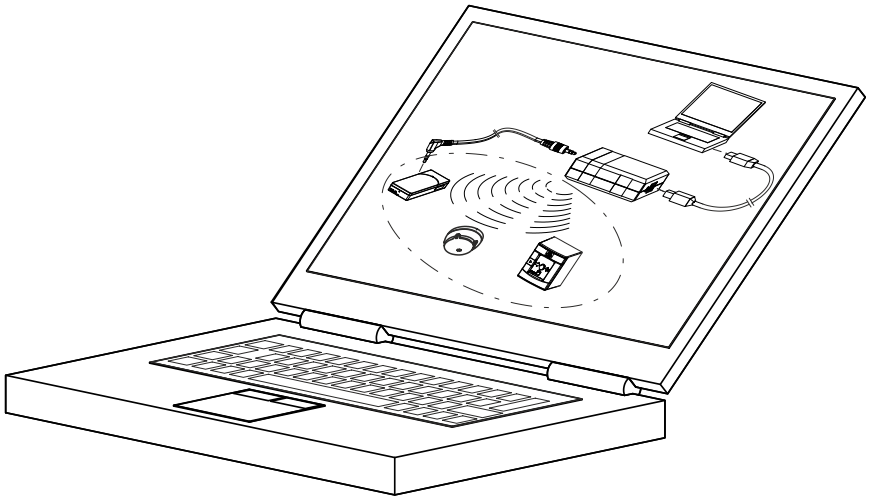
SIEMENS



FXS2061-O

Wireless diagnostic tool

User Guide

A6V10425605_d_en_--
2022-01-07

Smart Infrastructure

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1 About this document

Goal and purpose

This document describes how to configure a radio cell with the 'FXS2061-O Wireless diagnostic tool' software. The radio devices are the following:

- FDM273-O radio manual call point
- FDM275-O radio manual call point
- FDOOT271-O radio fire detector
- Manufacturer's radio gateway

You will find information about the radio gateway in the manufacturer's documentation.

The software enables the devices to be analyzed.

The following features make it easier to manage radio cell data:

- Reading out device data
- Creating reports
- Using customer texts

Knowledge of the devices concerned is a requirement for carrying out analyses with the 'FXS2061-O Wireless diagnostic tool' software (OEM version).

Target groups

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

Target group	Activity	Recommended qualification
Commissioning personnel	• Configure the product at the place of installation according to customer-specific requirements. • Check the product operability and release 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.

Source language and reference document

- The source/original language of this document is German (de).
- The reference version of this document is the international version in English. The international version is not localized.

Document identification

The document ID is structured as follows:

ID code	Examples
ID_ModificationIndex_Language_COUNTRY -- = multilingual or international	A6V10215123_a_de_DE A6V10215123_a_en_-- A6V10315123_a_--_--

Date format

The date format in the document corresponds to the recommendation of international standard ISO 8601 (format YYYY-MM-DD).

Presentation conventions

Text markups

Special text markups are used as follows in this document:

▻	Prerequisite for an instruction telling you what to do
1. **2.**	Instruction with at least two steps
◈	Instruction with one step
–	Variant, option, or detailed information on an instruction
⇒	Interim result of an instruction
⇒	Final result of an instruction
●	Lists
[➙ X]	Reference to a page number
'Text'	Quote, exact match
<Button>	Identification of buttons
>	Indicates a link and identifies steps in a sequence, e.g., 'Menu bar' > 'Help' > 'Help topics'
↑ Text	Identifies a glossary entry

Additional information and tips

The 'i' symbol identifies additional information and tips to simplify the procedure.

Graphic display

The display on the screen depends on the PC setting. It may therefore deviate from the images shown.

Cyber security disclaimer

Siemens provides a portfolio of products, solutions, systems and services that includes security functions that support the secure operation of plants, systems, machines and networks. In the field of Building Technologies, this includes building automation and control, fire safety, security management as well as physical security systems. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art security concept. Siemens' portfolio only forms one element of such a concept.

You are responsible for preventing unauthorized access to your plants, systems, machines and networks which should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. Additionally, Siemens' guidance on appropriate security measures should be taken into account. For additional information, please contact your Siemens sales representative or visit https://www.siemens.com/global/en/home/company/topic-areas/future-of-manufacturing/industrial-security.html.

Siemens' portfolio undergoes continuous development to make it more secure. Siemens strongly recommends that updates are applied as soon as they are available and that the latest versions are used. Use of versions that are no longer supported, and failure to apply the latest updates may increase your exposure to

cyber threats. Siemens strongly recommends to comply with security advisories on the latest security threats, patches and other related measures, published, among others, under https://www.siemens.com/cert/en/cert-security-advisories.htm.

1.1 Applicable documents

Document ID	Title
A6V10347735	Installation MCL-USB adapter (radio) FDUZ227
A6V10425624	Technical Manual Radio fire detector FDOOT271-O
A6V10425629	Installation Radio fire detector FDOOT271-O, Detector base FDB271
A6V10425645	Technical Manual Radio manual call point FDM273-O
A6V10425648	Installation Radio manual call point FDM273-O
A6V10425652	Technical Manual Radio manual call point FDM275-O
A6V10425655	Installation Radio manual call point FDM275-O

Applicable documents also include your installation manufacturer's technical manual and your radio gateway manufacturer's technical manual.

1.2 Download center

You can download various types of documents, such as data sheets, installation instructions, and license texts via the following Internet address:

https://siemens.com/bt/download

◈ Enter the document ID in the search field.

You will also find information about search variants and links to mobile applications (apps) for various systems on the home page.

1.3 Technical terms

Term	Explanation
CSV	Comma-separated values Basic structure of a text file for saving data.
DSV	Device-specific variant A DSV file contains all the device information to be used by the FXS2061-O Wireless diagnostic tool software.
ES	Product version
ID	Code for unique identification
RSSI	**R**eceived **S**ignal **S**trength **I**ndication Value for the received field strength of the devices. The higher the value, the better the signal strength. An RSSI of 1 is the lowest receivable value.
USB	Universal Serial Bus
XML	Extensible Markup Language Extensible markup language for displaying structured data.

Term	Explanation
Time stamp	Time stamp with the following display sequence: day, month, year, hour, minute, second (dd MM yyyy HH:mm:ss)
ZIP	File format for compressed files.

1.4 History of changes

The version of the reference document is valid for all languages into which the reference document is translated.

The first edition of the document into a language and/or for a country might have the version 'd', for example, instead of 'a', if the document has already reached this publication version.

The table below shows this document's revision history:

Version	Edition date	Brief description
d	2022-01-07	'Replacing the radio gateway [→ 48]', 'Updating the firmware of the radio gateway [→ 49]', 'Updating the firmware of MCL-USB adapter (radio) FDUZ227 [→ 52]': ● Password updated
c	2018-09-03	Chapter 'System requirements' updated
b	2016-12-12	Changes to terminology Amendments in the following chapters: Updates to the 'Updating the radio gateway firmware' chapter Updates to the 'Updating the firmware of MCL-USB adapter' chapter Updates to the 'Installing software' chapter Updates to the 'Starting software' chapter' Updates to the 'Menu bar' chapter: 'Update' table entry updated Updates to the 'Commands' chapter: last column in the table updated All screenshots updated Editorial adjustments
a	2015-04-07	First edition

2 Installation

2.1 System requirements

Hardware

Component	Minimum requirements
Processor	In line with the minimum requirements for the operating system used. You will find a list of the supported operating systems further down.
Main memory	
Hard disk	1 GB of free memory
Network connection	Ethernet RJ45
Screen resolution	1024 x 768
Colors	65535

Software

Operating system	Version
Windows 10	x64 (64-bit)

Acrobat Reader	Version 6 or higher
Browser	Internet Explorer 9 or higher

Administrator rights to the OS of the PC are required for the installation of the software.

2.2 Installing software

▷ The 'FXS2061-O Wireless diagnostic tool' is available for installation.

1. Run the installation file.
   ⇨ The installation routine starts and guides you through the installation.
2. Follow the instructions of the installation routine and observe the installation paths.

Installation paths

During installation, you can change the standard installation paths offered.
You can change various paths subsequently within the software, but you must then move the respective directories manually to the new location.
We do not recommend that you change the program path after successful installation in the software.

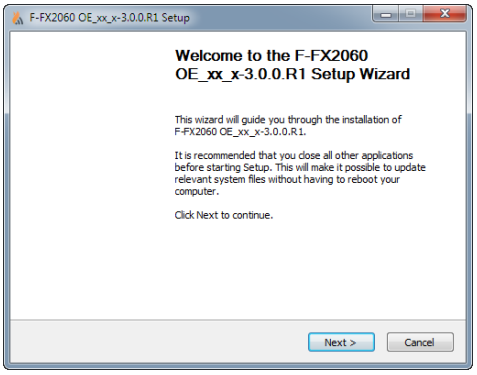
You can change the following standard installation paths during installation:

- Target directory:
  C:\Program Files\……"VersionID" [1]
- Common data directory:
  For Win7: C:\ Program Data\……"VersionID" [1]
  For WinXP: C:\ Documents and Settings\All Users\Application Data\ ……"VersionID" [1]

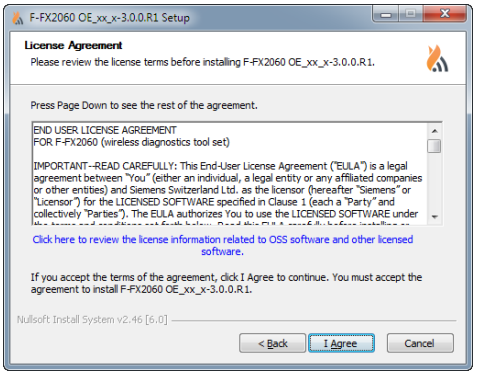
[1] "VersionID" = Name and version of the software

If you install a version of the software with another major or minor version, new standard installation paths are created. The existing installation paths are retained. If you already have an older version of 'FXS2061-O Wireless diagnostic tool' installed, this is uninstalled before the new installation starts.

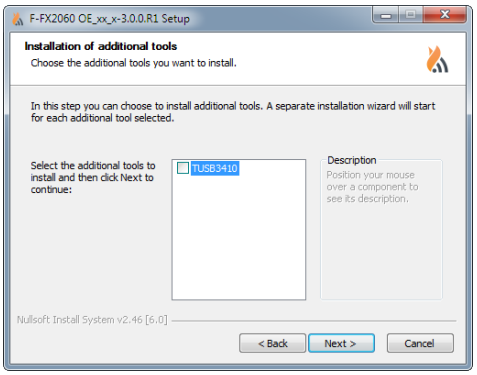
Installation display



Click on 'Next'.

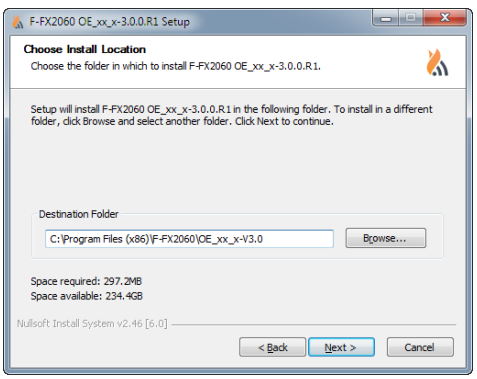


To accept the license agreement, click on 'I agree'.



To install additional tools, click on the corresponding checkbox. Follow the instructions.

To use the FDUZ227 adapter, for example, install the USB driver.

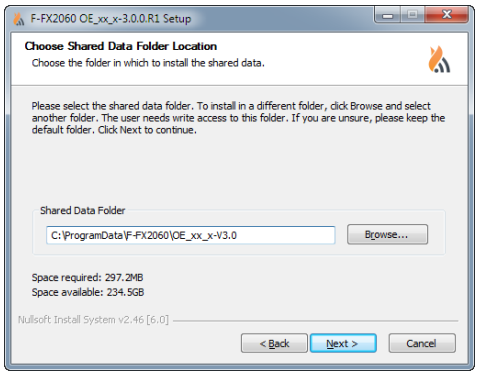


To change the target directory, click on 'Browse...'.

Specify the target directory.

Click on 'Next'.

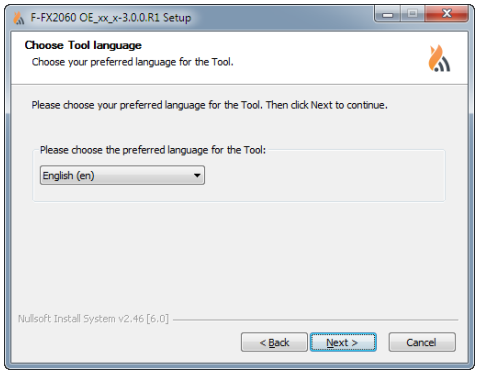
Installation display



To change the target directory for shared files, click on 'Browse...'.

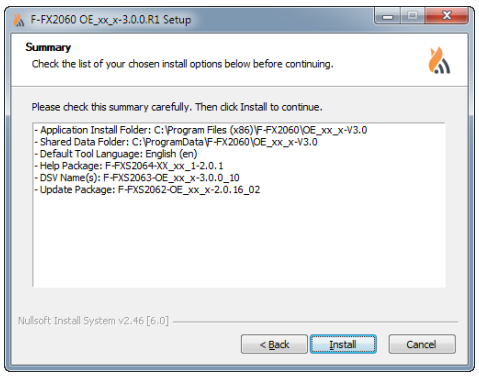
Specify the target directory.

Click on 'Next'.

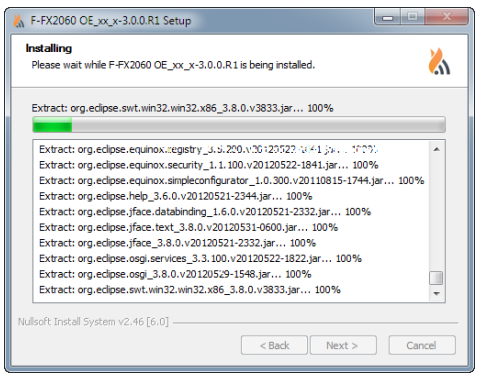


Select the desired language.

Click on 'Next'.

