GST-NRP01
Network Repeater Panel

Installation and Operation Manual

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Installation Precautions

Adherence to the following will aid in problem-free installation with long-term reliability:

- ✧ Do not attempt to install, service, or operate this unit until this manual is read and understood.
- ✧ This equipment must be installed in accordance with these instructions and the appropriate national, regional and local regulations specific to the country and location of the installation. Consult with the appropriate Authority Having Jurisdiction (AHJ) for confirmation of the requirements.
- ✧ It shall only be installed and serviced by trained specialist.
- ✧ Disconnect all sources of power before servicing.

Chapter 1 Product Introduction

GST-NRP01 Network Repeater Panel is designed by EN 54-2 standard with qualities of simple installation, operation, and easy maintenance. It is used in fire alarm system with the following features:

1 The LCD can display 8 lines in total and 18 characters each line, assisting the 15 LEDs to display important information.

2 The memory does not lose data even if power supply is accidentally removed.

3 RS485 interface enables networking.

Chapter 2 Technical Specifications

2.1 Electrical Specifications

- ✧ Voltage: 20VDC～27VDC
- ✧ Current is less than 350mA normally and less than 500mA in alarm.
- ✧ Standby power consumption does not exceed 9W and maximum power consumption does not exceed 13W.

2.2 Communication Loop Parameters

- ✧ 2 channels of RS485 interface.
- ✧ Transmission media: twisted pair.
- ✧ Communication distance: less than 1200m.

2.3 Dimensions

The dimensions of the repeater panel is 390mm×270mm×100mm (L x H x W) as shown in Fig. 2-1.

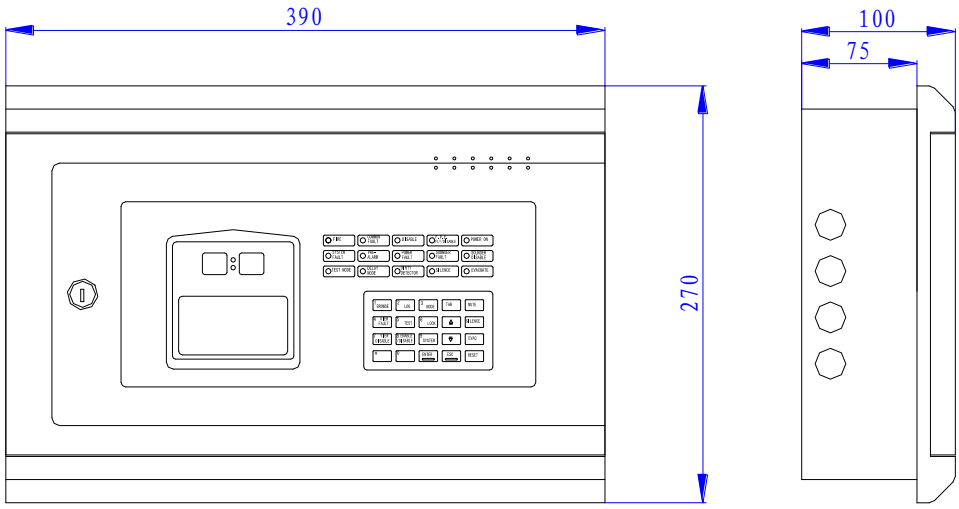


Fig. 2-1

Chapter 3 Structure and Configuration

3.1 Appearance and Internal Structure

GST-NRP01 is flush mounted. Its appearance and internal structure are shown in Fig. 3-1 and 3-2.

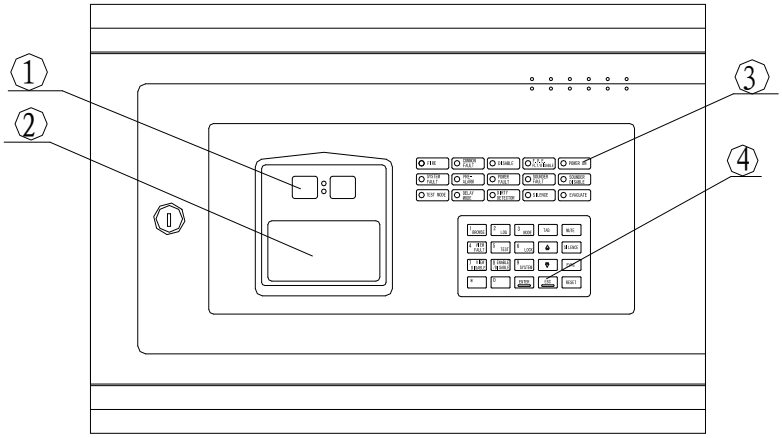


Fig. 3-1

1 Clock 2 LCD 3 Indicators 4 Keypad

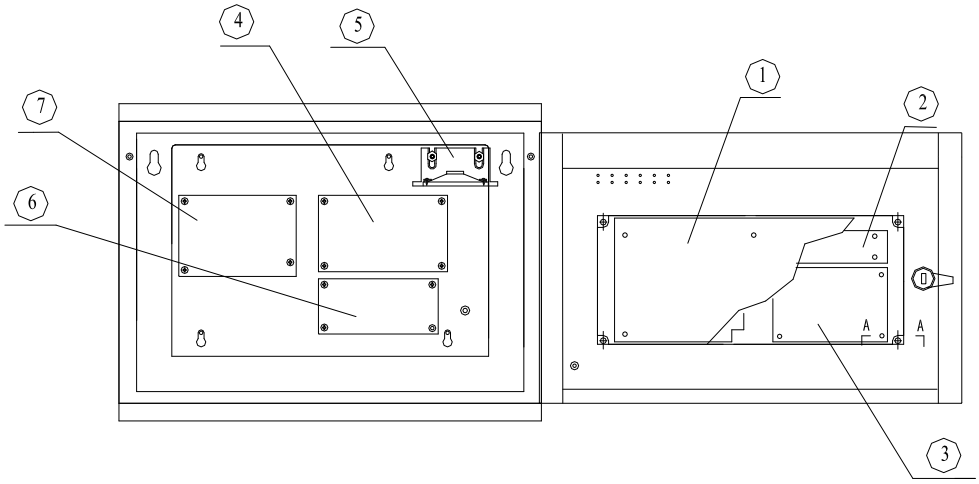


Fig. 3-2

1 Main board 2 Switch board 3 LCD 4 Network board 5 Speaker
6 DC-DC Power supply 7 Terminal board

3.1.1 Description of LEDs

- ✧ FIRE: Red. It illuminates when the repeater panel receives a fire alarm message from fire alarm control panels (FACP) in network. After fire alarm condition is removed, the fire status can only be cleared by pressing *RESET* key, and this LED goes out simultaneously.
- ✧ COMMON FAULT: Yellow. It illuminates when it receives fault messages from FACPs in network or when there is fault with itself. It goes out automatically after

the fault condition is removed.

