GE
Security

1200C-2000C Fire Alarm Control Panel and Repeater User Manual

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Certification and compliance

CE

European Union directives

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GE Security B.V., Kelvinstraat 7,
6003 DH Weert, The Netherlands.

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Contact information For contact information see our Web site: www.gesecurity.eu.

Content

Important information ii
Introduction ii
Product compatibility ii
Support ii
Limitation of liability ii

Controls and indicators 1
The control panel interface 1
User interface controls 2
General indicators 4
Controls buttons and indicators 6
Sounder buttons and indicators 7
Fire brigade buttons and indicators 8
Repeater buttons and indicators 9
Zone indicators 10

Operation 11
Panel operation in standby 11
Panel operation in fire alarm 12
Panel operation in pre-warning 13
Panel operation in fault 14

Maintenance 15
Fire alarm system maintenance 15
Battery maintenance 16

Product compliance 17

Important information

Introduction

This is the installation manual for GE Security 1200C-2000C addressable fire alarm control panels and repeaters. Read these instructions and all related documentation entirely before operating this product.

Product compatibility

All models are compatible with GE Security **Aritech** fire detectors and manual call points. Compatibility with third-party products cannot be guaranteed. Consult your local supplier for further information.

Support

For assistance operating and maintaining this product, contact your installation or maintenance contractor.

Limitation of liability

Installation in accordance with this manual, applicable codes, and the instructions of the authority having jurisdiction is mandatory. GE Security shall not under any circumstances be liable for any incidental or consequential damages arising from loss of property or other damages or losses owing to the failure of GE Security products beyond the cost of repair or replacement of any defective products. GE Security reserves the right to make product improvements and change product specifications at any time.

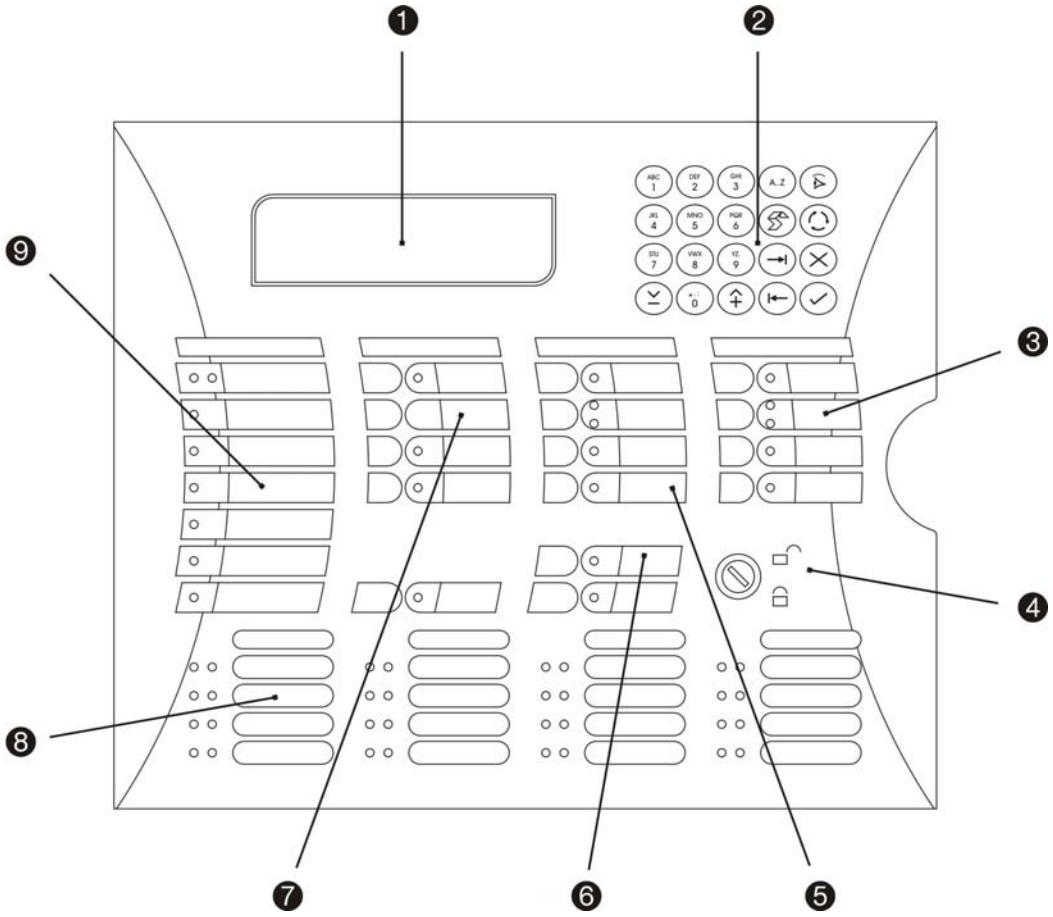
While every precaution has been taken during the preparation of this manual to ensure the accuracy of its contents, GE Security assumes no responsibility for errors or omissions.

