ADDRESSABLE FIRE ALARM CONTROL PANEL

AW-FP100

USER MANUAL

Version: 2.0

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Version Description

Version	Description	Date
V1.0	First established.	Nov 25th 2017
V2.0	Add wireless devices parts.	Jul 16th 2019

1 Product Specification

1.1 Overview

The AW-FP100 series addressable fire alarm control panel is designed with 7-inch LCD display touch screen with button operation, easy to operate, and nice human-computer interface.

Each loop of each panel can connect other wired addressable devices 250 pcs in maximum. Among these devices, the maximum number of AW-D106W(addressable strobe sounder with wireless transmitter) can be 30. All wireless and wired devices can be configured to different zones independently to activate the zones be interconnected.

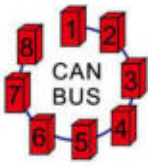
It can realize linkage, display, print, reset and silence functions between panels. At the same time, each loop has a strong load capacity (for the addressable strobe sounder, bell, etc., you can directly take power from the loop).

The panel has good scalability, it can transfer all the information of the panel to cloud, LAN software, etc. through Ethernet, and has GSM function (can send the alarm information of the panel to the designated mobile phone by SMS).

TCP/IP
MODBUS

GSM

CLOUD



P-P
Network

AW-D105W

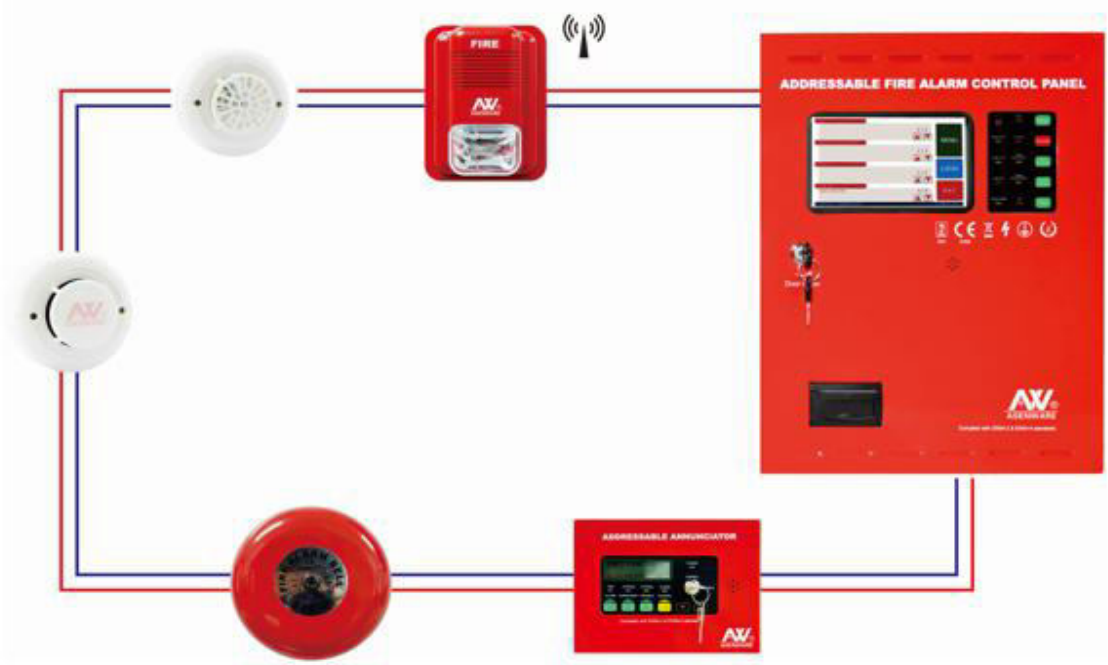
AW-STD606A

AW-SST606A

AW-SSD606A

The wireless addressable manual call point (MCP) and wireless addressable detector (which contains smoke detector/heat detector/ combination detector(smoke & heat)) from a 3V battery.

Their operational information to the addressable panel is transmit through the addressable strobe sounder with wireless transmitter (AW-D106W), and the maximum distance of wireless transmission is 500 meters under spacious environment. Each AW-D106W can be load up to 20 wireless devices, which include the addressable wireless manual call point and wireless addressable detectors in total. It also has the function of battery low-voltage alarm.



1.2 Features：

1.2.1 7 inch color LCD display, touch screen operation.
1.2.2 Delay time setting to different zone, up to 120 zones can be set .
1.2.3 All wired addressable devices use a two-wire system.
1.2.4 A single loop can connect 250 wired addressable devices and up to 600 wireless addressable devices.
1.2.5 Maximum 8 loops can be pre-set (wireless version maximum 2 loops).
1.2.6 CAN interface (which can realize the interaction, display and reset or silence between panels).
1.2.7 Up to 500 records of history can be saved (save when power off).
1.2.8 The function of printing fire alarm information.
1.2.9 The function of GSM (it can send alarm information of the system to the designated mobile phone by SMS).
1.2.10 Ethernet interface (that can connect ASENWARE LAN software, cloud of ASENWARE and third-party software with standard TCP MODBUS protocol).
1.2.11 Multiple access levels.
1.2.12 Rechargeable backup battery.

1.3 LCD Display Screen Introduction

1.3.1 **LCD DISPLAY SCREEN**: It is used to display all alarm information and configuration information of all current systems, and can set various contents of the system through touch screen.
1.3.2 **RESET:** After pressing the reset button, the panel will reset the whole system.
1.3.3 **EVACUATION:** Activate the fire alarm signal output to drive external devices alarm and panel buzzer.
1.3.4 **PANEL BUZZER SILENCE:** The panel buzzer can be silenced and automatically resound when a new fault or fire alarm is detected.
1.3.5 **REMOTE SOUNDER SILENCE:** It can silence the external alarm devices of the panel.
1.3.6 **TEST:** Press this button, the LCD screen and indicator lights on the panel turn on one by one, so as to realize the self-test of the panel.

1.4 Led Indicator Status Specification

Indicator Name	Color	Status specification
Power	Green	When the panel works, the power indicator will be on.
Fire Alarm	Red	When there is a fire alarm, the indicator will be on.
General Fault	Yellow	The indicator will be on when there is any fault in the system.
Evacuate	Red	When the system is in an evacuation state, the indicator will be on.

System Fault	Yellow	When the panel's program or memory fails, the indicator will be on (Note: The failure will be locked until the reset key is pressed).
Panel Buzzer Silence	Yellow	The indicator will be on when the panel is silenced.
Remote Silence	Yellow	The indicator will be on when the panel is in remotely silenced status.
Supervisory	Green	When the system detects any Supervisory information, the indicator will be on.
General Disable	Yellow	This indicator will be on when the panel has a disabled device.
Test	Green	When the test button is pressed, the light will be on until the test is completed.

1.5 Electrical Parameters

Rated input voltage	220VAC 50Hz/60Hz 110VAC 50Hz/60Hz **(Note: If the input voltage is 110V, the customer should be informed in advance. The default input voltage is 220 VAC.**	+10% -15%
Standby battery	Two 12V/5Ah lead-acid batteries in series（Can be changed according to customer needs）	
Work environment	Relative humidity (<95%) at 10 ~55 °C, no condensation)	
Fuse	AC power input fuse	3A/250V 5*20mm ,Glass tube fuse slowly blow
	24VDC total output fuse	10A/250V 5*20mm ,Ceramic tube fuse ,slowly blow
	Interface board terminals output fuse	200mA/250V 5*20mm, Glass tube fuse, slowly blow

Auxiliary power supply	Resettable 24VDC 200mA (Max)
Fire routing output	Normal output -12VDC, fire alarm output 24VDC/200mA (Max)
Fault routing output	Normal output is 24VDC/200mA (Max), and the fault is output -12VDC or 0VDC.
NAC output	Normal output -12VDC, Active state output 24VDC/200mA (Max)
Number of loop cards	8pcs(Max)
Maximum Load Current per Loop	24VDC 3A(Max)
Baud rate of CAN interface	500Kbps

1.6 Mounting

1.6.1 Notice

1.6.1.1 The panel should be installed on the dry, flat wall, keep in line of sight height and horizontal position to ensure the balance of the external chassis. Install the panel in three fixed positions using bolts or bolts with a diameter of 6mm（M6）.

