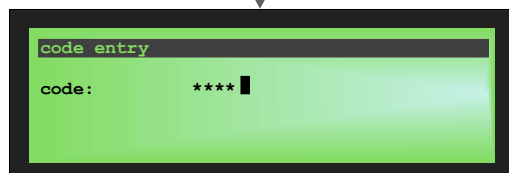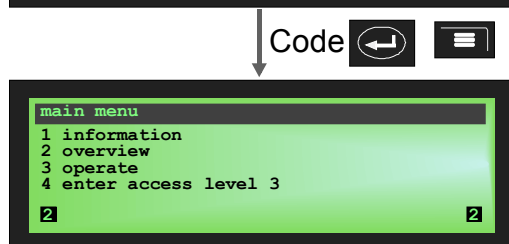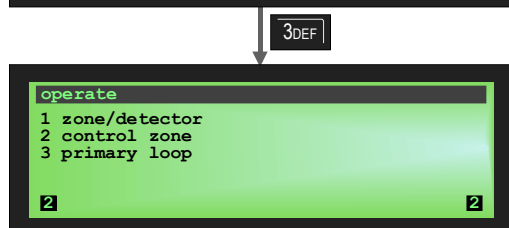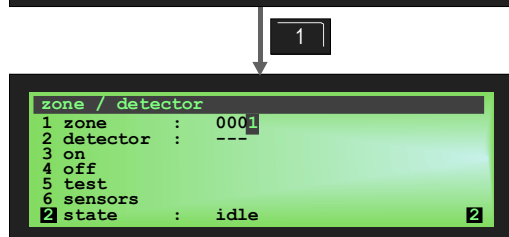
Select the zone (enter the zone number). ↵

6MNO

```
zone / detector
1 zone      :    0003
2 detector  :    ---
3 on
4 off
5 test
6 state     :    detector fault
2                          2
```
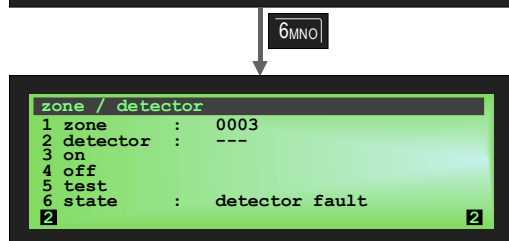
Detector zone with fault: after correcting the fault, check the status again and switch on zone 3DEF (resets the zone fault).

Fig. 65: Zone fault

9.3   ATU fault / Acoustic fault / FPE fault

The example shows an ATU fault. Acoustic and FPE faults are shown similarly.

```
1. trouble control:0005    14:45   12.08
          alarm MB
          wire break
```
ATU fault warning

```
code entry

code:        ****
```
Enter access code

Code

```
main menu
1 information
2 overview
3 operate
4 enter access level 3
```
Main menu

```
operate
1 zone/detector
2 control zone
3 primary loop
```
Operate

```
control zone
1 number  :    <-0001->
2 on
3 off
- activation
  state   : idle
  text 1  : ATU
  text 2  : Out_1 mainboard
```
Control zone

```
control
 control :     +0001+ ✓
          control zone 1
```
Select control zone

```
control zone
1 control zone  :   <-0003->
2 on
3 off
- activation
  state   : wire break
  text 1 : sounder
  text 2 : Out_1 mainboard
```
Correct fault

```
control zone
1 number :    <-0003->
2 on
3 off
- activation
  state   : idle
  text 1 : sounder
  text 2 : Out_1 mainboard
```
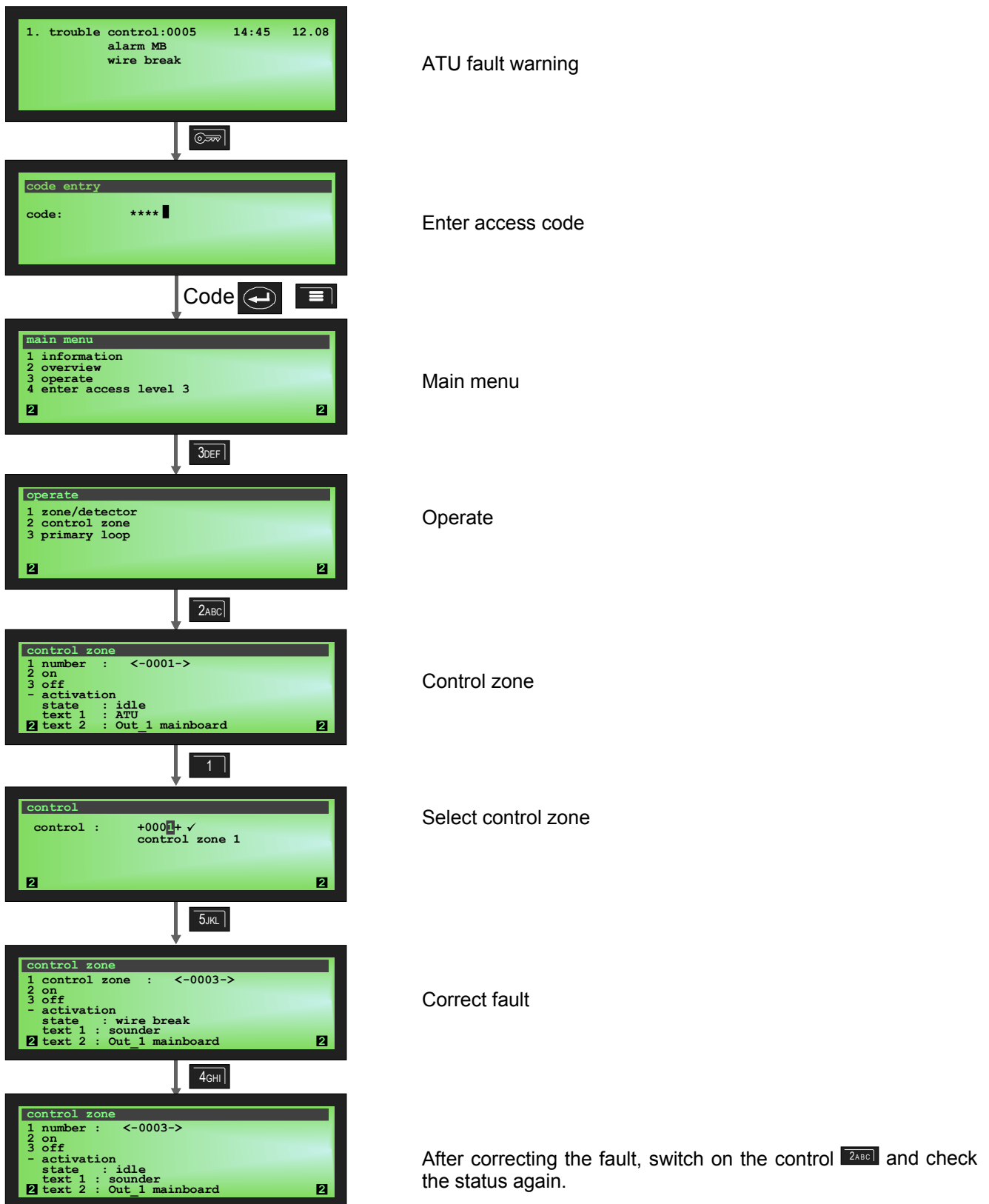After correcting the fault, switch on the control ▣ and check the status again.

