FC503 and FC506 Addressable Fire Control Panels User Manual

Rev. 7.0
120.515.874_FC-FC500-P-U

2025-07-03

Recycling and Maintenance Information

To program the FC503 and FC506 fire control panels, use the software FireClass FC500 (FC501_FC503_FC506) Console release 01.00.01, or control panel FW version 1.01, or higher.

Johnson Controls assumes no responsibility for damage to products arising from improper application or misuse.

Installation of this control panel must be carried out strictly in accordance with the instructions in the *FC503 and FC506 Addressable Fire Control Panels Installation Manual*, and in compliance with the local laws and by laws in force.

The FC503 and FC506 fire control panels comply with the essential requirements of standards EN54-2, EN54-4, and EN 54-21.

Recycling information

The manufacturer advises that customers dispose of any used equipment, such as panels, detectors, sirens, and other devices, in an environmentally friendly manner. Potential methods include reuse of parts or whole products and recycling of products, components, and materials.

Waste Electrical and Electronic Equipment (WEEE) Directive

In the European Union, this label indicates that you must dispose of this product separately from household waste at an appropriate facility to enable recovery and recycling.

Note: The FC503 and FC506 fire control panels support several addressable devices, such as detectors, modules, manual call points, and so on. The present manual includes the instructions for the programming of the fire control panels. For further information about these devices and their accessories, refer to: http://www.fireclass.net.

The manufacturer reserves the right to change the technical specifications of these products without prior notice.

Maintenance

To ensure that the system continues to operate normally, it must be maintained with regular testing by the user and periodic maintenance by the installer in accordance with local laws.

Note: For the maintenance of other devices such as detectors, modules, and so on, follow the dedicated instructions for the devices.

The following operations must be carried out regularly:

1. Remove dust from the control panel cabinet with a damp cloth. Do not use solvents of any kind.
2. Check that the LEDs and buzzer are functioning correctly. To do this, use the LAMP TEST key.
3. Ensure the batteries are sufficiently charged and functioning correctly. If not, replace them immediately.
4. Ensure all cables and connections are intact.
5. Ensure there are no unrelated objects inside the control panel case.
6. Ensure the control panel is capable of processing a fire alarm, and if a siren (sounder) is present in the system, it is activated in consequence of this alarm. If there is a facility for transmission of fire alarm signals to a central station, ensure that the signal is correctly received.

7. Verify the functionality of the circuit for the detection of earth fault. The procedure is as follows:
   a. Connect one of the SH terminals of the loop to the panel earth.
   b. Verify that the fault is reported correctly by the fire panel.
   c. Remove the connection previously made.

   Note: Points 1 and 2 can be carried out by users. Points 3, 4, 5, 6, and 7 must be carried out by qualified persons.

FC503 and FC506 fire control panels

The FC503 and FC506 fire control panels follow Johnson Controls' highest standards of quality and performance.

FC503

FC503 is an analogue addressable fire control panel with one main loop (three sub-loops), that can support up to 250 addressable devices and 128 zones. BAQ140T24 switching power supply powers FC503 at 5.5A @ 27.6 ±1 %V. Suitable batteries include two *12 V/ 17Ah or two *12 V/ 38Ah. The user interface has LEDs and icons.

The FC503 fire control panel is a modular system. The configuration of the FC503 system depends on the size and requirements of the application; so, some of the described devices and functions may not be present on your system.

The FC503 system consists of the following components:

- One FC503 control panel
- Max. 8 FC500 fully functional repeaters
- Max. 7 client panels
- Max. 250 devices in three different sub-loops or 250 max in a single sub-loop only

FC506

FC506 is an analogue addressable fire control panel with two main loops (six sub-loops). The panel can support up to 500 addressable devices and a maximum of 250 devices in a single main loop, and 256 zones. BAQ140T24 switching power supply powers FC506 at 5.5A @ 27.6 ±1 %V. Suitable batteries include 2 * 12 V/ 17Ah or 2 * 12 V/ 38Ah. The user interface has LEDs and icons.

The FC506 fire control panel is a modular system. The configuration of the FC506 system depends on the size and requirements of the application; therefore, some of the described devices and functions may not be present on your system.

The FC506 system consists of the following components:

- One FC506 control panel
- Max. 8 FC500 fully functional repeaters
- Max. 7 client panels
- Max. 500 devices in six different sub-loops or two main loops (250 devices max per main loop)

The FC503 and FC506 fire control panels allow you to manage the functions of the fire control system up to a 2000m (loop) with shielded 2 core cable 2x2.5mm².

Accessory items

FC500 fully functional repeater

Repeaters are peripherals that provide system status information, emit audible signals, and allow users to control the functions of the FC503 and FC506 system (up to 1000m, with twisted pair shielded cable).

FC500IP

This module connects the control panel to a Local Area Network (LAN).

FC503 and FC506 client

The FC503/FC506 master control panel can support up to seven FC503 or FC506 client control panels. These control panels can be used to expand the FC503/FC506 system in modular way.

FireClass FC500 (FC501_FC503_FC506) Console

This is a software application operating on Microsoft Windows 7 and higher. The console offers a quick and easy way to program the control panel and also provides event log and printout functions.

FireClass console multi account engine (FCMAE)

The FCMAE allows you to monitor multiple FireClass systems across the world from a single workstation. It manages up to 32 FC500 series panels (FC501, FC503, FC506, FC510, and FC520) connected to Ethernet through the FC500IP3 module. It shows the real time status and alerts the operator when an event occurs in one of the monitored systems.

Connected Service Gateway

The Connected Services Gateway (CSG) is a comprehensive interface card that supports central station communication and enables SafeLINC Cloud Services.

Please refer to the *Connected Services Gateway Setup Guide for FireClass Fire Panels 579-1466* for information on configuration and interfacing the CSG with Fireclass panels.

User access level

Access level 1 (L1)

At access level 1 (L1) or viewing level, all users can view the control panel status. See Table 1 for information about the control panel operations and statuses available at L1.

Table 1: Access level 1 (L1)

Operations	Status available
ANALYZE	1. Loop 2. Device 3. SW Zones 4. Outputs 5. Network 6. Communication 7. Options 8. Log 9. FW Vers 0. Panel
VIEWLOG	Log
VIEWLISTS	1. DIS.ZONES 2. DIS. DEVICES 3. DIS. PARTS 4. WALK TEST 5. FAULTS 6. WARNINGS 7. DEV. in TEST

Access level 2 (L2)

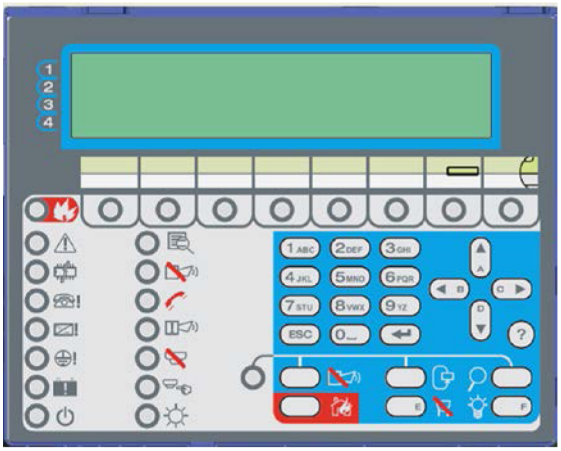
Access level 2 (L2) is for operating the system, and requires an access code. At this level, all the operations at L1 are also available. See Table 2 for information about the L2 operations and statuses.

Table 2: Access level 2 (L2)

Operations	Status available
MODIFY	1. INIT. MSG 2. USER PASSWORD 3. DAY/NIGHT 4. TIME and DATE 5. Clear log 6. WALK TEST 7. Options 8. Log 9. FW Vers 0. Panel
DISABLE	1. Dis. LISTS 3. SW. ZONES 4. OUTPUTS 5. NETWORK 6. COMMUNIC 8. FIRE relay

User interface

Figure 1: User interface view of FC503 and FC506



Description of keys

To manage the panel from the User Interface (UI), use the following controls:

- Alphanumeric keypad. Numbers 0 – 9 and letters A-Z.
- Cursors keys: Up, Down, Right, and Left
- ESC key
- ENTER key
- HELP button to open the Help screens on the Display. See Figure 2.
- Command keys

Note: Use the cursors keys Up, Down, Right, and Left, and the command keys LAMP TEST and SILENCE BUZZER, and the alphanumeric keypad to enter the characters A,B,C,D,E, and F. Use these characters to enter hexadecimal numbers for planned future use.

The function of the cursors keys, the ESC key, the ENTER key, and the command keys, is different in every LCD display and is fully described in this manual. Also, the amount of time spent pressing the keys has a different function in the different LCD displays. In the future, it will be possible to use the HELP key to access more information.

Silence and Resound and Sounders

The control panel can operate in day mode or night mode. If the system is silenced during day mode, the silence status remains until the system is unsilenced (unless new alarms or faults occur). If the system is silenced during night mode, the silence status remains until the night mode silence time expires. On power up, the system starts in day mode by default. During this operating mode, silenced alarms/faults will not be unsilenced automatically.

Reset

Reset will stop alarm, delay to alarm, warning, and fault conditions. Access to this command is limited to authorized

personnel using an installer or user access code. The system reprocesses any alarm, delay to alarm, warning or fault signal that is not cleared by a reset. Command keys cannot be used when a reset is running.

The repeaters can be reset by using the user access code.

Panel command keys

Table 3: Control panel and repeater keys

Key		Description
	SILENCE/ RESOUND SOUNDERS	Restores the silenceable outputs and the loop devices to standby status ⓘ **Note:** The silence status remains until you press the SILENCE key again in day mode; or until the night mode silence time expires in night mode; or until the system detects a new alarm condition.
	RESET	Resets the fire detectors and restores all outputs to standby status
	INVESTIGATION DELAY	Refreshes the delay to alarm time ⓘ **Note:** If you press this during a delay to alarm condition, the remaining delay to alarm time is increased with the programmed investigation delay.
	EVAC	Activates the evacuation If you press this key, the system generates an alarm.
	SILENCE BUZZER	Silences the local buzzer on the control panel ⓘ **Note:** The buzzer operates every time a new event is activated.
	LAMP TEST	Tests the buzzer and the LEDs ⓘ **Note:** If you press this key when the control panel is functioning as intended, all LEDs will be on and the buzzer emits a continuous beep.
	HELP	Explains the information on the LCD display in the different screens **Notes:** • This is an embedded help feature present on the panel LCD display. • The Help key is disabled on repeater panels.
	**System fault acknowledgement switch**	In the case of a system fault LED latch, press the system fault acknowledgement switch to identify the fault and then press RESET. **Notes:** • To access the system fault acknowledgement switch, open the front cover of the panel. The switch is located on the bottom left of the PCB. • The system fault acknowledgment switch is not available on repeater panels. • The system fault LED latches if one of the following conditions occur: The system resets itself (a watchdog reset) when an internal logical fault occurs. The system is powered ON after a complete panel shut down.

ⓘ **Note:** You can only operate the LAMP TEST, SILENCE BUZZER, and EVAC command keys without the access code (access level 1). Entering the access level 2 and 3 codes allows you to operate all the other command keys.

ⓘ **Note:** For the Netherlands, EVAC functionality only works at access level 2 or 3.

Help key

ⓘ **Note:** This section describes the functionality of the HELP key.

To explain the information on the LCD display in the different screens, an embedded help feature is present on the panel LCD.

See Table 4 for key HELP functions for the MAIN screen.

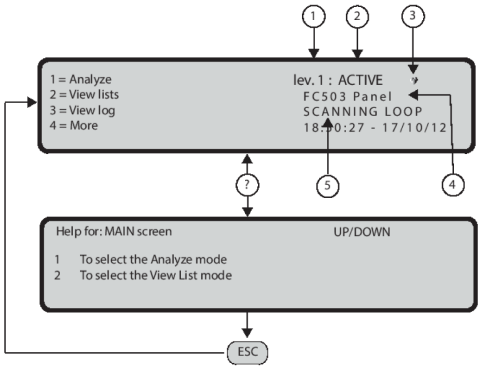
Table 4: HELP key functions

Key	Help functions
1	Selects program or analyze mode
2	Selects disable or view list mode
3	Shows the panel event log or select the modify mode

Table 4: HELP key functions

Key	Help functions
4	Selects between the function groups related to the keys 1, 2, and 3
ENTER	No function
ESC	Exits from the Help to the MAIN screen, or to the EVENT DRIVEN screen, if there is one. Press the key for more than 3 seconds to force the panel to level 1.
Up and Down	Scrolls through the Help list
Right and Left	No function

Figure 2: Example of the LCD display after pressing the Help key



Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is working normally
4	Control panel name (you can modify this)
5	Working activity

Signaling

The system status is indicated by the following signals:

- Control panel LEDs
- Backlit display (40 characters on 4 lines)
- Buzzer

Status LEDS

Table 6 describes how the control panel LEDs operate, and the actions that can be taken during the various states signaled on the LEDs.

Note:

- During standby status and if the control panel is in day mode, only the green mains LED and the day mode LED should be ON.
- The general fault LED and the LED specific to the fault are ON or blinking during a fault condition.
- To manage the brightness and contrast of the LCD display, see the MAIN screen.

