SIEMENS

FS720

Fire detection system

Commissioning

Maintenance

Troubleshooting

MP1XS

Building Technologies

Fire Safety & Security Products

Technical specifications and availability subject to change without notice.

Table of contents

1 About this document

Goal and purpose

This document describes the main procedures for installing, commissioning, maintaining and repairing the FS720 fire detection system. You will find detailed instructions for these jobs in the documents listed under the heading 'Referenz-Dokumente'.

Document A6V10210355, system description, is an integral part of these instructions. It is assumed that this document has been read and understood.

Scope

The information contained in this document is valid for the market package MP1XS.

Target groups

The information in this document is intended for the following target groups:

Target group	Activity	Qualification
Installation personnel	● Assembles and installs the product components at the place of installation. ● Carries out a performance check following installation.	● Has received specialist training in the area of building installation technology or electrical installations.
Commissioning personnel	● Configures the product at the place of installation according to customer-specific requirements. ● Checks the product operability and releases the product for use by the operator. ● Searches for and corrects malfunctions.	● Has obtained suitable specialist training for the function and for the products. ● Has attended the training courses for commissioning personnel.
Maintenance personnel	● Carries out all maintenance work. ● Checks that the products are in perfect working order. ● Searches for and corrects malfunctions.	● Has obtained suitable specialist training for the function and for the products.

Document identification

Position	Information
Title page	• Product type • Product designation • Document type
Last page, bottom left	• Document ID ID_ModificationIndex_Language_COUNTRY • Edition date
Last page, bottom right-hand side	• Manual • Register

Conventions for text marking

Markups

Special markups are shown in this document as follows:

▷	Requirement for a behavior instruction
⇨	Intermediate result of a behavior instruction
⇨	End result of a behavior instruction
'Text'	Quotation, reproduced identically
<Key>	Identification of keys

Supplementary information

The  symbol identifies supplementary information such as a tip for an easier way of working.

Supplementary information is labelled with the 'i' symbol.

Technical terms

Term	Explanation
C-NET	Addressed detector line
MCL	Maintenance and commissioning link
MCP	Abbreviation for 'Manual call point'
BDV	Basic data variant
ES	Product version
AI	Alarm indicator

Reference documents

Document ID	Title
A6V10210355	FS720, Fire Detection System, Description
A6V10210366	FS720, Fire Detection System, Characteristic Product Data
A6V10210424	FS720, Fire Detection System, Configuration
A6V10210362	FS720, Planning
A6V10211076	FC72x/FT724, Fire Control Panel / Fire Terminal, Operation
009310	FT2010, floor repeater terminal, operation
009311	FT2011, floor repeater display, operation
A6V10210390	FS720, Fire Detection System, Installation
008860	FT201x, floor repeater terminal / floor repeater display, installation
A6V10210368	FT2001-A1, mimic display driver (characteristic product data)
008250	FDUL221, line tester, operation
A6V10212047	OH720, OP720, HI720, HI722, Automatic Fire Detector, Technical Documentation

History of changes

Document ID	Edition date	Brief description
A6V10210416_c_en_--	08.2009	First edition
A6V10210416_b_en_--	05.2009	Adaptations for MP1XS
A6V10210416_a_en_--	11.2008	First edition

2 Safety

2.1 Safety notices

The safety notices must be observed in order to protect people and property.

The safety notices in this document contain the following elements:

- Symbol for danger
- Signal word
- Nature and origin of the danger
- Consequences if the danger occurs
- Measures or prohibitions for danger avoidance

Symbol for danger

	This is the symbol for danger. It warns of **risks of injury**. Follow all measures identified by this symbol to avoid injury or death.

Additional danger symbols

These symbols indicate general dangers, the type of danger or possible consequences, measures and prohibitions, examples of which are shown in the following table:

 General danger

 Explosive atmosphere

 Voltage/electric shock

 Laser light

 Battery

 Heat

Signal word

The signal word classifies the danger as defined in the following table:

Signal word	Danger level
DANGER	DANGER identifies a dangerous situation, which **will result directly in death or serious injury** if you do not avoid this situation.
WARNING	WARNING identifies a dangerous situation, which **may result in death or serious injury** if you do not avoid this situation.
CAUTION	CAUTION identifies a dangerous situation, which **could result in slight to moderately serious injury** if you do not avoid this situation.
NOTICE	*NOTICE* identifies possible damage to property that may result from non-observance.

How risk of injury of presented

Information about the risk of injury is shown as follows:

	⚠ **WARNING**
	Nature and origin of the danger Consequences if the danger occurs ● Measures / prohibitions for danger avoidance

How possible damage to property is presented

Information about possible damage to property is shown as follows:

	*NOTICE*
	Nature and origin of the danger Consequences if the danger occurs ● Measures / prohibitions for danger avoidance

2.2 Safety regulations for the method of operation

National standards, regulations and legislation

Siemens products are developed and produced in compliance with the relevant European and international safety standards. Should additional national or local safety standards or legislation concerning the planning, assembly, installation, operation or disposal of the product apply at the place of operation, then these must also be taken into account together with the safety regulations in the product documentation.

Electrical installations

⚠ WARNING

Electrical voltage

Electric shock

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

- Wherever possible disconnect products from the power supply when carrying out commissioning, maintenance or repair work on them.
- Lock volt-free areas to prevent them being switched back on again by mistake.
- Label the connection terminals with external external voltage using a 'DANGER External voltage' sign.
- Route mains connections to products separately and fuse them with their own, clearly marked fuse.
- Fit an easily accessible disconnecting device in accordance with IEC 60950-1 outside the installation.
- Produce earthing as stated in local safety regulations.

Assembly, installation, commissioning and maintenance

- If you require tools such as a ladder, these must be safe and must be intended for the work in hand.
- When starting the fire control panel ensure that unstable conditions cannot arise.
- Ensure that all points listed in the 'Testing the product operability' section below are observed.
- You may only set controls to normal function when the product operability has been completely tested and the system has been handed over to the customer.

Testing the product operability

- Prevent the remote transmission from triggering erroneously.
- If testing building installations or activating devices from third-party companies, you must collaborate with the people appointed.
- The activation of fire control installations for test purposes must not cause injury to anyone or damage to the building installations. The following instructions must be observed:
  - Use the correct potential for activation; this is generally the potential of the building installation.
  - Only check controls up to the interface (relay with blocking option).
  - Make sure that only the controls to be tested are activated.
- Inform people before testing the alarming control devices and allow for possible panic responses.
- Inform people about any noise or mist which may be produced.
- Before testing the remote transmission, inform the corresponding alarm and fault signal receiving stations.

Modifications to the system layout and products

Modifications to the system and to individual products may lead to faults, malfunctioning and safety risks. Written confirmation must be obtained from Siemens and the corresponding safety bodies for modifications or additions.

Modules and spare parts

- Components and spare parts must comply with the technical specifications defined by Siemens. Only use products specified or recommended by Siemens.
- Only use fuses with the specified fuse characteristics.
- Wrong battery types and improper battery changing lead to a risk of explosion. Only use the same battery type or an equivalent battery type recommended by Siemens.
- Batteries must be disposed of in an environmentally friendly manner. Observe national guidelines and regulations.

Disregard of the safety regulations

Before they are delivered, Siemens 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 the disregard of danger warnings contained in the documentation. This applies in particular to the following damage:

- Personal injuries or damage to property caused by improper use and incorrect application
- Personal injuries or damage to property caused by disregarding safety instructions in the documentation or on the product
- Personal injury or damage to property caused by poor maintenance or lack of maintenance

Disclaimer

We have checked that the content of this document matches the hardware and software described. Despite this, we cannot rule out deviations and cannot therefore assume liability for them matching completely. The details in this document are checked regularly and any corrections needed included in subsequent editions.

We are grateful for any suggestions for improvement.

2.3 Standards and directives complied with

A list of the standards and directives complied with is available from your Siemens contact.

2.4 Release Notes

Limitations to the configuration or use of devices in a fire detection installation with a particular firmware version are possible.

⚠ WARNING

Limited or non-existent fire detection

Personal injury and damage to property in the event of a fire.

- Read the 'Release Notes' before you plan and/or configure a fire detection installation.
- Read the 'Release Notes' before you carry out a firmware update to a fire detection installation.

NOTICE

Incorrect planning and/or configuration

Important standards and specifications are not satisfied.

Fire detection installation is not accepted for commissioning.

Additional expense resulting from necessary new planning and/or configuration.

- Read the 'Release Notes' before you plan and/or configure a fire detection installation.
- Read the 'Release Notes' before you carry out a firmware update to a fire detection installation.

3 Installation

The C-NET line with the C-NET devices must be installed and tested before commissioning the fire control panel.

3.1 Install and test the C-NET line

Most C-NET devices, such as fire detectors and alarm tone transmitters, are mounted on a base and can therefore be easily exchanged or replaced.

The bases of non-stationary C-NET devices and stationary C-NET devices such as 'Manual call points', flame detectors, linear smoke detectors and I/O modules are in principle installed and removed with the C-NET line deactivated and without power.

Prerequisites

- The C-NET line is not yet connected to the control panel during assembly, wiring and insertion of the C-NET devices and is therefore without power.
- You require the FDUL221 line tester to test the C-NET line.
- The control panel has not been commissioned yet when the devices are inserted. It is commissioned later by the commissioning personnel.

3.1.1 Installing C-NET devices (commissioning following serial number)

Before inserting or connecting the C-NET devices, always stick the **serial number** on the layout plan. The sticker with the serial number can be found on the housing bottom.

1. Install and wire the C-NET devices and attach the sticker with the serial number for each device to the layout plan.
2. After consultation with the project management, mount the detector dust caps on the optical point detectors.
3. Mount the detector identification after consultation with the project management.

3.1.2 Installing C-NET devices (commissioning according to wiring sequence)

1. Mount and wire the C-NET device and document the precise sequence of the wiring in the layout plan in doing so.
2. After consultation with the project management, mount the detector dust caps on the optical point detectors.
3. Mount the detector identification after consultation with the project management.

3.1.3 Check C-NET line

!	*NOTICE*
	Simultaneous connection of line test device and C-NET line to the control panel Damage to line tester or control panel ● Do not connect the line tester and C-NET line to the control panel at the same time.

Prerequisite

The C-NET line is not connected to the control panel.

Acceptance test

1. Connect the line test device FDUL221 to the newly installed C-NET line.
2. Test the C-NET line for short circuits, open lines and earth faults.
3. Check the number of the devices on the C-NET line based on the display at the line tester.
4. Check the branch-off position of the branches and the number of devices at the branches.
5. Check the type of all C-NET devices.
6. Remedy any errors you notice and re-start the acceptance test.

See also

Document 008250, Line Tester, Operation.

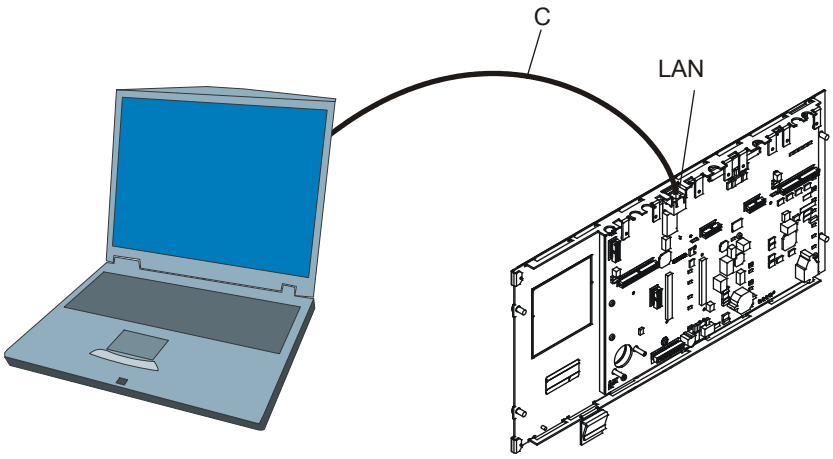
3.2 Mounting and installing stations

1. Mount the Stationson the wall (see document A6V10210390, installation).
2. Insert the cables into the housing but do not yet connect them.
3. Insert the batteries but do not yet connect them.

i	Cover the Stations with the housing cover each time the building site is left and protect the Stations with the packaging supplied during the construction phase.

3.3 Connecting the PC to the station

For most commissioning, maintenance and repair work a PC with installed Cerberus-Engineering-Tool is required. The following figure shows how the PC is connected to the Station.



PC and rear panel of operator unit

LAN Ethernet connection

C Cable, type CAT 5 or CAT 7, crossover, max. 100 m

3.4 Network settings on the PC

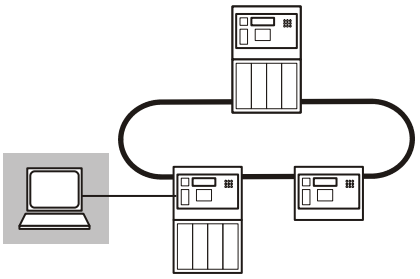
In order to allow Cerberus-Engineering-Tool or Cerberus-Remote to communicate with Stations in the C-WEB (SAFEDLINK and Ethernet), the PC must be set up as a network participant.

The following interfaces can be used on the PC:

- Private network connection (Ethernet)
- External USB/Ethernet adapter (if available)

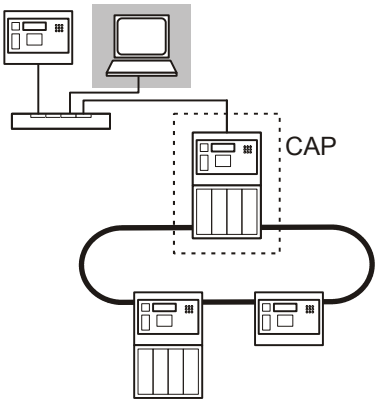
Standard types of access

Local connection to Station



- Tool sub-net: 192.168.200.0
- Route to SAFEDLINK sub-net via Station: 192.168.200.1

Remote access via CAP station



- No tool sub-net
- Route to SAFEDLINK sub-net via CAP station: 192.168.1.1

This chapter describes how to set up the PC for the first time.

Details on how to configure the stations in the network can be found in document A6V10210424, configuration.

3.4.1 Settings for local connection

As a rule, Cerberus-Engineering-Tool can be connected directly to a stand-alone Station station or SAFEDLINK Station without any extra settings. A DHCP server, which automatically assigns an IP address to the PC, also runs on the free Ethernet interface of these Stations.

A default gateway is also entered so that the other Stations in the SAFEDLINK sub-net can also be reached. The entry can however be overwritten by other interfaces, e.g. by the wireless network connection. In order to now see all the networked SAFEDLINK Stations, an entry is needed in the PC network interface's route table.

Adding a route to the SAFEDLINK sub-net

The route entry is only needed if using more than one interface in the PC, e.g.:

- Ethernet network card
- Wireless interface
- USB/Ethernet adapter

Users need administrator rights on the PC to add a route.

To add a route, proceed as follows:

1. Click the 'Start' button in the Windows toolbar and select 'Run'.
2. Enter the 'cmd' command in the open 'Run' window and click the 'OK' button.
   ⇨ Cmd.exe is run.
3. Enter the following command:
   route add -p 192.168.0.0 mask 255.255.255.0 192.168.200.1 metric 99
   and press the Enter key.
   Note: The interface must be available, switched on and online (very important with USB/Ethernet adapter in particular), otherwise the following error message appears:
   'C:\Documents and Settings\username\Desktop>route add -p 192.168.0.0 mask 255.255.255.0 192.168.200.1 metric 99
   The route addition failed: Either the interface index is wrong or the gateway does not lie on the same network as the interface. Check the IP Address Table for the machine.'

3.4.2 Settings for remote access via the CAP station

The settings of the PC network interface have to be adapted for remote access via the CAP Station. The IP address for the PC now has to be adjusted manually and the route to the SAFEDLINK sub-net now has to pass via the CAP Station.

Adding another route to the SAFEDLINK sub-net

To add the route to the SAFEDLINK sub-net, proceed as follows:

1. Click 'Start' > 'Run'.
2. Enter the 'cmd' command in the open 'Run' window and click the 'OK' button.
   ⇨ Cmd.exe is run.
3. Enter the following command:
   route add -p 192.168.0.0 mask 255.255.255.0 **192.168.1.1** *metric 99*
   and press the Enter key.

The process of changing the route entries in the PC is not always a smooth one. We have found that Cerberus-Engineering-Tool has to be restarted after this process so that the new settings actually take effect. If quickly moving the connection from one Station to another, you may also have to explicitly close the old Cerberus-Engineering-Tool connection using 'Disconnect'; otherwise the 'Connect' dialog will not appear.

Once the route has been added, Cerberus-Engineering-Tool has to be restarted so that the new settings take effect. If quickly moving the connection from one station to another, you may also have to explicitly close the old Cerberus-Engineering-Tool connection using 'Disconnect'; otherwise the 'Connect' dialog won't appear.

Presetting of the PC if user does not have administrator rights

If the person using Cerberus-Engineering-Tool does not have administrator rights on his or her PC, he or she should ask an IT administrator to perform the setting. Using the routes mentioned, all SAFEDLINK Stations can be seen in the standard configurations anyway, firstly using a local connection and secondly via the CAP Station, which can also be connected using an alternative setting for the PC's IP address.

The following limitations apply:

- Standard configurations for private networks only
- The SAFEDLINK sub-net is always 192.168.0.0 (can also be set manually)
- The Ethernet sub-net is always 192.168.1.0 (can also be set manually)

- The CAP Station must always be number 1 due to its address as a gateway
- Routes can only be entered if the corresponding connection to the network is established, e.g. on a test system in the office. They are then retained until deleted again by a command.

Setting IP addresses for the PC

These settings are suited for the above-mentioned presetting. When an 'Alternative Configuration' is defined, the PC will spend one minute searching for a DHCP server and only then will it switch to the alternative address.

A user with administrator rights for his or her PC can of course define an IP address directly in the 'General' view.

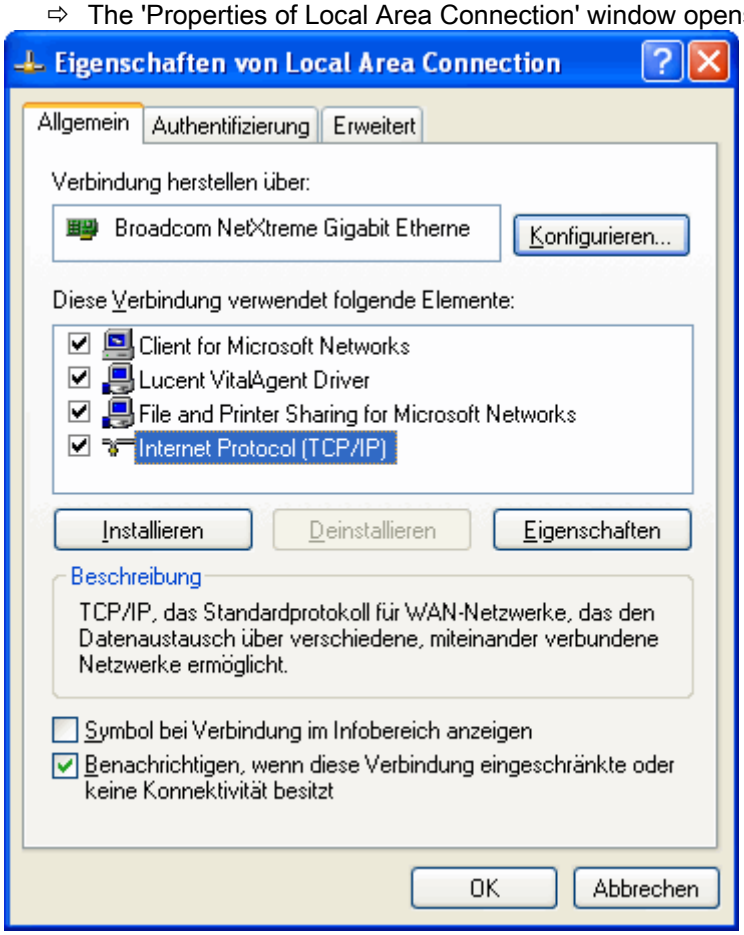
To set the network settings, proceed as follows:

1. Click the 'Start' button in the Windows toolbar and select 'Settings' > 'Network connections' > 'Local Area Connection'.

   ⇨ The 'Status of Local Area Connection' window opens.

