Teletek electronics

IRIS/SIMPO Repeater

Addressable Fire Alarm Repeater Panel

Model: TFT

Installation & Programming Manual

CE 1293

Attention:
This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. The entire manual should be carefully read.

The information in this manual is a subject to change without notice!

ver. 1.0.8

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CE 21
1293
DoP No: 138

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IRIS/SIMPO Repeater
Intended for use in fire detection and fire alarm systems in and around buildings.

GUARANTEE

The guarantee terms are determined by the serial number (barcode) of the electronic device!
During the guarantee period the manufacturer shall, at its sole discretion, replace or repair any defective product when it is returned to the factory. All parts replaced and/or repaired shall be covered for the remainder of the original guarantee, or 6 months, whichever period is longer. The original purchaser shall immediately send manufacturer a written notice of the defective parts or workmanship.

INTERNATIONAL GUARANTEE

Foreign customers shall possess the same guarantee rights as those any customer in Bulgaria, except that manufacturer shall not be liable for any related customs duties, taxes or VAT, which may be payable.

GUARANTEE PROCEDURE

The guarantee will be granted when the appliance in question is returned. The guarantee period and the period for repair are determined in advance. The manufacturer shall not accept any product, of which no prior notice has been received via the RAN form at: http://teletek-electronics.com/en/ran-form
The setup and programming included in the technical documentation shall not be regarded as defects. Teletek Electronics bears no responsibility for the loss of programming information in the device being serviced.

CONDITIONS FOR WAIVING THE GUARANTEE

This guarantee shall apply to defects in products resulting only from improper materials or workmanship, related to its normal use. It shall not cover:

- Devices with destroyed serial number (barcode);
- Damages resulting from improper transportation and handling;
- Damages caused by natural calamities, such as fire, floods, storms, earthquakes or lightning;
- Damages caused by incorrect voltage, accidental breakage or water; beyond the control of the manufacturer;
- Damages caused by unauthorized system incorporation, changes, modifications or surrounding objects;
- Damages caused by peripheral appliances unless such peripheral appliances have been supplied by the manufacturer;
- Defects caused by inappropriate surrounding of installed products;
- Damages caused by failure to use the product for its normal purpose;
- Damages caused by improper maintenance;
- Damages resulting from any other cause, bad maintenance or product misuse.

In the case of a reasonable number of unsuccessful attempts to repair the product, covered by this guarantee, the manufacturer's liability shall be limited to the replacement of the product as sole compensation for breach of the guarantee. Under no circumstances shall the manufacturer be liable for any special, accidental or consequential damages, on the grounds of breach of guarantee, breach of agreement, negligence, or any other legal notion.

WAIVER

This Guarantee shall contain the entire guarantee and shall be prevailing over any and all other guarantees, explicit or implicit (including any implicit guarantees on behalf of the dealer, or adaptability to specific purposes), and over any other responsibilities or liabilities on behalf of the manufacturer. The manufacturer does neither agree, nor empower, any person, acting on his own behalf, to modify, service or alter this Guarantee, nor to replace it with another guarantee, or another liability with regard to this product.

UNWARRANTED SERVICES

The manufacturer shall repair or replace unwarranted products, which have been returned to its factory, at its sole discretion under the conditions below. The manufacturer shall accept no products for which no prior notice has been received via the RAN form at: http://teletek-electronics.com/en/ran-form.
The products, which the manufacturer deems repairable, will be repaired and returned. The manufacturer has prepared a price list and those products, which can be repaired, shall be paid for by the Customer. The devices with unwarranted services carry 6 months guarantee for the replaced parts.
The closest equivalent product, available at the time, shall replace the products, the manufacturer deems un-repairable. The current market price shall be charged for every replaced product.

STANDARDS AND CONFORMITY

Conforms and approved in accordance with CPR (Construction Products Regulation).

DOCUMENTATION FEEDBACK

If you have any comments or suggestions on our products' manuals or installation instructions you can email us on: info@teletek-electronics.bg
Your feedback on product documentation will help us to improve the contents of our manuals and stickers and keep them up-to-date.
Please, include in your feedback email the product name, the revision of the manual or instruction (8-digit number with Revision and date of issue) and the page number.

1. INTRODUCTION

1.1. General Description

IRIS/SIMPO Repeater TFT is a control panel for remote indication of fire alarm, fault, trouble, warning and other type of events, reported from iRIS8, SIMPO and other Repeater panels connected into one common network. The IRIS/SIMPO Repeater can operate only as a part of a network. It repeats the status of the connected fire panels and informs for events.

Up to 64 panels can operate in a single network, including IRIS/SIMPO Repeater, iRIS8 and SIMPO fire alarm panels. The connection in the network between the panels can be realised via LAN or RS232 communication protocol. Only one type of connection can be used in a single network.

1.2. General Specifications

The front panel of Repeater TFT has a color graphic LCD touch screen display (800/480 TFT) performing user-friendly operation with menus. Separate user, maintenance and installer passwords provide access to the functions of the panel. The panel has a built-in real time clock and calendar, supported with built-in battery in case of main and backup power supply failure.
Events like FIRE, RESET, FAULTS, etc., including for the rest of the panels in the network, are saved in the memory, thereby creating an event log-file. It contains the time and date, the fire panel number, the address of the device, the type (module, detector, sounder or periphery device), the name of the device, the zone, the name of the zone, etc.

1.3. Technical Specifications

- Main Power Supply* ..... 24±4V DC
- Frequency 50/60Hz
- Maximal Consumption 0.4A
- Cross Section of the Connection Wires ..... 0.5-2.5mm^2
- Maximum distance between two panels ..... up to 1000m
- Operating Temperature ..... from -5°C to +50°C
- Relative Humidity Resistance ..... up to 95% (without condense)
- Dimensions 200x330x48mm
- Weight 0.90kg

** Note: 24V DC External power supply with backup batteries. It is possible to power on the Repeater panel from an addressable Fire alarm panel (AUX output of iRIS8 or SIMPO panel), but this is not recommended for big system configurations.*

Attention: The earth connection has to be realized in accordance with the rules for the electrical safety with the total resistance in the circuit lower than 10Ω. It is mandatory to connect the earth connector of the main power supply cable to the middle input of the Repeater panel terminal and check the connection to be tight and stable - see item 3.2.

1.4. Functional Features

- Operation in a common network with iRIS8, SIMPO and other Repeater panels.
- TTE Communication Protocol
- Up to 64 panels in a redundant network.
- Ring or Line network type topology
- RS485 interface
- LAN interface
- Micro USB port for software and firmware update
- Memory log for 10000 events
- TFT color screen touch display
- Multilanguage support of the menus
- Built-in battery supporting real-time clock and date in case of main and backup power supply failure
- Built-in buzzer for sound indication of events

2. INSTALLATION

Attention:
Do not install the Repeater panel near power electromagnetic fields (radio equipment, electric motors, etc.)!
The panel should be installed by qualified specialists only.
The electronic components of the panel are vulnerable to electrostatic discharge.

2.1. Wall Mounting

• The Repeater panel must be installed in a clean dry place and must not be subjected to impacts or vibrations. It must be situated far from heating appliances. The temperature must be within -5ºC and +50ºC.
The recommended mounting height is 1500 – 1600 mm up from the floor surface.
The TFT screen must be well visible from the users and situated approximately at eye level.
Leave enough space from all wall corners, at least 300 mm. The right side of the Repeater must be free for access because of the micro USB for software and firmware updates.
Attention: The Repeater panel is not water-proof!

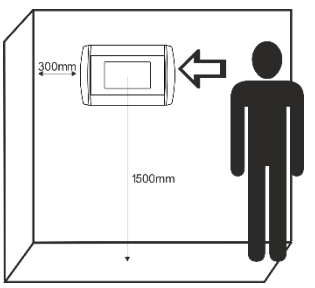


Figure 1

• The main elements of the enclosure box are presented in Figure 2.

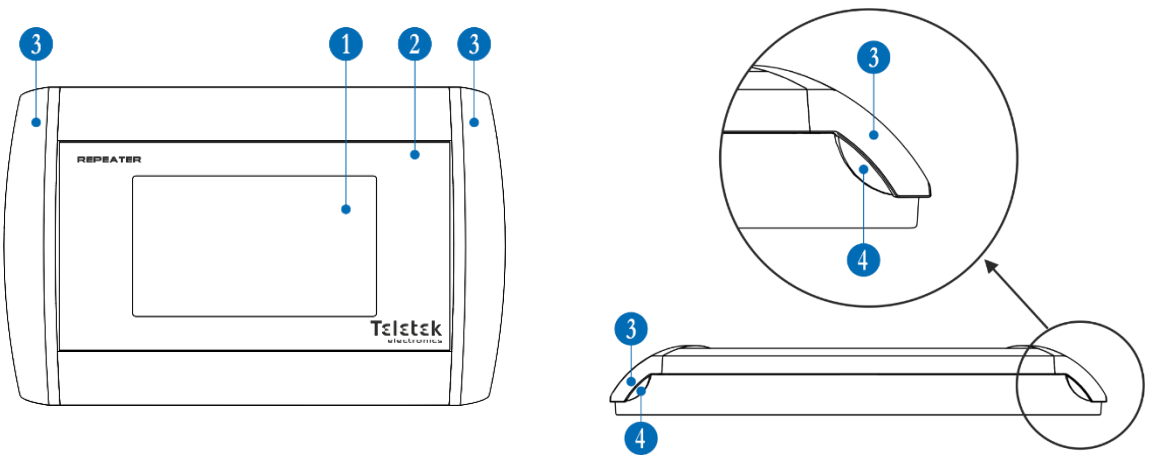


Figure 2
1 – TFT color touch screen.
2 – Front cover.
3 – Left and Right side covers.
4 – Clips on the box bottom holding the side covers.

• The left and right side covers, are mounted to the box bottom via clips. To remove the side covers, press the clip at the box bottom (1) and pull the cover upward (2) – Figure 3.

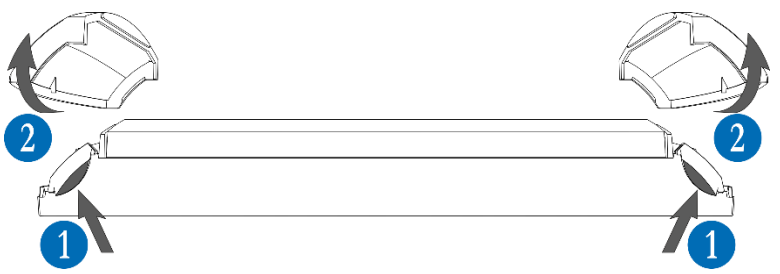
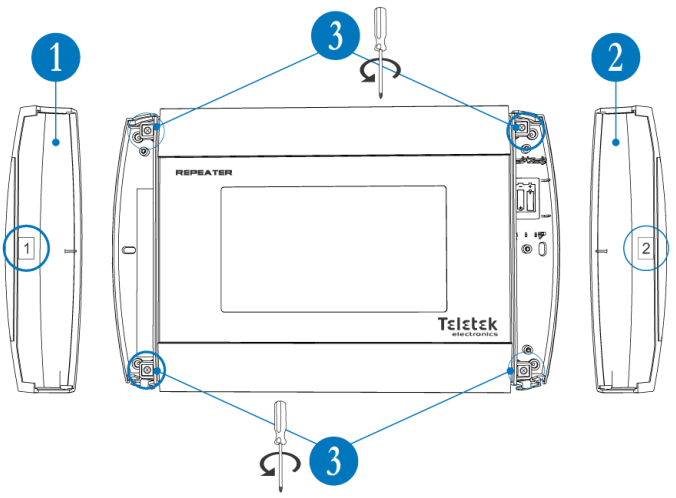


Figure 3

• The left and right side covers, are specific and cannot be exchanged with one another. The covers have marks at the back side, showing the position (left or right) for mounting.
To proceed with wall mounting, the installer must remove the front cover from the bottom – Figure 4.



