

ANALOGUE FIRE CONTROL PANEL



FireClass 200

FireClass 100



INSTALLATION MANUAL



FC200 - FC200/S - FC200/SL - FC100:

Hereby, Bentel Security,
declares the above mentioned Control Panels to be in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The complete R&TTE Declaration of Conformity for each Panel can be found at www.bentelsecurity.com/dc.html.

These Control Panels comply with **EN54-2; EN54-4 1999**.

Installation of these systems must be carried out strictly in accordance with the instructions described in this manual, and in compliance with the local laws and bylaws in force.

The above mentioned Control panels have been designed and made to the highest standards of quality and performance.

The manufacturer recommends that the installed system should be completely tested at least once a month.

BENTEL SECURITY Srl shall not assume the responsibility for damage arising from improper application or use. The above mentioned Control panels have no user-friendly components, therefore, should be serviced by authorized personnel only.

The following versions of the Fireclass200 series are available:

FC200 - Master panel with 4 A Linear power supply;

FC200/S - Master panel with 2.5 A Switching power supply;

FC200/SL - Slave panel without power supply unit;

Fc100 - Master panel with 2.5 A Switching power supply;

If a technical feature is common to all versions, the name Fireclass200 is used in the description.

If a technical feature applies to a specific version, the name of the version concerned is specified.

Proper functioning of the FireClass200 components can be guaranteed ONLY when ambient conditions, external to the cabinet, comply with the 3k5 category of IEC 721-3-3:1978.

The Loops of the FireClass200 control panel support 396 Analogue Devices.

The Conventional Zone of the FireClass200 control panel supports 30 Conventional Devices.

The Fireclass200 supports a maximum of 512 devices in all.

In order to meet standards and qualify for IMQ Certification, the FC200/SL Slave panel must be equipped with a BENTEL BA424 (27.6 V - 4 A) Linear power supply or BENTEL BAQ60/24 (27.6 V - 2.5 A) Switching power supply.

Only the Manufacturer (Access Level no. 4 — refer to "Accss Levels" section) can install the FC200/SL Slave panel power supply.

The FC200/SL Slave panel can operate ONLY when connected to a FireClass200 Master panel.

BENTEL SECURITY srl reserves the right to change the technical features of this product without prior notice.

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FC200 and FC100 Features	
FC200	FC100
EN54 Approved	EN54 Approved
2 analogue loop: supports 99 sensors and 99 modules	1 analogue loop: supports 99 sensors and 99 modules
Automatic device-drift compensation	Automatic device-drift compensation
Modular loop management	
1 conventional input line: supports 30 fire detectors and an unlimited number of Callpoints	1 conventional input line: supports 30 fire detectors and an unlimited number of Callpoints
16 programmable software zones	16 programmable software zones
16 alarm repeat outputs (open-collectors): 1 per zone	16 alarm repeat outputs (open-collectors): 1 per zone
1 "C" alarm output	1 "C" alarm output
4 programmable, supervised, silenceable alarm output (relays) — expandable to 16 using FC-200/6OUT expander modules	1 programmable, supervised, silenceable alarm output (relay)
1 NON-supervised, NON-silenceable ancillary alarm output (relay)	
1 NON-supervised, NON-silenceable Fault output (relay)	
RS485 Interface — supports 8 repeaters	RS485 Interface — supports 8 repeaters
RS232 Interface for serial printer — linked to the Control panel or a PC for upload/download operations	RS232 Interface for serial printer — linked to the Control panel or a PC for upload/download operations
200 event log	200 event log
Supports 2 FC200/6OUT output expanders to provide 16 outputs	Supports 2 FC200/6OUT output expanders to provide 13 outputs
Local/Remote Upload/Down load from PC	Local/Remote Upload/Down load from PC
TELECOM Module (Accessory item)	TELECOM Module (Accessory item)
Power supply: 230 Vca +/- 10%	Power supply: 230 Vca +/- 10%
Available with 2.5 A power supply/battery charger and with 27.6V-4A linear power supply	Available with 2.5 A power supply/battery charger
Housing for 2 x 17 Ah batteries	Housing for 2 x 17 Ah batteries
Dimensions (w x h x d): 432 x 577 x 131 mm	Dimensions (w x h x d): 432 x 577 x 131 mm
Weight (without batteries): max. 9.0 Kg	Weight (without batteries): max. 9.0 Kg

■ **FC200 and FC100**

The Installer and Operator manuals can be used with FC200 and FC100 Fire Control panels, however, where features and capacity differ, refer to the above table.



■ Access Levels

The FireClass200 Access Levels filter system control as follows.

- Level 1** All persons can view the system status through the Plexiglas window.
- Level 2A** Only authorized key holders can open the cabinet door access the manual commands (RESET, SILENCE and LOGGER).
- Level 2B** Only authorized User PINs (1 to 5 digit codes) can Enable/Disable the Loop devices, Bell Outputs, Software Zones and Network devices.
- Level 3A** Only the Installer PIN (1 to 5 digit code) can access the parameter programming phase.
- Level 3B** Only authorized personnel are allowed to open the cabinet (remove the screws and open the control panel door) for maintenance work (change the battery, replace fuses, etc).
- Level 4** Only the manufacturer is allowed to open the cabinet (remove the screws and open the control panel door) for PCB repair work (replace components, etc.).

■ Main Features

Day/Night The FireClass200 can operate in Day or Night Mode.

If the system is silenced during Day Mode, SILENCE status will be held until the system is unsilenced (i.e. unless new alarms or faults occur).

If the system is silenced during DAY Mode, SILENCE status will be held until the system is unsilenced (i.e. unless new alarms or faults occur). Silence will be enabled until the SILENCE button is pressed again.

If the system is silenced during NIGHT Mode, SILENCE status will be for the preset time (accepted values: 30 seconds to 30 minutes).

This system provides Automatic Alarm Threshold variation.

The preset Alarm Threshold of analogue detectors will be increased during Day Mode, in order to avoid false alarms caused by persons (cigarette smoke, etc.) in the protected ambient.



■ Options with requirements

The FireClass200 control panel provides the following options with requirements (complies with European norm EN54 part 2):

- **outputs to fire alarm routing equipment**
- **co-incident detection**
- **fault signals from points**
- **disablement of addressable points**
- **Test condition**

■ Telecom Module FC200/COM (Accessory item)

The Telecom Module sends recorded messages to programmed telephone numbers and, using reporting protocols, transmits data to central stations. This module allows operators to manage the system over-the-phone by means of the FC200/SW software package.

Description

- 8 independent channels
- Records one 11 second alarm message per channel
- 32 programmable telephone numbers
- Accepts 15 digit telephone numbers and 1 or 5 second pauses
- Repeats alarm messages for up to 20, 40, 60 or 80 seconds
- Repeats call cycle up to 5 times
- Voice answer detection
- Bypassable "dial tone" test
- Telephone-line Interface
- Protected against over-voltage
- DTMF and Pulse dialling
- Digital recording/Message playback
- Non-volatile memory
- Manages the following reporting protocols:

ADEMCO SLOW 10 BAUD, ADEMCO FAST 14 BAUD, FRANKLIN 20 BAUD, RADIONICS 40 BAUD, SCANTRONIC 10 BAUD, CONTACT ID (DTMF), SIA 300 BAUD.

■ Alarm cycle

If an alarm channel triggers an alarm, the telephone dialler will generate the respective alarm cycle (as per figure 1).



- Phase 1** The dialler will switch to the telephone line.
- Phase 2** The dialler will wait 3 seconds then will engage the telephone line.
- Phase 3** If the **Dial-tone check** option is enabled (refer to the "Programming" section), the dialler will wait for the dial tone.

NOTE: If the dialler **does not** detect the dialling tone within the preset time, it will repeat the process 4 times before hooking-up and stepping back to phase 1.

If this option is disabled the dialler will go directly to the next phase.

- Phase 4** The dialler will dial the telephone number associated with the alarm channel concerned.
- Phase 5** If the **Voice answer detection** option is enabled (refer to the "Programming" section), the dialler will wait 25 seconds for a voice answer and, if detected, will step to the next phase. If the **Voice answer detection** option 6 is disabled, the dialler will pause for several seconds before going to the next phase.
- Phase 6** The dialler will send the respective alarm channel message. The message will be played for the preset **Message playback time** (20, 40, 60 or 80 seconds).

Call cycle The Call cycle (set up during the programming phase) determines the number of times each telephone number — assigned to the alarm channel concerned — will be dialled (1 to 5 times).

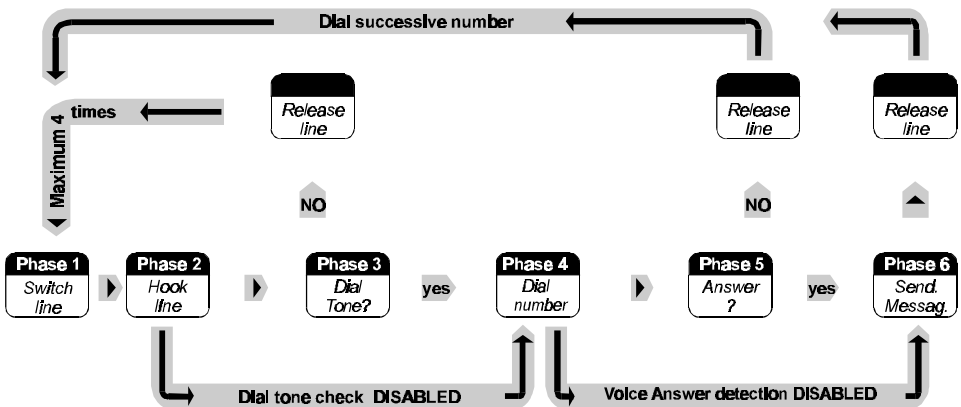


Figure 1 Telecom Module alarm cycle



■ **Upgraded/New technical features (Firmware version 4.00)**

- Extended template provides full alarm details (refer to the Operator's Manual — pages 9, 10)
 - RS485 protocol upgrade for fast data transmission
 - Centralized Master panel Log — retrieves, saves and broadcasts all the network events (refer to the Operator's Manual pages 9, 10)- Logger on Slave: (refer to the Software Manual "System")
 - View Alarm event details from Repeaters (refer to the Operator's Manual — pages 9, 10)
 - New "Ignore output supervision" option for dry-contact management of Output Modules (refer to Installation Manual page 48)
 - New Single Zone/ALL Zone Double knock option (refer to the Installer's Manual — pages 48, 49)
 - New Zone Prealarm event (refer to the Installer's Manual — pages 47, 48, 49)
 - Resets slave panel from master (refer to the Software Manual "System")
 - Resets master panel from slave (refer to the Software Manual "System")
 - Sets to Day Mode on power up (at default)
 - Verify Alarm option (refer to the Installer's Manual — page 44, 45 and Operator's Manual — pages 18, 25).
 - Manages Prealarms (refer to the Installer's Manual — page 58 and Operator's Manual — pages 9, 13).
 - Manages Warning signals (refer to the Installer's Manual — pages 47, 48, 53, 59, 75)
- + FireClass control panel firmware versions 4.00 and Repeater firmware versions 1.2 CANNOT operate on applications using FireClass control panels and Repeaters with lower firmware versions.



PARTS IDENTIFICATION

This chapter holds the full description of the main components and LEDs of the FireClass200. In most cases, the numbers in boldface refer to the parts shown in the tables and figures.

Main unit (FireClass200)

The **Flashing status** of certain LEDs is not dealt with in the following table, as it signals that the assigned event occurred and ended before the last rearming operation.

LED	MEANING
ALARM	ON: the control panel is in ALARM status.
MORE ALARMS	ON: presence of more than one alarm condition.
PRE-ALARM	FLASHING: PRE-ALARM status - the sensors have detected an alarm condition. The Outputs will be activated when the PRE-ALARM delay ends.
TELECOM	ON: the control panel is physically connected to the telephone line.
MAIN POWER	OFF: mains failure. Mains power must be restored before the batteries empty.
WALK TEST	FLASHING: Walk Test mode on a Software Zone; an alarm condition on the Zone in question will generate an alarm status on the assigned Outputs for approximately one second.
DISABLED	ON: at least one device is disabled.
NIGHT	ON: the control panel is operating in NIGHT mode.
DAY	ON: the control panel is operating in DAY mode.
FAULT	ON: presence of at least one fault condition; the type of fault will be signalled by the associated LED and/or on the display.
MAINS	ON: mains failure; the standby batteries will takeover the power supply to the control panel. This LED is complementary to the green MAINS-POWER LED, and will continue to signal the fault event after mains power has been restored (memory).
LOW BATTERY	ON: low batteries; proper functioning of the control panel cannot be guaranteed in the event of black-out. Wait several hours, if the LED stays ON the batteries are not rechargeable and must be replaced
BATTERY FAULT	ON: batteries are completely empty or not connected - check fuse 41
GROUND	ON: voltage leak to ground - check connection insulation.
FUSES	ON: burnt fuse (fuse 41 or 42) - the fuse concerned will be indicated on the display.
LOGIC UNIT	ON: "blocked" microprocessor - call Installer for service.



ADDRESS	ON: loss of a loop device.
SAME ADDRESS	ON: two devices on the same loop have the same address.
SILENCE	ON: the SILENCE button has been used to places the SILENCEABLE Outputs in standby status. DAY mode SILENCE status will be held until the SILENCE button is pressed again. NIGHT mode SILENCE will be held for the programmed SILENCE time.
Z01 ÷ Z16	ON: the corresponding zone is in ALARM Status. Flashing (3 secs. ON - 1 sec. OFF): the corresponding Zone is in PRE-ALARM status . Flashing (1 sec. ON - 0.5 sec. OFF): the FIXED delay is active. Flashing (2 secs ON - 2 secs OFF): the PAS delay is active.

BUTTON	FUNCTION
SILENCE	Places the SILENCEABLE Outputs in standby status: DAY mode SILENCE status will be held until the SILENCE button is pressed again. NIGHT mode SILENCE is held for the programmed SILENCE time.
ACK	Activates the PAS delay (if pressed when the FIXED delay is active).
RESET	REARMS the control panel.
TEST	Tests the control panel buzzer and LEDs. When this button is pressed, all warning LEDs should light and the buzzer should emit a intermittent acoustic signal (1 sec. beep - 1 sec. pause).

PART	DESCRIPTION
1	<i>Control panel door with Plexiglas window</i>
2	<i>Pocket for zone description</i>
3	<i>LCD 4 rows — 20 columns</i>
4	<i>Command panel</i>
5	<i>Control panel door lock</i>
6	<i>Two screws for securing command panel and battery compartment door</i>
7	<i>Battery compartment door stop</i>
8	<i>Battery compartment door</i>



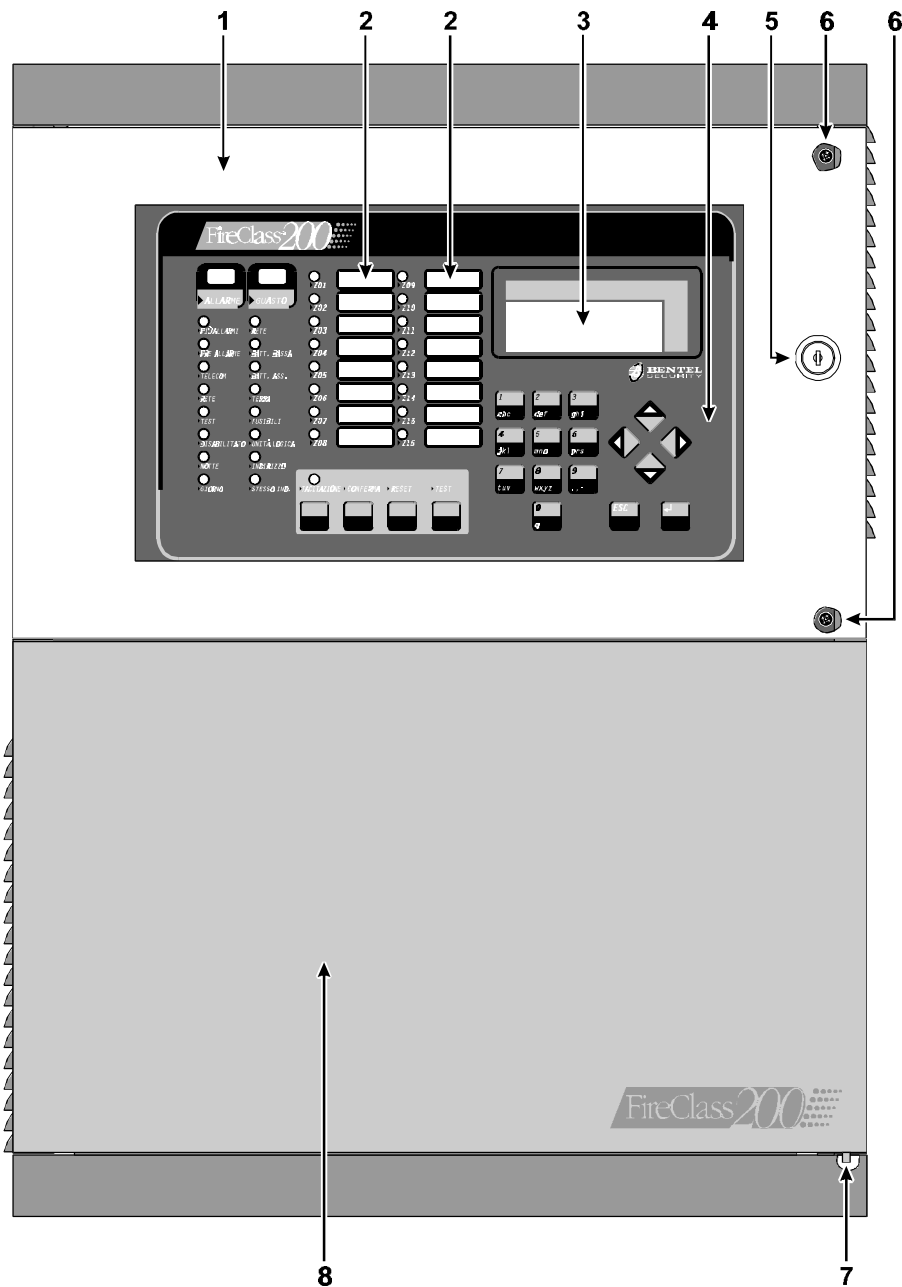
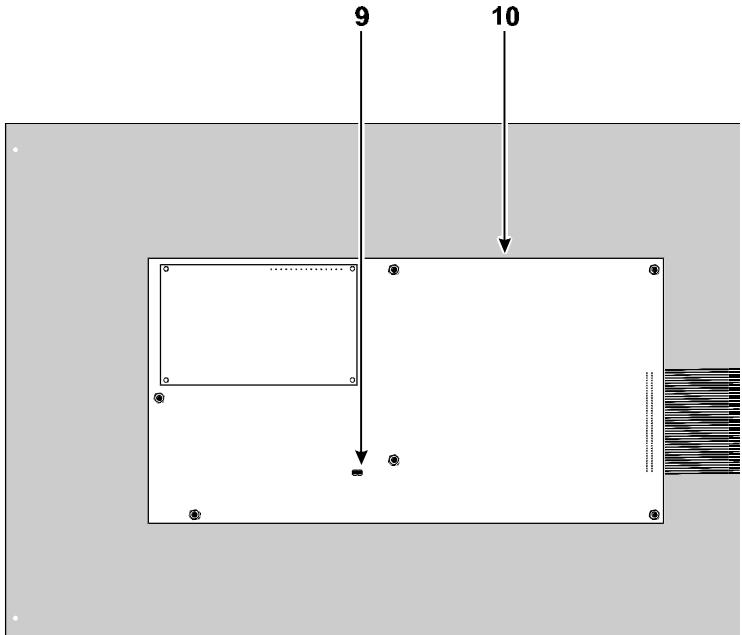