2. Click the 'Properties' button in the 'General' view.

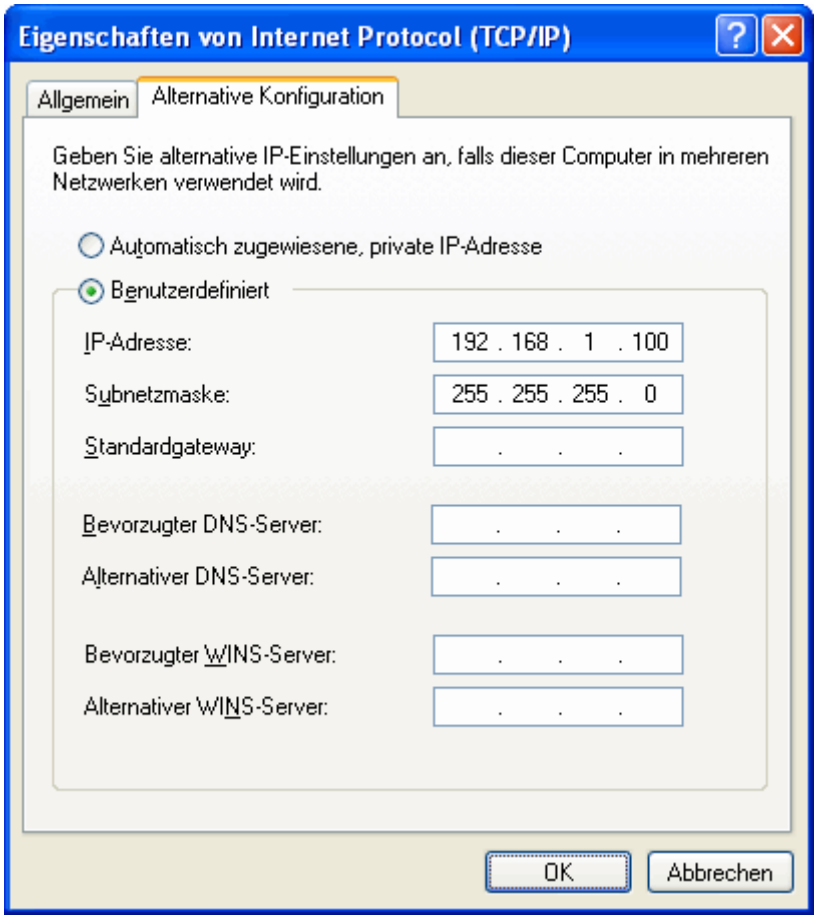
   ⇨ The 'Properties of Local Area Connection' window opens.



3. Highlight the 'Internet Protocol (TCP/IP)' connection in the 'General' view and click the 'Properties' button.

   ⇨ The 'Properties of Internet Protocol (TCP/IP)' window opens.

4. Leave the 'Obtain IP address automatically' option selected and click the 'Alternative configuration' button.



5. Select the 'User-defined' option, enter values for 'IP address' and 'Sub-net-mask' and click the 'OK' button.

⇨ The network settings for remote access are complete.

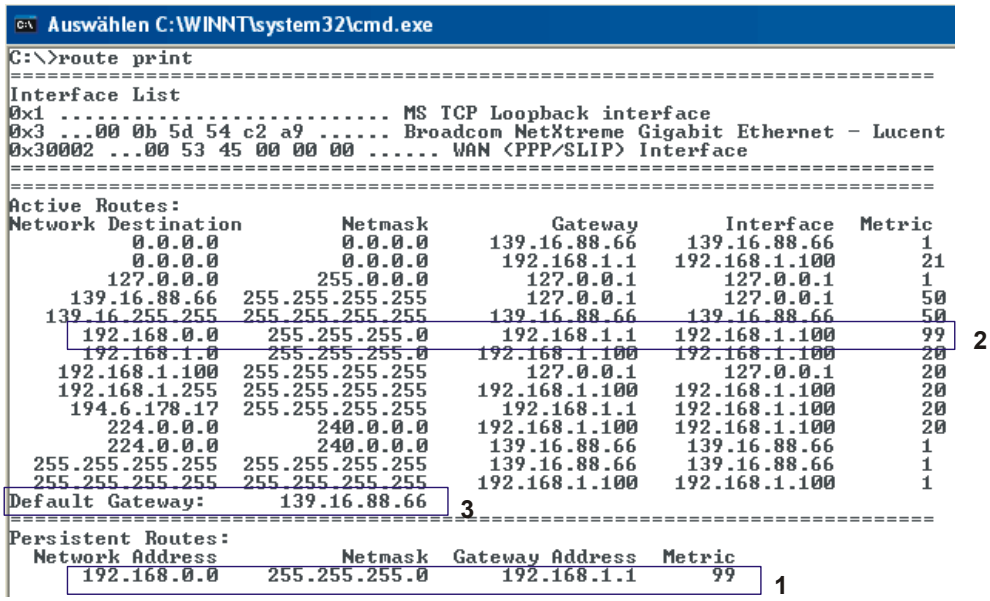
3.4.3 Diagnosis for IP settings on the PC

Routes in PC

The routes used by the PC can be displayed. This allows the user to see whether the gateway entries or routes required are effective.

To display the routes on the PC, proceed as follows:

1. Click the 'Start' button in the Windows toolbar and select 'Run'.
2. Enter the 'cmd' command in the open 'Run' window and click the 'OK' button.
   ⇨ Cmd.exe is run.
3. Enter the following command:
   route print
   and press the Enter key.



Routes in PC

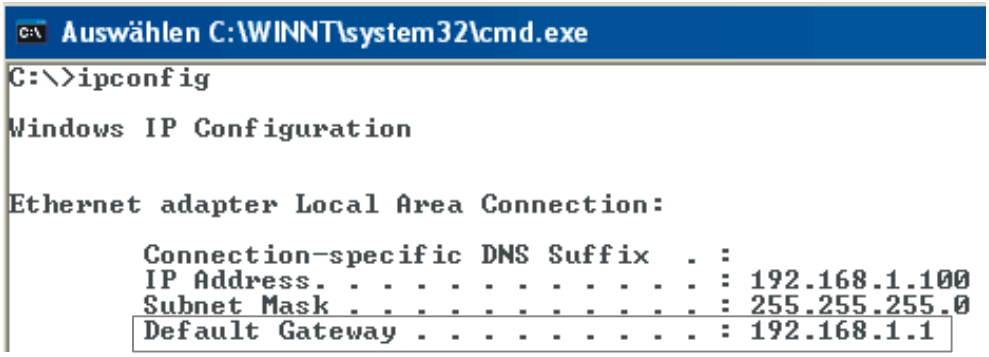
The defined routes are entered as 'Persistent Routes' (1) and the route used can be seen under 'Active Routes' (2). The current default gateway entry is also listed (3).

IP configuration in the PC

The actively available Ethernet interfaces on the PC can be displayed. This allows interfering default gateway entries to be seen for example.

To define the IP configuration, proceed as follows:

1. Click the 'Start' button in the Windows toolbar and select 'Run'.
2. Enter the 'cmd' command in the open 'Run' window and click the 'OK' button.
   ⇨ Cmd.exe is run.
3. Enter the following command:
   ipconfig
   and press the Enter key.



IP configuration in the PC

4 Commissioning

The Cerberus Engineering Tool distinguishes between normal BDV mode and expert BDV mode.

Normal BDV mode is a subset of expert BDV mode and permits simpler operation of the Cerberus Engineering Tool. For details of normal BDV mode, please refer to document A6V10244705, Normal BDV mode vs. expert mode.

Typically, the Stations on the C-WEB, such as control panels FC722/FC724 and fire terminals FT724, are usually electrically connected and commissioned by the commissioning personnel.

Standalone control panels and networked Stations are differentiated in terms of commissioning:

- Networked Stations can only be commissioned with Cerberus-Engineering-Tool.
- Standalone control panels can be commissioned with or without Cerberus-Engineering-Tool.

NOTICE

Alternative commissioning procedure

Faults during operation

- Only the procedures described in this document are permitted.

4.1 Overview of procedure

The following table provides an overview of the procedures for Stations commissioning. The letters A, B1, B2 and C refer to the detailed descriptions in the following chapters.

		Standalone control panel	Networked Stations
Without Cerberus-Engineering-Tool	No pre-configuration possible	**A** ● Automatic configuration ● Adaptations on the Person Machine Interface	Not possible.
With Cerberus-Engineering-Tool	Without pre-configuration	**B1** ● Automatic configuration ● Adaptations in Cerberus-Engineering-Tool	**C** ● Initialise the Stations for networking ● Read in C-NET devices line-by-line ● Assign the logical elements in Cerberus-Engineering-Tool
	With pre-configuration	**B2** ● Read in devices line-by-line ● Assign the logical elements in Cerberus-Engineering-Tool	

Overview of procedure

4.2 Definition of terms

Automatic configuration

A command on the person machine interface performs the automatic configuration. In this process, the C-NET devices are read in and a configuration produced.

There are two types of automatic configuration.

- Automatic configuration of an individual C-NET line
- Automatic configuration of Station

Automatic configuration is characterized by the following features:

- A Section is created for each C-NET line.
- A Zone is produced for each sensor channel (Automatic detectors and Manual call points).
- A Control is created for each alarm sounder.
- External alarm indicators are not automatically configured.
- Each Section and each Zone contains customer text, such as line no., zone no. and serial number of the device.

Pre-configuration

The logical elements incl. customer texts are created in Cerberus-Engineering-Tool prior to commissioning:

- In the 'Detection' task card up to and including 'Zone' level.
- In the 'Control' task card up to and including 'Control' level (Fire control, Evac control, Counter control)

In addition, the logical elements can subsequently be linked as far as possible for alarming and control.

Logical channels can be preconfigured. This makes sense if customer texts are to be configured down to this level.

Read in line-by-line	A command on the person machine interface reads in the C-NET devices. In this process the C-NET devices are listed without the creation of sections and zones; i.e. no corresponding logical elements are created in the Detection tree and Control tree.
Adaptations	Adaptations are different work process such as: ● Assigning customer text to logical elements. ● Changing detector parameter sets if necessary. ● Reconfiguring alarm devices ● Reconfiguring Controls ● Configuring the power supply
Non-stationary C-NET devices	Point detector fitted with a base.
Stationary C-NET devices	All devices apart from point detectors, e.g.: ● Manual call point ● Input/output modules ● Alarm sounder ● Alarm sounder (FDS) ● Line separator (FDCL) ● Floor repeater terminal FT2010 ● Floor repeater display FT2011 ● Mimic display driver FT2001

4.3 Brief instructions on operating the station

Buttons	Description
= <MENU>	Opens the main menu.
<▲> and <▼>	Navigation buttons for selecting the next or previous entry in a list.
<◄> and <►>	Navigation buttons for changing to a higher or lower level in the hierarchy.
ok = <ok>	Opens or runs a selected entry or menu item.
C = <C>	Cancels all operating procedures and closes an open list or dialog box.
<1> to <9>	Buttons on the keypad to enter: ● PIN ● Shortcut ● Address ● Parameter ● Customer text

You will find detailed instructions for operating the Stations in document A6V10211076, operation.

4.4 Download data into the station

The following table shows which data is overwritten with the different commands in the Station.

Command	Overwrites the BDV	Sets the station address (networked)	Overwrites the configuration
'Initialize station' (only affects the connected Station)	Yes	Yes	Yes
'Download site configuration'	Yes	No	Yes, optionally affects all Stations

Effects of downloading data to the Station

The commands for downloading data can be found in Cerberus-Engineering-Tool in the 'Commissioning' menu.

5 A - Commissioning a standalone control panel without Cerberus Engineering Tool

Prerequisites

- The batteries have been installed, but are not connected yet.
- The cables for the detector line and the mains supply have been laid.
- The acceptance test has been carried out for the detector lines.
- Cerberus-Engineering-Tool is not needed.

Commissioning steps

For the commissioning of a standalone control panel the following steps are required:

- Configure the power supply if required
- Prepare the control panel for commissioning
- Run auto-configuration:
  - Automatic configuration of the station or
  - Automatic configuration of a detector line
- Enter customer text based on the ground plan
- Detector parameter setting

Configuring the power supply

Normally, when the Station has been equipped with a power supply unit and batteries, there is no need to configure the power supply. In all other cases the power supply must be configured. This may be done by wiring accordingly.

The following table shows the cases in which the monitoring signals of the power supply must be re-wired.

Operation mode	Connector on periphery board	Connect with
Operation without batteries	X1 / pin 1 '#BATT'	X1 / pin 4 #COMMON
Operation without power supply unit	X1 / pin 1 '#BATT'	X1 / pin 4 #COMMON
	X1 / pin 2 '#CONV'	X1 / pin 4 #COMMON
	X1 / pin 3 '#MAINS'	X1 / pin 4 #COMMON

Configuring the power supply

You will find the pin assignments in document A6V10210368, characteristic product data .

Preparing Station for commissioning

1. Connect the cables (detector lines, periphery).
2. Connect the power supply (mains and batteries).
   ⇨ The Station starts up and reads in the internal hardware. During this phase, the 'FAULT' LED flashes and the display shows the progress.
   ⇨ During start-up, the firmware version F-FXS7211 is displayed.
3. Wait until the display indicates the selection of the BDV.
4. Press the 'Install' softkey and confirm with the 'Yes' softkey.
   ⇨ The Station restarts. During this phase, the 'FAULT' LED flashes and the display shows the progress.
5. Wait until only the green 'System On' LED lights up, the display shows the normal condition and the Station can be operated.
6. Press <MENU> and select the 'Login/logout' menu item.
   ⇨ You are prompted to enter a PIN.
7. Enter the PIN '0000' and confirm the entry by pressing <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
8. Check the firmware of the Station to ensure that it is up to date. To do this select the 'Topology' > 'Hardware tree' > 'Station' > 'More Options' > 'Show details' menu items.
   ⇨ The version status of the Station and configuration data are displayed.
9. Update the firmware if necessary.
10. Enter the date and time. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.

Depending on configuration of Station, other messages may be displayed.

Automatic configuration of Station

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.

5. Select the 'Auto-configure station' command.
   ⇨ The automatic configuration is carried out. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>.

⇨ The message is closed.

Automatic configuration of a C-NET line

!	*NOTICE*
	Incorrect order for reading in a loop Error when reading in a loop. The C-NET lines are detected as stubs during the first system start-up, e.g. Line 11, Line 12 (2-digit line number), even if these are connected as a loop. ● **Always select the first Line to read in a loop, in this case the Line 11. The Line 12 will then be read in automatically.** After reading-in, a loop is indicated with a 1-digit line number, in this case as Line 1. ● Proceed in the same way from Line 21/22 (loop 2) to Line 41/42 (loop 4).

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Auto-configure line' command.
   ⇨ The automatic configuration is carried out. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>.

⇨ The message is closed.

Entering customer text via the Person Machine Interface

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' > 'Area' > 'Section' > 'Zone' menu items.

4. Press the 'More Options' softkey for each element to be labelled, select 'Execute commands', select the 'Set customer text' command and enter the text on the numeric keypad.

⇨ Press <ok> to save the entered value. There is no need to restart the Station.

The customer text appears on the display

All elements apart from 'Zone':

If a message associated with an element appears, the corresponding customer text is displayed. If no customer text is assigned to this element, the customer text of the next higher-level element (e.g. Detector > Line > Line card) appears.

'Zone' element:

If an alarm message of a 'Zone' appears, the detector's (sensor's) customer text is displayed. If the Detector is not assigned a customer text, the customer text of the 'Zone' appears. If the 'Zone' is also not assigned a customer text, the customer text of the next higher-level element (Detector > Zone > Section > Area) appears.

Set the detector parameter sets using the PMI

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' > 'Area' > 'Section' > 'Zone' > 'Detect.' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the corresponding menu item:
   'Set PS MANNED' (S-LINE detector)
   'Set PS UNMANNED' (S-LINE detector)
   'Set PS' (C-LINE detector, gas detector)
6. Select the parameter set.
   ⇨ The 'Command executed' message appears.

Testing installation function

Check the functions of the fire detection installation in the following test modes:

- Detector test [→ 55]
- Witness mode
- Control test mode

You will find more information about testing an installation configuration in the document A6V10211076, operation .

Completion work

- Check the time and date and reset these. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.
- Set the PIN for the access levels 1, 2.1, 2.2 and 3. To do this select the 'Settings/administration' > 'Create PIN' menu items.
- Fit the housing cover.
- Inscribe the installation plate, which was glued onto the outside of the housing during assembly, with the installation number and date of commissioning. Use a pen with solvent-proof ink.

6 B1 - Commissioning a standalone control panel with Cerberus Engineering Tool, without pre-configuration

Prerequisites

- The batteries have been installed, but are not connected yet.
- The cables for the detector line and the mains supply have been laid.
- The acceptance test has been carried out for the detector lines.
- Cerberus-Engineering-Tool is installed on the PC.
- The current firmware and basic data variant (BDV) FXS2004 are available on the PC.

Commissioning steps

For the commissioning of a standalone control panel the following steps are required:

- Prepare the control panel for commissioning
- Run auto-configuration:
  - Automatic configuration of the station or
  - Automatic configuration of a detector line
- Connecting the PC to the control panel
- Load automatically created configuration in Cerberus-Engineering-Tool
- Adapt configuration in Cerberus-Engineering-Tool
- Load the adapted configuration in the control panel
- Remove the PC from the control panel

Preparing Station for commissioning

1. Connect the cables (detector lines, periphery).
2. Connect the power supply (mains and batteries).
   ⇨ The Station starts up and reads in the internal hardware. During this phase, the 'FAULT' LED flashes and the display shows the progress.
   ⇨ During start-up, the firmware version F-FXS7211 is displayed.
3. Wait until the display indicates the selection of the BDV.
4. Press the 'Install' softkey and confirm with the 'Yes' softkey.
   ⇨ The Station restarts. During this phase, the 'FAULT' LED flashes and the display shows the progress.
5. Wait until only the green 'System On' LED lights up, the display shows the normal condition and the Station can be operated.

6. Press <MENU> and select the 'Login/logout' menu item.
   ⇨ You are prompted to enter a PIN.
7. Enter the PIN '0000' and confirm the entry by pressing <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
8. Check the firmware of the Station to ensure that it is up to date. To do this select the 'Topology' > 'Hardware tree' > 'Station' > 'More Options' > 'Show details' menu items.
   ⇨ The version status of the Station and configuration data are displayed.
9. Update the firmware if necessary.
10. Enter the date and time. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.

Depending on configuration of Station, other messages may be displayed.

Automatic configuration of Station

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Auto-configure station' command.
   ⇨ The automatic configuration is carried out. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>.

⇨ The message is closed.

Automatic configuration of a C-NET line

!	*NOTICE*
	Incorrect order for reading in a loop Error when reading in a loop. The C-NET lines are detected as stubs during the first system start-up, e.g. Line 11, Line 12 (2-digit line number), even if these are connected as a loop. ● **Always select the first Line to read in a loop, in this case the Line 11. The Line 12 will then be read in automatically.** After reading-in, a loop is indicated with a 1-digit line number, in this case as Line 1. ● Proceed in the same way from Line 21/22 (loop 2) to Line 41/42 (loop 4).

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Auto-configure line' command.
   ⇨ The automatic configuration is carried out. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>.

⇨ The message is closed.

Connecting the PC to the Station

● Connect the PC to the Station. See [→ 17]

Loading automatically created configuration in Cerberus-Engineering-Tool

1. Select the 'File' > 'New site' menu item.
   ⇨ The 'Create new site' window opens.
2. Click on the 'Upload from station(s)' option field and click on the 'Next' button.
   ⇨ The 'Connect' window opens.
3. Select 'Local connection' and click on the 'OK' button.
   ⇨ The 'Create site by uploading configuration from station(s)' window opens and the level of progress is displayed.
   ⇨ After the upload, the 'Site properties' window opens.

4. Change the entries if required and click on the 'OK' button.
   ⇨ The 'New site configuration confirmation' window opens.
5. Click on the 'Yes' button.

⇨ The Site is opened in Cerberus-Engineering-Tool.

Adapt configuration in Cerberus-Engineering-Tool

1. Using the layout plan, in Cerberus-Engineering-Tool adapt the links of the devices that have been read in with the logical elements of the 'Detection', 'Control' or 'Operation' task card and if necessary, configure other Controls or finalise existing Controls.
2. In Cerberus-Engineering-Tool you may have to adapt the parameters of the Station, e.g. configuration of power supply.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Testing installation function

Check the functions of the fire detection installation in the following test modes:

- Detector test [→ 55]
- Witness mode
- Control test mode

You will find more information about testing an installation configuration in the document A6V10211076, operation .

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

Completion work

- Check the time and date and reset these. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.
- Set the PIN for the access levels 1, 2.1, 2.2 and 3. To do this select the 'Settings/administration' > 'Create PIN' menu items.
- Fit the housing cover.
- Inscribe the installation plate, which was glued onto the outside of the housing during assembly, with the installation number and date of commissioning. Use a pen with solvent-proof ink.

7 B2 - Commissioning a standalone control panel with Cerberus Engineering Tool, with pre-configuration

Prerequisites

- The batteries have been installed, but are not connected yet.
- The cables for the detector line and the mains supply have been laid.
- The acceptance test has been carried out for the detector lines.
- Cerberus-Engineering-Tool is installed on the PC.
- The current firmware and basic data variant (BDV) FXS2004 are available on the PC.

Commissioning steps

For the commissioning of a standalone control panel the following steps are required:

- In Cerberus-Engineering-Tool :
  - Create an installation ('Site')
  - Adapt the parameters of the station if required, e.g. the configuration of the power supply
  - Create a preconfiguration of the detection tree and the control tree
- Prepare the control panel for commissioning
- Connecting the PC to the control panel
- Loading the pre-configuration in the control panel
- Read in C-NET devices line-by-line
- Load control panel configuration in Cerberus-Engineering-Tool
- Adapt configuration in Cerberus-Engineering-Tool
- Load the adapted configuration in the control panel
- Remove the PC from the control panel

Pre-configuration

1. In Cerberus-Engineering-Tool create a Site and the Station including customer texts.
2. In Cerberus-Engineering-Tool you may have to adapt the parameters of the Station, e.g. configuration of power supply.
3. In Cerberus-Engineering-Tool create a pre-configuration of the detection tree up to the 'Zone' level and of the control tree using the planning documents (layout plan, etc.).