1 – Left side cover. It has a mark “1” at the back side.
2 – Right side cover. It has a mark “2” at the back side.
3 – Use a crossed slot screwdriver to undo the screws holding the front cover to the box bottom.

Attention: Be careful not to damage the TFT touch screen while dismounting the front cover!

Figure 4

• For running the cables for main power supply and network connection, make appropriate holes at the box bottom being careful not to damage the PCB and TFT screen of the Repeater panel.

• Mount the box bottom at the installation place using appropriate fixtures according the mounting surface. Note that, not all of the mounting holes at the box bottom are available for use. Lever horizontally the box, before tighten the screws.
Attention: Do not remove the PCB from the box bottom!

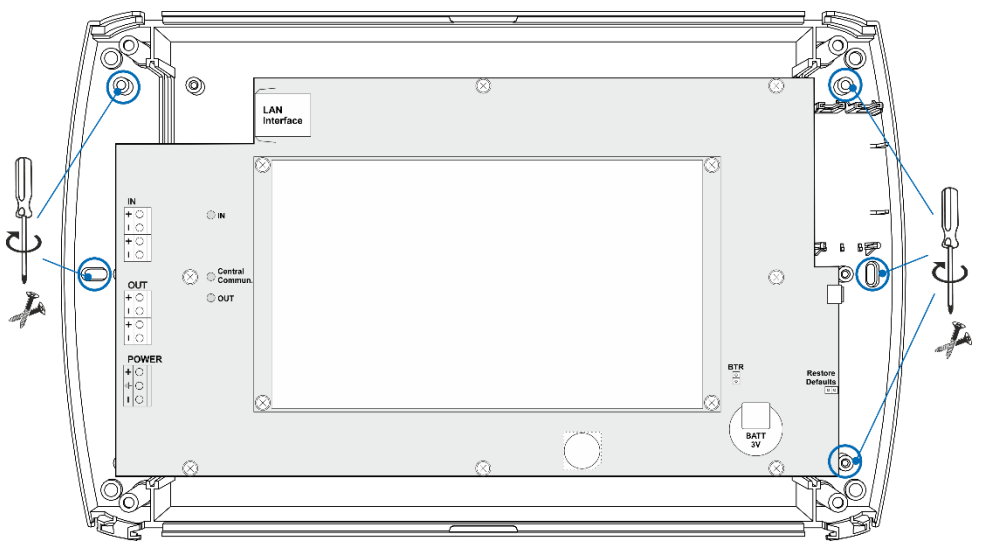


Figure 5

• Run the cables and make the network and electrical connections, BUT DO NOT power on the panel on this step.

• Place the front cover back and tighten the screws.

• Mount the Left and Right side covers to the box bottom as observe their correct place – look for the marks at the back side – Figure 6. Press the side cover downwards until a click is heard.

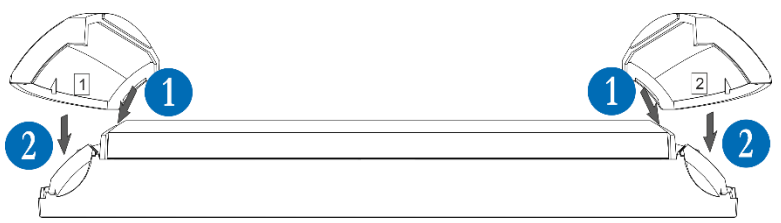


Figure 6

2.2. Initial Power-up

When turned on, the Repeater panel always conducts a procedure of loading the parameters, which usually takes about 30 sec. A long sound signal is heard. There is no access to the menus of the Repeater panel during that procedure. Access Level 1 is loaded. Upon the initial start-up, the Repeater does not hold any configurations.
Next, the installer has to perform settings for the network and the parameters of the Repeater as described at item 4.

2.3. Sound Signalization

The IRIS/SIMPO Repeater panel is equipped with internal buzzer for sound signalization in case of events.

Signalization	Description
Button	Single short beep indicating the pressing of a button.
Reset or Event	Single long beep indicating reset of the Repeater or receiving of message for Disable, Test or Warning event.
Technical trouble	Short beeps in case of receiving of messages for Fault event (for the Repeater itself or for other fire alarm panels in the network). The beeps can be stopped from Access Level 2 and 3 after performing Silencing Buzzer from the Main Screen menu. The beeps will stop when the technical trouble is restored and the fault event is cleared automatically from the Faults list.
Fire Alarm	Continuous sound signal for activated Fire Alarm from zone or Evacuation. The sound can be stopped from Access Level 2 and 3 after performing Silencing Buzzer from the Main Screen menu.

3. ELECTRICAL CONNECTIONS

3.1. PCB Elements

Attention: Do not remove the PCB from the box bottom!

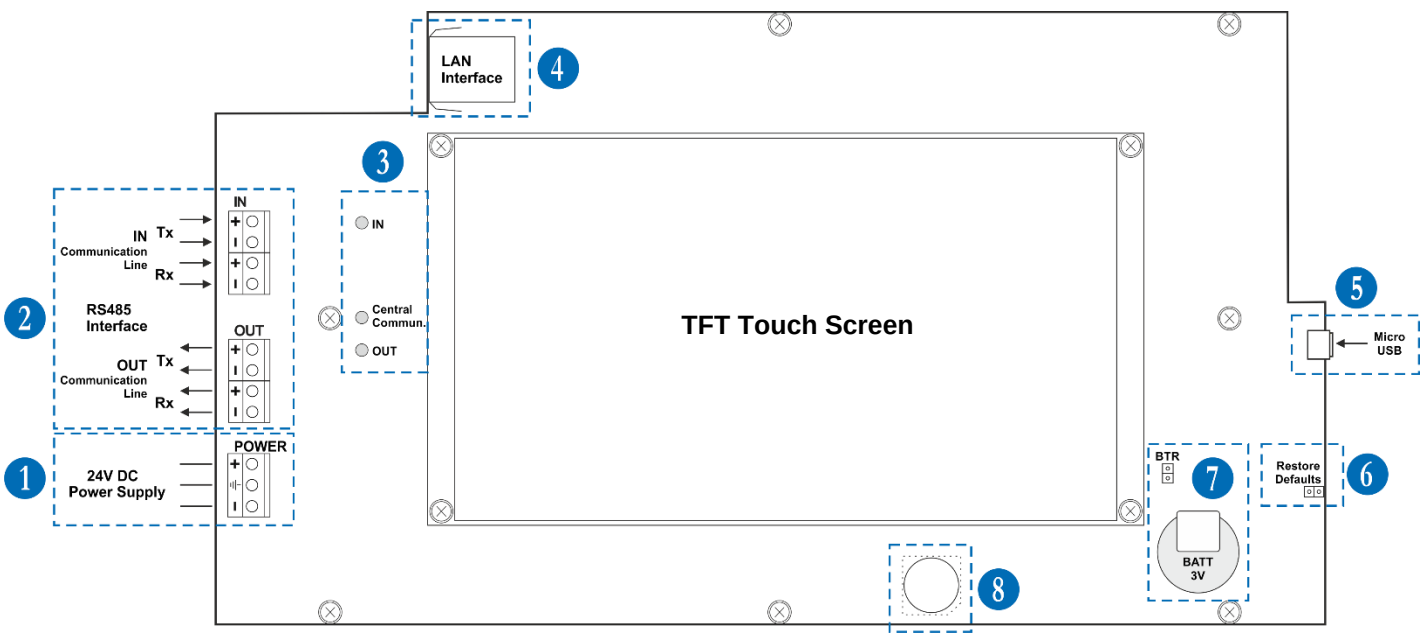


Figure 7

1 – Main power supply terminal. See item 3.2.
2 – RS485 interface. Used for realizing network with other panels via RS485 communication protocol. See item 3.3.
3 – LED Indication for the status of the network via RS485 interface. See item 3.3.
4 – LAN interface connector. See item 3.4.
5 – Micro USB port for software and firmware update. See also item 4.3.4.
6 – Jumper for hardware restore defaults. See item 3.5.
7 – Built-in 3V backup battery for the real-time clock and jumper BTR for battery activation. The jumper BTR is factory set and must not be removed.
8 – Built-in sound buzzer (on the back side of the PCB).

3.2. Main Power Supply

Connect the external power supply unit 24V DC as observe the polarity of the connection. It is recommended to use power supply unit with backup batteries to guarantee the operation of the Repeater in case of mains power supply failure.

3.3. Redundant Network RS485

The Repeater panel is designed with option for connection in a redundant network with other SIMPO, iRIS8 and Repeater panels (up to 64). The redundant network is based on RS485 interface.

The RS485 interface is built-in the Repeater panel. For operation in a common redundant network with other fire panels they must be equipped with Redundant Network Module – Figure 8. The Redundant network module is connected to "NETWORK" interface connector on the fire panel PCB (interface module in iRIS8).
Note: The RS485 interface terminals are accessible after removing the left side cover of the enclosure box.

The LED indication for RS485 interface in both Repeater and Redundant module has same meaning:

- **OUT** - Output communication
- **Central Commun.** - Panel-Module communication
- **IN** - Input communication

In normal operation mode the LEDs are blinking. In case of trouble with the communication line the LES are lighting on.

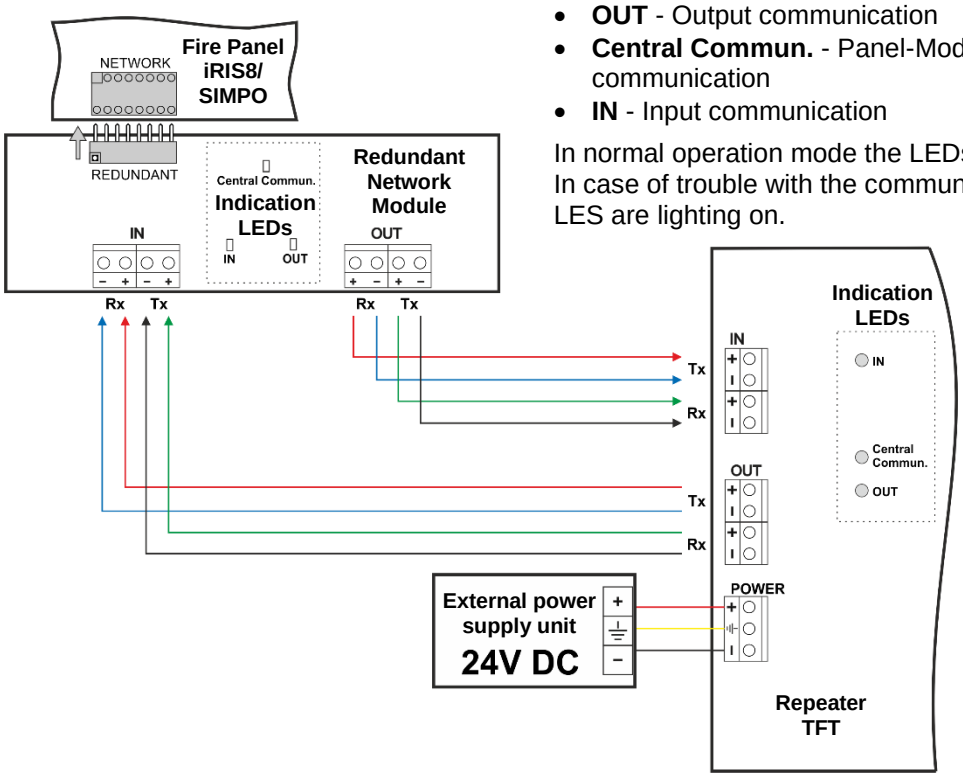


Figure 8

The following table represents the correspondence of Tx/Rx terminal connections for IN and OUT communication lines.

