

Management and control repeater panel



Management and control repeater panel, equipped with a multifunctional user interface consisting of: 4.3" TFT capacitive touch screen display, speech synthesis with customisable vocabulary, multifunctional acoustic signal device. The panel automatically recognises the device to which it is connected and consequently adapts its functions to the particular operating context. The panel connected to the bus of the TSA1 and TFA1-298 control panels acts as control panel repeater. The panel connected to the bus of the TSM1 extinguishing module and the TF ONEAIR detector, acts as a management panel, taking complete control of the device functions. The panel displays the commands that manage the operation of the module and, in the event of activation, makes the sequence of the extinguishing cycle visible, dynamically notifying the countdown of the delays that control the different phases. Supported System Commands: Silencing and Control panel Restoring/Associated Module, Silencing and Siren Restoring, Evacuation, Extinguishing Events, Monitored Mode, Exclusion and Inclusion of devices. Built-in flash memory for vocabulary customisation, manageable from a personal computer as an external disk. RS485 bus connection. Surface or flush box 503 mounting. Refined ultra-thin design. Red cover. **Certification integrated in TSA1 series control panels and TSM1 extinguishing module.**

MODEL		RSC	TOUCH SCREEN 4.3"	VOICE SYNTHESIS	FLASH MEMORY	ABS BOX
Name	Item no.					
TFT-4.3C	TF2TFT43C					

QUALITY AND PRODUCTION STANDARDS

The TFT-4.3C repeater panel is developed according to the ISO 9001 quality management system, ensuring the implementation of rigorous protocols from the design phase through to final testing. Components are selected to guarantee consistent performance within the environmental limits defined by class: 3K5 (EN 60721-3-3:1995).

INSTALLATION NOTES

The device is intended for indoor use only and must be installed in a position that protects its integrity from accidental impact. Active temperature or humidity conditioning is not required for correct operation. It is recommended to strictly comply with current regulations during the design and installation phases.

ADDRESSING

The serial address of the repeater panel is digitally configured via the dedicated menu. The programmed address must be enabled in the configuration menu of the control panel or the reference module.

COMPATIBILITY

The TFT-4.3C repeater panel is compatible with the Tecnofire devices listed in the "Compatible Devices" table. The TFA1-298 and TSA1 control panels support up to 5 expansion modules (including TFT-4.3C panels), while TSM1 extinguishing modules and TF-ONE AIR detectors manage the connection of a maximum of 3 repeater panels. The TFT-4.3C panel automatically recognizes the hardware it is connected to and adapts the interface and functions accordingly to the specific operating context.


COMPATIBLE DEVICES	
TFA1-298	Fire detection control panel
TSA1	Fire detection and extinguishing control panel
TSM1	Fire detection and extinguishing module
TF-ONE AIR AD	Addressable aspirating smoke detector
TF-ONE AIR CV	Conventional aspirating smoke detector

TFT-4.3C



CONNECTION

TFT-4.3C repeater panels can be connected to the RS485 serial buses of the control panels in either open or closed loop mode. For TSM1 extinguishing modules and TF-ONE AIR detectors, connection is only available in open loop mode.

CONNECTION TERMINAL BLOCK				
	1	S	Cable shield anchoring	Shield
	2	B	Serial line B channel	Data
	3	A	Serial line A channel	Data
	4	-	Serial line power supply negative	-
	5	+	Serial line power supply positive	+

CONNECTION WARNINGS

Cable section:

Use serial line cables with a section appropriate to the track length and the total absorption of the devices, in order to prevent critical voltage drops.

Bus termination:

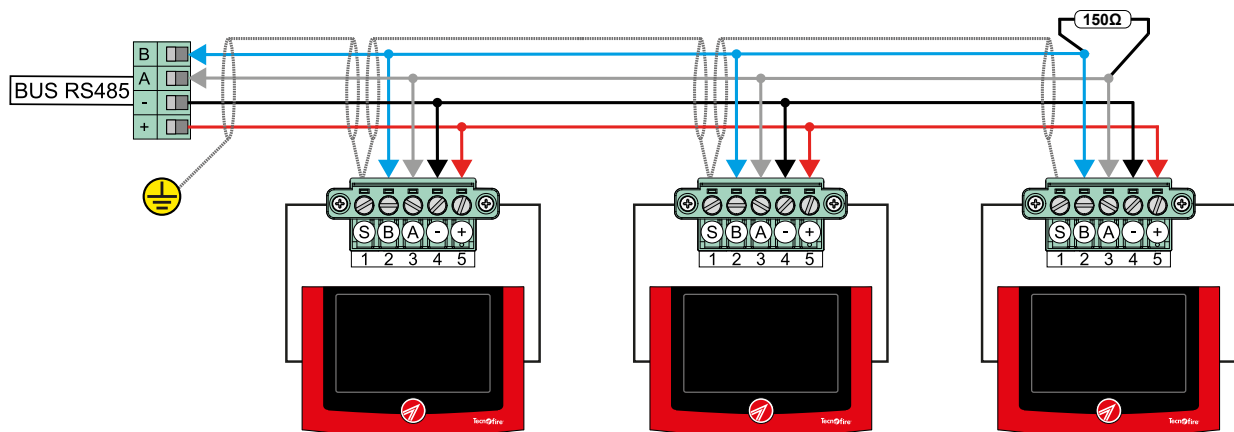
If the repeater is the last device connected on the serial line, a 150Ω termination resistor must be connected in parallel to terminals A and B.

Shield connection:

To ensure electromagnetic compatibility (EMC), connect the cable shield to earth only on the control panel or power supply unit side.

It is essential to ensure the electrical continuity of the shield at every junction point of the line.

CONNECTION

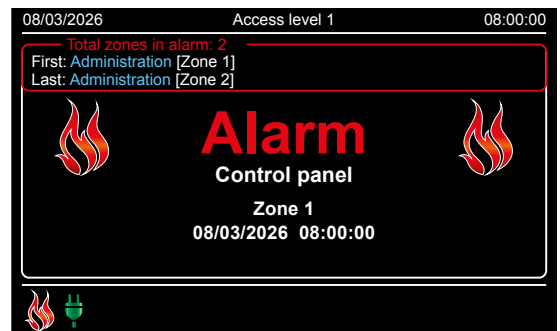


DISPLAYS













The repeater panel dynamically monitors the fire detection system status, showing real-time operating conditions and reporting screens for Pre-alarm, Alarm, and Fault.

The interface allows users to consult the event log, manage the "Monitored" mode, and access the local programming menu; available functions vary according to the access level of the entered password.

The management keys are contextual: they change automatically to adapt to the configuration and current status of the system.



FUNCTION KEYS

	Reset the system to normal condition		Silence "General Alarm" signaling
	Start "Evacuation" procedure		EDU functions menu selection key (TSA1 control panel only)
	Silence the active Alarm signaling		Activate extinguishing cycle (TSA1 control panel only)
	Enable and/or disable the "Monitored" operating mode (TFA1-298 control panel only)		Acceptance / Enter key or increment value key
	Management and Programming menu access key		Exit / Escape key
	Display numeric keypad for code entry		Navigation keys for menus and/or lists

ACCESS TO FUNCTIONS

Access Level 1 is always visible.

To display the management keys, touch and drag the triangular icon to the left.

The following table describes the available functions.

N.B. The functions described below refer to the connection with the TFA1 -298 fire detection control panel.

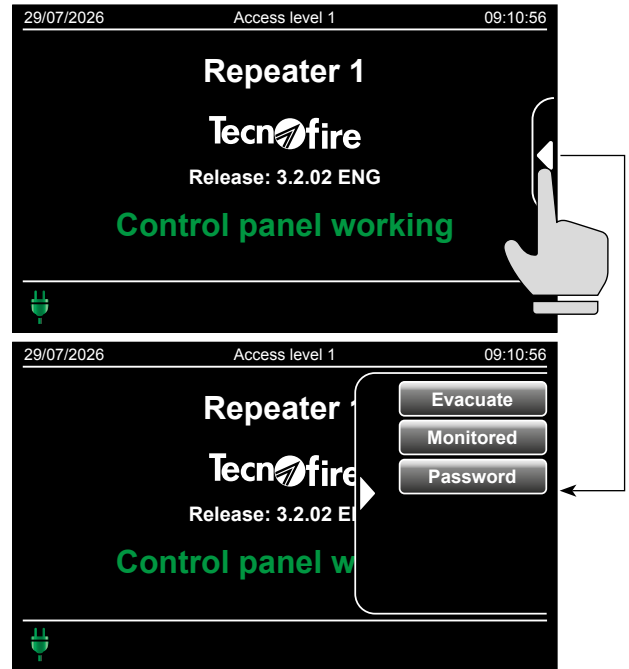
Evacuate	This key activates the programmed procedure for the Evacuation alarm. Activation must be confirmed by entering the Level 2 Password.
Monitored	This key enables or disables the Monitored operating mode. N.B. The key is only displayed if the Monitored function has been programmed.
Password	This key opens the window to enter the access password for Levels 2, 3, and 4.