Preparing Station for commissioning

1. Connect the cables (detector lines, periphery).
2. Connect the power supply (mains and batteries).
   - ⇨ The Station starts up and reads in the internal hardware. During this phase, the 'FAULT' LED flashes and the display shows the progress.
   - ⇨ During start-up, the firmware version F-FXS7211 is displayed.
3. Wait until the display indicates the selection of the BDV.

⇨ It is not necessary to install the BDV for the further procedure. This saves having to restart the Station.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading the pre-configuration in the control panel

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   - ⇨ The 'Download site configuration' window opens.
   - ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Station listed and click on the 'Start' button.
   - ⇨ A new 'Download site configuration' window with the 'Set the station to access level 3' request opens. Press the Station <MENU>, enter the PIN '0000' and press <ok>.
3. Click the 'Ok' button in the 'Download site configuration' window.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Reading in C-NET devices line-by-line

!	*NOTICE*
	Incorrect order for reading in a loop Error when reading in a loop. The detector lines are detected as stubs during the first system start-up, e.g. Line 11, Line 12 (2-digit line number), even if these are connected as a loop. • **Always select the first Line to read in a loop, in this case the Line 11. The Line 12 will then be read in automatically.** After reading-in, a loop is indicated with a 1-digit line number, in this case as Line 1. • Proceed in the same way from Line 21/22 (loop 2) to Line 41/42 (loop 4).

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Read-in installed devices' command.
   ⇨ The C-NET devices are read in. The following message appears after completion: 'Command executed'.
6. Press <C> or <MENU> to close the message.

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Adapt configuration in Cerberus-Engineering-Tool

Using the layout plan, in Cerberus-Engineering-Tool link the devices that have been read in with the logical elements of the 'Detection', 'Control' or 'Operation' task card and if necessary, configure other Controls or finalise existing Controls.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Testing installation function

Check the functions of the fire detection installation in the following test modes:

- Detector test [→ 55]
- Witness mode
- Control test mode

You will find more information about testing an installation configuration in the document A6V10211076, operation .

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

Completion work

- Check the time and date and reset these. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.
- Set the PIN for the access levels 1, 2.1, 2.2 and 3. To do this select the 'Settings/administration' > 'Create PIN' menu items.
- Fit the housing cover.
- Inscribe the installation plate, which was glued onto the outside of the housing during assembly, with the installation number and date of commissioning. Use a pen with solvent-proof ink.

8 C- Commissioning networked stations

!	*NOTICE*
	Commissioning as standalone station: **Several standalone stations cannot be converted into a networked station!** Networked stations must be initialized with a network address right from the start. Stations commissioned as standalone cannot be combined to form a networked station later on.

Prerequisites

- Several stations are available.
- The batteries have been installed, but are not connected yet.
- The cables for the detector lines and the mains supply have been laid.
- The acceptance test has been carried out for the detector lines.
- Cerberus-Engineering-Tool is installed on the PC.
- The current firmware and basic data variant (BDV) FXS2004 are available on the PC.

Commissioning steps

For the commissioning of a networked station the following steps are required:

- Create an installation ('Site') and all stations in Cerberus-Engineering-Tool
- Create a pre-configuration of the detection tree and the control tree if required
- Prepare each of the stations individually for commissioning
- Connect the PC to each individual station
- Initialize each station individually
- Read in the C-NET devices on all stations by line
- Load station configuration in Cerberus-Engineering-Tool
- Create the configuration in Cerberus-Engineering-Tool or adapt it if pre-configured
- Load the adapted configuration in the control panel
- Remove the PC from the control panel

Creating Site

1. In Cerberus-Engineering-Tool create a Site and all Stations including customer texts.
2. In Cerberus-Engineering-Tool you may have to adapt the parameters of the Stations, e.g. configuration of power supply.

Pre-configuration (optional)

In Cerberus-Engineering-Tool create a pre-configuration of the detection tree up to the 'Zone' level and of the control tree using the planning documents (layout plan, etc.).

Preparing Station for commissioning

1. Connect the cables (detector lines, periphery).
2. Connect the power supply (mains and batteries).
   ⇨ The Station starts up and reads in the internal hardware. During this phase, the 'FAULT' LED flashes and the display shows the progress.
   ⇨ During start-up, the firmware version F-FXS7211 is displayed.
3. Wait until the display indicates the selection of the BDV.

⇨ It is not necessary to install the BDV for the further procedure. This saves having to restart the Station.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Initializing stations

The configuration and the BDV are loaded into the station when initializing. The configuration and the BDV of the station are overwritten in doing so.

1. Go from station to station.
2. Connect the PC to the station.
3. Highlight the corresponding station in the hardware tree of Cerberus-Engineering-Tool.
4. Initialize the station. Select the menu item 'Commissioning' > 'Initialize station'.

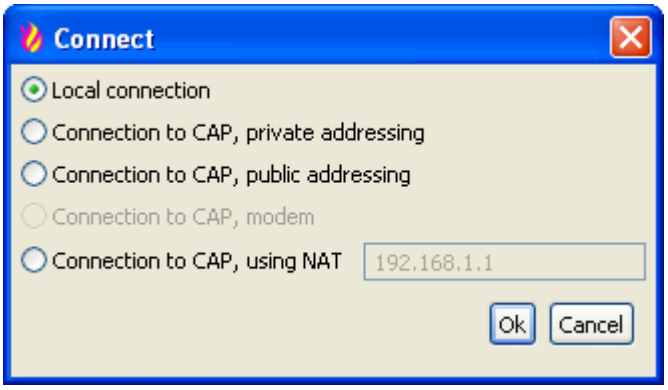
Reading in C-NET devices line-by-line

!	*NOTICE* **Incorrect order for reading in a loop** Error when reading in a loop. The detector lines are detected as stubs during the first system start-up, e.g. Line 11, Line 12 (2-digit line number), even if these are connected as a loop. ● **Always select the first Line to read in a loop, in this case the Line 11. The Line 12 will then be read in automatically.** After reading-in, a loop is indicated with a 1-digit line number, in this case as Line 1. ● Proceed in the same way from Line 21/22 (loop 2) to Line 41/42 (loop 4).

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Read-in installed devices' command.
   ⇨ The C-NET devices are read in. The following message appears after completion: 'Command executed'.
6. Press <C> or <MENU> to close the message.

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.



2. Select the option according to the network configuration.

3. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
4. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
5. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Adapt configuration in Cerberus-Engineering-Tool

Using the layout plan, in Cerberus-Engineering-Tool link the devices that have been read in with the logical elements of the 'Detection', 'Control' or 'Operation' task card and if necessary, configure other Controls or finalise existing Controls.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Testing installation function

Check the functions of the fire detection installation in the following test modes:

- Detector test [→ 55]
- Witness mode
- Control test mode

You will find more information about testing an installation configuration in the document A6V10211076, operation .

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

Completion work

- Check the time and date and reset these. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.
- Set the PIN for the access levels 1, 2.1, 2.2 and 3. To do this select the 'Settings/administration' > 'Create PIN' menu items.
- Fit the housing cover.
- Inscribe the installation plate, which was glued onto the outside of the housing during assembly, with the installation number and date of commissioning. Use a pen with solvent-proof ink.

9 Add a station to an existing system

Prerequisites

- The batteries have been installed, but are not connected yet.
- The cables for the detector lines and the mains supply have been laid.
- The acceptance test has been carried out for the detector lines.
- Cerberus-Engineering-Tool is installed on the PC.
- The current firmware and basic data variant (BDV) FXS2004 are available on the PC.

Commissioning steps

For the commissioning of an additional station the following steps are required:

- Open the site in Cerberus-Engineering-Tool (or upload the available site configuration from a station)
- Configure the station to be integrated
- Prepare the station to be integrated for commissioning
- Connect the PC to the station that has to be integrated
- Initializing the station to be integrated
- Read in the C-NET devices of the integrated station line by line
- Load site configuration in Cerberus-Engineering-Tool
- Adapt configuration in Cerberus-Engineering-Tool
- Load the adapted configuration in all stations
- Remove the PC from the integrated station

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Configuring Station to be integrated

1. Create the Station to be integrated in Cerberus-Engineering-Tool.
2. If necessary, configure the power supply in Cerberus-Engineering-Tool.
3. When possible, create a pre-configuration of the Station to be integrated.

Preparing Station for commissioning

1. Connect the cables (detector lines, periphery).
2. Connect the power supply (mains and batteries).
   ⇨ The Station starts up and reads in the internal hardware. During this phase, the 'FAULT' LED flashes and the display shows the progress.
   ⇨ During start-up, the firmware version F-FXS7211 is displayed.
3. Wait until the display indicates the selection of the BDV.

⇨ It is not necessary to install the BDV for the further procedure. This saves having to restart the Station.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Initializing the station to be integrated

The pre-configuration and the BDV are loaded into the station when initializing.

The BDV of the station is overwritten in doing so.

1. Move to the station to be initialized.
2. Connect the PC to the station.
3. Highlight the newly created station in the hardware tree of Cerberus-Engineering-Tool.
4. Initialize the station. Select the menu item 'Commissioning' > 'Initialize station'.

Reading in C-NET devices line-by-line

NOTICE

Incorrect order for reading in a loop

Error when reading in a loop.

The detector lines are detected as stubs during the first system start-up, e.g. Line 11, Line 12 (2-digit line number), even if these are connected as a loop.

- **Always select the first Line to read in a loop, in this case the Line 11. The Line 12 will then be read in automatically.**
  After reading-in, a loop is indicated with a 1-digit line number, in this case as Line 1.
- Proceed in the same way from Line 21/22 (loop 2) to Line 41/42 (loop 4).

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Read-in installed devices' command.
   ⇨ The C-NET devices are read in. The following message appears after completion: 'Command executed'.
6. Press <C> or <MENU> to close the message.

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Adapt configuration in Cerberus-Engineering-Tool

Using the layout plan, in Cerberus-Engineering-Tool link the devices that have been read in with the logical elements of the 'Detection', 'Control' or 'Operation' task card and if necessary, configure other Controls or finalise existing Controls.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Testing installation function

Check the functions of the fire detection installation in the following test modes:

- Detector test [→ 55]
- Witness mode
- Control test mode

You will find more information about testing an installation configuration in the document A6V10211076, operation .

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

completion work

- Check the time and date and reset these. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.
- Set the PIN for the access levels 1, 2.1, 2.2 and 3. To do this select the 'Settings/administration' > 'Create PIN' menu items.
- Fit the housing cover.
- Inscribe the installation plate, which was glued onto the outside of the housing during assembly, with the installation number and date of commissioning. Use a pen with solvent-proof ink.

10 Commissioning the sounder base DBS720

The sounder base DBS720 is used for acoustic alarming and can be commissioned as follows:

- Can be linked to the following control elements:
  - Internal or external sounder in the alarming control group
  - Universal or 2-phase evacuation control in the Evacuation control group
- Directly controlled by the detector in the same sounder base:
  - In case of alarm in the corresponding zone
  - In case of alarm of this detector

Commissioning steps

- Open the site in Cerberus-Engineering-Tool (or upload the available site configuration from a station)
- Configure base sounder
- connect the PC to the station
- Load the adapted configuration in the station
- remove the PC from the station

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Configure base sounder

- Proceed as described in the instructions in document A6V10210424, configuration .

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Remove the PC from the Station

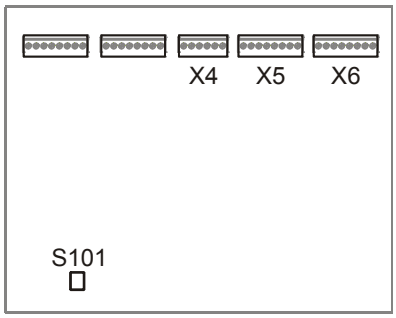
1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

11 Commissioning the fire department periphery module FCI2001-D1

The fire department periphery module FCI2001-D1 monitors the monitored inputs and outputs for short-circuit and open line. The resistance values of the lines may be read in and stored at the push of a button. If a deviation from the quiescent value is detected, the control panel evaluates a short-circuit or an open line.

The following table shows the monitored inputs and outputs:

Terminal	PIN	Function
X4	4, 5 and 1, 2	Remote transmission or transmission device (RT Alarm) and release element (FSE)
X5	7, 8	Key depot (tamper monitoring)
X6	5, 6	Local alarm



View of the fire department periphery module

X4 –X6 Connection terminals S101 Key switch

Procedure

1. Check the connected lines for short-circuit and open line.
2. Connect the lines.
   ⇨ During the commissioning of the control panel, fault messages are indicated, provided that there are any deviations from the basic settings.
3. Press the push-button S101.
   ⇨ The resistance values are read in.

12 Testing detectors

The commissioning personnel perform the function test of the automatic fire detectors and the Manual call points.

Prerequisites

- The detector line has been commissioned.

Procedure

- Set the element to be tested (Area, Section or Zone) into test mode on the control panel
- Activate all automatic Detectors and Manual call points.
- Set the tested element (Area, Section or Zone) to normal mode
- Check the logged test activations
- Eliminate possible errors

Switching Area, Section or Zone to test mode

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' menu items.
4. Select the level, 'Area' > 'Section' > 'Zone', to be switched to test mode.
5. Press the 'More Options' softkey and select 'Execute commands'.
6. Select a command from the following table.

⇨ The yellow 'DETECTOR TEST' LED lights up.

Element	Command
Area	● 'Non-MCP zones det.test' ● 'MCP zones det.test'
Section	● 'Non-MCP zones det.test' ● 'MCP zones det.test'
Zone	● 'Detector test'

Commands under 'Execute commands'

Activating Detectors

Use the appropriate auxiliary means (see document A6V10212047, technical manual), to activate all automatic Detectors and Manual call points. Write down the sequence of the test activations.

With each of the test activations, the alarm indicator of the detector activated flashes as well as a possible existing and allocated external alarm indicator.

Switching Area, Section or Zone to normal operation

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' menu items.
4. Select the level, 'Area' > 'Section' > 'Zone', to be switched to normal mode.
5. Press the 'More Options' softkey and select 'Execute commands'.
6. Select a command from the table below to exit test mode.

⇨ The yellow 'DETECTOR TEST' LED goes out.

Element	Command
Area	● 'Non-MCP zones det.test END' ● 'MCP zones det.test END'
Section	● 'Non-MCP zones det.test END' ● 'MCP zones det.test END'
Zone	● 'Detector test END'

Commands under 'Execute commands'

Comment

You can also switch to normal operation on the superordinate level for the corresponding command; e.g. the test in the Zone may also be exited at Section or Area level.

Switching Zone to normal operation

There is a shortened procedure for switching individual Zones to normal operation:

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Message summary' > > 'Test message' menu items.
4. Select the indicated Zone in test mode and press the 'Execute Commands' softkey.
5. Select the 'Detector test END' menu item.
   ⇨ The 'Command executed' message appears after completion.
   ⇨ The yellow 'DETECTOR TEST' LED goes out.
6. Press <C> or <MENU> to close the message.

Check the test activations

1. Check the logged test activations.
   ⇨ With the person machine interface using the 'Event memory' menu item.
   ⇨ In Cerberus-Engineering-Tool via the 'Commissioning' > 'Upload site event memory' menu bar.
2. Eliminate possible errors such as alarm indicator has not flashed or no test entries exist.

13 Remove or replace non-stationary C-NET devices

The product range includes bases with or without a loop contact.

13.1 Base with loop contact

If an C-NET device is removed, the loop contact prevents the C-NET line from being interrupted and thereby prevents a fault message.

The work described in this chapter may be performed when the C-NET line is switched on.

13.1.1 Temporarily remove an individual non-stationary C-NET device

Instances may arise when a C-NET device has to be temporarily removed from the base. Afterwards the same device must be re-inserted at exactly the same place in the C-NET.

Procedure

1. Remove the device.
   ⇨ The control panel detects that the device is missing and reports a fault.
2. Perform the work in account.
3. Re-insert the device in the C-NET in the same, previous position.
4. Acknowledge the fault.
   ⇨ If the fault is no longer displayed, the control panel updates the settings of the re-inserted device.
   ⇨ If the fault continues to be d

13.1.2 Temporarily remove multiple non-stationary C-NET devices

For the purpose of painting work, it may be necessary to temporarily remove the C-NET devices in a room. Each C-NET device must be placed in its own base again, i.e. the C-NET devices must not be swapped over.

Procedure

- Switch off the relevant zone(s)
- Remove C-NET devices from their bases, perform task, and re-insert C-NET devices
- Switch on zone(s)

Switch off relevant Zone(s)

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' > 'Area' > 'Section' > 'Zone' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Off' command.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The 'Zone' is switched off.

Remove C-NET devices from their bases, perform task, and re-insert C-NET devices

Mark the allocation of the devices to the respective base to avoid additional work steps.

1. Remove the devices or replace them with dummy detectors.
2. Perform the (painter) work.
3. Re-insert the devices to the respective position or replace the dummy detectors by the original devices.

Switch on relevant Zone(s)

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' > 'Area' > 'Section' > 'Zone' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'On' command.

⇨ The yellow 'ISOLATION' LED goes out

⇨ The 'Zone' is switched on again.

The line is not fault-free

If detectors have been swapped over or are missing, the following messages can be read in the display of the person machine interface:

'Zone', 'Serial no. ("ID-Nr.")', 'Dev.location fault'

See also

Non-stationary C-NET devices of the same type have been swapped over [→ 143]

13.1.3 Permanently removing non-stationary C-NET devices

Procedure

- Dismount the device to be removed (the control panel detects that the device is missing and reports one fault per missing device)
- Delete the C-NET devices individually via the operating panel of the control panel
- Open site in Cerberus-Engineering-Tool
- connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- Remove the corresponding zones from the detection tree
- Load the adapted configuration in the control panel
- Remove the PC from the control panel

Detaching C-NET device

- Detach the device C-NETand base to be removed and connect the wires.

Deleting C-NET device

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Mark the corresponding device fault message.
4. Press the 'More Options' softkey.
5. Select the 'Show topology' menu item.
   ⇨ The logical channel is displayed.
6. Press the 'More Options' softkey.
7. Select the 'Jump to link' menu item.
   ⇨ The physical channel is displayed (on some devices, e.g. FDCL221, 'Device' is displayed directly).

8. Press the 'Upper level' softkey.
   ⇨ 'Device' is displayed.
9. Press the 'More Options' softkey.
10. Select the 'Execute commands' menu item.
11. Select the 'Remove/delete device' command.

⇨ The control panel deletes the physical representation of the removed device, the logical channel element in the Zone remains.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the elements

Remove the corresponding elements from the logical trees of Cerberus-Engineering-Tool. Search for the elements using the 'View' > 'Find' > menu, 'Not linked', 'Entire site' entries.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

13.1.4 Replacing non-stationary C-NET devices of the same type

Procedure

- Switch the corresponding Zones to test mode
- Remove the first C-NET device to be replaced from the base
- Wait for 40 seconds, then insert the new C-NET device of the same type
- Remove the second C-NET device to be replaced from the base
- Wait for 40 seconds, then insert the new C-NET device of the same type
- The third, etc.
- Switch Zones back to normal operation
- Open Site in Cerberus-Engineering-Tool
- Connect the PC to the Station
- Load site configuration in Cerberus-Engineering-Tool
- Remove PC from the Station

Switching Area, Section or Zone to test mode

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' menu items.
4. Select the level, 'Area' > 'Section' > 'Zone', to be switched to test mode.
5. Press the 'More Options' softkey and select 'Execute commands'.
6. Select a command from the following table.

⇨ The yellow 'DETECTOR TEST' LED lights up.

Element	Command
Area	● 'Non-MCP zones det.test' ● 'MCP zones det.test'
Section	● 'Non-MCP zones det.test' ● 'MCP zones det.test'
Zone	● 'Detector test'

Commands under 'Execute commands'

Remove the C-NET device

- Remove the C-NET device to be replaced.

Insert new C-NET device

1. Wait for 40 seconds, then insert the new C-NET device of the same type.
   ⇨ After successful replacement, the internal alarm indicator flashes for 10 seconds.
   If the internal alarm indicator is not flashing, check whether:
   ⇨ you have waited long enough before inserting
   ⇨ other C-NET devices on the Lineare missing
   ⇨ the same type of device has not been inserted (the device can be replaced again in this case)
2. Only if the internal alarm indicator did not flash: Restart the C-NET line.

Switching Area, Section or Zone to normal operation

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' menu items.
4. Select the level, 'Area' > 'Section' > 'Zone', to be switched to normal mode.
5. Press the 'More Options' softkey and select 'Execute commands'.
6. Select a command from the table below to exit test mode.

⇨ The yellow 'DETECTOR TEST' LED goes out.

Element	Command
Area	● 'Non-MCP zones det.test END' ● 'MCP zones det.test END'
Section	● 'Non-MCP zones det.test END' ● 'MCP zones det.test END'
Zone	● 'Detector test END'

Commands under 'Execute commands'

Comment

You can also switch to normal operation on the superordinate level for the corresponding command; e.g. the test in the Zone may also be exited at Section or Area level.