1.6.1.2 The panel should not be installed in sealed environments or near the heaters. Appropriate insulated cables will be used in the corresponding positions. And all debris must be removed before the panel is energized.

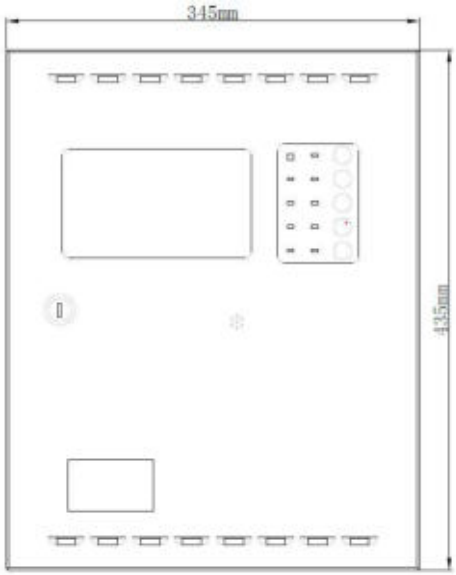
1.6.1.3 Preparations: The installation location will be free from the construction dust, debris, extreme temperature range and humidity.

1.6.1.4 The ground wire will be connected to the AC power supply. We recommend 16AWG to the AC power supply.

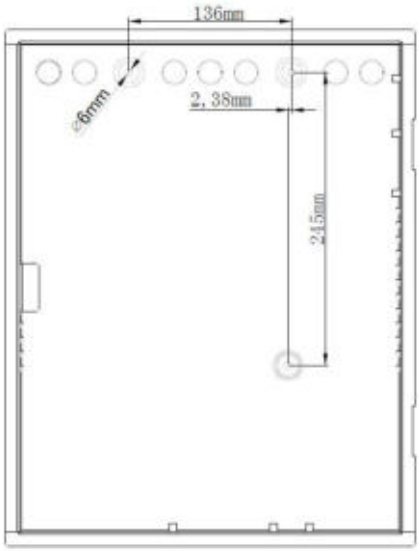
1.6.1.5 Before connecting the power cord to the panel, make sure that the total power supply has been disconnected.

1.6.2 Panel Side View, Front View And Mounting Diagram

Side view



Front view



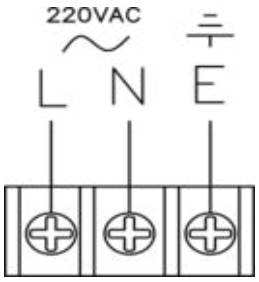
Mounting diagram

2 Terminals Specification

2.1 AC POWER

Note: before wiring, please ensure that all power is disconnect to prevent electric shock !

Connecting the AC power cable to the panel, pay attention to the order of L/N/E, insert it into three pin terminals (5mm apart) and screw up . Wires must be between 0.75 and 2.5 mm^2 in diameter.



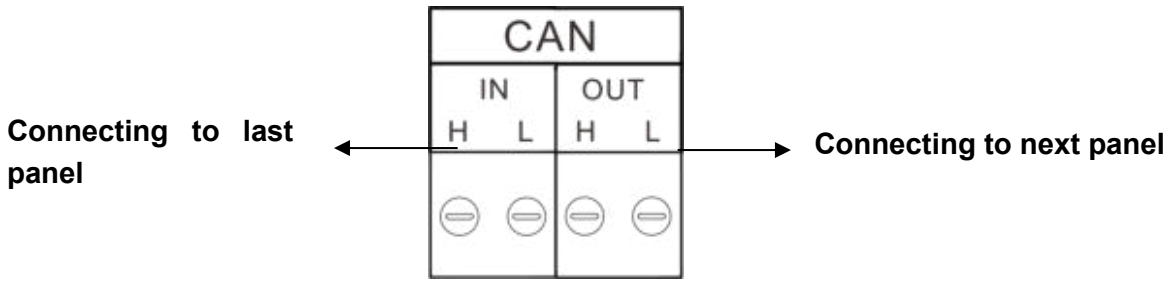
2.2 ETHERNET

Connecting to LAN software or cloud of ASENWARE.

2.3 CAN BUS

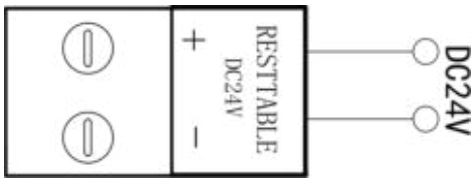
The CAN bus terminal will be connected between panels to implement the communication between panels of alarm information, interconnected condition of resetting and silence, and so on. The maximum number of interconnected panels on the bus is 8 sets.

Note: Pay Attention to H and L of the CAN bus when wiring. If the panel is the first or last one on the CAN bus, a 120Ω/1W resistor will be connected to IN or OUT.



2.4 RESETTABLE 24VDC

This terminal output signal of a resettable 24VDC, which maximum output current is 200mA.Pay attention to the positive and negative of the terminal when wiring.

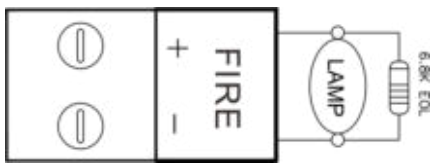


2.5 FIRE ROUTING

The external fire alarm devices will be connected on this terminal.

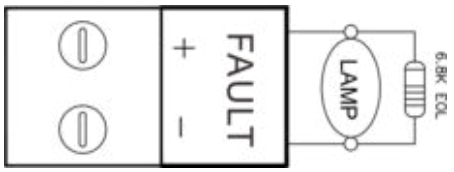
Pay attention to the polarity of the terminal when wiring, and paralleled connect a 6.8KΩ/1W resistor in the end of the output circuit.

The output voltage of this terminal is -12VDC under normal condition, and when there is a fire or in the evacuation status, its output will become +24VDC.



2.6 FAULT ROUTING

This terminal output signal of system running fault. Pay attention to the polarity of the terminal when wiring, and paralleled connect a 6.8KΩ/1W resistor in the end of the output circuit. This terminal's output voltage is +24VDC under normal condition, when the system has any fault, Its output will become -12VDC or 0VDC.

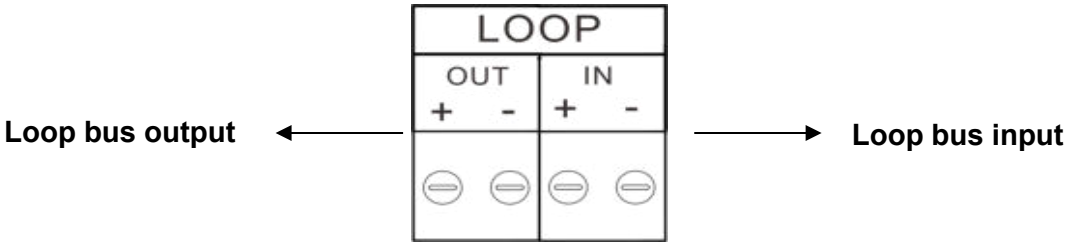


2.7 NAC OUTPUT TERMINAL

The terminal output signal of external conventional alarm bell or strobe lights. Pay attention to the polarity of the terminal when wiring, and paralleled connect a 6.8KΩ/1W resistor in the end of the output circuit.
The output of this terminal is -12VDC under normal condition. Its output will become +24VDC when there is a fire, and will activate the external alarm bell or strobe lights.
Note: If users use Non-ASENWARE alarm bell, please add D2 (must) /D1 (recommended), ASENWARE alarm bell has built-in the IN4007 D1/D2/.