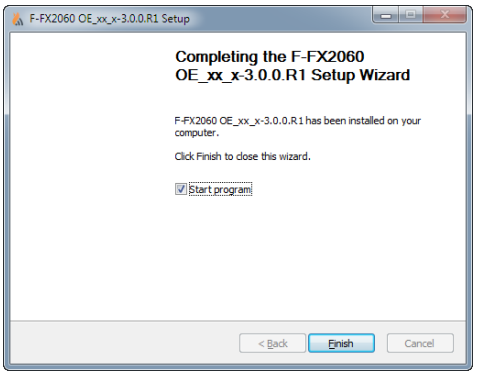


The selected settings are displayed in a list. Click on 'Install'.



The installation starts.

Do not interrupt the process.

Installation display


The installation is complete.

Click on 'Finish'.

Wait until the software has finished installing and starts automatically.

2.3 Starting software

You can start the software as follows:

- Click the software symbol on the desktop.
- In the task bar, click on 'Start' > 'Programs' > 'FX2060' > XX_xx_Version > 'FXS2061-O'.

2.4 Exiting software

You can exit the software as follows:

- In the menu bar, click on 'File' > 'Exit'.
- Click on the 'X' button in the title bar.

2.5 Communication with devices

The radio gateway has radio contact with all devices in its radio cell and saves device data.

The device data can be called by the radio gateway.

The device data saved in the radio gateway is updated automatically. To save resources, automatic updating does not take place often. The data is automatically saved for the first time four hours after commissioning is completed.

The interval for updating device data can be set and initiated from within the 'FXS2061-O Wireless diagnostic tool' software. Updating can take up to two hours depending on the complexity of the radio cell.

Establishing a connection between the device and the PC

To communicate with the radio gateway and the devices, you need a MCL-USB adapter (radio), e.g., FDUZ227, which is available separately.

The 'FXS2061-O Wireless diagnostic tool' software communicates directly with the devices (variant A)  by radio via the 'MCL-USB adapter (radio)', or with the radio gateway via cable (variant B)  . With a cable connection, there is an indirect connection to the other devices.

Data transfer via cable is faster than radio transfer.

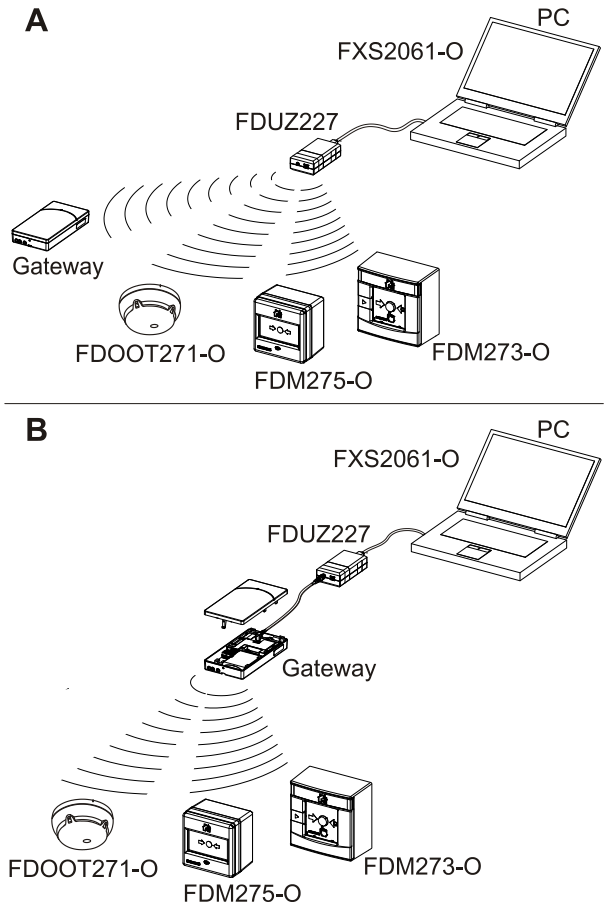


Fig. 1: Overview of connections

Variants	Device	Connection	Use
A	Gateway FDOOT271-O FDM273-O FDM275-O	Direct radio connection between 'MCL-USB adapter (radio)' and the devices	Task card: 'Diagnostic function' The 'MCL-USB adapter (radio)' is in radio range of the device (<10 m). Various diagnostics functions are supported.
			Task card: 'Network' The 'radio gateway' is in radio range (<10 m). Devices in the radio cell that are more remote can be reached using the radio gateway (multihop).
B	Gateway	Cable connection between 'MCL-USB adapter (radio)' and radio gateway	Task card: 'Network' Firmware update possible
	FDOOT271-O FDM273-O FDM275-O	Radio connection between radio gateway and the devices	Task card: 'Network' **All devices** in the radio cell can be reached from the radio gateway (multihop).

See also

Applicable documents [→ 7]

2.6 Connection between device and PC

For a direct radio connection (variant A)  , the MCL-USB adapter (radio) FDUZ227 must be in radio range of the device. The smaller the distance, the more effective data transfer will be.

If a power outage occurs during a firmware update, the update is not carried out.

If the USB cable connection is disconnected, the 'FXS2061-O Wireless diagnostic tool' software closes automatically.

Establishing a connection between the device and the PC

▷ The software is installed on the PC. See the chapter 'Installing software [➙ 9]'.

▷ The devices' power supply must be ensured for the duration of the connection. The 'FXS2061-O Wireless diagnostic tool software must be restarted if an interruption occurs.

▷ The PC has a USB port type A.

▷ The MCL-USB adapter (radio) FDUZ227 is available.

▷ A connection cable with a USB connector type A and a 5-pole USB connector type mini B is available for the cable connection to the radio gateway.

▷ Follow the instructions in the documentation for the fire control panel.

1. Use the USB connection cable to connect the MCL-USB adapter (radio) FDUZ227 to the PC.
2. For a direct radio connection (variant A)  with the radio gateway or with the device, you must bring the MCL-USB adapter (radio) FDUZ227 into radio range.
3. For a cable connection (variant B)  with the radio gateway, open the housing and connect a cable up to 1.5 m in length to the socket for the MCL-USB adapter (radio).
4. Start the software.
   ⇨ The connection between the software and the device is established.
5. Select the COM port in the software: 'Options' > 'Preferences' > 'Device' > 'Serial Port'.
6. In the software, select 'Discover Gateways...'.
   ⇨ The MCL-USB adapter (radio) FDUZ227, the radio gateway connected via cable, or all radio gateways discovered in radio range are displayed.

⇨ You can establish the connection to the devices via the GUI.

Disconnecting the connection between the device and the PC

▷ The PC is connected to the devices via the MCL-USB adapter (radio) FDUZ227 and the software is activated.

▷ Changed settings and data are saved.

1. Close the software in the 'File' main menu with the 'Exit' command.
2. Remove all connection cables.
3. Close the open housing on the radio gateway.

⇨ The connection with the 'FXS2061-O Wireless diagnostic tool' software is disconnected.

See also

- Applicable documents [→ 7]

3 GUI

3.1 Overview of the program window

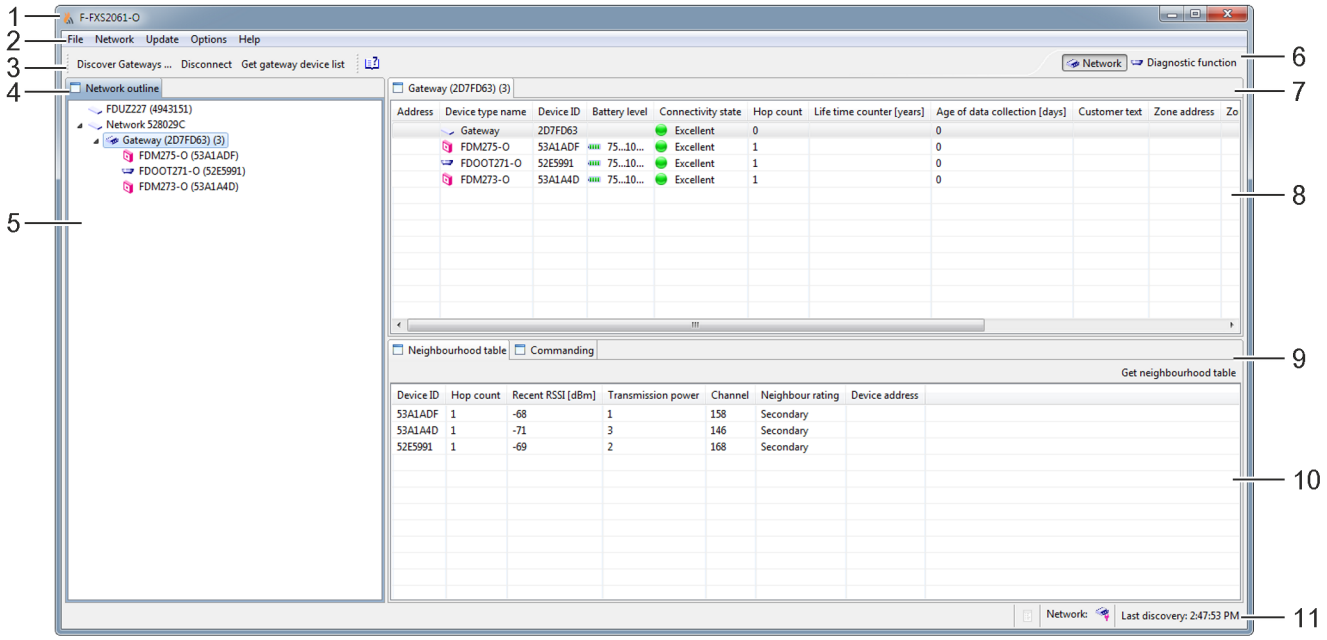


Fig. 2: Program window

1 Title bar

2 Menu bar

3 Toolbar

4 'Network outline/Diagnostic function' display

5 Information and selection of connected devices

6 Task cards 'Network'/'Diagnostic function'

7 'Gateway device list' display

8 Information on the 'Gateway device list' display

9 Selected tab

10 Field for information about and commands for the selected tab

The data applies to the device selected in position (8) or (5).

11 Information about the current connection

 Report

 Cable connection to the radio gateway

 Radio connection to the radio gateway

 Radio connection to the devices

Time of last device recognition

3.2 Menu bar

The menu structure and menu items are fixed for each task card. Individual menu items may be shaded out depending on the task card selected. Menu items that can not be run are shaded gray.

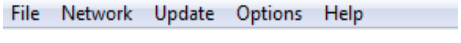


Fig. 3: Bar with the main menus for the 'Network' task card

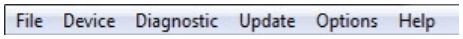


Fig. 4: Bar with the main menus for the 'Diagnostic function' task card

The following main menus exist:

- 'File'
- 'Network' is only displayed when 'Network' task card is selected.
- 'Device' is only displayed when 'Diagnostic function' task card is selected.
- 'Diagnostic' is only displayed when 'Diagnostic function' task card is selected.
- 'Update'
- 'Options'
- 'Help'

Every main menu has the following submenus:

Main menu	Submenu	Action
File	Open network file	Open the network file in snc format A network file is read and can be used to create a report. Only the newly read network file is displayed. The network file can be opened either by double-clicking on the file or by dragging it into the 'Network structure' program window.
	Save network file	Saves the current network file with all relevant data in SNC or CSV format.
	Import new DSV file	Import new DSV file.
	Import new resource or <Ctrl> + <R>	Imports new resources: ● XML for new customer texts ● CSV for new customer texts ● ZIP for new firmware packages
	Reports or <Ctrl> + <P>	Creates a report about the device data.
	Exit	Exiting software

Main menu	Submenu	Action
Network	Discover Gateways ...	Searches for the radio gateway connected by cable or the active radio gateways within range.
	Get gateway device list or <Ctrl> + <L>	Loads the devices for the radio gateway.
	Get connectivity state	Checks the radio cell connections.
	Get neighbourhood table	Displays the attenuation values for the neighboring devices in the radio cell.
	Get battery level	Displays the battery charge state in 5 levels.
	Live data from device	The selected data for the device is updated. All data that is not selected is retained. ● Get all live data ● Get connectivity state ● Get neighbourhood table ● Get battery level
	Trigger data collection or <Ctrl> + <Shift> + <L>	Starts the data collection from all devices in the radio cell and saves this on the radio gateway.
	Start gateway trace logging	Starts the log file with all information from: ● Radio gateway

Main menu	Submenu	Action
		● Radio cell ● Devices
	Stop gateway trace logging	Stops the log file with all information from: ● Radio gateway ● Radio cell ● Devices
	Remove device from radio cell	Removes the selected device.
	Radio cell in OPERATION mode	Normal operation ● The radio cell is ready for use. ● Information is transmitted to the detector line via the radio gateway.
	Radio cell in MAINTENANCE mode	Maintenance mode ● The radio cell can be modified. ● The radio cell remains capable of emitting an alarm.

Main menu	Submenu	Action
Diagnostic	Check or <CTR+2> and <1>	The device test is triggered.
	Check + alarm [1] or <CTR+2> and <2>	The device and alarm tests are triggered.
	Check + test alarm or <CTR+2> and <3>	The device and test alarm tests are triggered.
	Alarm [1] or <CTR+2> and <4>	The device alarm is triggered.
	Test alarm or <CTR+2> and <5>	The device test alarm is triggered.
	Read status or <CTR+2> and <8>	The status of the device is read.
	Simulate fault [1] or <CTR+2> and <9>	A device fault is simulated.
	Warning DL2 [1] or <CTR+2> and <0>	Danger level 2 is activated. See also 'Setting the danger level [➙ 33]'.
	Set DL1	Danger level 1 is set.
	Device information or <CTR+3> and <1>	The current information of the selected device is displayed.
	Parameter or <CTR+3> and <2>	The current parameters of the selected device are displayed.
	Position [1] or <CTR+3> and <9>	Set the danger level for inputs.
Device	Discover devices ...	Searches for devices in range and displays their identification data.
	Discover devices of same network ...	Recognizes devices in the same network.
	Get all data	Displays the connection status to the neighboring devices.