Figure 2 Main unit parts (external)





PART	DESCRIPTION
9	Jumper to enable programming:  > programming enabled (default)  > programming disabled
10	Keypad/Display board
11	Cable passage (3 x Ø 30 mm)
12	Wall mounting holes (4 x Ø 5 mm)
13	6 Output expander FC200/6OUT (optional - 2 maximum)
14	Telecom module FC200/COM (optional)
15	Main board
16	27.6 V - 4 A linear power supply/battery charger
17	27.6 V - 2.5 A switching power supply/battery charger
18	Battery connectors
19	Compartment for two (optional) 12 V, 17 Ah batteries
20	Jumper for series connection of batteries
21	Bag holding: two F 250V 3.15A fuses; one F 250V 6.3A fuse; two keys; four 1N4007 diodes; jumper for series connection of batteries
22	Chased cable passage (40 x 170 mm)
23	Loop interface



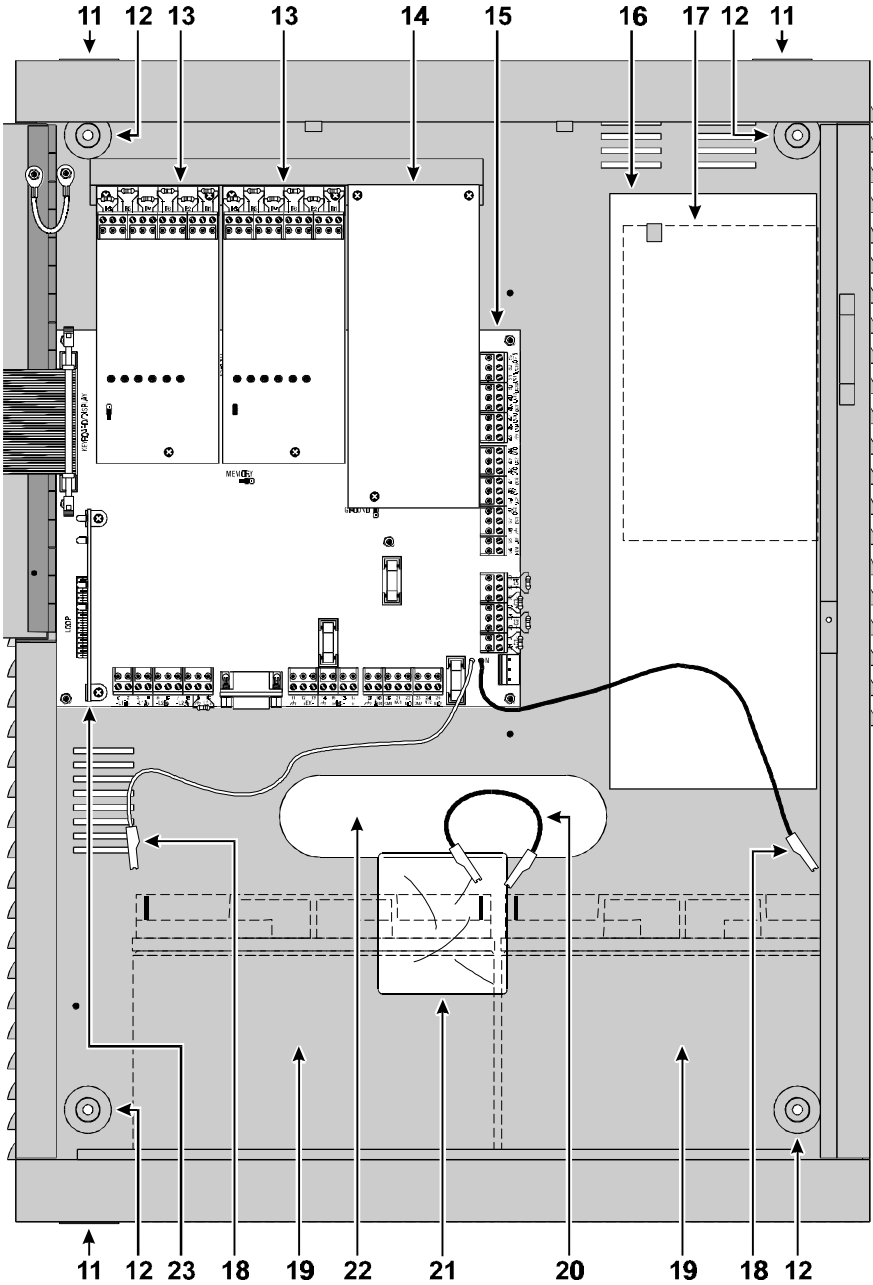


Figure 3 Main unit parts (internal)



Power unit The FireClass200 is available in two models: **FC200/S** - with 27.6 V - 2.5 A Switching power supply (see fig. 3a); **FC200** - with 27.6 V - 4 A Linear power supply (see fig. 3b).

PART	DESCRIPTION
24	Rivet to secure switching power supply
25	Power supply protection fuse: a) F3.15A 250V; b) F 2A 250V
26	Terminal board for Mains power connection
27	Fine adjustment trimmer for output voltage
28	Power supply output for devices operating at 24 V (27.6 V)
29	Connector for power supply to the main board
30	Switching-power-supply output voltage signal
31	Screws to secure Switching power supply

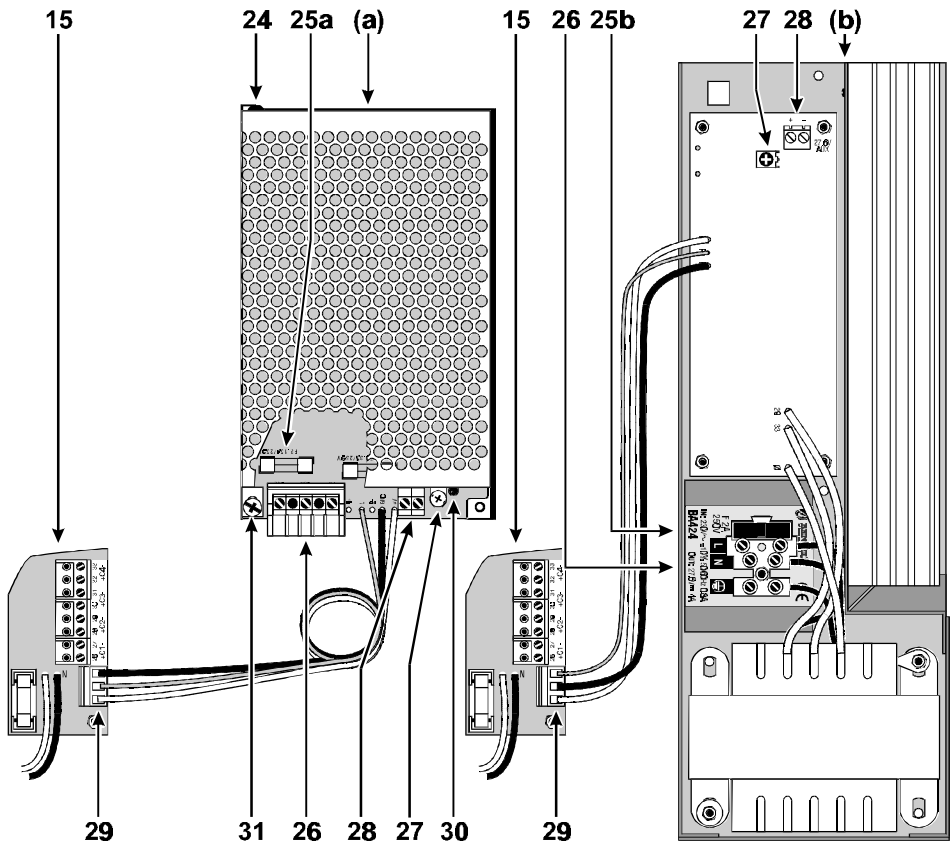




Figure 4 Parts of the Power Supply Unit



PART	DESCRIPTION
32	Connector for Keypad/Display
33	Connectors (2) FC200/6OUT Output expanders
34	Jumper to enable data storage:  > memory disabled (default)  > memory enabled
35	Microprocessor
36	Connector for FC200/COM Telecom module
37	Reserved jumper
38	Extractable terminal boards
39	EOL Resistor (2.700 ohm / red-purple-red-gold)
40	Power-supply connector
41	F 6.3A 250V protection fuse against battery polarity inversion
42	F 3.15A 250V protection fuse for +AUX output
43	F 3.15A 250V protection fuse for the power supply line of the RS458 bus
44	RS232 Serial Port
45	Loop interface connector

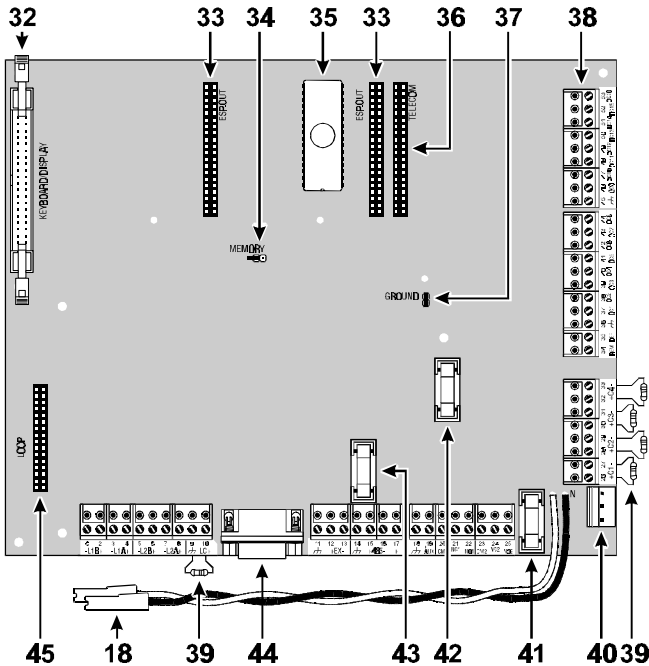




Figure 5 Main board parts



Output Expander (FC200/6OUT)

PART	DESCRIPTION
46	Output status: LED OFF > corresponding Output in standby status LED ON > corresponding Output active
47	Address assignment jumper:  > Expander of Output no. 1 (Outputs no. 5 through no. 10)  > Expander of Output no. 2 (Outputs no. 11 through no. 16)

Loop Interface

PART	DESCRIPTION
48	Loop 2 Status: polling (Red LED)
49	Loop 2 Status: response (Green LED)
50	Loop 1 Status: polling (Red LED)
51	Loop 1 Status: response (Green LED)

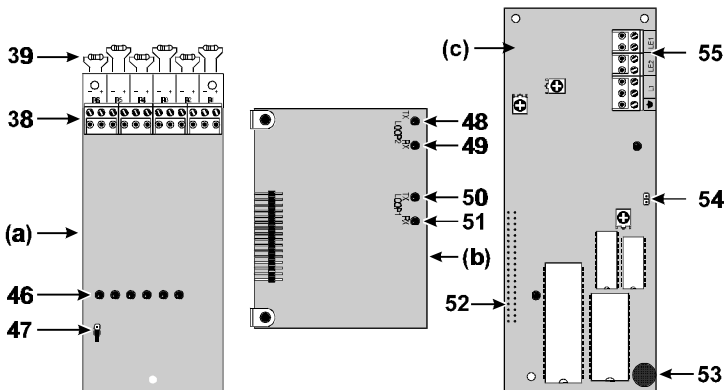


Figure 6 Parts of the FC200/6OUT Output Expander (a) and Loop Interface (b) and Telecom module (c)



Telecom Module FC200/COM

PARTS	DESCRIPTION
52	Main board connector
53	Microphone
54	Loudspeaker connector
55	Terminal board for telephone line connections
56	Screws for backplate
57	Earth cable with eyelet terminal — to be fixed to the screw on the backplate, and connected to the earth terminal of the Telecom Module
58	Cable and connector for connecting the loudspeaker to the Telecom Module
59	Plastic (ABS) gaskets to be used when mounting the loudspeaker to the backplate
60	Loudspeaker

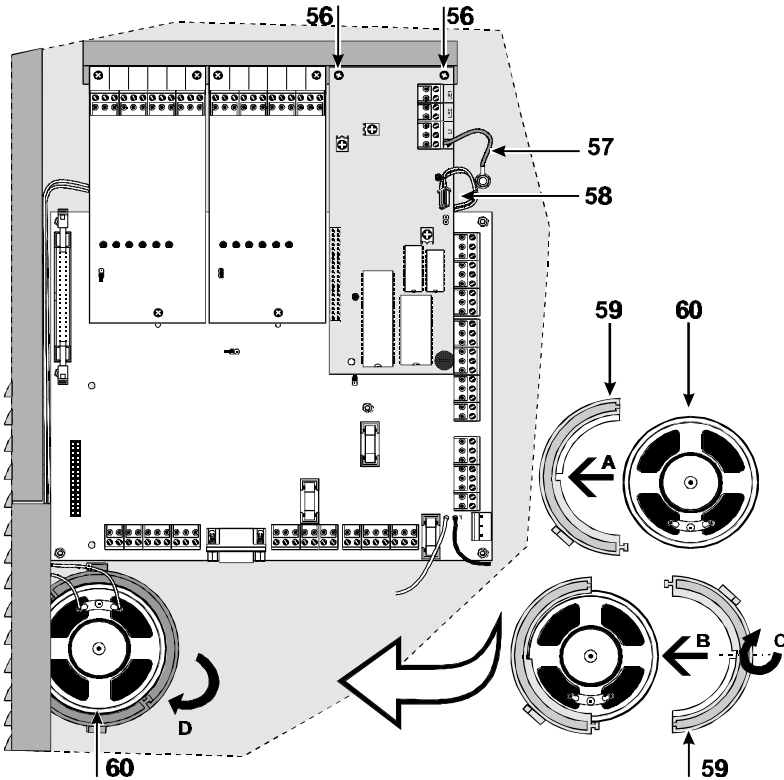


Figure 7 Parts of Telecom Module.



Repeater

PART	DESCRIPTION
61	Wall mounting holes (3) for (∅ 5 mm)
62	Cable duct holes (2) for (∅ 30 mm)
63	Microprocessor
64	Address assignment switches

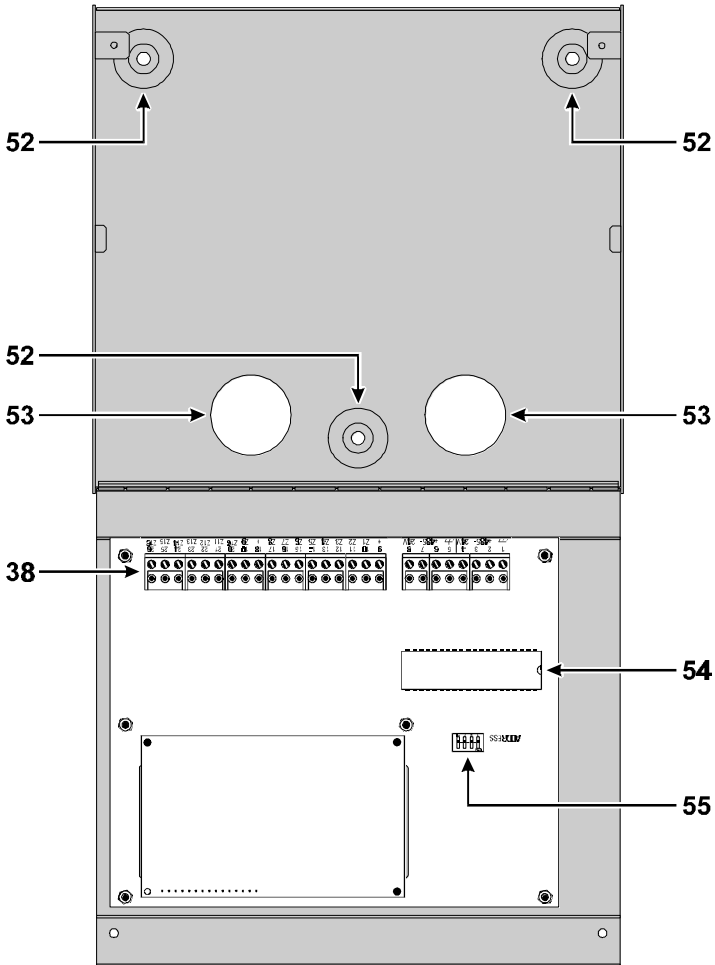


Figure 8 Repeater parts



ATTENTION Installation of the FireClass200 must be carried out in strict accordance with the instructions herein and in compliance with the local laws and bylaws in force.

Work carefully through the following steps (refer to the figures on pages 11 and 13).

- Plan the system layout.
- Lay the cables.
- Mount the control panel.
- Install add-on boards (if necessary).
- Complete the connections.
WARNING: DO NOT connect the Mains until all other wiring has been completed.
- Program the control panel parameters.
- Test the system (detectors, signalling and ancillary devices).

Mounting the Control panel

When selecting the mounting location, ensure that:

- the Mains power, peripherals and the telephone line can be connected to the control panel without difficulty;
- there is at least 20 cm space on all sides of the control panel to allow for air flow.

Work carefully through the following steps.

1. Open the control panel door **1**: pull the plastic bag **21** through the wire entry **22** (the control panel key is inside the plastic bag).
2. Remove the screws **6** and the control panel frontplate.
3. Lift the battery-housing door off its hinge **7** and open the door.
4. Drill the anchor screw holes **12** (use the backplate for the screw locations).

CAUTION Check for water pipes and cable conduits before drilling.

5. Pull the chased wires through the wire entry **22** and attach the control panel to the wall.





6. Using a hammer, remove the knockout and pull the external wires through the wire entry **11**.
- +
- Use **HB flame class** (or higher) lock nuts to secure the cable conduit union to the box.

Installing Output expanders (FC200/6OUT)

Work carefully through the following steps (refer to the figures on pages 11 and 12).

1. Insert the Output Expander into the respective connector (**33** or **34**).
2. Using the screws and gaskets (supplied), secure the Output Expander in place (use the longer screw for the lower part, and the two shorter screws for the upper part).
3. Using the jumper **47**, assign an address to the Output Expander (refer to the following chart).

JUMPER 47	OUTPUT EXPANDER No.	CORRESPONDING OUTPUT					
		C5/11	C6/12	C7/13	C8/14	C9/15	C10/16
	1	05	06	07	08	09	10
	2	11	12	13	14	15	16

- +
- You must assign a different address to each output expander.