2.8 LOOP IN AND LOOP OUT TERMINAL

The external devices input and output will be connected on this terminal.



Note: The loop branch of isolation module (AW-D114) or the power transmitter (AW-D121) cannot be connected to input of the panel loop bus directly.

3 Menu Description

3.1 Home Screen Specification

In the normally running of the system, all the display columns on the home screen are empty. As shown in Figure 1, the date and access level will be displayed at the bottom of this interface.

By touching the menu button on the screen, users can operate and view more system content (described in detail in subsequent chapters).

By touching the login (LOGIN) button on the screen, users can enter the system with the corresponding access level password.

By touching the exit button, the user can exit the current access level and return to level 1.

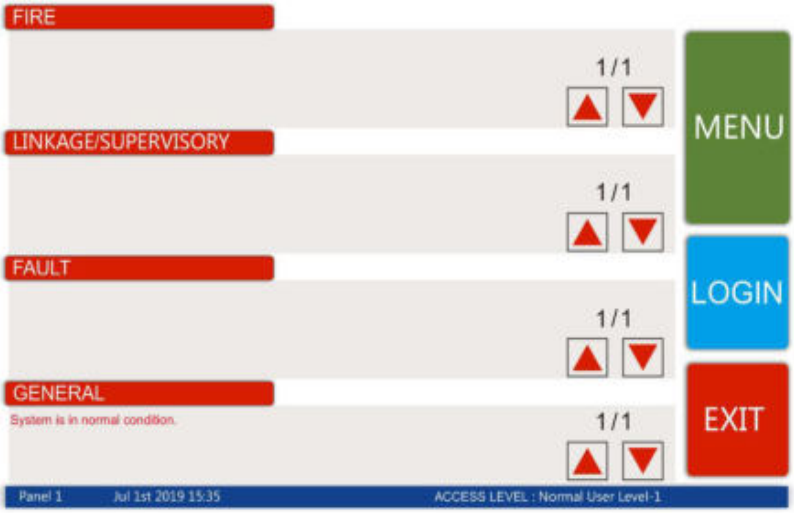


Figure 1. Home screen under normal running

When any system running fault happens, it will be displayed in the event column corresponding to the home screen. For example, the detector sends a fire alarm signal to the control panel, which will be displayed in the Fire column of Figure 2.

Test and disable information for devices or zones will be displayed in the General column.

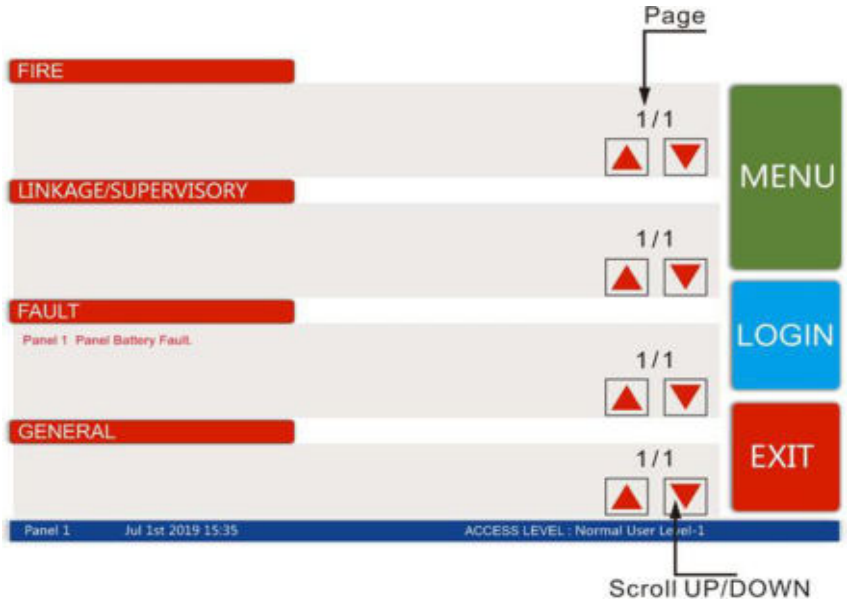


Figure 2 .Home Screen Display

3.2 Main Menu Specification

The users can access the functions of history, panel settings, registration and status operation by press the menu button in the home screen. Users need to log in before enter the menu, as shown in Figure 3, select the appropriate access level, enter the login password and then enter the system.

Figure 3 shows the display interface after entering the menu, which contains a variety of functional settings and operations. In the main menu interface, it includes password modification, panel settings and other settings.

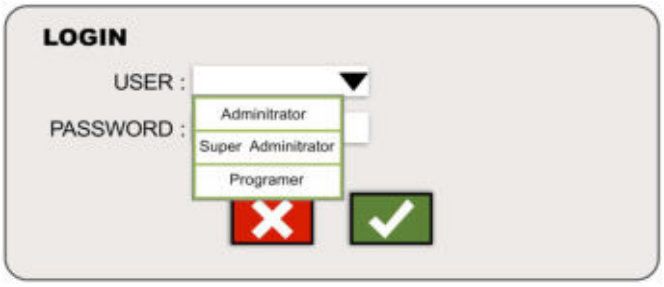


Figure3. Login

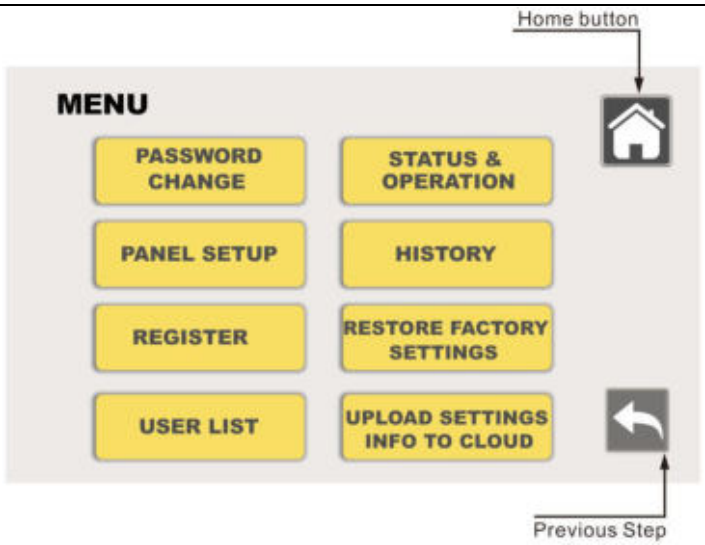


Figure 4 Main menu

3.2.1 **HOME BUTTON**: Can help users quickly return to the home page.

3.2.2 **PREVIOUS STEP**: To help users return to the previous page.

3.2.3 **PASSWORD CHANGE:** Users can change the password to log in.

3.2.4 **STATUS & OPERATION:** By clicking on the status and operation submenu, users can enter the wired device page or the wireless device page for related operations.