Main menu	Submenu	Action
		Displays the current connection data for the neighboring devices. Displays the battery charge state in 5 levels. The total running time is read.
	Get connectivity state	Displays the connection status to the neighboring devices.
	Get neighbourhood table	Displays the current connection data for the neighboring devices.
	Get battery level	Displays the battery charge state in 5 levels.
	Get total running time	The total running time is read.
	Remove from radio cell	The device is removed from the radio cell.
Update	Periphery Update Wizard	Starts a wizard for the connected peripheral devices detection and update
	Exchange Gateway	Replace a radio gateway
Options	Preferences	Presettings for ● Configurations ● Path of DSV file ● Device: serial port ● Path of Firmware package path(s) and preferences ● General settings – Path for additional documents – Language selection – Setting the transmitting power of 'FDUZ227 MCL-USB adapter (radio)' – Calling a device list automatically – Deleting tool memory/customer texts ● Path for help file
Help	Help or <F1>	View help
	View additional documents	Call this user manual
	Show shortcuts or <Ctrl> + <Shift> + <L>	Show keyboard shortcut
	About	Displays detailed information about the 'FXS2061-O Wireless diagnostic tool' software.

[1] This function is not supported by all fire control panels. An additional activation at the control panel may be required. Please observe the relevant information in the documentation for your fire control panel.

3.2.1 Shortcuts

You can obtain an overview of the available keyboard shortcuts via 'Help' > 'Show shortcuts' or by pressing <Ctrl> + <Shift> + <L>.

The following keyboard shortcuts are possible when using the 'Network' task card:

Command	Shortcut
Change user role	<Ctrl> + <U>
Disconnect	<Ctrl> + <Q>
Get all live data	<Ctrl> + <Shift> + <D>

Command	Shortcut
Get battery level	<Ctrl> + <Shift> + <B>
Get connectivity state	<Ctrl> + <Shift> + <E>
Get gateway device list	<Ctrl> + <L>
Get neighbourhood table	<Ctrl> + <Shift> + <N>
Help	<F1>
Import new resource	<Ctrl> + <R>
Next task card	<Ctrl> + <F8>
Open network file	<Ctrl> + <O>
Previous task card	<Ctrl> + <Shift> + <F8>
Reports	<Ctrl> + <P>
Save network file	<Ctrl> + <S>
Show Key Assist	<Ctrl> + <Shift> + <L>
Trigger data collection	<Ctrl> + <Shift> + <C>

The following keyboard shortcuts are possible when using the 'Diagnostic function' task card:

Command	Shortcut
Alarm	<Ctrl> +< 2, 4>
Change user role	<Ctrl> + <U>
Check	<Ctrl> + <2, 1>
Check + alarm	<Ctrl> + <2, 2>
Check + test alarm	<Ctrl> + <2, 3>
Clear test mode	<Ctrl> + <3, 6>
Stop locate device	<F4>
Device information	<Ctrl> + <3, 1>
Disconnect	<Ctrl> + <Q>
Get all data	<Ctrl> + <D>
Get battery level	<Ctrl> + <B>
Get connectivity state	<Ctrl> + <E>
Get neighbourhood table	<Ctrl> + <N>
Get total running time	<Ctrl> + <T>
Help	<F1>
Import new resource	<Ctrl> + <R>
Locate device	<F3>
Messages	<Ctrl> + <3, 0>
Next task card	<Ctrl> + <F8>
Open network file	<Ctrl> + <O>
Parameter	<Ctrl> + <3, 2>
Position	<Ctrl> + <3, 9>
Previous task card	<Ctrl> + <Shift> + <F8>
Read status	<Ctrl> + <2, 8>

Command	Shortcut
Reports	<Ctrl> + <P>
Save network file	<Ctrl> + <S>
Set test mode	<Ctrl> + <3, 5>
Show Key Assist	<Ctrl> + <Shift> + <L>
Simulate fault	<Ctrl> + <2, 9>
Test alarm	<Ctrl> + <2, 5>
Test alarm total	<Ctrl> + <2, 6>
Warning DL2	<Ctrl> + <2, 0>

3.3 Toolbar

The commands on the toolbar enable the following functions:

- The connection to ' Network' or to ' Diagnostic function'
- Exchange of data with the ' Network' or ' Diagnostic function'
- Only those commands that correspond to the selected task card are displayed on the toolbar. The commands available change if the task card is replaced.
- Individual commands are hidden depending on which devices are connected. Commands that cannot be executed are shaded gray.

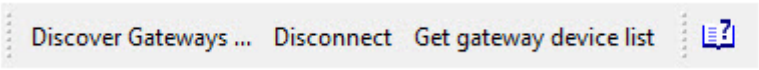


Fig. 5: Example of a toolbar

Task card: Network

Command	Action
Discover Gateways ...	Recognizes the radio gateways in range.
Disconnect	Disconnects the active connection to the device.
Get gateway device list	Displays the list of available devices for the selected radio gateway.
or <F1>	This document is displayed in PDF format.

Task card: Diagnostic function

Command	Action
Discover devices ...	Recognizes the devices in range.
Disconnect	Disconnects the active connection to the device.
or <F1>	This document is displayed in PDF format.

3.4 Task cards

The menu structure and menu items are fixed for each task card. Individual menu items may be shaded out depending on the task card selected. Menu items and fields that can not be run are shaded gray.

The following task cards exist:

- 'Network'
- 'Diagnostic function'

Fig. 6: Bar with task cards

Task card	Action
Network	Read and configure 'Network'.
Diagnostic function	Read and configure 'Diagnostic function'.

3.5 'Network' task card

You can use the ' Network' task card to carry out reading and configuring directly on the radio gateway. The 'FXS2061-O Wireless diagnostic tool' software is in direct contact with the radio gateway and can access the current radio gateway data and its data collection from the devices. You can tell the age of the data from the data collection. It is possible to set the interval for renewing the data collection. Renewing the data collection requires time and energy.

Renewing the data collection requires time and energy. Rereading the data can take up to two hours depending on the complexity of the radio cell.

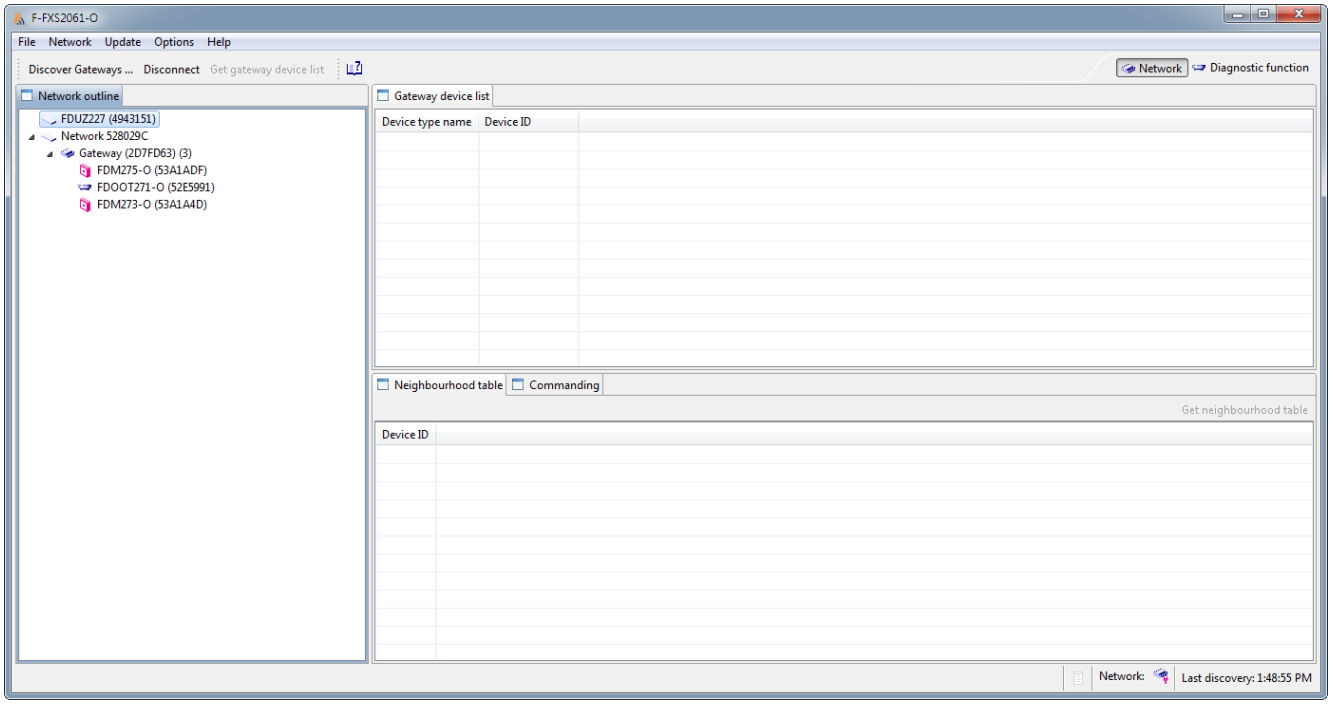


Fig. 7: 'Network' task card

Indication	Action
Network outline	List of networks Information and selection of connected devices
Gateway device list	List of devices in the selected radio gateway
Neighbourhood table	List of quality information for the radio connection
Commanding	List of commands

3.5.1 Gateway device list

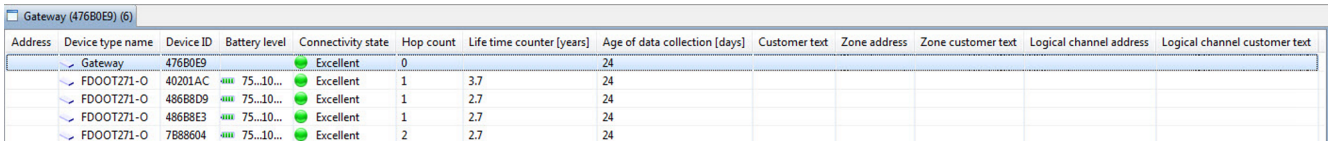


Fig. 8: Gateway device list

All devices in the selected gateway are displayed. Live data is displayed with the appendage 'Live'.

Indication	Action
Address [1]	Displays the address of the device.
Device type name	Shows the device type as a symbol and the device designation.
Device ID	Shows the device ID.
Battery level	Battery indicator
Connectivity state	The connection status of this device is displayed. Red ⇒ 'No connection to gateway' ⇒ There is no connection between the radio gateway and the device. Yellow ⇒ 'Redundant path lost' ⇒ The quality of the connection is good, but there is only one path between the radio gateway and the device. Dark green ⇒ 'Good' ⇒ The quality of the connection is very good; there are two paths between the radio gateway and the device, with one path via a neighboring device with the same number of radio links to the radio gateway. Green ⇒ 'Excellent' ⇒ The quality of the connection is excellent; there are two paths between the radio gateway and the device. Both paths go via neighboring devices which are closer to the radio gateway. Black ⇒ 'Out of base' ⇒ The device is not in the base/housing.
Hop count	Displays the number of radio links for this connection between the device and the radio gateway.
Life time counter [years]	Displays the operating time in years and quarters.
Age of data collection [days]	Displays the age of the data in days. ● Live data is marked as such.
Customer text [1]	Displays the customer text.
Zone address [1]	Displays the group address in a detection tree.
Zone customer text [1]	Displays the customer text of the group.
Logical channel address [1]	Displays the element address.
Logical channel customer text [1]	Displays the customer text for the element address.

[1] Some systems do not support customer texts. Please refer to the documentation for your fire detection system.

3.5.2 Table of neighboring devices

Every device saves its connections to other devices in the neighboring devices table.

For every connection between two devices, the required transmitting power is determined by means of the 'RSSI' received field strength. The higher the transmitting power required, the higher the level of energy required and the shorter the service life of the battery. For this reason, the 'RSSI' signal is optimized to a target band of -70…-75 dBm at the receiver. This ensures the quality of reception and keeps battery consumption to a minimum. To achieve this target band, the neighboring receiver triggers an adjustment to the transmitting power for this connection.

The transmitting power is displayed in levels 1…10.

- Level 1 means a low transmitting power and a long service life for the battery.
- Level 10 means maximum transmitting power and a short service life for the battery.

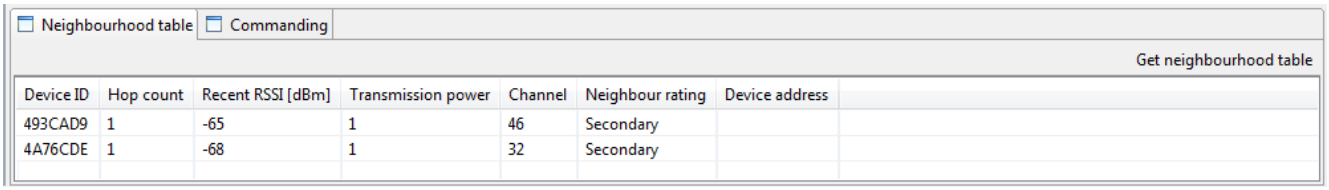


Fig. 9: Table of neighboring devices

Indication	Action
Get neighbourhood table	Displays information about local connections to devices.
Device ID	Displays the device ID of the device.
Hop count	Displays the number of radio links for this connection between the device and the radio gateway.
Recent RSSI [dBm]	The selected device currently receives with the specified received field strengths from neighboring devices.
Transmission power	Displays the transmitting power of this device in levels from low (1) to maximum (10).
Channel	The device in this row sends to the selected device on this channel. ● In the 868 MHz band, the address is lower than 100. ● In the 433 MHz band, the address is higher than 100.
Neighbour rating	**Primary**: This is a connection frequently used for monitoring the presence of the device. **Secondary**: This connection is primarily used for network maintenance. It may be used by other devices as a primary connection.
Device address	Displays the group address and the channel address.

3.5.3 Commands

The fields are only active when a device is selected.