- ✧ DISABLE: Yellow. It illuminates when the repeater panel receives, from FACPs in network, disabled messages of connected devices, FP.E. output or SOUNDER CIRCUIT OUTPUT. It goes out when such status is canceled.
- ✧ SYSTEM FAULT: Yellow. It illuminates if the program encounters a dead halt. After the system is rebooted, only by pressing *RESET*, can system fault be cleared, and this LED goes out.
- ✧ POWER ON: Green. It illuminates when system power is normal.
- ✧ POWER FAULT: Yellow. It illuminates when the repeater panel receives message of fault with FACPs in network. After the fault is cleared, it will go out.
- ✧ F.P.E. FLT/DISABLE: Yellow. It flashes when the repeater panel receives message of fault with F.P.E. output and illuminates steadily after the F.P.E. is disabled. It goes out after the fault and disabled conditions are cleared.
- ✧ SOUNDER FLT: Yellow. It illuminates when the repeater panel receives message of fault with the SOUNDER CIRCUIT OUTPUT of FACPs in network. It goes out automatically after the fault is cleared.
- ✧ SOUNDER DISABLE: Yellow. It illuminates steadily after the SOUNDER CIRCUIT OUTPUT of FACPs in network is disabled. It goes out automatically after the disabled condition is cleared.
- ✧ TEST MODE: Yellow. It illuminates when the repeater panel is under commission.
- ✧ SILENCE: Yellow. It illuminate after *SILENCE* key is pressed, and goes out when *RESET* key or *EVAC* key is pressed.
- ✧ EVAC: Yellow. It illuminates after *EVAC* key is pressed and goes out when RESET or SILENCE key is pressed.

3.1.2 Description of Keys

- ✧ SYSTEM: System set-up key (manager password required), used for setting system time, modifying operator password and manager password, setting network system, and system initialization.
- ✧ TEST: Self-test key (operator password required). Pressing this key in normal standby state can self-test the audible and visual indication.
- ✧ MODE: Pressing this key can set the LCD contrast and message display modes.
- ✧ TAB: For moving the cursor when entering text or for viewing action messages. If the LCD is not displaying action messages, pressing it can view these messages.
- ✧ RESET: Resetting the repeater panel or FACPs in network (operator password required).
- ✧ BROWSE: Browsing network information.
- ✧ LOG: Viewing history record.
- ✧ MUTE: Pressing this key can silence the sound of FACPs and GST-NRP01 repeater panels in network.

- VIEW FAULT: If the repeater panel is not displaying fault messages, pressing this key can view fault messages.
- LOCK: Locking the keypad when it is unlocked.
- △, ▽: Scrolling among more than one piece of displayed messages.
- ESC: Canceling or quitting the operating menu. If it's pressed while the repeater panel is displaying messages, it will resume to display messages of the highest level.
- VIEW DISABLE: If the screen is not displaying disabled messages, pressing this key can view the disabled messages.
- ENTER: Confirming inputs to be valid. In normal standby state, pressing it can toggle the clock display between month/day mode and hour/minute mode.
- EVAC: Pressing this key can start all sounders and bells in the system to evacuate people.

3.2 Configuration

A standard FACP consists of main board, network board, power converter module and display and operation part.

- **Main board**

  Main board is the core of the repeater panel, which contains CPU and interfaces to other main parts.

- **Network board**

  The network board is used for connecting GST series FACPs into network.

- **Power converter module**

  The power converter module is used for converting the power supply from 24VDC to 5VDC.

- **Display and operation part**

  This part is used to indicate and display different status of the system, and enables relative operations through keypad (browsing, setting and etc).

Chapter 4 Installation

4.1 Configuration Inspection

Before installation, check the following items:

✧ **Engineering Configuration**

Check the configuration according to packing list. The main items to be examined are: installation and operation manual, keys to the repeater panel, etc.

✧ **Internal Configurations and Interconnections**

All internal parts have been connected (including optional units ordered) before the FACP leaves the factory. Therefore, you can mainly check the connection among parts, including the connection between main board and power converter board, switch board and network board, the connection of power converter board, network board and terminal board, and of speaker and main board etc. Please refer to Appendix 1 for the internal connection diagram.

4.2 Installing the Cabinet

Dimension of the cabinet is shown in Fig. 4-1.