3.2.5 **PANEL SETUP:** Submenu PANEL SETUP allows users to set the panel's time, loop definition, zone settings, etc. The panel settings contain five other sub-menus through which users can make relevant settings.

3.2.6 **HISTORY:** Users can select a history page to view fire alarm history, fault history, and linked history.

3.2.7 **REGISTER:** In this submenu, users can set the product type, device name, installation location and Zone of all devices.

3.2.8 **RESTORE FACTORY SETTINGS:** Submenu restore factory settings allows users to restore the control panel to factory settings.

3.2.9 **USER LIST:** If users (access Level 2 and 3) forget their passwords, the submenu user list can help them retrieve or change their passwords.

3.2.10 **UPLOAD SETTINGS INFO TO CLOUD:** Click on the main menu to upload configuration information to the cloud option, enter the upload configuration information to the cloud page, users can upload configuration information to the cloud.

4 Main Menu Configuration And Operation

Users can configure directly on the control panel to save installation time; easy-to-use software makes it easy for users without experience; press the MENU button on the main screen to enter other functions.

4.1 The Suggestion Before Configuration

Before configuring, it is highly recommended to follow the procedure below to prevent errors that may cause reconfiguration.

4.1.1 Please read this manual before configuration.
4.1.2 Make a record sheet to get the exact information for all devices, transmitters and zones. Carefully assign addresses to all devices.
4.1.3 Assemble and power the panel to check that all boards are securely installed;
4.1.4 Change the passwords of the administrator and super administrator.
4.1.5 Enter parameters for the network panel, such as time and date.
4.1.6 Configure all devices and test the system. Testing can be done point-to-point using test methods, as described in subsequent chapters of this chapter.
4.1.7 Save the original configuration with the hard disk.

4.2 PASSWORD CHANGE

Press the PASSWORD CHANGE button, users can change the password for login. The passwords for access level 2 and access level 3 can be modified through the interface shown in the figure 5 below.

There are usually two levels of passwords: administrator and super administrator. an administrator is called a level 2 user, and a super administrator is called a level 3 user. The super administrator can modify the configuration and register the panel.

The user of access level 2 corresponding to the Administrator; the user access level 3 corresponding to the Super Administrator. Developer is a user of access level 4, and only the manufacturer and the person trained by the manufacturer to change or modify the system can be authorized to access this level.

When the control panel is shipped from the factory, the password is set to: administrator password "1111" and super administrator "1111". Users need to modify the product after receiving the panel.

Note: Passwords are all Arabic numerals and are 4 in length. After making all the changes to the password, click "√" to save it.

If the entered password is incorrect, the panel will display **PASSWORD ERROR**. After exit this window, you can re-enter your password. If the user forgets the password, the access level 4 can restore it to the initial password in the user list. How to do this will be explained in the following sections.
Note: The user must click "√" to confirm the change.

Figure 5.Password Change

4.3 HISTORY

Users can select a history page to view. As shown in Figure 6, there are three kinds of historical records that can be queried. Users can choose the one they want to view to enter the record storage page.

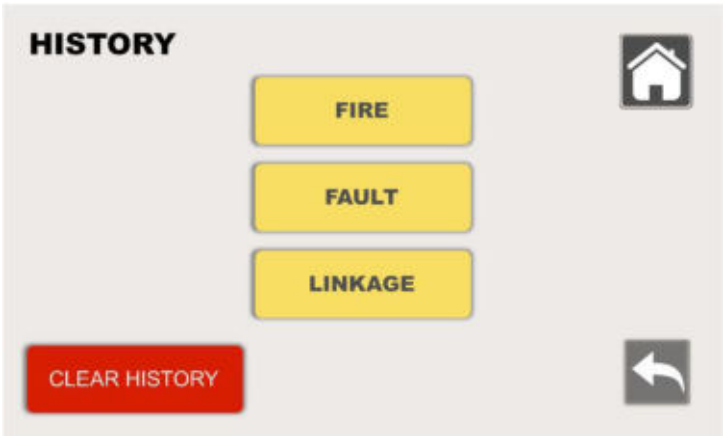


Figure 6.History

Note: The Clear History function can only be operated by users with access level 4. History record type HISTORY TYPE (FIRE, FAULT, LINKAGE).

4.3.1 **Fire alarm history:** Up to 200 pieces of data can be stored, and the latest fire alarm record will appear at the top. As shown in Figure 7, this record contains a detailed description of the fire. The user can select a specific page number and click on the GO to quickly reach to the page number.

4.3.2 **Fault history:** Up to 200 pieces of data can be stored, and the latest fault record will appear first.

4.3.3 **Interconnection history:** Up to 100 pieces of data can be stored, and the latest linked record will appear at the top. It records all monitoring events and all interconnection with the system.

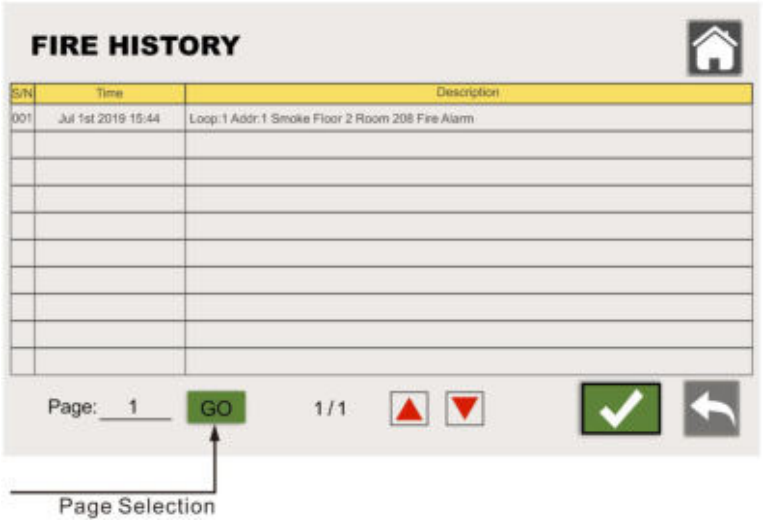


Figure 7.Fire history

4.4 STATUS & OPERATION

By clicking on the **STATUS & OPERATION** submenu, the user can enter the wired devices page or the wireless devices page, as shown in Figure 8, which allows the user to check the status of each device's using location information. As it can be seen from Figures 9 and 10, the user can test and isolate individual devices from this submenu.

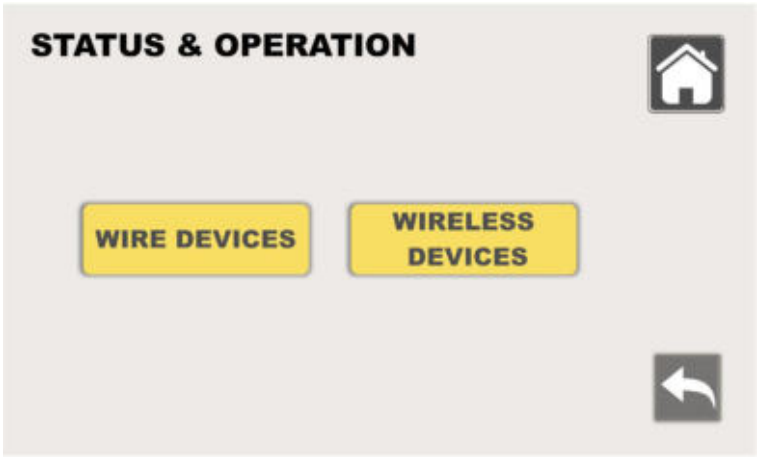


Figure 8. Status and operation

4.4.1 WIRE DEVICES STATUS AND OPERATION

As shown in Figure 9, the first column describes the address of the device, and

each subsequent column describes the device type, the location of the device, and the Zone in which it resides.