Switching Zone to normal operation

There is a shortened procedure for switching individual Zones to normal operation:

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Message summary' > > 'Test message' menu items.
4. Select the indicated Zone in test mode and press the 'Execute Commands' softkey.
5. Select the 'Detector test END' menu item.
   ⇨ The 'Command executed' message appears after completion.
   ⇨ The yellow 'DETECTOR TEST' LED goes out.
6. Press <C> or <MENU> to close the message.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

13.1.5 Replacing non-stationary C-NET devices of different types

Procedure

- Dismount the device to be removed
- Delete the C-NET devices in turn via the operating panel of the control panel
- Insert new C-NET devices
- Load C-NET devices (run this function once)
- Open Site in Cerberus-Engineering-Tool
- Connect the PC to the Station
- Load site configuration in Cerberus-Engineering-Tool
- Replace C-NET devices in the corresponding Zones in the Detection tree
- Load the adapted configuration in the Station
- Remove PC from the Station

Remove the C-NET device

- Detach the device to be removed.

⇨ The Station detects that the device is missing and reports a Fault.

Deleting C-NET device

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Mark the corresponding device fault message.
4. Press the 'More Options' softkey.
5. Select the 'Show topology' menu item.
   ⇨ The logical channel is displayed.
6. Press the 'More Options' softkey.
7. Select the 'Jump to link' menu item.
   ⇨ The physical channel is displayed (on some devices, e.g. FDCL221, 'Device' is displayed directly).
8. Press the 'Upper level' softkey.
   ⇨ 'Device' is displayed.
9. Press the 'More Options' softkey.
10. Select the 'Execute commands' menu item.
11. Select the 'Remove/delete device' command.

⇨ The control panel deletes the physical representation of the removed device, the logical channel element in the Zone remains.

Insert new C-NET device

- Insert the new C-NET device.

Reading in C-NET devices

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Read-in installed devices' command.
   ⇨ The C-NET devices are read in. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>

⇨ The message is closed.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Replacing the C-NET device in the Zone

1. Search for Zone using the 'View' > 'Find and replace' > menu 'Not linked', 'Entire site' entries.
2. Replace the C-NET device in the corresponding Zone in the Detection tree.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

13.2 Base without loop contact

If a C-NET device is removed, the line is interrupted from this point. If the device is on a stub or sub-stub, communication between the control panel and downstream devices is interrupted. These devices are shown as missing on the control panel.

The work described in this chapter may only be performed when the C-NET line is switched off.

13.2.1 Temporarily remove an individual non-stationary C-NET device

Instances may arise when a C-NET device has to be temporarily removed from the base. Afterwards the same device must be re-inserted at exactly the same place in the C-NET.

Procedure

- Switch off C-NET line
- Remove C-NET device from the base and re-insert it
- Switch on C-NET line

Switching off C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line OFF' menu item.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The C-NET line is disconnected from the power supply.

Removing C-NET devices from their bases and re-inserting them

Mark the allocation of the devices to the respective base to avoid additional work steps.

1. Remove the devices.
2. Perform the (painter) work.
3. Re-insert the devices to the respective position.

Switching on C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line ON' menu item.

⇨ The yellow 'ISOLATION' LED goes out.

The line is not fault-free

If detectors have been swapped over or are missing, the following messages can be read in the display of the person machine interface:

'Zone', 'Serial no. ("ID-Nr.")', 'Dev.location fault'

See also

Non-stationary C-NET devices of the same type have been swapped over [→ 143]

13.2.2 Temporarily remove multiple non-stationary C-NET devices

For the purpose of painting work, it may be necessary to temporarily remove the C-NET devices in a room. Each C-NET device must be placed in its own base again, i.e. the C-NET devices must not be swapped over.

Procedure

- Switch off the relevant zone(s)
- Remove C-NET devices from their bases, perform task, and re-insert C-NET devices
- Switch on zone(s)

Switch off relevant Zone(s)

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' > 'Area' > 'Section' > 'Zone' menu items.

4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Off' command.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The 'Zone' is switched off.

Remove C-NET devices from their bases, perform task, and re-insert C-NET devices

Mark the allocation of the devices to the respective base to avoid additional work steps.

1. Remove the devices or replace them with dummy detectors.
2. Perform the (painter) work.
3. Re-insert the devices to the respective position or replace the dummy detectors by the original devices.

Switch on relevant Zone(s)

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Detection tree' > 'Area' > 'Section' > 'Zone' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'On' command.

⇨ The yellow 'ISOLATION' LED goes out

⇨ The 'Zone' is switched on again.

The line is not fault-free

If detectors have been swapped over or are missing, the following messages can be read in the display of the person machine interface:

'Zone', 'Serial no. ("ID-Nr.")', 'Dev.location fault'

See also

Non-stationary C-NET devices of the same type have been swapped over [→ 143]

13.2.3 Permanently remove a non-stationary C-NET device

Procedure

- Switch off corresponding C-NET line
- Dismount the C-NET device and base to be removed and connect the wires
- Switch on the corresponding C-NET line (the control panel detects that the device is missing and reports a fault)
- Delete the C-NET device via the operating panel of the control panel
- Open site in Cerberus-Engineering-Tool
- connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- Remove the zone in account from the detection tree
- Load the adapted configuration in the control panel
- Remove the PC from the control panel

Switching off C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line OFF' menu item.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The C-NET line is disconnected from the power supply.

Detaching C-NET device

- Detach the device C-NETand base to be removed and connect the wires.

Switching on C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line ON' menu item.

⇨ The yellow 'ISOLATION' LED goes out.

Deleting C-NET device

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Mark the corresponding device fault message.
4. Press the 'More Options' softkey.
5. Select the 'Show topology' menu item.
   ⇨ The logical channel is displayed.
6. Press the 'More Options' softkey.
7. Select the 'Jump to link' menu item.
   ⇨ The physical channel is displayed (on some devices, e.g. FDCL221, 'Device' is displayed directly).
8. Press the 'Upper level' softkey.
   ⇨ 'Device' is displayed.
9. Press the 'More Options' softkey.
10. Select the 'Execute commands' menu item.
11. Select the 'Remove/delete device' command.

⇨ The control panel deletes the physical representation of the removed device, the logical channel element in the Zone remains.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the elements

Remove the corresponding elements from the logical trees of Cerberus-Engineering-Tool. Search for the elements using the 'View' > 'Find' > menu, 'Not linked', 'Entire site' entries.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

13.2.4 Replacing non-stationary C-NET devices of the same type

Procedure

- Switch off corresponding C-NET line
- Replace the C-NET device with the same type (it is possible to replace several devices).
- Eliminate C-NET device localization error (align device data)
- Open site in Cerberus-Engineering-Tool
- Connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- remove the PC from the station

Switching off C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line OFF' menu item.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The C-NET line is disconnected from the power supply.

Replace the C-NET device with the same type

Replace the C-NET device with the same type (it is possible to replace several devices).

Eliminating C-NET device localization errors

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' command.
6. Select the 'Accept replaced devices' command.

⇨ The fault messages are cancelled.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

13.2.5 Replace a non-stationary C-NET device of a different type

Procedure

- Dismount the device to be removed
- Delete the C-NET devices in turn via the operating panel of the control panel
- Insert new C-NET devices
- Load C-NET devices (run this function once)
- Open Site in Cerberus-Engineering-Tool
- Connect the PC to the Station
- Load site configuration in Cerberus-Engineering-Tool
- Replace C-NET devices in the corresponding Zones in the Detection tree
- Load the adapted configuration in the Station
- Remove PC from the Station

Remove the C-NET device

- Detach the device to be removed.

⇨ The Station detects that the device is missing and reports a Fault.

Deleting C-NET device

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Mark the corresponding device fault message.
4. Press the 'More Options' softkey.
5. Select the 'Show topology' menu item.
   ⇨ The logical channel is displayed.
6. Press the 'More Options' softkey.
7. Select the 'Jump to link' menu item.
   ⇨ The physical channel is displayed (on some devices, e.g. FDCL221, 'Device' is displayed directly).
8. Press the 'Upper level' softkey.
   ⇨ 'Device' is displayed.
9. Press the 'More Options' softkey.

10. Select the 'Execute commands' menu item.
11. Select the 'Remove/delete device' command.

⇨ The control panel deletes the physical representation of the removed device, the logical channel element in the Zone remains.

Insert new C-NET device

- Insert the new C-NET device.

Reading in C-NET devices

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Read-in installed devices' command.
   ⇨ The C-NET devices are read in. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>

⇨ The message is closed.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Replacing the C-NET device in the Zone

1. Search for Zone using the 'View' > 'Find and replace' > menu 'Not linked', 'Entire site' entries.
2. Replace the C-NET device in the corresponding Zone in the Detection tree.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.
3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

14 Change and extend the C-NET line

14.1 Add more C-NET devices to C-NET line

⚠ CAUTION

Incorrect assignment between detector/detector group and customer text

Misleading messages in the event of an alarm

- You must not change the C-NET topology at the same time as adding extra devices.
- After extending or changing an installation always run a test to check the assignment between detector/detector group and customer text.

Procedure

- Switch off corresponding C-NET line
- Mount and wire new bases or new devices with fixed wiring
- Insert the new devices into the new bases and write down the serial numbers on the ground plan
- Read in C-NET devices
- Open site in Cerberus-Engineering-Tool
- connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- InCerberus-Engineering-Tool :
  - Extend the configuration (e.g. detection tree)
  - Assign devices that have been read in to the elements of the detection tree or control tree, respectively
  - If required, configure additional controls (also for several stations), or finalize available controls
- Load the adapted configuration in the station
- Test devices of the changed C-NET line
- remove the PC from the station

Switching off C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line OFF' menu item.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The C-NET line is disconnected from the power supply.

Mount and wire new devices

During an extension of the line, all possible wiring work on the bases must be carried out from devices that have already been localised. When replacing these devices, these must be re-inserted in exactly the same place (observe the serial number).

1. Remove these devices from their bases.
2. Fit and wire the new devices, like bases.
3. Insert the new devices into the new bases and write down the serial numbers on the layout plan.

Reading in C-NET devices

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Read-in installed devices' command.
   ⇨ The C-NET devices are read in. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>

⇨ The message is closed.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Configure a new device

1. Extend the configuration in Cerberus-Engineering-Tool (e.g. Detection tree).
2. Allocate the read-in devices to the elements of the detection tree or the control tree in Cerberus-Engineering-Tool.
3. If required, configure additional Controls (also for several Stations) using the layout plan or finalise available Controls.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.

3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Testing installation function

Check the functions of the fire detection installation in the following test modes:

- Detector test [→ 55]
- Witness mode
- Control test mode

You will find more information about testing an installation configuration in the document A6V10211076, operation .

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

14.2 Permanently removing stationary C-NET devices

Procedure

- Switch off C-NET line
- Dismount the devices to be removed
- Switch on the C-NET line (the control panel detects that the devices are missing and reports a Fault per missing device)
- Delete the C-NET devices individually via the operating panel of the control panel
- Open Site in Cerberus-Engineering-Tool
- Connect PC to the Station
- Load site configuration in Cerberus-Engineering-Tool
- Remove the corresponding elements from the Detection tree
- Load the adapted configuration in the Station
- Remove PC from the Station

Switching off C-NET line

1. Press <MENU>.

   ⇨ You are prompted to enter a PIN.

2. Enter a valid PIN and confirm with <ok>.

   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.

3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line OFF' menu item.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The C-NET line is disconnected from the power supply.

Detaching C-NET device

- Detach the device C-NETand base to be removed and connect the wires.

Switching on C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line ON' menu item.

⇨ The yellow 'ISOLATION' LED goes out.

Deleting C-NET device

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Mark the corresponding device fault message.
4. Press the 'More Options' softkey.
5. Select the 'Show topology' menu item.
   ⇨ The logical channel is displayed.
6. Press the 'More Options' softkey.
7. Select the 'Jump to link' menu item.
   ⇨ The physical channel is displayed (on some devices, e.g. FDCL221, 'Device' is displayed directly).
8. Press the 'Upper level' softkey.
   ⇨ 'Device' is displayed.
9. Press the 'More Options' softkey.
10. Select the 'Execute commands' menu item.

11. Select the 'Remove/delete device' command.

⇨ The control panel deletes the physical representation of the removed device, the logical channel element in the Zone remains.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the elements

Remove the corresponding elements from the logical trees of Cerberus-Engineering-Tool. Search for the elements using the 'View' > 'Find' > menu, 'Not linked', 'Entire site' entries.

Loading the adapted configuration in the Station

1. Select the 'Commissioning' > 'Download site configuration' menu item.
   ⇨ The 'Download site configuration' window opens.
   ⇨ The 'Connect' window opens. Click on the 'OK' button.
2. In the 'Download site configuration' window, click on the Stations listed and click on the 'Start' button.
   ⇨ A new 'Download site configuration' window may be opened with the 'Set the station to access level 3' request (press Station <MENU>, enter the PIN and press <ok>.

3. Click on the 'OK' button.

⇨ The 'Action confirmation' window opens. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

14.3 Convert two stubs into a loop

Prerequisite

The two stubs must be assigned to the same line pair, e.g. line 11 and line 12.

Procedure

- Switch off the C-NET lines
- Wire both stubs to a loop
- Read in the C-NET devices (start with the first line, in our example with line 11).
  - The second line is accepted and the loop is formed (in this example, line 1).
- Open site in Cerberus-Engineering-Tool
- Connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- Remove the PC from the station

Switching off C-NET line

1. Press <MENU>.

   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.

   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line OFF' menu item.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The C-NET line is disconnected from the power supply.

Wire both stubs to a loop

Wire both stubs to a loop.

Reading in C-NET devices

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Read-in installed devices' command.
   ⇨ The C-NET devices are read in. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>

⇨ The message is closed.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

14.4 Connect a sub-stub to a loop

Procedure

- Switch off the C-NET line
- Connect the sub-stub to the loop
- Read in C-NET devices
- Open site in Cerberus-Engineering-Tool
- Connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- Remove the PC from the station

Switching off C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line OFF' menu item.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The C-NET line is disconnected from the power supply.

Connect the sub-stub to the loop

Connect the sub-stub to the loop.

Reading in C-NET devices

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.

4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Read-in installed devices' command.
   ⇨ The C-NET devices are read in. The 'Command executed' message appears after completion.
6. Press <C> or <MENU>

⇨ The message is closed.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

14.5 Replace a stationary C-NET device of the same type

!	*NOTICE*
	Incorrect assignment between detector and customer text and/or detector zone Incorrect messages (customer texts) in event of alarm ● You must not change the C-NET topology at the same time as adding extra devices. ● After extending or modifying a system, always run a test in which assignment between the detector and customer text or detector zone is checked.

Procedure

- Switch off corresponding C-NET line
- Replace the C-NET device with the same type (it is possible to replace several devices).
- Eliminate C-NET device localization error (align device data)
- Open site in Cerberus-Engineering-Tool
- Connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- remove the PC from the station

Switching off C-NET line

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding Line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' > 'Detector line OFF' menu item.

⇨ The yellow 'ISOLATION' LED lights up.

⇨ The C-NET line is disconnected from the power supply.

Replace the C-NET device with the same type

Replace the C-NET device with the same type (it is possible to replace several devices).

Eliminating C-NET device localization errors

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' command.
6. Select the 'Accept replaced devices' command.

⇨ The fault messages are cancelled.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

14.6 Replace manual call points of the same type

Manual call points may as well be replaced as described in the following.

!	*NOTICE*
	Incorrect assignment between detector and customer text and/or detector zone Incorrect messages (customer texts) in event of alarm ● You must not change the C-NET topology at the same time as adding extra devices. ● After extending or modifying a system, always run a test in which assignment between the detector and customer text or detector zone is checked.

Procedure

- Switching on the replace mode
- Replacing the manual call point by a device of the same type
- Switch off the replace mode: the detector is in test mode
- Testing the manual call point
- Switch test mode to normal operation
- Open site in Cerberus-Engineering-Tool
- Connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- remove the PC from the station

Switching on the replace mode

1. Press <Menu>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Functions' > 'All functions' > 'Detector' menu items.
4. Enter the zone address in 'Zone' and press <Ok>.
5. Enter the detector address in 'Detect.' and press <Ok>.
6. Select the menu item 'Device replace mode ON'.
   ⇨ The 'Command executed' message appears after completion.
   ⇨ The yellow 'Isolation' LED lights up.
   ⇨ The C-NET line is disconnected from the power supply.
7. Press <C> or <Menu>.

⇨ The message is closed.

Replacing the manual call point by a device of the same type

Replace the manual call point by a device of the same type.

Switching off the replace mode

1. Press <Menu>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Functions' > 'All functions' > 'Detector' menu items.
4. Enter the zone address in 'Zone' and press <ok>.
5. Enter the detector address in 'Detect.' and press <ok>.
6. Select the 'Device replace mode OFF' menu item.
   ⇨ The 'Command executed' message appears after completion.
   ⇨ The yellow 'Isolation' LED goes out.
   ⇨ The yellow LED 'Detector test' lights up; the detector/MCP is in test mode.
7. Press <C> or Menu> to close the message.

Testing the manual call point

Activate the manual call point by means of the appropriate auxiliary means.

Switching off test mode

1. Press <Menu>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Message summary' > 'Test message' menu items.
4. Select the indicated zone in test mode and press the softkey 'Execute commands'.
5. Select the 'Detector test END' menu item.
   ⇨ The 'Command executed' message appears after completion.
   ⇨ The yellow 'Detector test' LED goes out.
6. Press <Menu> or <C>.

⇨ The message is closed.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

15 Update the firmware of the station

If it is necessary to update the firmware (FW), this should be done during system maintenance. The firmware must be updated individually on each Station.

	NOTICE **Data loss during firmware update** Configuration data in the Station is deleted. ● Load the configuration data into Cerberus-Engineering-Tool before updating the firmware (data backup).

Updating the firmware also requires the configuration data to be converted if the new firmware and existing configuration are not compatible with one another.

	NOTICE **Power failure during firmware update** The main CPU is not updated. There is no guarantee that you will be able to repeat the firmware update after switching the Station back on! If the power was switched off right at the start of the update, cases may arise where the bootloader of the main CPU has not been written in full and the CPU module can not then be repaired by the user. Regarding the other CPUs, the procedure cannot be repeated after the Station is rebooted. The PMI & mainboard FCM2004 must therefore be reprogrammed by the manufacturer. ● Do not disconnect the Station from the power supply during the firmware update.

	⚠ **WARNING** **The fire detection installation is deactivated during the firmware update** Fire may spread unhindered. ● Supervision by people is required. ● Re-activate the fire detection installation as soon as possible.

Name format of the BDV

The name format of the BDV is set up as follows:

<prefix>-<country>_<national code(s)>_<sales channel>-<metadata version>_<BDV version>[Variant].eBDV

The <meta data version> consists of the three version levels Major, Minor and Bugfix. They are divided by full stops and set up numerically.

Example: F-FXS2004-XS_en_2-24.4.0_01.eBDV (24 = Major, 4 = Minor, 0 = Bugfix).

The BDV are compatible when the Major version and the Minor version are identical. The Bug fix version is not relevant for the compatibility.

Updating the firmware of the main CPU and the other CPUs

The procedure for updating the firmware differs depending on the station type.

Standalone control panel, SAFEDLINK Station	CAP Station, Ethernet Station
● Importing new firmware into Cerberus-Engineering-Tool ● Load configuration data in Cerberus-Engineering-Tool (upload from archive or from Station) ● Converting the configuration ● Eliminate conversion errors ● Connect the PC to the Station ● Enable Station ● Update the firmware of the main CPU – Do not install the BDV at BDV selection on the display (not necessary) ● Download converted configuration – The Station restarts ● Update the firmware of the additional CPU – The Station restarts ● Remove PC from the Station	● Importing new firmware into Cerberus-Engineering-Tool ● Load configuration data in Cerberus-Engineering-Tool (upload from archive or from Station) ● Converting the configuration ● Eliminate conversion errors ● Remove network connection from the Station and connect the PC ● Enable Station ● Update the firmware of the main CPU – Install the BDV at BDV selection on the display – The Station restarts ● Update the firmware of the additional CPU – The Station restarts ● Download converted configuration – The Station restarts ● Remove the PC from the Station and reestablish the network connection

Steps for updating the firmware

Updating the firmware of the additional CPUs only

If the Station is at the latest firmware version and components have been changed then it is only necessary to update the additional CPUs. The procedure for updating the firmware differs depending on the station type.

Standalone control panel, SAFEDLINK Station	CAP Station, Ethernet Station
● Connect the PC to the Station ● Enable Station ● Update the firmware of the additional CPU – The Station restarts ● Remove PC from the Station	● Load configuration data in Cerberus-Engineering-Tool (upload from archive or from Station) ● Reset the CAP/Ethernet Station to factory status – The Station restarts ● Remove network connection from the Station and connect the PC ● Enable Station ● Update the firmware of the additional CPU – The Station restarts ● Download saved configuration – The Station restarts ● Remove the PC from the Station and reestablish the network connection

Steps for updating the firmware

Updating base data variant (BDV) only

If the old and new BDVs are compatible (identical major and minor versions) and there is no new firmware version available then it is also only possible to update the BDV.