Observe the polarity of the RS485 interface connection!				Repeater TFT							
				IN				OUT			
				Tx		Rx		Tx		Rx	
				+	-	+	-	+	-	+	-
Redundant Network Module	IN	Rx	-						■		
			+					■			
		Tx	-								■
			+							■	
	OUT	Rx	+	■							
			-		■						
		Tx	+			■					
			-				■				

In installer's menu (Access Level 3) enter SYSTEM – PROGRAMMING – PANEL – NETWORK – NETWORK SETTINGS, and set option "RS485" for Network type – see item 4.2.1.2.1.

The maximum cable length between two network modules and/ or repeater panel is 1000m.

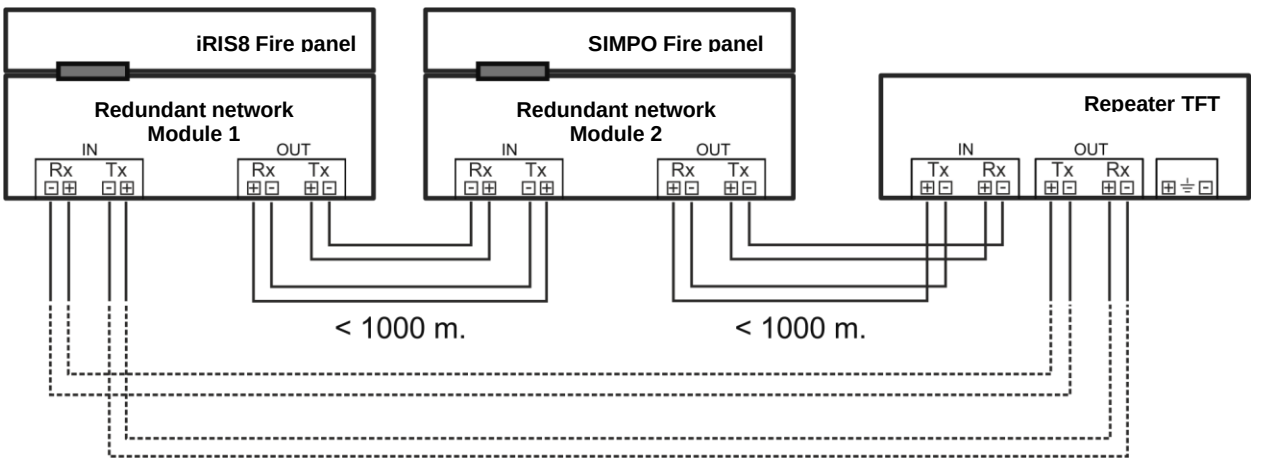


Figure 9

Up to 64 panels can be connected in a common redundant network.

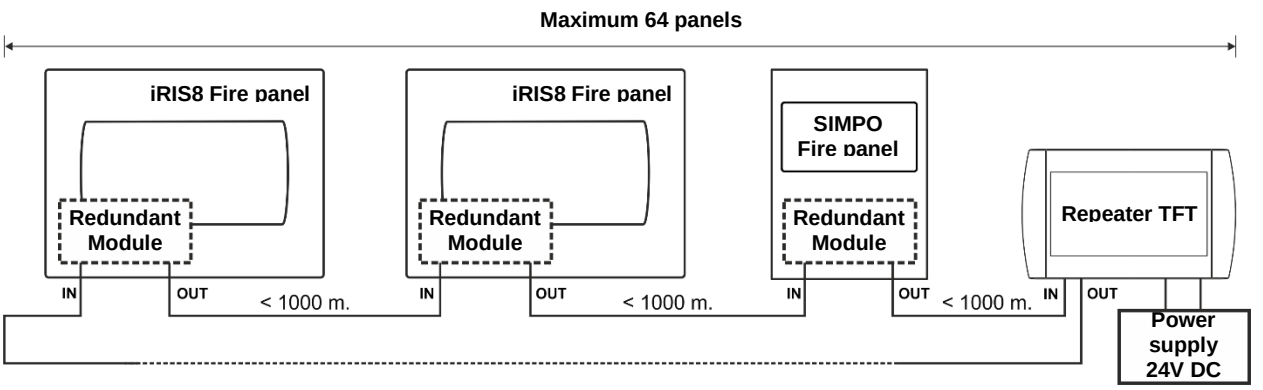


Figure 10

3.4. LAN Network

The realization of LAN network is possible only for Repeaters and other iRIS8 addressable fire alarm panels (up to 64). The LAN connection can be direct panel-to-panel or by means of a HUB via TCP/IP protocol.
Note: The LAN connector is accessible after removing the left and right side covers and the front panel of the enclosure box – see item 2.1 and Figures 4 and 5.
In installer's menu (Access Level 3) enter SYSTEM – PROGRAMMING – PANEL – NETWORK – NETWORK SETTINGS, and set for Network type option "LAN" – see item 4.2.1.2.1.

3.5. Hardware Restore Defaults

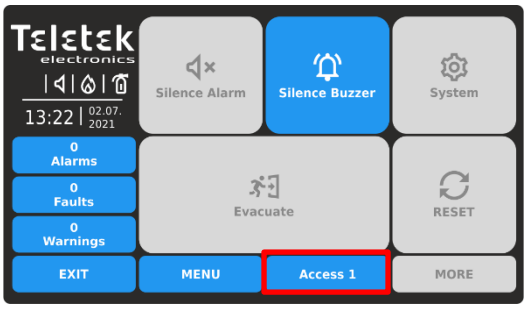
This is an option for restoring the factory set parameters of the Repeater panel.
It is recommended, before making a Restore Defaults of the Repeater, to save its current system configuration as TDF file using ProsTE specialized programming software. After hardware resetting, load the TDF back to the Repeater and save time for introduce settings in menus. For details about ProsTE specialized programming software ask your local distributer of the equipment.

To perform hardware, restore defaults do as follows:
1. Turn off the main and backup power supply of the Repeater panel.
2. Remove the right side cover as shown on Figure 3.
3. Put a jumper on Restore Defaults terminals on the PCB of the Repeater – Figure 7, position 6.
4. Turn on the main and backup power supply of the Repeater. A long sound signal is heard. The screen enters into procedure for hardware calibration of the display. Perform the calibration as follow the detailed description how to do that in item 4.3.3.1 .
5. Remove the Restore Defaults jumper.
6. Close the right side cover of the enclosure box.

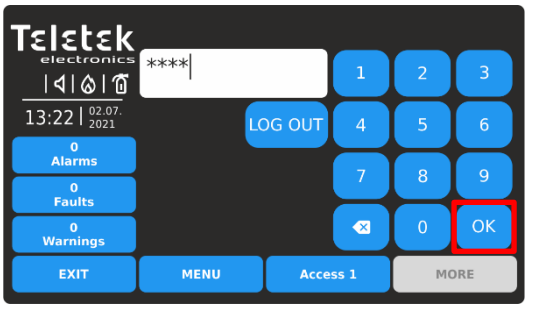
4. INSTALLER PROGRAMMING MENUS

4.1. Common Information

At Access Level 3 the Installer has full rights for entire programming of the Repeater.
To enter the Installer Programming menus, press ACCESS button from the Main Screen and introduce the code for Access Level 3 – 3333 is the default factory set combination.



Press ACCESS button to change the Access Level.



Enter code for Access Level 3 entry (3333 – by default) and confirm with OK button.

4.1.1. Functional Buttons for Operation

Button	Description
Apply	Confirmation and saving of the entered parameters.
EXIT	Step back in programming menus. Cancelling the introduced changes.
MORE	Enter in additional submenu.
MENU	Quick button for exit the programming menus and returning back to Main Screen.

4.1.2. General Information for Text Introducing

The text introducing is via virtual keyboard, presenting access to different type of letters, symbols and numbers. The virtual keyboard is shown on the screen after pressing an active text field. Up to 40 symbols, including space intervals, can be entered for a name or other description in the system.

After pressing an active text field in a menu, the screen displays the virtual keyboard.

Latin Letters screen keyboard.

Use the special buttons to switch to different type of letters or symbols. After entering the text and confirming with ENTER button you must also save the text with APPLY button on the respective programming menu.
Press EXIT to reject the entered text and go back to programming menus.

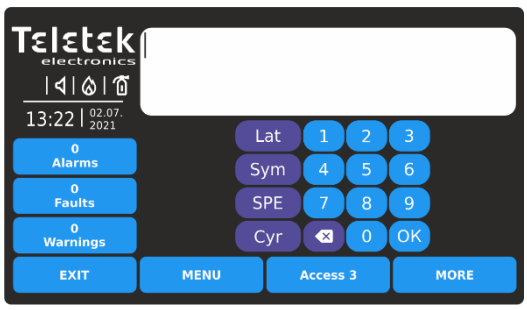
- Cyr - Switch to Cyrillic Letters
- Lat - Switch to Latin Letters
- SPE - Switch to Special Letters
- Sym - Switch to Symbols
- 123 - Switch to Digits
- ⬆ - Switch between Capital and Small Letters
- ↵ - Enter (confirmation) button.
- ⌫ - Backspace (delete) button.

The following screens present the different type letters/symbols accessible in Repeater panel.

Cyrillic Letters screen keyboard.

Special Letters screen keyboard.

Symbols screen keyboard.



Digits screen keyboard.

Note: *Use the special buttons "LAT", "SYM", "SPE" or "CYR" to swich back to letters/symbols introducing screen. Use OK button to confirm the entered text and go back to the programming menu.*

4.1.3. General Information for Digits Introducing

The digits introducing is via virtual keyboard. After pressing an active field for introducing digits in a menu, the screen displays the virtual digit keyboard.

OK - Enter (confirmation) button.

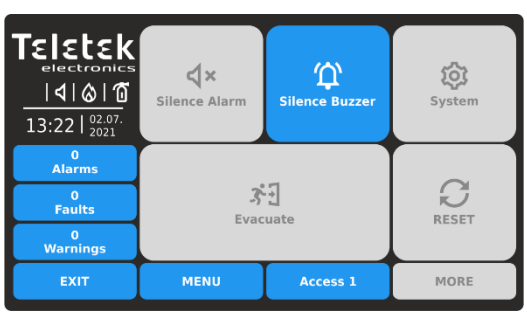
- Backspace (delete) button.

