BLAUPUNKT

User Manual

ADDRESSABLE FIRE ALARM CONTROL PANEL
BP-FD-ACP1L-120

Enjoy it.

CONTENTS

1 About This Manual

This manual contains all the information necessary for the end user to operate the BP-FD-ACP1L-120 Fire Alarm Control Panel (FACP) with detailed functional descriptions for menu options. Other information about installation and commissioning are described in the separate Installation and Commissioning Manual.

2 Introduction

2.1 Overview

The purpose of the BP-FD-ACP1L-120 FACP is to monitor input signals, give indications and possibly activate outputs as programmed. Designed to comply with EN 54-2 with qualities of simple installation, operation and easy maintenance.

2.2 EN 54 information

In addition to the mandatory requirements of EN 54-2 the BP-FD-ACP1L-120 shall offer the following EN 54 optional features with requirements.

Options:		EN 54-2 Clause
Indications	Fault signals from points	8.3
Controls	Delays to outputs	7.11
	Disablement of each address point	9.5
	Test condition	10
Outputs	Outputs to fire alarm devices	7.8

The power supply of this panel shall comply with the following EN 54-4 requirements.

Power Supply Equipment Functions:	EN 54-4 Clause
Power supply from the main power source	5.1
Power supply from the standby power source (battery)	5.2
Charger	5.3
Faults	5.4

The FACP also support a few functions that are not covered by EN 54. These ancillary functions include the following:

(1) Evacuate control
(2) Auxiliary fire alarm output and a 24V power output
(3) 16 zone indicators(Fire alarm)
(4) Networking function

Technically, the BP-FD-ACP1L-120 connects a maximum of 120 detectors/manual call points per panel which is typically in non-compliance with the clause 13.7 b) specified in EN 54-2 (Operation of the c.i.e in the event of a system fault).

2.3 Key features

The BP-FD-ACP1L-120 single loop 16 zone fire alarm control panel offers the following features:

(1) Up to 120 addresses on one loop
(2) The loop supports class A and Class B types

(3) An easy to read, 4.3'' color screen LCD with a resolution of 480×272

(4) Zone indicators for 16 zones gives a quick indication of the location of an alarm

(5) Record capacity of 1000 historical events for each of historical fire, historical fault and historical operation

(6) An independently programmable conventional sounder circuit output

(7) Integral power supply and battery

(8) Flexible and intuitive cause and effect programming on front panel

(9) Zone test, point test and module start/stop testing facilitate the commissioning

(10) U-disk interface makes the load and save of configuration or historical data convenient for system commissioning and maintenance

(11) Hierarchy management with three access levels

(12) Anti-tamper protection by a key lock

(13) CAN bus for interconnection of up to 20 FACPs

2.4 An overview of panel's access levels

The Fire Alarm Control Panel provides three levels of access.

Access Level 1 (general user):

The FACP is in access level 1 by default which is accessible to everyone. The followings can be achieved under this level:

(1) Toggle between tabs to view any fire, fault and disablement that are displayed

(2) Gain entry to access level 2 or 3

(3) Mute the panel's internal buzzer

Access Level 2 (authorized user):