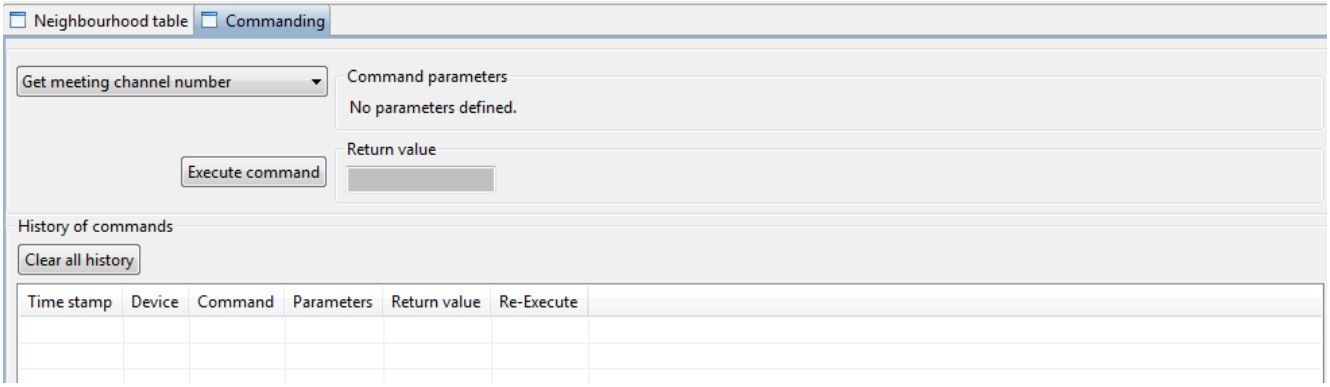


Fig. 10: Network commands

Indication	Action
Commanding	The following commands can be selected for the radio gateway in the selection window: ● Get meeting channel number ● Auto refresh interval of data collection

Indication	Action
	● Trigger data collection ● Factory Reset The following commands can be selected for devices in the selection window: ● Get meeting channel number ● Get max hop count ● Factory Reset
Command parameters	Displays the selection of the intervals for data collection.
Execute command	The selected command is executed.
History of commands	Displays the executed commands that have been recorded
Clear all history	The recorded commands are deleted.
Time stamp	The current time set on the connected PC is displayed.
Device	Device designation
Device ID	Displays the device ID
Command	The executed command is displayed.
Parameter	Device parameters
Return value	Return value of the executed function
Re-Execute in currently selected device	The  symbol is used to execute the command again on the device currently selected.

3.6 'Diagnostic function' task card

You can use the ' Diagnostic function' task card to directly read and configure devices located in range of the MCL-USB adapter (radio) FDUZ227.

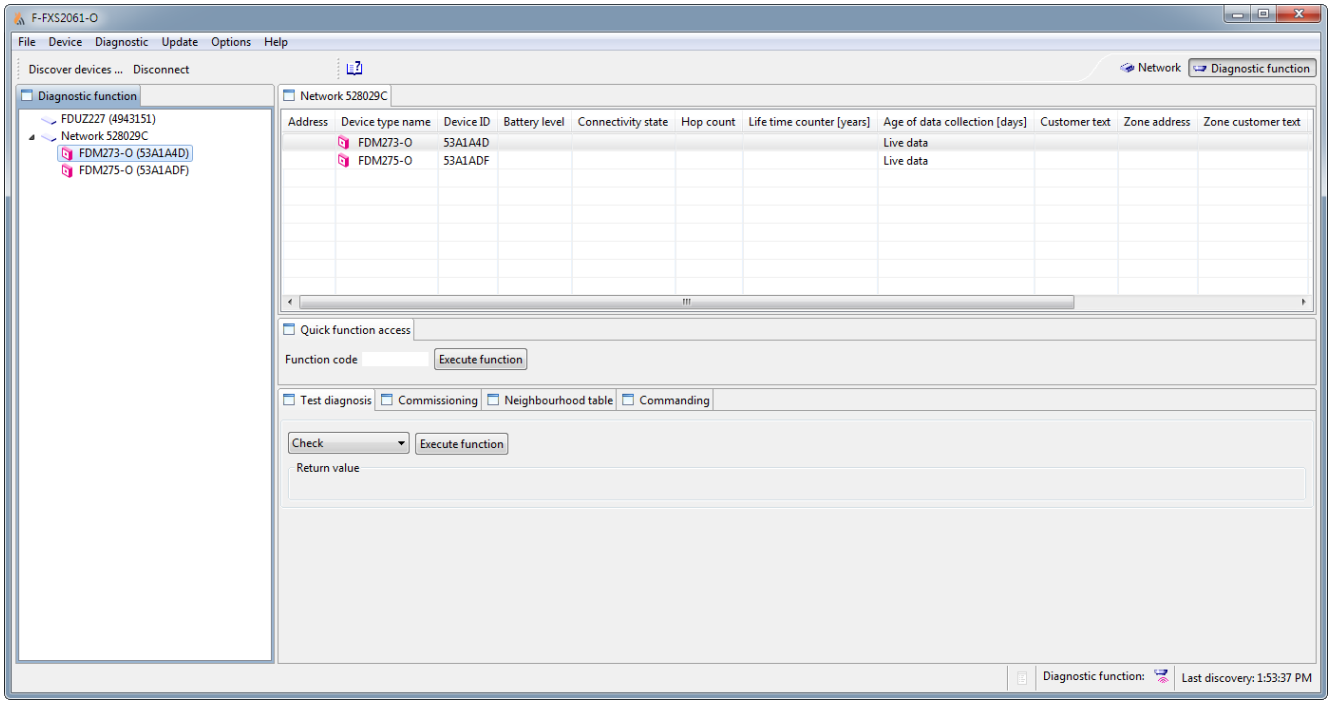


Fig. 11: 'Diagnostic function' task card

Indication	Action
Diagnostic function	List of diagnostic networks Information and selection of connected devices
Gateway device list	List of devices in the selected radio gateway.
Quick function access	Quick access
Test diagnosis	Select an action on the device and display the return values.
Commissioning	Activation of the selected function on the device.
Neighbourhood table	List of quality information for the radio connection.
Commanding	List of commands.

3.6.1 Gateway device list

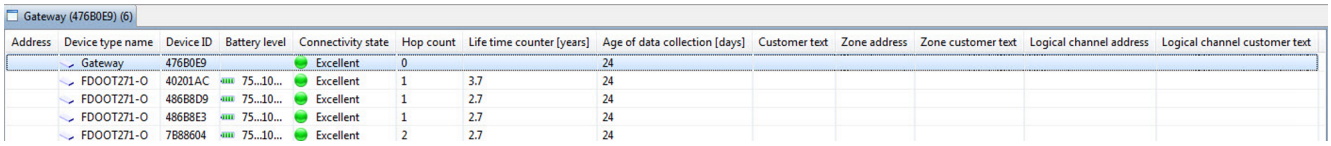


Fig. 12: Gateway device list

All devices in the selected gateway are displayed. Live data is displayed with the appendage 'Live'.

Indication	Action
Address [1]	Displays the address of the device.
Device type name	Shows the device type as a symbol and the device designation.

Indication	Action
Device ID	Shows the device ID.
Battery level	Battery indicator
Connectivity state	The connection status of this device is displayed. Red ⇒ 'No connection to gateway' ⇒ There is no connection between the radio gateway and the device. Yellow ⇒ 'Redundant path lost' ⇒ The quality of the connection is good, but there is only one path between the radio gateway and the device. Dark green ⇒ 'Good' ⇒ The quality of the connection is very good; there are two paths between the radio gateway and the device, with one path via a neighboring device with the same number of radio links to the radio gateway. Green ⇒ 'Excellent' ⇒ The quality of the connection is excellent; there are two paths between the radio gateway and the device. Both paths go via neighboring devices which are closer to the radio gateway. Black ⇒ 'Out of base' ⇒ The device is not in the base/housing.
Hop count	Displays the number of radio links for this connection between the device and the radio gateway.
Life time counter [years]	Displays the operating time in years and quarters.
Age of data collection [days]	Displays the age of the data in days. ● Live data is marked as such.
Customer text [1]	Displays the customer text.
Zone address [1]	Displays the group address in a detection tree.
Zone customer text [1]	Displays the customer text of the group.
Logical channel address [1]	Displays the element address.
Logical channel customer text [1]	Displays the customer text for the element address.

[1] Some systems do not support customer texts. Please refer to the documentation for your fire detection system.

3.6.2 Quick access

Fig. 13: Quick access

Indication	Action
Quick function access	Shortcut with known function numbers
Function code	Entry of a known function number
Execute function	The selected command is executed.

3.6.3 Test diagnostics

Fig. 14: Test diagnosis

Indication	Action
Selection window	There are Test diagnosis commands available in the selection window: ● Check ● Check + alarm ● Check + test alarm ● Alarm ● Test alarm ● Read status ● Simulate fault ● Warning DL2
Execute command	The selected command is executed.
Return value	The results of the executed command are displayed.

3.6.4 Commissioning

Fig. 15: Commissioning

Indication	Action
Selection window	The following are available for selection in the selection window: ● Device information ● Parameter ● Position
Execute command	The selected command is executed.
Return value	The results of the executed command are displayed.

3.6.5 Neighboring devices table

Every device saves its connections to other devices in the neighboring devices table.

For every connection between two devices, the required transmitting power is determined by means of the 'RSSI' received field strength. The higher the transmitting power required, the higher the level of energy required and the shorter the service life of the battery. For this reason, the 'RSSI' signal is optimized to a target band of -70…-75 dBm at the receiver. This ensures the quality of reception and keeps battery consumption to a minimum. To achieve this target band, the neighboring receiver triggers an adjustment to the transmitting power for this connection.

The transmitting power is displayed in levels 1…10.

- Level 1 means a low transmitting power and a long service life for the battery.
- Level 10 means maximum transmitting power and a short service life for the battery.

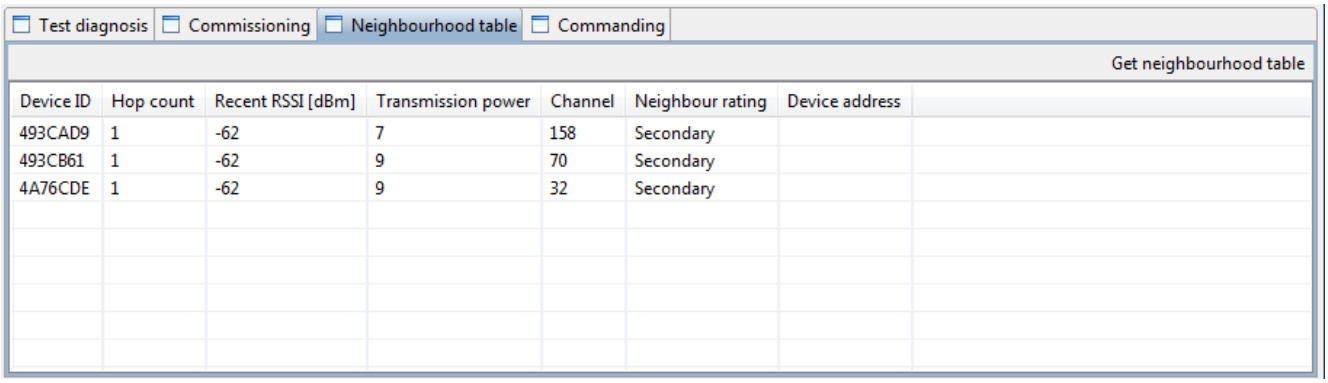


Fig. 16: Table of neighboring devices

Indication	Action
Get neighbourhood table	Displays information about local connections to devices.
Device ID	Displays the device ID of the device.
Hop count	Displays the number of radio links for this connection between the device and the radio gateway.
Recent RSSI [dBm]	The selected device currently receives with the specified received field strengths from neighboring devices.
Transmission power	Displays the transmitting power of this device in levels from low (1) to maximum (10).
Channel	The device in this row sends to the selected device on this channel. ● In the 868 MHz band, the address is lower than 100. ● In the 433 MHz band, the address is higher than 100.
Neighbour rating	**Primary**: This is a connection frequently used for monitoring the presence of the device. **Secondary**: This connection is primarily used for network maintenance. It may be used by other devices as a primary connection.
Device address	Displays the group address and the channel address.

3.6.6 Commands

The fields are only active when a device is selected.

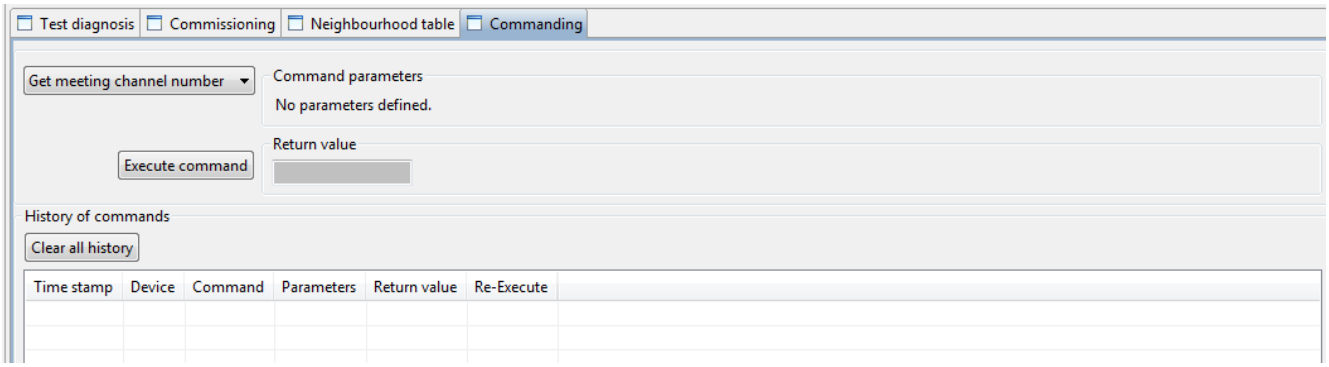


Fig. 17: Commanding

Indication	Action
Commanding	The following commands can be selected for the radio gateway in the selection window: ● Get meeting channel number ● Auto refresh interval of data collection ● Trigger data collection ● Factory Reset The following commands can be selected for devices in the selection window: ● Get meeting channel number ● Get max hop count ● Factory Reset
Command parameters	Displays the selection of the intervals for data collection.
Execute command	The selected command is executed.
History of commands	Displays the executed commands that have been recorded
Clear all history	The recorded commands are deleted.
Time stamp	The current time set on the connected PC is displayed.
Device	Device designation
Command	The executed command is displayed.
Parameter	Device parameters
Return value	The results of the executed command are displayed.
Re-Execute in currently selected device	The  symbol is used to execute the command again on the device currently selected.

3.7 Battery indicator

The charge state is displayed in five levels.

When the battery is connected, the indicator is activated and is **always** set automatically to **100 %**.

This also applies to partially empty batteries.

Example: A battery with a service life of four years displays a charge state of 50 % after two years of use. If the battery connector is removed from the device and then connected again, the device recognizes it as a new battery and displays the charge state as 100 %.

Only use new, charged batteries in order to get reliable information about the remaining service life of the battery.

The 'LowBatt' indicator means that only the reserve battery is active.