Use EXIT button for step back and rejecting the entered values. If the entered value is out of the range of the set parameter, it will be cleared automatically after pressing OK button.

4.1.4. Quick Logging Out of the Installer Programming Menus

With the quick logging out, the Installer can change the Access Levels 3 to the lower User Level 1 without need of entering a code combination.

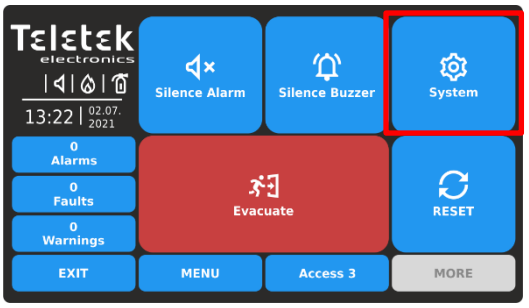
Press ACCESS button for changing the user Level.
Press LOG OUT button for quick logging out.

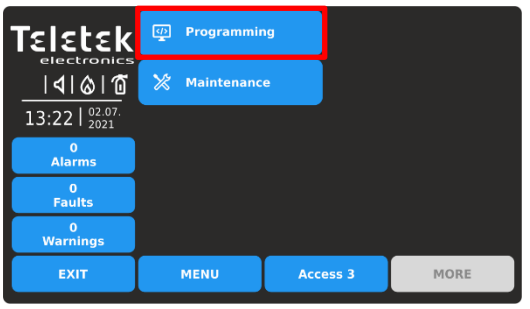


Access Level 1 is set for operation.

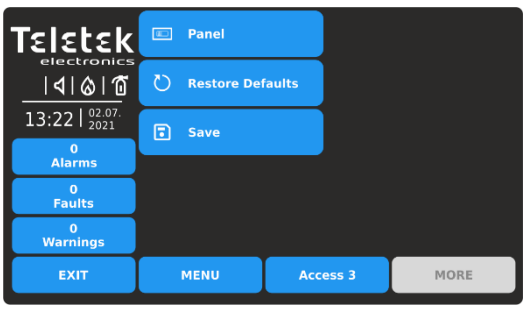
4.2. Programming Menus

To enter the Programming menus, press SYSTEM (⚙) button from Main Screen:





Press PROGRAMMING menu button. The following menus are available for settings.



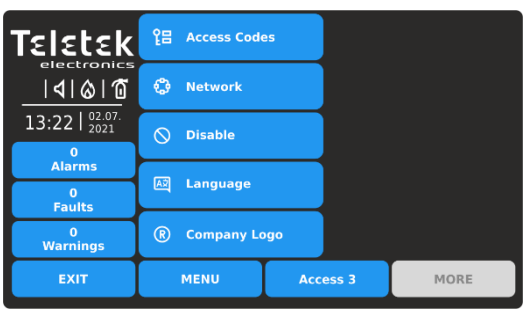
Quick summery for the submenus:

- Setting Repeater Panel parameters
- Restore to factory default settings
- Save the Repeater system configuration

4.2.1. Panel Settings

In the PANEL submenu, the Installer sets a list with the most important parameters for the operation of the Repeater panel.

Press PANEL menu button.



Quick summery for the submenus:

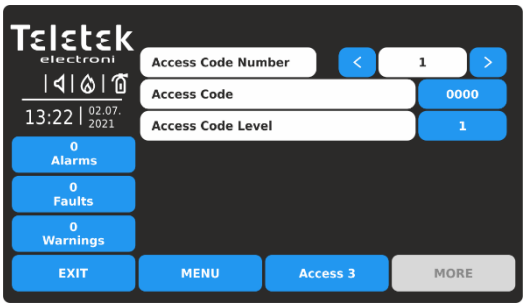
- Access Codes for Users and Levels
- Network settings for the Repeater
- Disable/Enable the internal buzzer
- Change the Language
- Set Company Information (Screen Saver)

4.2.1.1. Setting Access Codes and Levels for Operation

There are three access levels for control in Repeater panel with different functionalities and rights for operation. Four access codes can be set with different access level for users.
The default code combinations (factory set) with set access levels are presented in the following table.

Access Level	Description	Factory Code	Access and Functionalities
1	User	0000 1111	Only **Silence buzzer** and **Evacuate*** buttons are active. It is not allowed to enter Maintenance and Programming access levels. ** Just for those cases, when there is active fire alarm signal, received from a loop device.*
2	Maintenance	2222	**Silence buzzer, Silence sounders, Reset** and **Evacuate** buttons are active. Maintenance access level entry, which allows partial programming and menu settings.
3	Installer	3333	**Silence buzzer, Silence sounders, Reset** and **Evacuate** buttons are active. Installer access level entry, which allows full programming and settings.

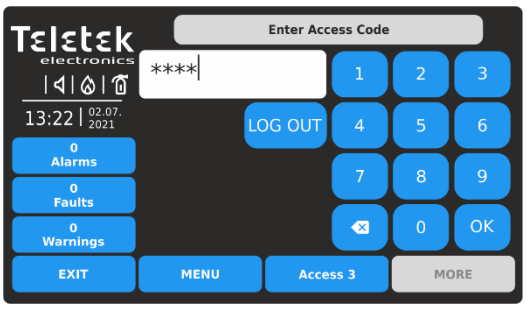
Enter SYSTEM - PROGRAMMING – PANEL – ACCESS CODES menu.



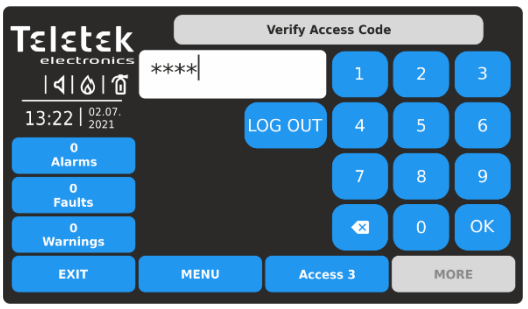
Fields description:

- **Access Code Number –** Use the left/right buttons to change the code number. Up to 4 code numbers are available for operation.
- **Access Code** – Active button for changing the set code combination.
- **Access Code Level** – Active button for changing the access level of the set code number.

To change the code combination, press the active digit button next to ACCESS CODE field.

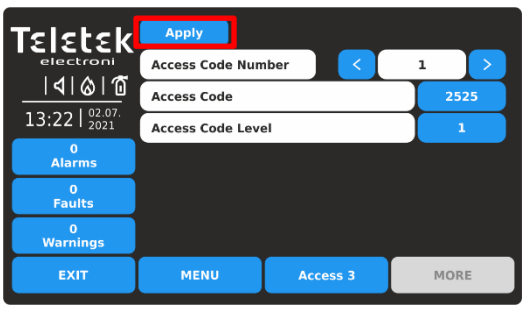


Enter new 4-digits code combination into the text field. Press OK.



Enter again the same code to verify it. Press OK.

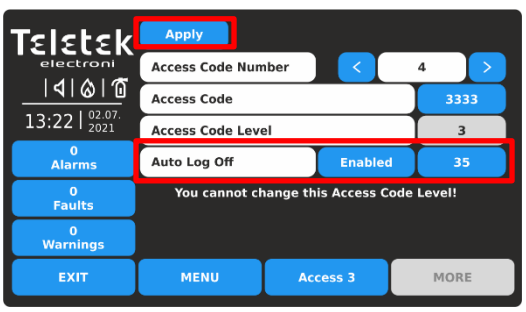
The following messages inform for errors during verifying the access code:
"Wrong Code" – The second entered code combination does not much with the first one.
"Text" – Less than 4 digits are entered in the field.



In case the new code is valid and correctly verified, the Repeater returns to ACCESS CODE menu showing the new code set into the Access Code active digits button. Press APPLY button to save the change.

To change the Access Level, press the active digit button next to ACCESS CODE LEVEL field. Every pressing of the button increases the number in the field. The Access Levels are described in the table above.

Attention: There must be at least one code in the system with an access code level 3! It is not allowed to edit a level of access (3) if it is the only one!



Press APPLY button to save all introduced changes.

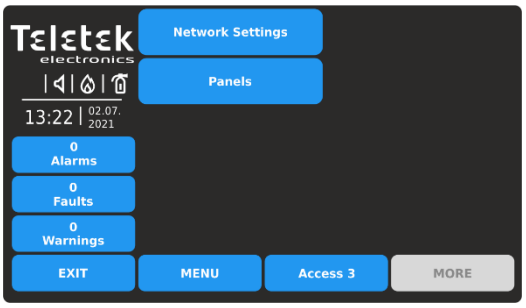
Auto Log Off – Option for automatic logging out from the current set Access Level 2 or 3 after a time period and no operation with the Repeater. If the automatic log out is enabled, the Repeater will log out to Access Level 1 when the programmed time is over.

The option is Disabled by default. Every pressing of Disabled/Enabled button changes the setting.

The time period is set in minutes from 1 to 60 (30 minutes by default). To change it, press the active digits button and enter new time period - see item 4.1.3.

4.2.1.2. Setting of Network Parameters

Enter SYSTEM - PROGRAMMING – PANEL – NETWORK menu.



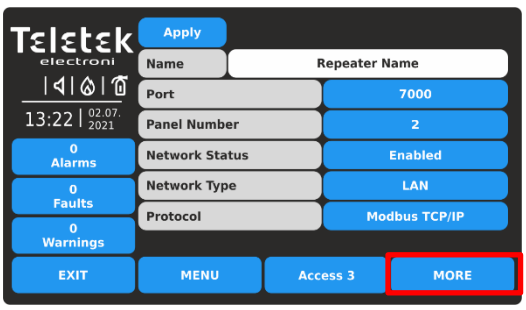
Quick summery for the submenus:

- **Network Settings –** Menu for setting the parameters for connection between the Repeater and other panels in the network.

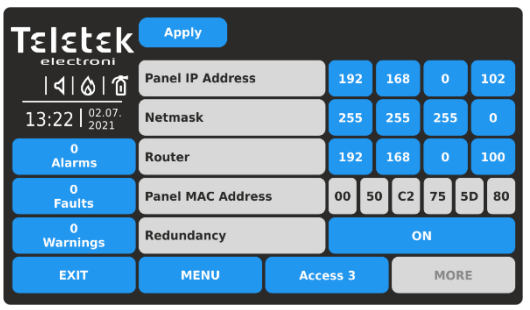
- **Panels** – Menu for review information about the type, name, status of all panels in the network. Setting the options for Receiving/Sending commands from/to other panels.

4.2.1.2.1 Network Settings

Enter NETWORK SETTING submenu. The settings are distributed in two separate screens.



Press MORE button to move to the next screen.
Press APPLY button to save all introduced changes.



Press APPLY button to save all introduced changes.
Press EXIT button to move back to previous screen.