Installing the Telecom Module (FC200/COM)

Work carefully through the following steps (refer to the figures on pages 17 and 18).

1. Insert the Telecom module into the respective connector **36**.
2. Using the screws and gaskets (supplied), secure the Telecom module in place (use the longer screw and gasket for the lower part, and the two shorter screws for the upper part).

Installing Repeater Panels (FC200/REP)

Work carefully through the following steps (refer to the figure on page 13).

1. Drill the anchor screw holes **52** (use the backplate for the screw locations).
2. Pull the wires through the wire entry **53** then attach the repeater panel to the wall.
3. Complete the connections on the terminal board **38**.



4. Using the microswitches **55**, assign an address to the repeater panel (refer to the following chart).

ADDRESS No.	MICROSWITCH No.			
	1	2	3	4
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF

- + You must assign a different address to each repeater panel.

Completing the Connections

- + Use a shielded cable — connect one end to the control panel ground and leave the other floating.

CAUTION Separate the low voltage wires (24V) from the high voltage wires and make two wire bunches. This will prevent stray wires from coming into contact with other wires and/or components.

Main board terminals

[L1B] Loop 1 communication IN.

[L1A] Loop 1 communication OUT.

[L2B] Loop 2 communication IN.

[L2A] Loop 2 communication OUT.

- + Each loop supports 99 analogue detectors and 99 analogue devices (Input modules, Conventional Zone modules, Manual callpoints, Output modules and Sounders).

[LC] Conventional Input Line - Supervised and Silenceable — This line supports 30 conventional fire devices (**RF501t** Optic Smoke detectors, **RT 101/102** Heat detectors, Manual callpoints, Gas detectors—maximum 3).

Connect terminal 10[+] to ground (terminal 9[+]) using a 2,700 ohm resistor (red-purple-red-gold). A 680 ohm resistance (normal value for Fire detectors) parallel to the 2,700 ohm resistor will activate the programmed actions and preset times of the Conventional Line outputs and the Non-supervised output (terminals CM1, NC1 and NO1).



- + The Conventional Line supports 30 Conventional detectors.

WARNING Do not connect more than 512 devices to the control panel.

[EX] Reserved Output.

[485] Serial Bus — Terminals for FC200/REP repeater panels (maximum 8) and FireClass200 Slave panels (maximum 7).
Serial bus terminals — 15[+] and 16[-];
27.6 V power voltage terminals — 14[⁺] and 17[+].

[AUX] Ancillary power 24 V — Power supply to devices that operate at 24 V (protected by fuse **42** and powered by the standby batteries):

- Positive (27.6 V) on terminal 19[+];
- Ground on terminal [⁺].

[CM1] Non-supervised fault output — Dry contact relay for non-supervised devices:

[NC1]
[NO1]

- During standby status — terminal 20[CM1] closes to terminal 21[NC1];
- In the event of fault — terminal 20[CM1] closes to terminal 22[NO1].

- + Blackout events (mains and battery supply failure) will activate the Non-supervised fault output.

[CM2] Non-supervised fire output — Dry contact relay for non-supervised devices:

[NC2]
[NO2]

- During standby status — terminal 23[CM2] closes to terminal 24[NC2];
- In the event of fire — terminal 23[CM2] closes to terminal 25[NO2].

[C] Type C output - Supervised — Terminals for supervised devices activated by positive (24 V):

- During ALARM status — positive (27.6 V) on terminal [+]; ground on terminal [-].
- This output can be bypassed via the DISABLE menu.

- + ALARM status will activate this non-programmable output.

[C2] [C3] [C4] Positive outputs - Programmable - Supervised — Terminals for supervised devices activated by positive (24 V):

- Output active — positive (27.6 V) on terminal [+]; ground on terminal [-].
- These outputs can be bypassed via the DISABLE menu.

Connect an **EOL** 2,700 ohm resistor (red-purple-red-gold) to terminals [+]
and [-] of these outputs. This will allow the control panel to detect and signal when the outputs are shorted and/or open.

NOTE: The **EOL resistor** must be connected to the last device on the Supervised output.

Connect a diode (1N4002 or 1N4007) in series to the devices connected to these outputs.



- + All the [+] terminals of the Supervised outputs must be closed to the [-] terminal of the same output. For example, the connection on terminal 26[+] must close only to terminal 27[-].

[REM] Logic Unit Blocked — Output for remote signalling of the Logic Unit Blocked fault:

- During Blocked fault — positive (27.6 V) on terminal 34[REM].

- + An external power supply must be used to supply the devices connected to the REM output.

[DEF] Default programming — This output will indicate when the control panel is operating with default programming values:

- **Default programming values** — Negative on terminal 35[DEF] (if the control panel is operating with default programming).

[OC1] ... [O16] Bypassable Zone Alarm outputs — These are normally-open terminals (open-collector) which close to ground when the corresponding zones go into alarm status. These terminals will remain closed to ground even after the generating event has ended. These are non-supervised/non-silenceable outputs which can be forced to standby by bypassing the zone concerned or rearming the control panel.

These terminals can be used for selective fire-prevention operations (closure of fire-barrier doors; activation of localized extinguishment systems).

- + ***The Zone Alarm outputs will not activate if their associated zones are disabled, however, they will activate as soon as their associated zones are enabled.***



Connecting Addressable Analogue Devices

The control panel has 2 loops for addressable analogue devices.

WARNING Do not break off the Output module tab.

Each loop supports 99 addressable analogue fire detectors and 99 analogue devices (Input modules, Conventional Zone modules, Output modules, Manual callpoints and Sounders).

Devices of the same type cannot have the same address, therefore, you must assign a DIFFERENT address to each detector on the loop, and likewise for the modules.

- + Different device types (e.g. Fire detector and module) can have the same address.

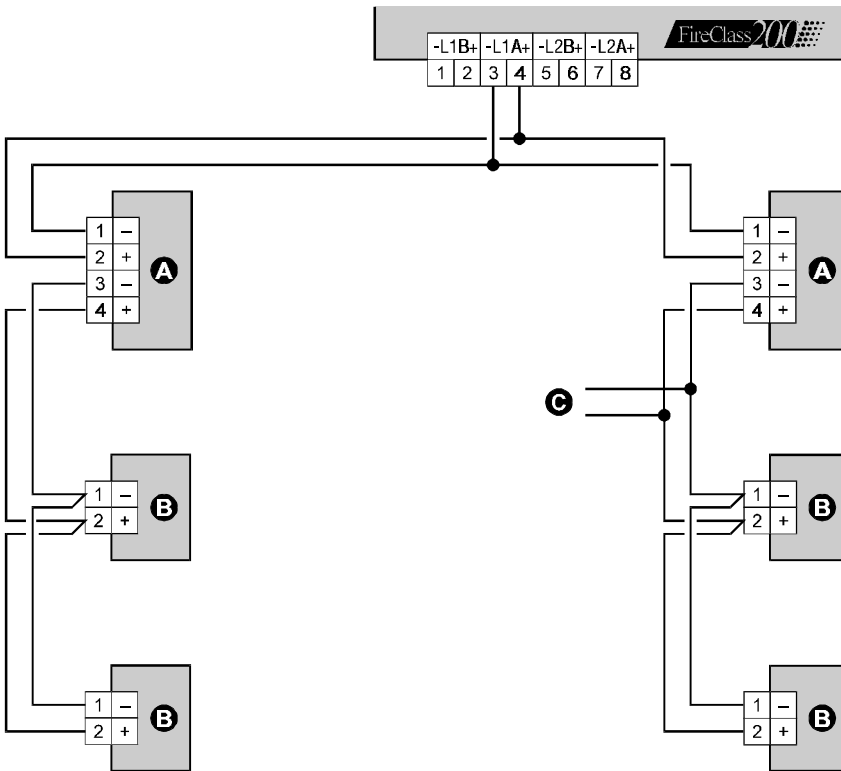


Figure 9 Wiring diagram of a 2 wire connection: a) Insulators; b) Compatible analogue devices (Fire detector, Input modules, Output modules, Conventional Zone modules, Manual callpoints); c) T connection.



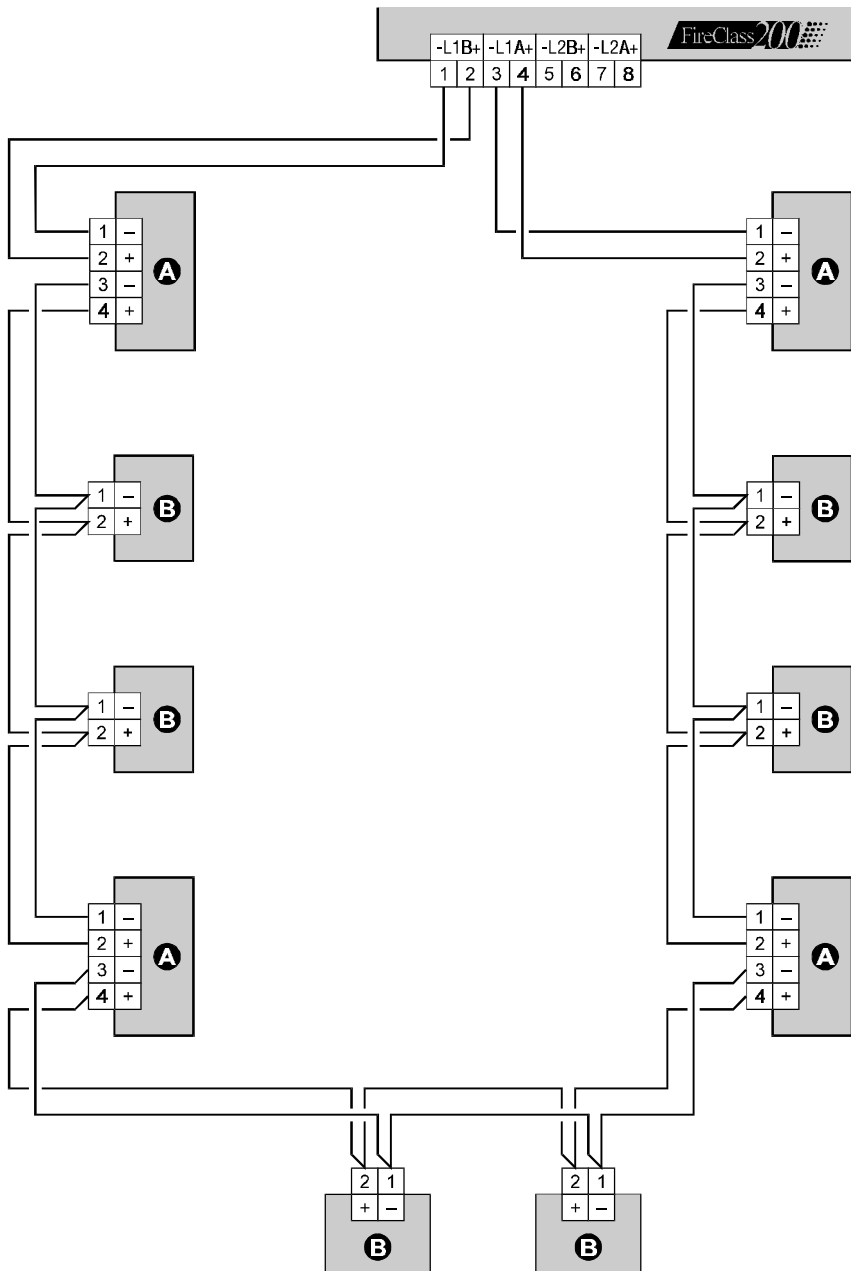


Figure 10 *Wiring diagram* of a 4 wire connection: a) Insulators; b) Compatible analogue devices (Fire detectors, Input modules, Output modules, Conventional Zone modules, Manual callpoints).



You can use 2 or 4 wires for the loop connections.

NOTE: The loop connection type must be specified during the programming phase.

Figure 9 illustrates the 2 wire connection to Loop 1.

Figure 10 illustrates the 4 wire connection to Loop 1.

- + The 2 wire connection does not permit more than 32 detectors per loop.
- + The 4 wire connection does not permit T connections.

Connecting Conventional Devices

Connect Conventional devices to terminals 9[↗] and 10[LC+].

Fire detectors Connect the Conventional Fire detectors in parallel to terminals [LC+] and [↗]. The resistor (2,700 ohm) connected to these terminals must be moved to the terminals indicated in the instructions of the last device on the Conventional Line (see fig. 10a).

Manual callpoints Connect the Common (C) and the Normally Open (NO) terminals of the Manual callpoint in parallel to terminals [LC+] and [↗]. When pressed, the callpoint **must not be shorted but must have a 680 ohm resistance**. If the callpoint does not have a 680 ohm resistor, connect one externally. If the manual callpoint is the last device on the Conventional Line, the EOL resistor must be connected as per figure 10a.

NOTE: Conventional devices can be connected to the loops by means of Conventional Zone modules.

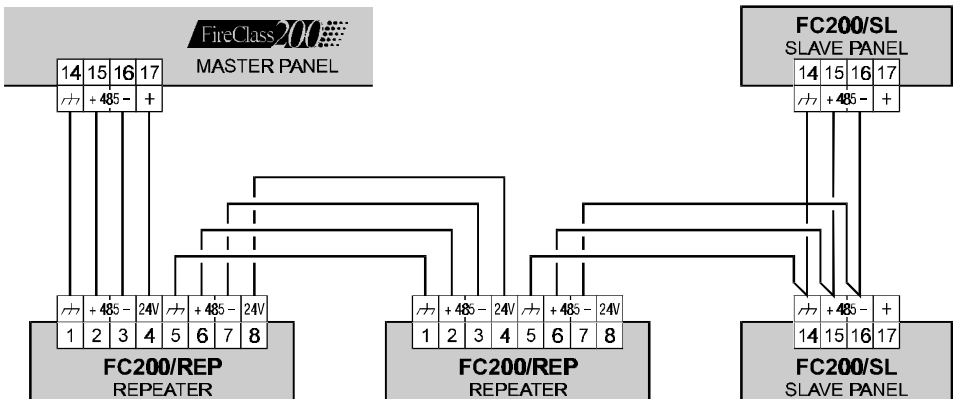


Figure 11 Wiring diagram of Repeater and Slave Panels connected to the RS485 network



Connecting Repeaters and Slave Panels

The RS485 port of the FireClass200 (terminals 15[+485] and 16[-485]) accepts up to 8 FC200/REP repeater panels and 7 FC200/SL slave panels.

Terminals 17[+] and 14[↗] supply the power (27.6 V) to the repeater panels.

The FireClass200 must be programmed as Master, otherwise, it will be unable to communicate with the system repeater panels and/or slave panels.

Assigning addresses

Using the **Network** option from the **System Menu**, assign a different address to each slave panel

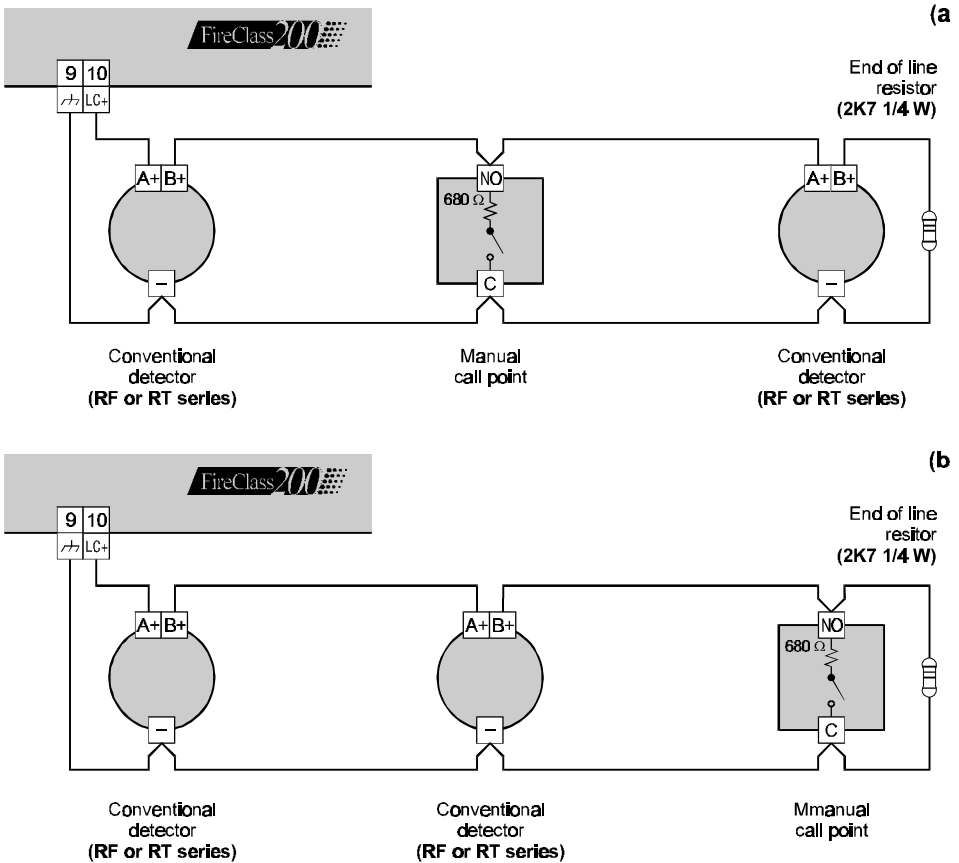


Figure 12 Wiring diagram of Conventional device connections



Connecting Output Devices

The control panel has 2 Non-supervised outputs, 4 Bell outputs (supervised) and 8 Alarm Repeat outputs (one for each Software zone).

The control panel can manage two FC200/6OUT Output Expanders (accessory items) which provide 6 Bell outputs each.

NOTE: Output devices can be connected to the loops by means of Output modules.

Bell Outputs

The Bell outputs are indicated by the letter "C" and their address number.

You can fully customize the activation modes and times of the Bell outputs.

- + The address of the Output-Expander Bell outputs depends on the Output-Expander address.
- + The terminal marked "C" is a **Type C Output** and not a Bell output. The **Type C Output** is a Non-programmable, Supervised output.

The Bell outputs can be forced to standby status by means of the SILENCE button. Once an alarm has been acknowledged, you can silence the audible signalling devices and leave the visual signalling devices active until the alarm conditions cease.

For example, a connection similar to the wiring diagram in figure 14 will activate the Flasher, the Bell and the visual and audible signalling device of the Self-powered Siren in the event of an alarm.

Using the **SILENCE** button will stop the horn but not the flasher, which will continue to signal Alarm status until the **RESET** button is pressed.

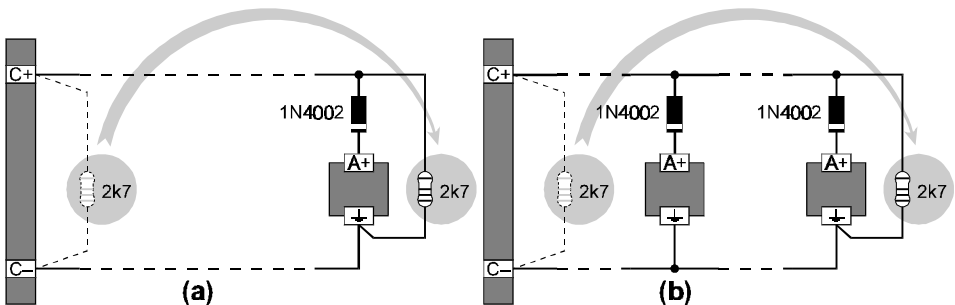


Figure 13 Wiring diagram of the connection of a single device (a) and several devices (b) to Bell outputs (device activated by positive (27.6 V) on terminal [A+]).