Ambient conditions for installation of the FACP:

Temperature: 0℃～＋40℃

Relative humidity: ≤95%, non-condensing

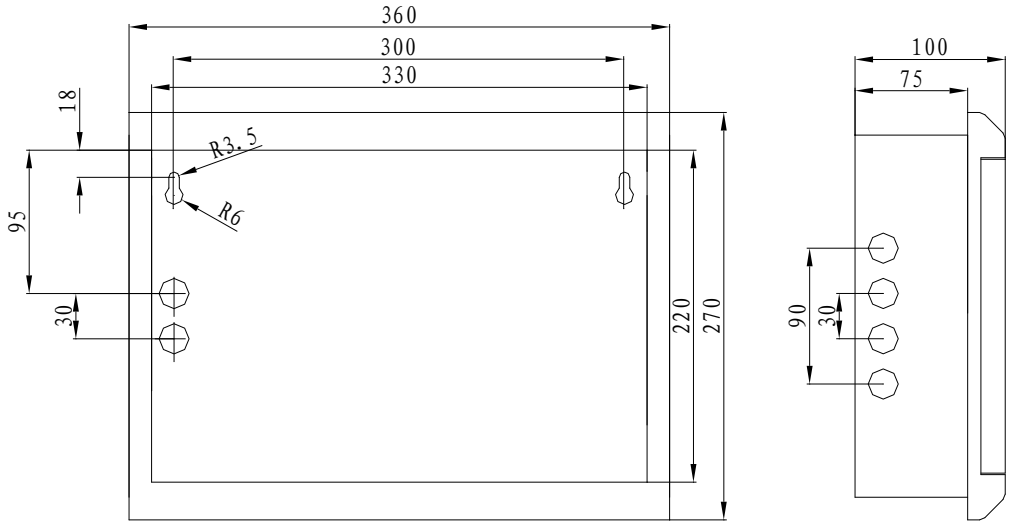


Fig. 4-1

4.3 Start-up Check

After installation, apply power to it as shown in Fig. 4-2. Turn on the power supply and check if the repeater panel can self-test. The procedures are as follows.

✧ Check if the digital displays showing time are illuminated one by one.

✧ Check if the LCD showing system messages such as fire alarm is illuminated.

✧ Check if the LEDs showing the state of system can be illuminated one by one.

✧ Check if the speaker can give two kinds of loud alarm sounds.

4.4 Connections of Field Devices

4.4.1 Connection of Power Supply

The input power for the repeater panel is non-polarized 24V, which is converted to 5V by a DC-DC converter module.

4.4.2 Connection of Communication Loop

The connection of communication loop is shown in Fig. 4-2, in which any “Fire Panel n (n=2～32)” can be replaced with a repeater panel.

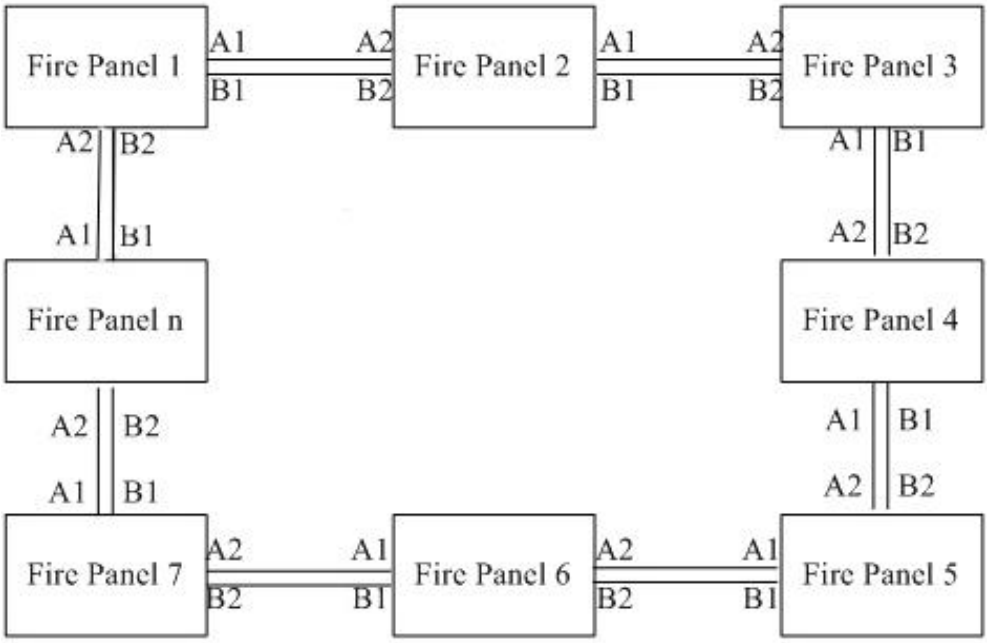


Fig. 4-2

Chapter 5 Display and Disposal of System Information

GST-NRP01 can be started after installation. Turn on the power switch, the repeater panel starts self-test and then enters normal standby state. The system will display properly if it is in normal state, otherwise it will display abnormal information.

5.1 Normal Information

The normal display is shown in Fig. 5-1, which means the system is in working state. Then only *POWER ON* LED lights.

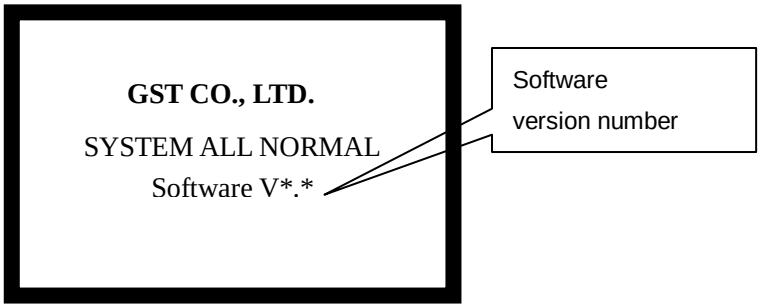


Fig. 5-1

Fig. 5-2 shows the system is in normal operation but with disabled devices. Pressing *VIEW DISABLE* can browse these devices.

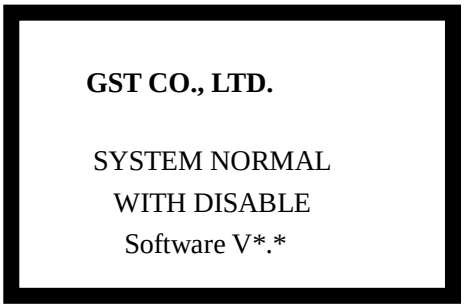


Fig. 5-2

5.2 Fire Alarm

5.2.1 Fire Alarm Screen

FIRE LED is lit when there is fire alarm signal from the FACP.

