

# ADDRESSABLE FIRE ALARM PANEL

**HST Fire**  
Your Strongest Security Partner





# TECHNICAL SPECIFICATIONS:



• Operating Voltage	180-240 Vac
• Power	100 W
• Battery Type	Lead-Acid Sealed Battery Capacity 2 x 12V/7Ah
• Number of Loops	1-4
• Active Detectors per Loop	150
• Maximum Detectors per Central	1000
• Ethernet Connection	Yes
• Battery Short Circuit Protection	Yes
• Operating Temperature	-10°C +55°C
• Humidity	% 95



- **Siren Output:**

- Output Type
- Contact Rate
- Fuse
- Maximum Voltage
- End of Line Resistor

Normally Open  
1 A @ 30 Vdc  
400 mA Automatic Reset  
32V  
4K7 KOhm



- **Open Collector Outputs (1,2,3):**

- Output Type
- Output Current
- Maximum Voltage

Open Collector  
50 mA max  
32V

- **Alarm Relay Output:**

- Output Type
- Contact Rate

Normally Open (NO), Normally Closed (NC)  
1 A @ 30 Vdc

- **Error Relay Output:**

- Output Type
- Contact Rate
- 24V Output
- Loop Power
- Loop Load

Normally Open (NO), Normally Closed (NC)  
1 A @ 30 Vdc  
Yes 400mA max  
300mA maximum  
120R



- **Serial Out (RS-485):**

• Baud Rate	19200
• Data bits	8
• Parity	None
• Stop Bit	1
• Flow Control	None
• Case Material	Metal Case 1.2mm
• Environmental Category	IP30
• Dimensions	34,5 x 36 x10,5 cm
• Weight	1.8 kg
• Data retention	10 years



# BASIC FIRE

## Main Controller

- The brains of the system.
- Provides power to the system, monitors inputs and controls outputs through various circuits.
- Performs other functions as required by the appropriate code





# ELEMENTS OF A CONTROL PANEL

## Requires two Power Sources :

- AC power source.
- Battery 12V/7AH (2)