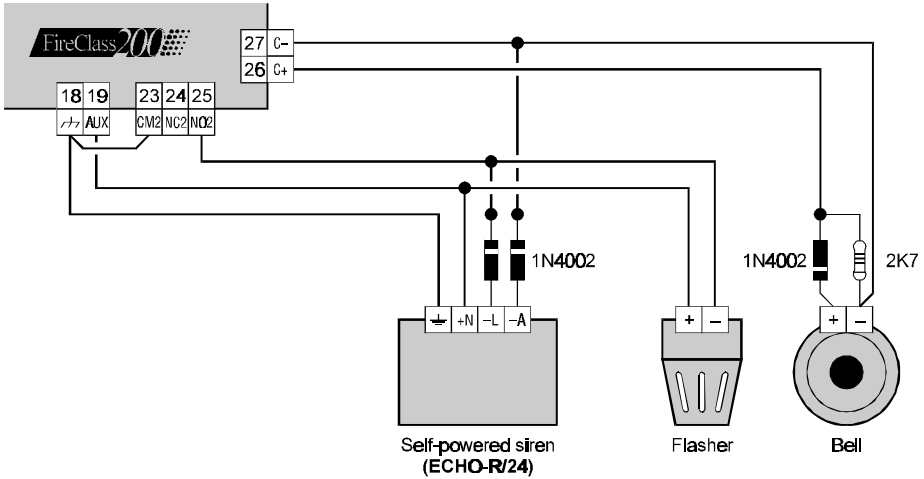


Figure 14 Wiring diagram: NON-silenceable and Silenceable Output connections

Connecting the Telecom Module (FC200/COM)

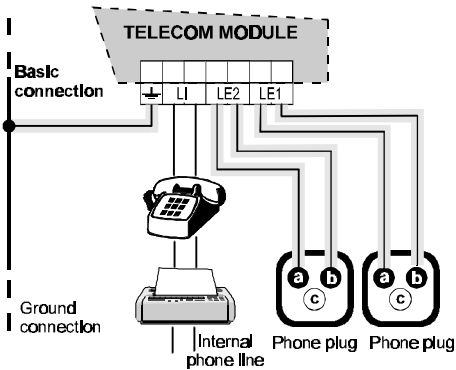


Figure 15 Wiring diagram of the Telecom module connections



Connecting the Power Supply

The power systems of this control panel conform with EN54-4.

IMPORTANT Connect the Panel to a Mains power supply that complies with the required specifications (see label). DO NOT powerup the Panel with a voltage different to requirements.

- Connect the external power supply to terminal **26**: connect Earth to terminal [⊕]; Neutral to terminal [N] and Line to terminal [L].
- Fit the two 12 V - 17 Ah batteries; connect in series to the jumper **20** (supplied); connect the dry contacts to the connector **18**.
- Insert the jumper **34**.

IMPORTANT In compliance with safety regulations, the **Line** must be connected to terminal [L] and the **Earth** to terminal [⊕]. An automatic isolating switch must be fitted to protect against overvoltage and short-circuit.

- + The control panel will rearm automatically when power restores after black-out.
- + Use **YASA 12 V - 17 Ah** batteries - model **NP 17-12 FR**, or similar, with **UL94-V2** (or over) case flame class.
- + Respect the connection polarity. In the event of inverted polarity, replace the fuse **41** (F 6.3A 250V).
- + The display configuration on power-up depends on the operations done prior to power failure.
- No parameters changes prior to power failure will be indicated by the green NETWORK LED (ON) and the following messages (shown intermittently).

```
FIRE CLASS 200
No Devices
Default Data
00:00 23/11/98 Mon
```

```
FIRE CLASS 200
Hit a Key
to take
control
```

From this status you can access the system by pressing any key **except TEST**.



- If parameter changes were made prior to power loss, the following messages will be shown intermittently.

```
FIRE CLASS 200
No Devi ces
acqui red
00:00 23/11/98 Mon
```

```
FIRE CLASS 200
Hit a Key
to take
control
```

From this status it will be possible to access control panel management by pressing any button **except RESET and TEST**.

- If autolearning was done prior to power loss, the following message will be shown.

```
FIRE CLASS 200
Scanni ng Loop
>> >> >>
00:00 23/11/98 Mon
```

From this status it will be possible to access control panel management by pressing any button **except RESET and TEST**.

Maintenance

Carry out the following operations periodically.

1. Remove dust with a damp cloth (use water only).
 2. Clean the Plexiglas window with a damp cloth (use water only). **Do not clean the control panel keypad, as you may accidentally activate a command.**
 3. Press the **TEST** button to check the LEDs and the Buzzer.
 4. Check the batteries.
 5. Check all connections.
 6. Check that the inside of the control panel cabinet is free from obstructions.
- + Steps 4., 5. and 6. must be carried out by qualified persons only.





USING THE SYSTEM

The FireClass200 system can be managed from the main panel, over-the-phone (via a Telecom interface) and/or through the FC200/SW software application (the computer must be connected locally via RS232 serial port).

The locked cabinet door allows access to authorized key holders only (Access Level 2A).

There are three main phases with different access levels, as follows.

Programming The **Programming** phase allows the installer to program the control panel and peripheral devices (detectors, modules, repeater and slave panels). Access to this phase requires entry of the Installer PIN (Access Level 3A).

Modifying The **Modifying** phase allows users to disable the control panel peripherals and delete (clear) the counters and memory. Access to this phase requires entry of the Installer PIN or a User PIN (Access Level 2B).

Reading Parameter The **Reading Parameter** phase allows users to:

- view and/or print the control panel log (events and programming data);
- check the control panel and peripheral device parameters;
- view the control panel version.

No PIN is required.

+ The **instructions** herein refer to system management **from the Control panel**. For the **instructions** relative to programming and management from a PC refer to the FC200/SW software instructions manual. The parameter descriptions and values are valid in both cases.

Operating the system

Read this section carefully to get an overall view of the steps involved in using the FireClass200 system.

Alphanumeric keypad Use the keypad to select the menu options, create labels and enter data and codes.

Cursor keys Use the ← and → keys to scroll the parameters, and the ↑ and ↓ keys to select new values.

ESC] Use the **ESC** key to exit menus and windows and step back.

+ The **ESC** key usually exits windows without changing the data, however, changes made in the device parameter windows will be saved.



- ↵ Use the ↵ key to confirm and save changes and to step forward or back.

Editing a Text Read this section carefully to get an overall view of the steps involved in creating strings (e.g. Labels).

- Use the ← and → keys to scroll along the line.
- Press the respective key until the required letter is shown.
- Use the ↑ key for upper-case letters and the ↓ key for lower-case letters.
- Use key 9 for punctuation marks (full-stop, comma and dash) and spaces.

Once the text has been completed, press the ↵ key to confirm and step forward, or position the cursor on the first letter of the text then press the ← key to step back.

- # The display examples show the default values (refer to Analogue values). The # symbol indicates that the respective parameter has no default value setting.



Accessing the system

Press any key, except **RESET** and **TEST**, to access the FireClass200 system.

```
FIRE CLASS 200
Scanni ng Loop
>> >> >>
00:00 23/11/98 Mon
```

The display will show the **MAIN** menu.

```
FIRE CLASS 200
1= Programmi ng
2= Modi fyi ng
3= Readi ng Parameter
```

Select the required option, and refer to the respective section.

Exit If no key is pressed within 20 seconds, the control panel will exit automatically.





PROGRAMMING

Press **1** to access the **PROGRAMMING** menu from the **MAIN** menu.

```
FIRE CLASS 200
1= Programmi ng
2= Modi fyi ng
3= Readi ng Parameter
```

Type in the installer code (00000 at default). Each digit will be masked by the symbol Q.

```
Enter
i nstaller
code
*****
```

Press the \downarrow key to confirm the code. The display will show the **PROGRAMMING** menu. Select the required option and refer to the respective section for instructions.

```
1=Auto 2=Devi ces
3=PassWD 4=Mesl NI
5=Zones 6=Opt 7=Sys
8=Ver 9=Def 0=Tel
```

Wrong code If you enter a wrong code, the system will prompt you to Retry.

```
Installer code
wrong !
Retry
XXXXX
```

Default Installer code To change the installer code (00000 at default), refer to the "Password (PassWD)" section.

RAM disabled If the jumper **9** is not connected the display will show the RAM Disabled message.

```
Wri ting
RAM
Di sabled !
Act on i nternal DIP
```



Auto (Autolearning - Automatic enrolling)

The **Auto** option from the **PROGRAMMING** menu will allow you to enrol the loop devices and the RS485 network devices automatically.

- + Autolearning (enrolling) must be done during the installation phase and after changes to the loop and network configurations, bell outputs and Telecom module.
- + Ensure that the **SAME ADDRESS LED** is **OFF** before starting.
- Select the **Network** option from the **SYSTEM** menu then configure the FireClass200 as the Master panel. Otherwise, the Master panel will be unable to communicate with the system repeater and slave panels).
- **Auto-learning** does not modify the programmed parameters.

1. Select the **Auto** option from the **PROGRAMMING** menu (press 1).

```
1=Auto    2=Devi ces
3=PassWD  4=Mes I NI
5=Zones   6=Opt  7=Sys
8=Ver     9=Def  0=Tel
```

2. The control panel will search Loop 1 ...

```
Autol earning
searchi ng on:
      LOOP 1
please wai t. . . .
```

3. then Loop 2 ...

```
Autol earning
searchi ng on:
      LOOP 2
please wai t. . . .
```

4. and finally the RS485 network.

```
Autol earning
searchi ng on:
      NET
please wai t. . . .
```

- 5a. When the **Auto-learning** phase ends on a SLAVE panel, the display will show ...

```
Analysi s connecti ons
1) LOOP 1
2) LOOP 2
3) NET not supported
```



- 5b. If the control panel is programmed as MASTER, the display will show ...

```
Analysis connections
1) LOOP 1
2) LOOP 2
3) NET
```

Select the required loop (1 or 2) to access and program the parameters of the loop devices. Refer to the "Connections: Loop 1 and Loop 2" section.

Select **3** to access and program the parameters of the RS485 network devices of the MASTER panel (refer to "Network Devices").

■ **Connections: Loop 1 and Loop 2**

- + The following instructions apply to loops 1 and 2.
- + The example shows loop 1 with two optical smoke detectors at addresses 1 and 2.

1. Select the **Loop 1** option from the **ANALYSIS CONNECTIONS** menu (press 1) and program the loop 1 device parameters.

```
Analysis connections
1) LOOP 1
2) LOOP 2
3) NET
```

2. The display will show the loop 1 devices.

```
Loop 1 devices:
Smoke : ## Thermal : ##
Mod. IN : ## Mod. OUT : ##
Balanced outputs : ##
```

Smoke This shows the number of smoke detectors.

Temperature This shows the number of heat detectors.

Mod.IN This shows the number of input modules (IN).

Mod.OUT This shows the number of output modules (OUT).

Balanced Outputs This shows the number of bell outputs:
without Output Expander = 4 bell outputs;
with 1 Output Expander = 10 bell outputs;
with 2 Output Expanders = 16 bell outputs.

- + Use the **Devices** option from the **PROGRAMMING** menu to program the Bell Outputs.



3. Press the \downarrow key to view the parameters of the devices at the lowest address. If several devices share the same address, detectors will be shown first.

```
PRG: Smoke (Opti c)%##  
Devi ce: SENSOR  
Z=00 Z=00 Z=00 Z=00  
AT=50 **V=00 ** 1/01
```

4. Position the cursor on the last parameter on the bottom right then press the \downarrow key.

```
PRG: Smoke (Opti c)%##  
Devi ce: SENSOR  
Z=00 Z=00 Z=00 Z=00  
AT=50 **V=00 ** 1/01
```

5. The display will show the parameters of the device at the next address.

```
PRG: Smoke (Opti c)%##  
Devi ce: SENSOR  
Z=00 Z=00 Z=00 Z=00  
AT=50 **V=00 ** 1/02
```

6. Position the cursor on the first character of the second line then press the \leftarrow key.

```
PRG: Smoke (Opti c)%##  
Devi ce: SENSOR  
Z=00 Z=00 Z=00 Z=00  
AT=50 **V=00 ** 1/02
```

7. The display will show the parameters of the device at the previous address.

```
PRG: Smoke (Opti c)%##  
Devi ce: SENSOR  
Z=00 Z=00 Z=00 Z=00  
AT=50 **V=00 ** 1/01
```

8. Press **ESC** to step back to the **CONNECTIONS** menu (step 1.).



■ Connections: Network

- + The following example shows two repeater panels, connected to the Network (addresses 1 and 8).

1. Select the **Network** option from the **CONNECTIONS** menu (press 3) and program the network device parameters.

```
Analysis connections
1)LOOP 1
2)LOOP 2
3)NET
```

2. The display will show the devices found on the RS485 Network.

```
NET Devices:
Repeater   :#
Slave units:#
Loop Expanders :0
```

3. Press the \downarrow key to view the parameters of the device with the lowest address. If several devices share the same address, repeater panels will be shown first.

```
PRG: Repeater
Repeater
Address : 1
```

4. Position the cursor on the first character of the second line then press the \leftarrow key.

```
PRG: Repeater
Repeater
Address : 1
```

5. The display will show the parameters of the device at the previous address.

```
PRG: Repeater
Repeater
Address : 8
```

6. Press the \downarrow key to view the parameters of the device at the next address.

```
PRG: Repeater
Repeater
Address : 1
```

7. Press **ESC** to step back to the **CONNECTIONS** menu (step 1.).



■ Programming: Fire detectors

Figure 16 shows the fire detector parameters.

Description This is the non-editable description of the device type.

Analogue Value This shows the non-modifiable real-time values measured by the device.

Label This is for the editable device-label (up to 20 characters). The system will use the label as the device **identifier**.

Associated Zone Each device can be associated with 4 of the 16 software zones. If a device goes into ALARM status, all the zones it is connected to (associated zones) will also go into ALARM status.

Alarm threshold This parameter determines the device threshold, if this limit is exceeded the control panel will generate ALARM status. The threshold is indicated by an arbitrary unit: 00 to 99 (default 50%).

Procedure type This determines the actions the control panel will perform when the device threshold is exceeded:

* (default) - the control panel will signal the ALARM according to the preset times and operating modes.

P (Prealarm) - the control panel will activate the ALARM delay.

A (Warning) - the control panel will activate a WARNING signal.

Alarm verify This option determines the number of times the device must exceed the Alarm threshold before the programmed actions will be activated. If the Alarm verify counter is set at 99, the control panel will not take into account the number of times the device detects alarm conditions, but will consider only the length of time the alarm conditions persist. In this way, the control panel will not generate an alarm until the preset "Alarm verify" time expires.

Timer The **Timer** option from the **OPTIONS** menu will allow you to program the hours and days of the week when the Alarm threshold must be increased. It is possible to set **T** Timer, type **S** Timer or no Timer (indicated by **).

+ If you set both timers, the highest values will be applied.

Loop This shows the loop the device is connected to.

Address This shows the device address.



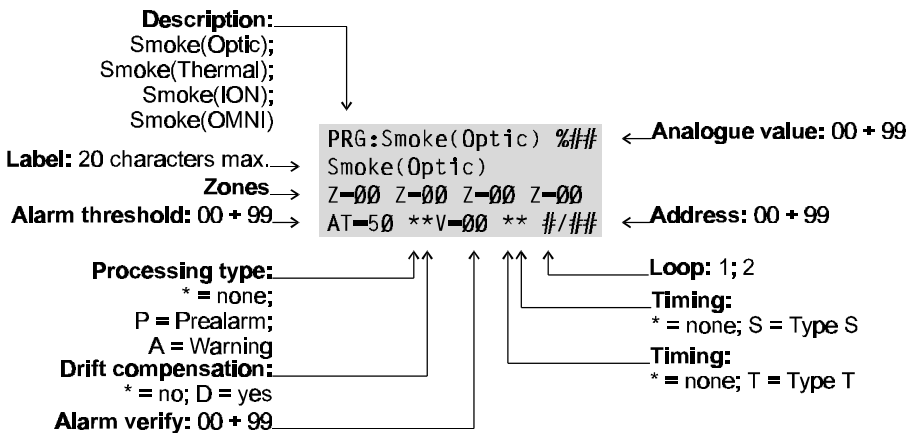


Figure 16 Fire detector parameters



■ Programming: Input modules

Figure 17 shows the input module parameters.

- To access the **parameters shown in figure 17b** — position the cursor on the third line of the display then press key 1.
- Most of the input module parameters are described in the "Programming: Fire Detectors" section. The following parameters are for input modules only.

Exinction If this option is enabled, the device will operate in accordance with the selected Exinction Mode (see below).

Exinction mode This option determines whether the input module must activate the devices and outputs programmed as Manual Exinction (E) or Inhibit Exinction (I).

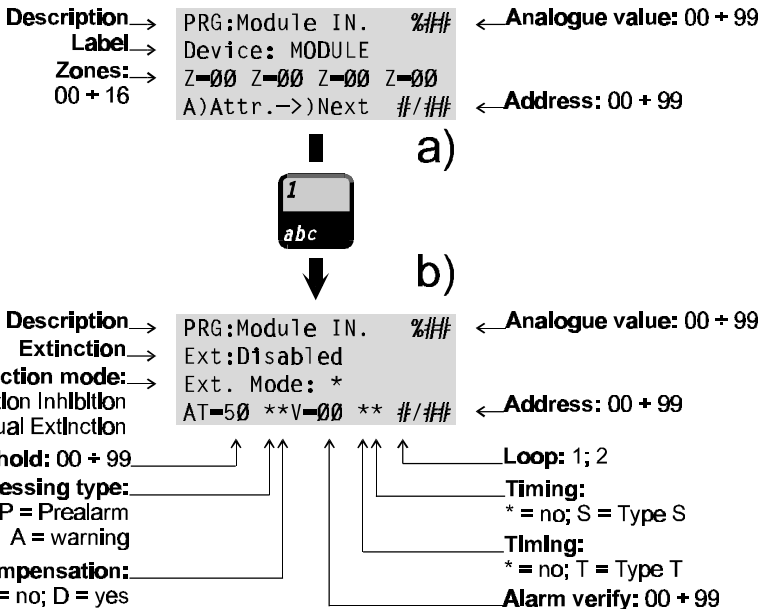


Figure 17 Input module parameters



■ Programming: Output modules

Figure 18 shows the output module parameters.

- To access the **parameters shown in figure 18b** — position the cursor on the third line of the display then press key 1.
- Most of the output module parameters are described under "Programming: Fire Detector". The following parameters are for output modules only.