Controls and indicators

This chapter describes the control panel interface, indicators, and controls.

The control panel interface

Figure 1: The control panel interface



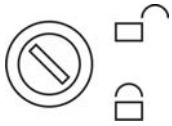
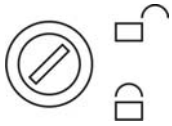
1. LCD screen
2. Alphanumeric keypad
3. Fire brigade buttons and indicators
4. Key switch
5. Sounder buttons and indicators
6. Repeater buttons and indicators
7. Controls buttons and indicators
8. Zone indicators
9. General indicators

User interface controls

Key switch operation

The key switch is used to restrict the operation of the fire panel controls.

Table 1: Key switch enable/disable

Position	Status	Description
	Disabled	Panel operation is restricted.
	Enabled	Panel operation is not restricted.

The Silence Buzzer and Test buttons operate with the key switch in any position.

User interface controls

The user interface has 20 buttons, 10 of which are alphanumeric. The remaining 10 are described below.

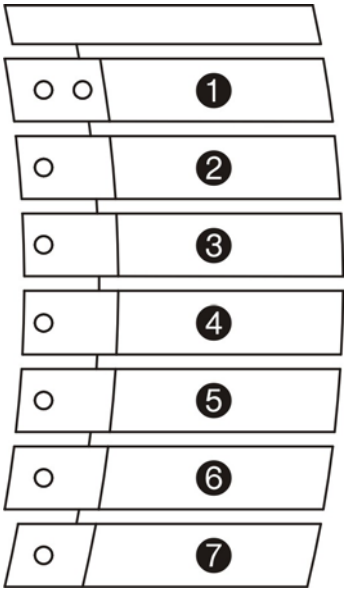
Table 2: Description of the control panel user interface controls

Button	Description
	Alpha selection (when using the alphanumeric buttons)
	Display the most recent alarm
	Print the current screen
	Scroll between Alarm, Fault and Conditions. View additional information when the "MORE" prompt appears on the LCD screen.
	Exit a menu
	Enter or confirm a value or selection
	Move to the next field on the LCD screen
	Move to the previous field on the LCD screen

Button	Description
	Increase a value
	Decrease a value

General indicators

Figure 2: General indicators



1. Fire Alarm LEDs
2. Fault LED
3. Disable LED
4. Supply fault LED
5. System fault LED
6. Processor running LED
7. Supply On LED

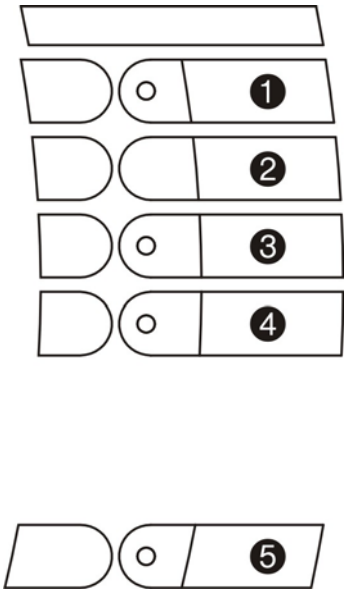
Table 3: Description of general indicators

LED indicator	Description
Fire Alarm	Two red LEDs indicate a fire alarm.
Fault	A yellow LED indicates one or more of the following general faults: • Device fault· • Supply fault • Processor fault • Bell fault • Communications fault • Fire brigade fault· • Any test mode· • Any disablement