This level is used by trained and authorized personnel. Access to this level is achieved by entering a valid four-digit password. Besides the above actions of access level 1, the followings are available as well:
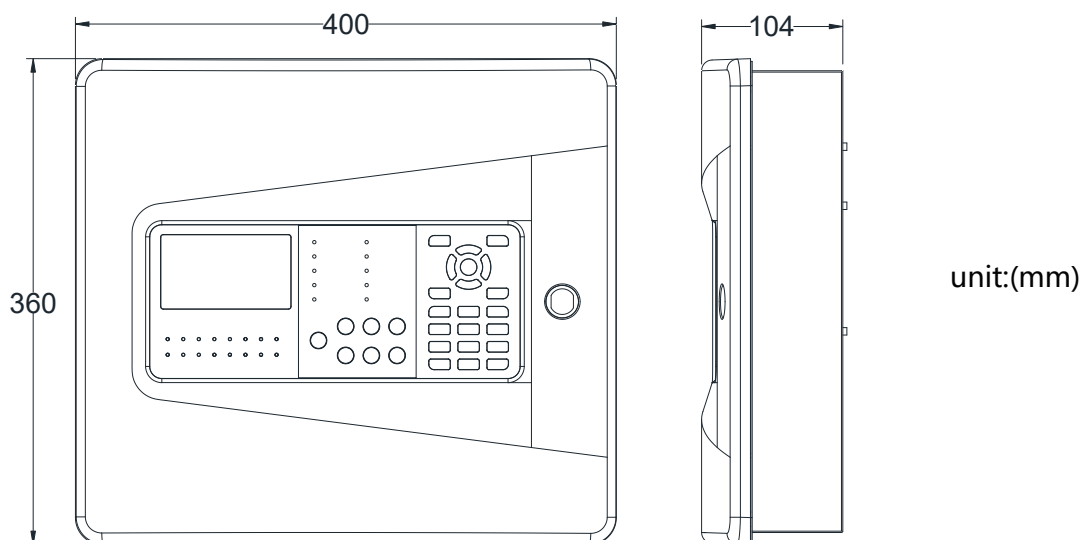
(4) Disable or re-enable zones, sounders, terminal outputs and addressable points

(5) Reset the panel from fire or fault conditions

(6) Activate all sounders in the system for evacuation or silence them in one time

(7) Set zones into or out of a test mode

(8) View configuration of loop devices, zoning and C&E, event logs of the system

(9) Set the panel's time and date

(10) Rename the system

(11) Adjust the LCD brightness

(12) Change the entry password to access level 2

(13) View or clear event and operating logs
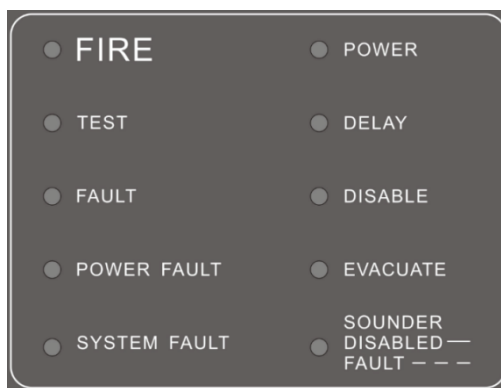
Access Level 3 (authorized engineer):

This level is the panel's engineering/programming level. Access to this level is achieved by entering a valid six-digit password. All access level 1 and 2 controls, SYSTEM setup, BUS setup, C&E setup, ADVANCE and other functions relating to commissioning are available. More details of access level 3 can be found in the separate Installation and Commissioning Manual.

3 Construction, Indications and Controls

3.1 Panel construction

400

104

360

unit:(mm)

3.2 LED indicators

- ● FIRE
- ● TEST
- ● FAULT
- ● POWER FAULT
- ● SYSTEM FAULT
- ● POWER
- ● DELAY
- ● DISABLE
- ● EVACUATE
- ● SOUNDER DISABLED —— FAULT — — —

FIRE	Lit red when one or more devices are reporting a fire condition
TEST	Lit yellow when the panel is under zone test state. This indicator does NOT light for any other test which is not specified by EN 54-2
FAULT	Lit yellow when one or more faults on the system are detected
POWER FAULT	Lit yellow when the panel's mains power, battery or charger is in fault condition
SYSTEM FAULT	Lit yellow when the panel is unable to provide mandatory functions
POWER	Lit green to show the panel's mains power or battery is functioning
DELAY	Steadily lit yellow when delay is configured as part of one or more cause and effect rules. Flashes when there is a delay running
DISABLE	Lit yellow when one or more loop devices, zones or outputs are disabled
EVACUATE	Lit yellow when the EVACUATE control button is pressed to activate all sounders of the system immediately

SOUNDER DISABLED/FAULT	Steadily lit yellow when yellow when loop sounders are disabled Flashes when there is loop sounder in fault condition