Associated Zones Each output module can be associated with up to 4 of the 16 software zones. The output module will activate when any one of its zones goes into ALARM status.

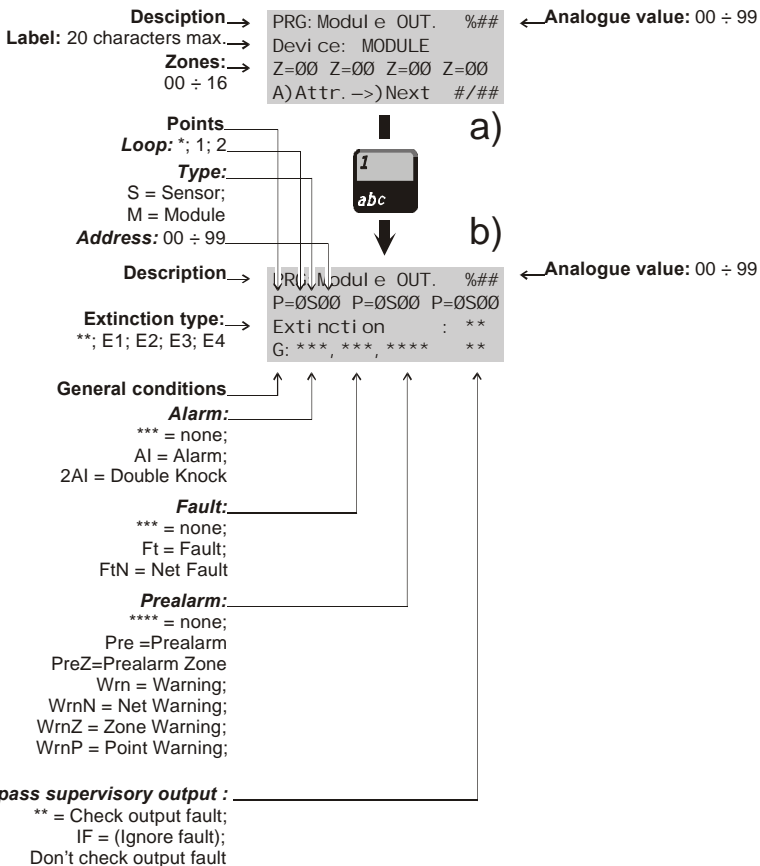


Figure 18 Output module parameters



Associated Points Each output module can be associated with 3 Input Points. If any one of its Input Points goes into ALARM status, the output module will activate. For each Point it is necessary to indicate:

- the loop the device is connected to (**1** or **2**);
- the device type - Detector (**D**) or a module (**M**);
- the device address (**01** through **99** or **CL** = Conventional Line).

Exinction mode This parameter establishes the operating modes and times applied by the output module during extinction operations.

To program the **Exinction mode**, select the Extinction Mode option from the OPTIONS menu.

If ** is programmed (at default) the output module will not be used in extinction operations.

General conditions This option will allow you to select the conditions that will activate the output module:

- ALARM (**AI**) or Network ALARM (**NAI**);
- Fault (**Ft**) or Network Fault (**NFt**);
- Prealarm (Pre), Prealarm Zone (PreZ), Warning (Wrn) or Network Warning (NetW), ZWrn (Zone Warning) or PWrn (Point Warning).

If the "ZWrn" option is enabled, the control panel will activate the output when one of its associated zones goes into prealarm status. If the "PWrn" option is enabled, the control panel will activate the output when one of its associated points goes into Warning status.

Bypass supervisory output If this option is enabled, the control panel will not signal output faults. Therefore, the control panel will be able to manage M201E-240 output modules (output modules with 230Vac switching relays), and M201E output modules with the **Bypass supervisory output** attribute. Figure 18 shows the respective programming template. The **Bypass supervisory**

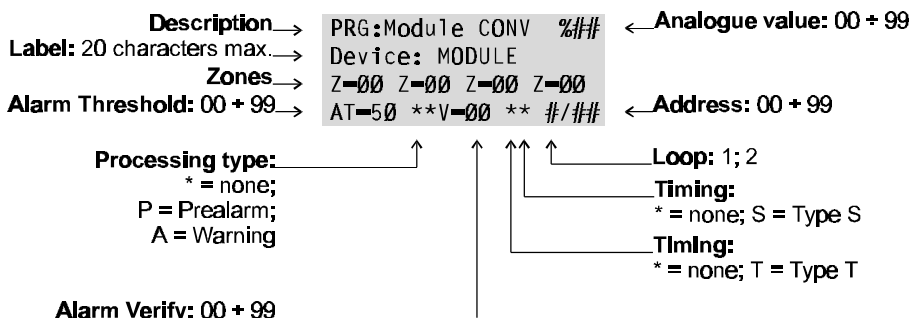


Figure 19 Conventional-Zone module parameters



output and **Double Knock** options can be programmed on the **Output Modules** page of the FireSoftware application.

**Double Knock
(on Zone or
System)**

If this option is enabled, and the **output is associated with zones**, the control panel will not activate the output until two detectors on the same zone signal alarm status (**Double Knock on zone**).

Each zone has a **Verify double-knock** timer — if the timer setting is higher than 0, the control panel will consider **Double Knock on Zone** events to be valid ONLY when two devices signal alarm status within the preset time.

If this option is enabled, and the **output is NOT associated with zones**, the control panel will activate the output when any two of the system detectors signal alarm status (**Double Knock on system**).

If the output has been programmed to operate in **AND mode**, the control panel will consider **Double Knock** events as single events and will not activate the output until a second alarm event occurs (e.g. Callpoint alarm).

NOTE: Double Knock on system events are not associated with timers.

■ **Programming: Conventional Zone module**

Figure 19 shows the Conventional Zone module parameters. These parameters are as per Fire detectors.

■ **Programming: Repeaters and Slave panels**

Figure 20a shows the repeater panel parameters. Figure 20b shows the slave panel parameters. The following parameters are valid for both.

Description This is the non-editable description of the device type.

Label This is the editable device label (up to 20 characters can be entered). The label is the device **identifier**.

Address This shows the device address.

a) **Description** → PRG:Repeater
Repeater
Address :# ← **Label:** 20 characters max.
← **Address:** 1 + 8

b) **Description** → PRG:Slave
Slave
Address :# ← **Label:** 20 characters max.
← **Address:** 1 + 7

Figure 20 (a) Repeater and (b) Slave Panel parameters



Devices

The **Device** option from the **PROGRAMMING** menu will allow you to change the parameters of the Devices enrolled on loops 1 and 2.

The **Device** option also applies to the parameters of the Conventional line (terminal [LC]), and those of the Bell Outputs on the Main board (terminals [Cx]) and on Expander Outputs (terminals [Cx]).

Select the **Device** option from the **PRO-GRAMMING** menu (press 2).

```
1=Auto    2=Devi ces
3=PassWD  4=MeSl NI
5=Zones   6=Opt  7=Sys
8=Ver     9=Def  0=Tel
```

If the control panel concerned is a **SLAVE** the display will show ...

```
PRG: Devi ces
1=LOOP 1  2=LOOP 2
3=Outputs BELL
NET not supported
```

If the control panel concerned is the **MASTER** panel the display will show ...

```
PRG: devi ces
1=LOOP 1  2=LOOP 2
3=Outputs BELL
4=NET
```

Select the required option and refer to the respective section.

■ **Loop 1 and Loop 2**

1. Select LOOP 1 or LOOP 2 from the **DE-VICE** menu.

```
PRG: Devi ces
1=LOOP 1  2=LOOP 2
3=Outputs BELL
4=NET
```

2. Enter the device address (for parameter changes). Press the ↑ key to change the Conventional Line parameters (terminal [LC]), and refer the instructions in the "Conventional Line" section.

```
PRG: devices L1
Enter Address
Sensors L1: 1/##
Modul es L1: 1/___
```

3. If the entered address is valid the display will be as shown in the "Auto learning" section. If not, the display will show the **Device not configured** message. Press **ESC** to exit and go back to step 2.

```
DEVI CES LOOP1
Devi ce not
confi gured
on LOOP 1
```



To view the parameters of other devices on the same loop — work through the steps in the "Auto learning" section. Press **ESC** to exit and go back to step 2.

■ Conventional Line

Figure 21 shows the parameters of the Conventional Line (terminal [LC]).

Conventional Line programming is as per analogue detectors. Refer to the "Programming: Fire detectors" section for the description of the parameters shown in figure 17.

- + The Alarm threshold value is not valid for the Conventional Line, as the connected detectors supply discrete values only (alarm, open/short-circuit).

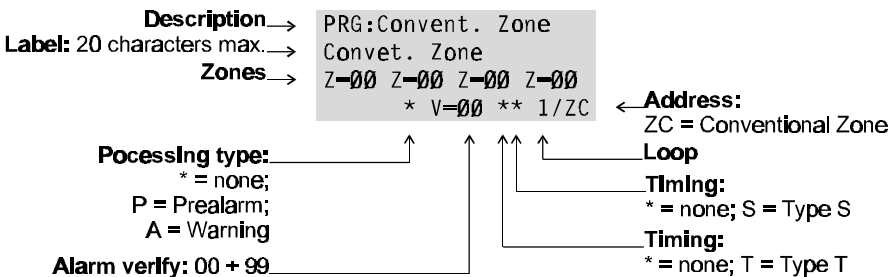


Figure 21 Conventional Line parameters



■ Bell Outputs

1. Select **Bell Outputs** option from the **DE-VICE** menu to program the parameters of the Main board bell outputs (terminals [Cx]), and Output-expander bell outputs (terminals [CX]).

```
PRG: Devi ces
1=LOOP 1  2=LOOP 2
3=Outputs BELL
4=NET
```

2. Enter the address of the bell output concerned. Table 1 shows the corresponding Addresses of the bell output terminals on the Main board and Output expanders.

```
PRG: Output Bells
Enter Address
Output BELL : ##
```

The display will show the message in figure 22a. To access the parameters shown in figure 22b — position the cursor on the third line of the display and then press key 1.

Most of the bell output parameters are described in detail in the "Output Module" section. **The following parameters are for bell outputs only.**

- + Address 01 corresponds to the Type C Output. The Type C Output is non-programmable, and will be activated each time the control panel goes into ALARM status (it is possible to modify the label of the Type C Output).

ITemp When this option is selected the output will be activated in accordance with the times set for option 1 from the **OPTIONS** menu.

If an invalid output or wrong address is entered (accepted values are 01 through 16) the display will show the **Output not available** message. Press **ESC** to go back to step 2.

```
Outputs BELL
Output
not
available
```

To view the parameters of the other bell outputs, follow the procedure described in the "Auto-learning" section. Press **ESC** to go back to step 2.

Double knock As per the same option for Output Modules (page 48).

Zone Warning As per the same option for Output Modules (page 48).

Point Warning As per the same option for Output Modules (page 48).

POSITION	Main board	Output expander no. 1	Output expander no. 2
TERMINALS	C C2 C3 C4	C5 C6 C7 C8 C9 C10	C11 C12 C13 C14 C15 C16
ADDRESSES	01 02 03 04	05 06 07 08 09 10	11 12 13 14 15 16

Table 1 Terminal number and address



Network

1. Select the **NET** option from the **DEVICE** menu (press 4) for the RS485 Network device parameters. Press **ESC** to exit and step back to the **PROGRAMMING** menu.

```
PRG: Devi ces
1=LOOP 1 2=LOOP 2
3=Outputs BELL
4=NET
```

2. Enter the device address. Press **ESC** to exit and step back.

```
PRG: NET DEVICES
Enter Address
Repeater: ##
Slave: _
```

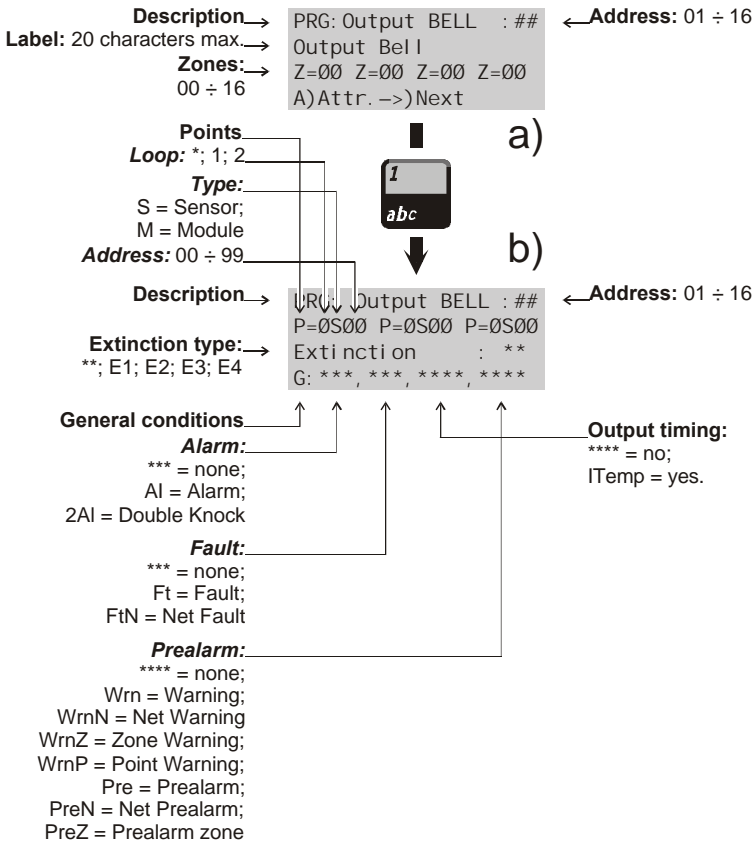


Figure 22 Bell Output parameters



3. The display will show the respective parameters (refer to "Programming: Repeater and Slave panels" section). If not, the display will show the **Device not configured** message. Press **ESC** to step back.

```
DEVICES NET
Device not
configured
on NET
```

To view the parameters of the other devices on the RS485 Network, follow the procedure described in the "Auto-learning" section. Press **ESC** to step back to the previous menu.

Password (PassWD)

The **PassWD** option from the **PROGRAMMING** menu will allow you to change the Installer and user codes. Codes with 1 to 5 digits (0 through 9).

Select the **PassWD** option from the **PROGRAMMING** menu (press 3).

```
1=Auto    2=Devi ces
3=PassWD  4=Mesl NI
5=Zones   6=Opt  7=Sys
8=Ver     9=Def  0=Tel
```

The display will show ...

```
CODES
Programmi ng
1=Installe r Code
2=User Code
```

Select option 1 or 2 and refer to the respective section.



Installer code The installer code accesses all menus. The default installer code is **00000**.

```
Programmi ng:
INSTALLER CODE
enter the new
code : XXXXX
```

Enter the new installer code: each digit will be masked by the symbol Q.

```
Programmi ng:
INSTALLER CODE
enter the new
code : *XXXX
```

Press the \downarrow key to confirm the new code or press **ESC** to exit without saving.

User code The user code can access the **MODIFY-ING** menu only. The default user code is **11111**.

```
Programmi ng:
USER CODE
enter the new
code : XXXXX
```

Enter the new user code: each digit will be masked by the symbol Q.

```
Programmi ng:
USER CODE
enter the new
code : *XXXX
```

Press \downarrow to confirm the new code or press **ESC** to exit without saving.

Welcome Message (MesINI)

The 20-character Welcome Message (**Fire Class 200** at default), shown on the first line of the display during standby can be edited as follows.

Select the **MesINI** option from the **PROGRAMMING** menu (press 4).

```
1=Auto    2=Devi ces
3=PassWD  4=MesI NI
5=Zones   6=Opt  7=Sys
8=Ver     9=Def  0=Tel
```

Enter the new message then press the \downarrow key to confirm or **ESC** to exit without saving.

```
PROGRAMMI NG
WELCOME MESSAGE
enter the new one:
wel come message
```



Zones

The **Zone** option from the **PROGRAMMING** menu will allow you to access the software-zone parameters.

The same parameters can be programmed for all the devices associated with software zones.

You can use the Zones option to associate output device groups with input points.

The software zones parameters will be applied automatically to all the devices associated with the cone concerned.

If a device is associated with several software zones, the last software zones to be programmed will determine the valid parameters.

Therefore, the last parameter will be the **valid** parameter.

Select the **Zone** option from the **PROGRAMMING** menu (press 5) to access and program the parameters of the software zones.

1=Auto	2=Devi ces
3=PassWD	4=Mesl NI
5=Zones	6=Opt 7=Sys
8=Ver	9=Def 0=Tel

The display will be as per figure 23a. Position the cursor on the third line and press 1 to access the parameters shown in figure 23b.

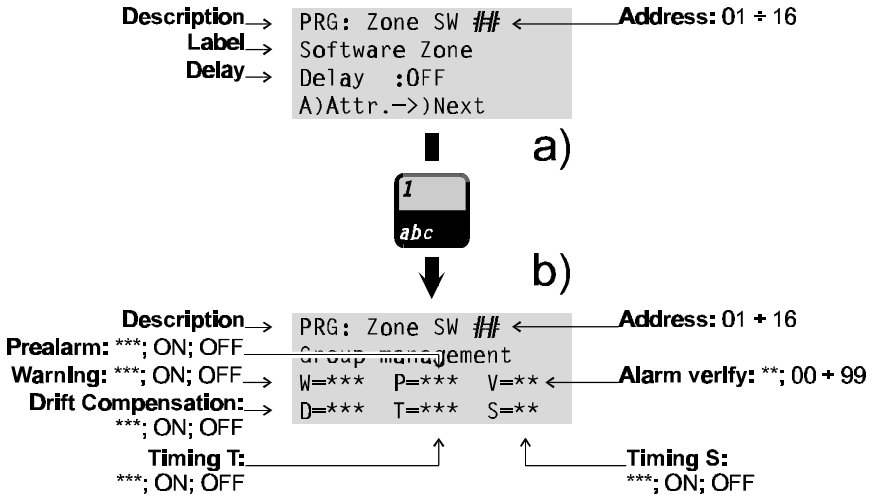


Figure 23 Software Zone parameters



Most of the software zones parameters are described in the "Programming: Fire detectors" section. The following parameters are for software zones only.

Delay Select **ON** to apply the **Fixed Delay** and **PAS Delay** to the software zones.

The **Fixed Delay** will start when an alarm condition occurs on a software zones with the **Delay** enabled (**ON**). The **Fixed Delay** will be signalled by blinking on the software zones LED.

Press **ACK** to extend the running **Fixed Delay** - the **PAS Delay** (if enabled) will be added automatically to the **Fixed Delay**.

The software zones will go into **ALARM** status when the total time of both delays elapses.

+ The **Fixed Delay** and **PAS Delay** (**Positive Alarm Sequence**) can be enabled, and programmed by means of the **D** option from the **OPTIONS** menu.

OPTION

Many of the parameters can be programmed through the **Opt** option from the **PROGRAMMING** menu.

Select the **Opt** option from the **PROGRAMMING** menu.

1=Auto	2=Devi ces
3=PassWD	4=Mesi NI
5=Zones	6=Opt 7=Sys
8=Ver	9=Def 0=Tel

Select the required option, in accordance with the following table, and refer to the respective section. Press **ESC** to step back to the **PROGRAMMING** menu.