1 Fire alarm screen is shown like Fig. 5-3 when in zone display mode.

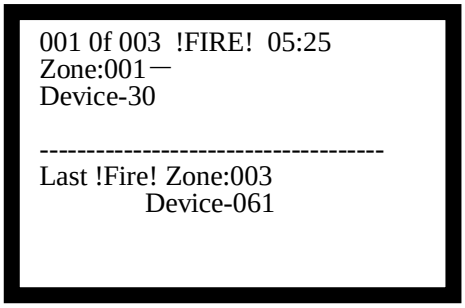


Fig. 5-3

- 001 0f 003 !FIRE! 05:25 // There are fire alarms in three zones and this is the first.
- Zone:001- // The zone number with fire alarm.
- Device-30 // The description of the device with fire alarm signal.
- Last !Fire! Zone:003 // Zone number of the last fire alarm.
- Device-061 // Description of the device of that zone with the last fire alarm.

2 Fire alarm screen for loop display mode is shown in Fig. 5-4.

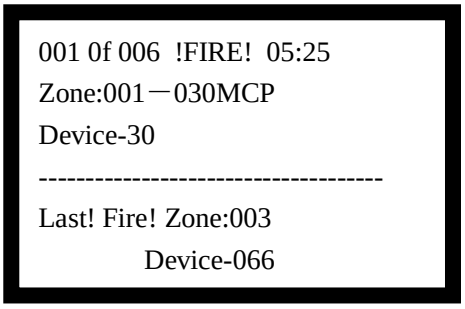


Fig. 5-4

- 001 0f 006 !FIRE! 05:25 // There are six devices with fire alarm signals, and this is the first.
- Zone: 001－030MCP // The number of zone with fire alarm and type and address of the device in fire alarm.
- Device-30 // Description of device in fire alarm.
- Last! Fire! Zone:003 //Number of the zone where the last fire alarm occurs
- Device-066 // Description of the device with the last fire alarm.

5.2.2 Disposal of Fire Alarm Signal

When fire alarm occurs, first find out the location according to the information shown on the repeater panel to verify if there is a real fire.

If it's a real fire, please take corresponding measures as outlined below.

Step 1: Evacuate people.

Step 2: Call the fire department.

Step 3: Initiate extinguishers.

If it is a false alarm, please take the following measures.
Step 1: Press *SILENCE* to stop the sound.
Step 2: Remove the causes of the false alarm.
Step 3: Press *RESET* to make the FACP back to the normal state. If the device still gives false alarm, disable it using an FACP in network and inform the installer or manufacturer for repair.

5.3 Fault

5.3.1 Fault Indication

In case of fault, the repeater panel and FACPs in network display the fault message simultaneously and light corresponding LED.

- ✧ Mains fault: If the AC power of networked FACPs is down, the repeater panel reports AC fault, and
  - ➢ Lights *COMMON FAULT* and *POWER FAULT* LED.
  - ➢ The LCD displays “AC FAULT”.
  - ➢ Generates fault sound.
- ✧ Battery fault: The repeater panel reports battery fault if the battery voltage is lower than 18.9V, and would:
  - ➢ Light *COMMON FAULT* and *POWER FAULT* LED.
  - ➢ The LCD displays “BATTERY FAULT”.
  - ➢ Generates fault sound.
- ✧ System fault: The repeater panel would report system fault if its control CPU and circuits are in fault and it cannot work normally.
  - ➢ It lights the *COMMON FAULT* and *SYSTEM FAULT* LED.
  - ➢ There is no display on the LCD.
  - ➢ The repeater panel generates continuous alarm sound.
  - ➢ The repeater panel cannot monitor fire alarm.
  - ➢ The keypad cannot be used.
  - ➢ If system fault indication remains for less than 5 seconds, the repeater panel will assume that this is not a true fault and automatically clear the LED and sounder indication and return to normal monitor state. If system fault indication remains for more than 5 seconds, the repeater panel will then interpret it as a genuine fault and the LCD displays “System fault must be reset manually. System time must be reset.” after it’s cleared. You need to press *RESET* key to clear the fault indication and reset system time.
- ✧ Keypad fault: The repeater panel reports keypad fault if its keypad circuit is in fault, and
  - ➢ Lights the *COMMON FAULT* and *SYSTEM FAULT* LED.
  - ➢ The LCD displays “Key fault”.
  - ➢ Generates continuous alarm sound.
  - ➢ The keypad cannot be used.
  - ➢ The repeater panel can monitor fire alarm.
  - ➢ The repeater panel can reset automatically after the fault is removed.
- ✧ Periphery device fault: If there is trouble with one of the periphery devices of the networked FACP, the repeater panel reports fault with it, and
  - ➢ Lights the *COMMON FAULT* LED.

- The corresponding ZCP LED flashes.
- Generates fault sound.
- The LCD displays the fault message. The fault screen is as in Fig. 5-5 for zone display mode, and as in Fig. 5-6 for loop display mode.

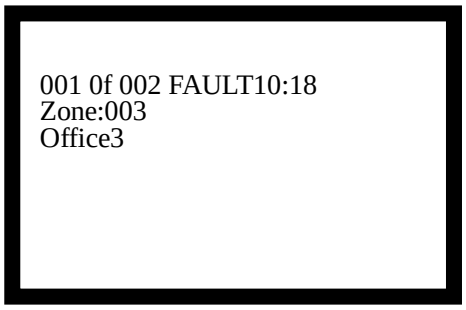


Fig. 5-5

- 001 0f 002 FAULT10: 18 // There are two zones reporting fault, and this is the first fault message.
- Zone:003 // The zone number with fault message.
- Office3 // Description of the device with the fault.

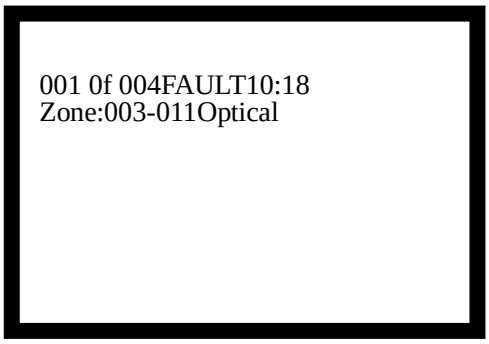


Fig. 5-6

- 001 0f 004 FAULT10:18 // There are four devices reporting fault, and this is the first fault message.
- Zone:003-011Optical // The number of the zone with the fault message, the address and type of the device with the fault message.