Standalone control panel, SAFEDLINK Station	CAP Station, Ethernet Station
● Importing new BDV into Cerberus-Engineering-Tool ● Load configuration data in Cerberus-Engineering-Tool (upload from archive or from Station) ● Converting the configuration ● Eliminate conversion errors ● Connect the PC to the Station ● Enable Station ● Download converted configuration – The Station restarts ● Remove PC from the Station	● Importing new BDV into Cerberus-Engineering-Tool ● Load configuration data in Cerberus-Engineering-Tool (upload from archive or from Station) ● Converting the configuration ● Eliminate conversion errors ● Remove network connection from the Station and connect the PC ● Enable Station ● Download converted configuration – The Station restarts ● Remove the PC from the Station and reestablish the network connection

Steps for updating the BDV

Importing new BDV into Cerberus-Engineering-Tool

1. Select the 'File' > 'Import new BDV' menu item.
2. In the selection window open the corresponding file F-FXS2004-XX_x_x_...eBDV.

Importing new firmware into Cerberus-Engineering-Tool

1. Select the 'File' > 'Import new FW package' menu item.
2. In the selection window open the corresponding file F-FXS7211-XX_x_x_...zip.

Saving configuration data

(Only necessary if no archive data is available)

- Prepare Cerberus-Engineering-Tool
- Connect the PC to the Station
- Enable Station
- Load configuration data in Cerberus-Engineering-Tool

Resetting the CAP/Ethernet Station to factory status

See [→ 147]

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Enabling Station

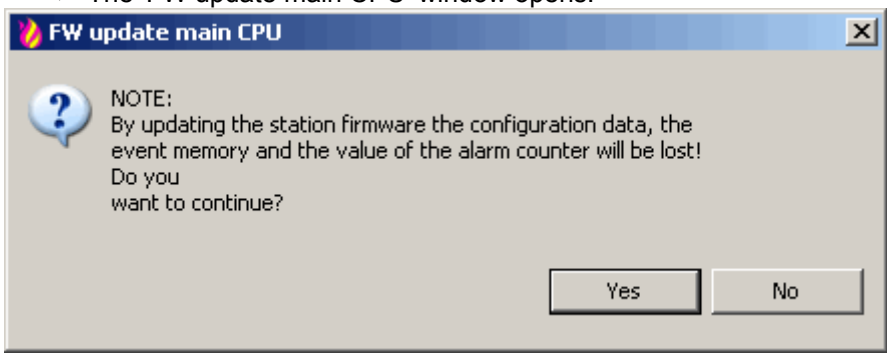
1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
   ⇨ The Station has been released for software updates.

Remove the PC from the Station

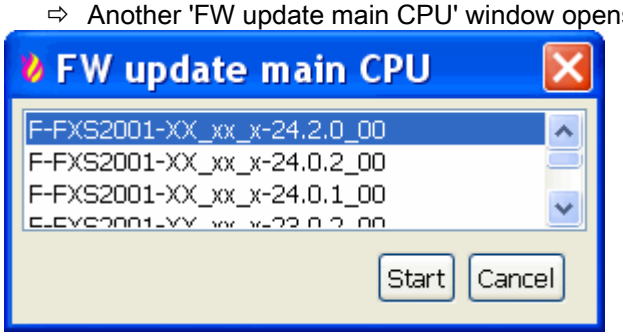
1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

15.1 Update the firmware of the main CPU

1. Select the 'Update' > 'FW update main CPU' menu item.
   ⇨ The 'Password check' window opens.
2. Enter the PIN '1234' and click on the 'OK' button (the password can be changed using the 'Change password...' button).
   ⇨ The 'FW update main CPU' window opens.

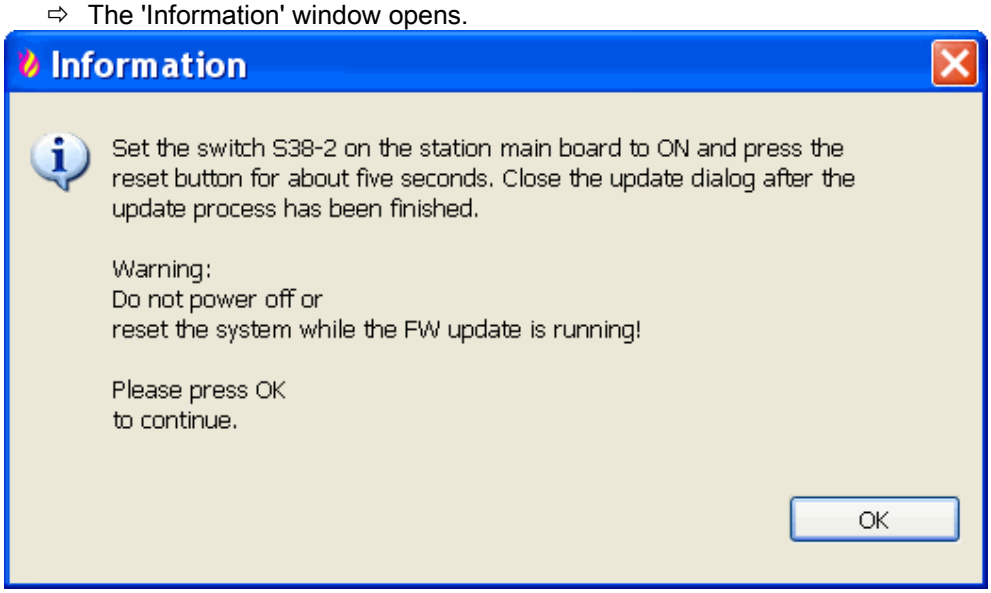


3. Click on the 'Yes' button.
   ⇨ Another 'FW update main CPU' window opens.



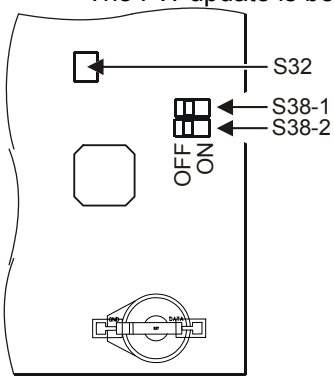
4. Select the software version and click the 'Start' button.

   ⇨ The 'Information' window opens.



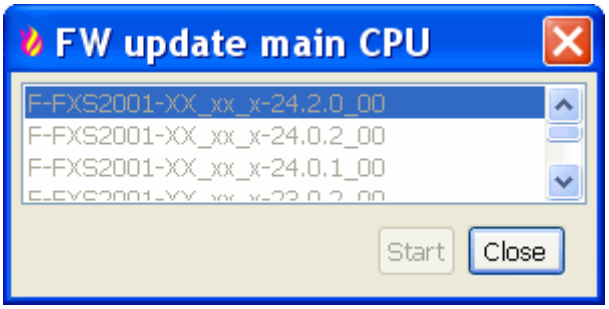
5. On the PMI & mainboard FCM2004 of the Station set the switch S38-2 to ON and press the key S32 until the Station restarts.

   ⇨ The FW update is being carried out.



6. Click on the 'Ok' button in the 'Information' window.

   ⇨ The following window opens.



   ⇨ The FW update can take about 10 minutes.

   ⇨ This window is not allowed to be closed until the FW update has finished!

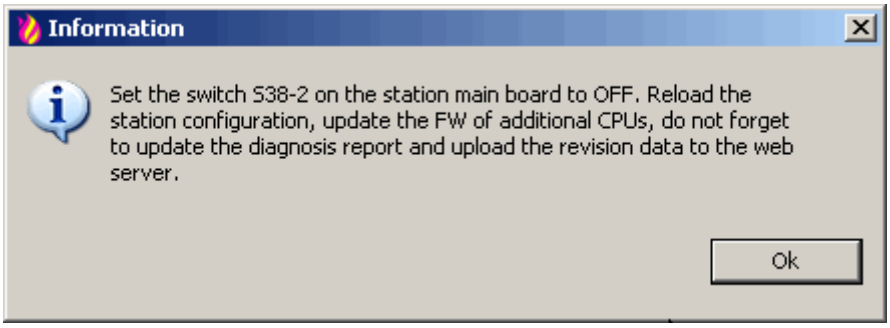
7. Follow the procedures on the display of the Station and wait until the following lines appear: 'Switch-off S38-2' and 'The panel will reboot automatically'.

8. In the Station, set the switch S38-2 to OFF.

   ⇨ The Station restarts.

9. In the 'FW update main CPU' window, click on the 'Close' button.

   ⇨ The following window opens.



10. Click on the 'OK' button.

    ⇨ 'FS720 Localisation' appears on the Station display after restarting.

11. Select an available basis data variant (BDV), press the 'Install' softkey confirm with the 'Yes' softkey.

⇨ The BDV is being installed.

⇨ The Station restarts.

15.2 Update the firmware of the additional CPU

!	*NOTICE*
	The firmware of the additional CPUs must be updated straight after the updating of the main CPU If the firmware of the additional CPUs is updated later (e.g. when components are being replaced) then the CAP Station or Ethernet Station to be updated must be reset to the factory status.

!	*NOTICE*
	Update the firmware of the degraded mode module FN2001-A1 If the firmware of the degraded mode module FN2001-A1 has to be updated then this must be temporarily connected to the slot for the main module FN2001-A1 (from slot X12 to X13).

Procedure.

1. In Cerberus-Engineering-Tool, select the 'Update' > 'FW update additional CPUs' menu item.
   ⇨ The 'Password check' window opens.
2. Enter the PIN '1234' and click on the 'OK' button (the password can be changed using the 'Change password...' button).
   ⇨ The 'FW update additional CPUs' window opens.
3. Wait until the selection list of the components is displayed.
4. Compare the 'Installed version' and 'Update to version' columns (in the 'Update to version' column you can open the list fields and select the latest version).
   ⇨ The option fields of the CPUs with new versions are highlighted.
5. Click on the 'Start' button (if no new versions are listed, click on the 'Cancel' button).
   ⇨ The Station updates the software. After the update, the 'Information' window opens.
   ⇨ The Station restarts.
6. Follow the procedures on the display of the Station and click on the 'OK' button in the 'Information' window.

⇨ The 'Information' and 'FW update additional CPUs' windows close.

See also

Reset the station to factory status [→ 147]

15.3 Convert the configuration

You can use the Cerberus Engineering Tool to produce the configuration of a fire detection installation in either normal BDV mode or expert BDV mode.

An existing configuration can be converted from normal BDVmode to expert BDVmode, but not vice versa.

Conversion from older BDV version to newer ones are possible in BDV mode.

Prerequisite

Load the saved configuration.

Converting the configuration

1. Select the 'Edit' > 'Convert site configuration' menu item.
2. In the selection list highlight the same BDV that you have installed in the Station and click on the 'Convert' button.
3. In the 'Action confirmation' window, click on the 'Yes' button.

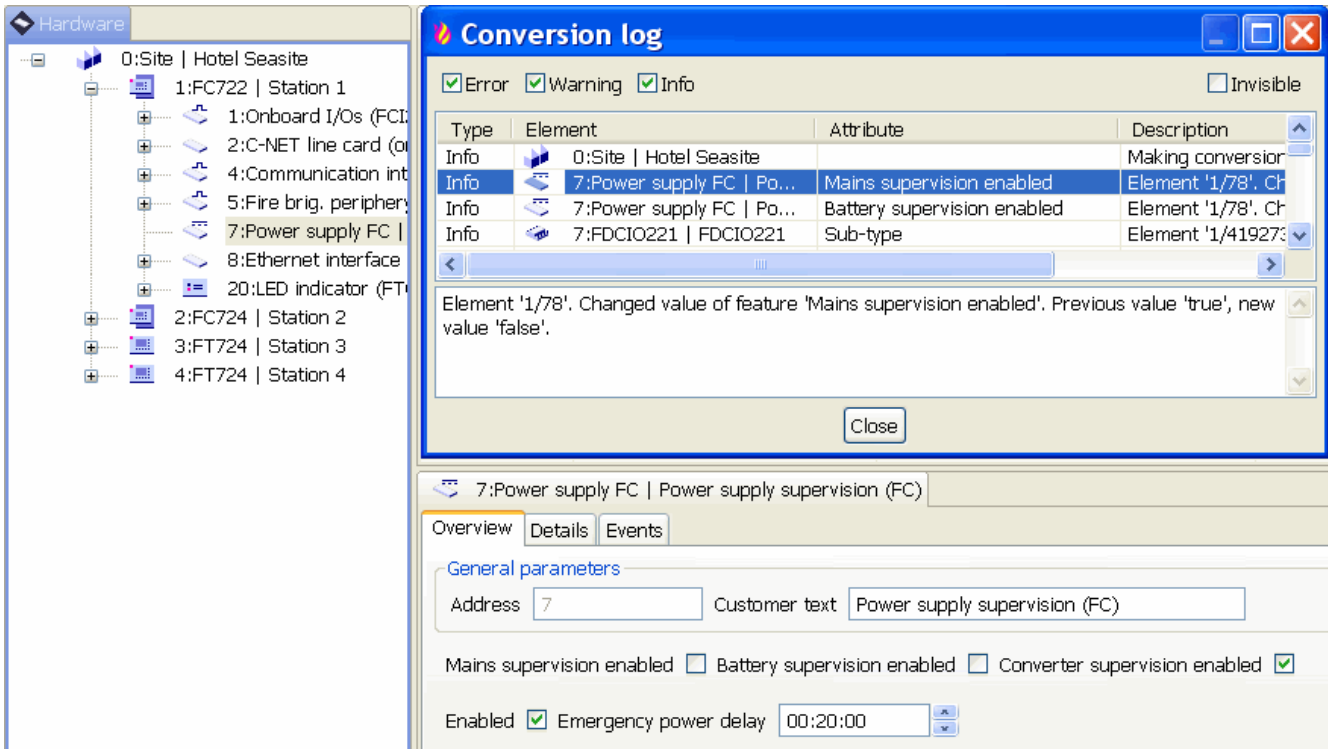
⇨ The conversion is carried out.

⇨ The existing configuration is saved with the following file names: Name of Site + name of old BDV + .fsc extension.

⇨ The converted configuration is saved with the name of the Site.

⇨ The log file contains the critical conversions.

15.4 Eliminate conversion errors



'Conversion log' window with the 'Error', 'Warning' and 'Info' log entries

1. Select the 'Edit' > '&Show conversion log' menu item.
   - ⇨ In the 'Conversion log' window, the indication of the information types can be selected by clicking the 'Error', 'Warning', 'Info' option fields.
   - ⇨ The following data is displayed for the information types: 'Type', 'Element', 'Attribute', 'Description'.
2. Click a log entry in the 'Conversion log' window.
   - ⇨ In the lower part of the window the message is displayed completely in the 'Description' column.
3. To correct an error, double-click the log entry.
   - ⇨ The element in account is highlighted in the tree view.
   - ⇨ The field entry is highlighted in the detail editor as soon as the detail editor is activated.
4. Correct the configuration in accordance with the description of the log entry.
5. Repeat all steps of this procedure for all log entries.

15.4.1 Log entries

This chapter describes the structure of the log entries that are indicated in the 'Conversion log' window. The message appears in the 'Description' column and is set up as follows:

- `Text '$(VAR1)' Text '$(VAR2)' Text '$(VAR3)' Text.`

'$(VAR)' means variable. The variable serves as a wildcard for variable text described below.

15.4.1.1 Conversion information

The log entry informs on the conversion from the old to the new BDV.

'Description'	Variable	Information	Example
Making conversion from BDV '$(BDV_FROM_IDENTIFICATION)' to BDV '$(BDV_TO_IDENTIFICATION)'.	'$(VAR1)'	Name of the old BDV	Making conversion from BDV 'F-FXS2004-XS_en_1-18.0.0_01' to BDV 'F-FXS2004-XS_en_1-24.4.0_01'.
	'$(VAR2)'	Name of the new BDV	

15.4.1.2 Undefined value

The log entry reports an error when determining the value.

'Description'	Variable	Information	Example
Cannot determine default value of feature in element '$(ELEMENT_FROM_IDENTIFICATION)' feature '$(FEATURE_TO_NAME)'.	'$(VAR1)'	Element ID	Cannot determine default value of feature in element '1/18' feature 'Access level'.
	'$(VAR2)'	Name of the field with the undefined value	

15.4.1.3 Changed value

The log entry informs or warns in case of a changed value.

'Description'	Variable	Information	Example
Element '$(ELEMENT_FROM_IDENTIFICATION)'. Changed value of feature '$(FEATURE_TO_NAME)'. Default value '$(OLD_VALUE)', new value '$(NEW_VALUE)'.	'$(VAR1)'	Element ID	Element '1/139'. Changed value of feature 'Open/short circuit monitoring enabled'. Previous value 'true', new value 'false'.
	'$(VAR2)'	Name of the field with the changed value	
	'$(VAR3)'	Old value	
	'$(VAR4)'	New value	

15.4.1.4 Unknown path

The log entry reports an error because the path does not lead to an element.

'Description'	Variable	Information	Example
Cannot convert feature '$(FEATURE_FROM_NAME)' of element '$(ELEMENT_FROM_IDENTIFICATION)'. No element determined by XPath expression '$(XPATH_EXPRESSION)' from this element found.	'$(VAR1)'	Name of the field	Cannot convert feature 'Access level' of element '1/203'. No element determined by XPath expression 'pmi/parent' from this element found.
	'$(VAR2)'	Element ID	
	'$(VAR3)'	Path	

15.4.1.5 Pair element not found

The log entry reports an error because no pair element has been found for an 'Input' element. This may occur upon processing fields that have been moved, when the element is not available in the new configuration.

'Description'	Variable	Information	Example
Cannot convert feature '$(FEATURE_FROM_NAME)' of element. No element pair for element '$(ELEMENT_FROM_IDENTIFICATION)' found.	'$(VAR1)'	Element function	Cannot convert feature 'Function' of element. No element pair for element '2/345' found.
	'$(VAR2)'	Element ID	

15.4.1.6 No reference for that element

The log entry reports an error because the reference cannot be created. The element is not converted.

'Description'	Variable	Information	Example
Element '$(ELEMENT_FROM_IDENTIFICATION)'. Cannot convert feature '$(FEATURE_FROM_NAME)' to feature '$(FEATURE_TO_NAME)'. Cannot create reference to element '$(REFERENCED_ELEMENT_FROM_IDENTIFICATION)'. Feature not converted.	'$(VAR1)'	Element ID	Element '3/657'. Cannot convert feature 'Logical channel' to feature 'Network devices'. Cannot create reference to element '4/95'. Feature not converted.
	'$(VAR2)'	Element that cannot be linked with that element	
	'$(VAR3)'		
	'$(VAR4)'	Element ID	

15.4.1.7 Value not converted

The log entry reports an error because the field value cannot be converted.

'Description'	Variable	Information	Example
Element '$(ELEMENT_FROM_IDENTIFICATION)'. Cannot create value for feature '$(FEATURE_TO_NAME)' from string '$(VALUE_AS_STRING)'. Leaving default value. '$(METADATA)' metadata should be examined.	'$(VAR1)'	Element ID	Element '1/312'. Cannot create value for feature 'Event text' from string 'Fault system other factory reset'. Leaving default value. 'F-FXS2004-XS'_en_1-24.4.0_01' metadata should be examined.
	'$(VAR2)'	Name of the field whose value cannot be converted	
	'$(VAR3)'	Value of the field	
	'$(VAR4)'	Meta data to be checked	

15.4.1.8 Not linkable elements

The log entry reports an error when an element does not match the element to be linked with.

'Description'	Variable	Information	Example
Element '$(ELEMENT_FROM_IDENTIFICATION)'. Feature '$(FEATURE_NAME)' and its referenced element type '$(FEATURE_REFERENCED_TYPE)' doesn't match with examined element type '$(ELEMENT_TYPE)'. Examine metadata '$(METADATA)' and conversion table.	'$(VAR1)'	Element ID	Element '2/78'. Feature 'Manual zone' and its referenced element type 'Manual zone' doesn't match with examined element type 'Automatic zone'. Examine metadata 'F-FXS2004-XS'_en_1-24.4.0_01' and conversion table.
	'$(VAR2)'	Element to be linked	
	'$(VAR3)'	Element to be referenced	
	'$(VAR4)'	Element ID	
	'$(VAR5)'	Meta data with a possible error	

15.4.1.9 Missing template

The log entry reports an error because no appropriate template has been found to create the element in the new configuration.

'Description'	Variable	Information	Example
Cannot create mapping element for element '$(ELEMENT_FROM_IDENTIFICATION)' under childgroup '$(CHILDGROUP_TO_NAME)' because no suitable template is found.	'$(VAR1)'	Element ID	Cannot create mapping element for element '4/20' under childgroup 'Commands' because no suitable template is found.
	'$(VAR2)'	Element group for which no appropriate template can be found.	

15.4.1.10 Element cannot be created

The log entry reports an error because the element in the new configuration cannot be created. The maximum number of elements in an element group has been exceeded.

'Description'	Variable	Information	Example
Cannot create mapping element for element '$(ELEMENT_FROM_IDENTIFICATION)' under childgroup '$(CHILDGROUP_TO_NAME)' because of upper bound violation in this childgroup.	'$(VAR1)'	Element ID	Cannot create mapping element for element '1/675' under childgroup 'Sections' because of upper bound violation in this childgroup.
	'$(VAR2)'	Element group whose number of possible element has been exceeded.	

15.4.1.11 Using another template

The log entry warns oft the creation of an element based on another template as the element in the converted configuration.