3.3 Button controls

EVACUATE	Gives an evacuation warning by activating all sounders of the system at access level 2&3
RESET	Returns the panel to its normal condition by clearing all fire and fault status indications at access level 2&3
SILENCE	Silences the system's sounders at access level 2&3. Press again to resound the sounders previously silenced
MUTE	Silences the panel's internal buzzer
COPY	Copies the content of text selected currently
PASTE	Pastes the content of text copied to current text box
LOGIN	Provides access to the prompt window for user's login or logout
	Pressed to make the cursor move, or toggle between different items or windows from left to right, up to down
	Deletes the character left to the cursor

≡	Provides access to the panel's user menus at access level 2&3
↩	Used to cancel a navigation step or exit the current menu
◄ ▼ ▲ ►	For toggling, scrolling, or moving the input cursor
OK	Confirms a text input or a manual operation
0~9, *, #	Used to enter numbers, letters and marks in a text box. Plus, * button provides access to LOGIN and LOGOUT windows at non-text-input state

3.4 Zone Indicators

The panel offers 16 indicators for the Zone fire alarm. After registering with default settings, the LED of a zone lights when the zone goes into fire.


4 Panel Functional Conditions

This section describes how the panel's functional conditions are indicated, how the panel responds, or how users should respond. For LCD display, priority is always given to the most important current event, i.e. fire conditions will override fault and/or disabled conditions.

4.1 Normal condition

Under normal condition (when no fires or faults are occurring) the POWER LED is lit meaning the mains voltage is present on the system. If one or more delays have been programmed and registered the DELAY LED will be lit. The display will show as below:
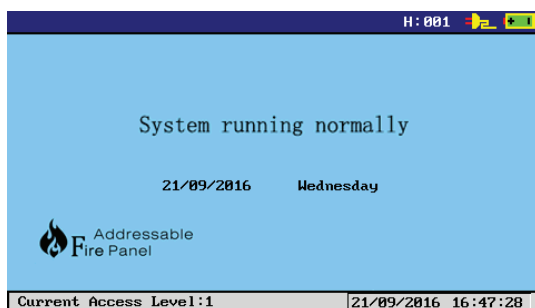
The color LCD will display the panel's model, the current access level, time, date, status, host number, etc.

4.2 Fire condition

If fire is detected by fire detector, or confirmed by a manual call point the panel enters a fire condition and responds as follows:

(1) The FIRE indicator are lit;

(2) The panel's internal buzzer sounds;

(3) The information about zones in alarm are reported on the LCD where the first zone in alarm will be always kept on the top of the list, and the last zone in alarm is on the bottom

of the list. Also, the total number of zones in alarm is given, and you can view the suppressed zones in alarm through the rolling bar on the right side. See an example of a typical LCD fire display below;

(4) The zonal sounders, S.C. OUT and F.A. OUT operate as programmed.
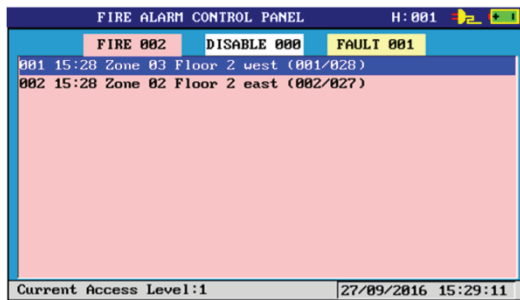
The LCD displays the FIRE state screen and shows all zones where the fire is detected together with their location description.

Scroll through the zones using the ▲ and ▼ buttons. Press ENTER or double-click at each target zone will give you details about all actual fire alarm points on that zone.
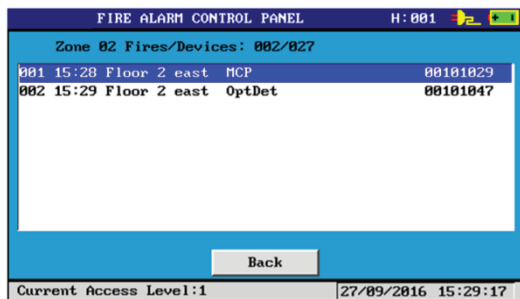
There are two fire signals from zone 2 with 27 points. One is from a manual call point, the other from an optical smoke detector.