5.3.2 Disposal of Fault Message

There are two kinds of fault message. One is system fault, like AC fault, battery fault, and loop fault. The other is field device fault, like fault with detectors and modules etc.

- ✧ If the Networked FACPs are powered by battery for longer time than its capacity, the repeater panel will shut down to protect the battery. Please charge the battery in time to avoid any possible damage to it.
- ✧ If it is system fault, please check and repair in time. If the repeater panel needs to be shut down, please make detailed notes.
- ✧ If it is field device fault, please repair it in time. You can disable it if the fault can't be

cleared for some reason, and enable it when the fault is removed.

5.4 Rules for Message Display

If there are multiple messages in the system, they will be displayed in the following order: fire alarm, action, fault, start, disable.

1 The earliest fire alarm is displayed in priority. The latest action, fault, disabled message is displayed in priority.

2 There are zone and loop display modes for fire alarm, fault, and disabled messages. And start and action only has loop display mode.

3 In any display mode, the system will return to displaying of the highest priority if there is no operation within 20s (15s～30s).

5.5 Rules for Sound Indication

The FACP will sound to indicate fire alarm or fault messages.

✧ The FACP gives fire truck sound when fire alarm occurs.

✧ The FACP gives ambulance sound when fault occurs

The FACP will give sound of higher priority if two types of event occur simultaneously.

Chapter 6 Description of System Operation

6.1 Keypad

6.1.1 Keypad Functions

Most of the keys have double functions. Lower mark is a character and upper mark is a command that is only activated in monitoring state. Most function keys are controlled by password. The characters are only active after entering the menu. Pressing *ESC* will return to previous level of the menu.

6.1.2 Methods of Data Input

Pressing a character key, all characters disappear, and the display shows the newly input one. The cursor will indicate the next input position (The cursor always indicates the position of the next to input, and returns to the first character after completion of a line). Pressing $\triangle$ or $\triangledown$, to move the cursor to modify any character.

Pressing *TAB*, the highlight moves to the next position and returns to the first after the last position. Wherever the cursor is, Pressing *ENTER* key, all the input data will be saved.

If there is no keypad operation for over 1 minute, the system will exit present state without saving the input data.

6.1.3 Unlocking and Locking the Keypad

✧ Unlocking the Keypad

The repeater panel is locked by default when powering up. If some operations are needed, the LCD will display a screen requiring proper password. Inputting the correct password and pressing *ENTER*, you can continue to operate as the keypad is unlocked. See Fig. 6-1.

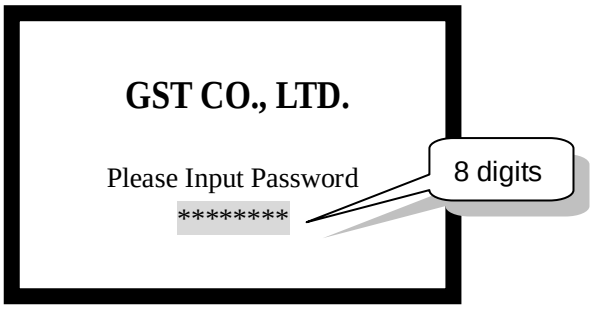


Fig. 6-1

✧ Locking the Keypad

The keypad shall be locked after operations are finished or personnel on duty leave. Pressing *LOCK*, the screen will display **"Press ENTER confirm"** like in Fig. 6-2. Pressing *ENTER*, the keypad is locked. You will have to input password again to unlock the keypad for any new operation.

Fig. 6-2

6.2 User Operation Instruction (No Password Requirement)

6.2.1 Changing Time Display

The clock is usually displayed in hour and minute. In normal monitoring state, pressing *ENTER*, month and date are displayed. Pressing *ENTER* again or after a minute, hour and minute are displayed again.

6.2.2 Browsing Messages

6.2.2.1 Turning pages

You can look through information one by one by pressing △ and ▽.

6.2.2.2 Browsing more than one piece of message

The current information is highlighted when there is more than one piece of message on the LCD. You can view details of this item by pressing *ENTER* or exit by pressing *ESC*.

6.2.2.3 Setting LCD contrast and viewing C&E equation

Pressing *MODE*, the system enters the screen for setting LCD contrast and display mode, as shown in Fig. 6-3.

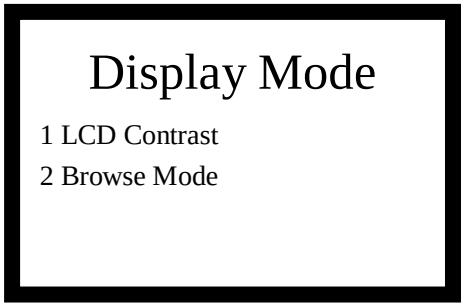


Fig. 6-3

From the above screen, you can operate as follows:

✧ Input number 1, you can enter the screen for setting LCD contrast. See Fig. 6-4. △ and ▽ are for increasing and decreasing LCD contrast.

Fig. 6-4

✧ Input number 2, you can enter the screen for setting browse mode, as shown in Fig. 6-5. 1 is for zone mode, and 2 is for loop mode.

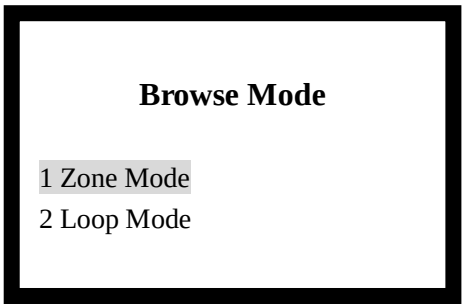


Fig. 6-5

6.2.2.4 Browsing registered devices

Pressing *BROWSE* can view network devices.