Buzzer (audible signals)

The control panel buzzer provides an audible indication of the panel status. See Table 5 for a description of each buzzer signal.

Note: When an Alarm status is silenced and a new fault signal is detected, the control panel restarts the buzzer with the previous alarm signal.

To test the buzzer, press LAMP TEST. The buzzer cannot work when the SILENCE BUZZER is pressed.

Table 5: Buzzer signaling

Condition	Frequency (Hz)	Sound	Pause
System Fault (main processor fail)	1300	2.5 s	2.8 s
General Fault (Programming data corrupted)	660	1 s	1 s
Alarm	3300	0.2 s	0.2 s
Fault	660	1 s	1 s
Delay to Alarm	880	0.5 s	0.5 s
Warning	440	2 s	2 s
Reset	No sound		
Test	No sound		

Description of the FC500 repeater LEDs

Table 6 describes the function of the LEDs. Table 4 describes the functions of the keys on the repeater UI.

Display

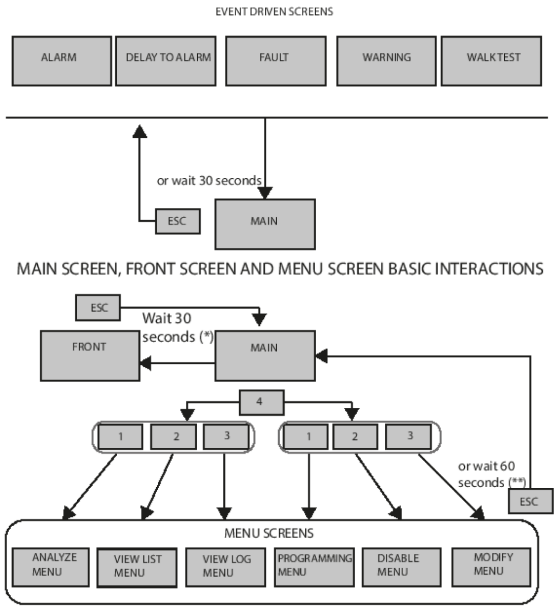
The information on the LCD display is organized as screens, as follows:

- START-UP screen
- FRONT screen
- MAIN screen
- DIAGNOSTIC screens
- MENU screen
- EVENTS DRIVEN screen

Start-up screen

When the panel starts, the START-UP screen displays by default, unless you program the UI to display other information. The information included is shown in Figure 3.

Figure 3: Event driven screens and MAIN screen basic interactions



*	Only if the panel is in normal activity.
**	No timeout for ANALYZE menu, VIEW LOG screen, VIEW LIST screen. The timeout can be extended to four minutes in the programming menu when you enter the parameters.

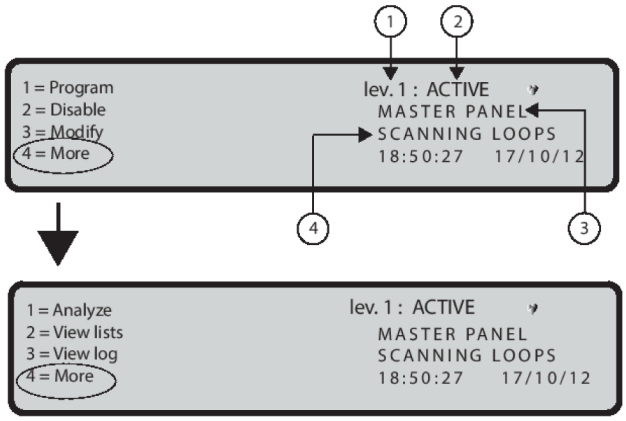
Table 6: Description of the status LEDs

LED		Description
	FIRE (Red)	**ON** indicates the alarm status. In the event of an alarm, the control panel activates the unbypassed alarm outputs. ⓘ **Note:** For the Netherlands, if the panel is in an EVAC state, the LED remains OFF.
	GENERAL FAULT (Amber)	**ON** indicates the presence of a fault. The following LEDs or the screen on the display indicates the type of fault. **Off** indicates no fault.
	SYSTEM FAULT (Amber)	**ON** , the buzzer SYSTEM FAULT pattern, indicates a blocked control panel and the buzzer FAULT pattern indicates the control panel restart. ➧ **Important:** Maintenance required. **Blinking**, the buzzer FAULT pattern, indicates that the data panel programming is corrupted. **Notes:** • When the control panel is switched on for the first time, this LED blinks until you perform a reset. • The buzzer SYSTEM FAULT pattern indicates the buzzer system fault pattern; • The buzzer FAULT pattern indicates the buzzer fault pattern. • The system fault LED latches if one of the following conditions occur: The system resets itself (a watchdog reset) when an internal logical fault occurs. The system is powered ON after a complete panel shut down.
	FIRE SIGNAL FAULT (Amber)	**ON** indicates that the communicator is disabled. **Blinking** indicates that the communicator is faulty.
	POWER SUPPLY FAULT (Amber)	**ON** indicates a mains failure (230 V). **Blinking** indicates a Switching Power supply fault. During this condition, the control panel is powered by the batteries.

Table 6: Description of the status LEDs

LED		Description
	**EARTH FAULT (Amber)**	**ON** indicates a voltage leakage to Earth. ➧ **Important:** Check wiring insulation.
	**BATTERY TROUBLE (Amber)**	**ON** indicates that the batteries are empty or faulty. If this condition persists, the batteries will be unable to function as intended in the event of a blackout. ➧ **Important:** New batteries are required.
	**POWER ON (Green)**	**ON** indicates that the panel is supplied with power. OFF indicates a mains failure whereby both mains and battery power is lost (the battery disconnect threshold is 19.2 V). Power must be restored before the batteries reach the disconnect threshold.
	**MORE INFO (Amber)**	**ON** indicates that there is hidden information with lower priority. **View List** shows the hidden information. **OFF** indicates no hidden information is available.
	**SOUNDERS SILENCED (Amber)**	**ON** indicates that the silenceable outputs and loop device have been forced into standby by means of the SILENCE/ RESOUND SOUNDERS key. In day mode, the silence status remains until the SILENCE/RESOUND SOUNDER key is pressed again. In night mode, the silence status remains until the night mode silence time expires or until the system detects a new alarm or a new trouble condition.
	**FIRE SIGNAL ON (Red)**	**ON** indicates that the transmission was successful. **Blinking** indicates that the transmission is in progress. On the control panel screen, the connection type, such as PSTN, GSM, or LAN network, is displayed.
	**SOUNDERS FAULTS/DIS (Amber)**	**ON** indicates that the output is disabled or outputs configured to "act as SC1" are disabled. **Blinking** indicates that the SC1 is in fault or outputs configured to "act as SC1" are in fault. **OFF** indicates that all the main sounder outputs (EN54-1, TYPE "C" outputs) function properly.
	**DISABLED (Amber)**	**ON** indicates the disabled status of any bypassable entity.
	**TEST (Amber)**	**ON** indicates the test conditions on at least one zone.
	**DAY MODE (Amber)**	**ON** indicates that the control panel is operating in day mode. **OFF** indicates that the control panel is operating in night mode.
1-8	**SOFTWARE ZONES (Red)**	**ON** indicates that the corresponding software zones are in Alarm status; the zone outside the 1 to 8 range does not have a related LED . ⓘ **Note:** This status LED indicates that the zone outside the 1- 8 range does not have a related LED, its alarm status is displayed only by the LCD. **Blinking** indicates that the corresponding Software zones are in Delay to Alarm status.
	CONTROLS ON (Amber)	**ON** indicates that the control panel is at least at level 2 so the SILENCE/RESOUND SOUNDERS, RESET and INVESTIGATION DELAY keys are enabled.

Figure 4: Display MAIN screen access to the management of the panel



Callout	Description
1	Access level
2	Control panel status
3	Control Panel name (you can modify this)
4	Panel activity/Current phase

System option

- Selected language
- Panel identification number
- The panel type (FC503/ FC506)
- The installed battery capacity (17Ah/38Ah)

The selected language is vital for the user interface (UI) to select between the two available languages in the panel. The panel identification number is vital for the panel to name and manage the files over the USB memory stick.

Note: When the START-UP screen is initialising, the panel is not fully operative and the control keys are not working.

Front screen

The Front screen is generally displayed when the panel is in standby status. It can contain an advertisement message set by the installer. The screen content and the enablement to display it are set with the FC500 FC503/FC506 software (SW). For information about FRONT screen key functions, see Table 7.

Table 7: Alphanumeric, Cursor, ESC and ENTER key functions on the FRONT screen

Key	Function
Alphanumeric keypad	No functions
Cursor keys	No function

Table 7: Alphanumeric, Cursor, ESC and ENTER key functions on the FRONT screen

Key	Function
ESC	Exits from the FRONT screen, and moves the UI to the MAIN or EVENT DRIVEN screen, activated directly by events: warning, delay to alarm, alarm, fault, or walk test
ENTER	No function

Note: You can permanently remove or replace the FRONT screen using the configuration options in FireClass FC500 (FC501_FC503_FC506) Console.

MAIN screen

The MAIN screen is the first screen displayed by the panel after it powers up (see Figure 4). This screen can be replaced by the EVENT DRIVEN screen. After 30 seconds of inactivity, the FRONT screen appears.

Fields

See Figure 4.

The Access level field shows the current access level of the panel. 10 seconds before leaving the present access level this field starts to blink.

The Control panel status field displays the current panel status, the possible values include ACTIVE (its normal state).

A continuous and steady blinking indicates that the control panel is functioning properly.

The Panel activity and current phase field displays the current activity of the panel. For more information, see Table 8.

Table 8: Panel activity field values

Value in panel activity field	Description
RESETTING	Panel is resetting
LOC. PROG	Panel is being programmed by a local access
REM.ACCESS	Panel is remotely accessed (PC via serial port, USB or IP)
SYS. INIT	Panel is initializing
SYS. VER	Panel is verifying itself
CLEAR LOG	Panel is clearing the event log
WAITS	Panel is waiting to be configured
———	No activity
SCANNING LOOPS	Panel is in its normal activity

Note: The date and time field blinks until the date and time is set.

Table 9: Alphanumeric keypad, Cursor, ESC and ENTER key functions on the MAIN screen

Key	Function
1	Moves to Program or Analyze mode
2	Moves to Disable or View lists mode
3	Shows the View log or moves to Modify mode
4	Selects between the function groups related to the keys 1, 2, and 3
Up	Increases the brightness of LCD display
Down	Decreases the brightness of LCD display
Right	Increases the contrast of LCD display
Left	Decreases the contrast of LCD display
ESC	Exits from the MAIN screen Changes the UI to the FRONT or EVENT DRIVEN screen. Pressing the key for more than 3 seconds forces the panel to access level 1.
ENTER	No function

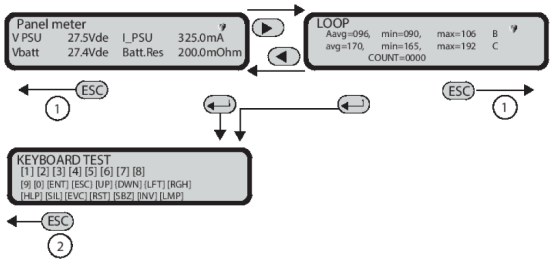
Diagnostic screens

The following functions are available through the diagnostic screens:

- A display of some electrical parameters inside the panel (Panel meter screen)
- A display of some functional parameters related to the loops (Loop screen)
- Execution of the panel keyboard test (Keyboard Test screen)

To access the diagnostic screens from the MAIN screen, press and hold the 4 key.

Figure 5: Interaction between the diagnostic screens



Callout	Description
1	Press ESC key to go to MAIN screen
2	Press ESC key for 32 milliseconds to go to MAIN screen

Table 10: Field information on the diagnostic screens

Field	Screen display
v-PSU	Displays the output voltage of the panel power supply
I-PSU	Displays the output current of the panel power supply
If I-PSU<150mA	Displays “LOW”; Vbatt displays the battery voltage
Batt.Res	Displays the value of the battery internal resistance plus the battery wiring resistance
If Batt.res>999mOm or Vbatt.<19Vdc	Displays NO BATT

Loop diagnostic screen

This is a general purpose screen used to display the values of firmware (FW) parameters related to loop management, in real time. The rows labelled A and B display the average, minimum and maximum value of the relevant FW parameter. The row labelled C counts the occurrence of events related to the assigned FW parameter. If you press the 0 key, all the displayed values reset.

Keyboard test

This screen allows you to test all keys in the panel UI. If you press any key on the panel UI, the relevant part of the display goes blank when the key press is detected.

Menu screen

The MENU screens allow access to the program, analyze, disable, and modify features of the panel. For more information on user interaction, see the User access level, Disable, and Modify sections of this manual. For installation information, refer to the FC503/FC506 Installation manual.

Event driven screens

The event driven screens activate when the system detects events. When an event activates, it overrides the screen present on the display at that time. An event driven screen may be overridden by another event driven screen that has a higher priority.

Table 11 contains the event driven screen priority assignment.