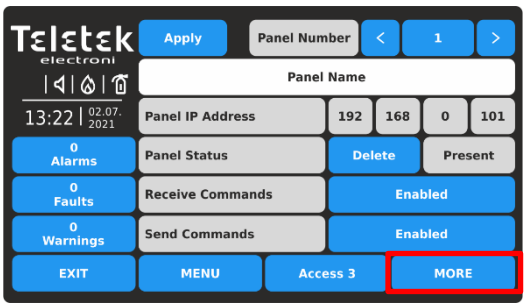
Fields description and available settings at Network Settings submenu:

Name	Enter the name of the Repeater panel - up to 40 digits. Refer to item 4.1.2 for details about text introducing.
Port	TCP/IP port for communication between the panels in the network. The port number must be set one and the same for all connected panels. In case of changing the port number, the Repeater panel must be reset from the main screen.
Panel Number	Unique Repeater panel number (1-64) in the network is introduced. By this number the panels can “recognize” each other.
Network Status	Set the status of using the panel in the network. Every pressing of the button changes the status Enabled/Disabled. When the status is Disabled, the Repeater is disconnected from the network and is not visible for the rest of the panels. A fault message “Panel Fault” for the disabled panel is displayed from the other panels in the network.
Network Type	Set the network type according the used connection between the panels: LAN (in case of LAN interface network connection is used – see item 3.4) or RS485 (in case of using Redundant Network interface module – see item 3.3). **Attention: Only one network type must be used for the entire network!**
Protocol	Choose the communication protocol type according used BMS system software - Modbus RTU over TCP/IP or Modbus TCP/IP.
Panel IP Address	Set the IP address of the Repeater according the realized local Ethernet network.
Netmask	Set the Netmask.
Router	Set the Router IP address.
Panel MAC Address	Review of the unique MAC address of the Repeater.
Redundancy	Option for ignoring a fault message for broken connection in the redundant network. Every pressing of the button changes the status OFF/ON. Set ON if you want to monitor the continuity of the redundant network. Set OFF to disable the monitoring.

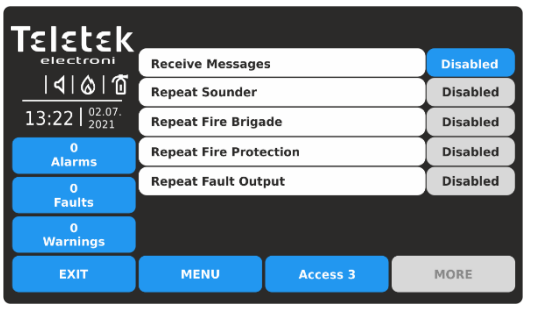
4.2.1.2.2. Panels

After Enabling the Network, every panel starts looking for other panels in the network. If a new panel is found in the system it is added to the panels list with the number set into its Network Settings. The panels are displayed also with unique name (is set), IP address and current status in the network. All new found panels must be added to Repeater configuration.

Enter PANELS submenu. The settings are distributed in two separate screens.



Press MORE button to move to the next screen for receiving messages and repeating status of the outputs.
Press APPLY button to save all introduced changes.



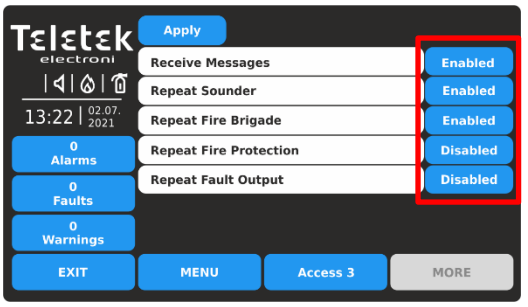
These are the settings for receiving messages from other panels and repeating their current status in the network.
Press EXIT button to move back to previous screen.

Fields description and available settings at Panels submenu:

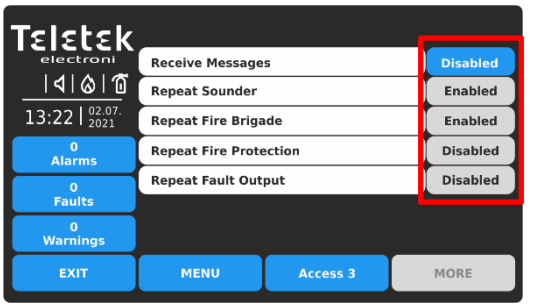
Panel Number	Use the left/right arrow buttons to scroll the numbers of available panels connected to the network. You can also enter the number directly pressing the active digit button and use the virtual digits keyboard. Up to 64 panels can be connected in a common network.	
Panel Name	In the field is displayed the set name for the panel.	
Panel IP Address	Review of the IP address of the panel.	
Panel Status	Active button for operation with functionality according the current status: **ADD** – New panel is found. Press the button to add it to the configuration. **DELETE** – Remove present or fault panel from the configuration. **FIX –** Active, when a change in the network settings for the current panel is applied. Press the button for quick correction and fixing the new settings.	Current status field: **NEW PANEL –** The panel is new for the configuration. Press ADD button to confirm. **PRESENT –** The panel is in normal operation mode. **FAULT** – Fault mode, problem with connection in the network. **THIS** – This is the current panel from which the other panels are reviewed. **NONE** – No found/set panel at this number.
Receive Commands	Option for enabling *receiving of control commands* (Evacuate, Reset, Silence Alarm and Silence Buzzer) from other panels in the network. Every pressing of the button changes the status Enabled/Disabled. By default, the option is Disabled.	
Send Commands	Option for enabling *sending of control commands* (Evacuate, Reset, Silence Alarm and Silence Buzzer) to other panels in the network. Every pressing of the button changes the status Enabled/Disabled. By default, the option is Disabled.	
Receive Messages	Option for enabling *receiving messages for events* from other panels in the network. Every pressing of the button changes the status Enabled/Disabled. The button is used for global enabling the settings for Repeating the operation of the outputs of connected fire panels. By default, the option is Disabled.	
Repeat Sounder*	Option for enabling the *repeating Sounder output status* of the remote panels including the delays. By default, the option is Disabled.	
Repeat Fire Brigade*	Option for enabling the *repeating Fire Brigade output status* of the remote panels including the delays. By default, the option is Disabled.	
Repeat Fire Protection*	Option for enabling the *repeating Fire Protection output status* of the remote panels including the delays. By default, the option is Disabled.	
Repeat Fault Output*	Option for enabling the *repeating Fault output status* of the remote panels including the delays. By default, the option is Disabled.	

**** Note:** The options are available for setting only when the Receiving Messages option is Enabled. In case of alarm, fault or disable type event, the Repeater will display on its screen the current status of the outputs of connected fire alarm panel(s).*

Examples for settings in PANELS submenu.

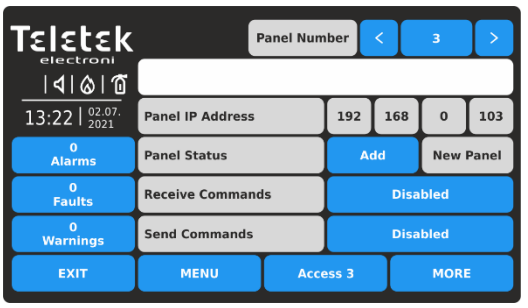


The receiving of messages for events is Enabled. The options for repeating the outputs status are available for further settings. Every pressing of the button will change the status Enabled/Disabled.
Press APPLY button to save all introduced changes.

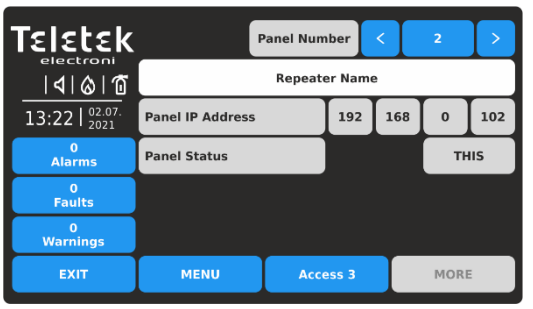


The receiving of messages for events is Disabled. The options for repeating the outputs status are unavailable for settings. *Even if there are options set as Enabled, they will be inactive and the panel will not repeat the status of any of the outputs.*
Press EXIT button to move back to previous screen.

Examples for status in PANELS submenu.



New panel number is found in the network configuration. Press ADD button. The status will change to PRESENT. If there is set name for this panel it will be displayed into the text field. Next step is to Enable the “Receiving” and “Sending” control commands to other panels. Confirm with APPLY button to save the settings.



The screen displays the information for the Repeater panel – status THIS. No other settings for Receiving/Sending commands or messages are available. *Remember, the Receiving/Sending commands and messages for events for the Repeater itself can be done only via the other connected panels in the network.*

IMPORTANT NOTES!
The main purpose of the Repeater panel is presenting remote indication of fire alarm, fault, trouble, warning and other type of events, reported from other fire alarm panels (IRIS and SIMPO series) or repeater panels connected into one common network.

In case of making software or hardware Restore Defaults, the Repeater will restore the factory default settings, including the Network Settings:

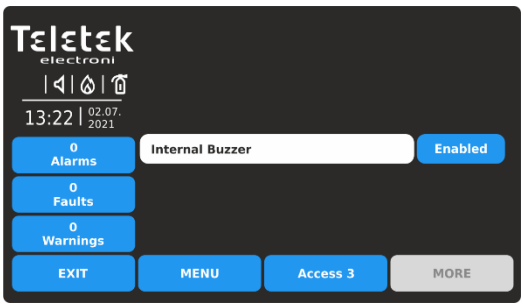
- The Panel Number of the Repeater at Network Settings submenu is set by default as 1 - the installer must set the real number of the Repeater in the network before enabling it – see item 4.2.1.2.1.
- All connected panels will be recognised as NEW and must be added manually one-by-one in the PANELS submenu of the Repeater.
- The options for Receiving/Sending control commands and receiving/repeating of messages for events are Disabled – the installer must enable all of them to restore the reporting from the other panels in the network and the remote indication in case of events – see item 4.2.1.2.2.
- The Repeater panel must be deleted from the rest panels in the network and ADDED again after all settings are completed.

It is recommended, before making a Restore Defaults of the Repeater, to save its current system configuration as TDF file using ProsTE specialized programming software. After software or hardware resetting, load the TDF back to the Repeater and save time for introduce settings in menus. For details about ProsTE specialized programming software ask your local distributer of the equipment.

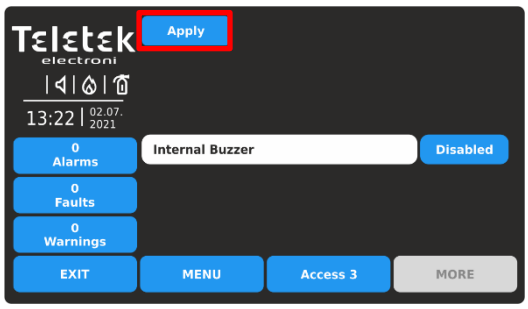
4.2.1.3. Disable the Internal Buzzer

This a submenu to enabling/disabling the internal buzzer of the Repeater.

Enter SYSTEM - PROGRAMMING – PANEL - DISABLE menu.



By default, the internal buzzer is Enabled.