Fig. 66: ATU fault (example)

FIP/FOP fault
A FIP / FOP (Fire Brigade Indicating Panel / Fire Brigade Operating Panel) is displayed according to the event. The fault warning is only displayed if the fault cause exists.

10 Templates

The factory settings for the fire alarm control panel and the available templates are given in the tables on the following pages.

The settings and templates can be changed and adjusted to suit the object. If the fire alarm control panel is reset to the factory settings, all changes are discarded and the original data is reloaded.

	Factory settings				
	Text	**TYPE**	**Trigger/switching function**	**Monitoring**	
IN_1	Feedback input ATU	Fault	ATU triggered		
IN_2	Fault ATU	System input			
IN_3	FPE triggered	System input	FPE triggered		
IN_4	FPE fault	System input	FPE fault		
OUT1	Main detector	ATU	Panel state fire	Calibrate	
OUT2	Fault ATU	General	Panel state fault	Calibrate	Factory settings
OUT3	Acoustic alarm device	Acoustics	Panel state fire	EOL-O	
OUT4	Strobe	General	Panel state fire	EOL-O	
REL_1	FPE	FPE	Panel state FPE triggered		
REL_2	FSKB fire	General	Panel state fire		
REL_3	FSKB ATU triggered	General	Panel state ATU triggered		
REL_4	Reset external detector	General	FACP reset		
REL_5					
RS485	FIP/FOP				

	Construction site commissioning				
	Text	**TYPE**	**Trigger/switching function**	**Monitoring**	
IN_1	Feedback input ATU	System input	ATU triggered		
IN_2	Fault ATU	Fault			
IN_3	FPE triggered	System input	FPE triggered		
IN_4	FPE fault	System input	FPE fault		
OUT1	Main detector	ATU			
OUT2	Fault ATU	General	Panel state fault		Construction site
OUT3	Acoustic alarm device	Acoustics	Panel state fire		
OUT4	Strobe	General	Panel state fire		
REL_1	FPE	FPE	Panel state FPE triggered		
REL_2	Common fire	General	Panel state fire		
REL_3	Technical alarm	General	Panel state ATU triggered		
REL_4	Common fire	General	FACP reset		
REL_5					
RS485				Not in use	

		House alarm				
		Text	**TYPE**	**Trigger/switching function**	**Monitoring**	
IN_1		Acoustics fault	System input	Acoustics fault		House alarm
IN_2		Dialler fault	Fault			
IN_3		FPE fault	System input	FPE fault		
IN_4		FPE triggered	System input	FPE triggered		
OUT1		Common fire	General	Panel state fire		
OUT2		Fault ATU	General	Panel state fault	Calibrate	
OUT3		Acoustic alarm device	Acoustics	Panel state fire	EOL-O	
OUT4		Strobe	General	Panel state fire	EOL-O	
REL_1		FPE	FPE	Panel state fire		
REL_2		Common fire	General	Panel state fire		
REL_3		Technical alarm	General	Panel state TAL		
REL_4		Reset external detector	General	FACP reset		
REL_5		Common fire	General	Panel state fire		
RS485		Not in use				

		Underground car park				
		Text	**TYPE**	**Trigger/switching function**	**Monitoring**	
IN_1		Feedback input ATU	System input	ATU triggered		Underground car park
IN_2		Detector fault	Fault			
IN_3		FIE triggered	System input	SIES triggered		
IN_4		FIE fault	System input	SIES fault		
OUT1		Main detector	ATU	Panel state fire	Calibrate	
OUT2		Fault ATU	General	Panel state fault	Calibrate	
OUT3		Acoustic alarm device	Acoustics	Panel state fire	EOL-O	
OUT4		Strobe	General	Panel state fire	EOL-O	
REL_1		FIE (preflood/extinguish)	FIE	Panel state fire		
REL_2		FSKB fire	General	Panel state fire		
REL_3		FSKB ATU triggered	General	Panel state ATU triggered		
REL_4		Reset external detector	General	FACP reset		
REL_5						
RS485		FIP/FOP				

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