Note: In the event of a fire condition, the building's fire management plan should always be executed. Authorized users can silence or reset the system as appropriate by entering access level 2 and pressing the buttons on the panel's front. Refer to Part 5.2 for more information.

4.2.1 Fire condition with default output

A default output of sounders and terminals is designed for the sake of c&e setting brevity. That is, when a fire condition occurs in a zone, the associated zonal sounders, F.A.Out and S.C.Out (if applicable) will be activated by default. Moreover, the default output to the zonal sounders can be delayed which you could check under the C&E menu option.

4.2.2 Fire condition with output delays

If a fire condition occurs complying with a cause and effect that has been programmed with one or more output delays, the panel reports the fire condition as described above and the DELAY indicator flashes to indicate that one or more assigned outputs has not yet triggered. During the delays, by triggering a manual call point the delays can be overridden and delayed outputs be activated immediately.

4.3 Fault condition

When panel enters a fault condition it responds as follows:

(1) The FAULT LED on. If the fault is with power or sounders the POWER FAULT or SOUNDER DISABLED/FAULT indicators will also pulse;

(2) The panel's internal buzzer sounds;

(3) The LCD displays details regarding the fault. See an example of a typical fault display below;

(4) The Fault Output relay switches.
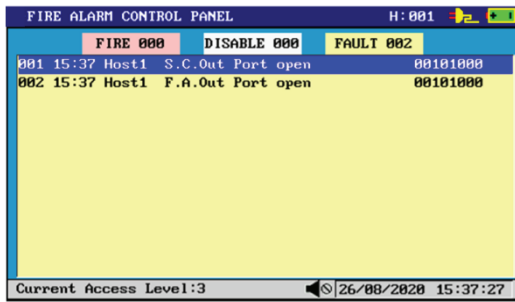
The LCD displays the FAULT status screen and shows detailed fault message.

For a fault from a specific point, the actual device and its location description will be shown. For other faults, information regarding the fault will be displayed instead.

The list below shows the description of some fault types for your information.

Missing	Open	Short
Duplicate address	Type mismatch	Sensor fault
Sensor contaminated	Loop short	Loop open
Power fault	Port fault	Host network comm fault
System fault		

Note: In the event of a fault condition, the responsible personnel on site should check and handle the problem in time to ensure the fault is rectified. For each fault message, it is followed by an ID code which is for the benefit of service engineers, etc.

4.3.1 System fault

Particularly, if a system fault, such as a processor fault, occurs the panel reports system fault and fails to work normally.

(1) The FAULT and SYSTEM FAULT indicators on ;

(2) The panel's internal buzzer sounds;

(3) The panel cannot supervise any fire alarm;

(4) LCD displays system fault with a reference ID code for the benefit of service engineer, except the fault caused by the breakdown of the CPU, the LCD will have no display and restarting the panel is needed after the fault is removed;

(5) Even when the fault is removed, the indications can only be cleared and make the panel back to operation by resetting the panel under access level 2 or 3.

In this case, the user should call the service engineer immediately.

4.4 Disabled condition

When a loop device, an output or a zone is disabled the panel enters a disabled condition and responds as follows:

(1) The DISABLE LED on;

(2) The disablement details can be interrogated at access level 1. See an example of a typical disablement display below.

(3) All associated programmed outputs or mandatory indications will no longer operate or effect panel's condition.
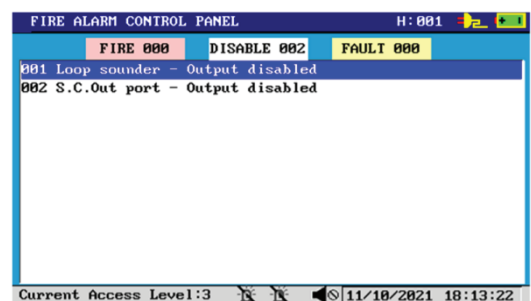
Note:

⚫ : The Icon indicator for disabled condition of S.C.Output, when the S.C.Output is disabled, the icon will have a slash cable.

⚫ : The Icon indicator for disabled condition of Loop sounder, when Loop sounders are disabled, the icon will have a slash cable.