**Primary (AC)**



**Secondary (DC 24V)**



# ELEMENTS OF A CONTROL PANEL

## Inputs:

- A fire alarm system can have a variety of input devices



Detector



Manual call  
point



# ELEMENTS OF A CONTROL PANEL

## Outputs:

- A fire alarm system can have a variety of input devices



**sounder**



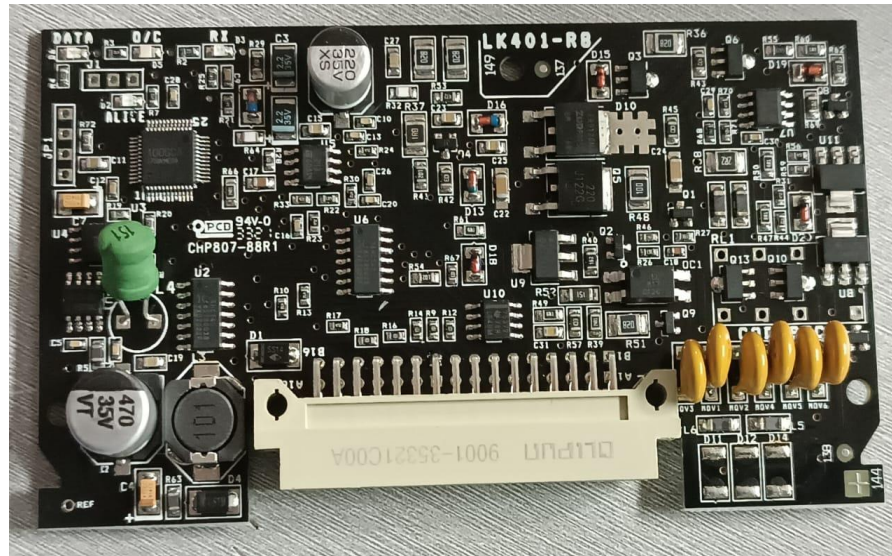
**Bell**



# TYPES OF FIRE ALARM CONTROL PANELS

## Addressable panel:

- 4 loops

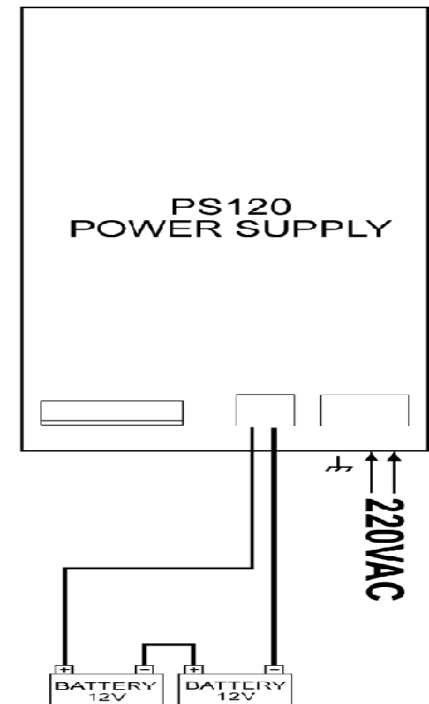




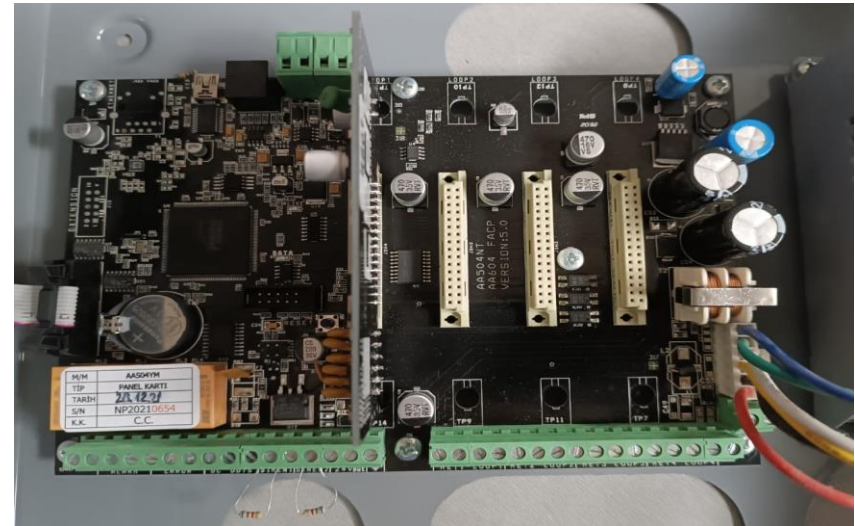
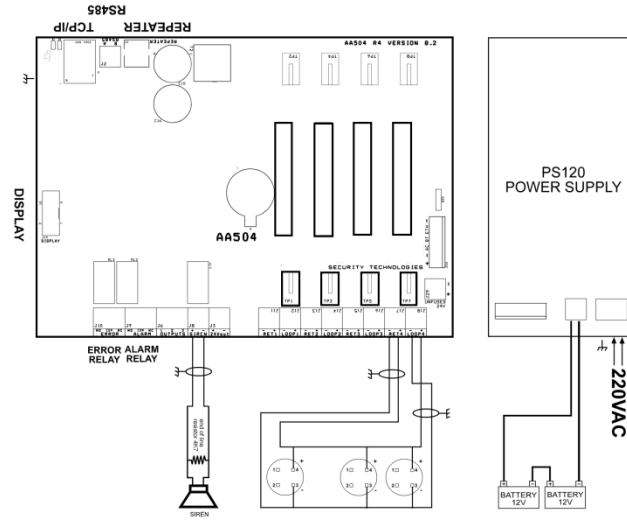
# BATTERY CONNECTION