LED indicator	Description
Disable	A yellow LED indicates that one or more of the following is disabled: • Devices on the loop • Area • Zone • Sounders • Fire brigade· • Any delays ON
Supply fault	A yellow LED indicates one or more of the following supply faults: • A mains failure • A battery problem (battery disconnected or not charging) • An earth fault
System fault	A yellow LED indicates one or more of the following: • Internal memory failure • Clock failure • Watchdog time out • Tamper switch • Service switch • Logic error • Memory lock • No checksums calculated • Hardware test fault • Fireman's' panel down • Repeater down • Panel down • Global repeater down • Input fault • Output fault • Configuration fault • Checksum fault • Protected memory overwritten • Time date wrong • Access fault • FEP fault • Watchdog time-out
Processor running	A flashing green LED indicates normal operation
Supply on	A steady green LED indicates that the control panel is powered up

Controls buttons and indicators

Figure 3: Control buttons and indicators



1. Silence Buzzer
2. Reset
3. Disable
4. Test
5. Test Third Source (2000C control panels only)

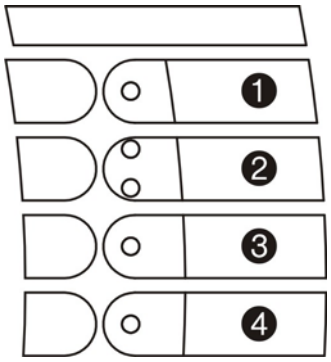
Note: Some features can only be accessed if the key switch is enabled (see "Key switch operation" on page 2).

Table 4: Description of controls LED indicators

LED indicator	Key switch position	Description
Silence Buzzer	Enabled or disabled	The control panel internal buzzer activates for any new condition. The buzzer sound is: • Constant for a fire alarm • Fast intermittent for a fault warning • Slow intermittent for a condition warning Press the Silence Buzzer button to silence the buzzer. A steady yellow LED indicates that the buzzer has been silenced.
Reset	Enabled	Press this button to reset the fire panel.
Disable	Enabled	Press this button to display the Disable menu on the LCD screen. The yellow LED indicates a disablement.
Test	Enabled	Press this button to display the Test menu on the LCD screen. The yellow LED indicates that a feature or device is being tested.
Test Third Source	Enabled or disabled	Press this button to test the third source battery. The yellow LED is steady and the internal buzzer sounds intermittently.

Sounder buttons and indicators

Figure 4: Sounder buttons and indicators



1. Sound
2. Delay ON/OFF
3. Fault/Disable
4. Silence

Note: Some features can only be accessed if the key switch is enabled (see "Key switch operation" on page 2).

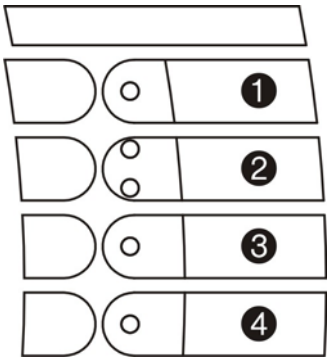
Table 5: Description of sounders LED indicators

LED indicator	Key switch position	Description
Sound		A red LED indicates that the sounders are activate (sounding).
Delay ON/OFF		A single LED indicates that the sounder delay has been toggled ON or OFF.
Fault/Disable	Enabled	Press the Fault/Disable button to disable the sounders. The LED flashes when a fault is detected and is steady when the sounders are disabled.
Silence	Enabled	A yellow LED indicates that the sounders have been silenced.

Note: Functionality of the Sound and Silence buttons is defined by the control panel operating mode.

Fire brigade buttons and indicators

Figure 5: Fire brigade buttons and indicators



1. Signal
2. Delay ON/OFF
3. Fault/Disable
4. Stop fire brigade

Note: Some features can only be accessed if the key switch is enabled (see "Key switch operation" on page 2).

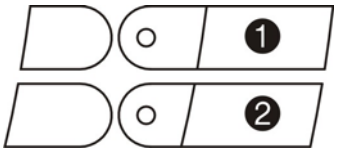
Table 6: Description of fire brigade LED indicators

LED indicator	Key switch position	Description
Signal	Enabled	Push this button to activate the fire brigade notification. A red LED indicates that a signal has been sent.
Delay ON/OFF		The LED indicates that the fire brigade delay has been toggled ON or OFF.
Fault/Disable	Enabled	Push this button to disable the fire brigade notification. The LED is steady when the feature is disabled and flashes when a fault is detected.
Stop Fire brigade	Enabled	Push this button to stop the fire brigade notification A yellow LED indicates that the signal has been stopped.