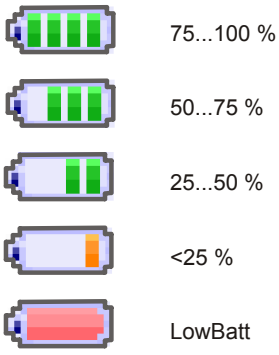


Fig. 18: Battery indicator

Indication	Information
75...100 %	The charge state is 75...100 %.
50...75 %	The charge state is 50...75 %.
25...50 %	The charge state is 25...50 %.
<25 %	The charge state is less than 25 %.
LowBatt	The battery is empty and the reserve battery is active.

3.8 Setting the danger level

The danger level can be set individually for each of the four inputs. The control panel only evaluates 'Input 1:' for the following devices:

- FDOOT271-O
- FDM273-O
- FDM275-O

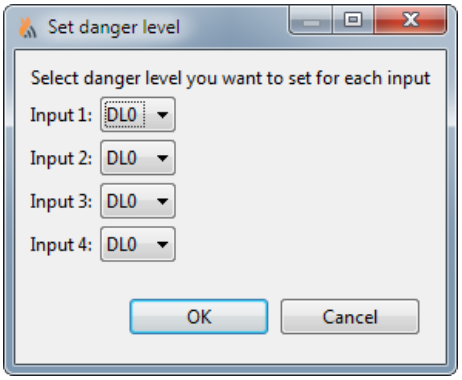


Fig. 19: Setting the danger level

3.9 Help

'Help' can only be opened if ActiveX controls are enabled in your browser.

There are three ways of calling up the Help function:

- Press <F1>.
- Select 'Help' from the menu bar.
- Click on the symbol in the toolbar.

If the Help function is called up, a new window opens which displays the documentation for all devices. Click on the corresponding document to display it in PDF format.

4 Operation

To enable the 'FXS2061-O Wireless diagnostic tool' software to communicate with devices, the PC must be connected to the MCL-USB adapter (radio) FDUZ227. The adapter establishes the radio connection to the devices. With the radio gateway, a faster connection can be established using a cable as an alternative.

Prerequisite:

- The 'FXS2061-O Wireless diagnostic tool' software and the driver are installed on the PC.
- The devices are supplied with power.
- The devices are logged on to the radio gateway.

If the devices are connected to a detector line via the radio gateway, some parameters can be set from the fire control panel. These parameters cannot then be changed with the 'FXS2061-O Wireless diagnostic tool' software. The relevant fields have a gray background.

Navigating in the software

Navigation in the software takes place using the normal Windows interface and Windows commands.

4.1 Pre-settings

In the 'Options' main menu, you can manage the saved pre-settings in the 'Preferences' menu.

DSV settings only become active after a new connection is established.

A change of language only takes effect once the 'FXS2061-O Wireless diagnostic tool' software is restarted. The units cannot be changed.

The 'Preferences' menu allows you to make settings for:

- General
  - Path for additional documents
  - Language selection
  - Setting the transmitting power of 'FDUZ227 MCL-USB adapter (radio)'
  - Calling a device list automatically
  - Deleting tool memory
- DSV
- Firmware packages
- Device
- Help
- Configurations

4.1.1 Configuration

Changes to Configurations only become active after a new connection is established.

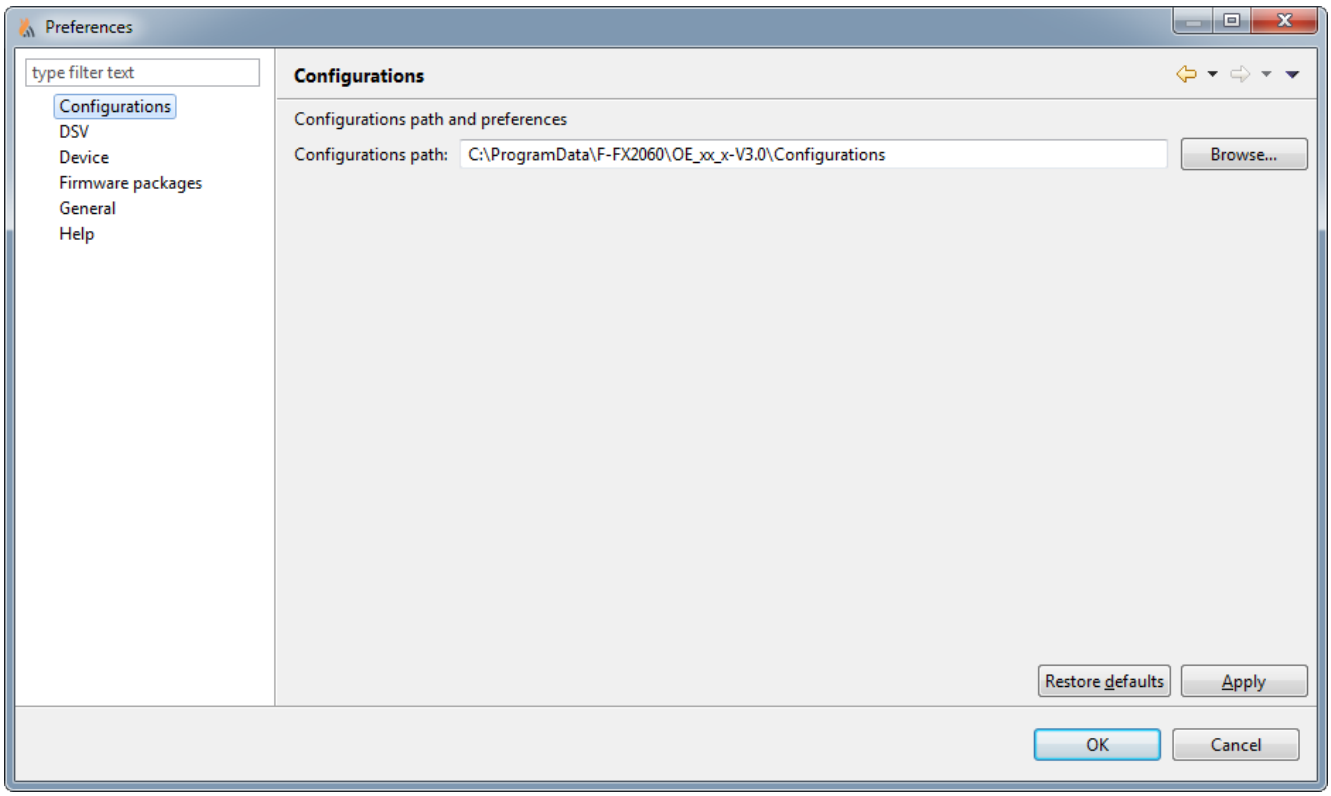


Fig. 20: Configurations

Field	Action
Configurations path	Memory location of the configuration path
Browse...	Search for memory location
Restore defaults	Restore default settings
&Apply	Adopt changed settings
OK	Confirm change
Cancel	Cancel process

4.1.2 Presettings for DSV

Changes to DSV only become active after a new connection is established.

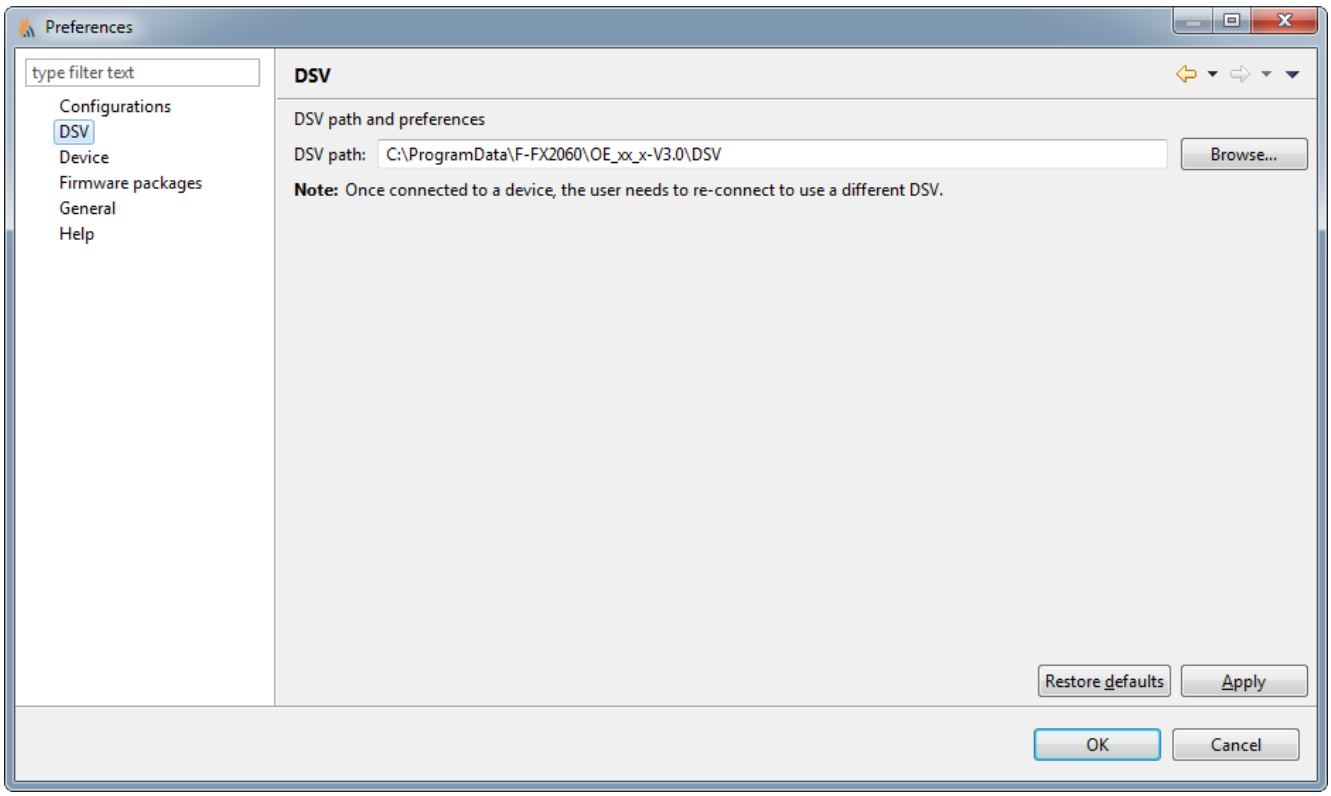


Fig. 21: Presettings for DSV

Field	Action
DSV path:	Memory location of the DSV
Browse...	Search for memory location
Restore defaults	Restore default settings
&Apply	Adopt changed settings
OK	Confirm change
Cancel	Cancel process

4.1.3 Device

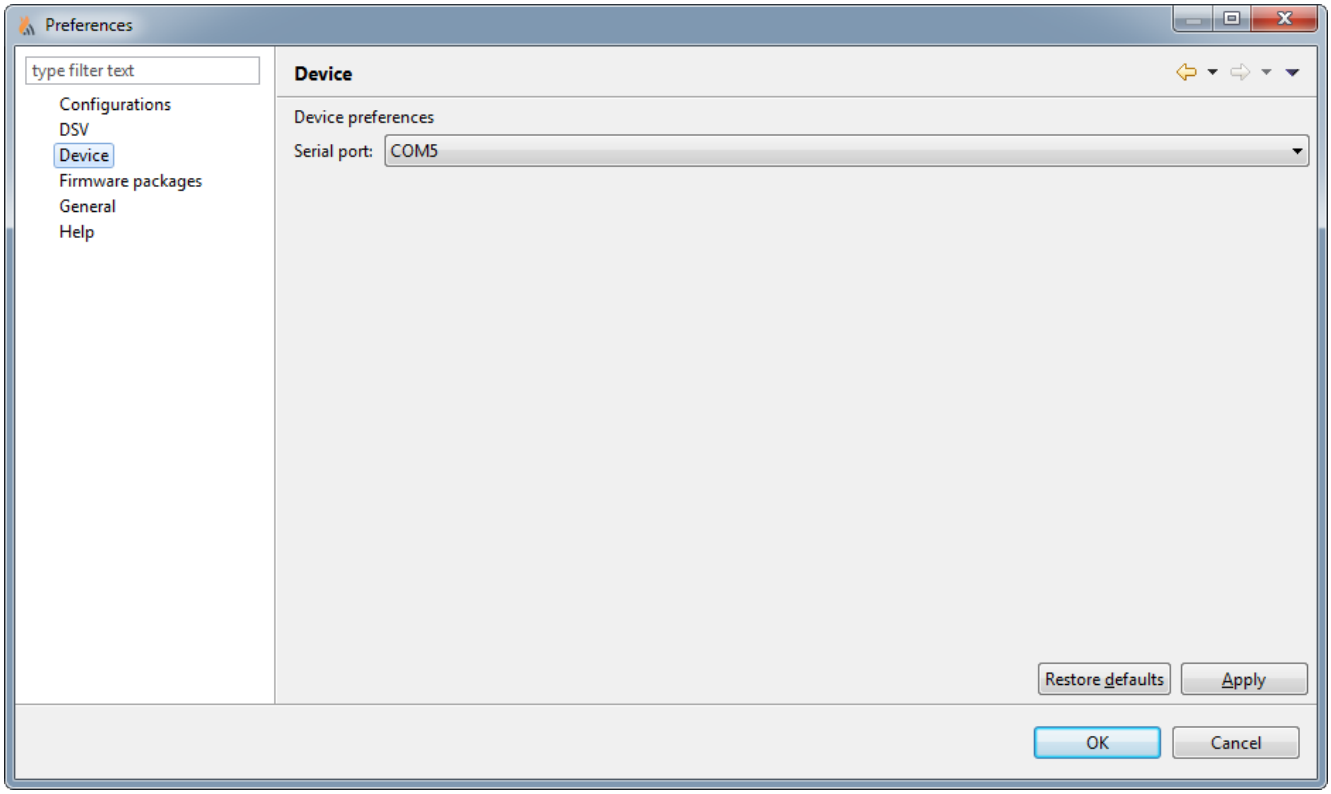


Fig. 22: Device

Field	Action
Serial port:	Displays the serial interfaces available and an interface selection for FDUZ227. The appropriate interface is displayed in the device manager of the PC as a connection (COM & LPT) with the name 'Siemens FDUZ227 Device'.
Restore defaults	Restore default settings
&Apply	Adopt changed settings
OK	Confirm change
Cancel	Cancel process