Table 11: Event Driven screen priority

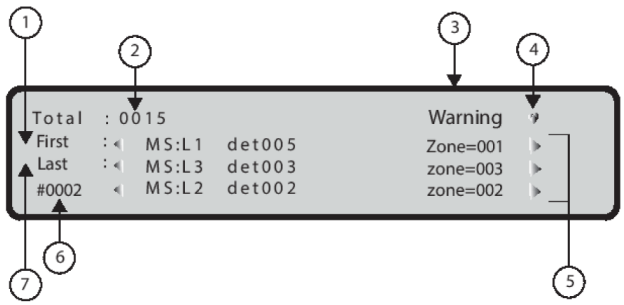
Event Driven screens	Priority
Alarm	0 (highest)
Delay to Alarm	1
Fault	2
Warning	3
Walk Test	4 (Lowest)

If a lower priority event screen is suppressed by a highest priority event screen, the MORE INFO LED switches on.
To manually access the suppressed event screens in this condition, use the View list entry on the MAIN screen.

Warning status

You can program the FC503/ FC506 fire control panel to provide warning or delay to alarm status before alarm status. The warning status is signaled by the warning display, see Figure 6.

Figure 6: Display Warning status



Callout	Description
1	First warning
2	Last warning
3	Warnings number
4	Stored warning index
5	Control panel status
6	If blinking, the control panel is working normally
7	First block: point identification. ⓘ **Note:** The arrow symbol pointing right indicates that they are more blocks to view by using the Right cursor key. An arrow symbol pointing left indicates that there are previous blocks available to view by using the left cursor key.

The panel will generate a warning when an input point (detector) exceeds its warning threshold and there is risk of an alarm.

The following features signal the warning status:

- Warning output points
- Fire control panel display
- Intermittent audible signal on the panel buzzer
- The FC500 repeater

Figure 7: Warning status scrolling Right key

Callout	Description
1	To scroll the second block of data for the WARNING zones, press the Right key.
2	To scroll the third block of data for the WARNING causes, press the Right key.
3	To scroll the fourth block of data for the WARNING times, press the Right key.

Table 12: Alphanumeric keypad functions in a warning status

Key	Function
1	Jump to the zone status visualization screen.
2	If the first warning is related to a point, jump to loop device status visualization screen.
3	If the last warning is related to a point, jump to loop device status visualization screen.
4	Use to display further warning. When a point warning is present in the fourth row, a further 4 key press will cause the UI to jump to the related loop device status visualization screen.

In the warning status (see Figure 6), use the Right key to scroll through the second string of data for warning zones; then use the Right key to scroll through the third string of data of warning causes; then use the Right key to scroll through the fourth string of data of warning times and events.

ⓘ **Note:** If the events are linked to the devices, the zone label alternates with the point label every 3 seconds. If the zone has not been associated with the point, only the point label will appear.

Table 13: Cursor key functions

Key	Function
Up	Shows the next event, other than the first and the last
Down	Shows the previous event, other than the first and the last
Right	Shows the next string of data
Left	Shows the previous string of data

Table 14: ESC and ENTER key functions on the MAIN screen

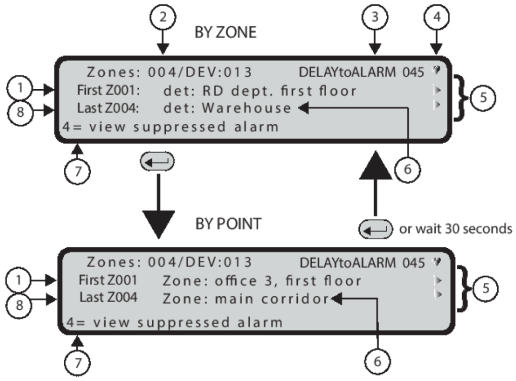
Key	Function
ESC	Cancels the operation Returns to the **MAIN** screen
ENTER	Blocks or reactivates the exchange between the labels of the devices and those of the zones ⓘ **Note:** When the block is enabled, the @ character appears on the top left corner of the display.

Delay to alarm status

The Delay to Alarm status indicates that an input point (detector) has exceeded its alarm threshold. The fire control panel will not generate an alarm until the preset delay to alarm time ends. However, if a second input point such as a detector in the same SW zone, detects alarm conditions during the delay to alarm state (and the double knock (DK) option has been programmed for that zone), the fire control panel generates an instant alarm.

If the fire control panel is operating in night mode, it generates instant alarms only and Delay to Alarm status is bypassed automatically. If an alarm procedure is already running, the fire control panel ignores delay to alarm conditions.

Figure 8: Display: Delay to Alarm status



Callout	Description
1	First zone in pre-alarm
2	Number of zones in pre-alarm (blinking)
3	Control panel status
4	If blinking, the control panel is operating normally
5	The arrow symbols show the presence of further information such as point/zone coordinate, cause, and time
6	Point/Zone label
7	To view further zones in pre-alarm
8	Last zone in pre-alarm

Note: EN54-2 requires the display of the first zone in delay to alarm, the most recent zone in delay to alarm, and the number of zones in delay to alarm.

To supply the information about the points in delay to alarm, the visualization of the delay to alarm is by zones (default) or by points.

The following features signal the delay to alarm status:

- Fire control panel display
- LED (1-8) relative zone in delay to alarm mode blinking
- Intermittent audible signal on the control panel buzzer
- Delay to alarm output points

During the delay to alarm state you can silence, investigate, or reset the system, and view the log.

Table 15: Alphanumeric keypad functions in the delay to alarm state

Key	Function
1	Jumps to the zone status visualization screen
2	Jumps to the first activated loop device status

Table 15: Alphanumeric keypad functions in the delay to alarm state

Key	Function
3	Jumps to the last activated loop device status
4	Displays further points in Delay to Alarm. When a point information is present in the fourth row, press the 4 key further to cause the UI to jump to the related loop device status visualization screen

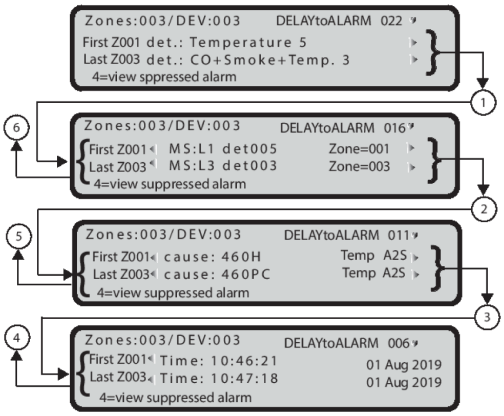
Note: Alphanumeric keypad functions are the same for the delay to alarm by zones or by points.

Table 16: Cursor key functions in the Delay to Alarm state

Key	Function
Up	Shows the next available point in Delay to Alarm, other than the first and the last
Down	Shows the previous available point in Delay to Alarm, other than the first and the last
Right	Displays the next auxiliary information about the point (see Figure 2)
Left	Displays the previous auxiliary information about the point

Note: Cursor key functions are the same for the delay to alarm by zones or by points.

Figure 9: Delay to Alarm status: Scrolling Right key



Callout	Description
1	Press the Right key to scroll to the second block of data; the coordinates of the points
2	Press the Right key to scroll to the third block of data; the causes of the pre-alarms
3	Press the Right key to scroll to the fourth block of data; the times of the pre-alarms
4	Press the Left key to scroll back to the third block of data
5	Press the Left key to scroll back to the second block of data
6	Press the Left key to scroll back to the first block of data

Table 17: ESC and ENTER key functions in the Delay to Alarm state

Key	Function
ESC	Returns to the MAIN screen
ENTER	**Press for 1 second**: Changes between the visualization modes **Press for 32 milliseconds**: Stops or restarts the zone/point swap

Note: The point related to the first zone in Delay to Alarm is the first point in the zone that becomes active. For all other zones in delay to alarm, the related point is the last that becomes active. This information is updated in real time. The first point in the Delay to Alarm field contains the information about the first device that becomes active. Irrespective of which zone it belongs to; the last point in the Delay to Alarm field contains the information about the last activated point.

Alarm status

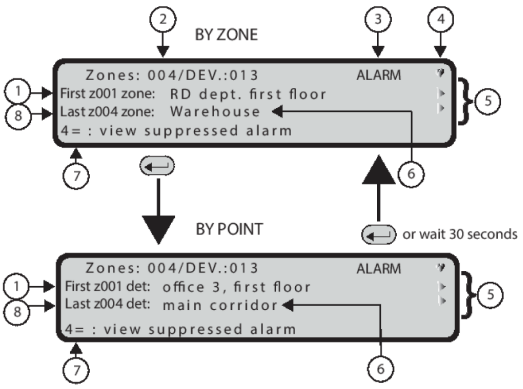
In the **Alarm** status, an alarm has been raised by a detector or manual call point.

The following features signal the Alarm status:

- Alarm LEDs switch ON
- Message on the fire control panel/Repeater Display (see Figure 10)
- Intermittent audible signal on the fire control panel
- Alarm output points programmed to signal the alarm status

Note: EN54-2 requires the display of the first zone in alarm, the most recent zone in alarm, and the number of zones in alarm.

Figure 10: Displaying Alarm status



Callout	Description
1	First zone in alarm
2	Number of zones in alarm (blinking)
3	Control panel status
4	If blinking, the control panel is operating normally
5	The arrow symbols show the presence of further information such as point/zone coordinate, cause, and time
6	Point/Zone label
7	To view further zones in alarm
8	Last zone in alarm

Table 18: Alphanumeric keypad functions in the Alarm state

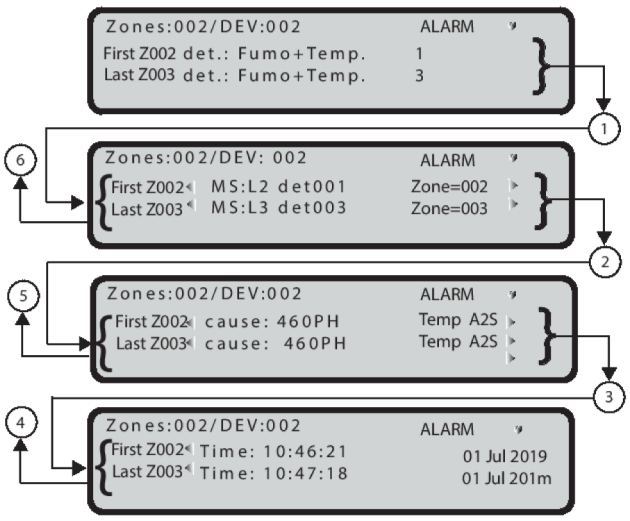
Key	Function
1	Jumps to the zone status visualization screen ⓘ **Note:** To visualize, on the FC500 repeater, press the **1** key and also the ENTER key
2	Jumps to the first activated **Loop Device Status Visualisation** screen
3	Jumps to the last activated **Loop Device Status Visualisation** screen
4	Displays further points in alarm. When point information is present in the fourth row, a further 4 key press causes the UI to jump to the related **Loop Device Status Visualisation** screen

ⓘ **Note:** The alphanumeric keypad use for the alarm by zones or by points is the same.

Table 19: Cursor key functions in an Alarm by zone or by point status

Key	Function
Up	Shows the next point in alarm, other than the first and the last
Down	Shows the previous available point in alarm, other than the first and the last
Right	Displays the next auxiliary information about the point
Left	Displays the previous auxiliary information about the point

Figure 11: Alarm status scrolling Right key



Callout	Description
1	Press the Right key to scroll to the second block of data
2	Press the Right key to scroll to the third block of data
3	Press the Right key to scroll to the fourth block of data
4	Press the Left key to scroll back to the third block of data
5	Press the Left key to scroll back to the second block of data
6	Press the Left key to scroll back to the first block of data

Table 20: ESC and ENTER key functions in the Delay to Alarm state

Key	Function
ESC	Returns to the MAIN screen
ENTER	**1 second**: Changes between the visualization modes **32 milliseconds**: Stops or restarts the zone or point swap

ⓘ **Note:** The point related to the first zone in Alarm is the first point in the zone that becomes active. For all other zones in alarm the related point is the last that became active. This information is updated in real time. Irrespective of which zone it belongs to, the First Point in Alarm field contains the information about the first device that becomes active; the Last Point in Alarm field contains the information about the last activated point.

Fault status

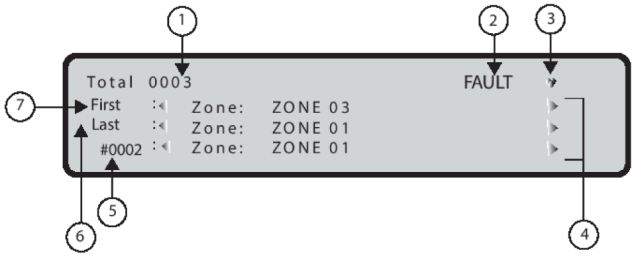
The following features signal the FAULT status:

- On or blinking fault LEDs
- Message on the fire control panel display
- Blinking of specific fault LEDs, if present:
  - POWER SUPPLY FAULT
  - SYSTEM FAULT
  - FIRE SIGNAL FAULT
  - SOUNDERS FAULT/DIS
- Intermittent audible signal on the fire control panel
- Alarm output points programmed to signal the alarm status

Fault output points

Figure 12 shows the FAULT status of the control panel. The SILENCE key can be used to momentarily force the fault silenceable output to STANDBY status.