As shown in the last two columns, individual devices can be tested and disabled using the ON / OFF switch.

To check the status of a particular loop, select from the loop number at the top left of this window, and the green "√" indicates the currently selected loop. Click on a loop number to select the loop display.

The **FAULT** column also shows that a device is in a normal state or has any problems.

The up/down arrows can be used to go to the next page, or you can select the page number from the page selection touch button at the bottom left and click **GO** to jump to the corresponding page.

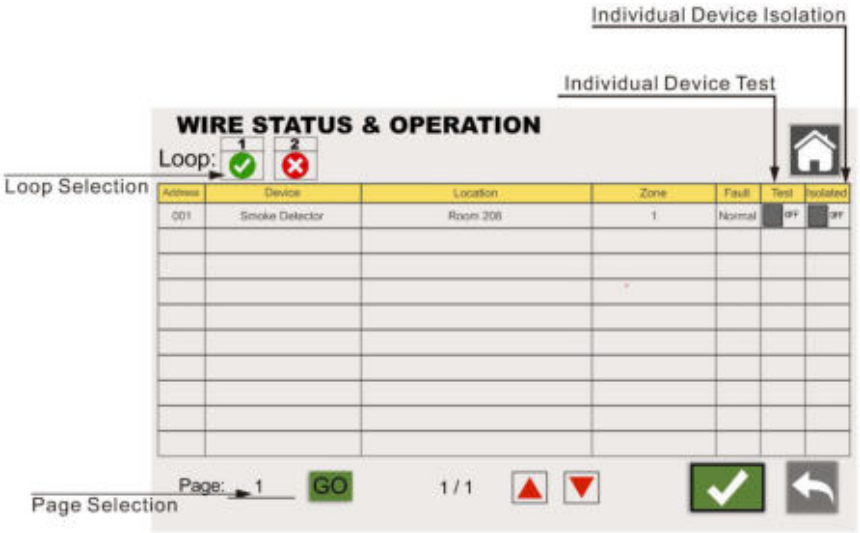


Figure 9.wire status and operation

4.4.2 WIRELESS STATUS AND OPERATION

As shown in Figure 10, the first column describes the address of the device, and each subsequent column describes the device type, the location of the device, and the zone in which it resides. As shown in the last two columns, each devices can be tested and disabled by the ON / OFF switch.

To check the status of a particular loop, select from the loop number at the top left of this window, and the green "√" indicates the currently selected loop. Click on a loop number to select the loop display.

The **FAULT** column also shows whether the devices in a normal state or not.

The up/down arrows can be used to go to the next page, or you can select a page number from the page selection touch button at the bottom left.

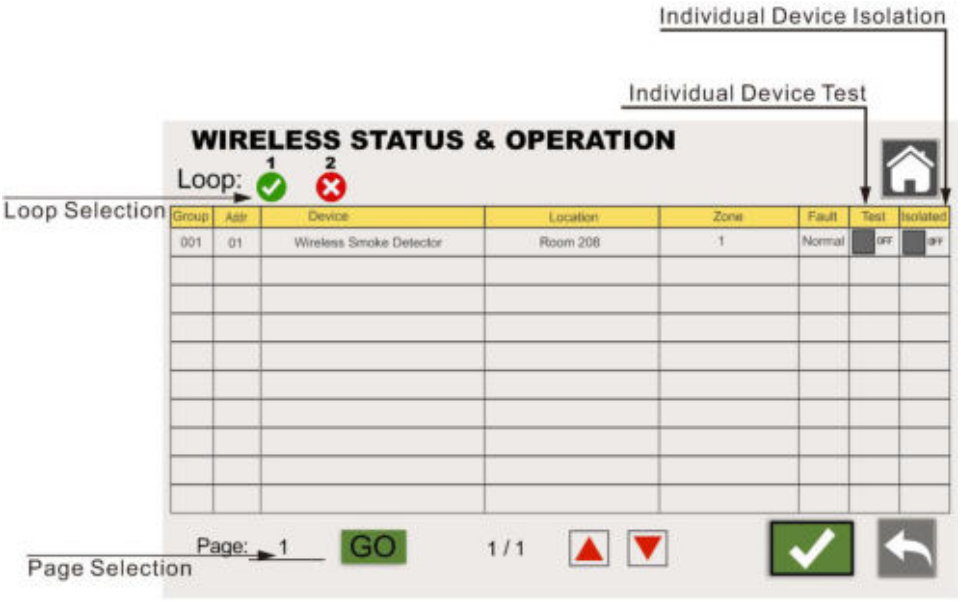


Figure 10.Wireless Status & Operation

4.5 PANEL SETUP

The submenu **PANEL SETUP** allows the user to make time settings, loop definitions, zone settings, etc. The panel settings contain 6 submenus, and the user can make related settings through each submenu.

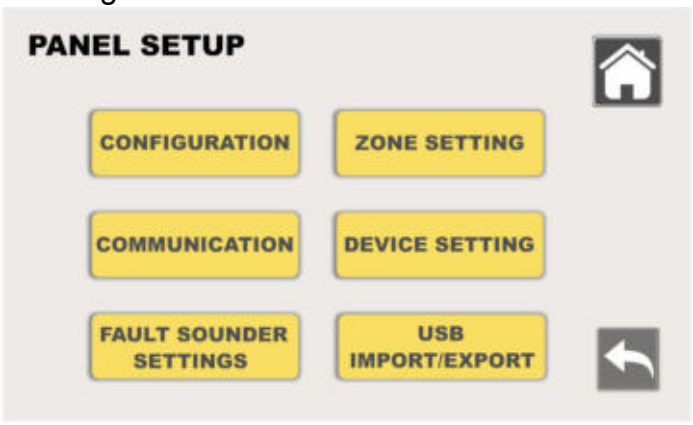


Figure 11.Panel Setup

4.5.1 CONFIGURATION

In this submenu, you can set the control panel name, loop selection and related settings for the loop. As shown in Figure 12, the user can set the basic functions of the panel, such as time setting, whether to turn on the printer and the sound of the panel buzzer.

The first line is used to fill in the name of the panel and then the number of

loops connected within the panel can be selected.
You can adjust the screen saver time (maximum 250 seconds, set 0 to not turn off the screen), when the pre-set time is over and without operation, the screen will go to sleep to protect the LCD screen.
The buzzer option panel can enable and disable the buzzer via the ON / OFF touch switch. Similarly, other options can also be used with the ON / OFF touch switch.
In the time setting options, you can set the date and time. When all settings are complete, save these changes by pressing the green "√" in the bottom right corner of the window.

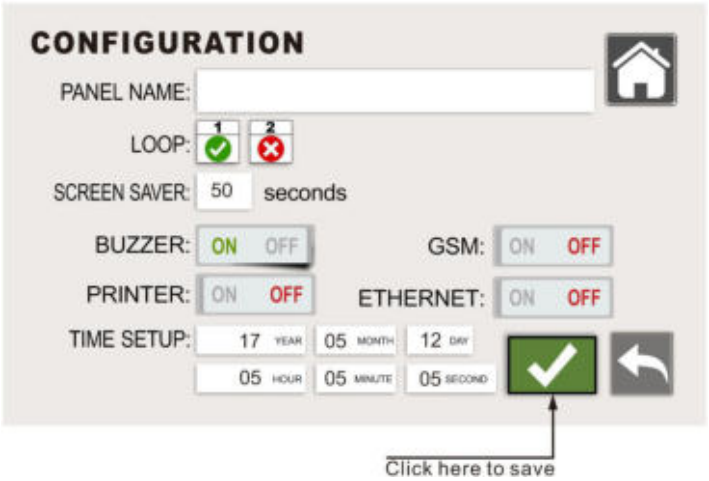


Figure 12 Configuration

4.5.2 ZONE SETTINGS

In the submenu of PANEL SETUP, the user can view the status of the zone according to the settings performed (see the registration section below).
This window provides information about each zone, such as delay time, test case, and zone disable (if any).
Fire Qty tells you the number of fire alarm devices needed to start linkage.