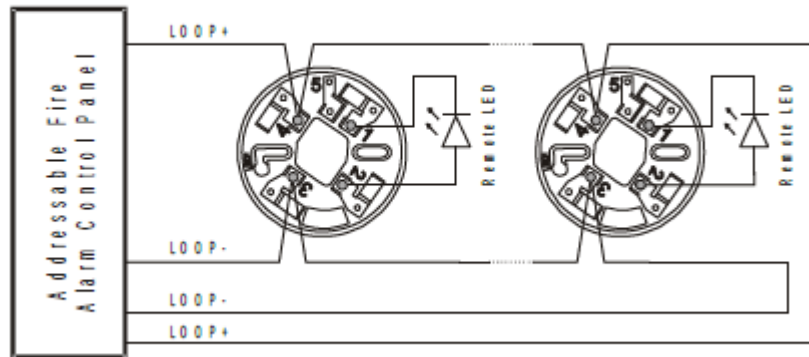
2 Battery  
DC, 12 V / 7Ah





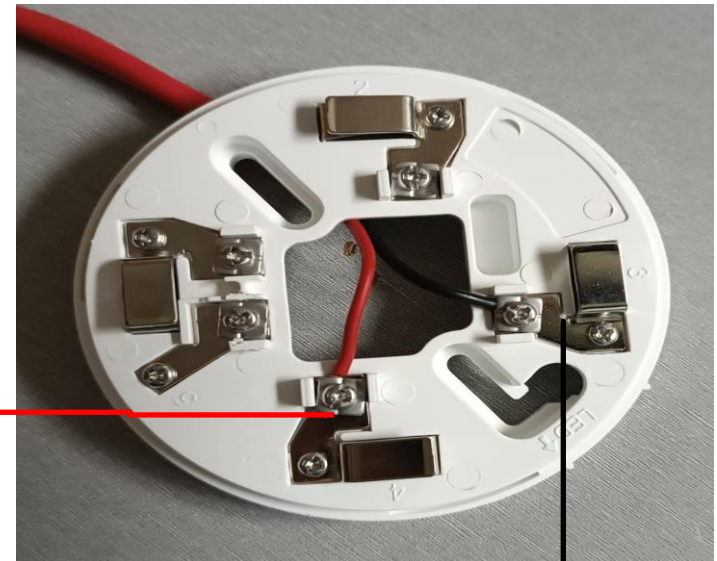




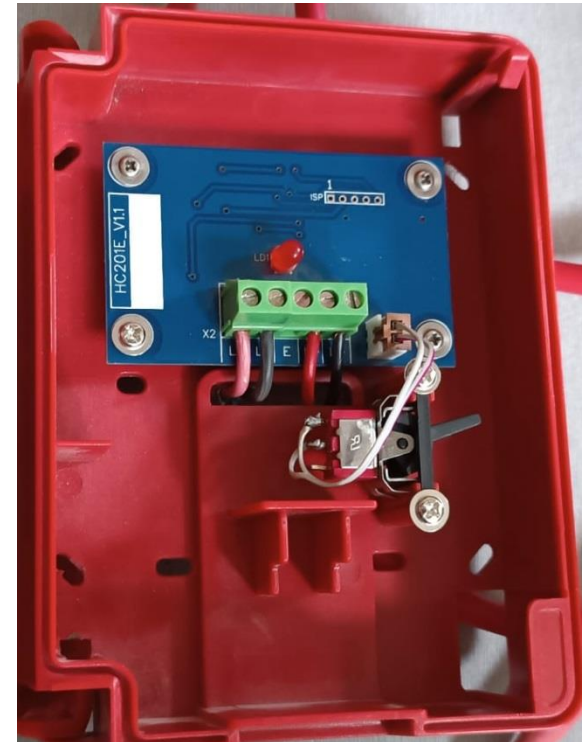
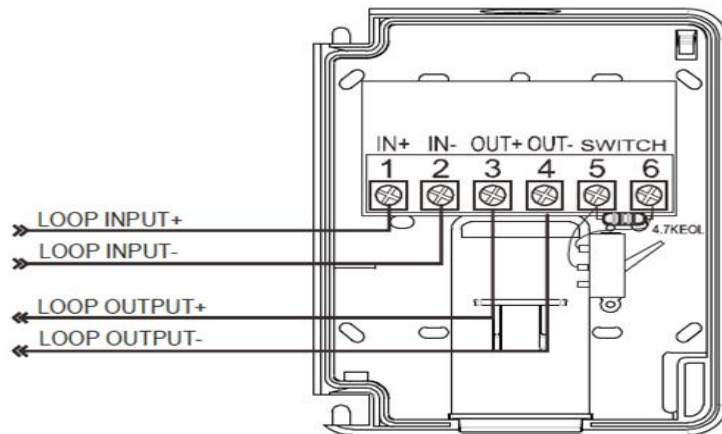