Figure 12: Display fault states



Callout	Description
1	Total number of faults
2	Control panel status
3	If blinking, the control panel is operating normally
4	First block: Point identification ⓘ **Note:** The right arrow symbol indicates the presence of more blocks of fault information.
5	Stored faults index
6	Last fault
7	First fault

If the fault condition is cleared (back to normal), all fault outputs will restore automatically to standby and clear the fault.

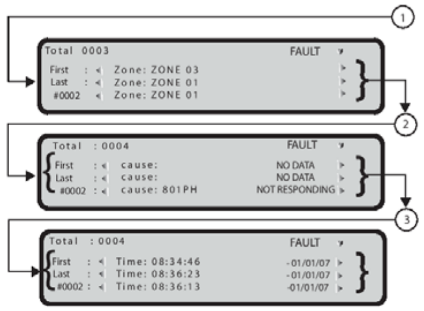
Table 21: Alphanumeric keypad functions in the Fault state

Key	Function
1	Jumps to the Zone Status Visualization screen
2	If the first fault is related to a point, use the **2** key to jump to **Loop Device Status Visualization** screen. If the first fault is a loop break fault, use the **2** key to jump to the **Locate The Loop Break** screen. If the first fault is related to an item that may be disabled, the UI moves to the disabling screen, allowing a fast disablement procedure. ⓘ **Note:** If the access level is less than L2, the password will be required before proceeding to disablement.
3	If the last fault is related to a point, use the **3** key to jump to the last activated **Loop Device Status Visualization** screen. If the last fault is a loop break fault, jump to the **Locate the Loop Break** screen. If the last fault is related to an item that can be disabled, the UI moves to the disabling screen, in order to allow a fast disablement procedure. ⓘ **Note:** If the access level is less than L2, the password will be required before proceeding to disablement.
4	Displays further faults. When a point information is present in the fourth row, a further 4 key press will cause the UI to jump to the related **Loop Device Status Visualization** screen. When a point fault is present in the fourth row, a further 4 key press will cause the UI jump to the **Locate the Loop Break** screen. If there is a fault related to an item that may be disabled present in the fourth row, the UI moves to the disabling screen to allow a fast disablement procedure. ⓘ **Note:** If the access level is less than L2, the password will be required before proceeding to disablement.

Scrolling Right key

As shown in Figure 13, in the FAULT status, use the Right key to scroll the second string of data of fault zones; next use the Right key to scroll the third string of data of fault causes; and then use the Right key to scroll the fourth string of data of fault times and events.

Figure 13: Fault status, scrolling right key



Callout	Description
1	Press the Right key to scroll to the second block of fault zone data
2	Press the Right key to scroll to the third block of fault zone data
3	Press the Right key to scroll to the fourth block of fault zone data

ⓘ **Note:** In the case that a fault is related to a Loop device, the faulty point label is swapped with the assigned zone label every 3 seconds. If the zone has not been associated with the point, only the point label will appear.

Table 22: Cursor key, ESC and ENTER key functions in Fault status

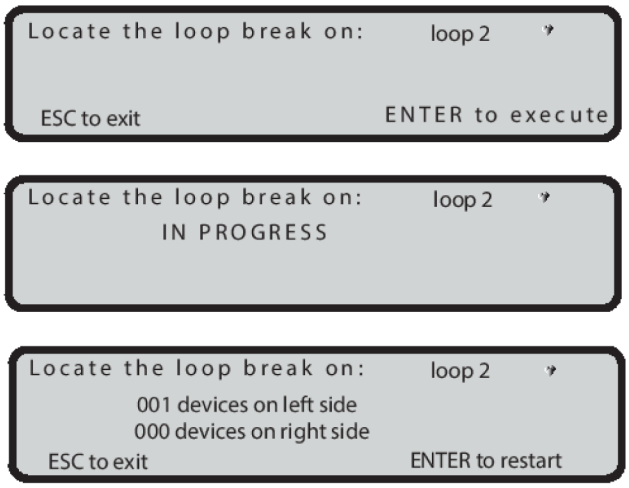
Key	Function
Up	Shows the previously available fault, other than the first and the last
Down	Shows the next available fault, other than the first and the last
Right	Shows the next auxiliary information about the point
Left	Shows the previous auxiliary information about the point
ESC	Returns to the MAIN screen
ENTER	Blocks or reactivates the exchange between the labels of the devices and those of the zones

Locate loop break screens

These screens are used to manage the Locate loop break procedure that helps to understand where the loop is broken. The results of this procedure provide the number of sensed detector on the left and on the right side of the analyzed loop.

The screen's sequence is depicted in Figure 15.

Figure 14: Locate loop break screen



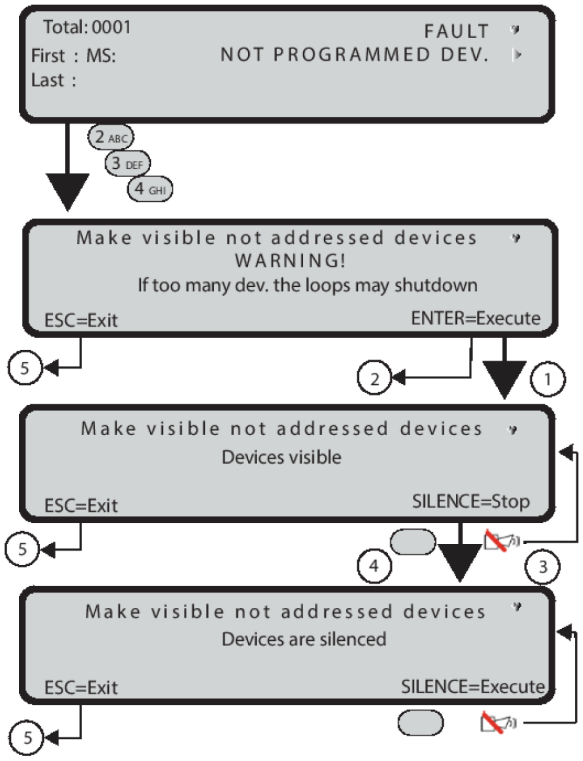
Note: During the locate loop break procedure, all the detectors power down. At the end of the procedure, a full loop initialization is executed. The devices not in the configuration are not found.

Locate the not addressed devices

In the case of a NOT POGRAMMED DEV. fault, it is possible to locate all the unaddressed devices. For visibility, all the unaddressed devices that have an LED will be activated (constant on). The sounders start to sound, while the beacons start to flash.

If there are too many unaddressed devices, the overall current required to keep all the LEDs, sounders, and beacons active at the same time may be so high that the loop overcurrent protection circuit is triggered.

Figure 15: Locate not addressed device screens diagram flow



Callout	Description
1	The not addressed devices are made visible
2	The not addressed devices are not made visible – the process fails
3	The not addressed devices are made visible
4	The not addressed devices are silenced
5	To MAIN screen

VIEW LOG Parameters

This section provides an overview of the programming features on the FC503/FC506 panels. For information on the parameters of each state, refer to the FC503/FC506 Installation Manual.

You do not require a code to access the following functions from the MAIN screen:

- View parameters (Use 1=ANALYZE)
- View Log (Use 3=View Log or 1=ANALYZE and then press the 8 Key)
- View Lists (Use 2= View List)

You require an access code to manage the following functions:

- Modify
- Disable
- View parameters

See Figure 16 for information on how to view the different parameters.

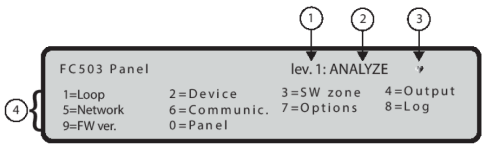
Table 23: Alphanumeric keypad functions on the View Parameters screen

Key	Function
1	Loop: Starts the procedure to allow you to select and view loop data.
2	Device: Activates the selection and visualization sequence of real time loop device data.
3	SW zone: Activates the selection and display procedure for the data corresponding to all SW zones.
4	Output: Activates the selection and viewing procedure for the data corresponding to an output.
5	Network: Starts the procedure to view all devices (client panels and fully functional repeaters) on the RS485 Network.
6	Communic.: Activates the viewing sequence for the main data on all communication units.
7	Option: Activates the viewing sequence for all locally programmed system options.
8	Log: Starts the procedure to allow you to view logged events.
9	FW ver.: Starts the procedure to view the firmware versions of all of the panel's processors.
0	Panel: Starts the procedure to allow you to view the panel information.

Table 24: Cursor, ESC and ENTER key functions

Key	Function
Up, Down, Right, Left	No functions
ESC	Return to the MAIN screen.
ENTER	No function

Figure 16: Viewing parameters



Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is operating normally
4	Options

1 Key - View loop data

Use the 1 key to view the loop data. See Figure 17.

Table 25: Alphanumeric, Cursor, ESC and ENTER key functions to view loop data

Key	Function
Alphanumeric keypad	No functions
Up	Selects the next loop
Down	Selects the previous loop
Right, Left	No functions
ESC	Returns to the previous screen
ENTER	No function.

Fields

The Loop field shows the current loop on display. See Figure 18.

The Detectors field displays the number of detectors sensed on the relevant loop.

The Modules field displays the number of modules detected on the relevant loop.

The Status field displays the status of the selected loop. The following are the possible values:

- Working
- Fault
- Standby
- Disabled

The Loop field displays the total current supplied to all three loops in real time. This field has a 5 second refresh rate.

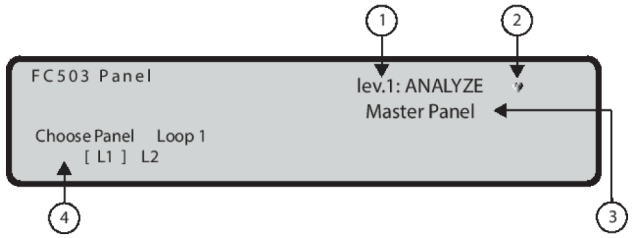
2 Key - View devices

Use the 2 key to view the loop device data (select the loop and then the device). See Figure 17.

Table 26: Alphanumeric, Cursor, ESC and ENTER key functions to select a loop

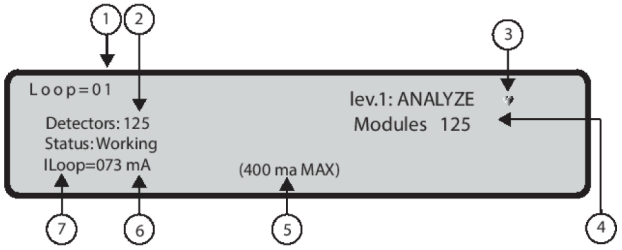
Key	Function
Alphanumeric keypad	Use the 1, 2 or 3 key to view the loop (see Figure 18) **Note**: Use the 1, 2, 3, 4, 5, and 6 keys to select up to 6 loops on the FC506 panel
Up, Down	No functions
Right	Selects the next available loop
Left	Selects the previously available loop
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and displays the screen of the selected loop

Figure 17: Viewing loop choice and loop details



Callout	Description
1	Access level
2	If blinking, the control panel is operating normally
3	Control panel name
4	Selected loop

Figure 18: Viewing loop details



Callout	Description
1	Loop number
2	Detector number
3	If blinking, the control panel is operating normally
4	Module number
5	Overcurrent that powers OFF the loop
6	Current value in the 3 loops
7	Current status of the loop

Selecting the device

After selecting the loop, the loop details are shown. See Figure 19.

Use the Alphanumeric keypad to insert the device address. If the address does not exist, the next available device is selected.

ⓘ **Note:** If the device is in the system, square brackets are present near the address. If the address does not exist, or is different from that selected in the underlying bar, arrows are shown.

Table 27: Cursor, ESC and ENTER key functions to select a device

Key	Function
Up, Down	No functions
Right	Selects the next available device
Left	Selects the previously available device
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and displays the information for the selected device

Viewing device data on the loop

Select the loop and then the device. See Figure 19.

