# **SIEMENS**



**B3Q700 Control Terminal** 

**Operating Instructions** 

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### **Notes to the User**

# About the product

The FC700A is a high sophisticated fire detection system. The B3Q700 control terminal serves as an user interface to operate and to communicate with this system.

### About this documentation

This document consists of the following sections. To each section a typical symbol is assigned helping to keep overview and to see at a glance the current section on each page:

Section	Symbol	Contents
		Divided in 3 parts:
		Notes to the User     This introductory page.
General Information	<b>①</b>	Document Information     Contains Information about terms and abbreviations used in this document as well as information about document version.
		Safety Regulations     Contains all necessary information for riskless working with this system.
		Specific instructions how to work with this system.
Operating Instructions	000	This section contains descriptions of the steps to execute different functions for the operation of this system.
		For deeper understanding of these functions see section "Basic System Knowledge $\ \square$ ".
Basic System Knowledge		Fundamental information about system concepts and functions.
Function Lists		Contains all available commands and their respective access levels.

#### NOTE

More information about this document can be found in the "Document Information" chapter.



Before personnel begin work on the system they must have read and understood the related operating instructions, in particular chapter "Safety Regulations".

The consistent adherence to these instructions is a prerequisite for a safe application.

Before they are delivered, products are tested to ensure they function correctly when used properly. *Siemens* disclaims all liability for damage or injuries caused by the incorrect application of the instructions or disregard of warnings of danger contained in the documentation. This applies in particular to:

- Personal injuries or damage caused by improper use and incorrect use.
- Personal injuries or damage caused by disregarding safety instructions in the documentation or on the product.
- Personal injuries or damage caused by poor maintenance or a lack of maintenance.

### **Document Information**

**Purpose** 

This document describes the operation of the FC700A system.

Scope

It contains information about the B3Q700 control terminal.

#### **Target group**

This product documentation and the work instructions are aimed at the following persons, who have a particular function and have the corresponding training and qualification.

Group of persons	Activity	Qualification
Installation personnel	They install product, device or system components and subsequently carry out a general performance check.	Professional training in the field of building automation or electrical installations.
Commissioning personnel	The configuration of the products, devices or systems for specific customers at the place of installation. They check serviceability and officially clear the product, device or system for use by the operator / customer. They are also responsible for trouble-shooting.	They have had the professional training appropriate to their function and to the commissioning of the products, systems and devices and have attended the technical training courses for commissioning personnel.
Maintenance personnel	They carry out all the maintenance work indicated in the product documentation and check equipment for total serviceability.	They have had the technical training appropriate to their function and the product.
Operating personnel	Exclusively follows procedures for the correct operation of the product, device or system.	He can read and understand the operating instructions in this document.  No special basic training is called for. Possibly training by specialized staff is necessary.

#### Terms, abbreviations & conventions

In this document these terms, abbreviations and conventions are used:

Term	Description
PMI	The Person Machine Interface of the FC700A system. It comprises the control terminal hardware as well as the software functionality which allows interaction between operator and the FC700A system.
Access level	Defines the range of accessible functions.
Login	Action necessary to get operating access.
Logout	Action to disable operating access.
Password	Passwords are intended to prevent operation by unauthorized persons. The password is asked during login.
Keyswitch	Can be used instead of a password. (Optionally equipped)
Key	Keys are the physical buttons located on the control terminal front. Keys are always written in angle brackets, e.g. <acknowledge>, &lt;3&gt;, &lt;√&gt;.</acknowledge>
Softkey	A selectable entry in a menu.  Softkeys such as Operate or Full message are printed in inverse bold characters. The softkeys are selected by pressing the associated key arranged to the left or to the right of the menu entries. As there are real keys associated the angle brackets show the relationship to normal keys and help to distinguish from a display message.
LED indicator	The indicator lamps of the control terminal are called LEDs.
Display	The <u>Liquid Crystal Display</u> (LCD) to display text messages and soft- keys is called 'display'.
Idle display	Contents of the display if there is no message to be displayed.
Message display	Contents of the display if at least one message is present.
Primary menu	Allows access to operation of events and to access the main menu. The primary menu is either the 'Idle display' or the 'Message display'.
Main menu	Allows access to all possible functions of the fire detection system.
	Indicates references to other chapters or documents.

#### Document identification

Position		Signification
Title page		<ul><li>System names</li><li>Product type</li><li>Document purpose</li></ul>
Last page	bottom left bottom right	<ul> <li>Document number consists of: Language, number, index</li> <li>Version date</li> <li>Manual</li> <li>Register</li> </ul>

#### Modification index

Version	Date	Brief description
а	03.2004	First edition

### **Safety Regulations**

### **Signal Words and Symbols**

#### Introduction

This chapter describes the danger levels and the relevant safety regulations applicable for the use of the products.

Please read the work instructions as well as the introductory chapters "Notes to the User" and "Document Information" thoroughly before beginning any work.

# Classification and meaning of signal words

The danger level - that is, the severity and probability of danger - is indicated by the signal words listed below. Non-observance may lead to the consequences indicated:

Classification	Meaning		Consequences	
• DANGER	Imminent danger!	$\rightarrow$	May cause serious bodily injury or danger to life!	
• WARNING	Dangerous situation!	$\rightarrow$	May cause serious bodily injury or danger to life!	
• CAUTION	Possibly dangerous situation!	$\rightarrow$	May cause light injuries!	
• NOTE	Possibly harmful situation!	<b>→</b>	May cause damage to the product or to objects in the immediate vicinity of the product!	

# Symbols and their meaning

The symbols listed below indicate the nature and origin of the danger.



General danger



Electrical voltage

# Mandatory symbols

Protective measures are indicated by mandatory symbols.



System, modules or elements must be voltage-free!

## Information symbols

Helpful information for the user is indicated by this symbol.



Tips and information.

#### Example

Example for an indication of danger:



DANGER! External voltage

Disconnect the module from the power supply.

### **Safety-relevant Working Instructions**

#### Countryspecific standards

The products are developed and produced in compliance with the relevant international and European safety standards. Should additional country-specific, local safety standards or regulations concerning project planning, assembly, installation, operation and disposal of the product apply in the place of operation, then these standards or regulations must also be taken into account in addition to the safety regulations mentioned in the product documentation.

### Electrical installations



Any work on electrical installations may only be carried out by qualified electricians or instructed persons working under the guidance and supervision of a qualified electrician, in accordance with the electrotechnical regulations.

- Control units must be disconnected from the power supply during commissioning or maintenance work
- Control terminals with an external voltage supply must be provided with a sign "DANGER

   External voltage".
- Mains leads to the control unit must be installed separately and provided with a clearly marked fuse.
- Earthing must be carried out in compliance with local safety regulations.
- When work is carried out in explosion—hazardous areas, the appropriate safety precautions must be taken.

#### Assembly, installation, commissioning and inspection work

- If any tools or accessories such as ladders are required, safe and suitable devices must be used.
- Prevention of spurious tripping of the remote transmission must be assured.
- Always inform the fire brigade before testing the remote transmission.
- The activation of fire control installations for test purposes must not cause damage to the system or parts thereof.
- Fire control installations must only be activated after the test has been completed and the system has been handed over to the customer.
- Third party systems or devices must only be activated in the presence of the responsible person.
- When work on management stations and system control terminals is performed, the safety regulations of the connected sub–systems must be observed. This especially applies when switching–off system components.

# Testing the product operability

- Inform people before testing of alarm devices; take the possibility of panic reactions into account.
- Inform the alarm and fault receiving stations connected to the system before running the tests.

### Product modifications

Modifications to a system or to individual products may cause faults or malfunctioning. Please request written approval from us and the relevant authorities concerning intended system modifications and system extensions.

### Safety-relevant Working Instructions, Continued

## Modules and spare parts

- Locally procured modules and spare parts must comply with the technical specifications laid down by the manufacturer. This compliance is always ensured for original spare parts supplied by us.
- Only use fuses with the specific fuse characteristics.
- Wrong battery types and improper battery exchange may introduce the danger of explosion. Only use the specified battery type or an equivalent battery type recommended by the manufacturer.
- Batteries require environmentally safe disposal. They must be handed in at the local collecting points.

# Operating Instructions 000

### Introduction

### **General Remarks**

#### **Purpose**

This section describes the procedures to handle spontaneous appearing events and how to operate the full range of possible functions of this fire detection system.

#### Main focus

It mainly deals with the question 'how' is something done. Therefore for all topics a brief step-by-step instruction is provided.

### Additional information

More information to understand this fire detection system in detail can be found in the "Basic System Knowledge "" section beginning at page 69.

#### **Before starting**



To get a better understanding on how to use these operating instructions please read the topics "State and Configuration Dependency" and "Browsing Methods" on the following pages.

### **State and Configuration Dependency**

What is the effect?

The menus depend on *configuration*, *system state* and *access level*, i.e. they may look slightly different from the figures in this manual.

Similarly some procedures depend on the actual system state and configuration.

Example for state dependency

An example to clarify the meaning of state dependency:

E.g. a softkey may be

<Zone -> OFF> if the specific zone is ON

and it changes to

<Zone -> ON> if the zone is switched OFF

Additionally it may even change to call a submenu if there are mixed states.

E.g. on section level a softkey may be:

<All DETECTOR zones -> OFF>
if all zones are ON

or

<All DETECTOR zones -> ON>
if all zones are OFF

This softkey changes to

**<DETECTOR zones ON/OFF functions..>** if not all zones are in the

same state

calling a submenu with these two entries

<ali>All DETECTOR zones -> OFF></a> to switch all zones OFF</a>

<All DETECTOR zones -> ON> to switch all zones ON

### **Browsing Methods**

#### Concept

The FC700A system uses an object oriented operation concept, i.e. the available functionality is determined by the features of the current object (e.g. a specific node in the logical or physical tree).

You first have to specify the object which shall be handled. Then the available functionality results from the selected object.

So you always have to select a specific node (this is called: you 'browse to a node') and then you decide what has to be done with it.

#### **Example**

You want to switch off a zone:

- **1.** You get to that specific 'detector zone' node. There you will have all functions available for 'detector zone' nodes (these functions differ from that of other nodes).
- **2.** Then you select the function to switch off that zone.

### Browsing methods

There are three different possibilities to get to a specific node:

- Tree browsing
- · Direct access via address
- · Direct access via message



In this document the 'Tree browsing' method is used to *set* a specific state. To *reset* back to the original state, whenever possible the 'Direct access via message' method is used.

#### Tree browsing

Browsing always starts on top level of the (inverse) tree and follows the branches down to the desired node.

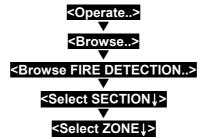
The accessible nodes are determined by the current access level.

This is the most universal method and can always be utilized.

#### Example

A zone shall be switched off:

**1.** You navigate to the specific zone, using the following softkeys:



 Now all available functions are displayed and the zone can be switched off by selecting the softkeys <Zone -> OFF..> and <OFF>

### Browsing Methods, Continued

### Direct access via address

Three different addresses can be used:

- CSX number
- · Plan number
- · Group and address number

This method can only be used if the required address information is known. It may be available on the display or written to the detectors or be known from floor plans.

The availability of address information on the display can be configured by the service engineer

#### Example

A zone shall be switched off. It's CSX number is 01/003/006/001.

1. You get to the required direct access menu by using the following softkeys:



2. Now you are prompted by the following message to enter the CSX number:

Enter CSX NUMBER AA/SSS/ZZZ/EEE

v (The cursor moves automatically 01/003/006/\_\_\_ with each number entered.)

- **3.** After having completed the entry, select softkey **<Jump to>** or press **<✓>**. The selected node and all available functions are displayed.
- 4. Now you can continue by selecting the softkeys <Zone -> OFF..> and <OFF>

## Direct access via message

Using this method always makes sense if a specific message of the abnormal state is visible in one of the 4 message categories (Alarms, Faults, Isolation, Information).

It is the quickest accessing method.

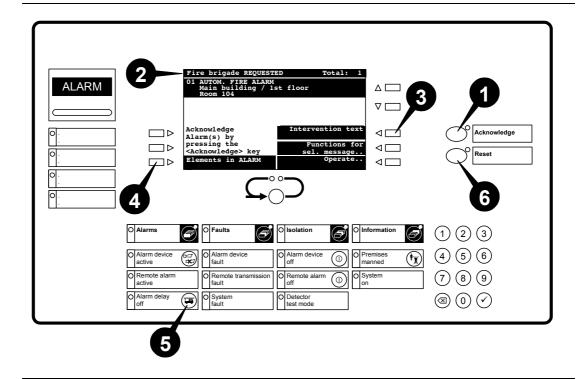
#### Example

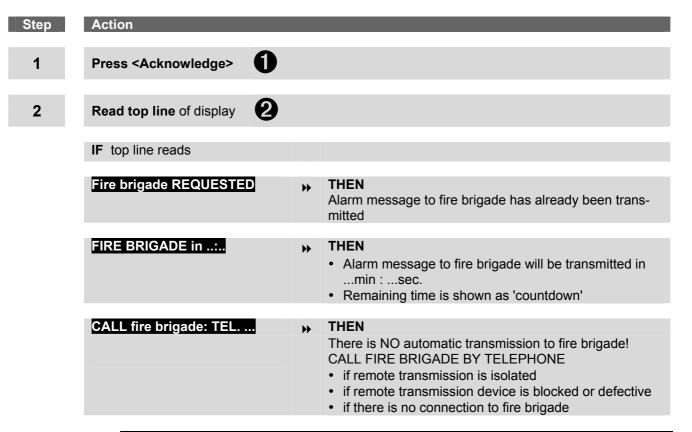
A zone which is in the off state shall be switched on. This zone has generated an 'Isolation' message:

- Press key <Isolation> to select this message (eventually message scrolling may be required)
- 2. Then select softkey <Functions for sel. message...>: All available functions are displayed
- 3. Now the zone can be switched on by selecting the softkeys <ON/OFF functions..> and <Zone -> ON>.

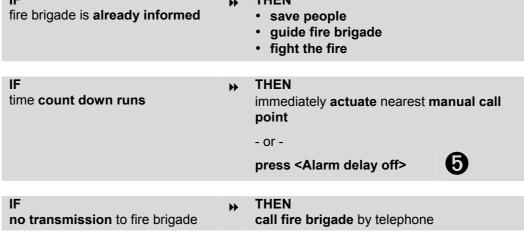
### **Event Handling**

### ALARM - what to do?

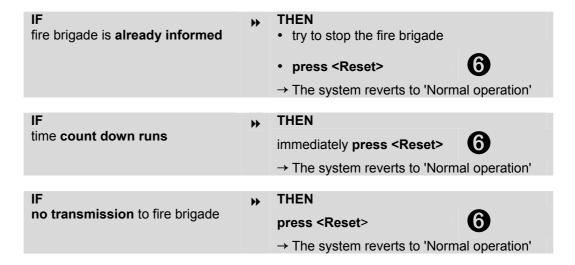




Step	Action		(Continued)
3	• intervention text		
	• elements in alarm	(if available)	
4	Read fire location on the display		
5	Go to the indicated fire location		
6	Decide on 'Emergency' or 'Minor incident'	<b>!</b> ':	
	Emergency		
	IF	▶ THEN	



### **Minor incident**



#### NOTES:

- · Password entry is required to reset.
- It may be necessary to ventilate the room before reset is possible.
- Zones which cannot be reset may be temporarily switched off by pressing softkey
   Isolate detector zones in ALARM>

### FAULT-what to do?

# Fault / general steps

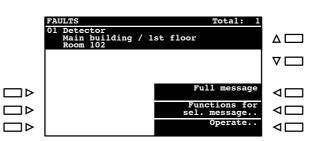
To handle a fault message follow these steps:

Step	Action
1	Press the <acknowledge> key to confirm the message.</acknowledge>
2	Read the fault location on the display
3	Go to the fault location
4	Solve the problem which caused the fault message.  If the fault cannot be removed call your service organization.