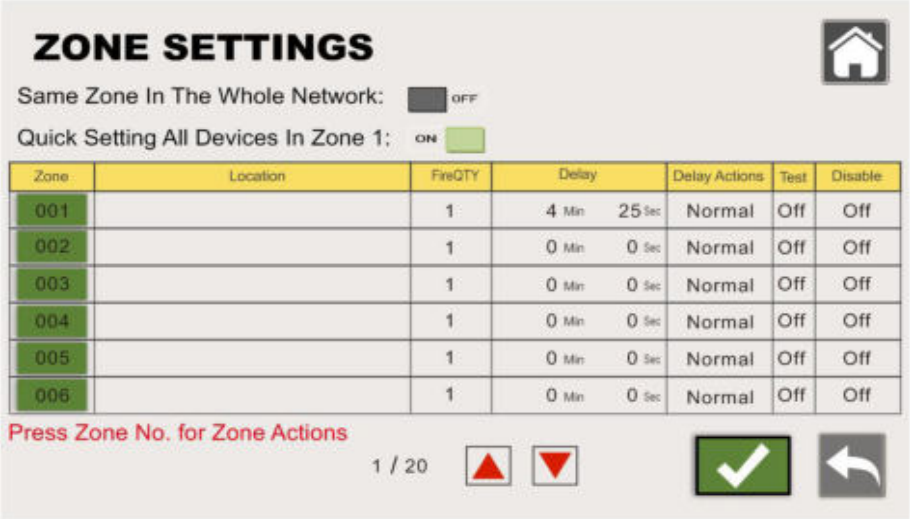


Figure 13.Zone Settings

SAME ZONE IN THE WHOLE NETWORK, represents whether it is linked to other panels.

QUICK SETTING ALL DEVICES IN ZONE 1, means whether the panel is connected to all devices in the same zone, and the linkage is not delayed.

In the first column of Figure 13. The zone number is a touchable button that is pressed into the corresponding zone settings sub-window. In this window, the user can name the zone in LOCATION, the trigger number of fire alarm devices can be set to up to 3 pcs, and the system linkage can be activated only when the number of this setting would be reached to. The alarm delay time of the zones can be pre-set to 10 minutes in maximum and be decremented every 5 seconds to do flexible settings.

You can choose to override or abort the signal of zone's fire alarm.

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Zone testing and zone isolation are possible using the ON / OFF switch button. All zones can be tested and disabled and displayed in the previous window. As shown in Figure 14.

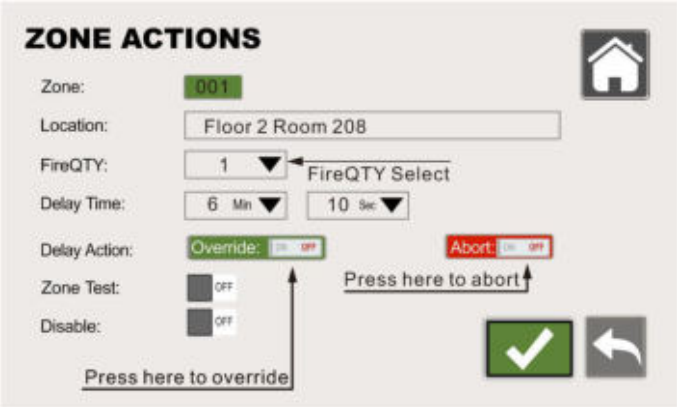

Figure 14.zone actions

ZONE ACTION SPECIFICATION

Action	Description	Display
Delay time	Can be set to a maximum of 10 minutes	Displayed on the zone setting screen
Delayed action	Directly start linkage output	Simultaneous display on the main screen and zone settings screen
	Cancel the linkage output	
Zone test	Specific zone test	Displayed on the main screen and displayed on the zone settings screen
Disable	Specific zones are disabled and isolated	

4.5.3 COMMUNICATION

Network settings and communication settings with other panels or mobile phones can be performed in this submenu. The user must set the different settings comply with the settings described below.

4.5.3.1 TCP/IP SETTINGS

The ASENWARE AW-FP100 Series can be connected over a network, using IP addresses and DNS server settings to establish network communications.

The user must fill in the information in the TCP/IP address of the submenu. After filling in, click the green "√" in the bottom right corner of the page to save the settings. As shown in Figure 15.

TCP CLIENT is used to connect to the standard TCP Modbus protocol software; TCP SERVER is used to connect to ASENWARE's LAN software; CLOUD is used to connect to the ASENWARE cloud.

Note: The panel contains three ports, each of which runs independently.

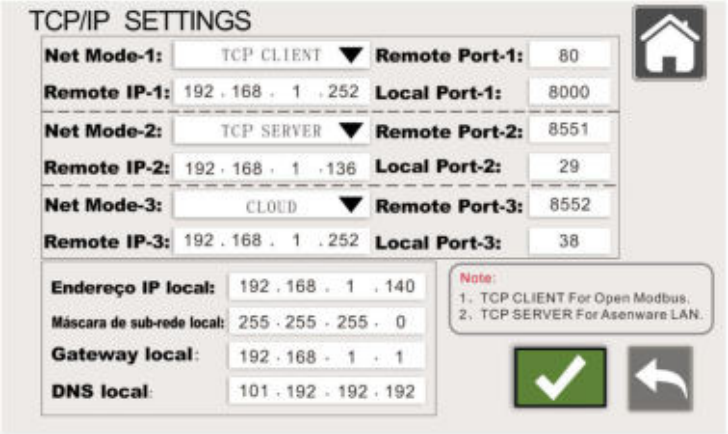

Figure 15. TCP/IP Settings

4.5.3.2 CAN BUS SETTINGS

The CAN bus setting window allows the user to connect with other panels. Click on the label position in the second line to make it green "√" for the selected loop, and red "×" for not connected to the current panel;

Click the label position in the third line to make it green. “√” means that the alarm info of other panels are displayed on the panel. The red “×” means that the panel information is not displayed.

Click the label position in the fourth row to make it green. “√” means that the selected panel’s fire alarm information can be printed on the panel, and the red “×” means that the panel information is not printed.

If the user selects the option in the fifth line, the panel can reset and silence other panels.

After filling in, click the green “√” in the bottom right corner of the page to save the settings. See Figure 16.

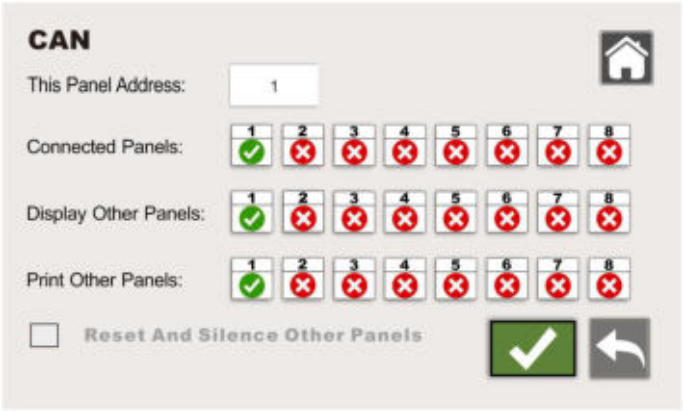

Figure 16. CAN Bus settings

4.5.3.3 CLOUD SETTINGS

ASENWARE allows customers to send the info of the system to designated cloud. See Figure 17, user can set the address of the cloud.