'Description'	Variable	Information	Example
Element '$(ELEMENT_FROM_IDENTIFICATION)'. Element created from template with template ID '$(NEW_TEMPLATE_ID)', element in old configuration created from template with template ID '$(OLD_TEMPLATE_ID)'.	'$(VAR1)'	Element ID	Element '1/4193505'. Element created from template with template ID '1', element in old configuration created from template with template ID '0'.
	'$(VAR2)'	Templates ID of the new configuration	
	'$(VAR3)'	Templates ID of the old configuration	

15.4.1.12 Disallowed setting of new value

The log entry reports an error because the setting is subject to constraints in the new configuration.

'Description'	Variable	Information	Example
Element '$(ELEMENT_FROM_IDENTIFICATION)'. Cannot set value '$(NEW_VALUE)' to feature '$(FEATURE_TO_NAME)'. Setting disallowed by constraints in new configuration. Leaving old value '$(OLD_VALUE)'.	'$(VAR1)'	Element ID	Element '2/111'. Cannot set value 'false' to feature 'Open/short circuit monitoring enabled'. Setting disallowed by constraints in new configuration. Leaving old value 'true'.
	'$(VAR2)'	New value	
	'$(VAR3)'	Name of the field with the disallowed value	
	'$(VAR4)'	Old value	

15.4.1.13 Non-converted element

The log entry notifies that an element could not be converted (this is possible when converting to the same BDV).

'Description'	Variable	Information	Example
Element '$(ELEMENT_FROM_IDENTIFICATION)$(DELIMITER)$(ELEMENT_TYPE)' not converted.	'$(VAR1)'	Element ID	Element '1/44 Soft key' not converted.
	'$(VAR2)'	Space	
	'$(VAR3)'	Element type	

15.5 Print the log

To print the log, the path for the log file can be viewed in the properties window of the Site; then the file can be opened in a text editor, e.g. Notepad.

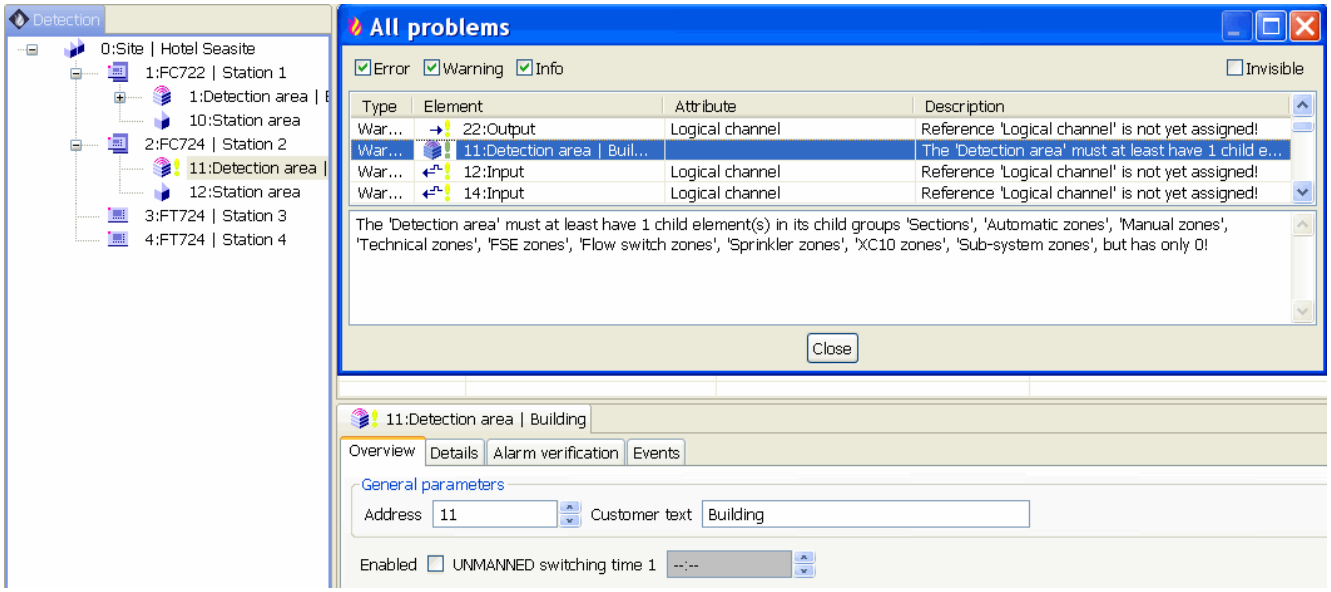
To do so, proceed as follows:

1. Select the 'File' > 'Site properties' menu item.
2. Use the path set in the 'File name:' field.
3. In the File Explorer, open the path and the 'Log' folder.
4. Open one of the following files in the text editor:
   - ⇨ Sitename_conv.log for use in the country-specific language
   - ⇨ Sitename_conv_english.log for use by the Hotline
5. Print out this file, or send it to the Hotline, together with the old and new configuration data.

15.6 Check the consistency

!	***NOTICE***
	Configuration error Downloading of installation data impossible. ● Check the consistency prior to the download and eliminate possible errors.

In the 'All problems' window, errors, information and warnings from the configuration are displayed. An error logged in the 'All problems' window makes it impossible to download the configuration, which is invalid. The user must first solve the problem.



'All problems' window

1. Select the 'View' > 'Show all problems' menu item.
   ⇨ In the 'All problems' window, the indication of the information types can be selected by clicking the 'Error', 'Warning', 'Info' option fields.
   ⇨ The following data is displayed for the information types: 'Type', 'Element', 'Attribute', 'Description'.
2. Click a log entry in the 'All problems' window.
   ⇨ In the lower part of the window the message is displayed completely in the 'Description' column.
3. To correct an error, double-click the log entry.
   ⇨ The element in account is highlighted in the tree view.
   ⇨ The field entry is highlighted in the detail editor as soon as the detail editor is activated.
4. Correct the configuration in accordance with the description of the log entry.
5. Repeat all steps of this procedure for all log entries.

15.7 Comparing configurations

The 'Compare configurations' function can be used to compare two configurations with one another.

The configuration currently loaded is used as the basic configuration and the configuration selected in the dialog as the source configuration for the comparison. The following differences from the source configuration appear in the protocol produced:

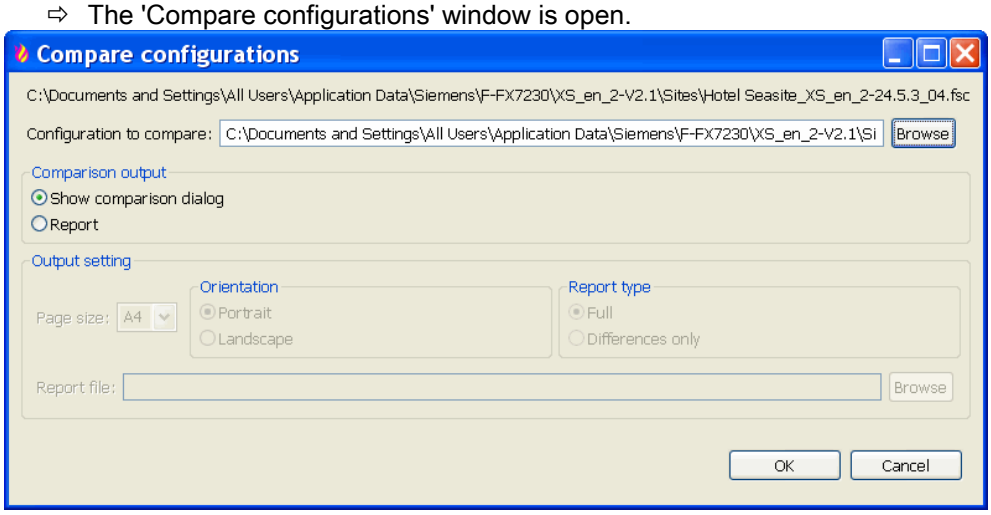
- New elements
- Deleted elements
- Moved elements (elements which are given a new father element within a Station)
- Replaced elements
- New reference between two elements
- Deleted reference between two elements
- New element properties
- Deleted element properties
- Changed element properties

Procedure

▷ The latest version of a Site is loaded.

1. Click on the 'File' > 'Compare configurations' menu item.

   ⇨ The 'Compare configurations' window is open.



2. Click on the 'Browse' button next to the 'Configuration to compare:' field and open the Site.fsc you want to compare in the file selection window.

3. Select one of the following options:

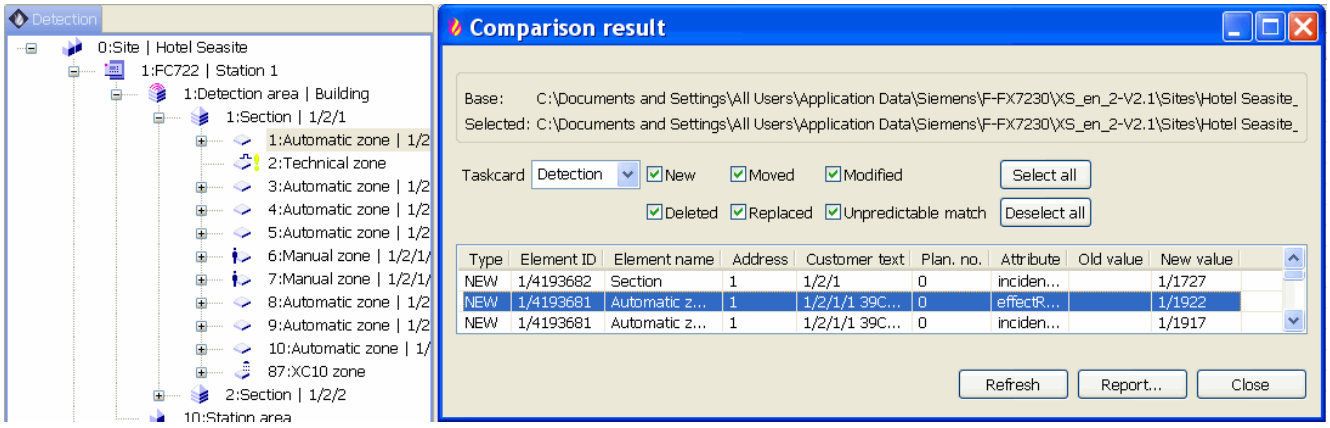
   'Show comparison dialog' and click on the 'OK'

   or

   'Report' button and select the options from under 'Output setting'. Click on the 'Browse' button next to the 'Report file:' field, determine the path in the file selection window, enter the file name and click on the 'Save' button. Select the paper format, paper alignment and type of output and click the 'OK' button.

⇨ The 'Comparison result' window is opened and/or the report is produced.

Comparison dialog



'Comparison result' window

The 'Comparison result' window shows the path and file name of the basic configuration and source configuration. The visible elements are logged according to the BDV settings of the current configuration.

The protocol contains the following details:

- 'Type': Lists the status of the elements: new (+), deleted (-), moved (>), replaced (/), changed (*)
- 'Element ID'
- 'Element name'
- 'Address'
- 'Customer text'
- 'Zone no.'
- 'Attribute'
- 'Old value'
- 'New value'

Selecting the task card and optional comparison type allows the list to be drawn up clearly.

Selecting and adapting elements

1. To select and adapt an element in the tree, double-click an element in the protocol.
2. Once the elements have been adapted, click on the 'Refresh' button.
   ⇨ The protocol is updated.
3. To produce a report, click the 'Report...' button.
   ⇨ The 'Report output setting' window is open.
4. Select the paper format, paper alignment and type of output and click the 'Create report' button.

⇨ The report is produced.

Report

The report is produced in PDF file format and contains the following details:

- Name of Site
- Path and file name of basic configuration and source configuration
- The list is split by task card and contains the names of the elements, properties and references as well as their old and new values.
- The elements, properties and references are marked by a symbol depending on their status.

15.8 Load the configuration in the control panel

1. Load the converted configuration into the Station by means of the 'Commissioning' > 'Download site configuration' menu.
   ⇨ The 'Download site configuration' window opens and the Stations are listed.
2. Highlight the option field of the Station in account and click the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
3. Click on the 'Yes' button.

⇨ The data is loaded into the Station.

⇨ The Station restarts.

15.9 Creating a diagnostics report

To update the firmware versions for the creation of the diagnosis report, the configuration data must be loaded in Cerberus-Engineering-Tool.

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

⇨ The window closes and the Site is opened.

Creating a diagnostics report

1. Create a diagnostics report via the 'File' > 'Reports' menu item to document the current site status.
   ⇨ The 'Reports' window opens.
2. In the 'Report type' field select 'Diagnostics report' and click on the 'OK' button.
   ⇨ The 'Save as ...' window opens.
3. Enter a file name for the diagnostics report and click the button 'Save'.

⇨ The file is opened in Acrobat Viewer.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

16 Updating the firmware of the peripheral devices

The firmware of the peripheral devices can be updated using the following tools:

- Cerberus-Engineering-Tool and MCL-USB-Adapter FDUZ221
- Peripheral update tool FX2040 and MCL-USB-Adapter FDUZ221

16.1 Updating the firmware of the MCL-USB-Adapter

The firmware of the MCL-USB-Adapter FDUZ221 must be updated when a new firmware version is released

Prerequisite

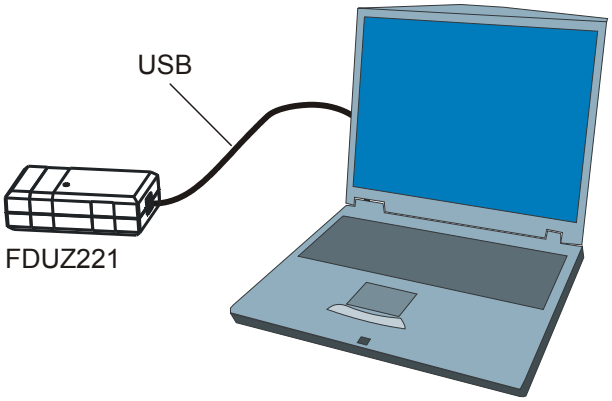
- The driver for the MCL-USB-Adapter must be installed on the PC.

  Instructions for the installation of the driver can be found in document 009854, MCL-USB adapter FDUZ221, Installation.

Preparing the tool

1. Select the 'File' > 'Import new FW package' menu item.
2. In the selection window open the corresponding file F-FXS2007-XX_x_x_...zip.
3. Connect the MCL-USB-Adapter FDUZ221 to the PC.

⇨ The orange LED on the MCL-USB adapter flashes for a short while. When the device is ready for operation, the green LED lights up.



Connection of the PC to the MCL-USB adapter

FDUZ221 MCL-USB adapter (interface USB/MC-LINK)

Updating the firmware

1. Select the 'Update' > 'FW update FDUZ221 update box' menu item.
   - ⇨ The tool establishes the connection to the device.
   - ⇨ The 'FW update FDUZ221 update box' window opens. The latest firmware package and the latest version are suggested.
   - ⇨ The green LED goes out.
2. Click on the 'Start' button.
   - ⇨ When the hardware version is unknown, another 'FW update FDUZ221 update box' window opens and you are prompted to check the hardware version.
   - ⇨ When the hardware version is known, the status bar indicates the update progress.
   - ⇨ After updating, the 'FW update FDUZ221 update box' window closes.
   - ⇨ The device is restarted.
   - ⇨ A success message is indicated.
   - ⇨ When the device is ready for operation, the green LED lights up.
3. Remove the MCL-USB adapter from the PC.

16.2 Updating the firmware of the floor repeater terminal FT2010

!	*NOTICE*
	The floor repeater terminal FT2010 is a stationary device. Once the firmware has been updated, the device does not start automatically and 'No operation possible' is displayed. The device is shown as 'Device missing' on the control panel's Person Machine Interface. ● Reset the FCL2001-A1 line card.

If it is necessary to update the firmware, this should be done if possible during system maintenance. The firmware must be updated separately for every floor repeater terminal.

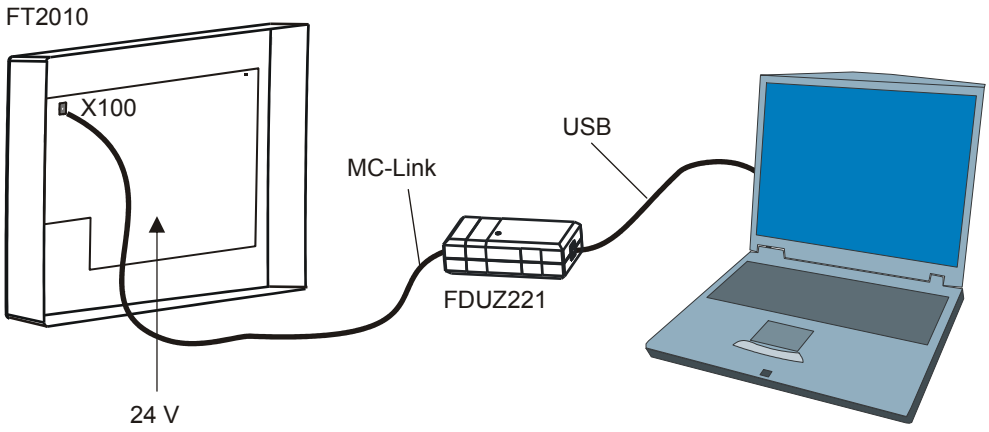
!	*NOTICE*
	Incorrect assignment between detector/detector group and customer text Misleading messages in the event of an alarm ● Never manipulate the wiring while updating the firmware.

Prerequisites

- The floor repeater terminal is fed by a 24 V external power supply or by the C-NET line.
- The driver for the MCL-USB-Adapter must be installed on the PC.

Preparing the tool

1. Select the 'File' > 'Import new FW package' menu item.
2. In the selection window open a F-FXS7211-XX_x_x_...zip file matching the Site.
3. Open the device and connect the PC via the MCL-USB-Adapter FDUZ221 to the device.



Connect the PC to the floor repeater terminal

FDUZ221	MCL-USB adapter (interface USB/MC-LINK)	FT2010	Floor repeater terminal
X100	Connection for the MCL-USB adapter		

Updating the firmware

!	*NOTICE*
	Hardware is not compatible with new firmware The firmware cannot be updated. ● Replace any hardware (see Application Notes).

1. Select the 'Update' > 'FW update standard peripheral device' menu item.
   - ⇨ The 'FW update standard peripheral device' window opens.
   - ⇨ The tool establishes the connection to the device and sets the device to update mode.
   - ⇨ The latest firmware package and the latest version are suggested.
2. Select the firmware package matching the Site.
3. Click on the 'Start' button.
   - ⇨ If the hardware version is not compatible, click the button 'Cancel' and check the hardware version. Replace the hardware if necessary and start again at point 1.
   - ⇨ The status bar indicates the update progress.
   - ⇨ After updating, the 'FW update standard peripheral device' window closes.
   - ⇨ The device is restarted.
   - ⇨ A success message is indicated.
4. Remove the MCL-USB adapter and lock the device again.

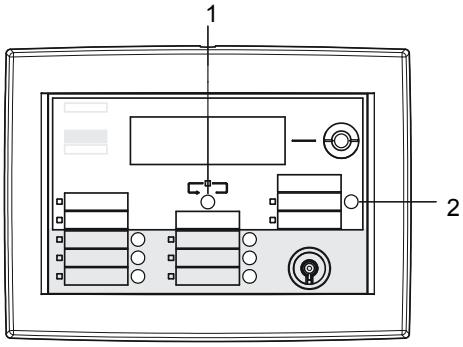
Resetting C-NET line card (onboard/FCL2001)

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute Commands' menu item.
6. Select the 'Reset module' command.
   ⇨ The C-NET line card (onboard/FCL2001) is reset. The following message appears after completion: 'Command executed'.
7. Press <C> or <MENU>

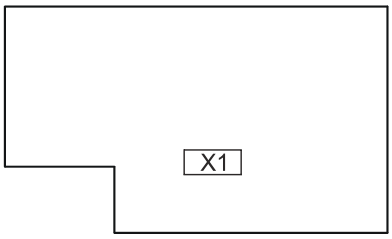
⇨ The message is closed.

Error when setting the device to update mode

If the tool cannot set the device to update mode in step 1 of update firmware, the window 'FW update standard peripheral device' opens and you are prompted to perform the switchover manually:



FT2010 Front view



FT2010 p.c.b view

1. In this case, simultaneously press the buttons 'Scroll alarms' (1) and 'Acknowledge' (2). Keep these pressed while unplugging the C-NET connector (X1) on the PCB and wait at least 10 seconds before reconnecting it.
   ⇨ The device goes in update mode.
2. In the 'FW update standard peripheral device' window click the 'OK' button and continue with step 2 of firmware update.

16.3 Updating the firmware of the floor repeater display FT2011

!	*NOTICE*
	The floor repeater display FT2011 is a stationary device. Once the firmware has been updated, the device does not start automatically and 'No operation possible' is displayed. The device is shown as 'Device missing' on the control panel's Person Machine Interface. ● Reset the FCL2001-A1 line card.

If it is necessary to update the firmware, this should be done if possible during system maintenance. The firmware must be updated separately for every floor repeater display.