#### NOTE:

Details for specific faults see below.

Defective automatic detector

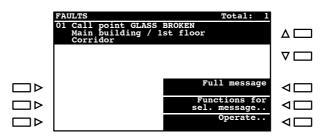


To handle a fault caused by an automatic detector follow these steps:

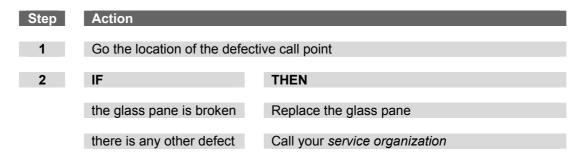
Step	Action	
1	Go to the location of the defective detector	
2	IF	THEN
	detector is missing Reinsert the detector	
	detector is defective	Replace it with a spare detector
		<b>Important:</b> Only replace a defective detector with a unit of the <u>same</u> type

### FAULT - what to do?, Continued

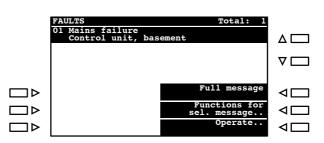
#### Defective manual call point



To handle a fault caused by a manual call point follow these steps:



## Mains supply failure



To handle a fault caused by the mains supply follow these steps:

Step	Action	
1	IF	THEN
	Mains failure in the public supply network	No action required.  The emergency power battery supplies the system for at least 12 hours (depending on the user's specification up to 72 hours)
	Mains supply ok	Check the power fuse (mains distribution control terminal of the building) and replace the fuse, if it is blown

#### Other faults

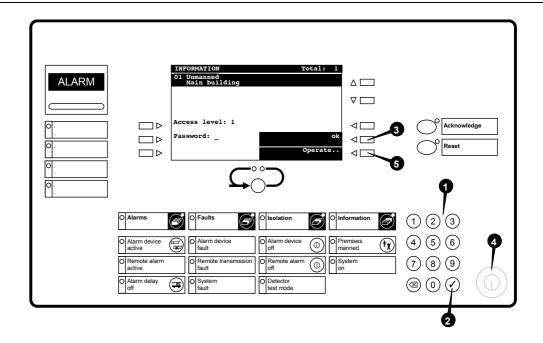
For all other faults call your service organization

### **Standard Procedures**

### **How to GET OPERATING ACCESS?**

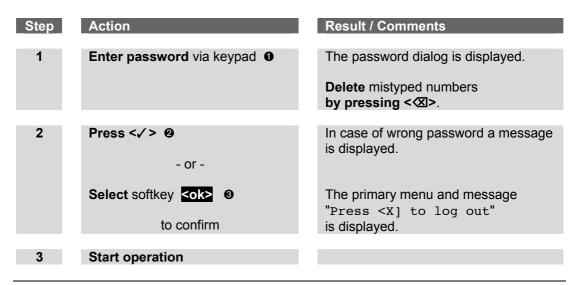
#### Introduction

- You can just start to operate. If access has not yet been granted, the login process automatically starts.
- However it is also possible to get operating access before starting to operate.
- · 'Getting operating access' is synonymous with 'logging in'.



## Login via password

To log in by password follow these steps:



### How to GET OPERATING ACCESS?, Continued

#### Login via keyswitch

Only available if keyswitch equipped. To log in by keyswitch follow these steps:

Step	Action	Result / Comments
1	Insert key <b>9</b>	
2	Turn key 4 to horizontal position	The primary menu and message "Turn key to log out" is displayed
3	Start operation	

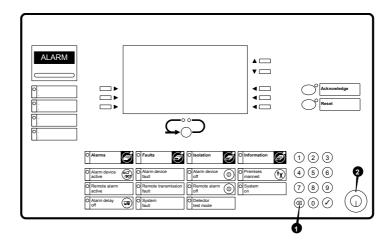
#### NOTE:

The operating access remains while the key is left in the horizontal position.

### How to LOG OUT?

#### Introduction

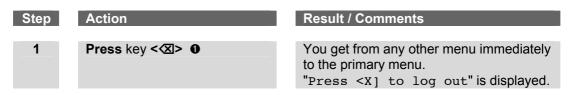
- Explicit logout is only required if logged in by key.
- It is not necessary if logged in by password, for there is an automatic logout by timeout. Nevertheless a logout may be enforced.



#### Precondition: Returning to the primary menu

Logout by <**⋈>** key can only be done on primary menu level. So if the system displays any other menu, returning to the primary menu first is required.

To return to primary menu (from any menu, submenu or the main menu) follow these steps:



## Logout by <≪>> key

To enforce an explicit logout (from primary menu level) follow these steps:

#### NOTE:

Only possible if the key is not in horizontal position

Step_	Action	Result / Comments
1	Press key < <b>⊠</b> > <b>0</b>	Logout completed

## Logout by keyswitch

To log out by keyswitch follow these steps:

#### NOTE:

Applies only if access was granted by keyswitch.

Step	Action	Result
1	Turn key ❷ to vertical position	Logout completed
2	Remove key @	

### How to SWITCH PREMISES MANNED / UNMANNED?

## Operating access

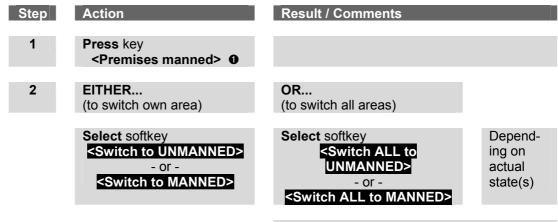
Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Which areas are switched over?

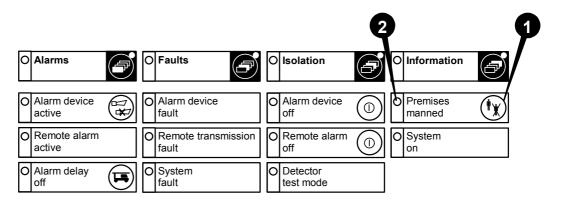
- Several organizationally autonomous systems can be operated via a common multi-area control terminal. There may be areas with 'manned' state, other areas with 'unmanned' state.
- If there are such mixed states, the 'Premises manned' state indicator 2 is flashing
- You can now either switch over just your own area or all areas from 'manned' to 'unmanned' or vice versa.

# Switch over via function key

To switch over from 'manned' to 'unmanned' (or vice versa) via function key follow these steps:



- The new operating state can be seen in the 'Information' category display.
- In the 'manned' mode the state indicator @ is ON.
- A flashing state indicator ② signifies that not all areas are in the same state.



### How to SWITCH PREMISES MANNED / UNMANNED ?, Continued

### Switch over via menu

To switch over from 'manned' to 'unmanned' (or vice versa) via menu follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <browse></browse>	Submenu is shown
3	Select softkey <browse detection="" fire=""></browse>	AREA menu is shown  If more than one are is displayed select desired area using the display scroll keys
4	Select softkey <switch manned="" to=""> - or - <switch to="" unmanned=""></switch></switch>	<ul> <li>The new operating state can be seen in the 'Information' category display.</li> <li>In the 'manned' mode the state indicator ② is ON</li> </ul>

#### NOTE:

Switching operating states 'manned' / 'unmanned' by menu only affects the selected area.

### How to SWITCH a single ZONE (ROOM) OFF / ON?

# When does a zone have to be switched OFF

ZONES equipped with automatic fire detectors or manual call points can be temporarily switched off (isolated).

This is only necessary in exceptional situations, for example, while major construction is in progress:

ZONE with smoke detectors

• ZONE with manual call point

- → if smoke or dust is produced by unusual work
- ZONE with heat detectors
- → if heat or steam is produced by unusual work→ if there is a possibility of inadvertent actuation



As soon as conditions have returned to normal, isolated ZONES must be immediately switched on again.

#### NOTE:

An isolated zone does not generate any alarm, warning or fault messages.

### Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

#### Switch OFF one single zone (without time limit)

A zone which is switched OFF without time limit remains in the OFF state until it is switched ON again.

To switch OFF a zone without time limit follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <browse></browse>	Submenu is shown
3	Select softkey <browse detection="" fire=""></browse>	AREA menu is shown Select desired area using the display scroll keys
4	Select softkey <select section↓=""></select>	SECTION menu is shown Select desired section using the display scroll keys
5	Select softkey <select zone↓=""></select>	ZONE menu is shown Select desired zone using the dis- play scroll keys
6	Select softkey <zone -=""> OFF&gt;</zone>	Submenu (and time entry dialog) is displayed
7	Select softkey  OFF> to switch OFF	Execution messages 'Doing function' - and - 'DONE'

### How to SWITCH a single ZONE (ROOM) OFF / ON ?, Continued

# Switch ON one single zone

The steps to switch ON a zone are independent of the method the zone has been switched OFF

To switch ON a zone follow these steps:

Step	Action	Result / Comments
1	Press key <isolation></isolation>	Isolation messages are displayed
2	<b>Select zone</b> to be switched ON using the display scroll keys	Selected zone is displayed in inverse color
3	Select softkey <functions for="" message="" sel.=""></functions>	
4	Select softkey <on functions="" off=""></on>	Submenu is displayed
5	Select softkey <zone -=""> ON&gt;</zone>	Execution messages 'Doing function' - and - 'DONE'

# How to SWITCH a single ZONE (ROOM) OFF / ON ? (With Time Limit)



General note about switching off/on zones see chapter "How to SWITCH a single ZONE (ROOM) OFF / ON ?" on page 27

# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

#### Switch OFF one *single* zone with time limit

The time the zone remains switched OFF can be limited. After this time the zone is switched on automatically.

To switch OFF a zone with time limit follow these steps:

Step	Action	Result / Comments
1	Select softkey <pre><operate></operate></pre>	Main menu is displayed
2	Select softkey <a href="#">Select softkey</a>	Submenu is shown
3	Select softkey <browse detection="" fire=""></browse>	AREA menu is shown Select desired area using the display scroll keys
4	Select softkey <select section↓=""></select>	SECTION menu is shown Select desired section using the display scroll keys
5	Select softkey <select zone↓=""></select>	ZONE menu is shown Select desired zone using the display scroll keys
6	Select softkey <zone -=""> OFF&gt;</zone>	Submenu and time entry dialog is displayed
7	Enter time 'hh:mm' using the numeric keys	<ul> <li>Cursor points to value to be entered.</li> <li>The cursor is moved by entering the numbers for hh:mm.</li> <li>The maximum time limit is 18:00 hours.</li> </ul>
8	Select softkey <pre> <off limit="" time="" with=""> to close entry</off></pre>	Execution messages 'Doing function' - and - 'DONE'

# How to SWITCH a single ZONE (ROOM) OFF / ON? (With Time Limit), Continued

# Extending the OFF state of a single zone with time limit

- If the time limit a zone is switched OFF is too short, it can be extended without switching the zone on in between.
- The old time limit is replaced by the new one. After that new time the zone is switched on automatically.

To extend the OFF time of a zone with time limit follow these steps:

Step	Action	Result / Comments
1	Press key <isolation></isolation>	Isolation messages are displayed
2	<b>Select zone</b> of which the OFF time should be extended	Selected zone is displayed in inverse color
3	Select softkey <pre><functions for="" message="" sel.=""></functions></pre>	
4	Select softkey <on functions="" off=""></on>	Submenu is displayed
5	Select softkey <zone -=""> OFF&gt;</zone>	Submenu and time entry dialog is displayed
6	Enter time 'hh:mm' using the numeric keys	<ul> <li>Cursor points to value to be entered.</li> <li>Move the cursor by entering the numbers for hh:mm.</li> <li>The maximum time limit is 18:00 hours.</li> </ul>
7	Select softkey <pre> <off limit="" time="" with=""> to close entry</off></pre>	Execution messages 'Doing function' - and - 'DONE'

## Switch ON one *single* zone

Follow the procedure as described under "Switch ON one single zone" on page 28.

### Mixing different OFF modes

- It is possible to switch a zone OFF with time limit and then change it afterwards to OFF without time limit or vice versa.
- To do so just follow the switching OFF procedure while the specific zone is already in OFF state and decide which OFF state should be chosen.

### How to SWITCH ZONES (ROOMS) OFF / ON per SECTION?



General note about switching off/on zones see chapter "How to SWITCH a single ZONE (ROOM) OFF / ON ?" on page 27

#### **Switching** OFF/ON with time limit

The procedure is similar to the one described for single zones in chapter "How to SWITCH a single ZONE (ROOM) OFF / ON? (With Time Limit)" on page 29.

Switching per section with time limit is available for zones of type 'Automatic fire detector' only.

#### Zone type

For the following descriptions a zone type 'Automatic fire detector' has been assumed, but the same procedure also applies for zones of type 'Manual call point'.

#### Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

#### **Switch OFF** all zones of a section

With this command all detector zones of a section can be switched OFF. To do so follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <browse></browse>	Submenu is shown
3	Select softkey <browse detection="" fire=""></browse>	AREA menu is shown Select desired area using the display scroll keys
4	Select softkey <select section↓=""></select>	SECTION menu is shown Select desired section using the display scroll keys
5	Select softkey <detector functions="" zone=""></detector>	Submenu is shown
6	Select softkey <all -="" detector="" zones=""> OFF&gt;</all>	Execution messages 'Doing function' - and - 'DONE'

## How to SWITCH ZONES (ROOMS) OFF / ON per SECTION ?,

Continued

# Switch ON all zones of a section

With this command all detector zones of a section can be switched ON. To do so follow these steps:

Step	Action	Result / Comments
1	Press key <isolation></isolation>	Isolation messages are displayed
2	Select section message (Section of which all zones are to be switched ON) using the display scroll keys	Selected section is displayed in inverse color NOTE: This section message only exists if all zones of that section are OFF
3	Select softkey <functions for="" message="" sel.=""></functions>	
4	Select softkey <on functions="" off=""></on>	Submenu is shown
5	Select softkey <zone -=""> ON&gt;</zone>	Execution messages 'Doing function' - and - 'DONE'

#### NOTE:

If not all zones of that section are in the OFF state, follow these steps:

Step	Action	Result / Comments
1	Press key <isolation></isolation>	Isolation messages are displayed
2	<b>Select</b> one of the detector zones to be switched ON using the display scroll keys	Selected zone is displayed in inverse color
3	Select softkey <functions for="" message="" sel.=""></functions>	
4	Select softkey <select section↑=""></select>	SECTION menu is shown
5	Select softkey < DETECTOR zone functions>	Submenu is shown
6	Select softkey <detector functions="" off="" on="" zones=""></detector>	Submenu is shown
7	Select softkey <all -="" detector="" zones=""> ON&gt;</all>	Execution messages 'Doing function' - and - 'DONE'

### How to SWITCH DETECTORS OFF / ON?

# When does a detector have to be isolated?

Only when it is damaged or defective until it is replaced.