4.5 Test condition

When one or more of the fire alarm system's zones have been programmed into test mode at access level 2 or 3 the panel enters a test condition.

(1) The TEST LED on and Zone indicators lights steadily (if applicable);

(2) Any fire alarm raised on the zone under test will not be reported as fire to the panel;

(3) Any fault occurs on the zone under test will still be reported;

(4) When a zone is in test mode, any detector/manual call point triggered on that zone will activate the associated zonal sounders for a brief period (about 2s) and then stop.

Note: There are other test methods for commissioning which can be carried out at access level 3, such as point test, module start/stop test and duplicate address check. But they are not regarded as a test condition specified by EN 54-2. Thus only under the zone test mode that the TEST indicator will light.

5　User Operations

This section focuses on functions available at access level 1 and 2. Details of configuring and other various functions at access level 3 are covered in the separate Installation and Commissioning Manual.

5.1 Functions available at access level 1

Access level 1 is accessible to everyone. The followings can be achieved under this level:

(1) View any current fire, fault and disablement

(2) Mute the panel's internal buzzer

(3) Gain entry to access level 2 or 3

These operations available at access level 1 are explained in detail below.

5.1.1　View current events

This function is only available if there are active fire, fault or disablement conditions on the system. If so, the display will automatically skip from the window of the normal condition to the main alarm window as figure shown above in page 8.

It contains three windows with their own tag regarding fire, disablement and fault events accordingly. Press TAB or ◄, ►to switch between the windows. Then press the ▼ and ▲ buttons to scroll through all active events under each window.

In particular, more information can be viewed about a zone in alarm by pressing ENTER. To return to the main alarm window press the CANCEL button.

Note: Since fire alarm has the highest priority. Thus if you are viewing at other windows under a fire condition, the screen will automatically skip back to the fire state window within a short period of time (about 25s) following the last operation.

5.1.2　Mute the panel

In the event of fire and fault condition, the panel's internal buzzer will sound. The MUTE button is available for everyone to silence the buzzer and go on to handle the specific alarm condition.

Note that any new fire or fault event will restart the buzzer.

5.1.3 Get entry to access level 2 or 3

Press the LOGIN or the "*" button, or Ctrl+Alt+Delete on a USB keypad, the LOGIN dialog box appears. To log out, repeat the operation.
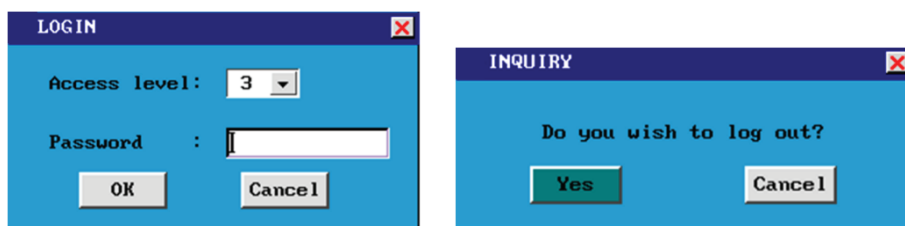
Authorized user can choose an access level of 2 or 3 and input the corresponding password. **The default passwords to access level 2 and 3 are 2222 and 333333 accordingly.** If these do not work, they may have been changed by an authorized user. As soon as the password has been correctly entered additional panel controls and menu options will be available.

5.2 Functions available at access level 2

This level is used by trained and authorized personnel only. Besides all functions of access level 1, the panel's EVACUATE, SILENCE and RESET function buttons become active. The MENU button can now provide entry to menu options window so that the followings can be achieved at access level 2:

(1) Disable or re-enable zones, sounders, terminal outputs and addressable points

(2) Set zones into or out of a test mode and view any zones that are being tested

(3) View configuration of the system including loop devices, C&E, networking and etc

(4) Set the panel's time and date

(5) Rename the system

(6) Adjust the LCD brightness

(7) Change the entry password to access level 2

(8) View or clear event and operating logs

Details of all functions available at access level 2 are explained below.