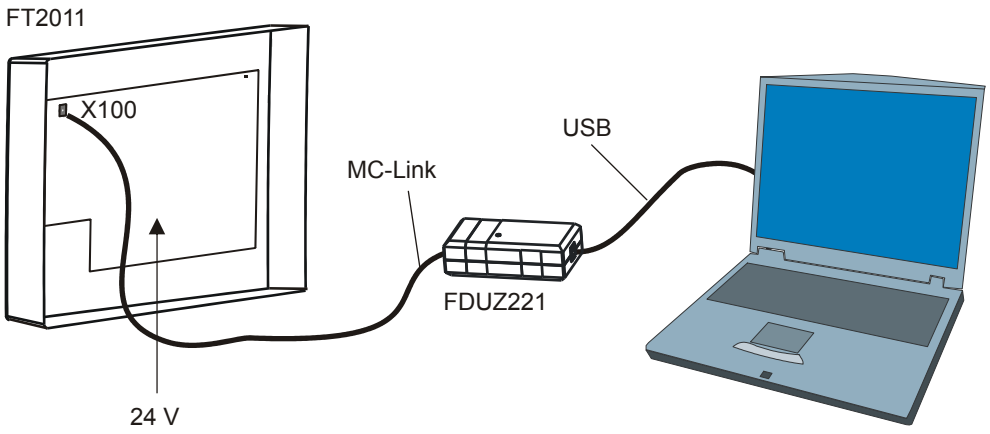
!	*NOTICE*
	Incorrect assignment between detector/detector group and customer text Misleading messages in the event of an alarm ● Never manipulate the wiring while updating the firmware.

Prerequisites

- The floor repeater display is fed by a 24 V external power supply or by the C-NET line.
- The driver for the MCL-USB-Adapter must be installed on the PC.

Preparing the tool

1. Select the 'File' > 'Import new FW package' menu item.
2. In the selection window open a F-FXS7211-XX_x_x_...zip file matching the Site.
3. Open the device and connect the PC via the MCL-USB-Adapter FDUZ221 to the device.



Connect the PC to the floor repeater display

FDUZ221	MCL-USB adapter (interface USB/MC-LINK)	FT2011	Floor repeater display
X100	Connection for the MCL-USB adapter		

Updating the firmware

!	*NOTICE*
	Hardware is not compatible with new firmware The firmware cannot be updated. ● Replace any hardware (see Application Notes).

1. Select the 'Update' > 'FW update standard peripheral device' menu item.
   - ⇨ The 'FW update standard peripheral device' window opens.
   - ⇨ The tool establishes the connection to the device and sets the device to update mode.
   - ⇨ The latest firmware package and the latest version are suggested.
2. Select the firmware package matching the Site.
3. Click on the 'Start' button.
   - ⇨ If the hardware version is not compatible, click on the 'Cancel' button and check the hardware version. Replace the hardware if necessary and start again at point 1.
   - ⇨ The status bar indicates the update progress.
   - ⇨ After updating, the 'FW update standard peripheral device' window closes.
   - ⇨ The device is restarted.
   - ⇨ A success message is indicated.
4. Remove the MCL-USB adapter and lock the device again.

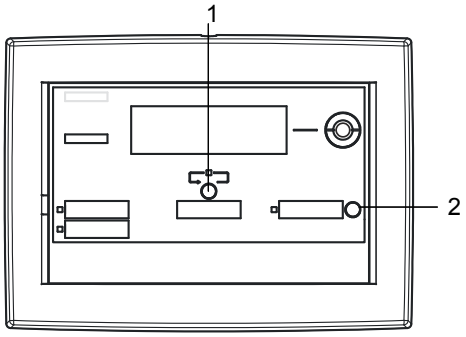
Resetting C-NET line card (onboard/FCL2001)

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute Commands' menu item.
6. Select the 'Reset module' command.
   ⇨ The C-NET line card (onboard/FCL2001) is reset. The following message appears after completion: 'Command executed'.
7. Press <C> or <MENU>

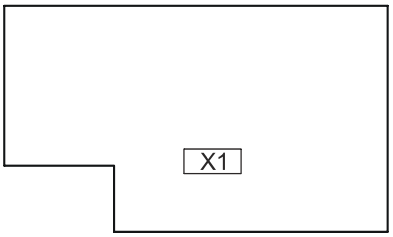
⇨ The message is closed.

Error when setting the device to update mode

If the tool cannot set the device to update mode in step 1 of the update firmware, the 'FW update standard peripheral device' window opens and you are prompted to perform the switchover manually:



FT2011 Front view



FT2011 p.c.b view

1. In this case, simultaneously press the buttons 'Scroll alarms' (1) and 'Silence buzzer' (2). Keep these pressed while unplugging the C-NET connector (X1) on the PCB and wait at least 10 seconds before reconnecting it.
   ⇨ The device goes in update mode.
2. In the 'FW update standard peripheral device' window click on the 'OK' button and continue with step 2 of the firmware update.

16.4 Updating firmware of mimic display driver FT2001-A1

!	*NOTICE*
	Mimic display driver FT2001-A1 is a stationary device. The device will not start automatically after the firmware update. The device is shown as 'Device missing' on the control panel's Person Machine Interface. ● Reset the FCL2001-A1 line card.

If it is necessary to update the firmware, this should be done if possible during system maintenance. The firmware must be updated separately for every mimic display driver.

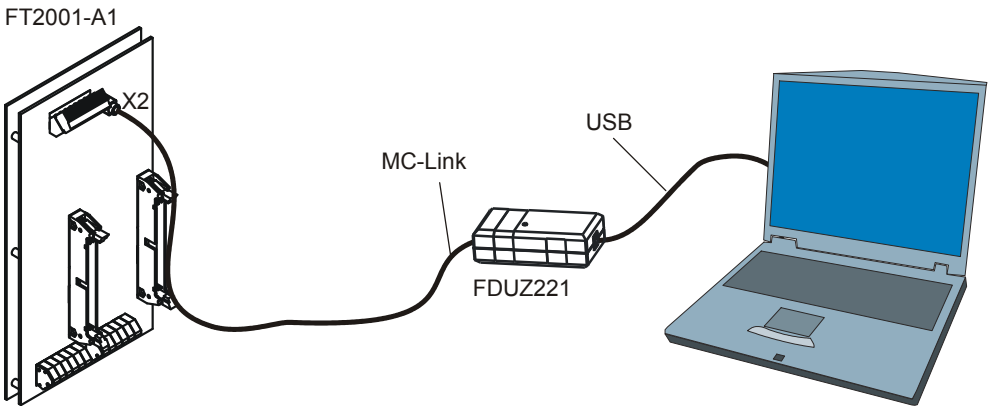
!	*NOTICE*
	Incorrect assignment between detector/detector group and customer text Misleading messages in the event of an alarm ● Never manipulate the wiring while updating the firmware.

Prerequisites

- The mimic display driver is fed by a 24 V external power supply or by the C-NET line.
- The driver for the MCL-USB-Adapter must be installed on the PC.

Preparing the tool

1. Select the 'File' > 'Import new FW package' menu item.
2. In the selection window open a F-FXS7211-XX_x_x_...zip file matching the Site.
3. Connect the PC to the device via the MCL-USB-Adapter FDUZ221.



Connection of the PC to the mimic display driver

FDUZ221	MCL-USB adapter (interface USB/MC-LINK)	FT2010	Mimic display driver
X2	Connection for the MCL-USB adapter		

Updating the firmware

!	*NOTICE*
	Hardware is not compatible with new firmware The firmware cannot be updated. ● Replace any hardware (see Application Notes).

1. Select the 'Update' > 'FW update standard peripheral device' menu item.
   - ⇨ The 'FW update standard peripheral device' window opens.
   - ⇨ The tool establishes the connection to the device and sets the device to update mode.
   - ⇨ The latest firmware package and the latest version are suggested.
2. Select the firmware package matching the Site.
3. Click on the 'Start' button.
   - ⇨ If the hardware version is not compatible, click on the 'Cancel' button and check the hardware version. Replace the hardware if necessary and start again at point 1.
   - ⇨ The status bar indicates the update progress.
   - ⇨ After updating, the 'FW update standard peripheral device' window closes.
   - ⇨ The device is restarted.
   - ⇨ A success message is indicated.
4. Remove the MCL-USB adapter and lock the device again.

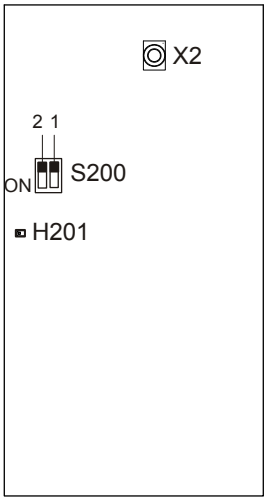
Resetting C-NET line card (onboard/FCL2001)

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute Commands' menu item.
6. Select the 'Reset module' command.
   ⇨ The C-NET line card (onboard/FCL2001) is reset. The following message appears after completion: 'Command executed'.
7. Press <C> or <MENU>

⇨ The message is closed.

Error when setting the device to update mode

If the tool cannot set the device to update mode in step 1 of the update firmware, the 'FW update standard peripheral device' window opens and you are prompted to perform the switchover manually:



FT2001-A1 Circuit board view

1. In this case, switch the DIP switch S200-1 to 'ON'.
   ⇨ The device goes in update mode.
2. In the 'FW update standard peripheral device' window click on the 'OK' button, set DIP switch S200-1 to 'OFF' and continue with step 2 of firmware update.

16.5 Update the firmware of the line test device FDUL221

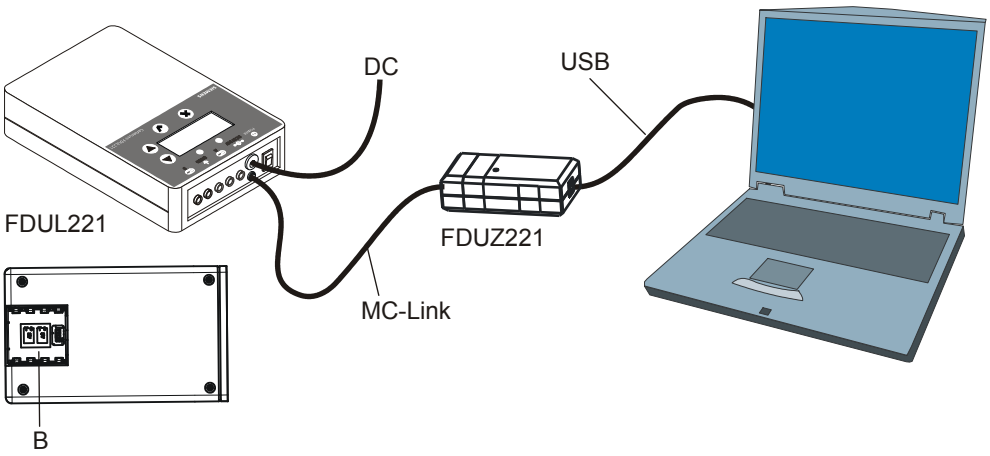
Line tester FDUL221, device version with MC-Link port, order no. A5Q00022100

Prerequisites

- The driver for the MCL-USB-Adapter must be installed on the PC.
- The line tester is fed either internally with batteries or via a network adapter.

Prepare the Engineering tool

1. Select the 'File' > 'Import new FW package' menu item.
2. In the selection window open the most recent file with the corresponding language F-FXS2007-XX_x_x_...zip.
3. Connect the device to the PC via the MCL-USB-Adapter FDUZ221.



Connecting the PC to the line tester

FDUZ221	MCL-USB adapter (interface USB/MC-LINK)	DC	Supply with network adapter 24 VDC / 625 mA
FDUL221	Line tester	B	Battery compartment 2 x 9 V

When the device has no MC-Link port, it is an older RS232 version (see next chapter).

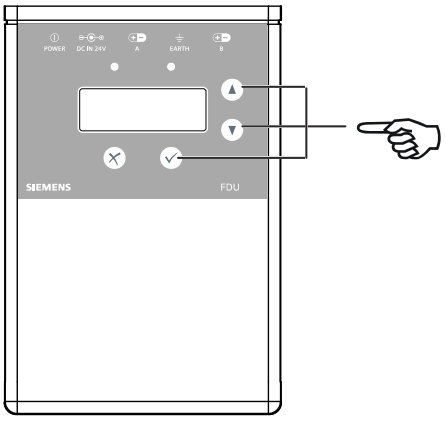
Updating the firmware

!	*NOTICE*
	Hardware is not compatible with new firmware The firmware cannot be updated. ● Replace any hardware (see Application Notes).

1. Select the 'Update' > 'FW update FDUL221 line tester' menu item.
   ⇨ The 'FW update FDUL221 line tester' window opens.
   ⇨ The tool establishes the connection to the device and sets the device to update mode.
   ⇨ The latest firmware package and the latest version are suggested.
2. Click on the 'Start' button.
   ⇨ If the hardware version is not compatible, click the button 'Cancel' and check the hardware version. Replace the hardware if necessary and start again at point 1.
   ⇨ The status bar indicates the update progress.
   ⇨ After updating, the 'FW update FDUL221 line tester' window closes.
   ⇨ The device is restarted.
   ⇨ A success message is indicated.
3. Remove the MCL-USB adapter.

Error when setting the device to update mode

If the tool cannot set the device to update mode in step 1, the window 'FW update FDUL221 line tester' opens and you are prompted to perform the switchover manually:



1. Simultaneously press the '▲', '▼' and '√' buttons on the device while in the 'FW update FDUL221 line tester' window pressing the 'OK' button.
   ⇨ Another 'FW update FDUL221 line tester' window opens and you are prompted to release the buttons.
2. First only release the '√' button.
   ⇨ The device goes in update mode.
3. Release the '▲' and '▼' buttons, in the 'FW update FDUL221 line tester' window click on the 'OK' button and continue with step 2 of firmware update.

16.6 Update the firmware of the line test device with serial port FDUL221

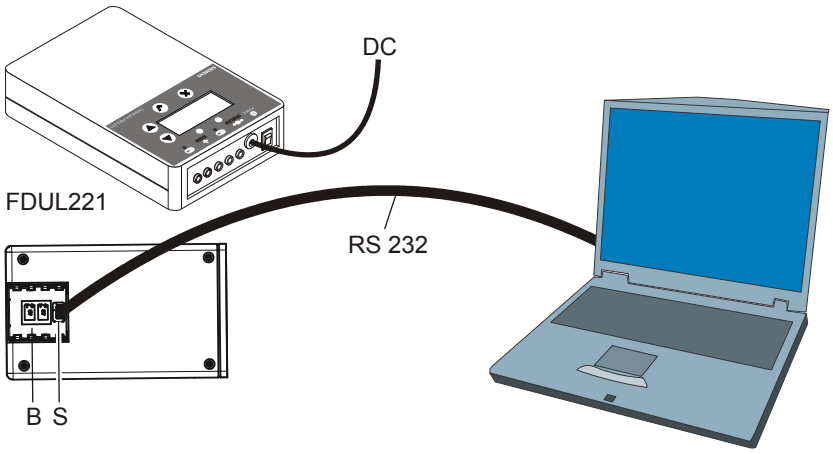
Line tester FDUL221, device version with RS232 port, order no. up to A5Q00004397 02

Prerequisites

- The line tester is fed via a network adapter.
- An RS232 port is available on the PC.

Preparing the tool

1. Select the 'File' > 'Import new FW package' menu item.
2. In the selection window open the most recent file with the corresponding language F-FXS2007-XX_x_x_...zip.
3. Connect the device to the PC via the RS232 port in the battery compartment.



Connect the PC to the serial line tester

FDUL221	Line tester	DC	Supply with network adapter 24 VDC / 625 mA
RS232	Serial port for the direct connection to the PC	B	Battery compartment
S	Serial interface RS 232		

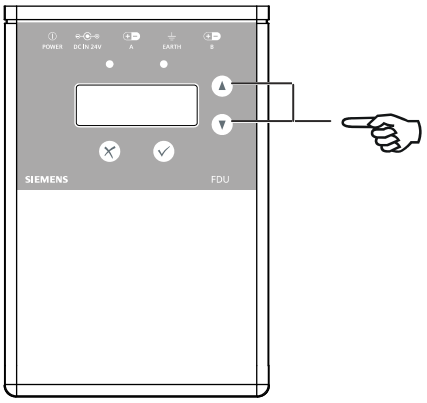
Updating the firmware

!	*NOTICE*
	Hardware is not compatible with new firmware The firmware cannot be updated. ● Replace any hardware (see Application Notes).

1. Select the 'Update' > 'FW update serial FDUL221 line tester' menu item.
   ⇨ The 'FW update serial FDUL221 line tester' window opens.
   ⇨ The tool establishes the connection to the device and sets the device to update mode.
   ⇨ The latest firmware package and the latest version are suggested.
2. Click on the 'Start' button.
   ⇨ If the hardware version is not compatible, click the button 'Cancel' and check the hardware version. Replace the hardware if necessary and start again at point 1.
   ⇨ The status bar indicates the update progress.
   ⇨ After updating, the 'FW update serial FDUL221 line tester' window closes.
   ⇨ The device is restarted.
   ⇨ A success message is indicated.
3. Interrupt the connection with the PC.

Error when setting the device to update mode

If the tool cannot set the device to update mode in step 1, the window 'FW update serial FDUL221 line tester' opens and you are prompted to perform the switchover manually:



1. In this case, keep the '▲' and '▼' buttons on the device pressed and in the 'FW update serial FDUL221 line tester' window click on the 'OK' button.
   ⇨ Another 'FW update serial FDUL221 line tester' window opens and you are prompted to release the buttons.
2. Release the buttons.
   ⇨ The device goes in update mode.
3. In the 'FW update serial FDUL221 line tester' window click the 'OK' button and continue with step 2 of firmware update.

17 Commissioning the external printer

The external FUJITSU DL3750+ printer can be installed and commissioned using the operating manual. The operating manual is on the CD delivered with the printer.

To operate the printer on the fire detection system FS720 settings that differ from the default values must be made in the following functions.

- 'MENU 1': Assignment of print functions to MENU1 in the printer Person Machine Interface.
- 'MENU 2': Assignment of print functions to MENU2 in the printer Person Machine Interface.
- 'HARDWRE': Changing the printer hardware options.
- 'ADJUST': Changing the setting options for the print position.
- 'CONFIG': Changing the configuration options.

The printer is set to configuration mode in order to do this (see document A6V10224853, external printer, information relating to application). The following table shows the options to be set.

	Function	Value
MENU 1		
	EMULATE	XL24E
	FONT	COUR 10
	QUALITY	LETTER
	PITCH	10 CPI
	LINE SP	6 LPI
	CHAR-W	NORMAL
	CHAR-H	NORMAL
	ATTRIB	NONE
	PAGE LG	12.0 IN
	LFT-END	1 COLM
	TOP-MRG	1 LINE
	LANGUAGE	LATIN-9
	CHR-SET	SET1
	AGM	OFF
	PRF-SKP	NO-SKIP
	ZEROFNT	NO-SLSH
	CR-CODE	CR ONLY
	LF-CODE	LF & CR
	RGHTEND	WRAP
	==END==	

	Function	Value
MENU 2		
	EMULATE	DPL24C+
	FONT	COUR 10
	QUALITY	LETTER
	PITCH	10 CPI
	LINE SP	6 LPI
	CHAR-W	NORMAL
	CHAR-H	NORMAL
	ATTRIB	NONE
	PAGE LG	11.0 IN
	LFT-END	1 COLM
	TOP-MRG	1 LINE
	LANGUAGE	PAGE437
	CHR-SET	SET2
	PRF-SKP	NO-SKIP
	ZEROFNT	NO-SLSH
	DC3-CDE	ENABLE
	CR-CODE	CR ONLY
	LF-CODE	LF & CR
	RGHTEND	WRAP
	==END==	
HARDWRE		
	PPR-OUT	DETECT
	PRT-DIR	BI-DIR
	BUZZER	ON
	WORD-LG	8 BIT
	BUFFER	NONE
	INTRFCE	SERIAL
	FORMAT	8NONE 1
	BAUD-RT	9600
	PROTOCL	XON/XOF
	DSR	IGNORE
	DUPLEX	FULL
	CTS	IGNORE
	CD	IGNORE
	==END==	

	Function	Value
ADJUST		
	CNT-ORG	1 /6 IN
	CNTFINE	1 /180
	CUT-ORG	1 /6 IN
	CUTFINE	1 /180
	CNT-LFT	0 /90
	CUT-LFT	0 /90
	CUT-ADJ	0 /360
	CNT-ADJ	0 /360
	CNTADJL	0 /360
	==END==	
CONFIG		
	TEAROFF	AUTO
	TEARPOS	VISIBLE
	TEAR-EN	4 SEC
	CUTLOAD	BUTTON
	DECODE	DIRECT
	AREACNT	DISABLE
	ON-LOAD	ONLINE
	LOCK	NONE
	/ / S / /	DISABLE
	CONT-PE	EDGE
	GATHER	DISABLE
	CUT-CTL	SPEED
	SKIP-PR	ENABLE
	STATUS	ENABLE
	BANDCTL	ENABLE
	TOF-CTL	DRIVER
	==END==	

Settings required

18 Maintenance

18.1 General

Principle

It is assumed that the Site was commissioned in accordance with the existing directives, i.e. all functions have been tested and the system data have been saved and archived.

Protocol

The measuring values (according to specifications) which are to be recorded belong to the technical documentation in the system file.