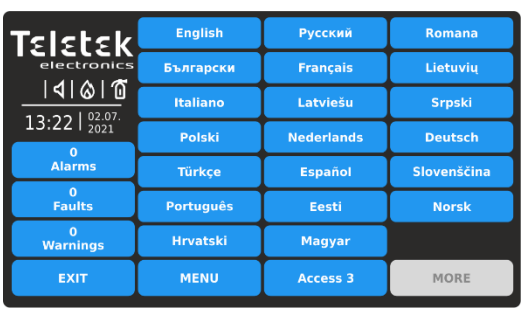
Single press the button to change the state from Enabled to Disabled. Confirm the new setting pressing the APPLY button on the top of the screen.
To return to Programming Menus, press EXIT button.

Note: *The Enabled state of the internal buzzer will be restored to Disabled every time after switching off the mains power supply of the Repeater.*

4.2.1.4. Changing the Language

The Repeater panel supports operation in different languages. By default, it is set English language for the menus. Changing the language is quick without need of confirmation.

Enter SYSTEM - PROGRAMMING – PANEL – LANGUAGE menu.



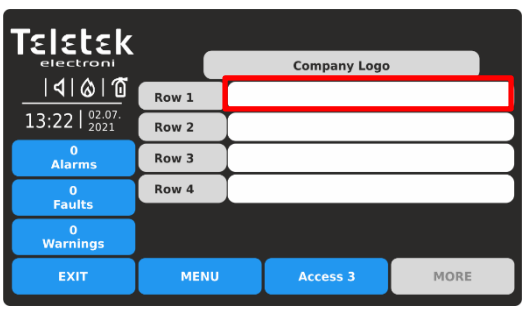
Find your language in the list and just press its button. The language of the Repeater menus will change immediately and the Repeater will return in Main screen automatically.

Note: The Language setting is made just for the concrete Repeater panel. It is possible operation of panels in network set in different languages of the menus.

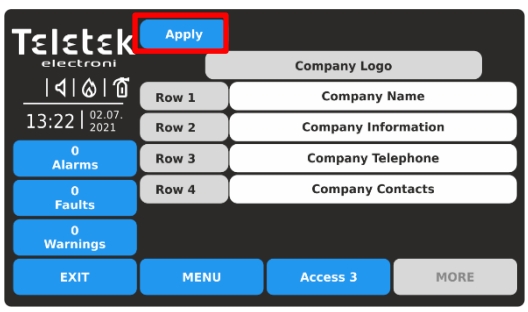
4.2.1.5. "Screen-Saver" – Company Logo Setting

This is an option for turning off the Main Screen and displaying some company information while the Repeater is in normal operation mode. In case of missing active messages for events and there is no pressed button, the Repeater will switch on to "Screen saver" with company information after 60 seconds.

Enter SYSTEM - PROGRAMMING – PANEL – COMPANY LOGO menu.



Four rows for introducing information are available. Press the active text field to enter text using the virtual keyboard – refer to item 4.1.2 for details about text introducing.



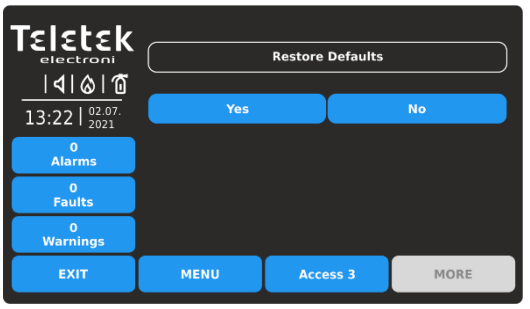
Confirm the settings pressing the APPLY button on the top of the screen.
Note: *You must enter information into at least one row to enable the "Screen Saver" with Company logo option.*
To return to Programming Menus, press EXIT button.

4.2.2. Restore Defaults

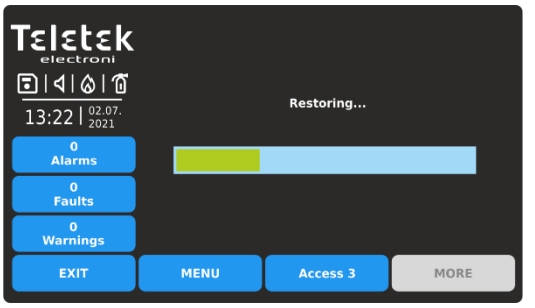
In the RESTORE DEFAULTS menu, the Installer can reset the Repeater panel to the factory settings of all the menus. The language of menus will restore in English. It is necessary to program also the Network and Panel settings to restore the operation of the Repeater in the network. The memory log file will not reset or cleared, as all records will be saved.

It is recommended, before making a Restore Defaults of the Repeater, to save its current system configuration as TDF file using ProsTE specialized programming software.

Enter SYSTEM - PROGRAMMING – RESTORE DEFAULTS menu.



Press YES button to restore to factory settings.
Press NO or EXIT button to cancel.



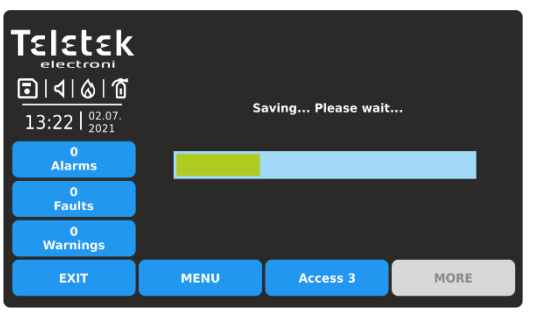
One started, the Restore Defaults process cannot be stopped or canceled. When the process is completed, the Repeater will return to Main Screen at Access Level 3.

4.2.3. Save the Configuration

In this menu the installer performs saving the set Repeater system configuration. The panel will ask for confirmation of the action.

Enter SYSTEM - PROGRAMMING – SAVE menu.

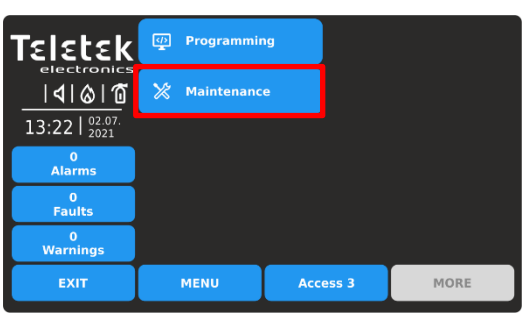
Press YES button to save the configuration.
Press NO or EXIT button to cancel.

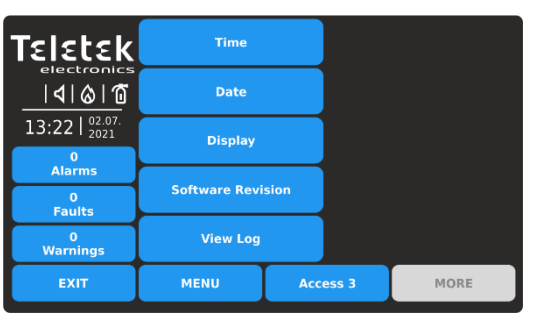


One started, the Save configuration process cannot be stopped or canceled. When the process is completed, the Repeater will return to Main Screen at Access Level 3.

4.3. Maintenance Menus

To enter the Maintenance menus, press SYSTEM ( ) button from Main Screen, and then press MAINTENANCE menu button. The following menus are available for settings.

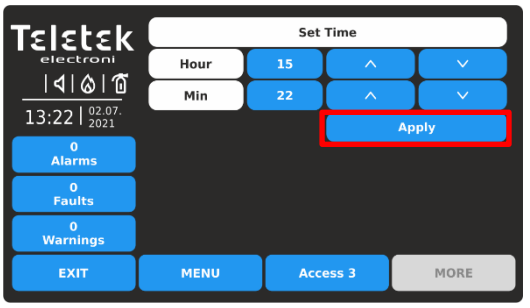




4.3.1. Setting Time

Enter SYSTEM – MAINTENANCE - TIME menu.

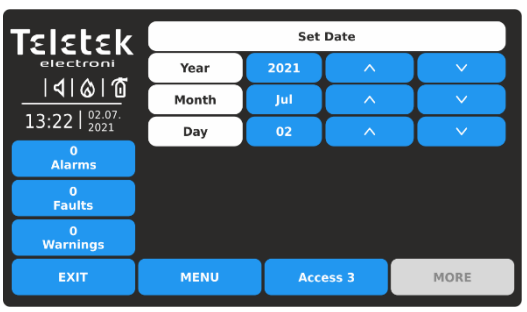
Use the up and down arrow buttons to set the time. You can also directly enter the new settings using the virtual digit keyboard after selecting the digit button for hour/minutes – item 4.1.3.



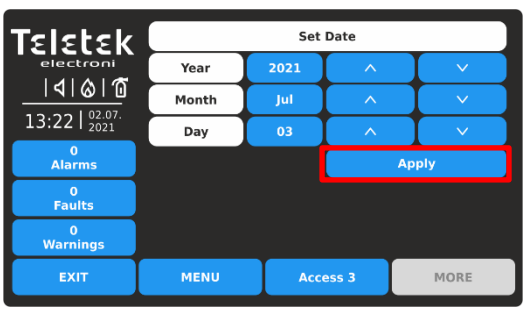
Confirm the new set time with APPLY button.
The Repeater will change the time immediately without need of resetting.
Use EXIT button to return back to Maintenance Menus.

4.3.2. Setting Date

Enter SYSTEM – MAINTENANCE - TIME menu.



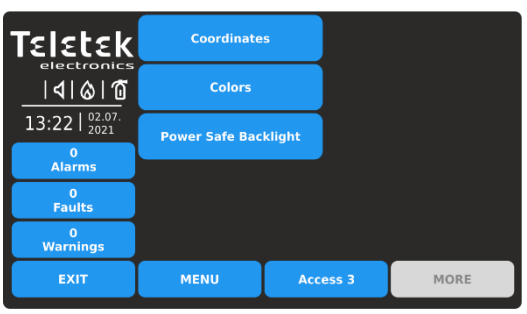
Use the up and down arrow buttons to set the date. You can also directly enter the new settings using the virtual keyboard after selecting the digit button for year/month/day – item 4.1.3. *(Note: The months are entered with numbers – 1 for January, 2 for February, … 11 – November and 12 for December.)*



Confirm the new set date with APPLY button.
The Repeater will change the date immediately without need of resetting.
Use EXIT button to return back to Maintenance Menus.

4.3.3. Setting the Display

Enter SYSTEM – MAINTENANCE - DISPLAY menu. The following submenus are available for settings.



Quick summery for the submenus:

- **Coordinates –** Perform hardware calibration of the TFT screen.
- **Colors** – Review the supported color palette of the display.
- **Power Save Backlight** – Enable/Disable the backlight of the screen.

4.3.3.1. Coordinates Calibration

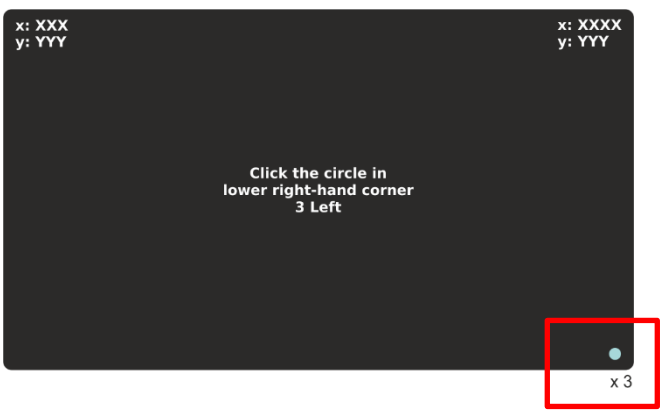
It is possible that after a certain period of use, the parameters of the TFT screen display to change, causing difficulties in pressing buttons, lower sensitivity, etc. This requires the display to be calibrated periodically. It is recommended to use touch pen for precise calibration and to avoid damage and contamination of the sensitive TFT screen.