Table 28: Alphanumeric keypad, Cursor, ESC and ENTER key functions to view device data

Key	Function
0	Disables the device (detectors only) ⓘ **Note:** Access level 2 or above is required
Up	Scrolls through modules with several inputs or outputs
Down	Scrolls through modules with several inputs or outputs
Right	Displays the status of the next device on the same loop
Left	Displays the status of the previous device on the same loop
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

Fields

The Device Status field displays the current status of the detector or module. The possible values are as follows:

- WORKING
- ACTIVE
- WARNING
- FAULT
- ZONE DIS.
- WALK TEST
- STAND-BY

The Device coordinate field displays the following:

- The loop ID
- The device address
- The device type
- The channel ID (for the modules)
- The zone number

The Device channels info area displays the following:

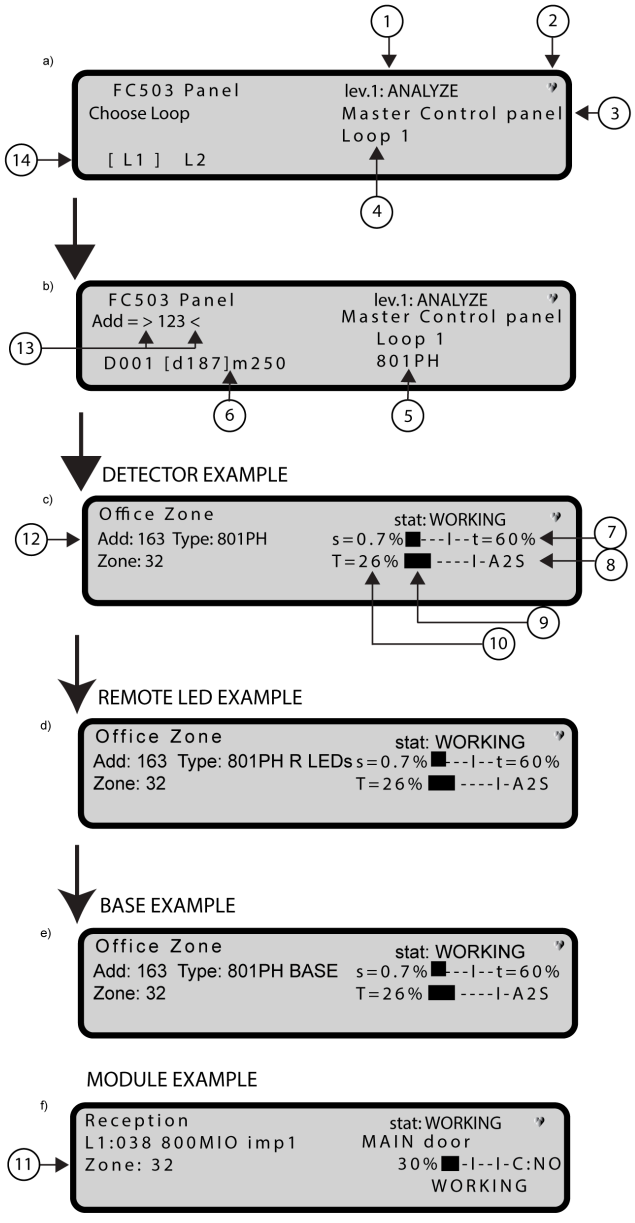
- The channel ID:
  - S=Smoke

- T=temperature
- C=Carbon monoxide (for the detector)

- The current analogue value in percentage
- A real time, pseudo-graphic representation of the current analogue value with threshold
- The channel configuration mode or the threshold value
- The channel status

Note: Device information is only available for devices with a WORKING status.

Figure 19: Viewing devices on the loop (detectors and modules)



Callout	Description
1	Access level
2	If blinking, the control panel is operating normally
3	Control panel label
4	Name of selected loop
5	Selected device type
6	List of current devices
7	Threshold
8	Function mode
9	Pattern of the current value and threshold (if applicable)
10	Stress value tested by detector
11	Assigned zone
12	Address
13	These symbols show the presence of a device list
14	Selected loop number in square brackets and the number of loops

- For sounder bases, if an assigned zone is not set, the first trigger zone displays.
- For panel outputs, if an assigned zone is not set, zone 0 displays.

3 Key - View SW zones

Use the 3 key (SW Zone) option in the Analyze menu to view software zones (maximum 128 zones for FC503 and 256 zones for FC506). The status of all the SW zones in the system is displayed in compact format, see Figure 20. The status of the SW zones is displayed using the abbreviations in Table 29.

Table 29: SW Zone status abbreviations

Abbreviation	Description
:	UNUSED: The zone is not in use. There are no devices assigned to it.
A	ALARM: The zone is in Alarm mode
a	PRE AL: The zone is in Delay to Alarm mode.
W	**WARNING** The zone in warning mode.
F	FAULT: The zone in fault mode.
X	DISABLED: The zone is disabled.
t	TEST: The zone is in test mode.
T	TEST ON: At least one point in the zone is actively in test mode.

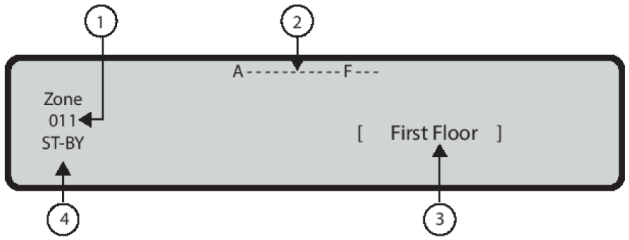
Table 29: SW Zone status abbreviations

Abbreviation	Description
_	ST-BY: The zone is in standby mode.
D	DIRTY: At least one smoke detector in the zone is dirty.

Table 30: Alphanumeric, Cursor, ESC and ENTER key functions to view loop data

Key	Function
Alphanumeric keypad	No functions
Up, Down	Select Up and Down key to select next 32 zones to display on page
Right	Selects the next SW zone, in the all zone status area The corresponding number appears on the left of the display
Left	Selects the previous SW zone, in the all zone status area. The corresponding number appears on the left of the display.
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

Figure 20: Viewing SW zones



Callout	Description
1	Zone number ID
2	All zones status area
3	Zone label
4	SW zone status

4 Key - View output

Use the **4** key output option in the **Analyze** menu to view outputs. The status of all outputs in the system displays in compact format, see Figure 21. The status of the outputs uses the abbreviations in Table 31.

Table 31: Output status abbreviations

Abbreviation	Description
DIS	Output disabled
ACT	Output active

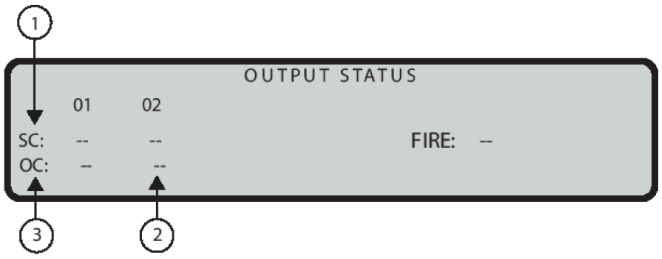
Table 31: Output status abbreviations

Abbreviation	Description
SC	Output is short circuited
OPE	Output open
_	Output in standby
FAU	Transistor fault

Table 32: Alphanumeric, Cursor, ESC and ENTER key functions to view outputs

Key	Function
Alphanumeric keypad	No functions
Up, Down, Right, Left	No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

Figure 21: Viewing outputs



Callout	Description
1	SC output
2	Standby status
3	Open collector output

5 Key – View network devices

Use the 5 key to view network devices such as client panels (maximum 7) and repeaters (maximum 8). See Figure 22.

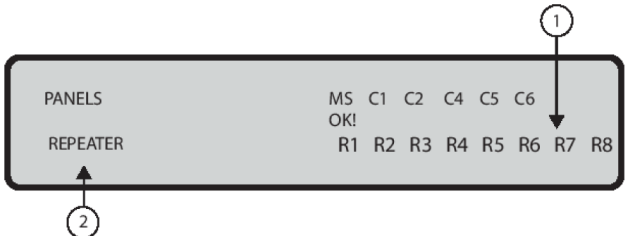
Fields

The Network devices field status displays the related output status using abbreviations. For more information, see Table 33.

Table 33: Network device status abbreviations

Abbreviation	Network Device Description
OK!	Connected and working
KO!	Not connected
FAU	Faulty.
DIS	Disabled
_	Not connected
OLD	Obsolete firmware version

Figure 22: Viewing network devices (repeaters and client panels)



Callout	Description
1	Link status
2	Network type devices

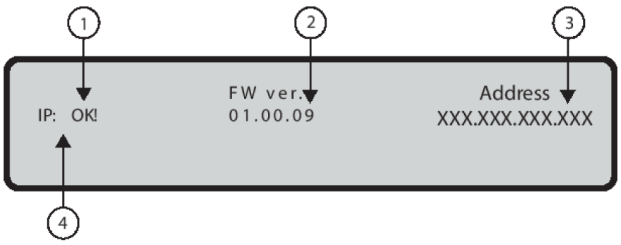
6 Key – View communicators

Use the 6 key to view the communicator connected to the control panel, see Figure 23. The FW version, the FC500IP module status, and the IP address is displayed.

Table 34: Cursor, ESC and ENTER key functions to view the communicator

Key	Function
Alphanumeric keypad	No functions
Up, Down, Right, Left	No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

Figure 23: Viewing the communicator



Callout	Description
1	Communicator status
2	Firmware revision
3	IP address of the FC500IP module
4	Type of communication

Figure 24: Viewing the CSG

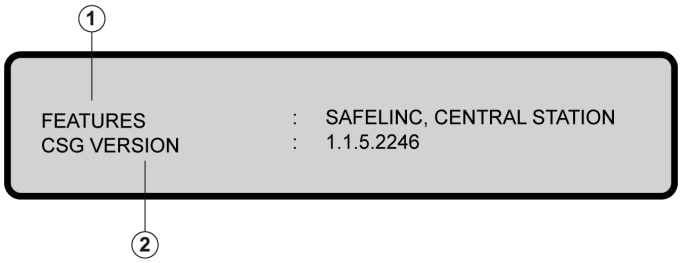


Figure 25: Disabled state in the CSG

Figure 26: Not configured state in the CSG

Callout	Description
1	Features selected for the CSG: SAFELINC CENTRAL STATION
2	CSG build version number

7 Key – View system options

Use the **7** key to view the programmed system options from the Analyze menu. See Figure 27.

The status of the day and night mode options is indicated using the abbreviations in Table 35.

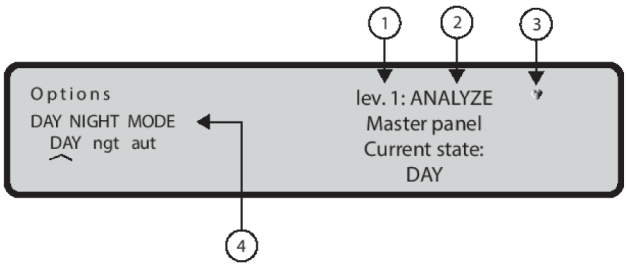
Table 35: Day and Night mode abbreviations

Abbreviation	Description
DAY	Day mode.
NGT	Night mode.
AUT	Automatic mode.

Table 36: Alphanumeric, Cursor, ESC and ENTER key functions to view system options

Key	Function
Alphanumeric keypad	No functions
Up, Down, Right, Left	No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

Figure 27: Viewing options



Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is operating normally
4	Mode type

8 Key – View the log

Use the 8 key to select View Log or select it directly from STANDBY status. You can view the log from the MAIN screen without a password. See Figure 28.

To see the stored events in the fire control panel log, use the View Log option in the View Parameters menu. The log stores the most recent 4000 events. When the log is full, the oldest event is deleted, so the newest can be stored.

Note: Use the CLEAR LOG option in the MODIFY menu to delete the log events.

The following data is stored in the log:

- Event description
- Event number
- Description of the device (panel or repeater) in the event
- Description of the event item
- Time and date of the event
- Address of the event item

Fields

See Figure 28.

The Event type field displays the type of event currently displayed. The possible values are listed below:

- RESTORE
- ALARM
- DELAY to ALARM
- WARNING
- FAULT
- GENERIC
- WALK TEST

Table 37: Alphanumeric keypad functions on the View Parameters screen

Key	Function
1	Alarm events only
2	Delay to alarm events only
3	Warning events only
4	Walk test events only
5	Fault events only
6	Restore events only
7	Generic events only

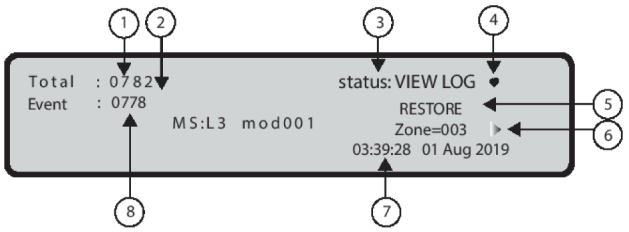
Table 38: Cursor, ESC and ENTER key functions to view log events

Key	Function
Up	Selects the previously available event
Down	Selects the next available event
Right	Displays the next available data (see Figure 30)
Left	Displays the previous available data
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

Note:

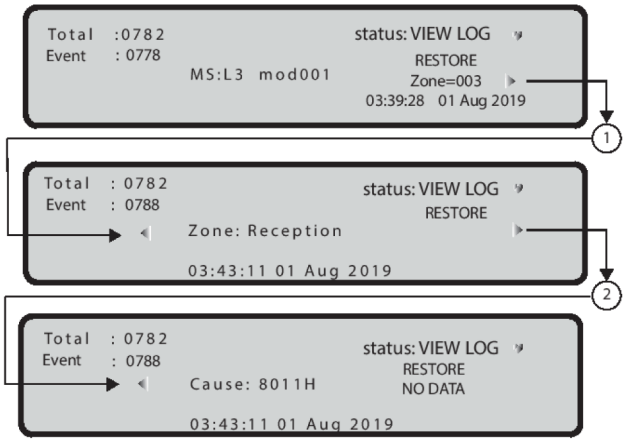
- If the events are linked to the devices, the zone label alternates with the point label every 3 seconds. If the zone is not associated with the point, only the point label appears.
- If the displayed events are filtered by type, an asterisk symbol (*) immediately begins to blink to the right of the event number.
- For SC2, if an assigned zone is not set, SYSTEM AREA displays on the panel UI.