6.2.2.5 Browsing history log

Pressing *LOG*, the repeater panel enters the state of browsing history record. Using ≙ and ▽, you can browse every item, the screen is shown in Fig. 6-6.

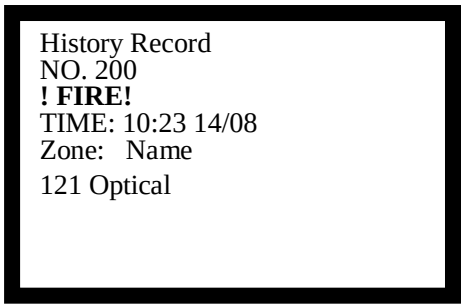


Fig. 6-6

✧ NO. 200 // The two hundredth history log

✧ ! FIRE! // Fire alarm message

✧ TIME: 10:23 14/08 // Date and time of the event

✧ Zone: Name // Zone number, zone name

✧ 121 Optical // Device address and type

6.2.2.6 Browsing fault messages

You can view fault messages by pressing *VIEW FAULT* when the screen is displaying non-fault messages. The display varies by the type of fault messages. Please refer to Section 5.3.

6.2.2.7 Browsing disable messages

You can view disable messages by pressing *VIEW DISABLE* when the screen is displaying non-disable messages. The screen of loop mode is shown in Fig. 6-7 and the screen for zone mode is shown in Fig. 6-9.

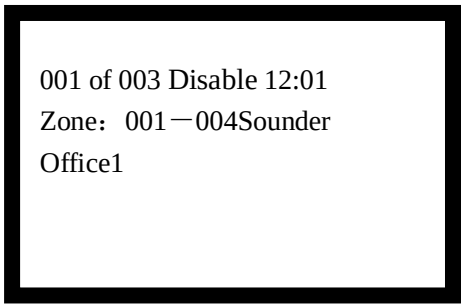


Fig. 6-7

- ✧ 001 of 003 Disable 12:01 //There are three disabled devices in the system and this is the first.
- ✧ Zone: 001－004Sounder //The zone number, address and device type of the disabled device.
- ✧ Office1 //Description message of the disabled device.

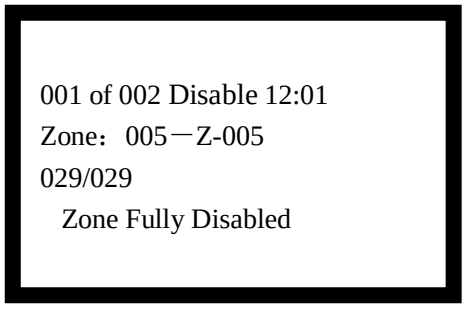


Fig. 6-8

- ✧ 001 of 002 Disable 12:01 // There are devices from 2 zones that are disabled, and this is the first zone.
- ✧ Zone: 005－Z-005 // Zone number and description message of the disabled zone.
- ✧ 029/029 // All 29 devices of the current zone are disabled.
- ✧ Zone Fully Disabled // Current zone are completely disabled.

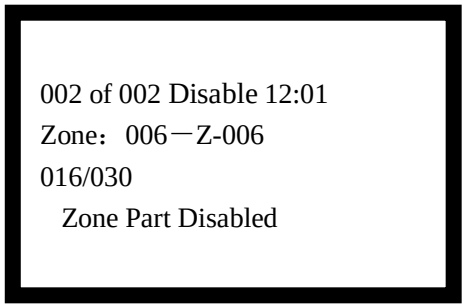


Fig. 6-9

- 002 of 002 Disable 12:01 // There are devices from 2 zones that are disabled，and this is the second zone.
- Zone: 006－Z-006 // Zone number and description message of the disabled zone.
- 016/030 //There are 16 disabled devices in all 30 devices of the current zone.
- Zone Part Disabled // The zone is partially disabled

6.2.2.8 Browsing action messages

You can view action messages by pressing *TAB* when the screen is displaying non-action messages. The screen is shown in Fig. 6-10.

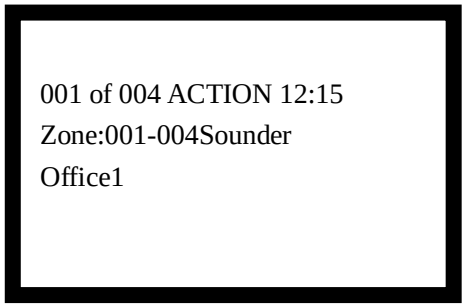


Fig. 6-10

- 001 of 004 ACTION 12:15 // There are 4 action messages in the system and this is the first, time 12:15.
- Zone:001-004Sounder //The zone number, device address and device of the device in action.
- Office1 //Description message of the device in action.

6.2.3 Mute

Pressing *MUTE* can stop the speaker of this repeater panel and networked FACPs; pressing *MUTE* again, they are still in mute state. They will sound by priority when one or more new event(s) appear(s), which can be silenced by further pressing of *Mute* key.

6.3 Instructions for Operator (Operator Password Required)

6.3.1 Resetting the System

Pressing *RESET* can reset the repeater panel and all the control modules, outputs and detectors connected to the network FACPs, but will leave the disabled devices as they are. The LCD displays “RESET IN SYSTEM”. LEDs will be turned off (Except for “POWER ON” LED). “RESET” information will be written into running log. If there is still fire alarm, fault and action not acknowledged after pressing the *RESET* key, the repeater panel will remain relative sound indications. If all messages have been acknowledged by pressing *RESET* key, the system returns to normal display state.

6.3.2 Checking All Visual and Audible Indications

In normal monitoring state, you can check all visual and audible indications of the repeater panel by pressing *TEST*.

6.3.3 Silence

Pressing *SILENCE* can silence the sounders and bells.

6.3.4 Evacuation

Pressing EVAC can manually start all sounders and bell to evacuate people.

6.4 Instructions for System Administrator (Manager Password Required)

Press *SYSTEM* to enter the system setting screen. The screen is shown in Fig. 6-11.