Do not use sharp instruments for pressing the screen, like screwdrivers, tweezers or pliers, because they can scratch or break the plastic surface of the screen and the Repeater panel to become not operable!

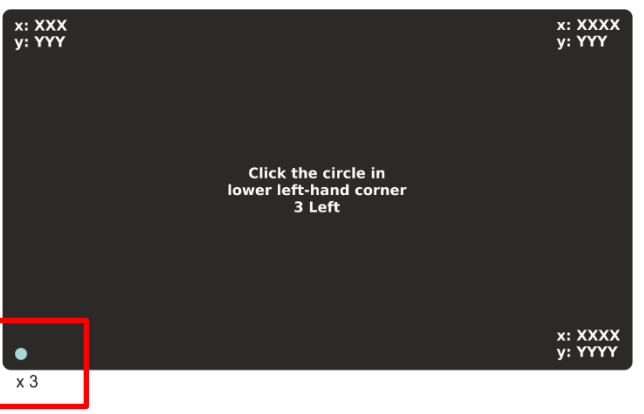
Enter COORDINATES submenu. The calibration procedure requires selection (3 times) of some specific places on the screen, following the displayed messages on the middle.

1. Press 3 times in sequence the blue dot in the upper left corner of the screen. The message in the middle will remand you how many times are left.

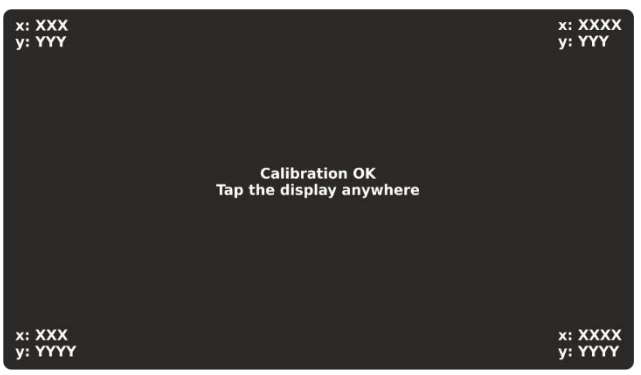
2. Press 3 times in sequence the blue dot in the upper right corner of the screen. The message in the middle will remand you how many times are left.



3. Press 3 times in sequence the blue dot in the bottom right corner of the screen. The message in the middle will remand you how many times are left.



4. Press 3 times in sequence the blue dot in the bottom left corner of the screen. The message in the middle will remand you how many times are left.

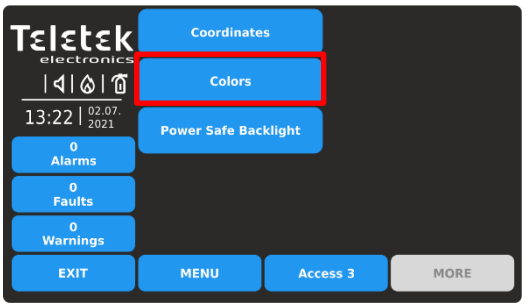


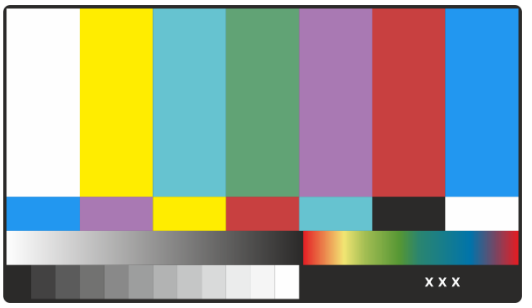
5. Message for succesful calibration is diplayed. Press the screen anywhere to return to DISPLAY menu.

If the calibration is unsuccessful, it is announced with message for failure. In that case is recommended to perform the calibration again. Press the screen anywhere to return to DISPLAY menu.

4.3.3.2. Colors Review

This is a menu for reviewing the color palette of the screen. Enter COLORS submenu to check the number and type of the supported colors.





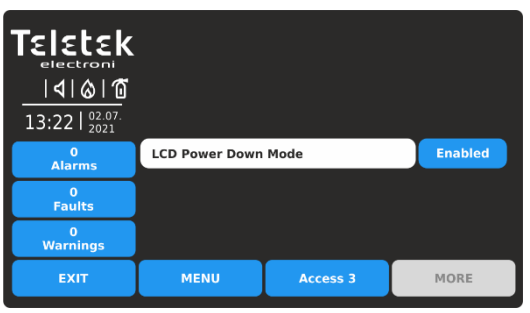
Press the screen anywhere to return to DISPLAY menu.

4.3.3.3. Setting the Screen Backlight

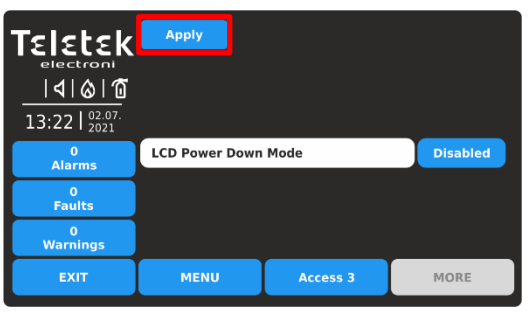
ATTENTION: "Power Safe Backlight" must be disabled for conformity with EN54-2 standard!

This is an option for switching off the backlight of the screen after 60 sec in case the TFT display is not used.
By default, the Power Safe Backlight option is Enabled.

Enter SYSTEM – MAINTENANCE - POWER SAFE BACKLIGHT menu.



Every pressing of the button will change the state Enabled/Disabled.

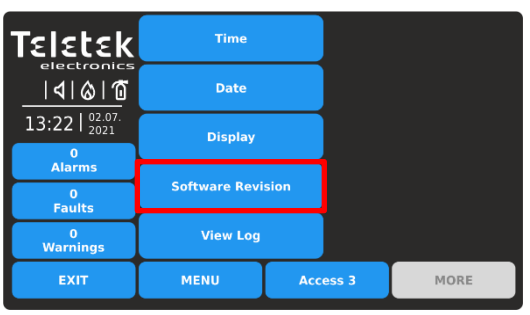


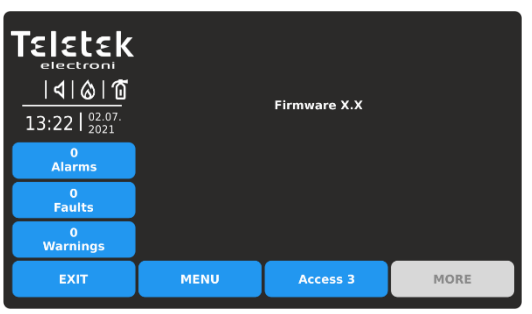
Confirm the new setting pressing the APPLY button on the top of the screen. To reject press EXIT button and return to DISPLAY menu.

4.3.4. Software Revision and Firmware Update

This is a menu for reviewing the current set software of the main CPU and the firmware revision of the panel.

To review the software version or the Repeater, enter SYSTEM - MAINTENANCE - SOFTWARE REVISION menu.





The screen displays the current set software revision of the Repeater panel. Press EXIT button to return back to Maintenance menus.

Performing Firmware Update of the Repeater Panel

To perform a firmware update of your Repeater panel, download the last published firmware version (BIN file) from the manufacturer's official web site: http://www.teletek-electronics.com or ask your local distributer of the equipment.

It is recommended first to save the system configuration with ProsTE software as TDF (Teletek Data File) file to your local computer. (Open ProsTE, select SYSTEM, right button of the mouse to add TFT REPEATER PANEL, perform READ operation, save the loaded configuration.)

Note: The Firmware update of the Repeater panel will not change the current system configuration, user codes, language and other menu settings!

To perform the firmware update do as follows:

1. Save the file (with BIN extension) for the last actual firmware version to your local computer.
2. Save your system configuration using ProsTE software.
3. At TFT Repeater panel, enter SYSTEM – MAINTENANCE – SOFTWARE REVISION submenu. The screen displays the current set software revision of the panel.
4. Connect the panel to the computer using USB cable: Normal A to Micro B type.
5. Wait for the message from Windows Explorer for found new Removable Disk.
6. Use the Windows Explorer file manager to copy the new file for update (with BIN extension) in Removable Disk directory.
7. When the copying of the file completes, remove the Removable Disk, as select Eject option from its dialogue box (right click with the mouse over it).
8. If the data in the BIN file are correct, the panel starts the firmware update procedure of the main microprocessor. Message *"Saving … Please Wait…"* with processing bar are displayed during the update.
9. Disconnect the USB cable and wait until saving of the configuration is complete – a long sound signal will announce for completing.
10. The panel will reset itself automatically after a successful firmware update loading automatically Access Level 1.

4.3.5. Review the Log Memory for Events

This menu allows the Installer to review the system events recorded in the panel memory log file, including the events from all other fire panels in the network allowed for operation with the Repeater. The capacity of the panel memory log file is 10000 events. In a special submenu "Clear Log" the user can delete the whole memory log file for this Repeater panel only.

Note: The log memory is not reset or deleted during Restore Defaults or Firmware Uprate procedures.

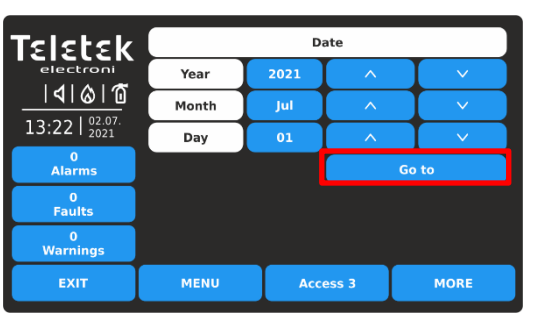
Enter SYSTEM – MAINTENANCE – VIEW LOG menu.

The events are presented with detailed information about the Panel, Zone, Loop and Device number. The events are displayed from the newest to the oldest registered in the log file.

Use the up and down arrow buttons to scroll the events one-by-one. In the bottom of the screen are displayed the number of the event and the date and time of occurrence.

The field "Total Alarms Counter" shows the total number of the registered alarm events in the system.

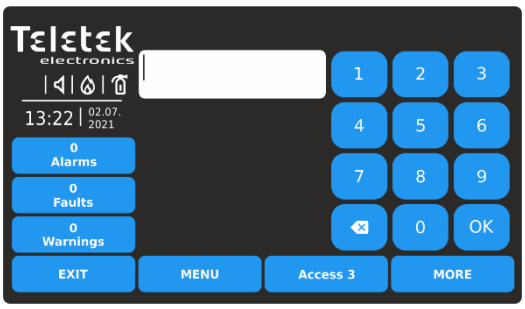
The Installer can search for exact events using filters by Date of occurrence and Number.