5.2.1 Silence/resound sounders

To silence any active sounders, enter access level 2 and press the SILENCE button. The alarming sounders will stop and there will be an icon on the LCD. At this time, press the button again will resound them.

5.2.2 Evacuate control

Pressing the EVACUATE button on the front panel will start all of the sounders on the system to give an evacuation signal to the protected area. The EVACUATE indicator will light.

5.2.3 Reset the panel

After appropriate actions having been taken to investigate and remedy the cause of fire or fault events, the RESET button could be pressed to clear all fire and fault status indications on the panel and return it to normal condition. If any conditions still exist in the system, the panel will once again display and indicate such events until they have been remedied.

5.2.4 Change the panel's time and date

Select the 'Set time/date' under the SYSTEM menu option. This function allows the panel's time and date to be adjusted. When selected a window for adjustment will appear:
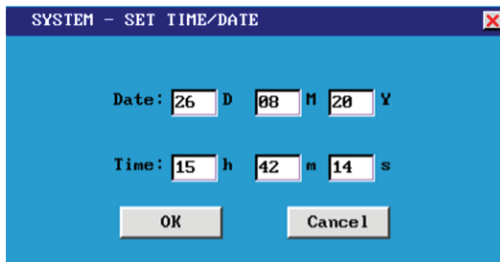
When the correct time and data are set, the time showed at the bottom of the screen will be changed synchronously.

When the correct time and data are set, the time showed at the bottom of the screen will be changed synchronously.

**5.2.5** Change the password of access level 2

Select the 'Change password' under the SYSTEM menu option. This function allows the password of access level 2 to be changed and a four-digit password is required.
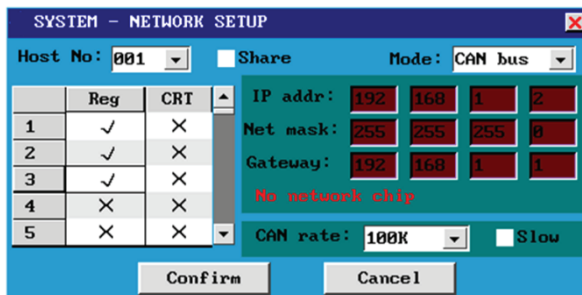
For password of level 3, it can only be changed at level 3 and a 6-digit one is required.

5.2.6 View network configuration

Select the 'Network setup' under the SYSTEM menu option. The finished setup window will present the current network configuration of the system. For more information about how to set the transmission mode, refer to the separate Installation and Commissioning Manual.
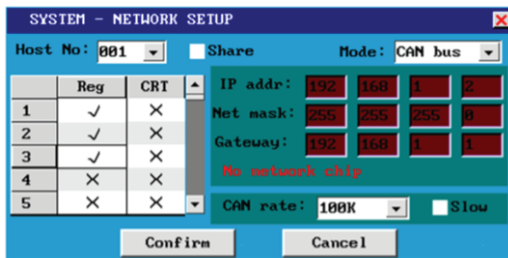
The picture left shows that there are three panels registered and/or included in a network by CAN bus.

**5.2.7** Change the system name

Select the 'Rename system' under the SYSTEM menu option to get entry to the window below.

The system name entered will be shown on the left top of the screen.

5.2.8 Change LCD brightness

Select the 'LCD brightness' under the SYSTEM menu option. This function allows the display screen's brightness to be adjusted from level 1 to level 10 (the brightest level).
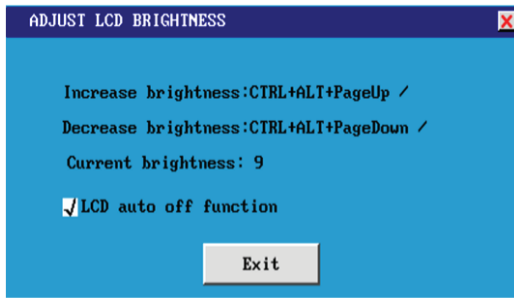
An auto-off function of the display is optional which will turn off the display when left unused after 5min at normal state. Click to select or cancel it.