!	*NOTICE*
	Non-observance of rules during maintenance work
	Results in defective maintenance and damage to the site or parts of it.
	● Always de-energise the Station first before connecting, fitting or removing modules.
	● Prevent electrostatic discharge.
	● If undertaking work on modules, you must use an EMC mat.
	● Do not touch the modules unnecessarily with your bare hands.
	● Don't unnecessarily turn off Site or parts thereof for long periods.

18.2 Spare parts

- For ordering details for Stations spare parts see document A6V10227652, Components / Spare parts / Repair parts.
- For details for ordering Detectors and accessories, see document A6V10225323, Equipment overview .

18.3 Testers and measuring instruments

The following table shows an overview of the test devices and measuring instruments used.

Test	Required auxiliaries	Comment
Voltage, current and resistance measuring	Universal measuring instrument	Measuring ranges: ● Voltage: 1 … 500 V AC / DC, ● Current: 100 mA … 5 A DC, ● Resistance: 10 Ω … 10 MΩ Measurement error: ≤ 2 % Internal resistance: ≥ 20 kΩ
Testing batteries	Battery tester	Load resistance: 5 Ω
Poll diagnosis data	Maintenance PC with Cerberus-Engineering-Tool	For requirements, see document A6V10210424, configuration .
Insert and remove FD720 point detectors	Detector exchanger DX791	compatible with all FD720 point detectors OH720, OP720, HI72x
Test FD720 point detectors	Test gas REF 8-S (recommended), REF 8, hot air fan	
Test manual call points, line devices and alarm devices		
Test the linear smoke detector FDL241-9	Adjustment kit FDLU291	Adjustment tester and black alarm test filter
Test the flame detector FDF2x1-9	LE3 Test lamp	
Test C-NET detector line	Line tester FDUL221	

18.4 Preparatory work

Inform the system owner

- Inform the system owner of the scope and expected duration of work and also that Site operation will be restricted.
- For large-scale systems fill out the system shutdown notification sheet and have this signed by the system owner.

Block system components

- Block the following system components:
  - Remote alarm (log out on the receiving centre)
  - Fire controls and alarm equipment
  - Extinguishing stations

Specify the procedure

- Stipulate the times for the following test sequences with the system owner:
  - Test alarms (including remote transmission)
  - Function check for Fire controls
  - Additional instructions (if required)
  - Clarifications (if required)

18.5 Test system data

Maintenance and service book

- Ensure that the system test manual is available and up to date.

Remote transmission

- Check that the phone numbers and the names of the remote transmission receivers are up to date.

Data backup for Site

1. Check that the system data are saved.
   ⇨ Two copies must be archived with the Site, one copy with the technical department.
2. Update the system data when the configuration is changed.
3. Note the date of execution in the system test manual.

Firmware

1. Read out the firmware version from the Station: To do this select the 'Topology' > 'Hardware tree' > 'Station' > 'More Options' > 'Show details' menu items.
2. Do not replace current firmware versions with the latest versions if this is not necessary to correct faults or add functions.

Event memory

- Check the content of the Event memory and take necessary measures.

Change in use

- Verify whether a change of use or changes to the building have an effect on the configuration and perform the necessary corrections.

Pending modification applications

- Check whether all pending modification applications such as corrections to the diagrams or modification to the fire department plans have been completed.

18.6 Testing the station

Check the hardware

- Check the condition of the housing and the modules.
- Check the fixture of screws, terminals and plug connections.
- Check that the batteries are not leaking (inspection).

Check labeling

- Check that the inscription strips are correct and still easily legible.

Check the function

1. Enter the password.
2. Initiate the lamp test.
3. Check switchover of operating modes from 'Manned operation' to 'Unmanned operation' and vice versa.
4. Switch an Area off and on again.
5. Check the operation of an alarm (deactivation, resetting).
6. Check the operation of a Fault.
7. Block operation.

Clean the operating unit

- Clean the display and the front plate with a wet cloth. Do not use any caustic solvents!

18.7 Check the power supply

Checking current consumption

- Measure the current consumption during Emergency power operation and for alarms with the highest alarm level (local alarm and global alarm).
- Compare the measurement values with the calculation value for emergency current capacity.

Checking the batteries

- Measure the battery voltage (23 V min., max. asymmetry 1 V).
- Measure the charging current.
- Check the battery load capacity (the load test should only be performed if the battery charge current is below 50 mA).
- Disconnect the batteries from the charger (do not subject the connections to strain unnecessarily).
- Connect the battery tester to both batteries (load resistance 5 Ω).

- Test duration for battery 7 Ah: 20 minutes.
- Test duration for battery 12 Ah: 30 minutes.
- Measure the battery voltage (when the tester is connected). During the test the battery voltage should not drop below 11.0 V per battery and not below 23.0 V for both batteries. Always replace both batteries!

Checking for power supply faults

1. Disconnect the mains supply cable.
   ⇨ 'Mains failure' display.
2. Disconnect the battery supply cable.

⇨ 'Supply failure' display.

Checking the mains supply cable

- Check whether the site mains supply cable is correctly fuse-protected and labeled (fire detection system).
- Check whether any installed overvoltage dischargers are in order.

18.8 Check the printer

Hardware

- Carry out a visual check of the printer.

Paper

- Check the roll of paper in the printer and ensure that there are spare rolls available.

Print-out

- Initiate the printer test and check the print-out for legibility and correct printing. For details, see document A6V10211076, operation .

Events

- Check whether the Events are correctly printed out.

18.9 Check the system function

The fire detection installation is in 'Test' operating mode if one of the following test modes is activated:

- Detector test [→ 55]
- Witness mode
- Control test mode

Combinations of tests are equally possible; e.g. the Control may be switched to Test and then the Installation test may be performed.

Detector test mode

The 'Detector test mode' test mode is a hardware function check and serves to check the functionality of one or several detector zones and their communication with the control panel.

An activated Detector from a detector zone in 'Detector test mode' test mode generates a test activation message instead of a danger level. No alarm devices or Controls are activated.

The sounder base is activated when detectors are tested.

In 'Detector test mode' test mode the fire detection installation has the following properties:

- Automatic detectors are set to sensitive.
- Alarm devices and Controls are active as in normal operation.
- No danger messages or fault messages are generated.
- Test activations are indicated as test activation messages, logged in the Event memory and printed out if need be.

After the detector test, the Detectors are set to normal sensitivity again, like before the test.

Witness mode

The 'Witness mode' test mode serves for checking all functions of the complete fire detection installation including the 'Fire control' and alarming in normal operation.

In 'Witness mode' test mode the functionality of all components of the fire detection installation is the same as in normal operation, with the following exception:

- The Automatic detectors are set to sensitive to avoid long waiting times when the Detectors are activated.

Control test mode

The 'Control test mode' checks the function of the configured Controls. During the 'Control test mode, the Control functions in the same way as during normal operation; however the hardware is not actuated.

The effects of the Control, e.g. the actuation of digital outputs and the sounders or the execution of commands is ensured, however, the hardware in account does not receive a signal and is thus not activated.

See also

Document A6V10211076, operation , 'Test' chapter.

18.10 Intervals for testing the system function

Self test for Detectors

The self-test is an automatic performance check for FD720 Detectors. Despite this you will need to regularly run a performance check on the detectors locally.

Detector inspection

- Annual visual check of all Detectors.
- Replace Detectors that are badly soiled or mechanically damaged.

Function test

The following table shows the intervals recommended for the function check. National regulations always take priority.

Function	Activity	Interval (years)		
		1	2	2
Software	Check date and time.	X		
Detector lines: C-NET	Activate an automatic detector and a Manual call point per Line.	X		
	Activate all Manual call points.		X	
	Trigger all automatic fire detectors.		X	
	Check all Detectors for soiling and application.	X		
	Check the function of the input/output modules.		X	
	On each Line check whether short-circuit / open line triggers a 'Fault'. Check the loop line function. During short-circuit also check the separator function.			X
Fire controls	Check activation of the Controls up to and with the interface.		X	
	Check Isolations carried out by the customer. Arrange a time with the customer.		X	
Degraded function			X	
Mains failure	Check how long it takes until the 'Emergency power operation' fault message is displayed during power failure.			

Function	Activity	Interval (years)		
Alarm organization	Check the function of the delay times t1 and t2.	X		
	Alarm activation by automatic detector on 'Unmanned operation' Global alarm.	X		
	Alarm activation by Manual call point on 'Manned operation' and 'Unmanned operation' Local alarm / global alarm.	X		
	Check automatic switchover from 'Manned operation' to 'Unmanned operation' on the basis of the event memory entry.	X		
	Check activation of the remote transmission equipment with 'ALARM'.	X		
	Actuate the corresponding danger level by activating a detector with the detector exchanger and tester	X		
Alarm devices	In Emergency power operation check all alarm devices taking the event category into account: 'Pre-ALARM' 'ALARM' 'Fault'	X		
	Check the remote transmission equipment in accordance with the manufacturer's instructions.	X		

Intervals for the function test

18.11 Completion work

Test alarm

- The system owner should trigger an test alarm by remote transmission.

Subsequent instructions

- Issue subsequent instructions if necessary.

System file

- Ensure that the system file is available and up to date.

System data

- Update the system data when the central configuration is changed. Archive a copy with the Site and a copy in the office.

Master data

- Check the master data sheet (phone no., contact person, etc.).

Replacement material

- Replace all used material.

Blockings, Isolations

- Cancel all blockings and Isolations.

Confirmation

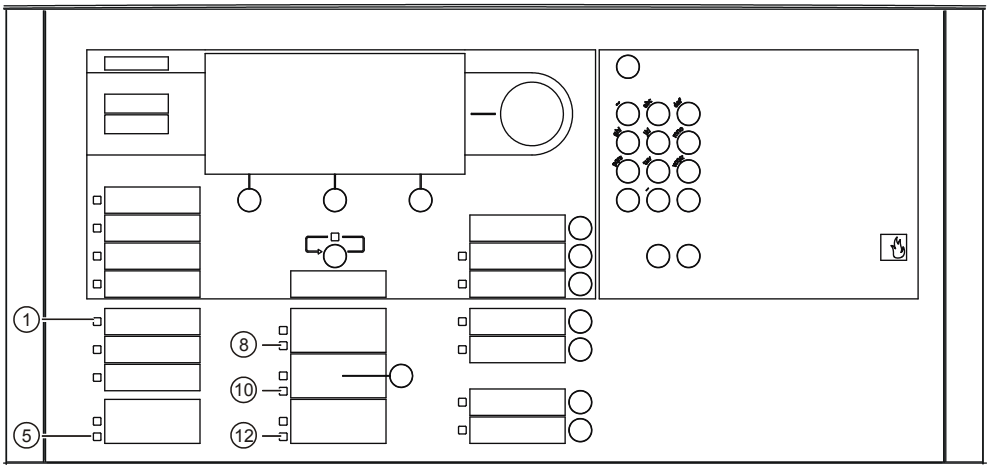
- Have the revision confirmed by the system owner.

19 Repair

19.1 Spare parts

- You will find ordering details for Stations spare parts in document A6V10227652, Components / Spare parts / Repair parts.
- For details for ordering Detectors and accessories, see document A6V10225323, Equipment overview.

19.2 Interpretation of the fault messages on the person machine interface



Fault indicators

The following table shows the causes and measures to be taken in the event of a fault display.

LED	LED flashes	Cause	What must be done
1	FAULT	The Site has a fault	● Check whether another fault LED is flashing, if not: – Check the display – Check whether the 'Fault' control input is activated
5	Fault Site	Failure of the main CPU	● Visual check of the cable connections ● Check whether the red LED H37 on the operating unit FCM72xx is on: – Exchange PMI & mainboard
		Fault of a component	● Restart Station – When the Fault is still indicated: exchange the module
		Communication fault of a networked Station	● Check the transmission line ● Check faulty Station
8	Fault RT	Transmission equipment has a Fault	● Check remote transmission

LED	LED flashes	Cause	What must be done
10	Fault Alarm device/EVAC	Fault of the acoustic control lines	● Check the Line for open line/short circuit or line termination (EOL) is missing or defective
12	Fault Control	Fire control line Fault	● Check the Line for open line/short circuit ● Check the function of the external control devices ● Check the function, any existing feedback switch

19.3 Interpretation of the fault indicators on the components

The components are equipped with LED indicating the status of the component. The meaning of the indication is described in document A6V10210368, characteristic product data.

19.4 Communication problems in networked systems

Date and time are not permanently saved in the Station. If this data is not defined correctly, it is not possible to communicate with the corresponding Stationin the network or via Cerberus-Engineering-Tool.

Date and time

The date and time must be checked regularly for the following reasons:

- The deviation of the internal clock is up to 4 minutes per month.
- When data is downloaded, and when a Stationis restarted, the internal clock does not continue working.
- If a Station is de-energised, the date and time of the internal clock is lost.

Moving the network cable from one Station to the next

If Stations are fitted close to one another, you may be able to move the network cable from one Station to the next without first having to execute the 'Commissioning' > 'Disconnect' command in Cerberus-Engineering-Tool. If this is done, a connection cannot be immediately re-established on the next Station

- Wait at least 2 minutes before plugging the cable into the next Station so that the previous connection is automatically removed.

19.5 Non-stationary C-NET devices of the same type have been swapped over

If C-NET devices have been inserted in swapped bases, for example when carrying out work, the line is not fault-free.

On the display of the PMI the following message is displayed for each C-NET device that has been swapped over:

'Zone', 'ID-No.', 'Location fault'

To set the station back into the fault-free condition, at minimum the device types in the bases in account must be correct. Faults of C-NET devices that have been swapped over can then be eliminated by means of the PMI, without the original base having to be found.

Procedure

- Eliminate C-NET device localization error (align device data)
- Open site in Cerberus-Engineering-Tool
- connect the PC to the station
- Load site configuration in Cerberus-Engineering-Tool
- remove the PC from the station

Eliminating C-NET device localization errors

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the corresponding line via the 'Topology' > 'Hardware tree' > 'Station' > 'C-NET line card (onboard/FCL2001)' > 'Line' menu items.
4. Press the 'More Options' softkey.
5. Select the 'Execute commands' command.
6. Select the 'Accept replaced devices' command.

⇨ The fault messages are cancelled.

Opening Site in Cerberus-Engineering-Tool

- Select the 'File' > 'Open' menu item and select the corresponding Site.

⇨ The Site is opened.

Connecting the PC to the Station

- Connect the PC to the Station. See [→ 17]

Loading configuration data via 'Upload site configuration' into Cerberus-Engineering-Tool

1. Select the 'Commissioning' > 'Upload site configuration' menu item.
   ⇨ The 'Connect' window opens.
   ⇨ The 'Local connection' option field is marked.
2. Click on the 'OK' button.
   ⇨ The 'Upload site configuration' window opens.
3. Highlight the option field of the desired Station and click on the 'Start' button.
   ⇨ The 'Action confirmation' window opens.
4. Click on the 'Yes' button.

⇨ The advancement status is displayed in the 'Upload site configuration' window.

⇨ After the upload, the 'Site properties' window opens.

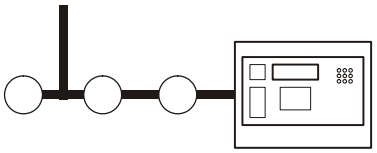
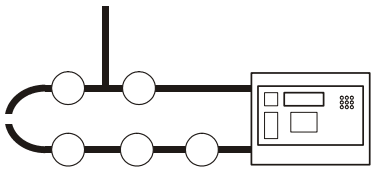
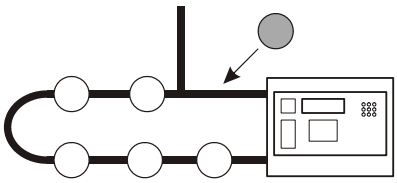
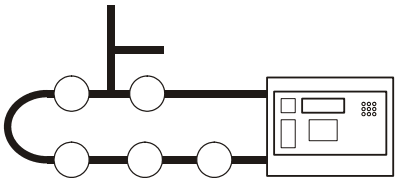
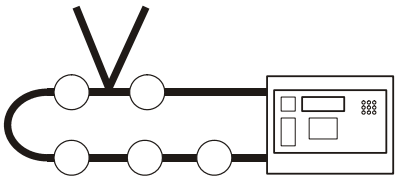
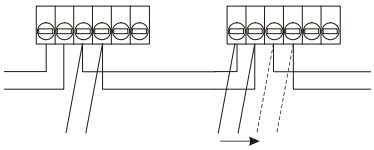
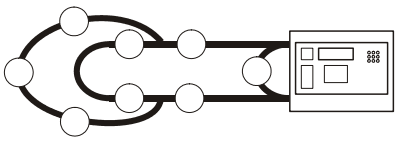
⇨ The window closes and the Site is opened.

Remove the PC from the Station

1. Disconnect the LAN link under the 'Commissioning' > 'Disconnect' menu item.
2. Disconnect the cable connection.

19.6 'Topology is invalid' error message

This message appears after a C-NET line has been read in, if the topology is invalid. The following table shows invalid topologies.

Stub on stub or loop interrupted		
Stub on start or end on loop		Legend: ○ = C-NET device ● = line separator
Stub on stub on loop		
Several stubs starting from same location on loop		
Loop on loop		

Invalid topologies

Troubleshooting

- Check the detector line with line tester FDUL221 (see document 008250).
- Create a valid topology:
  - Rectify the fault by changing over the wiring or plan the detector line again.
  - If the output of a stub is located at the start or finish of a loop, change over its wiring or add a line separator FDCL221 in the loop between the control panel and the stub output.
  - If there are several stub outputs between two C-NET devices, change over the wiring or add a line separator FDCL221 between each stub.
- Read in the C-NET line again ('Read-in installed devices' command).

19.7 Restart the station

The configuration of the Station remains the same.

The Station can be rebooted in two ways:

- Via the menu on the display
- On the p.c.b. of the operator unit

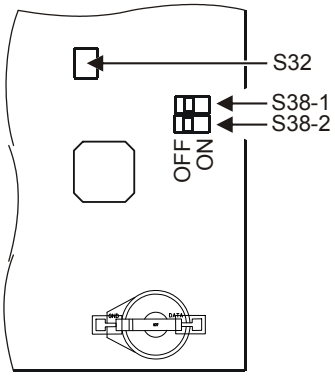
Via the menu on the display

1. Press <MENU>.
   ⇨ The PIN input dialog is indicated.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message is displayed.
   ⇨ The main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Restart' command.

⇨ The 'Station' restarts.

On the p.c.b. of the operator unit

- On the PCB of the operator unit, press the button S32 until the Station restarts.



⇨ The Station restarts.

19.8 Reset the station to factory status

!	*NOTICE*
	Resetting the station to factory status The configuration of the station is deleted! ● Save the configuration data of the Station before resetting to factory status.

There are two ways of resetting the Station to factory status:

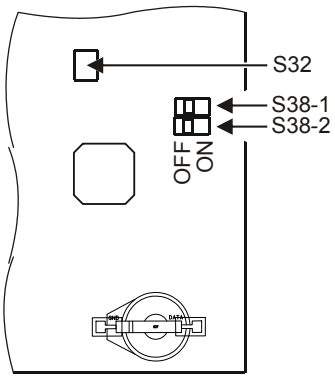
- Via the menu on the display
- On the p.c.b. of the operator unit

Via the menu on the display

1. Press <MENU>.
   ⇨ You are prompted to enter a PIN.
2. Enter a valid PIN and confirm with <ok>.
   ⇨ The 'User successfully logged in' message appears. Next, the main menu is displayed.
3. Select the 'Topology' > 'Hardware tree' > 'Station' menu items.
4. Press the 'More Options' softkey and select 'Execute commands'.
5. Select the 'Factory reset' command.
   ⇨ The Station restarts.
6. Wait until only the green 'System On' LED lights up, the display shows the normal condition and the Station can be operated.
7. Enter the date and time. To do this, select the 'Settings/administration' > 'Set system time' menu items.

On the p.c.b. of the operator unit

1. On the p.c.b. of the operator unit, set the switch S38-1 to ON.
2. Press the button S32 until the Station restarts.



   ⇨ The Station restarts.

3. Wait until only the green 'System On' LED lights up, the display shows the normal condition and the Station can be operated.
4. Set switch S38-1 to OFF after the restart.
5. Enter the date and time. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.

19.9 Disconnect the station from the power supply

Work on an open Station such as changing components, cabling, etc. must only be performed when the Station is current-free. For this purpose the batteries must be disconnected and the mains connection must be interrupted. The Station cannot be shut down.

!	*NOTICE*
	Connecting up or removing components during operation
	Damage to components.
	● Do not connect up or remove components during operation.

For the installation and removal of components see document A6V10210390, installation.

1. First disconnect the negative battery terminals, then the positive terminals.
2. Remove the disconnect terminal block that is mounted on a top hat rail in the housing.
   ⇨ The mains connection is interrupted.
3. Exchange the components.
4. Re-insert the disconnect terminal block.
   ⇨ The mains connection is intact.
   ⇨ The Station starts.
5. First connect the negative battery terminals, then the positive terminals.
6. Enter the date and time. To do this, select the 'Settings/administration' > 'System commands' > 'Set system time' menu items.
7. If need be, carry out a partial commissioning.

Time and date are not saved in the Station.
When the Station
is switched back on, the time and date must be reset.

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