PRG: OPTION
0=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pul se
9=Exti ncti on mode

KEYS	OPTIONS
0	<i>Prealarm time</i>
1	<i>Warning threshold</i>
2	<i>Verify</i>
3	<i>Drift Compensation (VALUE CONTROLLED AUTOMATICALLY)</i>
4	<i>Timer</i>
5	<i>Special Timer</i>
6	<i>Holidays</i>
7	<i>Delays (Fixed and PAS)</i>
8	<i>Pulse</i>
9	<i>Extinction modes</i>



■ **Prealarm time (P)**

An input device programmed with Prealarm time will generate ALARM status when the prealarm time elapses. Prealarm status is signalled by:

- an audible signal emitted by the control panel and repeater panels;
- blinking on the PREALARM LED;
- blinking on the LEDs of the associated software zones;
- the following message on the display (from Firmware version 4.0)

```
PREALARM 01/=002
FIRE CLASS 00
Device: SEN1/01
Software Zone 01
```

Select **P** from the **OPTION** menu (press 0) to program the Prealarm time.

```
PRG: OPTION
Ø=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pul se
9=Extinction mode
```

Enter values of 0.00 through 20.00 minutes with steps of 0.5 minutes. The default prealarm time is 1 minute.

```
PRG: OPTION
PREALARM
Enter Prealarm
time : 01,0min.
```

Press the ↵ key to confirm or **ESC** to exit without saving.

■ **Warning Threshold (W)**

If a loop device exceeds the preset Warning Threshold, the Control panel will generate Warning status.

```
Control
Panel in
WARNI NG
Status !
```

The Warning Threshold is valid for loop devices with the **Warning** attribute.

Select **W** from the **OPTION** menu (press 1).

```
PRG: OPTION
Ø=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pul se
9=Extinction mode
```



The warning thresholds of each loop device can be programmed individually, as follows:

Enter a value of 00 through 99% with steps of 1%. The Warning Threshold default value is 30%.

```
PRG: Warning thresh.  
Loop: 1 M Addr. 01  
Device Label  
Warn: threshold: %30
```

Press the \downarrow key to confirm, or **ESC** to exit without saving.

■ Alarm Verify (V)

Select the **Alarm Verify** option for the **Verify Time**. The **Verify Time** will start when a device exceeds the ALARM Threshold.

If the Analogue Value is higher than the Alarm threshold when the **Verify Time** expires, the control panel will generate ALARM status. However, if the Analogue Value drops below the Alarm threshold before the end of the Verify Time, the control panel will hold Standby status, and will increase automatically the value of the **Verify Counter** of the device.

If the Analogue Value is higher than the Alarm threshold, when the **Verify Counter** reaches the programmed value, the control panel will generate an ALARM. To delete (clear) all the **Verify Counters** — select the **Delete Verify** option from the **MODIFYING** menu.

- + If another device exceeds the ALARM threshold during the **Verify Time**, the control panel will generate an instant ALARM.

Select **V** from the **OPTION** menu (press 2) to program the **Verify Time**.

```
PRG: OPTION  
0=P 1=W 2=V 3=D 4=T  
5=S 6=H 7=D 8=Pulse  
9=Extinction mode
```

Select the **Alarm Verify** option (00.0 minutes at default). Enter the required value. Accepted values: 00.0 through 20.0 minutes in steps of 00.5 minutes.

```
PRG: OPTION  
Alarm Verify  
Verify Time: 00.0min
```

Press \downarrow to confirm or **ESC** to exit without saving.



■ **Drift Compensation**

Automatic Drift Compensation on detectors.



■ **Timer and Special Timer (T and S)**

In order to lower the false alarm rate, the Alarm Threshold of analogue detectors must be **INCREASED** during Day mode (to allow for cigarette smoke, heaters, etc.).

The **Timer** can be set to activate/deactivate (**ON/OFF**) the **Increased Alarm Threshold** value.

The **Special Timer** is especially useful in work places with split shifts (factories, offices, etc.).

Both **Timers** have exactly the same programming and operating modes.

- ✦ Ensure that the control-panel calendar and clock are properly set.

Select **T** from the **OPTION** menu (press 4) to access the **Timer** parameters. Fig. 24 shows the respective parameters.

```
PRG: OPTION
Ø=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pulse
9=Extinction mode
```

Select **S** from the **OPTION** menu (press 5) to access the **Special Timer** parameters. Fig. 25 shows the respective parameters.

```
PRG: OPTION
Ø=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pulse
9=Extinction mode
```

ON Enter the time of the day (hour and minutes) when the Alarm Threshold must be **increased by** the non-modifiable **Default** value.

OFF Enter the time of the day (hour and minutes) when the **programmed** Alarm Threshold must be **restored**.

Days Enter the days of the week when the **ON-OFF** times must be applied.

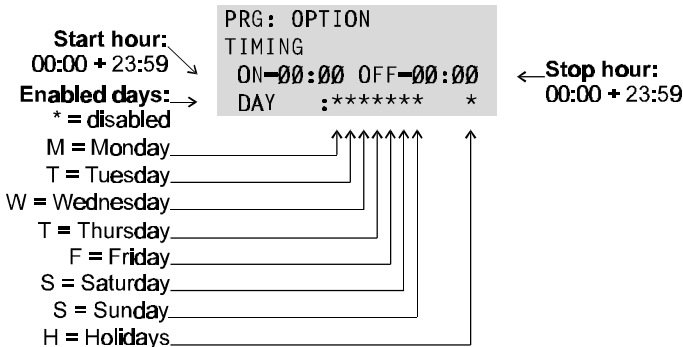


Figure 24 *Timer parameters*



- + The **Timer** will control detectors on the loop with the **T** attribute.
- + The **Special Timer** will control detectors on the loop with the **S** attribute.

H option The **H** option offers further flexibility to the **Timers** as it will allow you to increase the Alarm Threshold on days which would normally be exempt (e.g. Sunday). A maximum of 5 dates can be programmed for this option. The dates selected for the **Timer** option can be applied to the **Special Timer** and vice versa.

Select **H** from the **OPTION** menu (press 6).

```
PRG: OPTION
0=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pul se
9=Extinction mode
```

Enter the date. Cancel the day and/or month number by entering 00.

```
PRG: OPTION
HOLI DAYS
DAY : 00/00 00/00
00/00 00/00 00/00
```

Press **↓** to confirm or **ESC** to exit without saving.

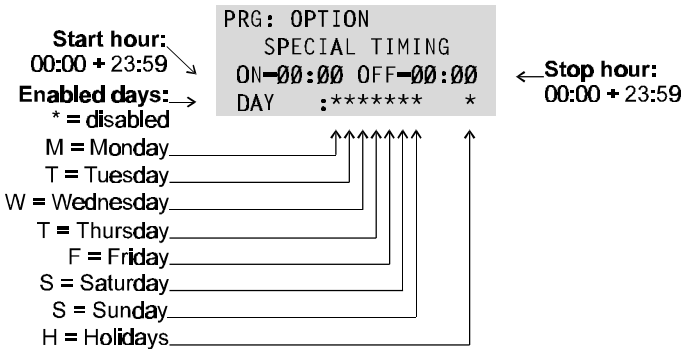


Figure 25 Special Timer parameters



Delay

Use the **Delay** option to access and program the **Fixed Delay** and **PAS Delay**.

Fixed Delay The **Fixed Delay** will start when alarm conditions occur on software zones with the **Delay** attribute (**ON**). The **Fixed Delay** will be signalled by blinking on the Software Zones LED.

Press **ACK** to extend the running **Fixed Delay**. The **PAS Delay** (if enabled) will be added to the **Fixed Delay**.

The software zones will generate ALARM status when the total time of both delays expires.

The **Fixed Delay** and **PAS Delay** (**Positive Alarm Sequence**) must be enabled (**ON**) and programmed using the **D** option from the **OPTIONS** menu.

- + If another software zone detects ALARM conditions during the delay, the control panel will override the delay and generate an instant ALARM.

Select **D** from the **OPTION** menu (press 7) to access the **Fixed** and **PAS** delays.

```
PRG: OPTION
Ø=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pulse
9=Extinction mode
```

Enter the **Fixed Delay** and the **PAS Delay** times (accepted values 0 through 20 minutes in steps of 0.5 minutes).

Select **ON** to enable the **PAS Delay**.

The default value is the same for both Delays: 2 minutes; OFF.

```
PRG: OPTION
DELAY
Fixed: ØØ, Ø PAS: ****
PAS=OFF
```

Press the **↵** key to confirm, or **ESC** to exit without saving and step back to the previous menu.



Pulse

The **Pulse** option is for the **ON** and **OFF** Times of the Bell Outputs.

Select **Pulse** from the **OPTION** menu (press 8).

```
PRG: OPTION
0=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pulse
9=Extinction mode
```

Enter the required **ON** and **OFF** Times
The default value is 0 (accepted values: 0 through 25.5 seconds in steps of 0.5 seconds).

```
PRG: OPTION
PULSES (IPul)
Time ON =00,0 sec
Time OFF =00,0 sec
```

- + The **ON** and **OFF** Times will be valid for the Bell Outputs programmed as General Condition (refer to "Bell Output").

Extinction Mode

The Extinction Mode option will allow you to set up to 4 Extinction Modes.

The Extinction Mode parameters determine the operating mode of the output devices and bell outputs, as follows.

Delay This parameter determines the output device delay. The default value is 30 seconds (accepted values:30 through 99 seconds in steps of 1 second).

Operating Mode This parameter determines how the Extinction Inhibition feature will work.

- **ADD** (default) - Extinction Inhibition will add 90 seconds to the programmed Delay;
- **STOP** - Extinction Inhibition will stop the Delay 10 seconds before it is due to end. If Extinction Inhibition is undone, the Delay will restart and run for 10 seconds;
- **FULL** - Extinction Inhibition will refresh the Delay to its initial value. If Extinction Inhibition is undone, the Delay will restart.

- + If an activating condition occurs during Extinction Inhibition, Extinction devices will be activated immediately.

LOG The LOG (logic) parameter establishes the conditions that will activate extinction.

- **OR** (default) - only one activating condition need occur.
- **OFF** - at least two activating conditions must occur simultaneously.

Time ON (TMP) This determines the time that Extinction devices will be active. Enter values from 0 through 20 minutes - 0 (zero) means that the Extinction devices



will stop when the control panel is RESET. The default **Time ON** is 0 (**TMP** indefinite).

The programmed Delay will start when the activating conditions specified in the **LOG** (logic) parameter occur.

It is possible to stop Extinction devices whilst the Delay is running; as specified in the **Mode** parameter.

When the programmed Delay elapses the Extinction devices will be activated for the programmed **Time ON**.

The enabled output modules and the Bell Outputs will be activated after the programmed Delay.

They will hold the activated status for the programmed **Time ON** .

- + The Extinction Mode settings will be valid for the Outputs with the same Mode type (refer to "Extinction mode" of the Output modules and Bell Outputs).

1. Select the **Extinction Mode** option from the **OPTION** menu (press 9) to access and program the Extinction Modes.

```
PRG: OPTION
Ø=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pulse
9=Extinction mode
```

2. Select the required Extinction Mode, or press **ESC** to step back to the **OPTION** menu.

```
PRG: OPTION
Choose Extinction:
1= Ext1 2= Ext2
3= Ext3 4= Ext4
```

3. **DLY** is for the Delay; **TMP** stands for **Time ON**.

```
PRG: OPTION
Extinction M.: E#
DLY=3Ø MODE=ADD TMP
LOG=ØR TMP=ØØ, Ø min
```

4. Press the **↵** key to confirm and go back to step 2. Press **ESC** to exit without saving and go back to step 2.



System

Select the **Sys** option from the **PRO-GRAMMING** menu (press 7) to access and program the system parameters.

```
1=Auto    2=Devi ces
3=PassWD 4=Mesi NI
5=Zones  6=Opt  7=Sys
8=Ver    9=Def  0=Tel
```

The display will show ...

```
PRG: SYSTEM
1=Date/Time 2=Blink
3=Wi re 4=SIL 5=WT
6=NET 7=Printer
```

Select the required option, according to the following table, and refer to the respective section or press **ESC** to step back to the **PROGRAMMING** menu.

KEYS	SYSTEM PARAMETERS
1	<i>Date/Time</i>
2	<i>Blink</i>
3	<i>Wire</i>
4	<i>SIL (Silence)</i>
5	<i>WT (Walk Test)</i>
6	<i>NET (Network)</i>
7	<i>Printer</i>

Date and Time

The **Date/Time** option from the **SYSTEM** menu is for the control panel clock settings.

Select **Date/Time** option from the **SYS-TEM** menu (press 1).

```
PRG: SYSTEM
1=Date/Ti me 2=Blink
3=Wi re 4=SIL 5=WT
6=NET 7=Printer
```

Enter the required Time and Date. Press the **↵** key to confirm, or **ESC** to exit without saving and step back to the **SYSTEM** menu.

```
PRG: SYSTEM
Date/Time
Ti me: 00:00
Date: 24/11/98 Tue
```

- + The day of the week must correspond to the selected date in order to ensure proper functioning.



Blink

The analogue fire detectors are equipped with a LED which will blink when the control panel reads the detector status.

Select the **Blink** option from the **SYSTEM** menu (press 2) to enable/disable the detector LED.

```
PRG: SYSTEM
1=Date/Time 2=Blink
3=Wire 4=SIL 5=WT
6=NET 7=Printer
```

Select the loop (L1 or L2) that the LEDs are connected to. Select **ON** to enable and **OFF** to disable the LED.

```
PRG: SYSTEM
Blinking : L1 S ON
Device : 1/___
From: 1/___ to1/___
```

Select the address of the detector whose LED must be enabled/disabled or ...

```
PRG: SYSTEM
Blinking : L1 S ON
Device : 1/##
From: 1/___ to1/___
```

select the address range (from ... to) of the detectors whose LEDs must be enabled/disabled.

```
PRG: SYSTEM
Blinking : L1 S ON
Device : 1/___
From: 1/## to1/##
```

Press the \downarrow key to confirm or **ESC** to exit without saving and step back to the **SYSTEM** menu.

Wires

Use the **Wire** option to specify the configuration of the control panel loops.

Select the **Wire** option from the **SYSTEM** menu (press 3).

```
PRG: SYSTEM
1=Date/Time 2=Blink
3=Wire 4=SIL 5=WT
6=NET 7=Printer
```

Select the configuration of each loop (2 or 4 wires). Press the \downarrow key to confirm, or **ESC** to exit without saving and step back to the **SYSTEM** menu.

```
PRG: SYSTEM
Wires
Loop 1: 2 wires
Loop 2: 2 wires
```



■ Silence mode

The control panel **SILENCE** button will disable all Outputs in ALARM status (Bell Outputs and Output modules), with the exception of the NON-Controlled Outputs (terminals [CM1-NC1-NO1] and [CM2-NC2-NO2]).

Select the **SIL** option from the **SYSTEM** menu (press 4) to access and program the Silence mode.

```
PRG: SYSTEM
1=Date/Time 2=Blink
3=Wire 4=SIL 5=WT
6=NET 7=Printer
```

The display will show ...

```
PRG: SYSTEM
Silencing
MODE: Night
Time ON= 00,5 T S
```

Mode Select the Silence mode:

- **Day** (Default) - Silence status will be held until the **SILENCE** button is pressed. The control panel will set to **Day** mode on power up.
 - **Night** - Silence status will be held for the programmed **Time ON**, or until the **SILENCE** button is pressed again.
 - **AUTO** - Silence status will operate in Day Mode during the hours and days programmed on the Timers (see **Timer** below), otherwise, it will operate in Night Mode.
- +
- If an alarm condition is detected during Silence mode, the programmed Outputs will be activated.

Time ON Enter the maximum Silence Time for Night Mode. Enter from 00.5 through 20.0 minutes with steps of 0.5 minutes. The default is 0.5 minutes (30 seconds).

Timer Select the Timer for **AUTO** mode. Select **T** or **S**, or **T** and **S** as required. Both **Timers** are programmed by means of the **Timer** option from the **OPTION** menu.

```
PRG: SYSTEM
Silencing
MODE: Night
Time ON= 00,5 T S
```

Press the ↵ key to confirm, or **ESC** to exit without saving and step back to the **SYSTEM** menu.



Walk Test

The Walk Test allows the installer to check proper functioning of the Input Points of each separate software zones. When a software zones — in Walk Test status goes into ALARM status, the control panel will activate the Alarm Outputs for a period of 1 to 15 seconds (depending on the number of detectors on the loops).

+ The Extinction Outputs will not be activated.

1. Select the **WT** option from the **SYSTEM** menu (press 5).

```
PRG: SYSTEM
1=Date/Time 2=Blink
3=Wire 4=SIL 5=WT
6=NET 7=Printer
```

2. Select **ON** to enable the Walk Test.

```
PRG: SYSTEM
Wal k Test
Wal k Test: ON
on Zone : 01
```

3. Select the required Zone.

```
PRG: SYSTEM
Wal k Test
Wal k Test: ON
on Zone : ##
```

4. Press the \downarrow key to activate the Walk Test.

```
FIRE CLASS 200
WALK
TEST
ACTIVE ON ZONE: ##
```

The Walk Test status will be signalled by:

- the message - WALK TEST ACTIVE ON ZONE: # (the Zone will be indicated in the space filled by # in the example);
- Blinking on the **TEST** LED (0.5 second intervals);
- a long beep, followed by a long pause (2 second intervals).

Select OFF at step **B** to disable the Walk Test.

- + Test status will be abandoned automatically if any Zone, other than the Zone in TEST status, goes into ALARM status.
- + Test status will be abandoned automatically if any type of Fault is detected.



Network

When the Fire control system is fully installed, and several control panels are connected via RS485: one of the control panels must be programmed as MASTER and all the others as SLAVES.

Select the **NET** option from the **SYSTEM** menu to program the MASTER and SLAVES. It is possible to connect the MASTER panel to one of the SLAVE panels on the network. In which case, the LEDs and display of the MASTER panel will show the status and parameters of the SLAVE panel. The commands made on the MASTER panel will be effective also on the SLAVE panel.

Select the **NET** option from the **SYSTEM** menu (press 6).

```
PRG: SYSTEM
1=Date/Time 2=Bl ink
3=Wi re 4=SI L 5=WT
6=NET 7=Pri nter
```

Status Select the operating mode of the control panel: MASTER or SLAVE # (the address 1 through 7 will be indicated in the space filled by # in the example). The example shows the control panel programmed as SLAVE 1 (default).

```
PRG: SYSTEM
NET
Cond.: Sl ave 1
***** -> *****
```

- + The control panel will RESET automatically each time the control panel status is changed.

Remote connection Specify the remote connection of the MASTER to a SLAVE panel.

```
PRG: SYSTEM
NET
Cond.: MASTER
MASTER -> Sl ave #
```

Press the **↵** key to confirm, or **ESC** to exit without saving and step back to the **SYSTEM** menu.

- + If Remote Connection with a SLAVE panel has been programmed, on exiting the NETWORK window, the MASTER panel display will be the same as the slave.