4 (+v) terminal

3 (-v) terminal



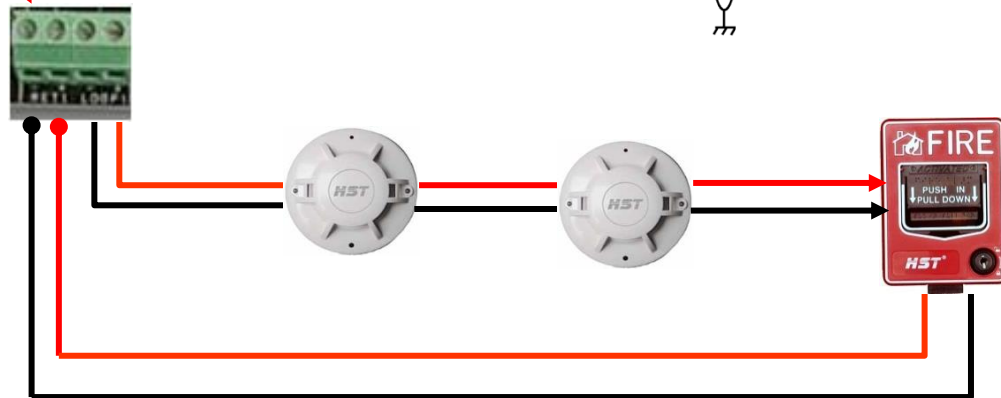
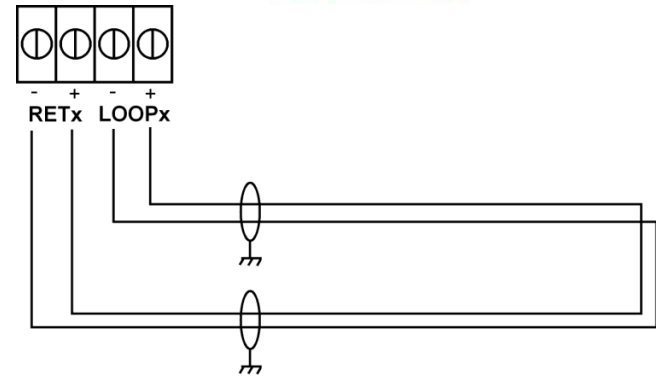
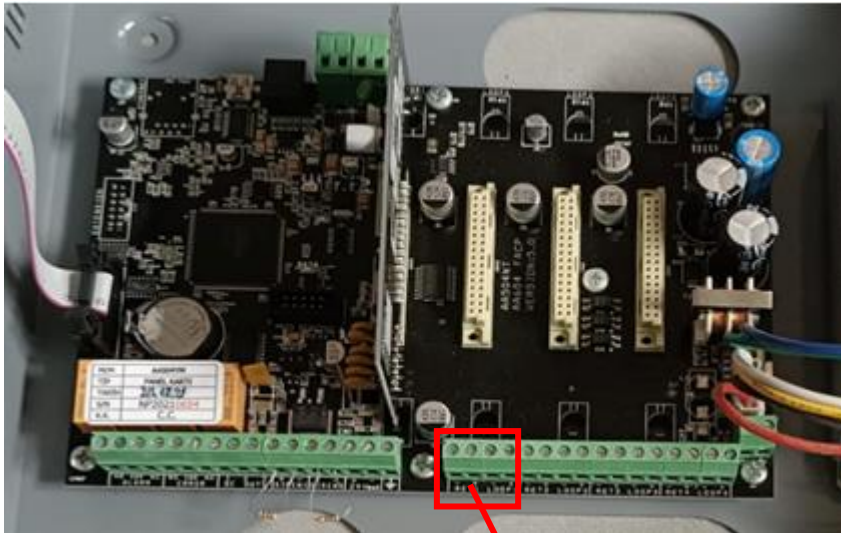