- An isolated (element OFF) detector cannot generate any messages.
- The isolation of detectors only makes sense if the corresponding ZONE is in position 'on'

### Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Isolate a detector via the menu

To switch OFF one single detector follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <browse></browse>	Submenu is shown
3	Select softkey <browse detection="" fire=""></browse>	AREA menu is shown Select desired area using the display scroll keys
4	Select softkey <select section↓=""></select>	SECTION menu is shown Select desired section using the display scroll keys
5	Select softkey <select zone↓=""></select>	ZONE menu is shown Select desired zone using the dis- play scroll keys
6	Select softkey <select element↓=""></select>	ELEMENT menu is shown Select desired element using the display scroll keys
7	Select softkey <more functions=""></more>	
8	Select softkey <element -=""> OFF&gt;</element>	Execution messages 'Doing function' - and - 'DONE'

#### NOTE:

- If **all** elements of a ZONE are OFF, the *corresponding* **zone** is automatically **isolated** and all element isolation messages are cancelled.
- In that case the reactivation is only possible on level 'ZONE'.

### How to SWITCH DETECTORS OFF / ON ?, Continued

Reactivate a detector (element)

To switch ON one *single* detector follow these steps:

Action	Result / Comments
Press key <isolation></isolation>	Isolation messages are displayed
<b>Select detector</b> to be switched ON using the display scroll keys	Selected detector is displayed in inverse color
Select softkey <pre><functions for="" message="" sel.=""></functions></pre>	
Select softkey <more functions=""></more>	
Select softkey <element -=""> ON&gt;</element>	Execution messages 'Doing function' - and - 'DONE'
	Press key <isolation>  Select detector to be switched ON using the display scroll keys  Select softkey</isolation>

Isolate a detector when a fault message is pending To switch OFF a detector in fault state follow these steps:

Step	Action	Result / Comments
1	Press key <faults></faults>	Fault messages are displayed
2	<b>Select detector</b> to be switched OFF using the display scroll keys	Selected detector is displayed in inverse color
3	Select softkey <functions for="" message="" sel.=""></functions>	
4	Select softkey <more functions=""></more>	
5	Select softkey <element -=""> OFF&gt;</element>	Execution messages 'Doing function' - and - 'DONE'

### **Service Functions**

### How to SWITCH REMOTE TRANSMISSION OFF / ON?

### Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

# Switch OFF remote alarm by *function key*

The remote transmission of alarms of all assigned areas can be switched OFF/ON by a separate key.

To switch off the remote transmission follow these steps:



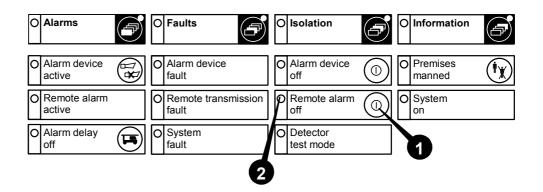


Pressing key • will immediately switch off the remote alarm of all assigned areas.

Switch ON remote alarm by *function key* 

To switch ON the remote transmission of alarms of all assigned areas follow these steps:

Step	Action	Result / Comments
1	Press key <b>0</b> <remote alarm="" off=""></remote>	<ul><li>Message 'Executing'</li><li>LED 2 turns off</li></ul>



### How to SWITCH REMOTE TRANSMISSION OFF / ON ?, Continued

Switch OFF remote transmissions by menu

There are three types of remote transmissions which can be switched off:

- Remote transmission of fire alarms
- Remote transmission of fault messages
- · Remote transmission of other messages

To switch off the remote transmission of one single area follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <alarming></alarming>	Submenu is shown
3	Select softkey <remote transmissions=""></remote>	Submenu is shown
4	Select softkey <remote 'fire'="" -="" transm.=""> OFF&gt; - or - <remote 'fault'="" -="" transm.=""> OFF&gt; - or - <remote 'other'="" -="" transm.=""> OFF&gt;</remote></remote></remote>	Execution messages 'Doing function' - and - 'DONE'

Switch ON remote transmissions by *menu* 

To switch on the remote transmission of one *single* area follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <a href="#"><alarming></alarming></a>	Submenu is shown
3	Select softkey <remote transmissions=""></remote>	Submenu is shown
4	Select softkey <remote 'fire'="" -="" transm.=""> ON&gt;  - or -  <remote 'fault'="" -="" transm.=""> ON&gt;  - or -  <remote 'other'="" -="" transm.=""> ON&gt;</remote></remote></remote>	Execution messages 'Doing function' - and - 'DONE'

#### How to SWITCH ALARM DEVICES OFF / ON?

# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Switch OFF alarm devices by *function key*

The alarm devices *of all assigned areas* can be switched OFF/ON by a separate key. To switch off the alarm devices follow these steps:

Step	Action	Result / Comments
1	Press key <b>0</b> <alarm device="" off=""></alarm>	<ul><li>Message 'Executing'</li><li>LED ② lights up</li></ul>

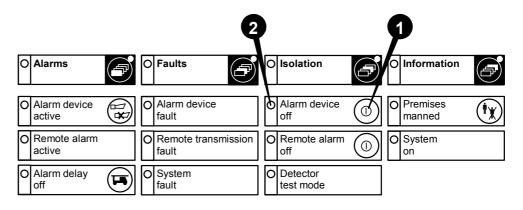


Pressing key • will immediately switch off the alarm devices off all assigned areas.

Switch ON alarm devices by *function key* 

To switch ON the alarm devices of all assigned areas follow these steps:





# How to SWITCH ALARM DEVICES OFF / ON ?, Continued

# Switch OFF alarm devices by *menu*

To switch off the alarm devices of one *single* area follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <alarming></alarming>	Submenu is shown
3	Select softkey <alarm horns=""></alarm>	Submenu is shown
4	Select softkey <alarm horn="" off=""></alarm>	Execution messages 'Doing function' - and - 'DONE'

# Switch ON alarm devices by *menu*

To switch on the alarm devices of one *single* area follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <alarming></alarming>	Submenu is shown
3	Select softkey <alarm horns=""></alarm>	Submenu is shown
4	Select softkey <a href="#"><alarm horn="" on=""></alarm></a>	Execution messages 'Doing function' - and - 'DONE'

# What is this for?

When calling this function the alarm devices will be activated for some seconds for testing purposes.

# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Test alarm devices

To test the alarm devices follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <a href="#"><alarming></alarming></a>	Submenu is shown
3	Select softkey <alarm horns=""></alarm>	Submenu is shown
4	Select softkey <alarm horn="" test=""></alarm>	Execution messages 'Doing function' - and - 'DONE'

#### How to SET MODE 'DETECTOR TEST' per SECTION?

# Some notes about mode 'Detector test'

Testing detectors (or manual call points) is normally done on **section** level, but is also possible on **line** or on **zone** level.

It is **not** possible to set an element (an individual fire detector or manual call point) to 'Detector test'.

**Sections** and **zones** set to 'Detector test' are displayed spontaneously as a message in the 'Isolation' category.

# For what zones is it available?

The command is available for zones with SynoLINE600, SynoLOOP.

## How does it work?

If a device is activated, its alarm indicator starts flashing for some seconds and a corresponding message appears on the control terminal during this time.

In mode 'Detector test' detectors respond faster.



No real alarm is generated!

# What means 'per SECTION'?

Per SECTION means all detector (or manual call point) zones within a SECTION.

#### **NOTE**

The same procedures for TEST and TEST OFF applies for manual call point zones

# How to use this chapter

This chapter shows how to set on and off the mode 'Detector test'.

For a description on how to do the actual testing see the following chapters:

- "How to TEST AUTOMATIC DETECTORS?" on page 45
- "How to TEST MANUAL CALL POINTS?" on page 46

## Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

# How to SET MODE 'DETECTOR TEST' per SECTION?,

#### Set to mode 'Detector test'

To set all detector zones within a SECTION to 'Detector test' follow these steps:

Step	Action	Result / Comments
1	Navigate to desired SECTION  Operate>  Serowse>  Serowse FIRE DETECTION>	
	<select section↓=""></select>	Section functions are displayed
2	Select softkey <pre> <detector functions="" zone=""></detector></pre>	
3	Select softkey <all -="" detector="" zones=""> TEST&gt;</all>	Execution messages 'Doing function' - and - 'DONE'

# Terminate mode 'Detector test'

To terminate test mode of *all* detector zones within a SECTION follow these steps:

Step	Action	Result / Comments
1	Press key <isolation></isolation>	
2	<b>Select</b> one of the detector zones to be switched back to 'Normal mode'	Use the display scroll keys
3	Select softkey <functions for="" message="" sel.=""></functions>	
4	Select softkey <select section↑=""></select>	
5	Select softkey <detector functions="" zone=""></detector>	
6	Select softkey <a href="#">AII DETECTOR zones</a> -> TEST OFF>	Execution messages 'Doing function' - and - 'DONE'

## How to SET MODE 'DETECTOR TEST' per LINE?

What means 'per LINE'?

This mode serves to test *all* zones of a specific detector line, i.e. *all* zones with devices which are physically connected to that specific line are set to test mode with one single command.

How does it work?

It switches to test mode all corresponding zones, which are linked to a device on the selected line.

**NOTE** 

General remarks on test mode see chapter

"How to SET MODE 'DETECTOR TEST' per SECTION?" on page 40.

Operating access

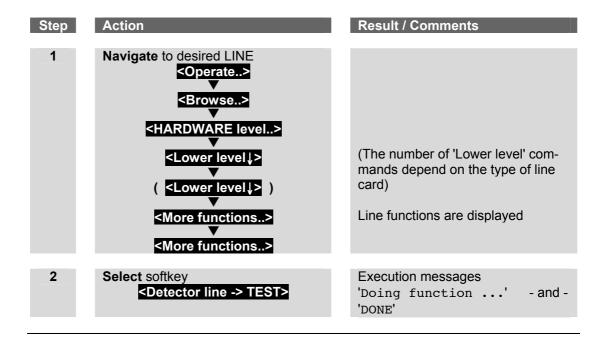
Procedure possible on access level 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

#### How to SET MODE 'DETECTOR TEST' per LINE?, Continued

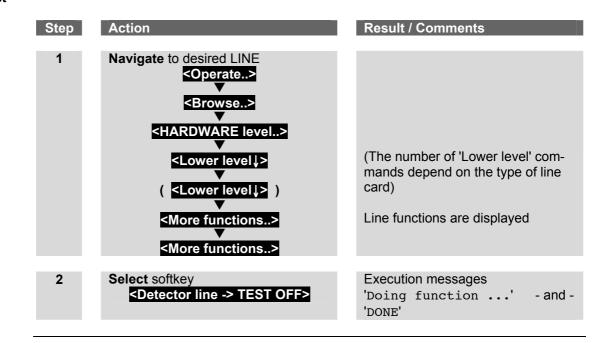
#### Set to mode 'Detector test'

To set *all* detector zones of a LINE to mode 'Detector test' follow these steps:



Terminate mode 'Detector test'

To terminate test mode of all detector zones of a LINE follow these steps:



## How to SET MODE 'DETECTOR TEST' per ZONE?

#### NOTE

General remarks on test mode see chapter

"How to SET MODE 'DETECTOR TEST' per SECTION?" on page 40.

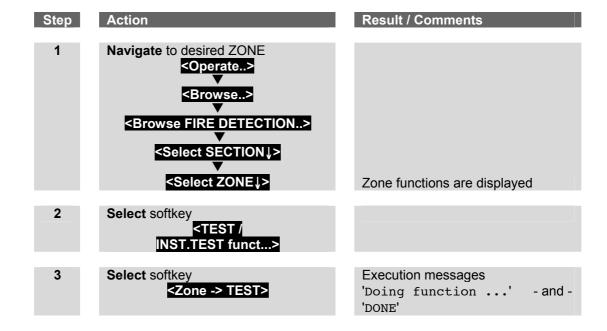
# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

#### Set to mode 'Detector test'

To set one *single* detector zone to 'Detector test' follow these steps:



## Terminate mode 'Detector test'

To terminate test mode of one *single* detector zone follow these steps:

Step	Action	Result / Comments
1	Press key <isolation></isolation>	
2	Select detector zone to be switched back to 'Normal mode'	Use the display scroll keys
3	Select softkey <pre><functions for="" message="" sel.=""></functions></pre>	
4	Select softkey <test funct="" inst.test=""></test>	
5	Select softkey <zone -=""> TEST OFF&gt;</zone>	Execution messages 'Doing function' - and - 'DONE'

#### **How to TEST AUTOMATIC DETECTORS?**

# Switching to test mode

Before testing can be done, the system has to be switched to the test mode. See the following chapters:

- "How to SET MODE 'DETECTOR TEST' per SECTION?" on page 40
- "How to SET MODE 'DETECTOR TEST' per LINE ?" on page 42
- "How to SET MODE 'DETECTOR TEST' per ZONE?" on page 44

# Testing of automatic detectors

This procedure describes the testing principle for automatic detectors.

To test automatic detectors follow these steps:

Step	Action	Result / Comments
1	Set the respective zones to 'Detector test' mode.	Detectors see document 007828
2	Place the detector tester on the detector.	
3	Wait until the response indicator on the detector flashes.	
4	Remove the detector tester.	The function test is completed. Go on with next detector

#### NOTE:

After testing has been completed, the test mode has to be terminated. 
See the following chapters:

- "How to SET MODE 'DETECTOR TEST' per SECTION?" on page 40
- "How to SET MODE 'DETECTOR TEST' per LINE?" on page 42
- "How to SET MODE 'DETECTOR TEST' per ZONE?" on page 44

#### **How to TEST MANUAL CALL POINTS?**

# Switching to test mode

Before testing can be done, the system has to be switched to the test mode. See the following chapters:

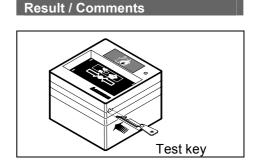
- "How to SET MODE 'DETECTOR TEST' per SECTION?" on page 40
- "How to SET MODE 'DETECTOR TEST' per LINE?" on page 42
- "How to SET MODE 'DETECTOR TEST' per ZONE ?" on page 44

# Testing manual call points of type DM1101 and MT320x

This procedure describes the testing principle for manual call points.