Press the **ACK** key to end the remote connection. If no key is pressed within 20 seconds the remote connection will end automatically. The MASTER panel will **RESET** when the connection ends.



Printer

A serial printer can be connected to the RS232 port of the control panel, for real-time printout of events.

Select **Printer** from the **SYSTEM** menu (press 7).

```
PRG: SYSTEM
1=Date/Time 2=Blink
3=Wire 4=SiL 5=WT
6=NET 7=Printer
```

Select **ON** to enable or **OFF** to disable the Printer.

```
PRG: SYSTEM
Condi tion
Printer
ENABLED : OFF
```

Press the \downarrow key to confirm, or **ESC** to exit without saving and step back to the **SYSTEM** menu.

Verify

The **Verify** option from the **PROGRAMMING** menu is reserved for future use.

If the **Ver** option is selected from the **PROGRAMMING** menu (key 8).

```
1=Auto 2=Devi ces
3=PassWD 4=MesI NI
5=Zones 6=Opt 7=Sys
8=Ver 9=Def 0=Tel
```

The display will show ...

```
PRG: VERI FY
Future Use
Future Use
Future Use
```

Press **ESC** to step back to the **PROGRAMMING** menu.



Factory

The **Factory** option from the **PROGRAMMING** menu resets the manufacturer's settings (Default) on the control panel.

Select **Def** from the **PROGRAMMING** menu (press 9).

```
1=Auto    2=Devi ces
3=PassWD  4=Mesl NI
5=Zones   6=Opt   7=Sys
8=Ver     9=Def   0=Tel
```

The display will show ...

```
PRG: FACTORY
1= Restore Default
2= Maintenance
```

Select the required option and refer to the respective section, or press **ESC** to exit and step back to the **PROGRAMMING** menu.

Restore default

Select the **Restore default** option from the **FACTORY** menu (press 1).

```
PRG: FACTORY
1= Restore Default
2= Maintenance
```

Press the **↓** key to Restore Default settings, or **ESC** to exit and step back to the **FACTORY** menu.

```
PRG: FACTORY
Restore default
Are you sure ?
Yes=Enter
```

Maintenance

Select the **Maintenance** option from the **FACTORY** menu to program the required date.

Select the **Maintenance** option from the **FACTORY** menu (press 2).

```
PRG: FACTORY
1= Restore Default
2= Maintenance
```



To enable the Maintenance option, select **ON** and enter the date (day, month and year). The maintenance request will be signalled by **FAULT** status on the programmed date.

```
PRG: FACTORY
Maintenance
Maintenance : OFF
on date 00/00/00
```

Press the **↵** key to confirm, or **ESC** to exit and step back.

Telephone

The FC200/COM Telecom module (optional) can operate as either a Dialler or Digital Communicator — or both. The properly programmed Telecom module will be activated by **ALARM**, **WARNING**, **PREALARM** and **FAULT** events, and will send voice messages and/or data to the programmed telephone numbers. By entering the installer code (Factory default 00000) and pressing the **↵** key it will be possible to stop ongoing calls, and clear the call queue.

Select the **Tel** option from the **PROGRAMMING** menu (press 0).

```
1=Auto    2=Devi ces
3=PassWD  4=Mesl NI
5=Zones   6=Opt  7=Sys
8=Ver     9=Def  0=Tel
```

Autolearning **not done** — the display will show the **Module not present** message.

```
PRG: TELECOM MODULE
Module
not present
Esc to Quit
```

Autolearning **done** — the display will show the **PRG: TELECOM MODULE** menu.

```
PRG: TELECOM MODULE
1)Dial.  2)Commun.
3)T.Num. 4)Opti on
5)Remote Management
```

Select the required option, as per the following chart and continue, or press **ESC** to step back to the **PROGRAMMING** menu.

KEYS	OPTIONS
1	<i>Dial.</i>
2	<i>Commun.</i>
3	<i>T.Num.</i>
4	<i>Option</i>
5	<i>Remote Management</i>



Dial. (Telephone Dialler)

Select **Dial.** from the **PRG: TELECOM MODULE** menu (press 1) to program the Telephone module as a Telephone dialler. The display will show the Dialler menu.

```
PRG: TELECOM MODULE
1)Di al .  2)Commun.
3)T. Num. 4)Opti on
5)Remote Management
```

Select **Messages** (press 1) to record up to 8 voice messages of 11 seconds each (1 message per channel).

```
PRG: TELECOM MODULE
Di al l er
1=Messages
2=Causes / Events
```

Select the required message (use the ↑ and ↓ arrows) then press **6** to **Record**. Recording will start immediately — speak clearly at about 10 cm from the microphone. The elapsing message time will be shown on the bottom line of the display. Listening and recording can be stopped by pressing **ESC**. When the recording time elapses the program will step back to the **PRG: Telecom Module** menu.

```
PRG: TELECOM MODULE
Di al l er
Messages =
A=Li sten   R=Record
```

Select the required message (use the ↑ and ↓ arrows) then press 1 to **Listen**.

```
PRG: TELECOM MODULE
Di al l er
Messages Record. =
>> >> >> >> Esc=End
```

```
PRG: TELECOM MODULE
Di al l er
Messages Li steni ng
>> >> >> >> Esc=End
```

Select **Causes / Events** (press 2) and assign the events to the channel / message. The Telecom module will send the voice messages to the programmed telephone numbers when the assigned events occur.

```
PRG: TELECOM MODULE
Di al l er
Causes / Events
C: 1, 2, 3, 4, 5, 6, 7, 8
```

Select channel **1** (press 1) and then assign the causes / events to channel / message **1**. Repeat the procedure for the remaining channels (see figure 26). Option 3 allows up to 7 telephone numbers to be defined for each channel (refer **Tel.Num.** from **Dialler** menu).

Press ↵ to confirm or **ESC** to exit.



Double knock As per the same option for Output Modules (page 48).

Zone Warning As per the same option for Output Modules (page 48).

Point Warning As per the same option for Output Modules (page 48).

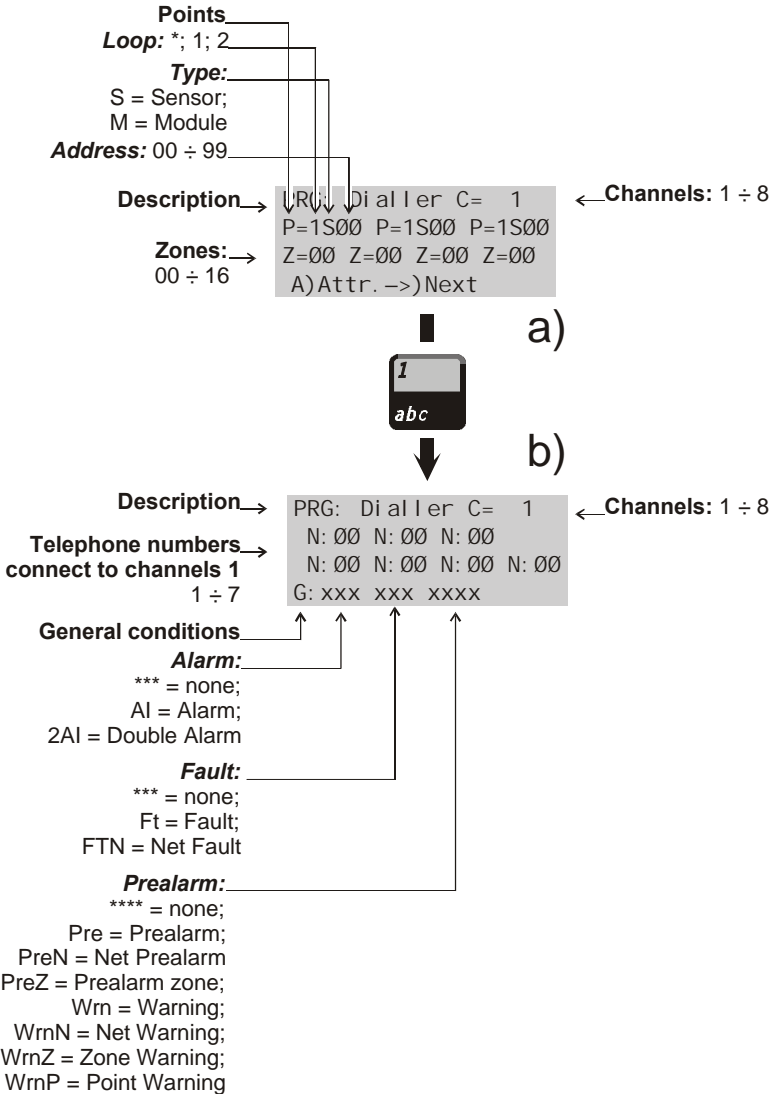


Figure 26 *Input causes/events parameters*



Digital Telephone Communicator (Digital Commun.)

To program the module as a Telephone Communicator — select **Digital Commun.** from the **PRG: TELECOM MODULE** menu (press 2). The display will show the **Tel. Communicator** menu.

```
PRG: TELECOM MODULE
Digital Communi c.
1=Codes
2=Causes / Events
```

The Telecom module provides 8 channels for Telephone communicator use. Select **Codes** (press 1) then select the required channel.

```
PRG: TELECOM MODULE
Digital Communi c.
Codes
Channel s =
```

Press ↓ to confirm and continue.

```
PRG: T. Com. Ch. =__P=__
User Code      =____
Al m.   =__   Res. =__
Number= __, __, __, __
```

Program the selected channel, and all other channels including the Test channel (**T** follows channel 8) as follows:

— **P** enter the corresponding protocol number (as per below)

- Protocols**
- 1 = ADEMCO SLOW 10 BAUD
 - 2 = ADEMCO FAST 14 BAUD
 - 3 = FRANKLIN 20 BAUD
 - 4 = RADIONICS 40 BAUD
 - 5 = SCANTRONIC 10 BAUD
 - 6 = CONTACT-ID (DTMF)
 - 7 = SIA 300 BAUD

—**User code** enter the 4 digit user code (usually assigned by the central station);

—**Alm.** enter the 2 digit Alarm code (usually assigned by the central station);

—**Res.** enter the 2 digit Restore code (usually assigned by the central station);

—**Number** enter 4 telephone numbers from the 32 available.

The telephone numbers must be defined in option 3 (refer to **Tel.Num.** from PRG: **Telecom Module** menu).



The **Alm.** and **Res.** codes are not required for protocol **7** SIA 300 BAUD.
 The **Res.** code is not required for protocol **6** CONTACT-ID.
 Press **↓**, **ESC** or the arrow keys to confirm and exit.

Select Test to program the **Test** channel.
 The display will show

```
PRG: T. Com. Test P=_
User Code =____
TEST CODE__
->> Period
```

Enter the Protocol number; the user code and Test code (usually assigned by the central station). Press **↓** to confirm. The display will show

```
PRG: T. Com. Test
Number=__, __, __, __,
Hour __: __
Day = xxxxxxxx
```

Enter the telephone numbers, the hour and day for the Test call.
 The Test code is programmable for protocols **1** through **5** but is automatic for protocol **6** CONTACT ID, and protocol **7** SIA 300 BAUD.

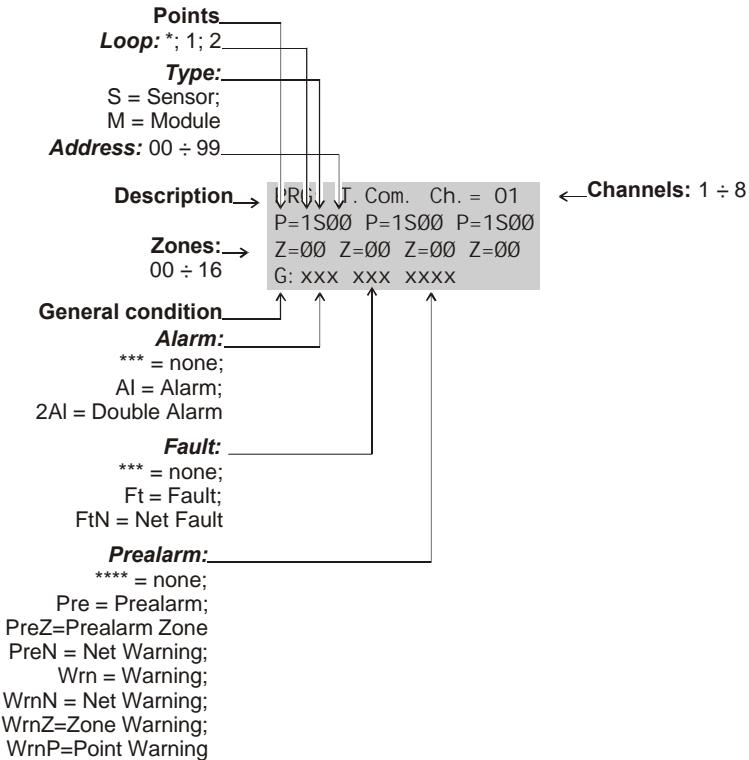


Figure 27 Digital-Communicator parameters template



Select **Causes / Events** from the **PRG: TELECOM MODULE** menu and assign the events to the channels (1 through 8). The Telecom module will send the code to the programmed telephone numbers when the assigned events occur.

```
PRG: TELECOM MODULE
Digital Communi c.
Causes / Events
C: 1, 2, 3, 4, 5, 6, 7, 8
```

When channels (1 through 8) are programmed — program the corresponding parameters (see figure 27).

- + For details regarding the Double Knock, Zone Warning and Point Warning options refer to the Output Modules section page 48.

■ **Telephone Numbers (T.Num)**

Select the **T.Num.** option from the **PRG: TELECOM MODULE** menu, the display will show the **Telephone Numbers** menu.

```
PRG: TELECOM MODULE
Tel ephone Numbers
Number : _ _
_____
```

Use the ↑ and ↓ arrows to scroll the Number List. Select the identifier Number (01 through 32), enter the corresponding telephone number then press ↵ to confirm and continue. Use the ← and → arrows to scroll the entered telephone number and delete any mistakes.

■ **Options**

Select Options from the **PRG: TELECOM MODULE** menu. The display will show ...

```
PRG: TELECOM MODULE
OPTI ON Tel .
Sel = _C. D. T. = __RT= _
AK= __J= __ C/R/_/_
```

- Sel** Select **Pulse** or **DTMF**, according to local requirements. The Telecom module is programmed to dial in **DTMF** (factory default). However, if both modes are available select DTMF as it is faster.

C.D.T. If the **Check Dial Tone** option is disabled **OFF** — the telecom module will dial the programmed telephone numbers assigned channel in alarm status, without checking for the dialling tone.

If the **Check Dial Tone** option is enabled **ON** — the telecom module will dial the programmed telephone numbers only when the **dial-tone** is detected, otherwise, it will release the telephone line and restart the alarm cycle from the same telephone number: after 4 attempts the Telecom module will exit and step to the successive telephone number.

The control panel comes with the **Check Dial Tone** option enabled (**ON**).



- + This option must be disabled during the test phase (telephone line disconnected), and also when the telecom module is connected to telephone networks with non-standard tones.

RT The Telecom module will answer after the number of rings programmed for **Ringling Tones** option.

AK The **Acknowledge** option allows 3 different operating modes:

- **SN** (Successful Numbers): the control panel will perform the alarm cycle and check whether calls are successful or not, and **will redial** the telephone numbers of successful calls during the subsequent cycles.
- **NSN** (No Successful Numbers): the control panel will perform the alarm cycle and check whether calls are successful or not, but **will not redial** the telephone numbers of successful calls in the subsequent cycles.
- **PS** (Play Systematically) the Answer Check **will be disabled** and the message will be played 5 seconds after dialling.

J The **Jump** (Double Call / Jump other answering devices) option allows the control panel (via Telecom module) to share the telephone line with one or more answering devices (answerphone, fax, etc.). In normal circumstances the device programmed with the least number of rings will answer, however, if the **J** option is enabled (**ON**) the Telecom module will override the other answering devices when it recognizes the double call sequence.

Double call sequence: the user must call the control panel, allow 2 rings then hang up and recall within 60 seconds. The control panel will not answer the first call but will answer on the first ring of the second call. If more than 60 seconds elapse — the **Double call sequence** will not be recognized and it will be necessary to retry.

- + The other answering device must be programmed to answer after 3 rings or more.
- + If the Jump option is enabled the RT (Ring Tone) option can be ignored.

The Telecom module comes with the Jump option disabled (**OFF**).

C/R This is for the number of **Cycles** (1 to 8), and for the **Repetition** time (the time the message must be played for each telephone number). To program the Messages playback time select:

- 1** = 20 seconds
- 2** = 40 seconds
- 3** = 60 seconds
- 4** = 80 seconds
- 5** = 100 seconds

Press ↵ or **ESC** to confirm and exit.



Remote management

Select **Remote management** from the **PRG:TELECOM MODULE** menu (press 5) to enable (**ON**) or disable (**OFF**) Teleservice. When the Teleservice option is **ON** the installer will be able to service the control panel, and change the parameters via telephone. When Teleservice is **OFF** this will not be possible. The installer must be equipped with the optional OMNIAMOD/V1 or OMNIAMOD/V2, and the respective software in order to provide this service.

```
PRG: TELECOM MODULE
Remote Managem. =OFF
```



MODIFYING

The **Modifying** option from the **MAIN** menu allows the user to: disable the devices connected to the control panel; delete the Verify counters and log; modify some of the parameters of the Telecom module.

Select the **Modifying** option from the **MAIN** menu (press 2).

```
FI RE CLASS 200
1= Programmi ng
2= Modi fyi ng
3= Readi ng Parameter
```

Enter the user code (the default code is 11111) each digit will be masked by the symbol Q.

```
Enter
user
code
*****
```

Press the ↵ key to confirm the code. If the code is valid the display will show the **MODIFYING** menu.

```
Modi fyi ng:
1=Di sabl e
2=Del . Ver. 3=Del . Log
4=Tel ecom Modul e
```

Select the required option and refer to the respective section or press **ESC** to step back to the **MAIN** menu.

Wrong code If a wrong code is entered, the display will request **Retry**.

```
User code
Wrong !
Retry
XXXXX
```

User default code The user default code is **11111**. The user default code may be changed by means of the **PassWD** option from the **PROGRAMMING** menu.



Disable

The **Disable** option from the **MODIFYING** menu can disable or Enable:

- the loop devices (input or output devices);
- Bell Outputs;
- Software Zones;
- Devices on the Network (repeater panels or slave panels).

The DISABLE LED will go **ON** when one or more of the above mentioned is/are disabled.

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 ALARM or FAULT status.

- To clear FAULT status generated by an input device - **Disable** the input device concerned.
- To clear ALARM status generated by a input device - **RESET** the control panel.

+ Input devices enabled during ALARM or FAULT status will generate the status, as necessary.

Output Devices ALARM or FAULT status will not activate disabled output devices (Output modules, Addressable Sirens).

- To stop the output devices activated by FAULT status - **Disable** the devices concerned.
- To stop the output devices activated by an ALARM status - **RESET** the control panel.

+ Output devices enabled during ALARM or FAULT status, will be activated immediately.

Bell Outputs The enabled and disabled operating modes of the Bell Outputs are as per output devices.