4.1.4 Firmware package presettings

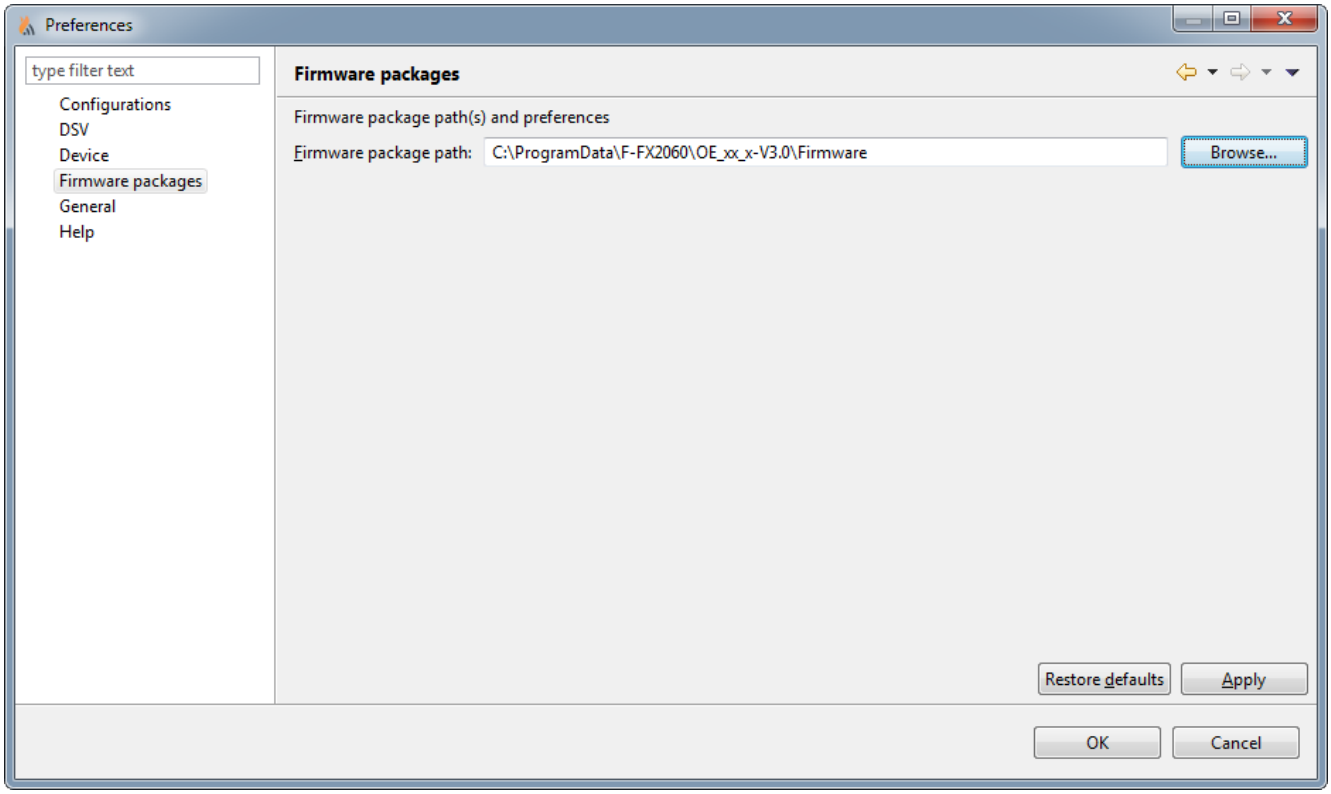


Fig. 23: Presettings for firmware package

Field	Action
Firmware package path(s) and preferences	Memory location of the firmware package
Browse...	Search for memory location
Restore defaults	Restore default settings
&Apply	Adopt changed settings
OK	Confirm change
Cancel	Cancel process

4.1.5 General settings

A change of language only takes effect once the 'FXS2061-O Wireless diagnostic tool' software is restarted. The units cannot be changed.

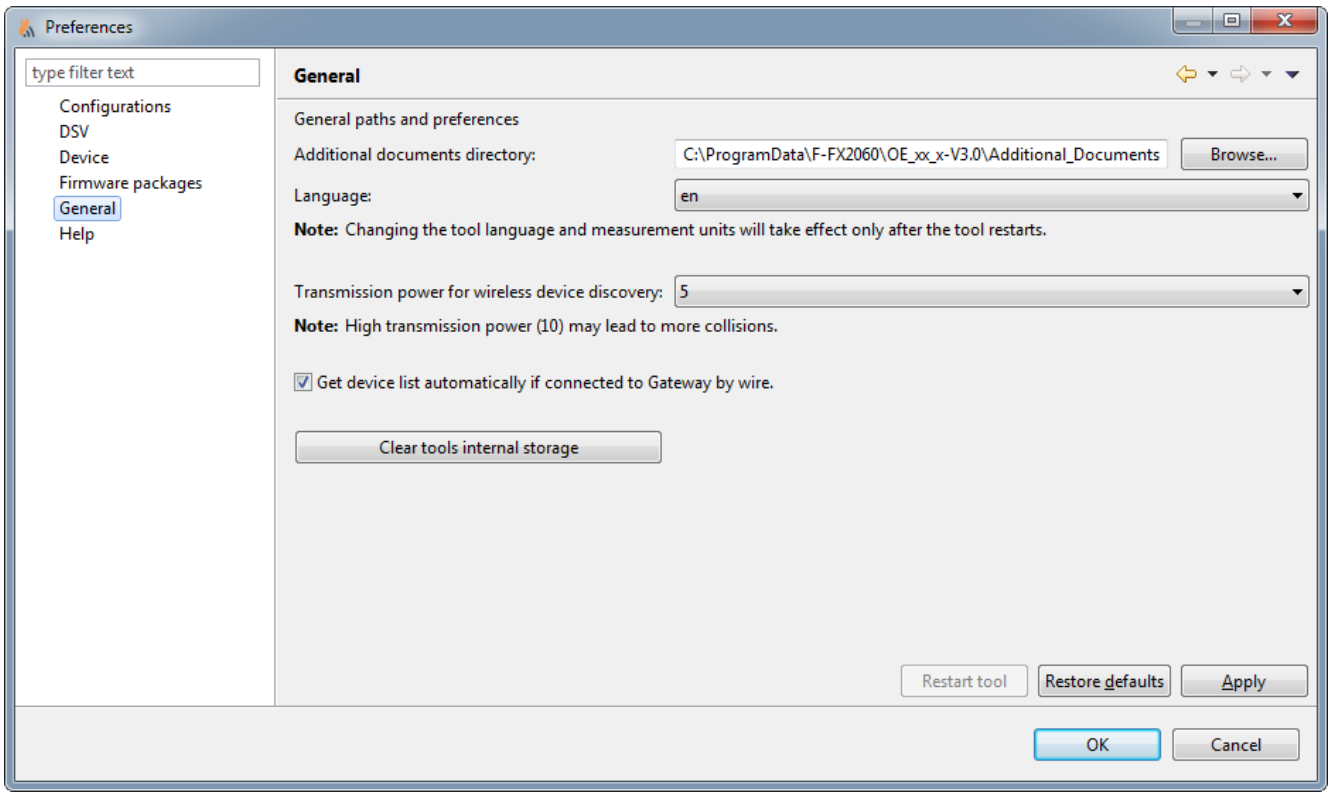


Fig. 24: Presettings for FXS2061-O Wireless diagnostic tool

Field	Action		
Additional documents directory: Browse...	Memory location for additional documents		
Language:	Language selection You can choose from the following:		
	• cs • de_AT • de_CH • de_DE	• en • es_ES • fr_CH • fr_FR	• it_CH • it_IT
Transmission power for wireless device discovery:	Set the transmitting power of the 'MCL-USB adapter (radio) FDUZ227' in levels from low (1) to maximum (10). At level 10, all devices in the maximum range are queried, and therefore the query lasts longer than it would at a lower level. Presetting: level 5.		
Get device list automatically if connected to Gateway by wire.	Selects automatic updating of the device list		
Clear tools internal storage	The values saved in the 'FXS2061-O Wireless diagnostic tool' software are deleted.		
Restart Tool	'FXS2061-O Wireless diagnostic tool' is restarted in order to activate changes to the language and units.		
Restore defaults	Restore default settings		
&Apply	Adopt changed settings Changes to the language or units only take effect once the 'FXS2061-O Wireless diagnostic tool' is restarted.		
OK	Confirm change		
Cancel	Cancel process		

4.1.6 Help settings

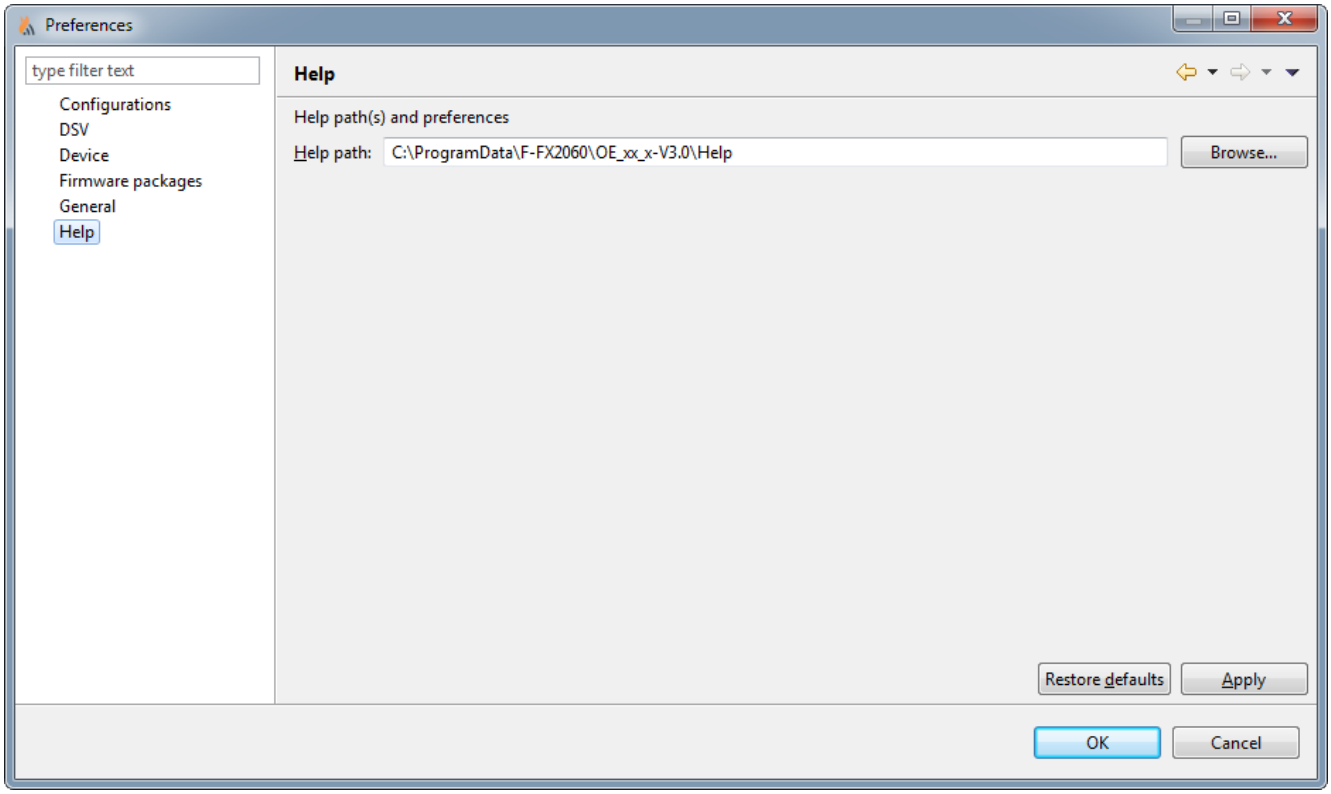


Fig. 25: Help settings

Field	Action
Help path	Memory location of the help documentation
Browse...	Search for memory location
Restore defaults	Restore default settings
&Apply	Adopt changed settings
OK	Confirm change
Cancel	Cancel process

4.2 'Discover Gateways...' button

If you click on the 'Discover Gateways ...', the FXS2061-O Wireless diagnostic tool searches for wireless devices in range and establishes a connection to them. The devices are displayed in the network structure.

The signal strength can be set under 'Preferences' > 'General'.

4.3 'Disconnect' button

If you click on the 'Disconnect' button, the FXS2061-O Wireless diagnostic tool disconnects from the wireless devices in range. The devices are no longer displayed in the network structure.

4.4 Reports and customer texts

4.4.1 Reading out information

The 'FXS2061-O Wireless diagnostic tool' software can read information from the wireless components.

Reading out directly

Reading out can take place directly on the device via radio.

Distance between 'FDUZ227 MCL-USB adapter (radio)' and the device: max. 10 m.

Reading out the memory

Reading out can take place on the radio gateway via radio or cable.

Distance between 'FDUZ227 MCL-USB adapter (radio)' and the radio gateway: max. 10 m.

The radio gateway collects data on all devices in its radio cell and saves it. The data is automatically saved for the first time four hours after commissioning is completed. The intervals for automatic updating of the data can be set.

Updating the data collection

The data is updated immediately when the following is selected: 'Trigger data collection' in the 'Network' main menu. See chapter 'Menu bar [→ 16]' for more information.

Updating can take up to two hours depending on the range of the radio cell. To display the result in the 'Gateway device list', select 'Get gateway device list'.

4.4.2 Live data

Querying live data

The table below shows the possible 'Live data':

Device	Menu	Possible live data
Radio gateway	Network	Get gateway device list
		Get connectivity state
		Get neighbourhood table
FDOOT271-O FDM273-O FDM275-O	Device	Get connectivity state
		Get neighbourhood table
		Get battery level
		Get total running time

1. Select the menu.
2. Select 'Live data'.
   ⇨ The values of the selected 'Live data' are updated.
   ⇨ This can take several minutes depending on the range of the query.

⇨ The values of the 'Live data' are displayed and marked with the text ''Age of data collection [days]' in the 'Live data' column. Marking is carried out as soon as a value is up to date.

4.4.3 Customer texts

Some fire detection systems support an option to import individual customer texts into the 'FXS2061-O Wireless diagnostic tool' software via a csv file.

Use the system documentation for your fire detection system to check the availability of the function.