Note: Functionality of the Signal and Stop Fire Brigade buttons is defined by the control panel operating mode.

Repeater buttons and indicators

Figure 6: Repeater buttons and indicators



1. Panel
2. All

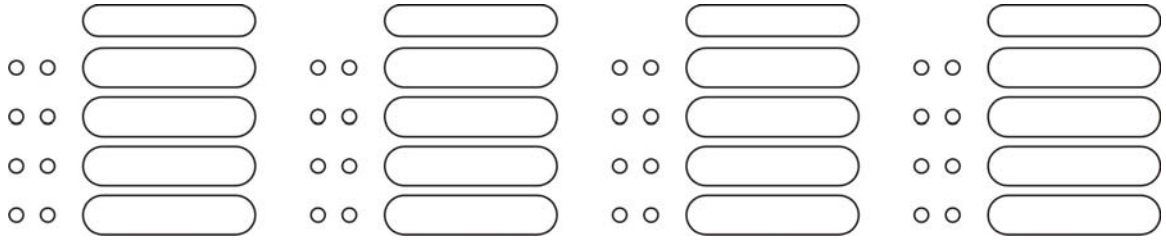
Table 7: Description of repeater LED indicators

LED indicator	Key switch position	Description
Panel	Enabled or disabled	This indicator is used by global and local repeaters for panel emulation. The yellow LED indicates that a control panel is being emulated. Global repeater To start emulation: 1. Press the Panel button. 2. Enter the number of the panel to be emulated 3. Press the Enter button To stop emulation: 1. Press the Panel button. 2. Press "0". 3. Press the Enter button. When a global repeater is emulating a panel it is not necessary to stop emulation before emulating another panel. The global repeater will automatically stop the emulation before trying to emulate another panel. Local repeater: Press the Panel button to start emulating the panel. Emulation will stop when the button is pressed again.
All	Enabled or disabled	Press this button for the global repeater panel to send a command to all control panels that the global repeater communicates with. The command from the next command button to be pressed is then sent to all corresponding panels.

Zone indicators

Each zone has two LED indicators. A red LED indicates a fire alarm and a yellow LED indicates a fault. The zone fault LED flashes when there is a fault and remains steady if the entire zone has been disabled.

Figure 7: Zone fire and fault indicators



Operation

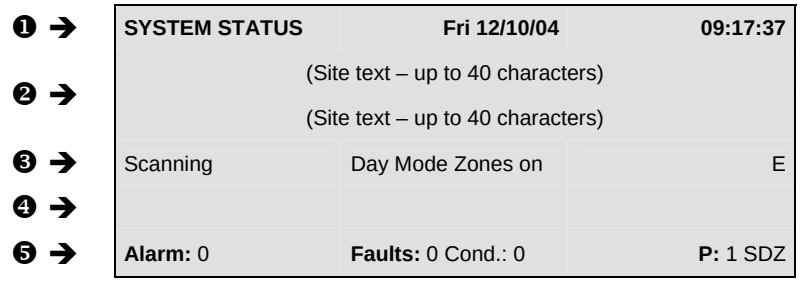
Panel operation in standby

Normal operation (standby) is indicated as shown below.

Table 8: Normal operation

LED indicator	Status
Supply ON	The green LED is steady
Processor running	The green LED is flashing
Sounder indicators: Delay ON or Delay OFF	The yellow Delay ON LED is steady when a delay is running. This is logged as a condition. Press the SILENCE BUZZER button to silence the internal buzzer.
Fire brigade indicators: Delay ON or Delay OFF	The yellow Delay ON LED is steady when a delay is running. This is logged as a condition. Press the SILENCE BUZZER button to silence the internal buzzer.
All other LEDs	OFF

Figure 8: System Status menu (normal operation)

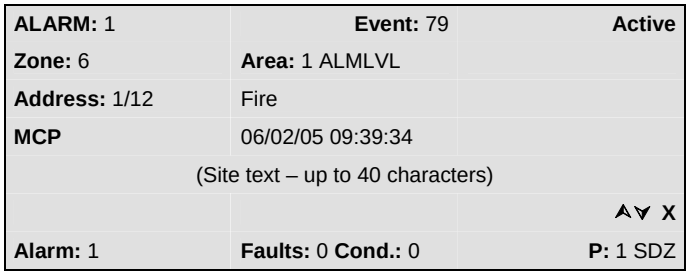


1. Menu title, date, and time
2. Site text (up to 40 characters)
3. Operations status line (operations are displayed in full here)
4. User keys (none shown in this screen)
5. System status. The current number of fire alarms, faults, and conditions are displayed here as well as repeater information (P is global with panel number shown, L is local) and a summary of the operations (eg, SDZ).