To test these types of manual call points follow these steps:

# Step Action Set the respective manual call point zones to 'Detector test' mode Insert test key into the opening: 'Test alarm' is simulated Wait until the response indicator of the manual call point flashes Remove test key



The function test is completed. Go on with next manual call point

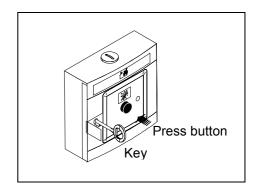
# Testing manual call points of type DM11x3

This procedure describes the testing principle for manual call points

To test this type of manual call points follow these steps:

Step	Action
1	Set the respective manual call point zones to 'Detector test' mode
2	Open the door of the manual call point with the key
3	Press in the button → 'Test alarm' is simulated
4	Wait until the response indicator of the manual call point flashes
5	Close the door

#### Result / Comments



The function test is completed. Go on with next manual call point

#### NOTE:

After testing has been completed, the test mode has to be terminated. See the following chapters:

- "How to SET MODE 'DETECTOR TEST' per SECTION?" on page 40
- "How to SET MODE 'DETECTOR TEST' per LINE ?" on page 42
- "How to SET MODE 'DETECTOR TEST' per ZONE?" on page 44

#### **How to PERFORM INSTALLATION TEST?**

# What is the mode 'Installation test' for?

The mode 'Installation test' allows to test the correct function of the whole fire detection system including fire controls, acoustical alarm devices, etc. All functions remain enabled. Make sure that the remote transmission is switched off or the fire department is informed about the test activities.

In mode 'Installation test' SynoLOOP devices *respond quicker* (response behavior as in mode 'Detector test').

After the test work has been completed immediately cancel the mode 'Installation test'.

Mode 'Installation test' is normally enabled and disabled on the level 'ZONE' but also possible on the level 'SECTION'



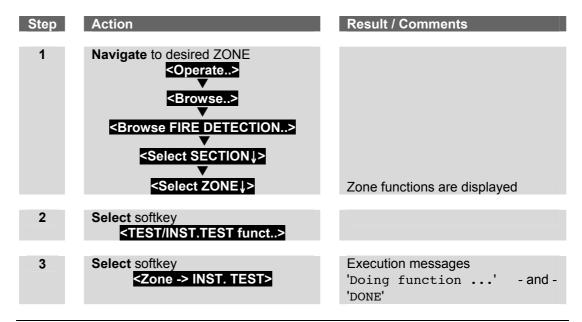
The mode 'Installation test' shall be carried out only by security staff and serves basically to test the alarm organization and fire controls.

# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

Set one single detector zone to 'Installation test'

To switch one *single* detector zone to mode 'Installation test' follow these steps:

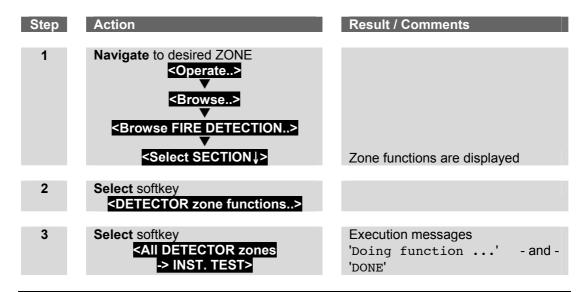


## How to PERFORM INSTALLATION TEST?, Continued

Set one single detector zone back to 'Normal mode' To switch one *single* detector zone back to 'Normal mode' follow these steps:

Step	Action	Result / Comments
1	Press key <information></information>	
2	Select detector zone to be switched back to 'Normal mode'	Use the display scroll keys
3	Select softkey <functions for="" message="" sel.=""></functions>	
4	Select softkey <test funct="" inst.test=""></test>	
5	Select softkey <zone -=""> INST. TEST OFF&gt;</zone>	Execution messages 'Doing function' - and - 'DONE'

Set all detector zones within a SECTION to 'Installation test' To set all detector zones to 'Installation test' follow these steps:



## How to PERFORM INSTALLATION TEST?, Continued

Set all detector zones within a SECTION back to 'Normal mode' To set all detector zones back to 'Normal mode' follow these steps:

Step	Action	Result / Comments
1	Press key <information></information>	
2	<b>Select</b> one of the detector zones to be switched back to 'Normal mode'	Use the display scroll keys
3	Select softkey <pre><functions for="" message="" sel.=""></functions></pre>	See NOTE below
4	Select softkey <select section↑=""></select>	
5	Select softkey <test funct="" inst.test=""></test>	
6	Select softkey <a href="#">AII DETECTOR zones</a> -> INST. TEST OFF>	Execution messages 'Doing function' - and - 'DONE'

#### **NOTE**

Under the following conditions a summarizing section message is displayed:

- If the section contains zones of the same type only
- If all of these zones are in the 'installation test' mode

If this section message is available, reset to normal state for all zones oft this section may be done by this specific message (via <Functions for sel. message..>).

#### How to ACTIVATE ZONE?

# What can be done?

Zones can be activated manually from any B3Q700 control terminal.

# Which zones can be activated?

The following zones can be activated, but with different effect:

- · Detector zones
- · Control zones

# How is the effect on the zones

The activation/deactivation commands have the following effects:

Element Type	Effect
	Activation causes virtual alarm states.
Detector zones	Each activation increases the danger level (depending on zone type):
	Warning $\rightarrow$ 1. Alarm $\rightarrow$ 1. Subsequent alarm $\rightarrow$ 2. Subsequent alarm
Control zones	Activation/deactivation

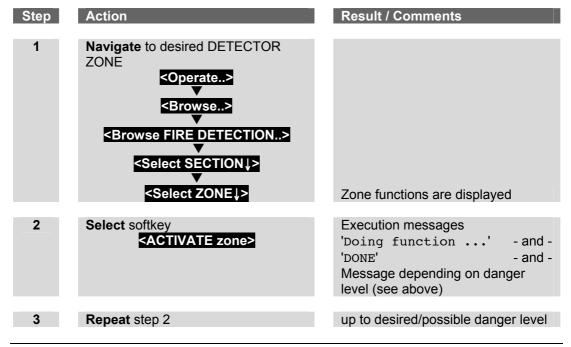
# Operating access

Procedure possible on access level 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

# Activation of a detector zone

To activate a detector zone follow these steps:



#### How to ACTIVATE ZONE?, Continued

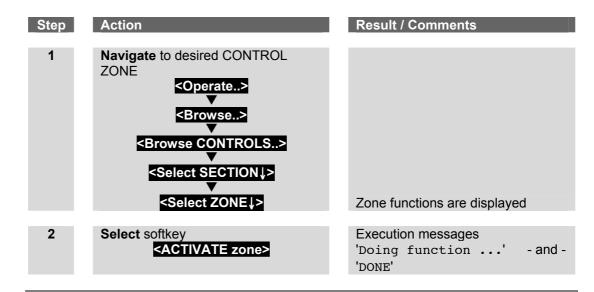
# Deactivation of a detector zone

To deactivate a detector zone follow these steps:

Step	Action	Result / Comments
1	Press <acknowledge></acknowledge>	For all warnings + alarms
2	Press <reset></reset>	For alarms

# Activation of a control zone

To activate a control zone follow these steps:



## Deactivation of a *control* zone

To deactivate a control zone follow these steps:

Step	Action	Result / Comments
1	Press key <information></information>	
2	<b>Select control zone</b> to be deactivated	Use the display scroll keys
3	Select softkey <a href="Functions for sel.">Functions for sel. message&gt;</a>	
4	Select softkey <deactivate zone=""></deactivate>	Execution messages 'Doing function' - and - 'DONE'



Be aware of the fact that an activation of zones may lead to an alarm state which may release control zones, horns and remote transmissions!

#### **How to ACTIVATE ELEMENT?**

# What can be done?

Elements can be activated manually from any B3Q700 control terminal.

# Which elements can be activated?

The following elements can be activated, but with different effect:

- SynoLOOP detector element
- Digital element
- · Control elements

# How is the effect on the elements

The activation/deactivation commands have the following effects:

Element Type	Effect
SynoLOOP detector element	<ul><li>The alarm indicator is activated/deactivated</li><li>No effect on the logical state of the element.</li></ul>
Digital element	Activation sets danger level 3, deactivation resets to danger level 0.
Control elements	Element is activated/deactivated

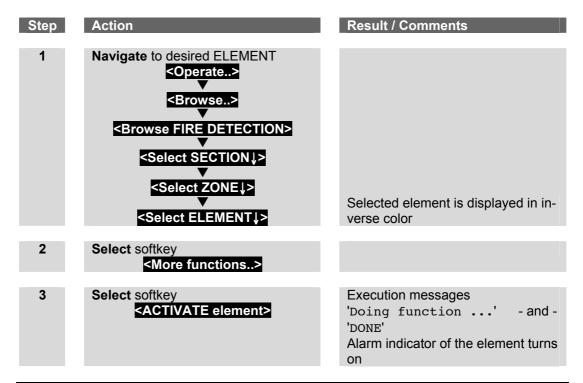
## Operating access

Procedure possible on access level 2.2, 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

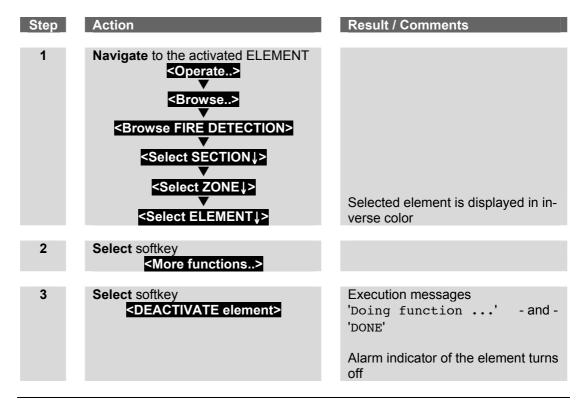
# Activation of a SynoLOOP element

To activate such an element follow these steps:



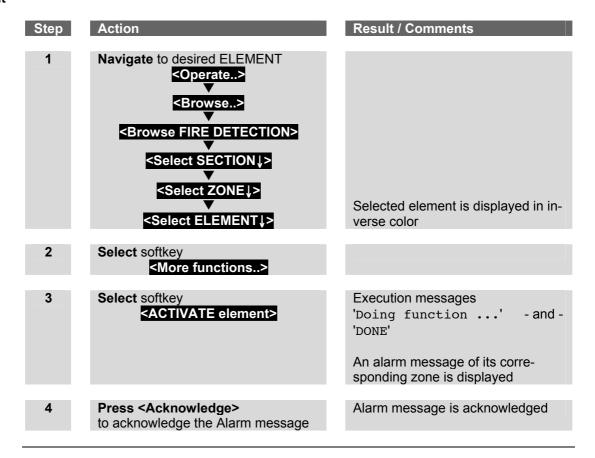
Deactivation of a SynoLOOP element

To deactivate such an element follow these steps:



# Activation of a Digital element

To activate a Digital element follow these steps:





Be aware of the fact that an activation of digital elements may lead to an alarm state which may release control zones, horns and remote transmissions!

#### Deactivation of a Digital element

To deactivate a Digital element follow these steps:

Step	Action	Result / Comments
1	Select alarm message of the corresponding digital zone using the display scroll keys	Selected zone is displayed in inverse color
2	Select softkey <functions for="" message="" sel.=""></functions>	
3	Select softkey <select element↓=""></select>	Corresponding element is displayed in inverse color
4	Select softkey <more functions=""></more>	
5	Select softkey <deactivate element=""></deactivate>	Execution messages 'Doing function' - and - 'DONE'
6	Press <reset> to reset the Alarm message</reset>	The alarm message disappears

#### NOTE:

Reset is not possible unless the respective element has been deactivated.



To cancel the effect of an activation, the activation itself has to be cancelled first, not only the effect.

This is especially important with control elements

#### Example

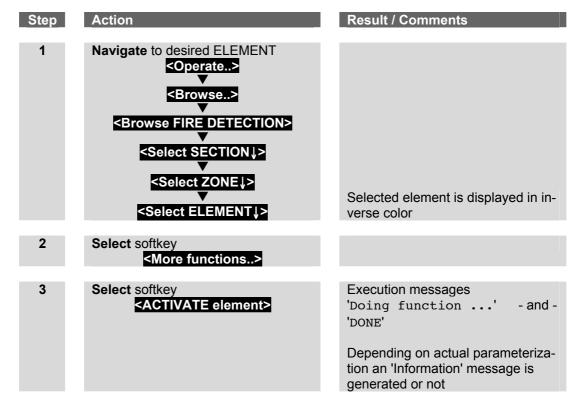
A command element is used to switch off all zones of a section and has been activated by the 'Activate element' command.

The way to go back to the original state is not by switching on all zones of that section, but by deactivating the active command element.

Otherwise the zones would switch on, but the command element would still remain active.

# Activation of a Control element

To activate a Control element follow these steps:



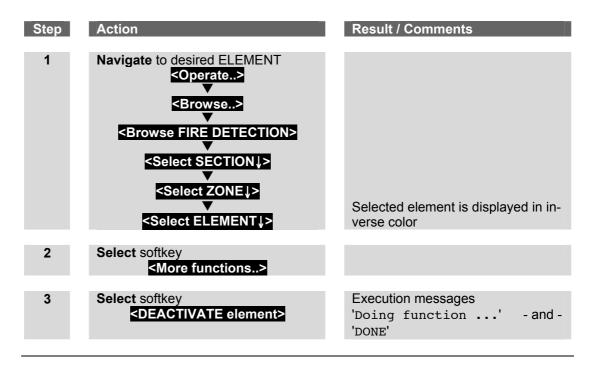
**NOTE** 

An 'Information' message may be caused e.g. by a confirmation contact.

Deactivation of a Control element (with 'Information' message) To deactivate a Control element (with 'Information' message) follow these steps:

Step	Action	Result / Comments
1	Press key <information></information>	
2	<b>Select</b> desired <b>message</b> using the display scroll keys	Selected message is displayed in inverse color
3	Select softkey <functions for="" message="" sel.=""></functions>	
4	Select softkey <select element↓=""></select>	Corresponding element is displayed in inverse color
5	Select softkey <more functions=""></more>	
6	Select softkey <deactivate element=""></deactivate>	Execution messages 'Doing function' - and - 'DONE'

Deactivation of a Control element (without 'Information' message) To deactivate a Control element (without 'Information' message) follow these steps:



## How to FIND OUT LOCATION of an OPEN LINE?



To locate with the software tool SWE700A.

## **System Functions**

#### How to SET DISPLAY CONTRAST?

# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Adjusting display contrast

To adjust contrast of the display follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <settings></settings>	Submenu is shown
3	Select softkey <increase contrast="" display=""> - or - <decrease contrast="" display=""></decrease></increase>	No execution message, but with each keystroke the contrast is slightly increased or decreased.  Repeat this step until the desired contrast is reached.

#### How to SET BUZZER INTENSITY?

# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Adjusting buzzer intensity

To adjust intensity of the control terminal buzzer follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <settings></settings>	Submenu is shown
3	Select softkey <increase buzzer="" intensity=""> - or - <decrease buzzer="" intensity=""></decrease></increase>	No execution message, but with each keystroke the intensity is slightly increased or decreased.  Repeat this step until the desired intensity is reached.