Software Zones The disabled or enabled mode of a software zones will effect all its associated devices, as previously described.

Repeaters A disabled repeater panel cannot command the Master control panel, although, its display will show the Master panel status. FAULT status will be generated when a repeater panel is **Not Found**. Loss of a disabled repeater panel will not generate a FAULT status.

- To clear a FAULT status - generated by the loss of a Repeater - **Disable** the repeater panel concerned.



+ FAULT status will be generated when the repeater panel is re-enabled.

Slave panels A disabled slave panel cannot generate NETWORK ALARM or NETWORK FAULT status. Loss of disabled slave panel from the Network will not generate FAULT status.

- To clear FAULT status - generated by the loss of a slave panel - **Disable** the slave panel concerned.
- To clear a NETWORK FAULT - generated by a slave panel - **Disable** the slave panel concerned.
- To clear a NETWORK ALARM status generated by a slave panel - **RESET** the Master panel.

+ FAULT status will be generated when the slave panel (in FAULT status) is re-enabled.

+ NETWORK FAULT status will be generated when the slave panel (in NETWORK FAULT status) is re-enabled.

Procedure Proceed as follows to disable the Control panel **items**: Loop devices; Bell Outputs; Software Zones; Network devices.

1. Select the **Disable** option from the **MODIFYING** menu (press 1).

```
Modifying:
1=Disable
2=Delete Ver. 3=Delete Log
4=Telephone Module
```

2. Select the required **item**, or press **ESC** to step back to the **MODIFYING** menu.

```
MOD: Enab./Disable
1=LOOP 1 2=LOOP 2
3=Outputs BELL
4=ZONES 5=NET 6=TEL
```

3. Enter the **Item** address then press the ↵ key, or press **ESC** to step back and select another **Item**.

```
MOD: Devices L1
Enter Address
Sensors L1: 1/##
Modules L1: 1/___
```

If a valid **Item** address is entered the display will show the: **Item** label; real-time Analogue Value; type; address; current status (see figure 28).

4. Press the ↑ or ↓ key to change the **Item** status then press the ↵ key to confirm or **ESC** to exit.

```
MOD: Enab./Disable
Device: SENSOR
    %##    1/##
STATUS: DISABLED
```



5. Step back to 3.

Conventional line To enable or disable the Conventional line (terminal 10[LC+]): position the cursor on the **L1 Detector** space and press the ↑ key.

```
MOD: Devi ces L1
      Enter Address
Sensors L1: 1/ZC
Modul es L1: 1/_
```

Non-Configured Devices If an invalid address is entered, the display will show an error message. Press **ESC** to exit and step back to 3.

```
DEVI CES LOOP1
Devi ce not
confi gured
on LOOP 1
```

Delete Verify

The **Delete Verify** option from the **MODIFYING** menu clears the **Verify Counter** of each detector.

Select the **Delete Verify** option from the **MODIFYING** menu (press 2) to clear ALL the **Verify Counters**.

```
Modi fyi ng:
1=Di sabl e
2=Del . Ver. 3=Del . Log
4=Tel ecom Modul e
```

Press the ↓ key to clear all the **Verify Counters**, or **ESC** to exit and step back to the **MODIFYING** menu.

```
MOD: Clear Veri fy
Are
you sure ?
Yes=Enter No=Esc
```

<p>Label: Device: SENSOR Device: MODULE BELL output Software Zone Slave Repeater → Analogue Value: 00 + 99 → STATUS: → ENABLED DISABLED</p>	<pre>MOD: Enab./Disabl. Device: SENSOR %## 1/## STATUS: ENABLED</pre>	<p>← Object/Address: 1 = Loop 1/ZC - 01 + 99 2 = Loop 2/01 + 99 B = BELL output/01 + 16 Z = Software Zone/01 + 16 _ = Repeater/01 + 08 _ = Slave Unit/01 + 07</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Figure 28 Enabled/Disabled status of detectors



Delete Log (Del. Log)

The **Delete Log (Del. Log)** option from the **MODIFYING** menu deletes the contents of the log.

Select the **Delete Log (Del. Log)** option from the **MODIFYING** menu (press 3).

```
Modi fyi ng:
1=Di sabl e
2=Del . Ver. 3=Del . Log
4=Tel ecom Modul e
```

Press the \downarrow key to delete the log, or press **ESC** to exit and step back to the **MODIFYING** menu.

```
Mod: Cl ear Log      Ar
e                   yo
u sure ?           ye
s=Enter NO=Esc
```

Telecom Module

Select the **Telecom Module** option from the **Modifying menu** (press 4) to change the telephone numbers and messages, and to enable /disable the **Remote management** option. The display will show ...

```
Modi fyi ng:
1=Di sabl e
2=Del . Ver. 3=Del . Log
4=Tel ecom Modul e
```

Select **Numbers** (press 1) to change the programmed telephone numbers.

```
Mod: Tel ecom Modul e
1=Tel ephone Numbers
2=Messages
3=Remote Management
```

Select the identifier number (1 to 32) of the telephone number concerned, and change as required.

```
Mod: Tel ecom Modul e
Tel ephone Numbers
Number = 01
_____
```

Select **Messages** (press 2) to change, record and/or listen to the messages.

```
Mod: Tel ecom Modul e
Message =
A = Li sten
B = Record
```

Enter the identifier number of the message and press **1** to listen. The display will show ...

```
Mod: Tel ecom Modul e
Li sten
Message = 1
>>>>>> Esc=End
```



Press **ESC** to stop the message and step back. Select **Record** (press 6) to record or change messages.

```
Mod: Tel ecom Modul e
Recording
Message = 1
>>>>>> Esc=End
```

Select **Remote Management** (press 3) to enable / disable Teleservice (**ON/OFF**).

```
Mod: Tel ecom Modul e
Remote Managem. =OFF
```



READING PARAMETER

Use the **Reading Parameter** option from the **MAIN** menu to view all the control panel parameters, and to print the log contents.

Select the **Reading Parameter** option from the **MAIN** menu (press 3). No access code is required, as viewing and printout do not effect the parameters and operating modes of the control panel.

```
FIRE CLASS 200
1= Programm ing
2= Modi fyi ng
3= Readi ng Parameter
```

The display will show the **READING PARAMETER** menu.

```
READI NGS:
1=Dev. /Zones/Outputs
2=Opt. 3=Ver. 4=Log.
5=Pri nt 6=M. Tel ecom
```

Select the required option and refer to the respective section, or press **ESC** to step back to the **MAIN** menu.

Devices/Zones/Outputs

The **Dev./Zones/Outputs** option from the **READING PARAMETER** menu shows the parameters of the devices connected to the Loops, Software Zones, Bell Outputs, and of the devices on the network.

1. Select the **Dev./Zones/Outputs** option from the **READING PARAMETER** menu (press 1) or press **ESC** to step back to the **MAIN** menu.

```
READI NGS:
1=Dev. /Zones/Outputs
2=Opt. 3=Ver. 4=Log.
5=Pri nt 6=M. Tel ecom
```

2. Select the required option or press **ESC** to return to the **READING PARAMETER** menu (step 1.).

```
RD: Choosi ng Menu
1=LOOP 1 2=LOOP 2
3=Outputs BELL
4=ZONES 5=NET
```

3. Enter the address of the required **Item**. Press **ESC** to step back to the **Dev./Zones/Network** (step 2.).

```
RD: Devi ces L1
Enter Address
Sensors L1: 1/##
Modul es L1: 1/_
```



- + Position the cursor on loop 1 then press the ↑ key to view the parameters of the Conventional Line.

If a valid address is entered the display will show the respective data as described in the "PROGRAMMING".

Press the ← or → key to view the parameters of the other **Items** of the same type, or press **ESC** to enter another address (step 3.).

If an invalid address is entered at step 3., the display will show the **Device not configured** message. Press **ESC** then retry.

```
DEVI CES LOOP1
Devi ce not
confi gured
on LOOP 1
```

Options

This option from the **READING PARAMETER** menu shows the parameters of the **Options**.

Select **Options** from the **READING PARAMETER** menu (press 2), or press **ESC** to step back to the **MAIN** menu.

```
READI NGS:
1=Dev. /Zones/Outputs
2=Opt. 3=Ver. 4=Log.
5=Print 6=M. Telecom
```

The display will show the **OPTIONS** menu (refer to the **OPTIONS** section). Press **ESC** to step back to the **READING PARAMETER** menu.

```
RD: OPTI ONS
Ø=P 1=W 2=V 3=D 4=T
5=S 6=H 7=D 8=Pul se
9=Exti nction Mode
```

Version

The **Version** option from the **READING PARAMETER** menu shows the control panel version.

Select the **Version** option from the **VIEW PARAMETERS** menu (press 3), or press **ESC** to step back to the **MAIN** menu.

```
READI NGS:
1=Dev. /Zones/Outputs
2=Opt. 3=Ver. 4=Log.
5=Print 6=M. Telecom
```



The display will show the control panel version. Press **ESC** to step back to the **READING PARAMETER** menu.

```
Fire Class 200
version
3.0
```

Log

The FireClass200 **Log** stores 200 events. When the log is full the oldest events will be deleted automatically to make space for the new events.

1. Select the **Log** option from the **READING PARAMETER** menu (press 4), or press **ESC** to step back to the **MAIN** menu.

```
READINGS:
1=Dev. /Zones/Outputs
2=Opt. 3=Ver. 4=Log.
5=Print 6=M. Telecom
```

2. The display will show the most recent event.
N.B. The example shows no.123 as being the most recent event.

```
ZONE ALARM          123
FIRE CLASS 200
Software Zone
15:09 13/07/99 01
```

3. Press the ← to scroll back.

```
ALARM                122
FIRE CLASS 200
Device: MODULE
15:09 13/07/99 1M13
```

4. Press the → key to scroll forward.

```
ZONE ALARM          123
FIRE CLASS 200
Software Zone
15:09 13/07/99 01
```

5. Press **ESC** to exit and step back to **READINGS** menu.

When the ← key is pressed on the oldest event ...

```
FAULT                000
FIRE CLASS 200
Missing MAIN
18:02 05/07/99
```



... the most recent event will be shown.

ZONE ALARM	123
FIRE CLASS	200
Software Zone	
15:09 13/07/99	01

When the → key is pressed on the most recent event, the control panel will emit an error signal.

No event At step 2. - if the log is empty (no events) the display will show the LOG EMPTY message.

LOG EMPTY	000
--------------	-----

Delete Log Use the **Delete Log** option in the **MODIFYING** menu to delete the log contents.

■ Log data

The following data is stored in the log (see fig. 29).

Event Type This is the description of the event.

Event Number This is the event number from 1 through 200.

Panel This is the control panel label (Master panel, slave panel or repeater panel) assigned during programming.

Origin This is the label of the **Item** which generated the event.

Hour/Date This is the exact time and date of the event.

Address This is the address of the **Item** which generated the event.

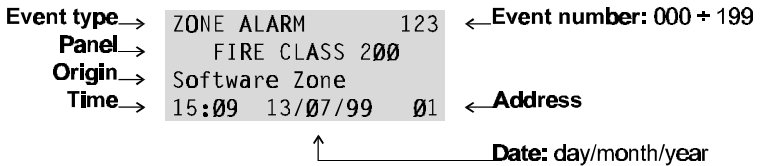


Figure 29 Log data



Print

The **Print** option from the **READINGS** menu prints all the log contents on the connected printer.

1. Select the **Print** option from the **READINGS** menu (press 5) or press **ESC** to step back to the MAIN menu.

```
READINGS:
1=Dev. /Zones/Outputs
2=Opt. 3=Ver. 4=Log.
5=Print 6=M. Telecom
```

2. Select the **Log** option (press 1) or press **ESC** to step back the **READINGS** menu.

```
READINGS
Print:
1= Log           2=
Programmi ng
```

3. Press the **↓** key to start the Log printout or press **ESC** to exit and step back to **2**.

```
Log Print      Sta
rt Print ?    Ent
er = Yes      Esc
= Exit
```

4. The display will show ...

```
Log Print
runni ng
pl ease
wai t. . .
```

⊕ The control panel will continue functioning during the log printout.

Printer not enabled The printer must be enabled, otherwise, at step 4. the display will show ...

```
Printer not
enabled !
Enable in
menu' PRG: SYSTEM
```

Printer not connected The serial printer must be connected to the serial port of the control panel.

The control panel will not signal **Printer not connected** and/or **Printer not ready** (paper out, no ink or blocked etc.) conditions.

Stop Print To stop **Print** - proceed as per start **Print**. At step 3. press **↓**, the display will show ...

```
Log Print
runni ng
SUSPEND ?
Yes = Enter
```



Press the **↵** key to suspend the Print or press **ESC** to go back to step 3.

Print Programming The **Programming** option from the **PRINT** menu is reserved for future use. If the **Programming** option is selected from the **PRINT** menu.

```
READI NGS
Print:
1= Log           2=
Programmi ng
```

The display will show ...

```
Programmi ng Data
Print
Future Use
Future Use
```

Press **ESC** to step back to the **PRINT** menu (step 2.).

Telecom Module

Select the **Telecom Module** option from the **PARAMETER READING** menu to view the Telecom module settings.

```
READI NGS:
1=Dev. /Zones/Outputs
2=Opt. 3=Ver. 4=Log.
5=Print 6=M. Tel ecom
```

Select **Tel.Mod.** from the **PARAMETER READING** menu (press 6), or press **ESC** to step back to the **Main** menu.

The display will show ...

```
Rd. : Tel ecom Modul e
1=Tel ephone Numbers
2=Messages
3=Management
```

Select **Telephone numbers** (press 1) to view the programmed Telephone numbers (01 to 32).

The display will show ...

```
Rd. : Tel ecom Modul e
Tel ephone Numbers
Number : 01
_____
```



Select **Messages** (press 2) to listen to the messages recorded during the programming phase of the Telecom module.

```
Rd. : Telecom Module
Message = 1
A = Listen
```

Select Remote management (press 3) to enable or disable (**ON / OFF**) Teleservice.

The display will show ...

```
Rd. : Telecom Module
Management
STATE: _____
Remote Managem. = OFF
```





This quick guide holds all the information required by installers with some knowledge of the FireClass200 fire control panel, or of fire control panels in general.

General features

Below are some of the technical features of the terminals on the Main board, Output Expanders and Repeaters.

FireClass200

	FC200	FC200/S-FC100
Mains Voltage (1)	117 V ~ 50-60 Hz ±10% 230 V ~ 50-60 Hz ±10%	
Maximum current	1.3 A @ 117 V ~ 0.9 A @ 230 V ~	1.0 A @ 117 V ~ 0.7 A @ 230 V ~
Maximum current available (2)	2 A	1 A
Low voltage range	19.0 ÷ 27.6 V	
Low voltage ripple	1 %	
Battery type: make model	two 12 V - 17 Ah YUASA NP 17-12 FR or the equivalent with case flame class UL94-V2 (or over)	
Temperature range	-5 ÷ +40 °C	
Dimensions (L*H*P)	432*577*131 mm	
Max. weight (3)	21 Kg	

- (1) As per the local Mains power voltage.
- (2) For the power supply to external devices.
- (3) With two 12 V - 17 Ah batteries.

Repeater

Mains voltage	27.6 V
Maximum current	180 mA
Temperature range	-5 ÷ +40 °C
Dimensions (L*H*P)	195*178*45 mm
Weight	1.1 Kg



Terminals

The following charts hold:

- a brief description of the terminals on the Main Board, Output Expanders and Repeaters;
- the voltage present during the different conditions of each terminal;
- the maximum voltage (in amperes) that can circulate on each terminal.

Main board

TERM.	DESCRIPTION	v(V)	i(A)
[L1B]	LOOP 1 IN	--	--
[L1A]	LOOP 1 OUT	--	--
[L2B]	LOOP 2 IN	--	--
[L2A]	LOOP 2 OUT	--	--
[LC+]	CONVENTIONAL LINE: balanced line with 2700 ohm → control panel in standby unbalanced line → Conventional Zone activated line in short-circuit or open → fault on the Conventional Zone	--	--
[EX]	RESERVED OUTPUT	--	--
[+485-]	SERIAL BUS	--	--
14[↗] 17[+]	REPEATER POWER SUPPLY: negative present on terminal 14[↗] positive present on terminal 17[+]	0 27.6	3 (3)
[AUX]	24 V AUXILIARY POWER SUPPLY: negative present on terminal 19[↗] positive present on terminal 19[+]	0 27.6	3 (3)
[CM1] [NC1] [NO1]	FAULT ALARM OUTPUT - NON Controlled: standby → [CM1] connected to [NC1] with [NO1] open in the event of fault → [CM1] connected to [NO1] with [NC1] open	--	5
[CM2] [NC2] [NO2]	FIRE ALARM OUTPUT - NON Controlled: standby → [CM2] connected to [NC2] with [NO2] open in ALARM Status → [CM2] connected to [NO2] with [NC2] open	--	5
[C]	POSITIVE FIRE ALARM OUTPUT - Controlled: in ALARM Status → positive on [+] and negative on [-]	27.6	1.5 (3)
[C2] [C3] [C4]	PROGRAMMABLE OUTPUTS - Controlled: output active → positive on [+] and negative on [-]	27.6	1.5 (3)
[REM]	LOGIC UNIT BLOCKED: Logic Unit blocked → terminal to negative	0	1
[DEF]	DEFAULT DATA: Control panel programmed with default data → terminal to negative	0	1
[OC1] ↓ [OC16]	ZONE ALARM: corresponding zone in standby → terminal open zone in ALARM Status → terminal to negative	0	0.1
36-45[↗]	GROUND	0	--



Output Expander

TER.	DESCRIPTION	v(V)	i(A)
[C5/11] ↓ [C10/16]	PROGRAMMABLE OUTPUTS - Controlled: output active → positive on [+] and negative on [-]	27.6	1.5 (3)

Repeater

TER.	DESCRIPTION	v(V)	i(A)
[+485-]	SERIAL BUS	--	--
1[↗] 4[24V]	POWER SUPPLY (input): terminals for the power supply to the Repeater	27.6	0.18
5[↗] 8[24V]	POWER SUPPLY (output): terminals for the power supply to the next Repeater	--	--
19[+]	POSITIVE	27.6	0.2
[Z1] ↓ [Z16]	ZONE ALARM: zone in standby → corresponding terminal open zone in ALARM Status → corresponding terminal to negative (4)	--	0.01

Telecom Module

TER.	DESCRIPTION	v(V)	i(A)
[LE1] [LE2]	TERMINALS FOR THE CONNECTION of the external telephone lines	/	/
[LI]	TERMINALS FOR THE CONNECTION of other telephone-line sharing devices (answerphone, telephone, fax modem, etc.)	/	/
[⏚]	Earth Terminal	0	/

- (3) The total current absorbed by terminals 17[+], 19[+], 26[+], 28[+], 30[+], 32[+] on the Main Board, and by terminals [+] of the Output Expander, must not exceed:
2 A for the FC200 control panel;
1 A for the FC200/S - FC100 control panel.
- (4) Terminals from [Z1] to [Z16] of the Repeater must be connected to negative by a 2700 ohm resistance, and absorb 0.01 A in the connection to a LED.