Importing the csv file into the 'FXS2061-O Wireless diagnostic tool' software

To import the csv file containing your customer texts, proceed as follows:

'File' > 'Import new resource' > 'CSV for new customer texts'

Structure of the csv file

So that the csv file can be imported without errors, you must note the following:

- Use a semicolon (';') as a separator for the individual columns.
- Comment rows start with the '#' character.
- Column titles must not contain spaces. Use underscores instead.
  For example: 'Customer_texts' instead of 'Customer texts'.
- The csv file must feature a column called 'DEVICE_ID'. This column must contain the line address of the device in hexadecimal format.
- Column titles are not case-sensitive.
  For example: No distinction is made between the 'column' and 'COLUMN' columns; both are interpreted as the same column.
- Empty rows are ignored.

The csv file is always imported in full. In other words, the import will continue until the end of the file is reached.

Multiple mapping files can be imported into the 'FXS2061-O Wireless diagnostic tool' software. All imported files are saved in an internal mapping memory. They are read every time the 'FXS2061-O Wireless diagnostic tool' starts up. There is no need to reimport mapping files when starting the software.

The primary key for the data sets is a tuple of the DEVICE_ID and another key, e.g., 'Customer_text'. If the internal memory of the 'FXS2061-O Wireless diagnostic tool' software already contains values for the tuple, the existing data is overwritten. If the internal memory of the does not yet contain any values for the tuple, the new data is added.

4.4.4 Report settings

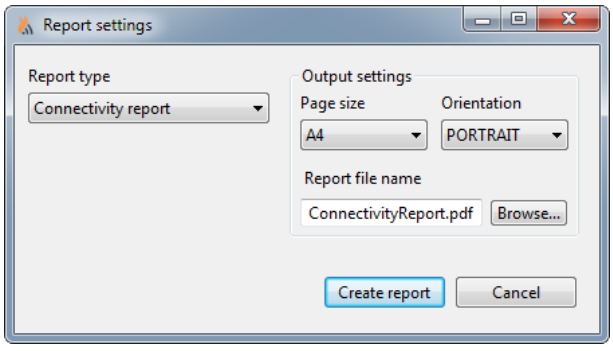


Fig. 26: Report settings

Main menu	Submenu	Action
Report type	Quality Report	• Displays the quality of the connections of the radio gateway and the individual devices.
	Connectivity Report	• Displays the quality of the connections of the radio gateway and the individual devices. And • Displays the quality of the connections to the neighboring devices.

Main menu	Submenu	Action
	Extended Connectivity Report	● Displays the quality of the connections of the radio gateway and the individual devices. And ● Displays the quality of the connections to the neighboring devices. And ● Displays the transmitting power, the number of radio links, the received field strength, the number of channels, and the evaluation of the connection to the neighboring devices.
Output settings	Select report settings	
	Page size	Select paper format You can choose from the following: ● A0 ● A1 ● A2 ● A3 ● A4 ● A5 ● LETTER ● LEGAL
	Orientation	Select page orientation You can choose from the following: ● PORTRAIT ● LANDSCAPE
	Report file name	The report is output as a pdf file and can be saved with the desired file name.
	Browse...	Select memory location
	Create report	Creating a report
	Cancel	Cancel process

Quality report

Quality Report

Net-ID: 528029C Nov, 14 2016 2:04:39 PM

Installation Date:

Nodes:

Address	Device type name	Device ID	Zone customer text	Device address	Logical channel customer text	Battery level	Hop count	Connectivity state
	Gateway	2D7FD63						
	FDM275-O	53A1ADF				75...100 %	1	Excellent
	FDOOT271-O	52E5991				75...100 %	1	Excellent
	FDM273-O	53A1A4D				75...100 %	1	Excellent

Note

This report contains the real data at the time of recording by the radio gateway. Due to the dynamic performance of the radio system, the system adapts to changes automatically. Consequently, the current data may differ from that actually stored.

Signatures:

Installer	Customer
Date and Site	Date and Site

Legend:

Property	Description
Device ID	Serial number as printed on label
Hop count	Number of wireless links between device and gateway
Connectivity state	Green: >=2 routes from node to gateway Yellow: 1 route from node to gateway
Battery level	Battery level

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Connection report

Connectivity Report
Net-ID: 528029C Nov, 14 2016 2:05:39 PM
Installation Date:

Device ID: 2D7FD63 **Age of data collection: Live data days**
Device address:

Address	Device type name	Zone customer text	Logical channel customer text	Hop count	Connectivity state
	Gateway				

Neighbours:

Device ID	Device address
53A1ADF	
53A1A4D	
52E5991	

Device ID: 53A1ADF **Age of data collection: 0 days**
Device address:

Address	Device type name	Zone customer text	Logical channel customer text	Hop count	Connectivity state
	FDM275-O			1	Excellent

Neighbours:

Device ID	Device address
52E5991	
2D7FD63	
53A1A4D	

Device ID: 52E5991 **Age of data collection: 0 days**
Device address:

Address	Device type name	Zone customer text	Logical channel customer text	Hop count	Connectivity state
	FDOOT271-O			1	Excellent

Neighbours:

Device ID	Device address
53A1A4D	
2D7FD63	
53A1ADF	

Device ID: 53A1A4D **Age of data collection: 0 days**
Device address:

Address	Device type name	Zone customer text	Logical channel customer text	Hop count	Connectivity state
	FDM273-O			1	Excellent

Neighbours:

Device ID	Device address
52E5991	
2D7FD63	
53A1ADF	

Note

This report contains the real data at the time of recording by the radio gateway. Due to the dynamic performance of the radio system, the system adapts to changes automatically. Consequently, the current data may differ from that actually stored.

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Extended connection report

Extended Connectivity Report
Net-ID: 528029C Nov, 14 2016 2:06:04 PM
Installation Date:

Device ID: 2D7FD63 **Age of data collection: Live data days**
Device address:

Address	Device type name	Zone customer text	Logical channel customer text	Hop count	Connectivity state
	Gateway				

Neighbours:

Device ID	Device address	Hop count	Recent RSSI [dBm]	Transmission power	Channel	Neighbour rating
53A1ADF		1	-69	1	158	Secondary
53A1A4D		1	-73	3	146	Secondary
52E5991		1	-70	2	168	Secondary

Device ID: 53A1ADF **Age of data collection: 0 days**
Device address:

Address	Device type name	Zone customer text	Logical channel customer text	Hop count	Connectivity state
	FDM275-O			1	Excellent

Neighbours:

Device ID	Device address	Hop count	Recent RSSI [dBm]	Transmission power	Channel	Neighbour rating
52E5991		1	-64	1	168	Primary
2D7FD63		0	-75	1	44	Primary
53A1A4D		1	-64	1	146	Secondary

Device ID: 52E5991 **Age of data collection: 0 days**
Device address:

Address	Device type name	Zone customer text	Logical channel customer text	Hop count	Connectivity state
	FDOOT271-O			1	Excellent

Neighbours:

Device ID	Device address	Hop count	Recent RSSI [dBm]	Transmission power	Channel	Neighbour rating
53A1A4D		1	-64	1	146	Secondary
2D7FD63		0	-70	1	44	Primary
53A1ADF		1	-64	1	158	Primary

Device ID: 53A1A4D **Age of data collection: 0 days**
Device address:

Address	Device type name	Zone customer text	Logical channel customer text	Hop count	Connectivity state
	FDM273-O			1	Excellent

Neighbours:

Device ID	Device address	Hop count	Recent RSSI [dBm]	Transmission power	Channel	Neighbour rating
52E5991		1	-62	5	168	Primary
2D7FD63		0	-75	2	44	Primary
53A1ADF		1	-62	1	158	Secondary

Note

This report contains the real data at the time of recording by the radio gateway. Due to the dynamic performance of the radio system, the system adapts to changes automatically. Consequently, the current data may differ from that actually stored.

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4.4.5 Reading the report

The report contains the real data at the time of recording by the radio gateway. Due to the dynamic performance of the radio system, the system adapts to changes automatically. Consequently, the current data may differ from that actually stored.

The radio gateway saves data from all the devices connected to it. This data collection is only renewed every so often and may, therefore, be several months old.

The following values can be read out:

Term	Explanation
Net ID:	Displays the ID of the network.
Device ID	Displays the serial ID of the device.
Device address	Displays the device address of the device. The device address consists of 'Zone customer text' and 'Logical channel customer text'.
Address [1]	Displays the address of the device.
Device type name	Shows the device type as a symbol and the device designation.
Zone customer text [1]	Displays the customer text of the group.
Logical channel customer text [1]	Displays the customer text for the channel address.
Hop count	Displays the number of radio links for this connection between the device and radio gateway an.
Connectivity state	The connection status of this device is displayed. Red ⇒ 'No connection to gateway' ⇒ There is no connection between the radio gateway and the device. Yellow ⇒ 'Redundant path lost' ⇒ The quality of the connection is good, but there is only one path between the radio gateway and the device. Dark green ⇒ 'Good' ⇒ The quality of the connection is very good; there are two paths between the radio gateway and the device, with one path via a neighboring device with the same number of radio links to the radio gateway. Green ⇒ 'Excellent' ⇒ The quality of the connection is excellent; there are two paths between the radio gateway and the device. Both paths go via neighboring devices which are closer to the radio gateway. Black ⇒ 'Out of base' ⇒ The device is not in the base/housing.
Recent RSSI [dBm]	The selected device currently receives with the specified received field strengths from neighboring devices.
Transmission power	Displays the transmitting power of this device in levels from low (1) to maximum (10).
Channel	The device in this row sends to the selected device on this channel. ● In the 868 MHz band, the address is lower than 100. ● In the 433 MHz band, the address is higher than 100.
Neighbour rating	**Primary**: This is an important connection for monitoring the presence of the device. **Secondary**: This is a less important connection to the device.

[1] Some systems do not support customer texts. Please refer to the documentation for your fire detection system.

4.4.6 Interpreting the report

The report provides information about the radio cell data. You can evaluate the data in the report to assess the quality of the radio cell.

Requirements for assessment:

- Data is available for all devices.
- Take the age of the data into account and update the data if in doubt.
- Take into account any pending changes from the customer, e.g., structural alterations, as well as the current situation.

Good radio cell

- Each device has as many neighboring devices as possible with a connection to the radio gateway (high network density).
- The transmitting power is low and the power consumption is, therefore, also low.
- RSSI is at a similar level for all devices.

Radio cell with increased risk of failure

- The connection status is yellow and the device only has one path to the radio gateway.
- The transmitting power of a device is high.
- The RSSI of a primary device is below -80 dBm.

4.5 Replacing the radio gateway

When the radio gateway is replaced, the saved radio gateway data can be transferred to the new radio gateway.

The new radio gateway takes over the identity of the old radio gateway.
The old radio gateway must no longer be used in the same fire detection installation, as the old radio gateway uses the same net ID as the new radio gateway.
After it has been reset to the factory settings, the old radio gateway can be used again.
The factory settings must be reset outside of the range of the radio network in which the old radio gateway was incorporated.

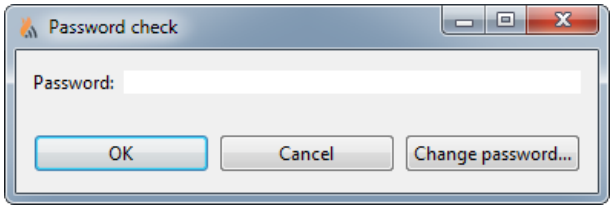
▷ The new radio gateway with a new, connected battery pack is available.

▷ The old radio gateway is logged onto a fire control panel.

▷ The MCL-USB adapter (radio) FDUZ227 is connected to the old radio gateway using a cable.

▷ Follow the instructions in the documentation for your fire control panel.

1. Switch the detector line off.
2. Remove the cable connection to the detector line on the radio gateway.
3. Using the 'FXS2061-O Wireless diagnostic tool' software, select the relevant radio gateway in the main menu 'Network'.
4. Select the 'Update' command from the 'Exchange Gateway' menu bar.
5. Enter your password. The initial password is '12345678'.



1. Follow the instructions as they are shown in the window.
2. Once you have completed all of the steps, click on 'OK'.
   ⇨ The data is loaded from the old gateway.

⇨ The window with the command for changing the gateway appears.

Only confirm with 'OK' once you have switched gateways.

1. Switch gateways by connecting the 3.5 mm jack cable to the new gateway.
2. Confirm the successful data transfer with 'OK'.
3. The new radio gateway automatically has the net ID of the old radio gateway.
4. Check whether the LED (H4) is flashing.

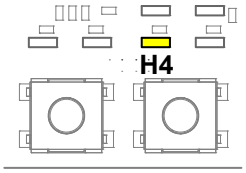


Fig. 27:

5. Overwrite the net ID of the new radio gateway with the net ID of the old radio gateway on the type plate.
6. Wait until LED (H4) stops flashing. This can take 1...2 hours depending on the complexity of the radio cell.
7. Install the new radio gateway at the location of the old radio gateway.
8. Establish a cable connection to the detector line.
9. Switch the detector line on.
10. Dispose of the old, unusable radio gateway according to regulations.

⇨ The replacement of the radio gateway is complete.

4.6 Updating the firmware of the radio gateway

Only software packages created by Siemens are affected by the firmware update. The following steps do not update the processor for line activation in the radio gateway!

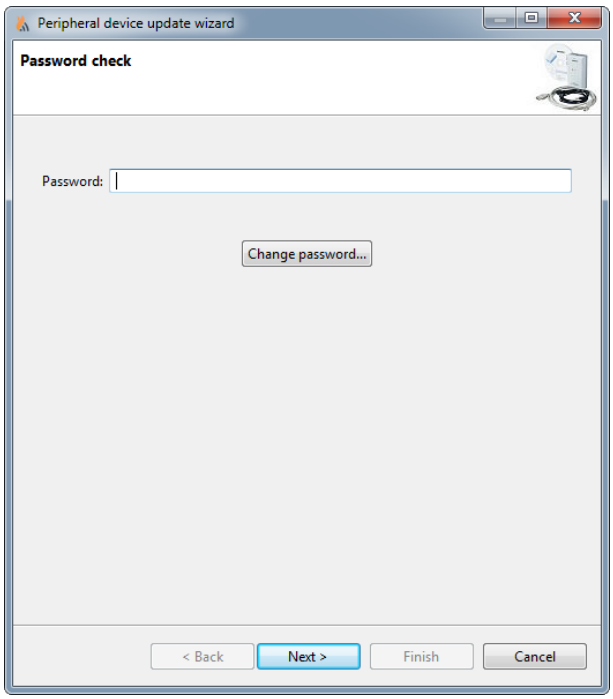
▷ The firmware update is in a ZIP file. The DSV file version and the firmware version must be compatible.