#### How to SET TIME & DATE?

# Operating access

Procedure possible on access level 2.2, 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

#### Set time / date

To adjust time and date follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <settings></settings>	Submenu is shown
3	Select softkey <more functions=""></more>	
4	Select softkey <set and="" date="" time=""></set>	
5	Enter time 'hh:mm:ss' and date 'dd-mm-yy' using the numeric keys	Cursor points to value to be entered.  Cursor can be moved by softkey  Next field>.
6	Select softkey <a href="#">Accept&gt;</a> to close entry	Execution messages 'Doing function' - and - 'DONE'

# End date of calendar functions

#### NOTE:

- Calendar and date functions of this software package end on December 31, 2080.
- If the equipment shall be operated after this date, new software has to be implemented. (Note demanded by LPCB)

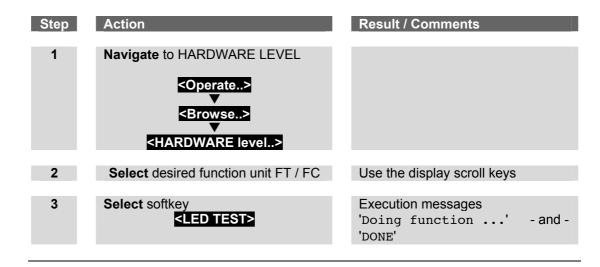
#### How to PERFORM A LED TEST?

# Operating access

Procedure possible on access level 1, 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Accessing the LED test

To perform a LED test follow these steps:



#### How to PERFORM A PRINTER TEST?

# Operating access

Procedure possible on access level 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Performing a printer test

To test the printer follow these steps:

1 Navigate to HARDWARE LEVEL	
20mayata N	
<pre><operate></operate></pre>	
2 Select softkey < More functions>	
3 Select softkey Execution messages  Initiate PRINTER TEST> 'Doing function' - a 'DONE'	nd -

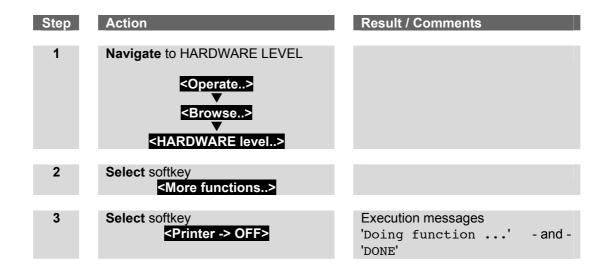
#### How to SWITCH PRINTER OFF / ON?

# Operating access

Procedure possible on access level 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

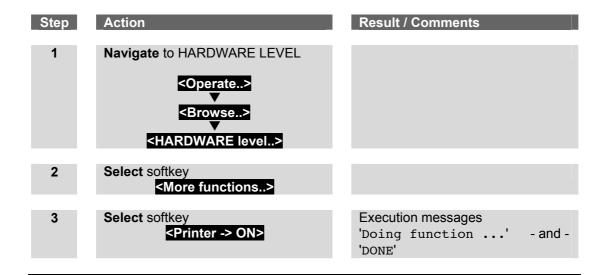
# Switching the printer OFF

To switch the printer off follow these steps:



# Switching the printer ON

To switch the printer on follow these steps:



#### How to POLL ALARM COUNTER?

# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Show number of *fire* alarms

To poll the counter of fire alarms follow these steps:

Step	Action	Result / Comments
1	Select softkey < Operate>	Main menu is displayed
2	Select softkey <alarming></alarming>	Submenu is shown
3	Select softkey <alarm counters=""></alarm>	Submenu is shown
4	Select softkey <poll 'fire="" alarms'="" counter=""></poll>	The number of fire alarms is displayed

# Show number of *remote* alarms

To poll the counter of remote alarms follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <alarming></alarming>	Submenu is shown
3	Select softkey <alarm counters=""></alarm>	Submenu is shown
4	Select softkey <poll 'remote="" alarms'="" counter=""></poll>	The number of remote alarms is displayed

**NOTE** 

These functions are available per AREA.

#### How to RESET ALARM COUNTER?

# Operating access

Procedure possible on access level 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

# Reset counter of *fire* alarms

To reset the counter of fire alarms follow these steps:

Step	Action	Result / Comments
1	Select softkey <operate></operate>	Main menu is displayed
2	Select softkey <alarming></alarming>	Submenu is shown
3	Select softkey <alarm counters=""></alarm>	Submenu is shown
4	Select softkey <reset 'fire="" alarms'="" counter=""></reset>	Execution messages 'Doing function' - and - 'DONE'

#### NOTE:

The number of fire alarms is immediately set to 0 without further inquiry

#### **NOTE**

This function is available per AREA.

#### How to POLL EVENT MEMORY?

## What types are available?

The event memory is available on level:

- Area
- Station

# What is the difference

- On AREA level only area specific messages are displayed. Independent of the section in which the event memory is polled, always all area specific messages are displayed (i.e. messages of all section of that specific area).
- On STATION level *all* messages from that specific station are displayed (i.e. section specific messages *and* section independent messages, such as logging in/out, messages from power supply or from other function units).

# Operating access

Procedure possible on access level 2.1, 2.2, 3, see page 81 If there is no operating access when starting to operate, the system asks to log in.

# Polling the event memory of an AREA

To poll the event memory on AREA level, e.g. for section fire, follow these steps:

Step	Action	Result / Comments
1	Navigate to desired AREA <pre> <pre< th=""><th>Use the display scroll keys</th></pre<></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>	Use the display scroll keys
2	Select softkey <poll event="" memory=""></poll>	
3	Select softkey <all messages=""> - or -  <alarm messages=""> - or -  <fault messages=""> - or -  <isolation messages=""> - or -  <information messages=""> - or -  <test alarm="" messages=""></test></information></isolation></fault></alarm></all>	<ul> <li>Use the softkey         <previous message="" types=""> to return to these softkeys     </previous></li> <li>Use the softkey         <more message="" types=""> to display these softkeys     </more></li> </ul>
4	Adjust the FROM-TO range by entering times/dates of interest - and - Press <✓> to start searching	Use the softkey <next field=""> to move the cursor</next>
5	Select softkey <print></print>	<ul> <li>If printer equipped and printout desired.</li> <li>To cancel printout select softkey <a href="#">Abort printout&gt;</a></li> </ul>

# How to POLL EVENT MEMORY?, Continued

Polling the event memory of a STATION

To poll the event memory on STATION level follow these steps:

_Step_	Action	Result / Comments
1	Navigate to desired STATION <pre></pre>	Use the display scroll keys
2	Select softkey <poll event="" memory=""></poll>	
3	Select softkey <a href="#">ALL messages&gt;</a> - or - <a href="#">ALARM messages&gt;</a> - or - <a href="#">FAULT messages&gt;</a> - or - <a href="#">ISOLATION messages&gt;</a> - or - <a href="#">INFORMATION messages&gt;</a> - or - <a href="#">TEST ALARM messages&gt;</a>	<ul> <li>Use the softkey         <previous message="" types=""> to return to these softkeys     </previous></li> <li>Use the softkey         <more message="" types=""> to display these softkeys     </more></li> </ul>
4	Adjust the FROM-TO range by entering times/dates of interest - and -  Press <✓> to start searching	Use the softkey <next field=""> to move the cursor</next>
	11000 V to start coarstung	
5	Select softkey <print></print>	<ul> <li>If printer equipped and printout desired</li> <li>To cancel printout select softkey</li> <li>Abort printout&gt;</li> </ul>

#### How to DELETE EVENT MEMORY?

NOTE

Deleting is available on station level only.

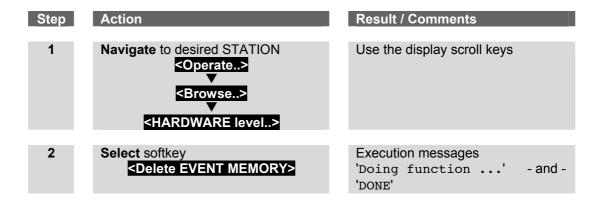
Operating access

Procedure possible on access level 3, see page 81

If there is no operating access when starting to operate, the system asks to log in.

Delete the event memory

To delete the event memory follow these steps:





- The delete command is executed immediately.
- There is no undo function available.

# Basic System Knowledge 🕮

#### Introduction

Purpose	This section describes the main features of the detailed functionality of the B3Q700 PMI.
Main focus	The main focus in this section is to deliver background information to enable the operator to understand the FC700A system concept.
What is the usage?	This section can be utilized for the training of operators or for self-study.
When may it be omitted?	If only an extract of this document shall be used as brief operating instructions this section may be omitted.
State and configuration dependency	The menus depend on <i>configuration</i> , <i>system state</i> and <i>access level</i> , i.e. they may look slightly different from the figures in this manual.
,	Similarly some procedures depend on the actual system state and configuration.

#### The B3Q700 Control Terminal

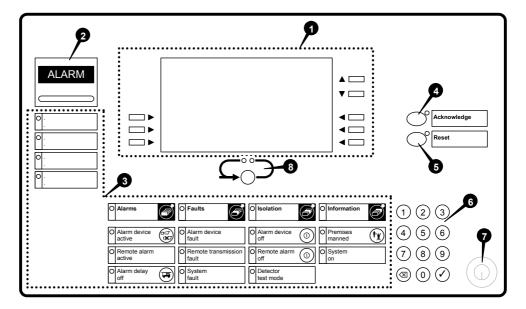
#### Introduction

The B3Q700 control terminal serves to display messages from the FC700A system and to operate it.

#### **Control Terminal Elements Overview**

#### Overview

User interface to operate the fire detection system:



#### Text display

with yellow illumination and associated keys. Presentation:

- *yellow* for all messages or during operator actions (automatically switched off when not operated)
- dark, if no danger message is pending and no operator activity is in progress

#### 2 LED bar 'ALARM'

· lights up when an alarm signal is pending

#### O Display fields

- · partially with function keys
- display the operating states of the fire detection system

#### 4 <Acknowledge> key

- to confirm that the operator has received a message
- message not acknowledged → yellow LED is flashing

#### **⊙** <Reset> key

- · to reset all pending alarms
- message acknowledged, but not reset → yellow LED is flashing

#### Control Terminal Elements Overview, Continued

#### Overview (continued)

- 6 Function key pad for menu operation and password input:
  - <0> .. <9>
  - ✓> key to select or execute a command
  - <**( del)** key deletes the number on the left of the cursor in number entries. Additionally serves to jump back to the primary menu and to log out.

#### Keyswitch

· device for access control (optional)

#### <Alarm scroll> key

· to scroll alarm messages

# Visual indicators are

- Display
- LEDs

#### Operation elements are

We distinguish the following operation elements:

- · Display keys
- Function keys
- Numeric keypad
- · The keyswitch

# Where do you find a detailed description?

All the control terminal elements for display and operation are described in specific chapters where each function is described in detail.

However a little more detailed views of these elements will follow on the next pages.

#### **Visual Indicators Overview**

#### Types of Visual **Indicators**

As we have seen there are the following visual indicators:

- Display
- **LEDs**

#### **Display**

The display serves to

- · show different operating states of the FC700A system
- guide the user to do a certain action
- display information to user queries

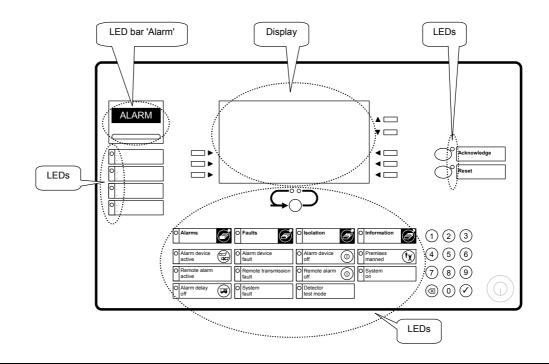
#### **LEDs**

LEDs are used to

- · indicate a certain operation state of the FC700A system
- guide the user to do a certain action

#### Visual Indicators

The different visual indicators can be found in the following figure:



## Types of Operation

- Danger managing operations must be easily accessible. Easy handling is also required for some frequently used functions.
  - They are called 'primary functions' and are accessed via 'primary menu' or by function keys.
- Other operations of lower importance or lower frequency of occurrence need not have such a subtle access. They are accessed via 'main menu'

#### Keys and Menus

We distinguish the following operation elements:

- Display keys (Softkeys, Scroll keys)
- · Function keys
- Numeric keypad
- · The keyswitch

#### Display keys

These comprise two types of keys.

- Keys to control the messages such as scrolling and selecting of messages.
- · Keys to control the menu and to release functions via menu.

#### **Function Keys**

To operate the B3Q700 control terminal a variety of function keys are provided. These keys allow direct access to specific functions.

#### Numeric Keypad

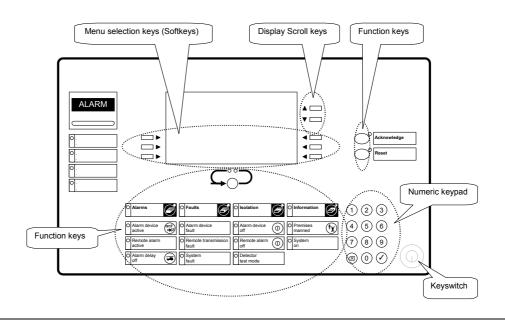
Used for the entry of numeric values such as passwords, or addresses. The numeric keypad also includes the ok key  $(<\checkmark>)$  and the cancel key  $(<\checkmark>)$ .

## Keyswitch

a somehow special access element is the keyswitch. However it is optional and therefore not always equipped.

#### Operation Elements

The different operation elements can be found in the following figure.



## **Idle Display**

#### Introduction

The idle display is shown if the system is in normal operation state and if there is no message to be displayed.

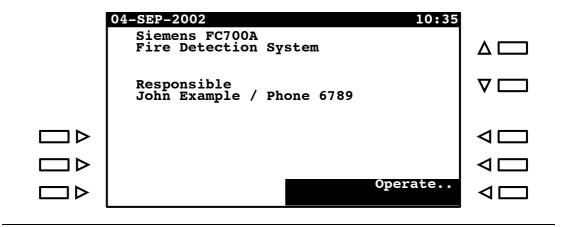
## What is displayed?

The idle display comprises:

- Date and time
- · User definable text of a maximum of 6 lines
- · Softkey 'Operate'

## Example

The idle display may look e.g. like this:



## Menu Operation via Softkeys

#### Introduction

- Many interactions between user and system take place via display and softkeys.
- The display serves not only to show system states, it also provides a menu which can be operated via associated softkeys.

## Operating access

If there is no operating access when starting to operate, the system asks to log in.

# Example of user interaction via menu (softkeys)

The system gives the user the information about 2 pending alarms. At the same time the appropriate menu is displayed.

Via associated softkeys the user can

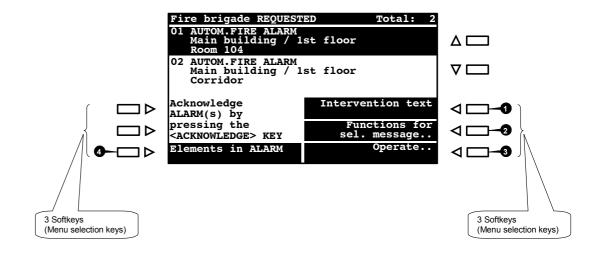
- Call the intervention text (1)
- Display the functions for the selected message (2)

- or -

• Change to the main menu (3)

- or -

• Display the elements in alarm (4)



## **Menu Types and Characteristics**

#### Introduction

The menu consists of two main levels:

- · 'Primary menu'
- 'Main menu'

Menus may be extended by

- Submenus
- · Extended menus

The menu is displayed in the lower part of the display.

It may consist of a maximum of 6 softkeys. They are arranged both up to 3 to the left and to the right side.