Function access levels

The repeater panel manages four access levels.

Access to Levels 2, 3, and 4 is password-protected (see table).

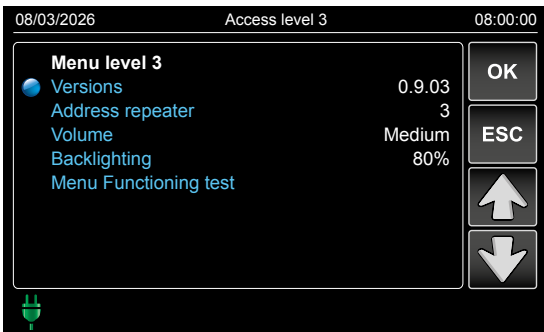
Level 1	Toujours visible (Accès public)	
Level 2	User access level	Password - 11111
Level 3	Installer / Maintenance access level	Password - 12345
Level 4	Authorized personnel access level	Password - 54321



LOCAL PROGRAMMING MENU

The repeater panel's operating modes are configured through the local programming menu.

Access to the settings is exclusively reserved for users holding the Level 3 password.



MENU LEVEL	
● Versions	Equipment and resource versions
Address repeater	Address programming
Volume	Speaker volume adjustment
Backlighting	Display brightness adjustment
● Menu Functioning test	Repeater panel functional tests
FUNCTIONING TEST	
Light signaling test	Display luminous efficiency
Word test	Vocabulary listening (TFA1 only)
Text test	View vocabulary words
VERSIONS	
Firmware	Device firmware version
Text set	Text set used
Font	Font type
Vocabulary	Vocabulary version
Serial number	Device serial number

TEST FUNCTIONS

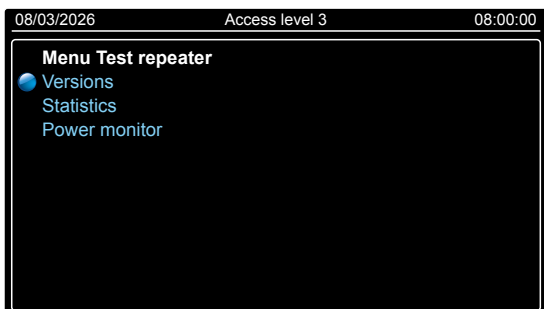
Tecnofire control panels manage a series of specialized test functions for each type of device.

The diagnostic functions available for the TFT-4.3C repeater panel allow you to:

Identify the equipment and resource versions.

Read the communication monitor statistics.

Monitor the power supply voltage value.



TEST REPEATER	
● Release	Equipment and resource versions
● Statistics	Communication monitor statistics
● Power monitor	Power supply voltage monitor
POWER MONITOR	
Power supply voltage	Power supply voltage value detection
STATISTICS	
String sent	Communication frame counter
Errors	Bad frame counter
Percentage of success	Percentage value
Percentage of errors	Percentage value
VERSIONS	
Firmware	Device firmware version
Strings	Text set used
Font	Font type
Vocabulary	Vocabulary version
Serial number	Device serial number
Options	Options string

Technical and functional specifications

General information	Repeater panel	TFT-4.3C	Electrical specifications	Power supply	From serial Bus
	Communication protocols	FIRE-BUS		Rated voltage	24V DC
	Addressing	Digital		Operating voltage	18V...30V DC
	Connection	Bus RS485		Consumption in stand-by	60mA @ 24V DC
User interface	Display	Color 4.3" TFT	Physical specifications	Maximum consumption	80mA @ 24V DC
	Resolution	480 x 272 pixel		Environmental class	3K5 EN 60721-3-3:1995
	Touch screen	Capacitive		Operating temperature	-5°C...+40°C
	Infographic	Contextual		Relative humidity (without condensation)	10%...93%
	Voice synthesis	Monolingual vocabulary		Protection class	IP4x
	Speaker	Multifunction		Casing	ABS
	Contextual help	Graphic		Dimensions (L x H x D)	154 x 104.6 x 23mm
Equipment	Memory	Flash 32Mbit	Weight	230g	
			Conformity	System compatibility	EN 54-13:2020
				Repeater panel approved for use with TFA1-298 and TSA1 control panels, TSM1 extinguishing module and the TF -ONE AIR detector.	

N.B. Declarations of conformity and performance are available on www.tecnofire.com