Figure 28: Viewing the log



Callout	Description
1	Total stored events
2	If present, this shows the filtered view by type of event
3	Control panel status
4	This symbol shows the presence of the connection between the UI and the main board
5	Event type
6	First block ⓘ **Note:** the arrow symbol shows the presence of more blocks
7	Time and date of the event
8	Current event ID

Figure 29: Scrolling with the Right key to view log events



Callout	Description
1	Press the Right key to scroll to the second block of data about zones in the log
2	Press the Right key to scroll to the third block of data about zones in the log

9 Key – View the FW version

In the View Parameters menu, use the Ver. FW option to view the fire control panel's FW version. Use the 9 key to view the FW version. See Figure 30.

Table 39: Alphanumeric, Cursor, ESC and ENTER key functions to view firmware information

Key	Function
Alphanumeric keypad	No functions
Up, Down, Right, Left	No functions
ESC	Cancels the operation Returns to the MAIN screen.
ENTER	No function

Figure 30: Viewing the FW version

0 Key – View panel information

Use the 0 key in the Analyze menu, to view the following information:

- Fire panel ID
- Electronic board serial number of the fire panel (eight hexadecimal digits)
- Version of the PCB
- Type of power supply on board
- Type of batteries on board
- Presence of the auxiliary controller, see Figure 30

Table 40: Alphanumeric, Cursor, ESC and ENTER key functions to view panel information

Key	Function
Alphanumeric keypad	No functions
Up, Down, Right, Left	No functions
ESC	Return to the Analyze menu screen
ENTER	No function

View lists

Press = View List on the **MAIN** screen.

The **View List** option allows you to view the lists described in Table 41.

Table 41: Alphanumeric keypad, Cursor, ESC and ENTER key functions to select and view list types

Key	Description
1	Dis. Zone: A list of disabled zones
2	Dis. Device: A list of disabled devices
3	Dis. Part: A list of disabled parts
4	Walk Test: A list of walk test zones
5	Faults: A list of faults

Table 41: Alphanumeric keypad, Cursor, ESC and ENTER key functions to select and view list types

Key	Description
6	Warnings: A list of warnings
7	Dev. In Test: A list of devices actively in test mode
Up, Down, Right, Left	No functions
ESC	Cancel the operation Returns to the previous screen
ENTER	No function

Note: A blinking list number indicates that the corresponding list contains data.

Fields

See Figure 32.

The Item in the List field contains the current number of items in the list.

The Current Item ID field contains the ID of the item that is currently displayed.

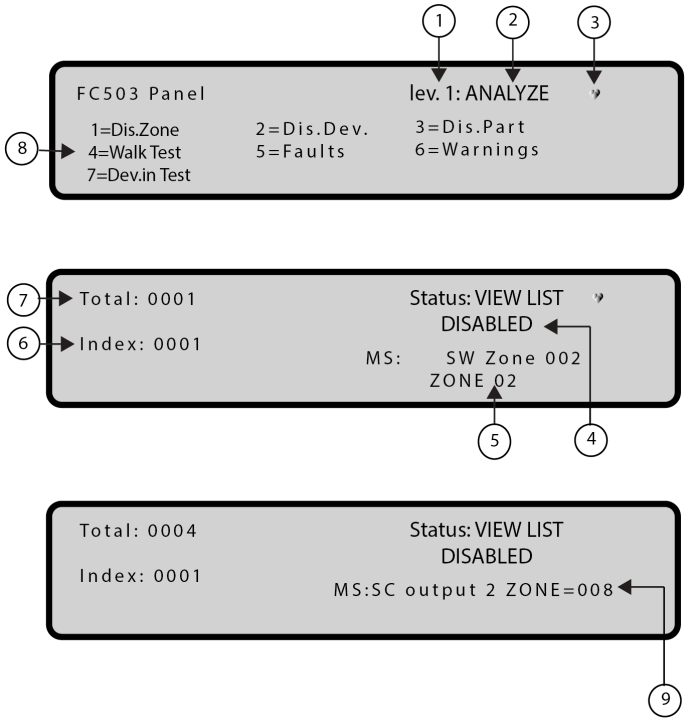
The Kind of List field replicates the name of the list previously selected.

The Item Info field displays information about the currently selected item. It shows the location of the SW zone and loop device or the description of a system part and the related label.

Table 42: Alphanumeric keypad, Cursor, ESC and ENTER key functions to view list information

Key	Function
1	Displays the enablement screen and enables the displayed item
Up	Navigates the list; display the next element
Down	Navigates the list; display the previous element
Right, Left	No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

Figure 31: Viewing lists



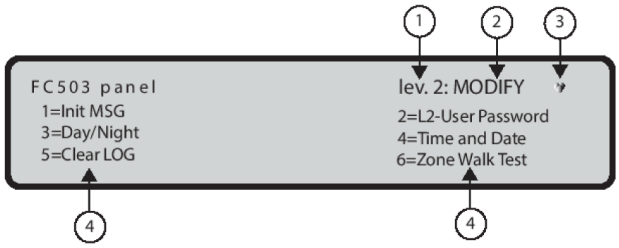
Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is operating normally
4	List type
5	List item information
6	Current item ID
7	Total number of items in the list
8	Options **Note:** For the Dis. Zone, Dis. Dev, Dis. Part and Walk Test, a common visualization list screen appears.
9	Assigned zone

Modify

To access the MODIFY menu, enter the user access code (11111 at default), each digit will be masked by * (asterisk). For the MODIFY option, on the MAIN screen, press the 3 key. The options available from the MODIFY menu are described in Table 43.

Figure 32 shows the options for the MODIFY menu after inserting or modifying the password.

Figure 32: Display MODIFY menu



Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is operating normally
4	Options

Table 43: Alphanumeric keypad, Cursor, ESC and ENTER key functions on the Modify menu

Key	Function
1	Clears and updates the welcome message (INIT MSG) (control panel name)
2	Enters and updates L2 user password
3	Updates day and night mode
4	Updates time and date
5	Clears log
6	Performs a zone walk test
Cursor keys	No function
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

1 Key – INIT MSG (Modify panel label)

Use the 1 key to enter or update the panel label. See Figure 34.

Table 44: Key functions on the modify panel label

Key	Function
Alphanumeric keypad	Enter or update the panel label
Cursor keys	• Up: changes the selected letter from lower case to upper case • Down: changes the selected letter from upper case to lower case • Right: selects the next character to be modified • Left: selects the previous character to be modified

Table 44: Key functions on the modify panel label

Key	Function
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms the label

2 Key - User password

Use the 2 key to modify the user password (see Figure 35).

Insert or Modify Password

When you select MODIFY, the display that appears is shown in Figure 35.

Table 45: Keypad and key functions in the insert or modify password state

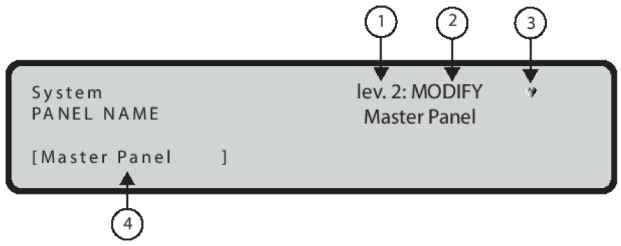
Key	Function
Alphanumeric keypad	Enter the last 5 digit user password
Cursor keys	No functions
ESC	**32 milliseconds:** aborts the enter password procedure and exits **I second**: clears all the entered digits
ENTER	Confirms the password and starts the password verification process

Note: To avoid using the same password for multiple users, enter the number corresponding to your position as the first digit of password, as follows:

- First digit for user 1 is 1
- First digit for user 2 is 2
- First digit for user 3 is 3
- First digit for user 4 is 4
- First digit for user 5 is 5
- First digit for user 6 is 6
- First digit for user 7 is 7
- First digit for user 8 is 8

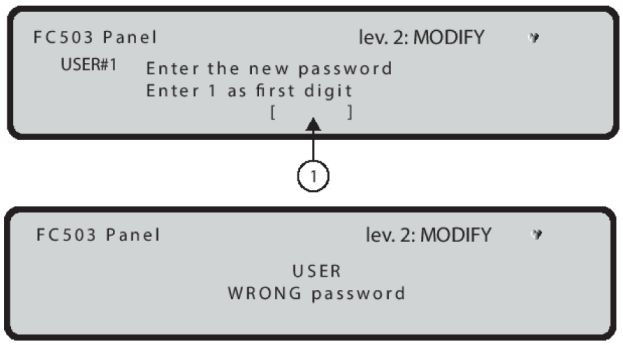
Note: If you enter an incorrect or empty password, the second screen in Figure 33 displays for 5 seconds.

Figure 33: Display panel label



Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is operating normally
4	20 characters max

Figure 34: Display: Modify user password



Callout	Description
1	Enter the password in this field

3 Key - Day and night modes

If you press the 3 Key, you can change the control panel operating mode to Day Mode or Night Mode. The day and night mode is toggled at each key 3 press.

Note: The mode indicator light changes status.

Day and night modes

The control panel can operate in Day Mode or Night Mode. If the system is silenced during Day Mode, the silence status remains until the system is unsilenced, that is, until new alarms or faults occur. If the system is silenced during Night Mode, the silence status remains until the Night Mode silence time expires. On power up, the system starts in Day Mode by default. During this operating mode, silenced alarms and faults will not be unsilenced automatically

Note: This control panel generates an instant alarm if alarm conditions are detected during night mode or if an alarm is triggered from a call point.

4 Key - Time and date

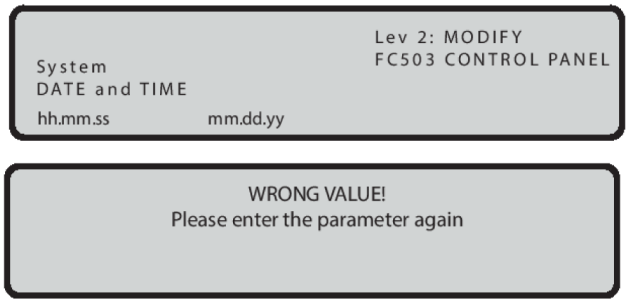
To enter or change the control panel time and date, use the 4 key to select Time and Date in the MODIFY menu (see Figure 35).

Table 46: Alphanumeric keypad, Cursor, ESC and ENTER key functions in the insert or time and date state

Key	Function
Alphanumeric keypad	To enter the time and date values
Cursor keys	Up and Down key: no function Right key: Selects the next value to be inserted or modified Left key: Selects the previous value to be inserted or modified
ESC	Cancels the operation Returns to previous screen
ENTER	Confirms the time and date

Note: If you enter incorrect values, an error message displays.

Figure 35: Display Time and Date



5 Key - Clear LOG

Use the 5 key to select Clear LOG (see Figure 36).

If the user or installer needs to clear the log then this option will generate CLEAR LOG in the list of events. This CLEAR LOG event is the last event the user can see in the entire log. The installer continues to have access to the entire log.

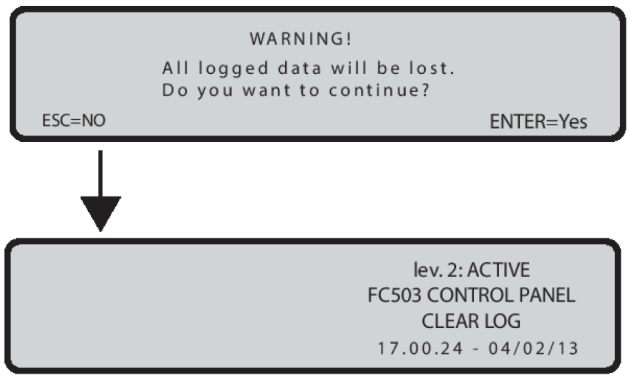
Note: If the 5 key is selected, confirmation of the deletion will be requested before the data is deleted.

Table 47: Alphanumeric keypad, Cursor, ESC and ENTER key functions in the clear log state

Key	Function
Alphanumeric keypad	No function
Cursor keys	No function
ESC	Cancels the operation Returns to previous screen
ENTER	Confirms the procedure to clear log

Note: During the clear log activity the MAIN screen displays with the panel activity field loaded with the clear log string (see Figure 38). Once the log has been cleared, the panel resets.

Figure 36: Display Clear log



6 Key – Walk Test

The walk test option in the MODIFY menu activates the zone programming procedure for the zone walk test (see Figure 37).