#### **Characteristics** of the menus

- · By default the primary menu is displayed.
- The menus are state and context dependent, i.e. they depend on the actual state of the system (e.g. normal operation, alarm, ...) and on the selected message.
- Only functions allowed to the user are displayed in the menus.
- · Menus with too many items to display on the same level get an associated extended menu.
- Functions may also be grouped in submenus.
- · The menu has a tree structure of varying depth.
- Navigation softkeys allow to switch from one menu to another.
- In each menu at least one softkey is a navigation softkey.

#### Naming of softkeys

The name of the softkey explains the functionality behind it. It may be a function which is executed immediately, e.g. <LED TEST> or it may lead to a submenu, e.g. <HARDWARE evel..>, with another set of functions behind.

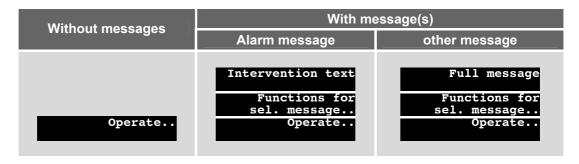
There are also some predefined navigation softkeys.

#### Softkey presentation

- Softkeys which are followed by 2 dots (..) signify that there is another menu behind. Example: <Operate..>, <HARDWARE level..>
- Softkeys without these dots are commands which are immediately executed. Example: <LED TEST>, <Back to MAIN MENU>

#### Primary menu

By default the primary menu is displayed. The softkeys vary depending on the state of the system:



## Menu Types and Characteristics, Continued

#### Main menu

The main menu consists of up to 6 predefined softkeys. One of them is the navigation softkey **Escape>**, which leads back to the primary menu. With the other 5 softkeys all available functions of the system can be accessed.



#### Submenu

Softkeys which are followed by 2 dots (..) lead to a submenu. As well as the primary or the main menu a submenu can contain softkeys for executable functions or softkeys to access others submenus.

Submenus denote a hierarchy. This leads to a menu tree.

#### Extended menu

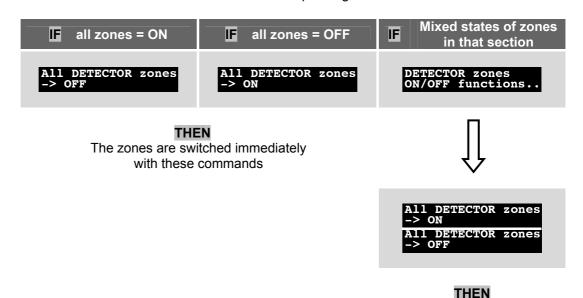
If there are too many functions on the same hierarchical level to be displayed, the menu may be extended. This is not an extension like a submenu, for all softkeys still are on the same hierarchical level.

## State dependency

The menu only shows allowed functions. It also considers the state of the actual part of the system, e.g. zones.

Example:

Commands to switch zones depending on the actual state:



this submenu

The zones are switched via

## **Menu Navigation**

#### Introduction

This chapter describes how to navigate on the different menu levels and how to change from one level to another.

#### Operating access

If there is no operating access when starting to operate, the system asks to log in.

#### **Navigation** paths

- You can change from primary menu to main menu and vice versa.
- From the main menu you can enter into submenus which may call other submenus.
- From a submenu you can return back either to the calling level or directly to the main menu.
- Within extended menus you can switch back and forth.
- There are some predefined navigation softkeys.

#### Primary and Main menu

To get to the main menu select softkey < Operate.. > To go back to primary menu select softkey <Escape>

#### Accessing message specific functions

To operate messages in the display, select the specific message by using the category selection keys and the display scroll keys. Then select softkey <Functions for sel. mes**sage..>** to get the menu with all available functions for that specific message.

#### **Example:**

As many submenus exist, it does not make sense, to list all possible submenus. But let's have an example:

#### Entering a submenu

Via main menu we can enter submenu <a href="#"><Alarming..></a> and from there go to submenu <a href="#"><Alarming..></a> horns..>, where we have access to the following functions:

- <Alarm horn -> START>
- <Alarm horn -> TEST>
- <Alarm horn -> OFF>

#### Returning from a submenu

The navigation softkeys to go back to the calling menu depend on the context. But at least one navigation softkey (<Back> or <Back to MAIN MENU>) is included in a submenu.

#### Extended menu

To switch back and forth within the hierarchical equal functions the softkeys <More functions..> and <Previous functions..> are provided. This is comparable to scrolling on a display.

## Menu Navigation, Continued

# Predefined navigation softkeys

These softkeys have always the same functionality which is not depending on what level of the tree they are called.

See table below.

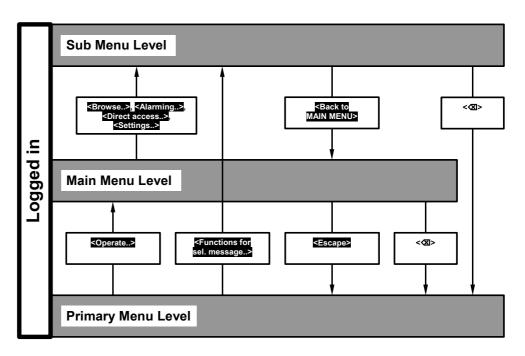
Navigation softkeys	Functionality
<operate></operate>	Changes from the primary menu to the main menu.
<pre><functions for="" message="" sel.=""></functions></pre>	Changes from the primary menu to the main menu and leads to the specific submenu.
<more functions=""></more>	Leads to the next page of the currently selected menu.
<pre><previous functions=""></previous></pre>	Leads back to the preceding page of the currently selected menu.
<select ↓="">, <select ↑=""> <lower level↓="">, <upper level↑="">, <go to=""></go></upper></lower></select></select>	Navigation within the logical and physical tree.
<back main="" menu="" to=""></back>	Leads back to the main menu from any position in a submenu
<back></back>	Leads one step back in a submenu
<escape></escape>	Leads back from the main menu to the primary menu.
<∕⊠>	This key has the same function as 'Escape' (but works also from any submenu level).  Additionally performs a logout if pressed in the primary menu.

## Navigation examples

Siemens Building Technologies

Fire & Security Products

Find some examples of menu navigation in the following figure:



The navigation to log in and out is treated in chapter "Login / Logout Navigation Overview" on page 87.

## **Operation Access and Access Rights**

## **User Category**

#### What is it?

There are several categories of users. Each category has its own privileges for operation.

#### **Characteristics**

- To each user category a specific access level is assigned.
- · Each access level has its own password.

## **Password**

#### **Characteristics**

- The password is a sequence of up to 8 digits.
- A password is defined for a particular access level.
- It is defined by the service engineer in the system configuration.

## Password query

Text on the display which demands the password entry

## Password entry

Password entry made by the user

#### Keyswitch

- Used to grant access to users possessing a key. So these users need not know a code.
- Access to different access levels is not possible.
- The keyswitch is optional, i.e. it is not always equipped.

## **Access Level**

#### Available levels

The following access levels exist:

Access level	Access to	Privileges	
1	Everybody	'Acknowledge' and 'Scroll' functions only	
2.1	Operator 1	with limited privileges (e.g. janitor)	
2.2	Operator 2	with extended privileges (e.g. security officer)	
3 Service		with full privileges (for service engineer)	

## Effect of access levels

The range of accessible functions as well as the visible softkeys depend on the given access level.

see chapter "Function Lists 
on page 108.

## How to change access level

There are two ways to change the access level:

- Password entry
- Actuating the keyswitch (if equipped)
- As a mixed form it is possible to actuate the keyswitch (if equipped) to get access level 2.1 e.g. and later to enter password to get access to a higher level.

# When can access levels be changed

Changing of access level is only possible if the primary menu is selected. You can start to operate with one access level and then change to another.

# Assigning functions to access levels

The range of accessible functions is defined for each access level by the service engineer.

## Starting to operate

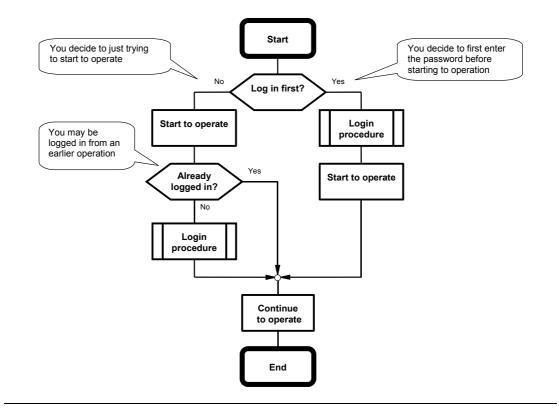
#### Starting to operate

• You can just start to operate. If access has not yet been granted, you are asked to log in. This method is mainly used with password access.

- or -

You log in first and start to operate afterwards. This method is mainly used with keyswitch access.

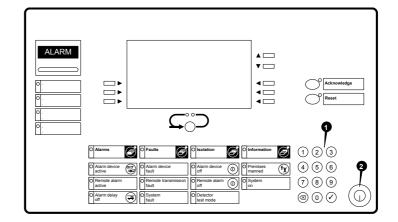
The main menu is only visible after login.



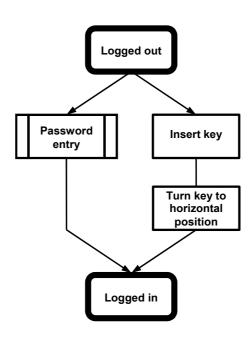
## Login

#### Login procedures

There are two methods of logging in:



#### Login via password Login via keyswitch Enter a password via the keypad 0 Turn the keyswitch 2 (if equipped). This is the most flexible way to log in. Login by keyswitch only grants access to This method of login allows access to one access level. several access levels depending on the · If access to a higher level is required use actually selected password. the password login instead or additionally.

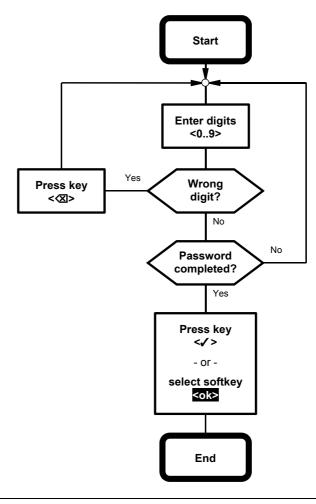


#### NOTE:

The password entry procedure is described in detail below.

## Login, Continued

**Password entry** Detailed description of the password entry procedure:



#### What is it?

Logout sets the access level back to access level 1.

#### How to log out?

There are 3 kinds of logout:

- · Logout by timeout
- · Logout by keyboard
- · Logout by key

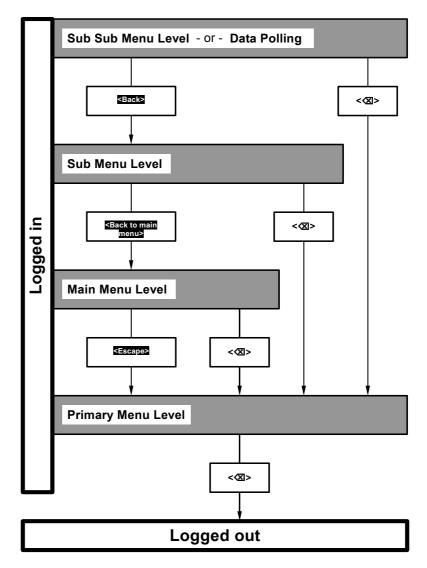
Explicit logout is only required if logged in by key. It is not necessary if logged in by password. Nevertheless it may be used to enforce a logout.

## Logout by timeout

Operating is inhibited automatically if no key is pressed within a certain time (timeout = 1..10 minutes or 0. Timeout = 0 means: no logout timeout. Timeout is set by the service engineer). Of course there is no automatic logout if the key is in horizontal position.

## Logout by Keyboard

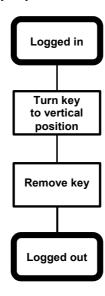
This picture shows how an explicit logout can be enforced (if the key is not in horizontal position).



## Logout, Continued

Logout by key

Only applies if access was granted by keyswitch.



## **Login / Logout Navigation Overview**

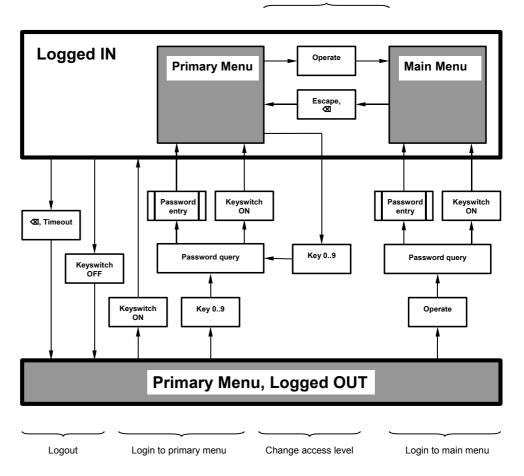
#### Goal

To close the login / logout topic, this chapter shows an overview of all login and logout possibilities.

## Navigation paths

Navigation during the login/logout phase is linked closely with menu operations. See following diagram:

Changing from primary to main menu et vice versa



## **Message Categories**

## **Message Categories Overview**

#### Introduction

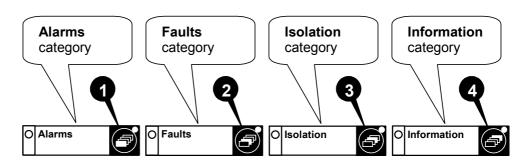
Messages are distinguished according to their nature and importance. They are thus divided in categories.

#### Message categories

There are the following message categories:

Category	Characteristics	Priority
• Alarms	Danger messages acquired by the system	1
• Faults	Messages that require an immediate response	2
<ul> <li>Isolation</li> </ul>	Temporary excluded system parts	3
<ul> <li>Information</li> </ul>	Messages that do not require an immediate response	4

#### Presentation on the control terminal



If there are pending messages the associated LED of that category is lit up.

#### Characteristics

The following table shows the characteristics of the different messages.

	Alarms	Faults	Isolation	Information
<ul> <li>How are the mes- sages dis- played?</li> </ul>	All messages are displayed spontane- ously	All messages are displayed spontane- ously	All messages are displayed spontane- ously	Some messages are displayed spontaneously (only certain information messages, e.g. warn- ings)
• Under what conditions?	always	if no alarm message is pending	if no mes- sage of higher prior- ity is pending	if no message of higher priority is pending
• Overwrites	messages of all other categories	messages of lower categories	information messages	never

## Message Categories Overview, Continued

## How to display messages

- The different messages can be polled by pressing the appropriate key: **①**, **②**, **③**, or **④**.
- If several messages are pending, they can be scrolled with the display scroll keys.

#### **NOTE**

Switching from one message category to another is always possible by pressing the corresponding selection key. If a lower priority is selected, after a short timeout the system always goes back to that message category with the highest priority.

See chapter "Timeouts" on page 107.