5.2.9 Bus setup

Select the 'Bus setup' under the BUS menu option to setup the bus type of the Loop, Class A or Class B. The default setup is Class A.
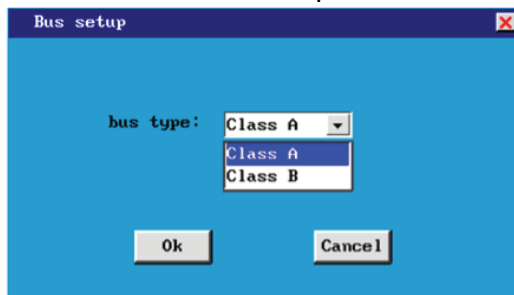

Note: When the loop is in class B connection, the terminal LOOP INPUT on MB-Board is not available.

5.2.10 View bus setup

The configuration about zones and devices can be viewed by entering the corresponding menu options under the category named BUS, which however does not allowed to be edited at the access level 2.

Moreover, refer to the 'System details' option for a more general statistics about the system including its fire zone, network panel, loop board, devices, current faults, etc.
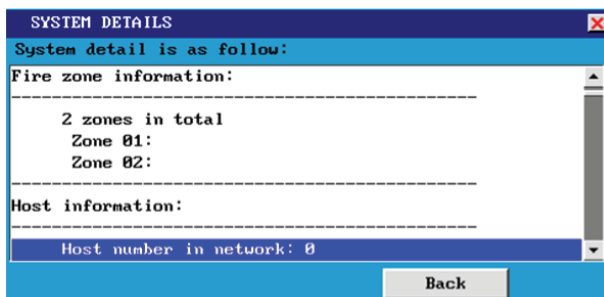
Scroll through by the ▲ and ▼ buttons for general view.

Note: The configuration function is only available to access level 3. Refer to the section 5.2 of the Installation and Commissioning Manual to get known about the configuring process.

5.2.11 View c&e setup

The cause and effect information of the system can be read about through the menu category named C&E including default c&e, general c&e, zonal c&e and specific c&e. For its definition and the the programming part, they are detailed in the separate Installation and Commissioning Manual.

Note: The general c&e, zonal c&e or specific c&e setup function is designed to be an addition to the default output of F.A.Out, S.C.Out and zonal sounders activated by a fire condition.
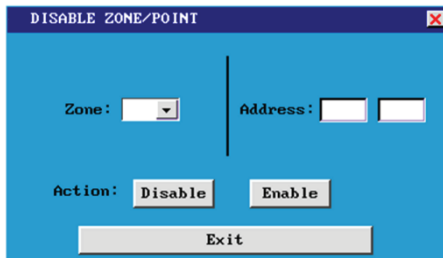
5.2.12 Disable/test functions

Pressing ► to select the DISABLE/TEST menu option will show you the sub-menu which allows you to enable or disable zones, points, sounders and other outputs, and to perform some tests.
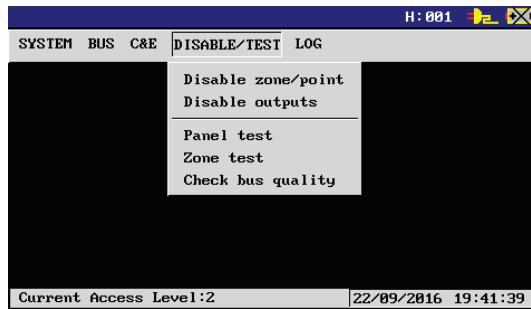
Disable zone/point

This function allow zones or points to be disabled/re-enabled from reporting fires, faults, etc. When selected, a window appears as below.


Select the zone to be disabled/enabled or enter the point address of the objective loop device. Then press the Disable or Enable option to set.

Once a zone is disabled (each point in that zone is disabled), the LCD will indicate a disablement of the zone.