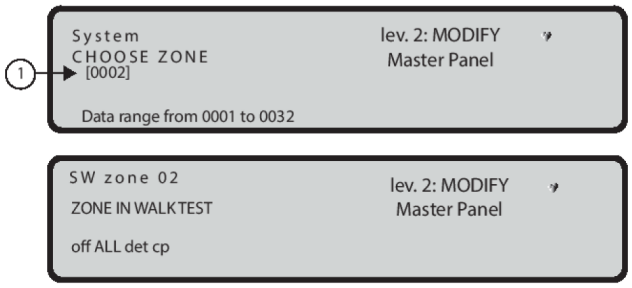
1. If the WALK TEST option is selected, you are prompted with the following question: APPLY TO ALL ZONES? NO or YES. Choose **YES**, which is the default option, and these settings are applied to all subsequent zones in the control panel. Alternatively, select a zone from the screen and the process continues.

   Note: The option that allows you to select a specific zone from the screen is available for control panels with firmware 1.0.0 or above.

2. Select the devices to put in walk test mode: off, all, det, cp. If you select YES as the first step, off is highlighted as the default choice regardless of the current value of this option. If you select an option other than OFF, the process moves on to the next step.
   - If you select the ALL option, all the devices assigned to zones in walk test mode will not generate an alarm when activated but will reach the test status.
   - If you select the det (detectors) option, only the detectors assigned to zones in the walk test mode will not generate when activated but will reach the test status.
   - If you select the cp (CP) option, only the call points assigned to zones in walk test mode will not generate an alarm in the case of their activation but will reach the test status.
3. If you select the SOUNDERS ON (3s) option, the following options are NO or YES. If you select **YES**, each test event – input activation - activates the sounders in the same zone for 3 seconds. This zone setting is programmable using the PC software. The default value is NO.

The presence of a zone in the walk test mode is signaled by the test yellow LED on the UI. More than one zone can be put in walk test mode at the same time.

Figure 37: Display Walk Test option



Callout	Description
1	SW zone index

Disable

To access the DISABLE menu from the MAIN screen, enter a user PIN password (the default PIN is 11111): each entered digit will be hidden with the * symbol. This activates the procedure used to enable and disable each of the following:

- Display list of disabled devices
- Loop devices (input or output devices)
- SW zones
- Outputs of the control panel
- Network devices
- Communic.
- FIRE Relay

Note: When a device is disabled, the disable LED is on, and any alarm or fault related to the disabled device is ignored.

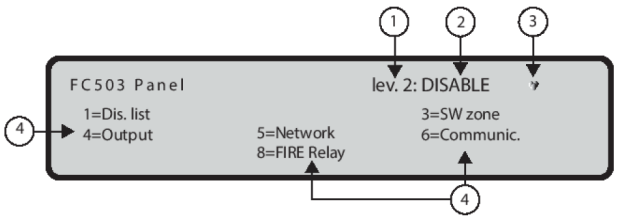
The disabled and enabled modes are as follows:

- Input devices
  A disabled input device (detector, input module, conventional zone module, addressable call points) will not generate an alarm or fault status.
  - To clear an alarm status generated by an input device, reset the fire control panel.
- Output devices
  An alarm or fault status will not activate disabled output devices (output modules, addressable sirens).
  - To stop the output devices activated by the fault status, disable the devices concerned.
  - To stop the output devices activated by an alarm status, reset the fire control panel.

Note: Output devices enabled during alarm or fault status (programmed), will be activated immediately.

The display (see Figure 38) shows how to select the options to disable and enable.

Figure 38: Display Disable menu



Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is operating normally
4	Options

Table 48: Keypad and key functions in the Disable state

Key	Function
Alphanumeric keypad	Selects the disable and enable options
Cursor keys	No function
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

To select the various disable and enable options, use the keys described in Table 49.

Table 49: Alphanumeric keypad, Cursor, ESC and ENTER key functions for the disable and enable options

Key	Function
1	Selects the Disab. List
2	Selects the Disable option of the Loop devices
3	Selects the Disable option of SW zones
4	Selects the Disable option of Outputs
5	Selects the Disable option of Device in the Network
6	Selects the Disable option of Comunic. devices
7	Selects the Disable option of the user password #2... #8 and installer #2
8	Selects the Disable option of the fire relay output
9	Selects the Disable option of the sounders
Cursor keys	No function
ESC	Cancels the operation Returns to the previous screen.
ENTER	No function

Note: The 2, 7 and 9 key options can only be enabled by the installer #1 password. The default user password is 00000.

1 Key – Disable list

To select Disc. List, use the 2 key, or, from the MAIN screen, use the 1 key. See Figure 39.

Note: If any of the elements have been disabled, the corresponding number will blink and the disable indicator light will be on. If the communicator is disabled, the yellow indicator light (Fire Signal Fault) will also be on.

Table 50: Alphanumeric keypad to select a list to analyze

Key	Function
1	Shows the list of disabled zones
2	Shows the list of disabled loop devices
3	Shows the list of disabled system parts (Outputs, Communicator)

Table 51: 1 Key Disable list key and function

Key	Function
Cursor keys	No function
ESC	Cancels the operation. Returns to the previous screen.
ENTER	No function

Note: For more information, see the View lists paragraph in the VIEW LOG Parameters chapter.

For disabled zones, loop devices and system parts, see the second display in Figure 41.

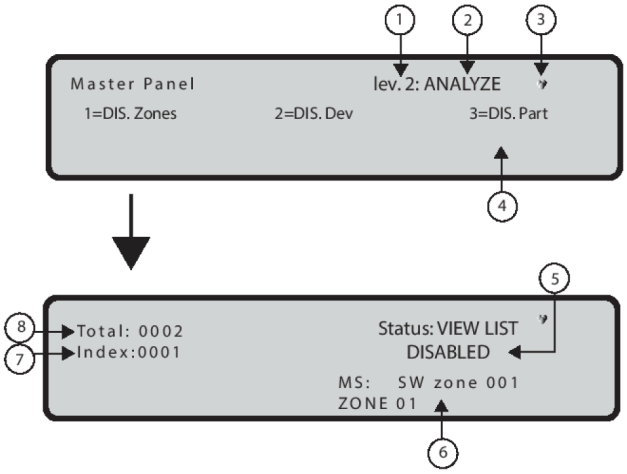
Table 52: Alphanumeric keypad for disabled zones, loop devices and system parts

Key	Function
1	Calls the enablement screen to enable the displayed entity

Table 53: Disabled zones, loop devices and system parts keys and functions

Key	Function
Cursor keys	Up key: Selects the previous item Down key: Selects the next item Right and Left keys: No functions
ESC	Cancels the operation Returns to the MAIN screen.
ENTER	No function

Figure 39: Display Dis. List menu



Callout	Description
1	Access level
2	Panel status
3	If blinking, the panel is operating normally
4	Options to choose
5	List type
6	List item information
7	Current item ID
8	Number of items in the list

2 Key – Devices (Disable)

This option is only enabled if you enter the Control Panel using a Master Installer PIN. The default PIN is 00000. Use the 2 key to select “Device” Disable. The Loop can be selected (see Figure 39).

Select the loop

Table 54: Alphanumeric keypad in the select the loop state

Key	Function
1, 2, and 3	Selects loop

Note: To select up to 6 loops in the FC506, use the 1, 2, 3, 4, 5 and 6 keys.

Table 55: Cursor, ESC and ENTER key functions to select the loop

Key	Function
Cursor keys	Up and Down keys: No functions Right key: Selects the next loop Left key: Selects the previous loop
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and displays the information screen for the selected loop

Select the device

Table 56: Alphanumeric keypad to select the loop

Key	Function
All keys	Inserts the device address

Note: If the device is in the system, square brackets will be shown near the address. If the address does not exist of if it is different from that selected in the underlying bar, the arrows will be shown.

Table 57: Cursor, ESC and ENTER key functions to select the device

Key	Function
Cursor keys	Up and Down keys: no functions. Right key: Selects the next loop Left key: Selects the previous loop
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and displays the screen of the selected loop.

Disable device on the loop

To display the current status of the device, select the loop and then the device. The display will show the third display as seen in Figure 40.

In the current status of the device, the possible actions are enable or disable.

Table 58: Alphanumeric, Cursor, ESC and ENTER key functions to disable a device on the loop

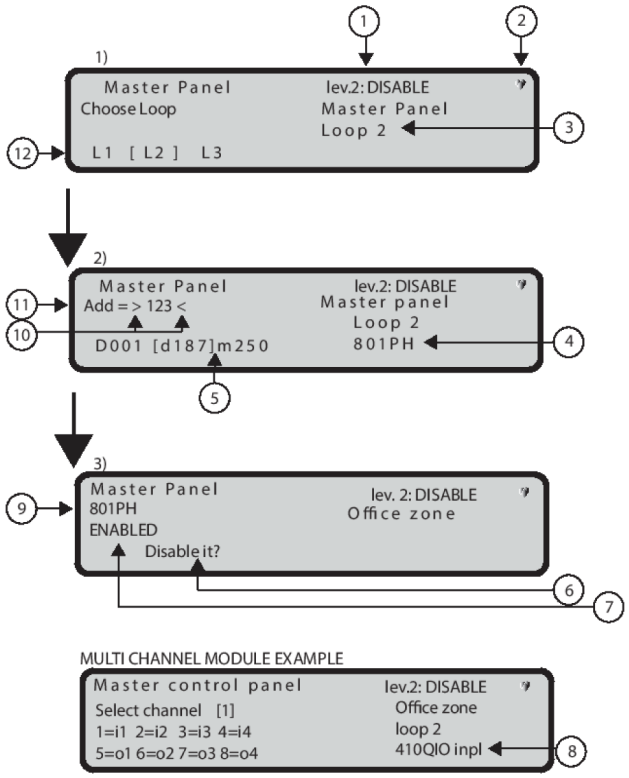
Key	Function
Alphanumeric keypad	No function
Cursor keys	No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and disables the detector. The UI moves to the MAIN screen signaling a local programming activity followed by a panel reset

Note: Display 3 of Figure 40 allows you to select the enable or disable option. In a multichannel module, before display 3 appears, a channel selection display is shown (display 4 in Figure 40). This channel selection display allows you to select a single channel to enable or disable.

Table 59: Alphanumeric keypad, Cursor, ESC and ENTER key functions to disable a device on the loop

Key	Function
1-8	Selects the desired channel
Cursor keys	No functions
ESC	Cancels the operation Returns to the previous screen.
ENTER	Confirms and the UI moves to the enabling/disabling screen.

Figure 40: Displays of disable devices



Callout	Description
1	Access level
2	If blinking, the control panel is operating normally
3	Name of the selected loop
4	Type of selected device
5	List of current devices
6	Enable/disable request
7	Current status
8	Module type and channel ID
9	Device to enable/disable
10	These symbols show the presence of a device list
11	Programming address
12	Selected loop number in square brackets and the number of loops

3 Key – SW Zone

Use the 3 key to select SW zone; after the zone has been selected the zone can be Disabled/Enabled. See Figure 41.

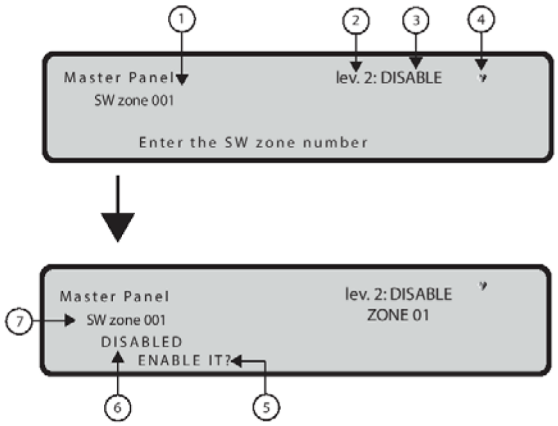
Select SW zone

Use the Alphanumeric keypad to select the zone identification number.

Table 60: Cursor, ESC and ENTER key functions to disable a device on the loop

Key	Function
Cursor keys	Up and Down keys: No functions Right key: Selects the next SW zone Left key: Selects the previous SW zone
ESC	Cancels the operation Returns to the MAIN screen
ENTER	Accepts the selection and displays the next screen, if the zone exists If the zone does not exist, an error message will be shown: WRONG VALUE PLEASE ENTER NEW PARAMETER. After 5 seconds, the UI returns to the SW Zone to select screen

Figure 41: Display Dis. SW zones



Callout	Description
1	Index of the zone
2	Access level
3	Control panel status
4	If blinking, the control panel is operating normally
5	Enable/Disable request
6	Current status
7	SW zone dis./enable

Disable SW zone

The display shows the current status of the SW zone, the possible actions are enable or disable.

Table 61: Keypad and key functions in the display SW zone state

Key	Function
Alphanumeric keypad	No function
Cursor keys	No functions
ESC	Cancels the operation Returns to previous screen
ENTER	Confirms and disables the SW Zone. The User Interface moves to the MAIN screen, signaling a local programming activity followed by a panel reset.

Note: Output devices and channels are disabled based on the first trigger zone, not on the assigned zone.

4 Key - Outputs

Use the 4 key to select **Output**; after the output has been selected, it can be disabled or enabled (see Figure 42).