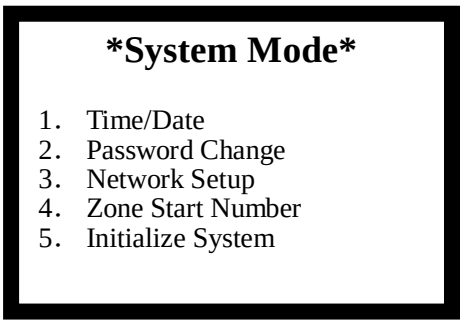


Fig. 6-11

6.4.1 Modifying System Time

Inputting “1” in the screen of Fig. 6-11, the system enters Time/Date setting screen. See Fig. 6-12. After inputting time on highlighted position and pressing *TAB*, the next cell is highlighted. Press *ENTER* to save the modification.

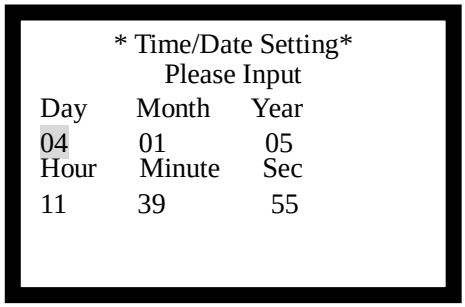


Fig. 6-12

6.4.2 Modifying Password

Inputting “2” on the screen in Fig. 6-11, the system enters the window of password modification. See Fig. 6-13. Now the passwords can be modified.

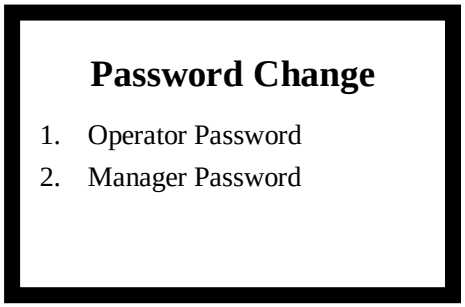


Fig. 6-13

Inputting “1” or “2” to choose password to be modified, the system enters the window in Fig. 6-14.

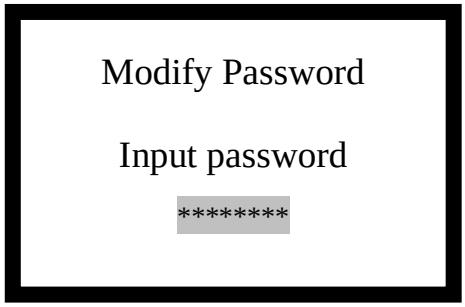


Fig. 6-14

After the password (8 digits from 0-9) is input, the LCD will display the screen shown in Fig. 6-15, requesting to confirm password.

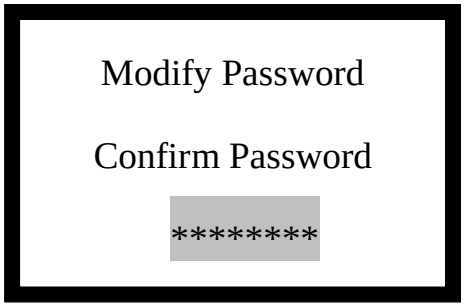


Fig. 6-15

Input password again. If the two passwords are the same, the LCD will display the window shown in Fig. 6-16, meaning the modification is successful.

Fig. 6-16

6.4.3 Network Setup

Input “3” on the screen in Fig. 6-11, the screen shown in Fig. 6-17 will be displayed.

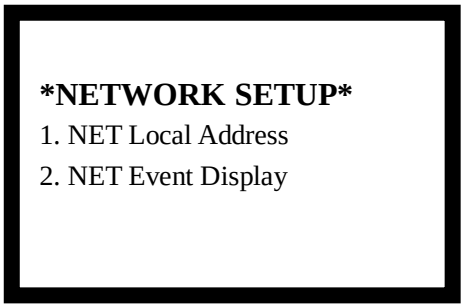


Fig. 6-17

In the above screen,

✧ You can set the repeater panel’s network address by entering number 1, as shown in Fig. 6-18.

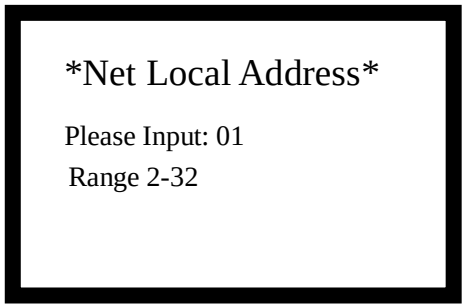


Fig. 6-18

✧ You can set the repeater panel to display network message or not by entering number 2, as shown in Fig. 6-19.

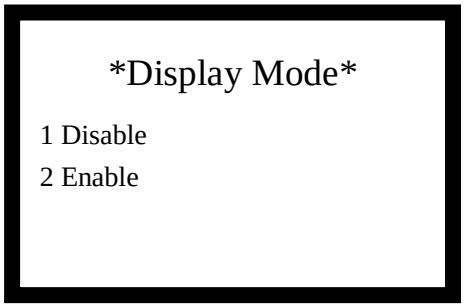


Fig. 6-19

6.4.4 Initialization of System

Input “5” on the screen shown in Fig. 6-11, you can initialize system data.