Disable outputs

This function allows the disablement of the loop sounders, the S.C.Out,and the field devices connected with output modules from activating as programmed. Switch each output's status between disabled and enabled, the corresponding indications will be given.
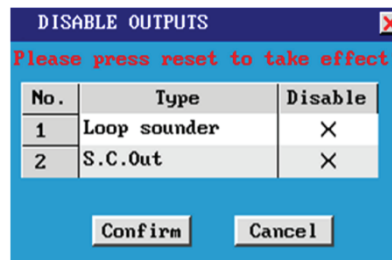
Note: the loop sounders can only be disabled/enabled as a whole rather than individually.
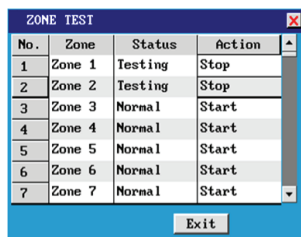
Panel test

This function allows the panel's display, LEDs and internal buzzer to be tested to ensure that if they are working correctly.

When the 'Panel test' option is selected, all of the panel's LED indicators will light steady and the display will progressively block fill. The panel's internal buzzer will sound. The whole process will last about 30s with alarm function suspended.

Upon completion, the panel will return to the exact state right before test. If any of the indicators fail to function well, report it to the designated site engineer or manufacturer.

Zone test

This function allows you to set one or more of the system's detection zones into test. When a zone is in testing mode, any detector/manual call point activated on that zone will only trigger the sounders that are mapped to that zone for a brief period (about 2s). And no fire is reported to the FACP or any other output circuit be activated.

No.	Zone	Status	Action
1	Zone 1	Testing	Stop
2	Zone 2	Testing	Stop
3	Zone 3	Normal	Start
4	Zone 4	Normal	Start
5	Zone 5	Normal	Start
6	Zone 6	Normal	Start
7	Zone 7	Normal	Start

Press 'Start' will put the corresponding zone into testing state, then the text turns into 'Stop'. Press again to bring the zone back to normal state, , but at this time you need to reset the panel to restore normal fire alarm function.

Point test

This function allows you to view the analogue status of any addressable point in real time. When selected, you will be prompted to enter the specific address of the device you want to put into test. Point test is only used during commissioning for checking status of device. It is not be used for testing the device.

POINT TEST
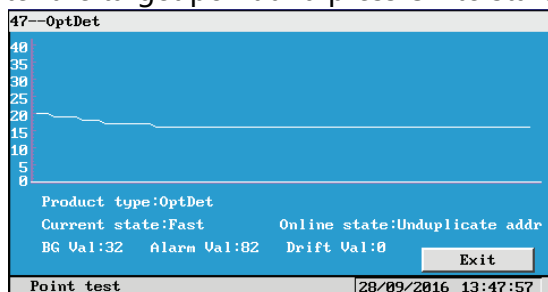CAUTION: other function will be suspended.
Enter the device address.
Loop-B: 01
Address:

Note: If there is a fire or fault occurs during point test, or the device under Point test is triggered by an actual fire, the panel will exit this function to handle the fire or fault first.
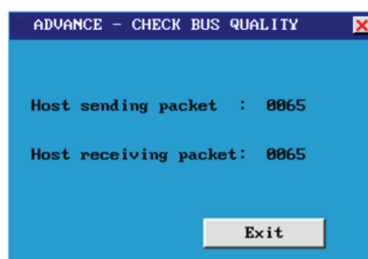
Enter the target point and press OK to start the point test:

47--OptDet

Product type:OptDet
Current state:Fast   Online state:Unduplicate addr
BG Val:32   Alarm Val:82   Drift Val:0

Point test   28/09/2016 13:47:57

The curve indicates the change of smoke density in the no.47 smoke detector during the test. Here, the background value, alarm value and drift value only apply to smoke detector. Press Exit to stop at any time.

Check bus quality

This function monitors the CAN bus networking condition between panels. The number of host receiving packets and the bus communication are closely related with each other. When in a fault condition, the numbers of the host sending packets and receiving packets will differ a lot. Normally, they are similar:

ADVANCE – CHECK BUS QUALITY

Host sending packet : 0065

Host receiving packet: 0065

Exit

For Inquiries, Please contact:

Security Shop

Vladimira Popovica 6/6/A606

11070 Novi Beograd, Serbia

Tell: +381 11 318 68 68

office@securityshop.rs

Imported/Distributed by Security Shop doo