	Coo chapter Timodate on page for.
Sample ALARM messages	FIRE BRIGADE requested Total: 2  Ol AUTOM.FIRE ALARM Main building / 1st floor Room 104  O2 AUTOM.FIRE ALARM Main building / 1st floor Corridor
	Acknowledge ALARM(s) by pressing the ACKNOWLEDGE> KEY  Operate
Sample FAULT message	FAULTS  O1 Detector Main building / 1st floor Room 104  O2 Detector Main building / 1st floor Corridor  Total: 3  A   Total: 7
	Short message  Functions for sel. message  Operate
Sample ISOLATION messages	ISOLATION Total: 1  Ol Detector zone OFF Main building / 1st floor Room 104  V
	□ ▷         Functions for sel. message           □ ▷         Operate
Sample INFORMATION message	INFORMATION Total: 1  Ol Manned Main building / 1st floor   ✓ □
	□ ▷ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

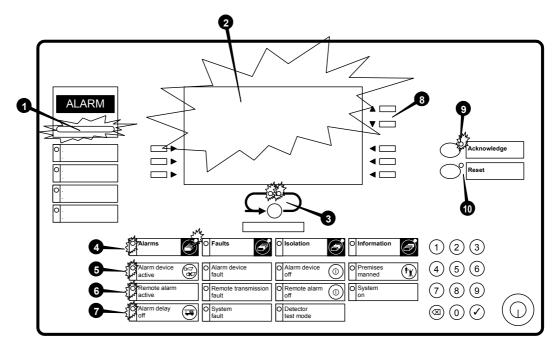
**NOTE** 

If in FAULT, ISOLATION and INFORMATION categories all messages can be displayed in 'full message' mode the softkeys <short message> and <full message> are not available.

## Alarm / Keys & Indicators

How alarm messages are displayed

Alarms are shown in the display and with specific LEDs. LEDs indicating alarm states are generally red.



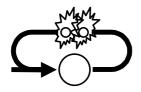


Alarm bar lit up



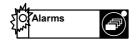
0 **Display** shows the alarm message(s)

(Note: The Display is described in details further on)



8 LED 'Multi Alarms' flashing if there are more alarm messages than can be displayed (more than 2).

With the associated key < Alarm scroll> the alarms can be endlessly scrolled.



LED 'Alarms' lit up

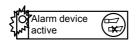
## Alarm / Keys & Indicators, Continued

#### How alarm messages are displayed (continued)



LED 'Alarm category selected' lit up if this message category is selected.

The alarms can be scrolled by pressing the associated **key <Alarms>**.

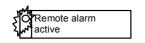


**6 LED 'Alarm devices active'** lit up if alarm devices are active.

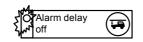
Pressing the associated **key <Alarm devices active>** stops all assigned alarm devices.

If all alarm devices are off, pressing the key starts them again.

It can be selected by the service engineer if the alarm devices can be started any time or only while alarms are pending.



**6 LED 'Remote alarm active'** lit up if alarm remote transmission is active.

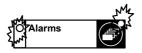


**ED 'Alarm delay off'** lit up if alarm delay is OFF.

If the associated **key <Alarm delay off>** is pressed, a running delay of the remote transmission is stopped. This causes an immediate remote transmission.

## Scrolling alarms

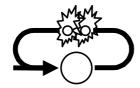
Alarm message scrolling may be done in several ways:



4 Key <Alarms>

Pressing this key switches forth an back from the first (oldest) to the last alarm.

If there are more alarms than can be displayed on one page it switches forth and back the pages.



**❸** Key <Alarm scroll>

By pressing this key consecutively, all alarm messages are scrolled endlessly.

Scrolling begins with the first alarm message.



Oisplay scroll key <scroll up> / <scroll down> Scrolls the alarm list forth or back

## Alarm / Keys & Indicators, Continued

#### **Acknowledging** alarm(s)

Changing from 'unacknowledged' to 'acknowledged'



0 LED 'Acknowledge' flashing. Indicating that acknowledging is possible.

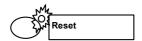
Acknowledging is done by pressing the associated key <Acknowledge>. Acknowledging performs:

- · Buzzer stopped
- · Internal horn stopped
- CAK V1 stopped
- · CAK V2 started
- · Resetting enabled
- Controls depending on state 'unacknowledged' are stopped

While the system is acknowledging a appropriate message is shown in the display.

### Resetting alarm(s)

Reset brings the system back to the original state.



Pressing key <Reset> performs:

- External horn stops
- CAK reset
- · Controls depending of state 'acknowledged' and 'active' are stopped

While the system is resetting an appropriate message is shown in the display.

#### How to handle non resettable alarms

- If zone alarm messages are not resettable then a special dialogue is displayed which allows to switch off directly all the concerned zones.
- This dialogue is only displayed if the number of zone alarm messages which are not resettable does NOT exceed a certain number.
- This number of alarm messages can be programmed by the service engineer.

#### Introduction

More information about alarm messages can spontaneously be displayed or can be polled by softkeys.

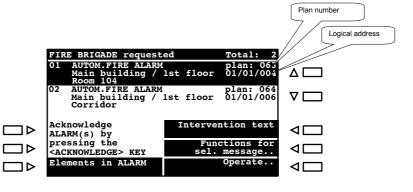
Availability and appearance of these additional information depend on actual configuration. It may be configured by the service engineer.

#### Plan number

This is a reference number (e.g. room number) which can optionally be displayed.

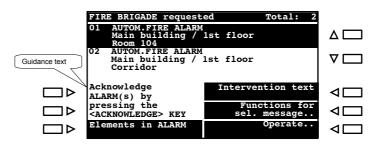
## Logical address

This is the logical address of the alarming zone.



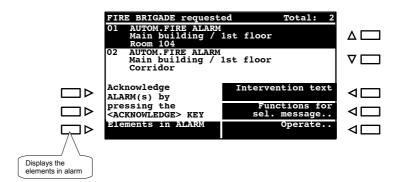
#### **Guidance text**

Guides the operator to do the correct actions in the given situation.



## Element information

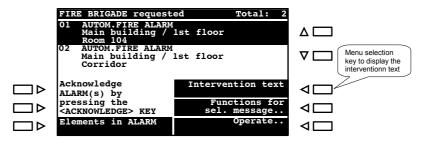
Information about the activated elements.



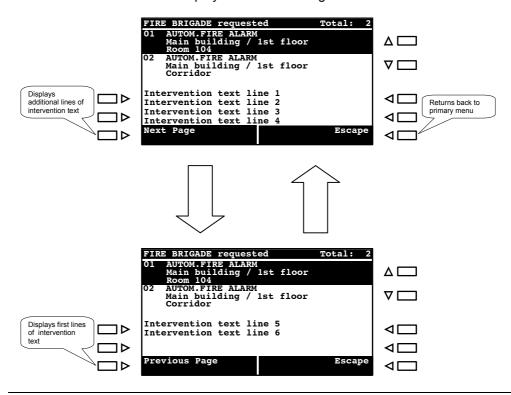
## Alarm / Supplementary Information, Continued

## Intervention text

- The intervention text is an additional information to an alarm message and can optionally be programmed by the service engineer.
- 16 different intervention texts with each up to 6 lines can be programmed.
- It can be called by softkey. In addition to that it can be configured that the intervention text
  is displayed spontaneously after acknowledging.

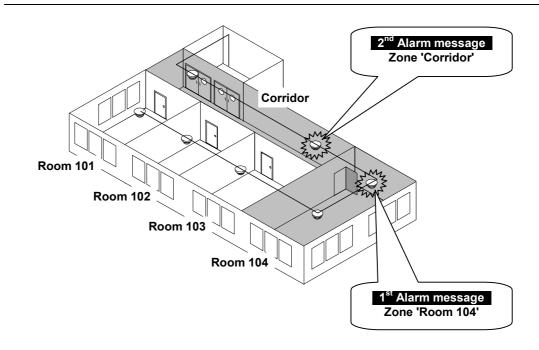


The intervention text will be displayed in the following form:



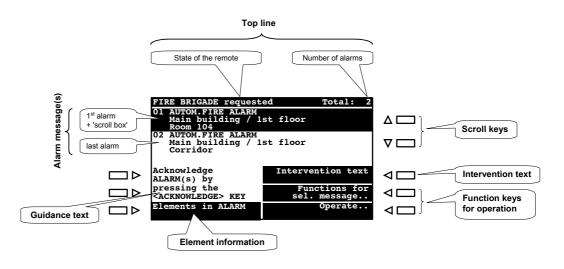
## Alarm / Display in detail

## Sample alarm situation



## What you see in the display

The display looks e.g. like this



#### **Top Line**

Shows the following information:

- · Number of alarms
- State of the alarm remote transmission. Possible messages:
  - -Fire brigade REQUESTED
  - -FIRE BRIGADE in .....
  - -CALL fire brigade: TEL. ...

#### Alarm message(s)

- · One or more alarm locations
- · First alarm message is selected
- Alarm messages may be scrolled with scroll keys
- Up to 2 alarm messages can be displayed simultaneously

## Alarm / Display in detail, Continued

	Scroll keys	To scroll alarm messages if more than two messages
--	-------------	--

## Function keys Context depending functions, such as

- Displaying of intervention text
- Functions for selected message
- Operate (go to main menu)

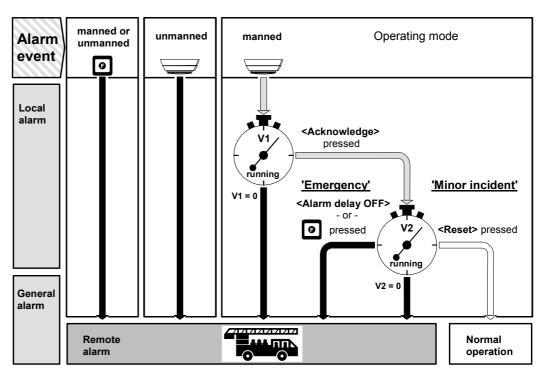
## **Guidance text**

Text which guides the operator to react correctly in an exceptional situation.

## Alarm / CAC: Cerberus Alarm Concept

## How does CAC work?

When the system operates in 'Manned' mode, manual call points and automatic fire detectors trigger **different actions** in the event of an alarm.



#### Alarm acknowledgement time 'V1'

- This is a countdown time that is active for automatic detectors when the system operates in 'Manned' mode.
- Checks whether someone acknowledges the danger alarm message within the preprogrammed time.
- On expiration of this time the alarm is transmitted to the fire department.
- The remaining time is displayed in minutes and seconds.

## Alarm investigation time 'V2'

- This is a countdown time that is active for automatic detectors when the system operates in 'Manned' mode.
- Limits the time for investigating the fire location to an individually programmed time.
- On expiration of this time the alarm is transmitted to the fire department.
- The remaining time is displayed in minutes and seconds.
- In case of minor incidents, an alarm must be reset before V2 expires to avoid unnecessary alarm remote transmission.

## Alarm / CAC: Cerberus Alarm Concept, Continued

## **Dependencies**

Whether CAC applies or not depends on the operating mode and on the detector type:

Danger message	Operating mode 'Manned'	Operating mode 'Unmanned'
Manual call point actuated	The alarm remote transmission is activated immediately.	The alarm remote transmission is activated <b>immediately</b> .
Automatic fire detector responded	The Alarm remote transmission is delayed for the short time V1 to leave time to the respon- sible person to decide what action has to be taken.	The alarm remote transmission is activated <b>immediately</b> .
	In general this person will acknowledge the alarm what starts time V2. During this time the fire location can be inspected.	
	At the fire location the decision if it is a real fire which needs help of the fire brigade must be taken. In case of real fire the nearest manual call point must be pressed. In case of minor incident the person takes the necessary actions and resets the alarm.	
	If the responsible person is not able to acknowledge within V1 or to reset within V2 the fire brigade is alerted automatically.	

#### What is 'Fault'

Abnormal system states e.g. caused by defective devices or installation.



Fault messages require an immediate response.

## Isolation

What is 'Isolation'

'Isolation' denotes the state where one or several parts of the system are temporarily switched off.

#### **Examples**

Some parts of the system which can temporarily be isolated: Zones, elements, horns, remote transmissions, printers.



Isolating system parts disables their functionality. Isolation has to be used with extreme care. As soon as conditions have returned to normal, isolated system parts must be immediately switched on again.

## Information

What is 'Information'

- All other messages, such as manned/unmanned.
- Information messages do not require an immediate response.

## **Service Functions**

## **Remote Transmission**

#### What is 'Remote transmission'?

In the event of a FIRE ALARM the remote transmission calls the fire department. For FAULT there is normally a separate transmission path.

#### Types of 'Remote transmission'

There are three types of remote transmissions which can be switched off separately:

- · Remote transmission of fire alarms
- · Remote transmission of fault messages
- Remote transmission of other messages

#### When is the 'Remote transmission' switched off?

Normally the remote transmission operates in active stand-by.

It is only switched off in special cases, for example, for testing the control functions.

#### How to switch off the 'Remote transmission'?

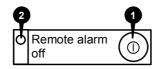
All types of remote transmission can be switched off/on by menu.

However for the remote transmission of fire alarms in addition to that a separate function key is provided.

#### LED and key for alarm remote transmission

The following LED and key are affected:

- Key < Remote alarm off > 10 on the control terminal performs switching over.
- · LED 2 indicates the 'OFF' state.



Key <b>1</b>	Performs switching over
LED 2	ON: REMOTE transm. 'fire' = off OFF: REMOTE transm. 'fire' = stand-by

#### Testing the 'Remote transmission'

The remote transmission must periodically be checked by activating a manual call point.



#### NOTE:

The fire department must be notified before the test is initiated.

## Types of alarm devices

This are horns and sirens

## What can be done?

Alarm devices can be

switched off / on

activated / deactivated (manually)

tested (i.e. an activation for some seconds)

# When do alarm devices have to be switched OFF?

- Normally the alarm devices operate in active stand-by.
- They are only switched off in special cases, for example, for testing the control functions.

(blocked / enabled)

# How to switch off the alarm devices?

The alarm devices can be switched off/on by menu.

However in addition to that a separate function key is provided.

# LED and key to switch off alarm devices

The following LED and key are affected:

- Key <*Alarm device off*> **①** on the control terminal performs switching over.
- LED 2 indicates the 'OFF' state.



Key <b>1</b>	Performs switching over
LED 2	ON: Alarm device = off OFF: Alarm device = stand-by

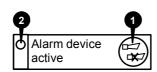
## How to activate alarm devices?

The alarm devices of a specific area can be activated by menu. However in addition to that a separate function key is provided.

# LED and key to activate alarm devices

The following LED and key are affected:

- Key < Alarm device active > on the control terminal performs switching over.
- LED 2 indicates the 'active' state.



Key <b>①</b>	Performs activating/deactivating
LED 2	ON : Alarm device = active OFF : Alarm device = inactive

## How to test alarm devices?

The alarm devices can only be tested by menu (no separate function key provided).

## **Detector Test**

## What is the 'Detector test' mode for ?

The mode 'Detector test' allows individual on-site function testing of automatic fire detectors and manual call points without generating an alarm message.

## Automatic fire detectors

Automatic fire detectors are actuated with special detector testers. Details see document 007828

## Manual call points

• Manual call points are differently activated depending on the type, details see page 46.

#### **Test alarm**

Test alarm is the **active state** of automatic fire detectors or manual call points in 'Detector test' mode. A test alarm **does not** generate a danger message in the control terminal. That means that neither acoustical alarm devices nor remote transmission or any other control functions are activated.