Select the output

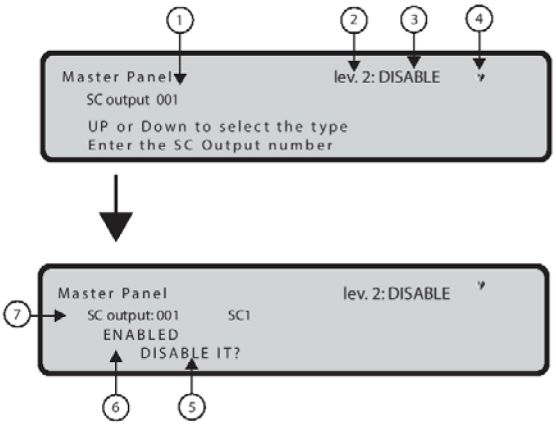
Table 62: Alphanumeric keypad, Cursor, ESC and ENTER key functions to select the output

Key	Function
Alphanumeric keypad	Selects the output identification number
Cursor keys	Up key: Shows the next type of outputs Down key: Shows the previous type of outputs The type of outputs are as follows: • SC1 Output (NACFIRE) • SC2 • OC Output 1-2 Right and Left key: No function
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms the operation

Disable Output

In Figure 43, the display shows the current status of the output, the possible actions are enable or disable.

Figure 42: Display Dis. Outputs



Callout	Description
1	Identification number
2	Access level
3	Control panel status
4	If blinking, the control panel is operating normally
5	Enable/Disable request
6	Current status
7	Output Dis./Enable

Table 63: Keypad and key functions in the disable output state

Key	Function
Alphanumeric keypad	No function
Cursor keys	No function
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and the UI moves to the MAIN screen followed by a panel reset

5 Key - Network

The 5 Key is used to select the Disable Network devices option. After the network device has been selected, it will be disabled/enabled accordingly (see Figure 44).

Select the network device

Table 64: Alphanumeric keypad, Cursor, ESC and ENTER key functions in the select the network device state

Key	Function
Alphanumeric keypad	Use the Alphanumeric keypad to select the identification number of the network device. **Note:** If the number is incorrect, an error message will be shown: WRONG VALUE PLEASE ENTER NEW PARAMETER.
Cursor keys	Use the Up Key to show the next type of network device. Use the Down Key to show the previous type of network device. The type of devices are as follows: • Repeater 1-8 • Client panel 1-7 • RS485NET: local network interface No function is related to the Right or left key
ESC	Cancels the operation. Returns to the previous screen
ENTER	Confirms and displays the next screen

Disable the network device

The display shows the current status of the network device, the possible actions are enable or disable.

Table 65: Keypad and key functions in the disable the network state

Key	Function
Alphanumeric keypad	No function
Up, Down, Right, Left Cursor keys	No functions
ESC	Cancels the operation and returns to the previous screen.
ENTER	Confirms and the UI moves to the MAIN screen followed by a panel reset.

6 Key - COMMUNIC. Device

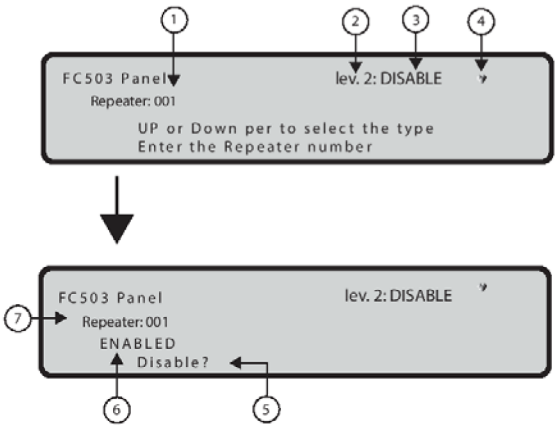
The 6 Key is used to select the disable Communic. devices option; after Communic. device has been selected, you will be able to disable or enable it. The corresponding Telecom module will then be disabled/enabled accordingly (see Figure 47).

Disable the COMMUNIC. device

Table 66: Alphanumeric keypad, Cursor, ESC and ENTER key functions to select the COMMUNIC. device

Key	Function
Alphanumeric keypad	No functions
Cursor keys	Up Key: Shows the next type of Telecom module Down Key: Shows the previous type of Telecom module The type of telecom modules are: • TEL i/f • Alarm TEL • Fault TEL • IP i/f • Alarm IP • Fault IP Right, Left Key: No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and displays the next screen

Figure 43: Display disable/enable network device



Callout	Description
1	Identification number
2	Access level
3	Control panel status
4	If blinking, the control panel is operating normally
5	Enable/Disable request
6	Current status
7	Device Dis./Enable

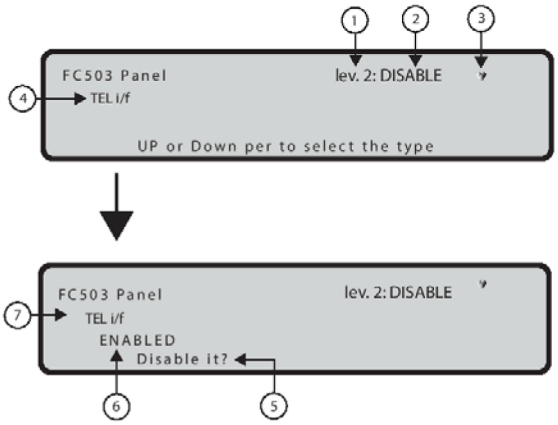
Table 67: Alphanumeric keypad, Cursor, ESC and ENTER key functions in the disable the COMMUNIC. device state

Key	Function
Alphanumeric keypad	No function
Up, Down, Right, Left Cursor keys	No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and the UI moves to the MAIN screen followed by a panel reset

Note:

- If a module is disabled (TEL i/if or Alarm TEL or Fault TEL or IP i/f, Alarm IP or Fault IP), the disabled indicator light will be on, as will the yellow Fire Signal Fault indicator light.
- If the TEL i/f communicator has not been enabled using software (options screen, FireClass FC500 (FC501_FC503_FC506) Console) and you attempt to enable/disable it, the following text appears on the display: NO ACTION TO BE DONE.

Figure 44: Display enabled/disabled telecom communicator.



Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is operating normally
4	Communicator type
5	Enable/Disable request
6	Current status
7	Communicator Dis./Enable

Disabling the CSG

You can enable or disable the CSG from the **Disable** > **Communicat.** sub-menu. See Figure 45.

You can view all enable and disable actions from the **View List** > **Dis. Parts** sub-menu and also in the View Log menu. See Figure 46.

Figure 45: Disabling the CSG

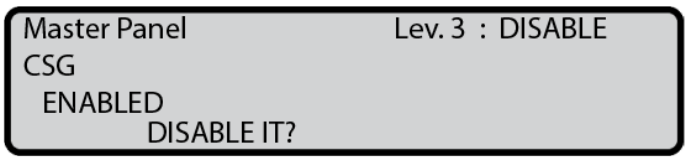


Figure 46: View List menu

7 Key - Password disable

This option is only enabled if you enter the control panel using a Master Installer PIN (Default 00000).

Use the 7 Key to select the disable password option; after the option has been selected the corresponding password will be disabled/enabled (see Figure 48).

Select the password

In level 2 the password option is removed.

Table 68: Alphanumeric keypad, Cursor, ESC and ENTER key functions in the select the password state

Key	Function
Alphanumeric keypad	Use the Alphanumeric keys 2-8 to select the identification number of the password. **Note:** You cannot disable the user1 and installer1 password.
Cursor keys	Up key: Shows the next type of password; Down key: Shows the previous type of password. The types of password are user password and installer password. Right, Left key: No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms the operation

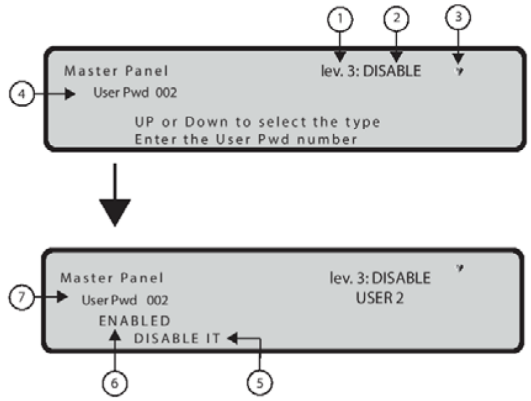
Disable password

In this state, the display shows the current status of the selected password (user or installer). The possible actions are: enable or disable.

Table 69: Keypad and key functions in the disable password state

Key	Function
Alphanumeric keypad	No functions
Up, Down, Right, Left cursor keys	No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	Confirms and the UI moves to the MAIN screen followed by a panel reset.

Figure 47: Display enabled/disabled password



Callout	Description
1	Access level
2	Control panel status
3	If blinking, the control panel is operating normally
4	Password type
5	Enable/Disable request
6	Current status
7	Password Dis./Enable

8 Key - Fire relay

Use the 8 key to select Fire Relay; the “Fire Relay” output can be Disabled/Enabled (see Figure 48).

Note: For client panels, fire relay is not activated when EVAC is pressed from the master panel.

Fields

The field “Current enablement status” displays the current enablement status of the selected item.

The possible status are as follows:

- Enabled
- Disabled

The item “Action to do” contains the following actions:

- ENABLE IT?
- DISABLE IT?

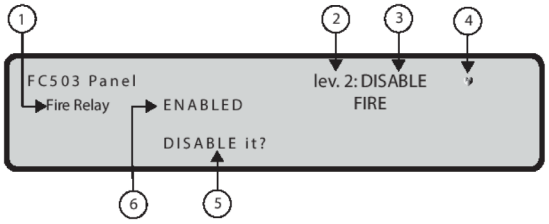
Table 70: Alphanumeric keypad, Cursor, ESC and ENTER key functions in the fire relay state

Key	Function
Alphanumeric keypad	No function
Up, Down, Right, Left cursor keys	No function

Table 70: Alphanumeric keypad, Cursor, ESC and ENTER key functions in the fire relay state

Key	Function
ESC	Cancels the operation and returns to the previous screen
ENTER	Confirms and the UI moves to the MAIN screen followed by a panel reset

Figure 48: Display enabled/disabled fire relay



Callout	Description
1	FIRE relay Dis/Enable
2	Access level
3	Control panel status
4	If blinking, the control panel is operating normally
5	Enable/Disable request
6	Current status

9 Key - Sounder (Disable)

This option is only enabled if you enter the control panel using a Master Installer PIN (The default PIN is 00000). The 9 Key is used to select the disable SOUNDER option, after the option has been selected all the sounders will be disabled/enabled.

Disable sounders

In this state, the display shows the options of all the sounders. The possible actions are: Enable or Disable.

Table 71: Alphanumeric keypad, Cursor, ESC and ENTER key functions in the disable password state

Key	Function
Alphanumeric keypad	Use the Alphanumeric keypad 1 and 2. 1 = Enable 2 = Disable
Up, Down, Right, Left cursor keys	No functions
ESC	Cancels the operation Returns to the previous screen
ENTER	No function

FC500 repeater

Command keys

Note: Only the LAMP TEST, SILENCE BUZZER and EVAC Control keys can be activated at L1, without a password. All other Control keys can be activated with an access level 2 or 3 pass code. For more information, see Table 3.

LCD display

The information on the LCD display is organized into the following two types of screens:

- The main screen
  This screen provides access to the panel information and displays the panel's status.
- The event driven screens
  These screens are activated by specific events and display relevant details.

Main screen

The following screens display the same on the repeater's main screen as the panel's main screen:

- The analyze screen
- The view log screen
- The view list screen
- The disable screen
- The modify screen

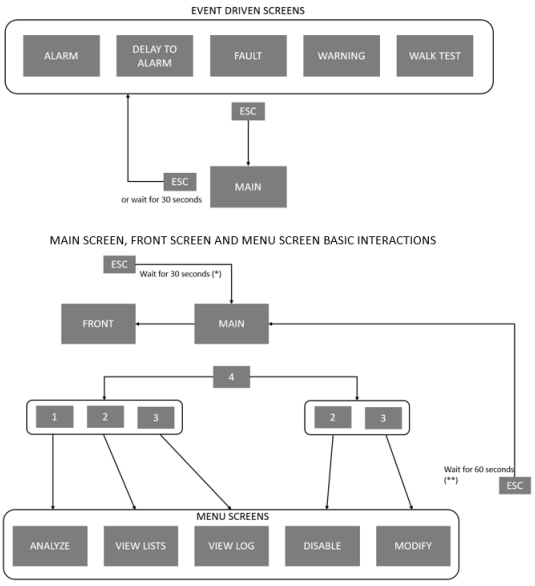
The repeater's main screen has the following limitations:

- You cannot overwrite the repeater's screen with the panel's front screen.
- You can access all screens, except for the program menu.
- Shortcut keys are not available.
- The help key functionality is not available.

Event driven screens

The event driven screens are activated by events in the system and override the screen present on the display at that time. An event driven screen may be overridden by another event driven screen that has a higher priority. The event driven screen behavior is completely under panel control.

Figure 49: Event driven screens and MAIN screen basic interactions



The event driven screens replicate the panel event driven screens with the following limitation: It is not possible to change the display mode in the Alarm or Delay to Alarm screens.

Status LEDS

The Repeater status LEDs are described in Table 6.