After filling in, click the green "√" in the bottom right corner of the page to save the settings.

Figure 17 Cloud settings

4.5.3.4 GSM SETTINGS

In the GSM setup window, referring to FIG. 18, the user can fill in the mobile phone number of the authorized person to send the alarm information from the panel to the designated person's mobile phone by SMS. After filling in, click the green "√" in the bottom right corner of the page to save the settings.

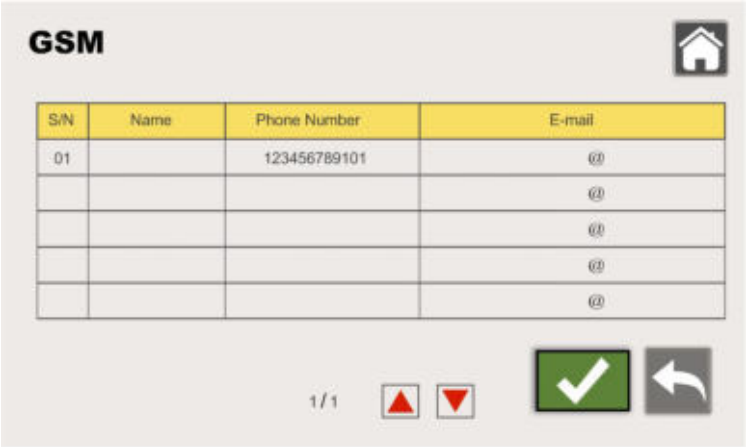

Figure 18. GSM Settings

4.6 DEVICE SETTINGS

In the device settings submenu of the panel settings, the user can customize the name of the input and output modules. Figure 19 shows the Device Settings window. After filling in, click the green "√" in the bottom right corner of the page to save the settings.

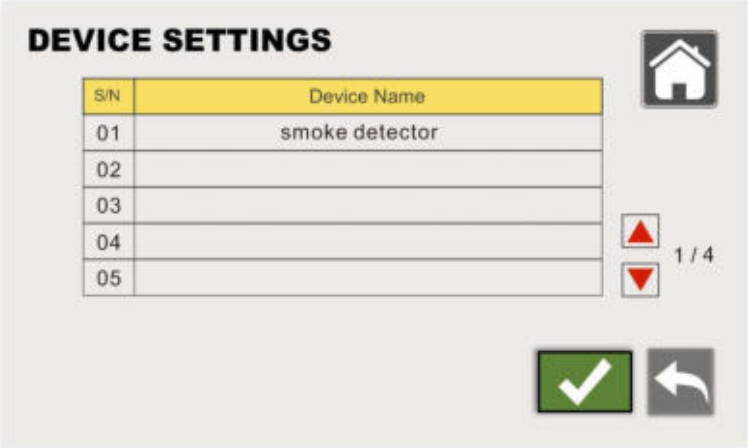

Figure 19. Device settings

4.7 FAULT SOUNDER SETTINGS

Referring to Figure 20, the user can select whether the AC fault, the battery fault, and the earth fault activate the panel buzzer or not. After setting, click the green "√" in the bottom right corner of the page to save the settings.

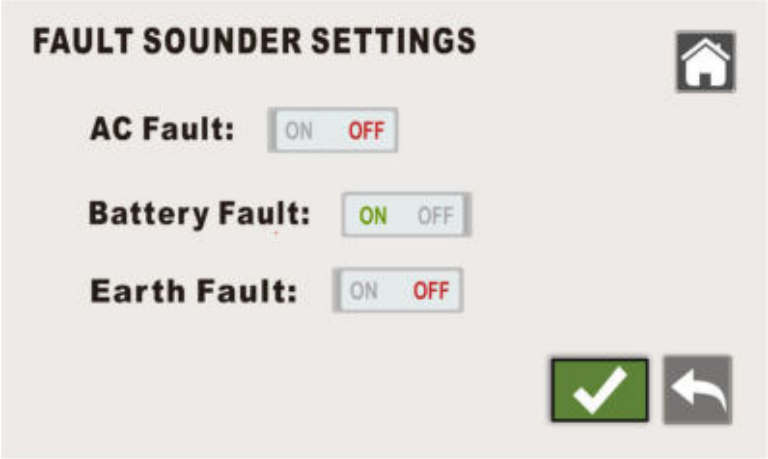

Figure 20. Fault sounder settings

4.8 USB IMPORT/EXPORT

Users can use the configuration software provided by ASENWARE to set all the configuration of the panel on the computer, and then import it into the control panel

through the USB flash drive;
Users can also export all configuration information and operation records of the panel and view on the computer.
Note: After each time the data is imported to the control panel, which needs to be powered off and restarted. As shown in Figure 21.

Figure 21. USB Import/Export

5 REGISTER

In this submenu, the user can set the product type, device name, device installation location, wireless group (**Note**: only wireless strobe sounder (AW-D106W) can be configured) and register information, and device zones (Note: each device can be assigned up to 4 different zones simultaneously, the maximum number of zones in the system is 120.), as shown in Figure 22.

The window will display information such as the address, location and status of all devices (if registered). If you choose the input and output modules, please click on the Device column select user-defined name.

If the product type you selected is a strobe sounder with wireless transmitter(AW-D106W), when you select a device in one line of this product type, please set the wireless group in the wireless group column at the same time, and click the **DEVICE** field enters the wireless device registration interface of the corresponding group.

The **SEARCH** button automatically registers all wired devices have been connected to the panel.