Panel operation in fire alarm

The Fire Alarm LEDs are lit and the internal buzzer sounds constantly to indicate a fire alarm. Sounders are also activated.

Figure 9: System Status menu screen in normal operation



1. Look at the screen to see where the fire is located. In the example above, the fire is in zone 6, area 1 at address 12 in loop 1.
2. Press **Display alarm** to view the most recent alarm.
3. If more than one fire alarm exists, use the up and down arrows to view each alarm.
4. Press **Silence Buzzer** to silence the internal buzzer and to acknowledge the alarm.
5. Once the evacuation of the building is complete, silence the sounders by turning the enable/disable key switch to enable (see "Key switch" on page 2).
6. Press the **Silence** button. The yellow Silence LED is steady.
7. If you need to restart the evacuation, press the **Sound** button.
8. When the fire situation is under control, the fire panel may be returned to normal condition by turning the enable/disable key switch to enable.
9. Press the **Reset** button.

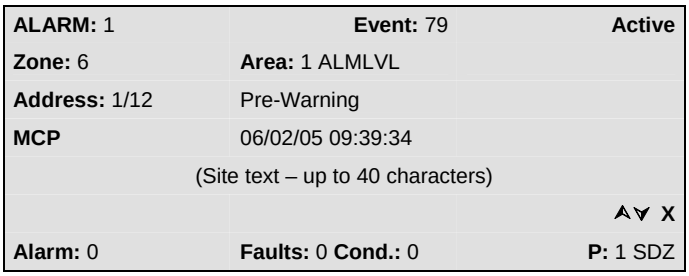
If the fire alarm continues, then one of the following is true:

- The fire is not under control (perform the above checks again).
- The cover glass of a manual call point is broken (repair or disable the manual call point).

Panel operation in pre-warning

The internal buzzer sounds with a short intermittent tone to indicate a pre-warning.

Figure 10: The alarm screen (pre-warning)



1. Look at the screen to see the location of the detector in pre-warning. In the example shown above, the pre-alarm is in zone 6, area 1 at address 12 in loop 1.
2. If more than one pre-warning exists, use the up and down arrows to view each pre-warning condition.
3. Press Silence Buzzer to silence the internal buzzer and to acknowledge the pre-warning.
4. Investigate the cause of the pre-warning condition.
5. When the pre-warning condition is under control, turn the enable/disable key switch to enable to return the fire panel to normal condition.
6. Press the **Reset** button.

If the pre-warning continues, then one of the following is true:

- The event is not under control (return step 3 above).
- The detectors are contaminated with smoke (clean the detectors).

Panel operation in fault

The internal buzzer sounds to indicate a fault.

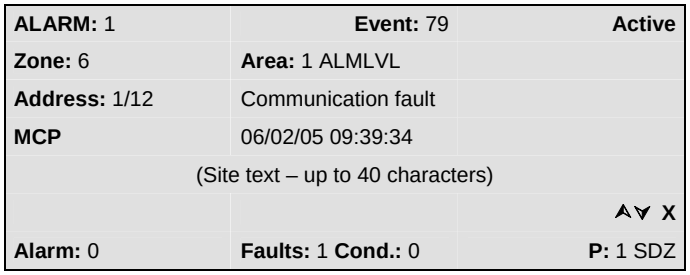
1. Press the **Silence Buzzer** button to silence the internal buzzer.
2. The yellow **Fault** LED is steady to indicate a fault in the fire system.
3. The yellow fault LED for the corresponding feature or device is also steady.

Table 9: Fault LED indications

LED indication	Action required
A specific zone	Call the maintenance engineer.
Disable	A zone, loop, or device has been disabled.
Supply fault	Check the mains supply and battery.
System fault	Call the maintenance engineer.
Test (Controls)	A specific zone has been placed in test mode. The fault remains until the test is complete.
Fault/Disable (Sounders)	The sounders are disabled or there is a fault with the connection. Enable the sounders. If the fault continues, check the connections.
Fault/Disable (Fire brigade)	The fire brigade notification has been disabled or there is a fault with the connection, Enable the Fire brigade notification. If the fault continues, check the connections.