Chapter 7 Troubleshooter

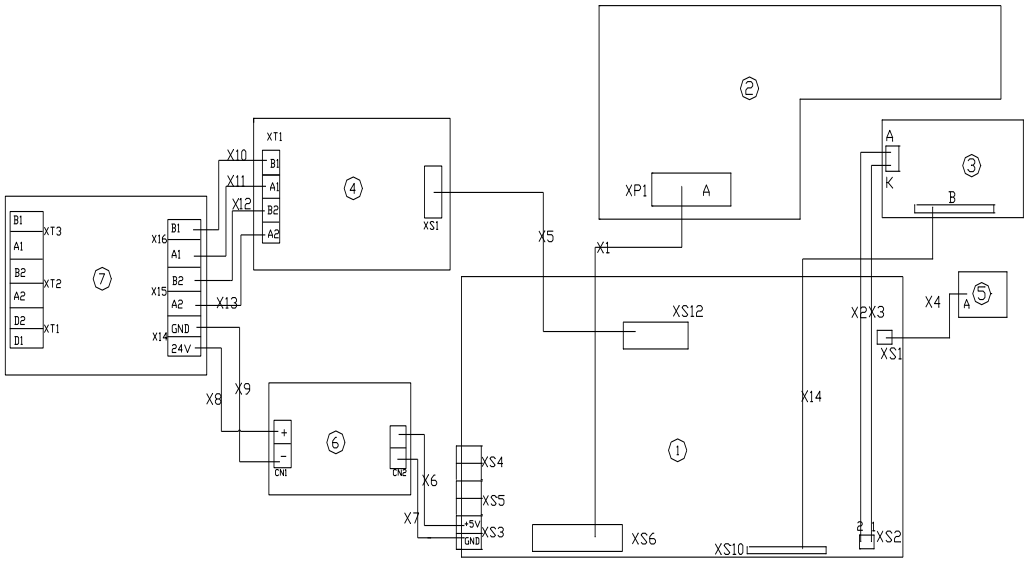
The FACP shall only be repaired by specially trained GST technical service personnel.

Please disconnect the power before repair!

Possible off-normal conditions and their solution are listed in Table 7-1.

No.	Problems	Possible Causes	Solutions
1	No indication on the repeater panel or abnormal indication	a. Power is abnormal b. Loose connection with switchboard.	a. Check the input and output of power converter board. b. Check the connection with switchboard.
2	Cannot communicate with networked FACPs	The polarity of communication cable between the repeater panel and the FACP is reversed.	Correct the polarity of communication cable.

Appendix 1 Internal Connection Diagram



1 Main board 2 Switch board 3 LCD 4 Network board 5 Speaker
6 DC-DC power supply 7 Terminal board

Appendix 2 Device Type List

Undefine	00	Undefined
ION	01	Ionization detector
R+F.Heat'	02	Rate of rise and fixed temperature detector
Optical	03	Photoelectrical smoke detector
Fix Temp	04:	Fixed temperature detector
Gas Det	05	Gas detector
Beam Det	06	Infrared beam detector
FlameDet	07	Ultraviolet flame detector
CableDet	08	Cable heat detector
Heat Det	09	Analogue heat detector
ION	10	Combination detector
MCP	11	Manual call point
VAModule	12	Voice alarm module
Sounder	13	Sounder strobe
FTModule	14	Fire telephone module
HR MCP	15	Hydrant pump
HR Pump	16	Hydrant pump
SPKR Pmp	17	Sprinkler pump
PS.SW	18	Stabilized pressure pump
Extract	19	Smoker exhauster
Presuriz	20	Blower
FreshAir	21	Fresh air
Damper	22	Fire damp
SM Vent	23	Smoke vent
AirInlet	24	Air inlet
SolValve	25	Solenoid valve
SM CURT	26	Roller shutter door middle point
RSD Clse	27	Shutter screen door close point
FireDoor	28	Fire door
PS.DIFF	29	Pressure switch
Flow SW	30	Water flow indicator
Elevator	31	Elevator
AHU	32	Air handling unit
GENI	33	Diesel generator
Light.DB	34	Power for lightening
Power.DB	35	Power distribution

WTR.CURT	36	Solenoid valve for water curtain
Gas Dump	37	Gas start-up
GasAbort	38	Gas stop
Net Unit	39	Net unit
Repeater	40	Repeater panel
Module	41	Flash-locks valve
DryPower	42	Dry powder fire extinguisher
FoamPump	43	Foam pump
FieldPSU	44	Power supply unit
EM Light	45	Emergency light
EscapeLT	46	Escape light
GasActiv	47	Gas activation
Security	48	Security module
ZoneValv	49	Zone valve
Cylinder	50	Cylinder
DelugePM	51	Deluge pump
Undefine	52	Undefined
Stop Mod	53	Device stop
Silence	54	Mute key
SounderA	55	Fire alarm sounder
SounderF	56	Fault sounder
Loop SW	57	Loop switch
CRTFault	58	GMC fault
Loop	59	Loop
PSU.Bat	60	Battery
PSU.AC	61	AC power
Lock	62	Multi-wire lock
PART	63	Partial devices
ZoneDir	64	Zone direction
F.P.E	65	Fire protection equipment

Appendix 3 Operation Menu

Menu

- **BROWSE** To view networked devices
- **LOG** To view history record
- **SILENCE** To silence the sounders and bells [Operator password required]
- **EVAC** To **s**tart all sounders and bells [Operator password required]
- **MUTE** To silence the sound of FACPs and GST-NRP01 repeater panels in network.
- **VIEW FAULT** To view fault messages if the screen is not displaying them.
- **TAB** To view action messages if the screen is not displaying them.
- **TEST** Audible-visible self-test key. To self-test the repeater panel in normal standby state [Operator password required].
- **LOCK** To lock the keypad.
- △ or ▽ To scroll the screen when there is more than one piece of information.
- **ESC** To cancel an output or exit a menu. In information display state, you can return the system to the highest level.
- **VIEW DISABLE** To display the information of disabled devices.
- **MODE** To set display mode
  - **LCD Contrast** To set LCD contrast
  - **Browse Mode** browsing Information
    - **Zone Mode** Zone display mode
    - **Loop Mode** Loop display mode
- **SYSTEM** Setting system menu [Manager password required]
  - **Time/Date** Setting the system time
  - **Password Change** Setting password
  - **Network Setup** Setting network address
  - **Initialize System** To initialize the system
- **ENTER** To confirm the input is valid. In monitoring state, press this key to change time display between month/day and hour/minute modes.
- **RESET** To reset the repeater panel and all the control modules, outputs and detectors connected to the network FACPs to normal standby state from fire alarm or fault state [Operator password required]

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