Test alarms are recorded in the event memory and logged spontaneously, if a printer is connected.

#### Recommendations for detector test

- Perform the function test periodically. The interval of this test is determined by the service engineer.
- Switch only the fire detectors of one SECTION at a time to 'Detector test', never the entire building.
- For manual call points the function test needs to be performed only based on a spotcheck.
- Test automatic fire detectors and manual call points of the same room always separately.
- Do not set them to 'Detector test' simultaneously.
- · After the test work has been completed immediately cancel the mode 'Detector test'.

#### **Test timeout**

A timeout can be programmed per zone after which the zone switches back from operation mode 'Test' to the previously selected mode.



For more information about testing automatic detectors and manual call points see the following chapters:

- "How to TEST AUTOMATIC DETECTORS?" on page 45
- "How to TEST MANUAL CALL POINTS?" on page 46

## **System Functions**

## **Printer**

When does the printer have to be switched OFF?

- Normally the printer (if installed) operates in active stand-by.
- It is only switched off in special cases (for example during test and maintenance activities).
- The printer can be switched OFF and ON via the menu.
- The 'OFF' state is shown on the display.

## **LED Test**

What is the 'LED test' used for ? For testing the correct functioning of all indicators (LEDs), the display and the alarm buzzer.

All visual and audible devices of the control terminal are activated for a few seconds.

Access to LED test

The LED test is accessed via station menu.

## **Time & Date**

- Normally the date and time do not have to be corrected.
- Time and date are set by the service engineer when installing the system.
- Summer / winter time changeover is performed automatically.
- Time and date are displayed during the time/date adjust procedure.
- · It is also showed on the idle display.

## **Miscellaneous**

## Terminology 'Area', 'Section' & 'Zone'

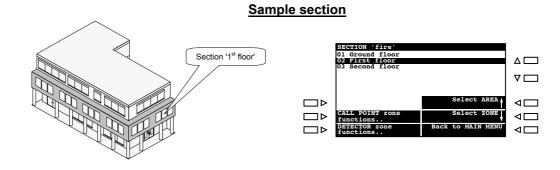
## What is an 'Area'?

It normally covers **a whole building** or part of a building and represents also the operating level. This is the logical designation for **several**, **usually adjacent sections**.

# Area 'Main building' Area 'Main building' Area 'Main building O2 Factory Area 'Main buildin

## What is a 'Section'?

It normally covers a floor or part of a floor in a building. This is the logical designation for several, usually adjacent zones.



## What is a 'Zone'?

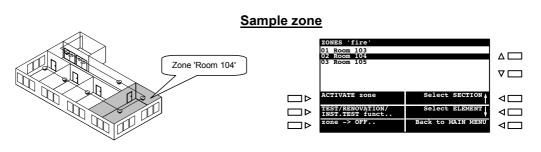
It normally comprises **one room** of a building (with SynoLINE600 detectors => several rooms).

It is the logical designation of a **detector group containing at least one detector**.

Automatic fire detectors, manual call points and control outputs are always assigned to different ZONES.

For this reason we have

- · zones comprising automatic fire detectors
- zones comprising manual call points
- zones comprising control in-/outputs



## Operation states 'manned' and 'unmanned'

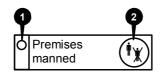
## What does it mean?

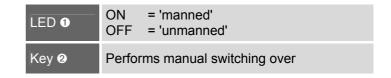
The FC700A system can be configured to work differently depending on whether the person responsible is present or absent.

Operating state	Meaning
'manned'	The <b>operating person</b> responsible for 'Alarm' investigation <b>is on site</b> . <b>NOTE:</b> This state is also known as 'Operating state 'present'.
'unmanned'	The responsible <b>operating person is </b> not <b>on site.</b> NOTE: This state is also known as 'Operating state 'absent'.

#### LED and key

The following LED and key are affected:





# For what systems does this apply?

 The operating states 'manned' and 'unmanned' are relevant for systems in which the signals for automatic fire detectors and manual call points are processed differently, that means, the Cerberus Alarm Concept is activated.

## Switching methods

The switchover is possible by the following ways:

- automatically
- · manually via menu
- manually by key

#### **NOTE**

If several organizationally autonomous systems are operated via a common multi-area control terminal and not all areas are in the same state, the 'Premises manned' state indicator • is flashing.

See also chapter "How to SWITCH PREMISES MANNED / UNMANNED ?" on page 25 in section "Operating Instructions **126**".

## Automatic switchover

Automatic switching over from 'manned' to 'unmanned' (or vice versa) can be programmed by the service engineer.

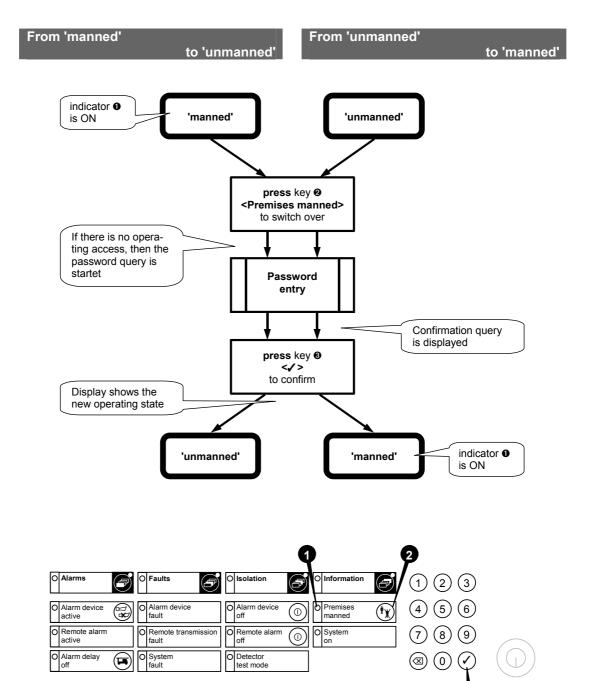
## Manual switchover via menu

The switchover from 'manned' to 'unmanned' (or vice versa) is also possible via the menu.

## Operation states 'manned' and 'unmanned', Continued

Manual switchover by key

The following scheme shows the manually switchover:



#### NOTE:

- If there is only one single area switching is done immediately.
- If there are several areas the menu is called automatically and switching has to be done
- Corresponding operator access level is required.

## **Timeouts**

#### What is it?

A timeout is a certain predefined time

- · after which a specific action is executed
  - or -
- · which defines how long a certain state will last

## What types exist?

On the B3Q700 control terminal the following types of timeout are known:

- Operation timeout
- · Backlight timeout
- · Logout timeout
- · Result timeout

## How is it triggered?

A timeout is started with each manual operation. If the timeout is still running, it is restarted with each following input.

## Operation timeout

Defines the delay time the system waits after an operation before it changes back to display the current messages.

This timeout can be configured for operation with and without pending alarms.

## Backlight timeout

Defines how long the display illumination remains on after a user input. This timeout can be configured per message category ('Danger', 'Fault', Isolation', 'Information').

#### Logout timeout

Defines the delay time after an user input until the system performs an automatic logout.

#### Result timeout

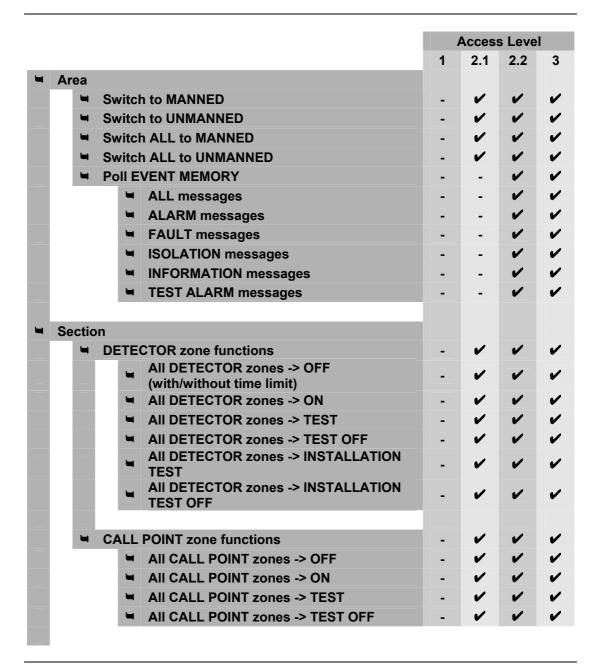
Defines how long the result of an operation (e.g. INFORMATION 'function unit') is shown on the display.

# How can the Timeouts be configured?

All these timeouts can be configured by the service engineer.

## Function Lists

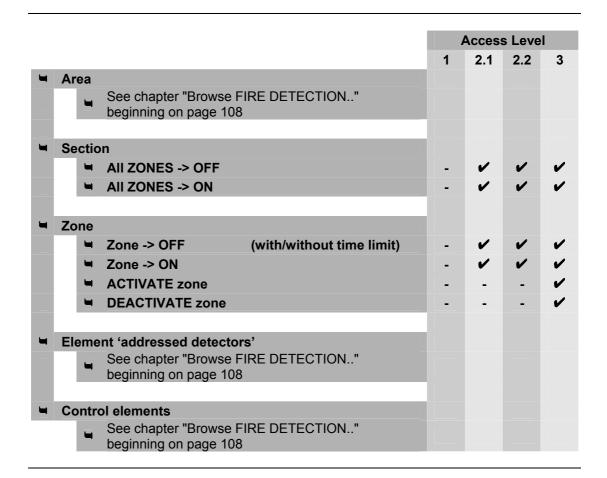
## **Browse FIRE DETECTION...**



## Browse FIRE DETECTION.., Continued

•				Access	s Leve	ı
_			1	2.1	2.2	3
-	Zone	'autom. detectors'				
	4	Zone -> OFF (with/without time limit)	-	V	~	/
	-	Zone -> ON	-	V	~	/
	-	TEST/INSTALLATION TEST functions	-	V	1	<b>/</b>
		■ Zone -> TEST	-	<b>V</b>	/	<b>/</b>
		■ Zone -> TEST OFF	-	V	~	~
		<b>■</b> Zone -> INSTALLATION TEST	-	/	/	<b>/</b>
		<b>■</b> Zone -> INSTALLATION TEST OFF	-	<b>V</b>	1	<b>/</b>
		■ Activate FAULT TEST	-	<b>V</b>	1	<b>/</b>
		ACTIVATE zone	-	-	-	<b>/</b>
	Zone	'manual call points' / 'zone digital'				
		Zone -> OFF (with/without time limit)	-	<b>/</b>	~	<b>/</b>
		Zone -> ON	-	<b>/</b>	~	~
_		TEST functions	-	<b>/</b>		~
		■ Zone -> TEST	-	~	~	<b>/</b>
		■ Zone -> TEST OFF	-	<b>V</b>	~	~
		■ Activate FAULT TEST	-	<b>/</b>	~	/
	-	ACTIVATE zone	-	-		<b>/</b>
		DEACTIVATE zone	-	-	-	
	_					
		'zone control'				
		Zone -> OFF (with/without time limit)	-	V		
		Zone -> ON		<b>/</b>	/	
_	4	ACTIVATE zone DEACTIVATE zone		-	-	1
		DEACTIVATE ZOITE	-	-	<u> </u>	
÷	Fleme	ent 'addressed detectors'				
		Poll INFORMATION		~	/	/
		Element -> OFF		~	/	~
_		Element -> ON	_	/	1	1
		ACTIVATE element			~	~
		DEACTIVATE element	_		~	/
_						
_	Contr	ol elements				
	<b>-</b>	Poll INFORMATION	-	~	~	~
	-	Element -> OFF	- 1	~	1	/
	<b>-</b>	Element -> ON	-	~	~	~
		ACTIVATE element	-	-	•	•
	-	DEACTIVATE element	-	-	1	•

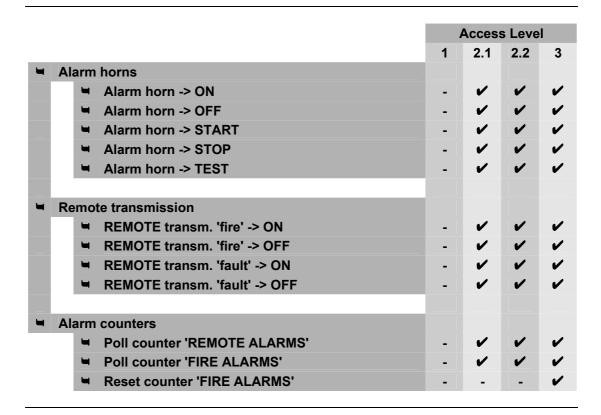
## **Browse CONTROLS...**



## HARDWARE level..

				Access Level			
				1	2.1	2.2	3
-	Sta	atio	n 'FT700A' / 'FC700A'				
		-	Poll INFORMATION	-	-	<b>/</b>	<b>/</b>
		-	Printer -> OFF	-	-	<b>/</b>	<b>/</b>
_		-	Printer -> ON	-	-	<b>/</b>	<b>/</b>
		-	Initiate PRINTER TEST	-	-	<b>/</b>	<b>/</b>
		-	LED TEST	~	<b>/</b>	~	<b>/</b>
		-	Delete EVENT MEMORY		-	-	~
		Poll EVENT MEMORY			<b>/</b>	<b>/</b>	<b>/</b>
			<b>■</b> ALL messages	-	<b>/</b>	~	~
			<b>■</b> ALARM messages		/	~	~
			<b>■</b> FAULT messages	-	/	<b>/</b>	~
			<b>■ ISOLATION messages</b>	-	/	~	•
			■ INFORMATION messages	-	/	/	~
			<b>■ TEST ALARM messages</b>	-	/	<b>/</b>	/
	FU	'S	ynoLOOP line card'				
		-	Poll INFORMATION	-	/	/	/
	FU	'S	ynoLOOP line'				
		-	Poll INFORMATION	-	/	/	/
		-	Re-configure D-Bus	-	-	/	~
		-	Re-address D-Bus	-	-	~	•
		-	Device read-in	-	-	-	~
		-	Detector line -> OFF	-	-	-	/
		-	Detector line -> TEST	-	-	-	~
		-	Detector line -> TEST OFF	-	-	-	~
4	FU		ynoLINE line card'				
		-	Poll INFORMATION	-	/		/
		-	Detector line -> TEST	-	-	-	/
		-	Detector line -> TEST OFF	-	-	-	/
■ FU 'Power supply supervision'							
			Poli INFORMATION		1	~	/
		_	Initiate BATTERY LOAD TEST	-		~	~
			IIIIIIIII DATTENT LOAD TEOT				
4	■ FU 'Others'						
	. 0		Poll INFORMATION		1	1	~

## Alarming..



## Settings..

		Access Level			
		1	2.1	2.2	3
-	Decrease display contrast	-	/	<b>/</b>	<b>/</b>
_	Increase display contrast	-	~	<b>/</b>	<b>/</b>
_	Decrease buzzer intensity	-	<b>/</b>	<b>/</b>	<b>/</b>
-	Increase buzzer intensity	-	<b>V</b>	<b>/</b>	<b>/</b>
-	Reconfigure C-Bus	-	-	<b>V</b>	<b>/</b>
	Set TIME and DATE	-	-	~	~

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