Fault details are also displayed on the LCD screen. The figure below shows a communication fault in zone 6, area 1 at address 12 in loop 1 (the fault is in a specific zone).

Figure 11: The alarm screen (fault)



Maintenance

This section provides information to help you maintain your GE Security product.

Caution: This product must be installed and maintained by qualified personnel adhering to all applicable standards and local authority laws.

Fire alarm system maintenance

Your fire alarm system must be regularly tested and serviced in order to ensure its reliable operation. The following maintenance routine is recommended:

Daily

- Check that the panel indicates normal operation. If it does not, check that any fault indicated is recorded in the log book and reported to the maintenance personnel.
- Check that any fault warning recorded the previous day has received attention.

Quarterly

- Check the log book entries and ensure that any necessary action has been taken.
- Check the state of the batteries and corresponding connections.
- Visually inspect the control panel for signs of moisture and other deterioration.
- Test the alarm, fault, and ancillary functions of the fire panel.

Yearly

- Carry out the recommended daily and quarterly inspection and test routines.
- Check each detector for correct operation in accordance with the manufacturer's recommendations.
- Visually inspect all cable fittings and equipment to ensure that no damage has taken place.
- Visually inspect all electrical connections to make sure that they are securely fastened, that they have not been damaged and that they are appropriately protected.
- Visually inspect the manual call points, detectors, and sounders to ensure that no structural or occupancy changes have affected their location requirements.

Battery maintenance

Batteries must be replaced periodically as recommended by the manufacturer. The useful life of the battery is approximately 4 years. Avoid the total discharge of the batteries.

Battery test fail

When the control panel indicates that the battery test has failed, check the following:

- That the battery leads are in good condition
- That the battery leads are connected securely and correctly at the battery and at the panel
- That the control panel event log does not indicate a mains failure in the last twenty-four hours

If the leads are in good condition, all connections are correct, and the control panel continues to report that the test has failed twenty-four hours after the last mains failure, then the batteries should be replaced immediately.

Replacing batteries

To replace the batteries:

1. Disconnect and remove the existing batteries from the cabinet.
2. Install and connect the replacement batteries using the bridge provided. Observe correct polarity.

Always use the recommended replacement batteries. Dispose of used batteries according the European regulations and/or instructions from local authorities.

Product compliance

All 1200C-2000C control panels are designed to comply with the requirements of European standards EN 54-2 for control and indicating equipment, and EN 54-4 for power supply equipment).

EN 54-2 compliance for control panels with the SD2000 module

Control panels with the SD2000 module installed have the following options with requirements according to EN 54-2:

Table 10: EN 54-2 options with requirements with the SD2000 module

Clause	Description
7.8	Output to fire alarm devices
7.9	Output to fire routing equipment
7.10	Output to fire protection equipment
7.11	Delay to output
7.12	Dependency on more than one alarm signal
7.13	Alarm counter
8.4	Total loss of the power supply
9.5	Disablement of addressable points
10	Test

EN 54-2 compliance for control panels with the VDS2000 module

Control panels with the VDS2000 module installed have the following options with requirements according to EN 54-2:

Table 11: EN 54-2 options with requirements with the VDS2000 module

Clause	Description
7.8	Output to fire alarm devices
7.9	Output to fire routing equipment (+ VDE0833)
7.10	Output to fire protection equipment (+ VdS requirements)
7.11	Delay to output
7.12	Dependency on more than one alarm signal (+ VDE0833)
7.13	Alarm counter
8.4	Total loss of the power supply
8.9	Output to fault routing equipment
9.5	Disablement of addressable points
10	Test

Control panels with the VDS2000 module also allow for:

- Interface to FBF
- Interface to FAT
- interface to FSK
- interface to Hauptmelder
- interface to EMZ

Construction Products Directive (CPD)

Details of the CPD certification for 1200C-2000C fire panels and global repeaters are shown below.

Table 12: CPD certification for 1200C-2000C series fire panels and global repeaters

Certification	CE
Certification body	1134
Certificate number	1134-CPD-069
Manufacturer	GE Security B.V., Kelvinstraat 7,6003 DH Weert, The Netherlands.