To filter the events by Date of occurrence, press DATE button and in the new screen enter year/month/day for search. *(Note: The months are entered with numbers – 1 for January, 2 for February, … 11 – November and 12 for December.)*

Press GO TO button. The View Log screen will return showing the last registered event for this date.

Press EXIT button for step back to Memory Log reviewing.



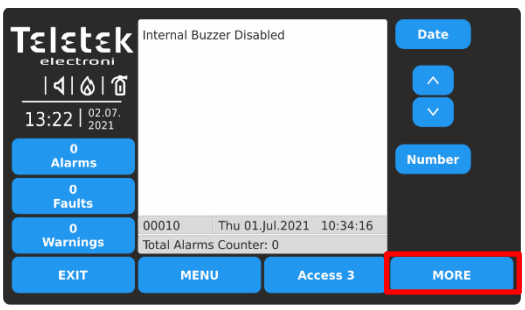
To filter the events by Number, press NUMBER button and use the digit keyboard. Press OK.

The View Log screen will show the contents of the searched number.

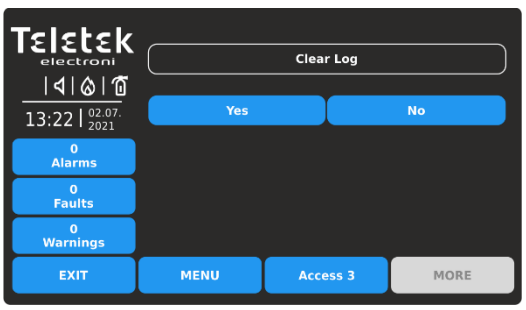
4.3.6. Clear the Log Memory for Events

This is a submenu in View Log for deleting the contents of the log memory file of the Repeater panel.

Enter VIEW LOG submenu.



Press MORE button.



To clear the log memory file, press YES button. You can exit the submenu (cancelling the clear log operation) pressing button NO or EXIT.

APPENDIX A

Table: Event Messages.

Note: *The messages are followed from a Panel, Zone and Loop number, and also Device address, when the event is received from another panel in the network.*

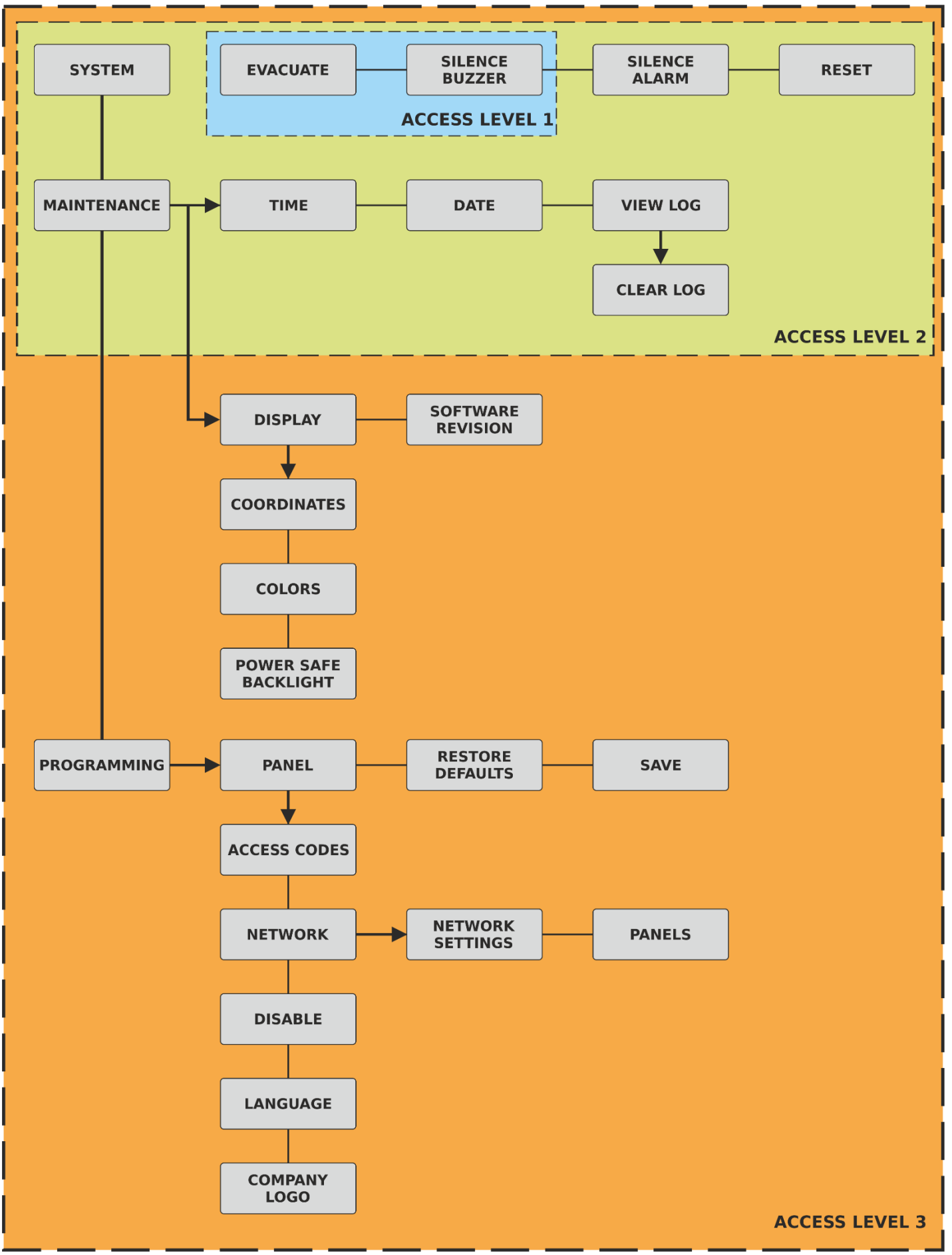
Message	Description
Flash Error	FLASH Memory error is detected.
Ram Error	RAM Memory error is detected.
New Periphery Devices Found	New periphery devices are found in the system configuration.
Periphery Device Fault	The device is not responding (the device is lost or failed).
Periphery Device Type Error	A periphery device with different type is found on the address.
AC Loss	The main power supply is lost.
Battery Low	The accumulator battery is discharged.
Battery Loss	The accumulator battery is missing.
Battery High Resistance	High value (Ri>0.3Ω) of the battery internal resistance. Replace the battery immediately!
Earth Fault	Resistive connection between some signals and earth < 10k.
Charger Fault	The charging unit is failed.
Sounder1 Short	Short circuit detected at Sounder 1 output.
Sounder2 Short	Short circuit detected at Sounder 2 output.
Sounder1 Open	Circuit broken at Sounder 1 output.

Sounder2 Open	Circuit broken at Sounder 2 output.
Fire Output Short	Short circuit detected at Fire output.
Fire Output Fault	Circuit broken at Fire output.
EXT Output Short	Short circuit detected at Extinguishing output.
EXT Output Fault	Circuit broken at Extinguishing output.
Fault Output Short	Short circuit detected at Fault output.
Fault Output Fault	Circuit broken at Fault output.
Fault Power AUX	Short circuit (the mains power supply is lost).
Alarm Confirm Input Short	Short circuit detected at input “Alarm Confirmation”.
Alarm Confirm Input Open	Circuit broken at input “Alarm Confirmation”.
Alarm Confirm Input On	“Alarm Confirmation” input activation.
Protection Alarm Confirm Short	Short circuit detected at input “Protection Alarm Confirmation”.
Protection Alarm Confirm Open	Circuit broken at input “Protection Alarm Confirmation”.
Protection Alarm Confirm On	“Protection Alarm Confirmation” input activation.
Fault Protection Panel Input Short	Short circuit detected at input “Protection Panel Fault”.
Fault Protection Panel Input Open	Circuit broken at input “Protection Panel Fault”.
Fault Protection Panel Input On	“Protection Panel Fault” input activation.
Protection Panel Fault	The extinguishing panel failure.
Loop Break	The loop is broken.
Loop Short	Short circuit detected in the loop.
New Loop Devices Found	New loop devices are found in system configuration (Loop 1 or Loop 2).
Loop Zero Address	There is a device without address number (a device with address 0 is applied).
Double Panel number	Doubling of the panel number (when two or more panels are connected in a network).
Panel Fault	Fault in the connection with another panel (when two or more panels are connected in a network). The Network Status of a panel in the network is set to Disabled.
Reset	Resetting of the panel.
Silence Alarm	The sounders have been silenced.
Zone Disabled	The zone is disabled.
Earth Fault function DISABLED	The Earth Fault indication is disabled.
Sounder Disabled	The Sounders are disabled.
Fire Brigade Output Disabled	The fire output is disabled.
Fire Protection Output Disabled	The extinguishing output is disabled.
Fault Output Disabled	The fault output is disabled.
Zone In Test	The zone is in test mode.
Transmitting device active	The Fire output is activated.
Extinguishing output active	The Extinguishing output is activated.
Sirens active	The sounders are activated.
User log off	Exit from access level 2 (Maintenance).
Installer log off	Exit from access level 3 (Installer).

User log on	Entry in access level 2 (Maintenance).
Installer log on	Entry in access level 3 (Installer).
High Resistance Disabled	The indication for high battery resistance is disabled.
Total loss of Power	Both main and backup power supply are lost (the main power supply is lost and the accumulator battery is fully discharged).
Buzzer Disabled	The internal buzzer is disabled.
Network Fault	Redundant network breakdown.
Loop Device Disabled	The loop device is disabled.
Chamber Fault	Fault in the detector.
Clean Me Now	Dirty detector chamber.
Loop Device Input Fault	Fault in loop device input.
Loop Device Output Fault	Fault in loop device output.
Alarm	Fire alarm signal from detector.
PreAlarm	Fire alarm signal from detector in 2DEVICES or DOUBLE operation mode for zone.
Test Alarm	Fire alarm signal from tested detector.
Loop Device Type Error	A different than the expected type of device has been detected at the address.
Loop Device Fault	The device does not respond (lost or damaged).
Double Address	More than one device with the same address in the loop.
Evacuate	Activated Call Point or EVACUATE button on the panel.
Log Fault	The Log file event is lost or damaged.
Gas Alarm	Activated gas detector SensoIRIS GAS.
Power Supply Fault	Fault in the external power supply of conventional zone module SensoIRIS MC-Z or gas detector SensoIRIS GAS.
Panic	Panic alarm signal from detector.
Active Relay	Activated relay output of the panel. After the message is displayed also the number of the activated relay (1-4).
Loop Device Input Active	Activated input of a loop device.
Loop Device Output Active	Activated output of a loop device.
Activated Output	Activated output of the panel.
Redundant processor fault	Redundant processor is failed.
Type Error	SensoIRIS MIO22M module. Wrong type of the output is detected. That means that a jumper is set or removed when the power supply of the module is ON. The fault will be cleared with switching off the power supply of the module, including the external power supply unit, and switching it on again.
External Power Supply Fault	SensoIRIS MIO22M module. Missing or low external power supply. The fault is cleared when the normal power supply is restored.

APPENDIX B

General structure of the menus.



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