▷ The radio gateway must be disconnected from the detector line or the detector line is switched off prior to updating the radio gateway firmware.

▷ The radio gateway is connected to the MCL-USB adapter (radio) FDUZ227 via a cable.

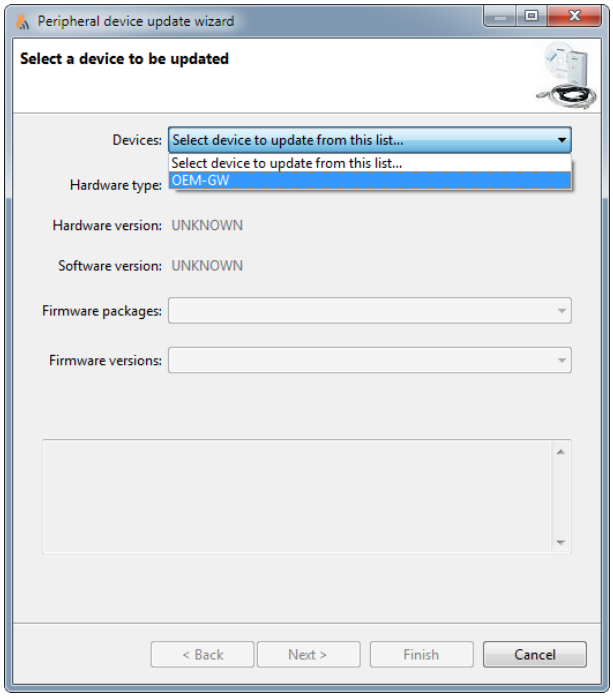
▷ The MCL-USB adapter (radio) FDUZ227 is connected to the PC via a USB cable.

1. In the menu bar 'Network', select the relevant radio gateway.
2. In the menu bar 'Update', select the menu 'Update Gateway'.
3. Enter your password. The initial password is '12345678'. Click on 'Next'.

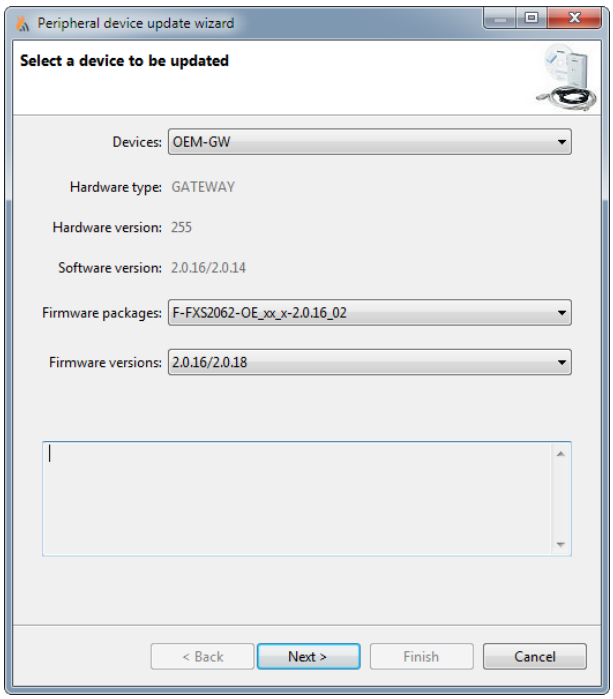


Click on the 'Change password' button to set a new password.

4. Under 'Devices', select the device to be updated from the drop-down list.

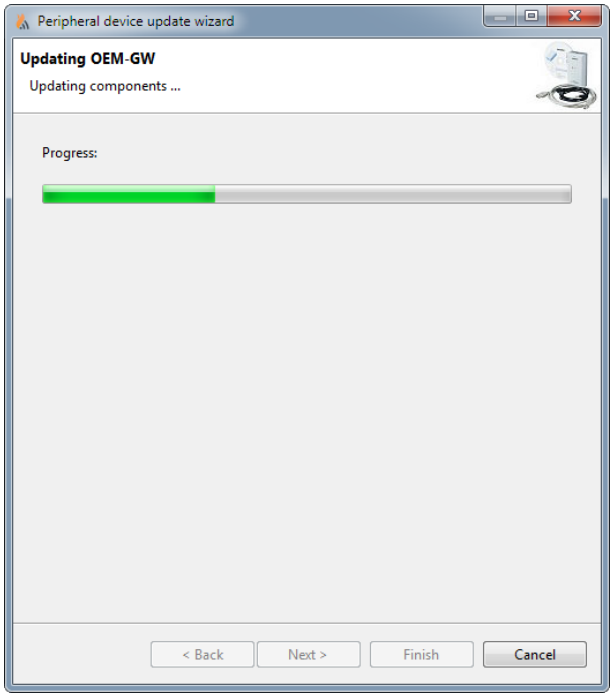


5. Under 'Firmware packages', select the firmware package to be installed from the drop-down list.
6. Under 'Firmware versions', select the firmware version to be installed from the drop-down list. Click on 'Next'.

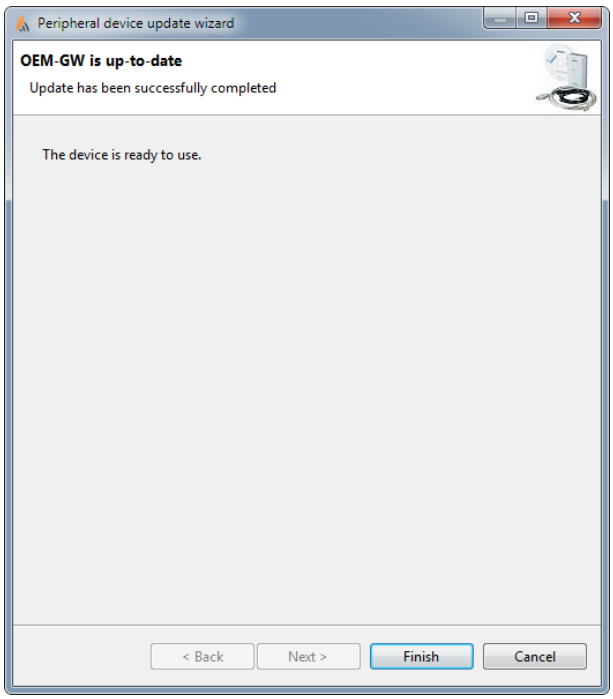


⇨ The firmware update is started.

7. Wait until the firmware has updated and the data has been imported to the radio gateway.



8. Click on 'Finish' to complete the firmware update.



⇨ The window closes. The radio gateway firmware is updated.

4.7 Updating the firmware of MCL-USB adapter (radio) FDUZ227

▷ The firmware update is in a ZIP file. The DSV file version and the firmware version must be compatible.

▷ The MCL-USB adapter (radio) FDUZ227 is connected to the PC via a USB cable.

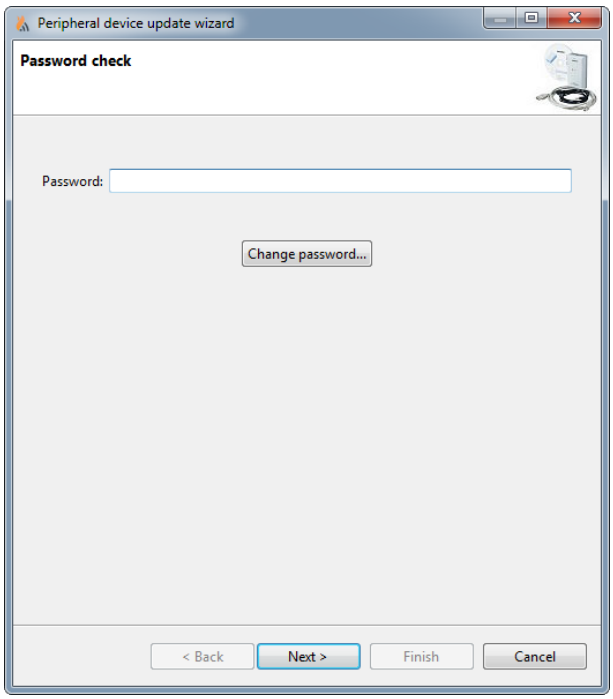
1. Click on the 'Disconnect' button to disconnect the connection to the wireless devices.

   ⇨ The connection is disconnected.

2. Select the 'Update' menu in the 'Update FDUZ227' menu bar.

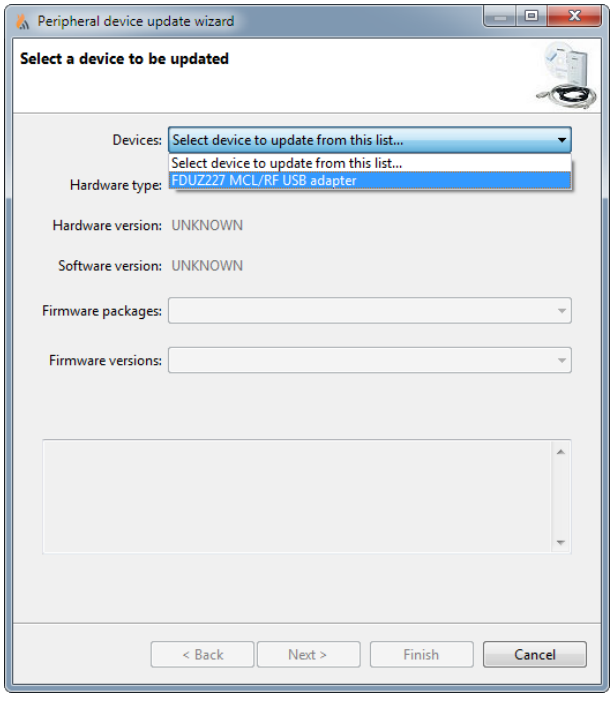
   ⇨ The 'Peripheral device update wizard' window opens.

3. Enter your password. The initial password is '12345678'. Click on 'Next'.

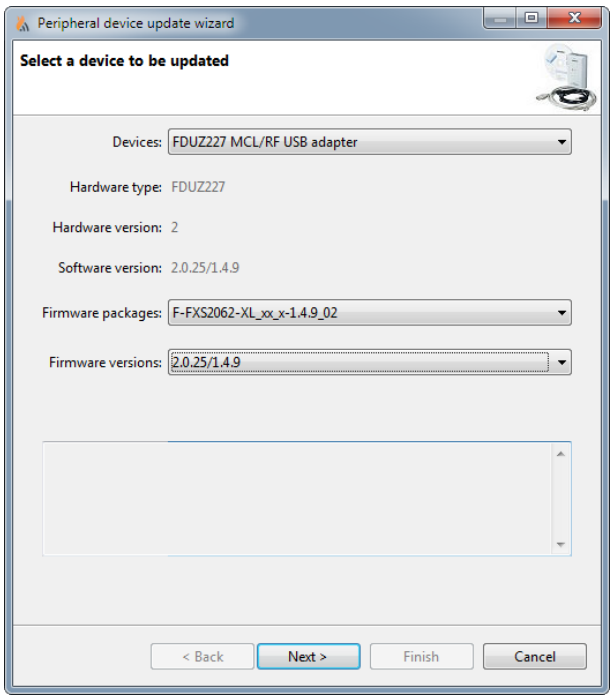


Click on the 'Change password' button to set a new password.

1. Under 'Devices', select the device to be updated from the drop-down list.

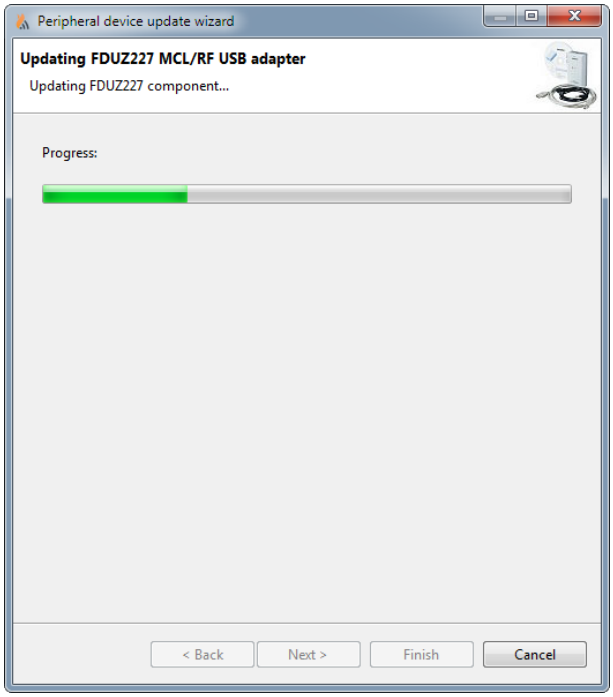


2. Under 'Firmware packages', select the firmware package to be installed from the drop-down list.
3. Under 'Firmware versions', select the firmware version to be installed from the drop-down list. Click on 'Next'.

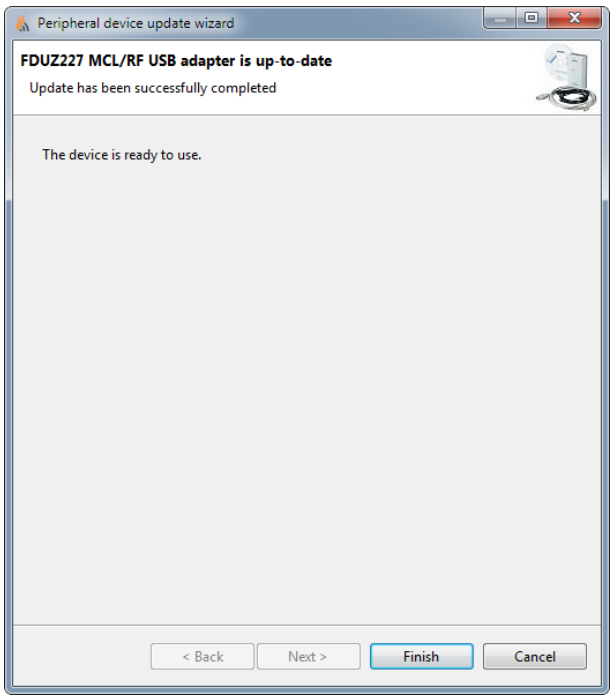


⇨ The firmware update is started.

4. Wait until the firmware has updated and the data has been imported to the radio gateway.



5. Click on 'Finish' to complete the firmware update.



⇨ The window closes. The MCL-USB adapter (radio) FDUZ227 firmware is updated.

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