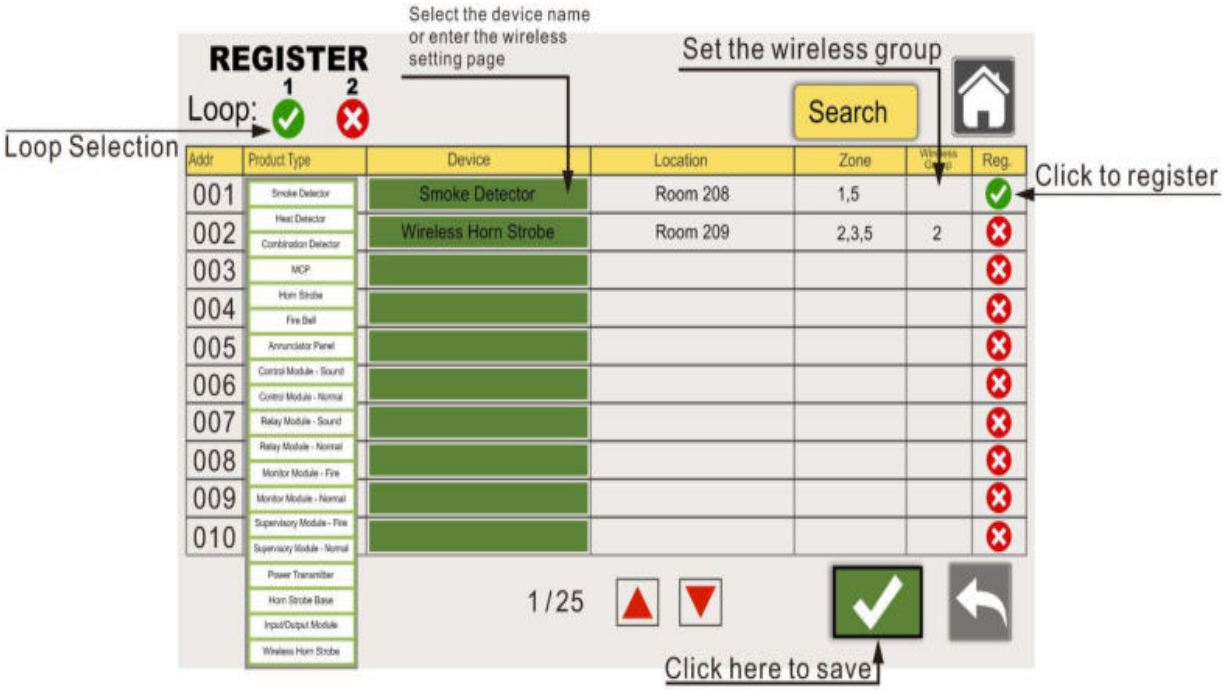

Figure 22.Devices Registration

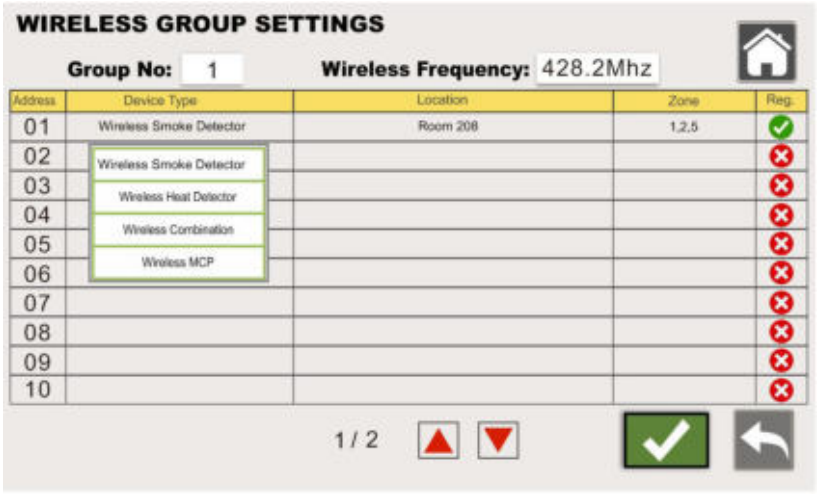

Figure 23. Wireless Group Settings

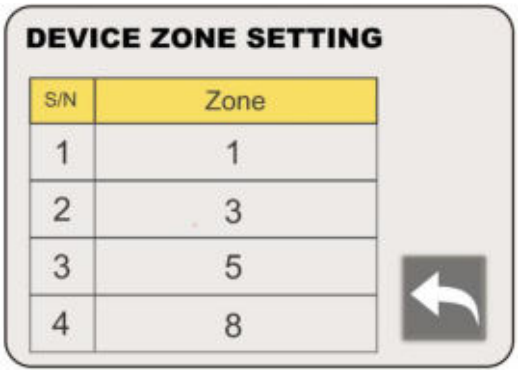

Figure 24. Device Zone Setting

6 RESTORE FACTORY SETTINGS

Submenu restore to factory settings allows the user to reset the panel to factory settings. This submenu is only available to users with access level 4.

7 USER LIST

If level 2 or access level 3 user forgets the password, the submenu user list can help them retrieve or change the password. Each user level can only modify its own level password or subordinate password. As shown in Figure 25, users of access level 4 can see passwords of all levels.

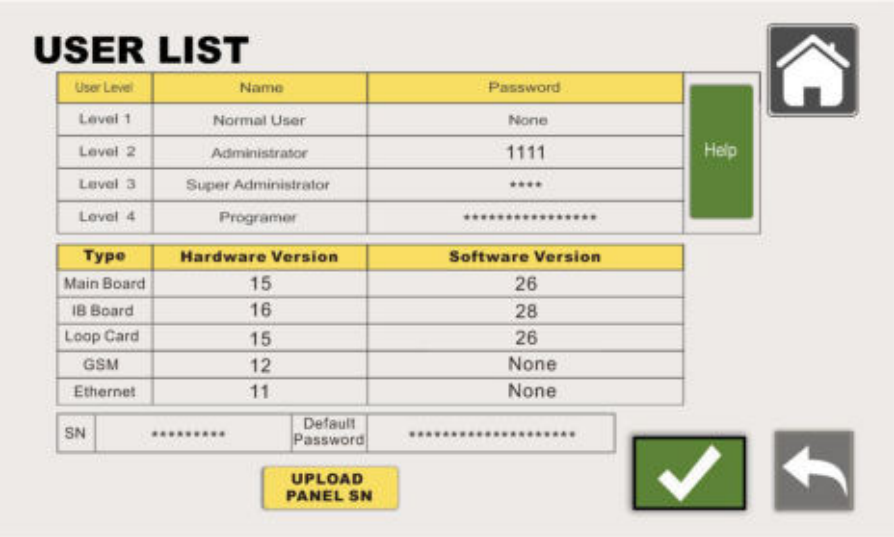

Figure 25 User list

Note: When using the cloud function, you need to go through the authorization of ASENWARE and click **UPLOAD PANEL SN** to register in the cloud before you can use it.

This submenu has a **HELP** touch button that allows the user to view access rights for specific functions of the panel, see Figure 26.

Figure 26.Help List

8 UPLOAD SETTINGS INFO TO CLOUD

Click Upload configuration information from the main menu to the cloud option to enter the upload configuration information to the cloud page. Users can upload the configuration information to the cloud (you need to network the control panel first). During the upload process, if the user wants to cancel the upload, just click the **CANCEL** button in the bottom right corner, as shown in Figure 27. The function of uploading configuration to the cloud can be operated only by users with access level 3 or higher.

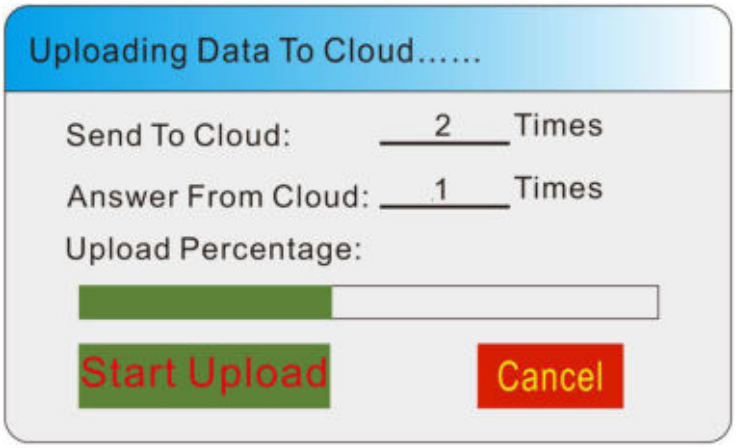

Figure 27. Upload settings info to cloud

9 Maintenance

9.1 The control panel should be kept dry and the ground wire is well connected.

9.2 If the controller gets dirty, wipe it with a dry cloth. Do not use cleaners or solvents to clean the panel. Make sure that water does not enter the chassis.

9.3 Testing of fire suppression systems should only be carried out by trained personnel and appropriate isolation measures must be taken to ensure that accidental release of gases is avoided.

9.4 Before starting the test, please alert all personnel in the notification area in advance.

9.5 Be careful before removing any cables. The battery should be inspected regularly and replaced at least every three years.

10 Installation information

Installer:_____ Company:_____

Tel:_____ Add:_____

Date：_____ Serial No.：_____