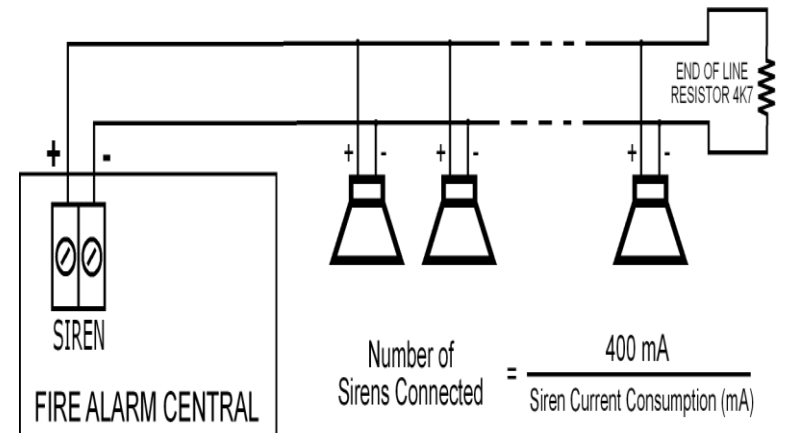
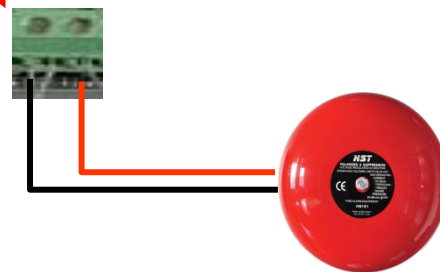
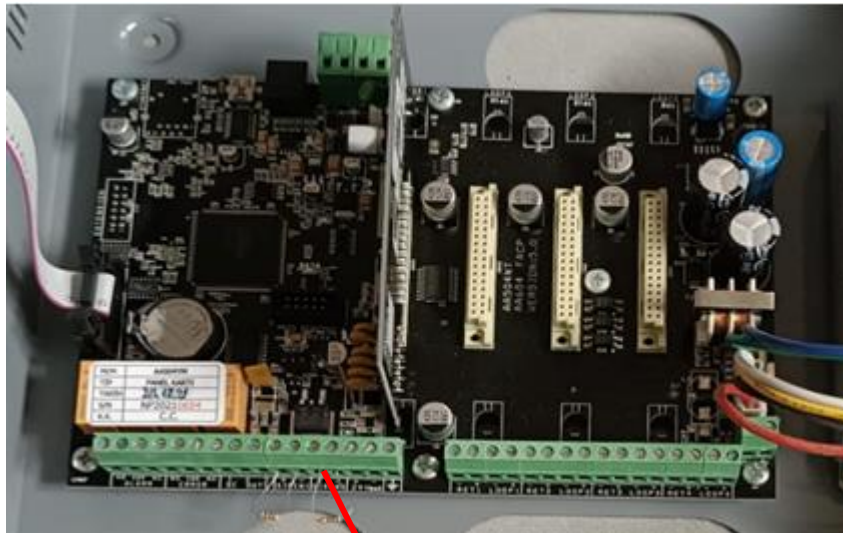


# CONNECTIONS:

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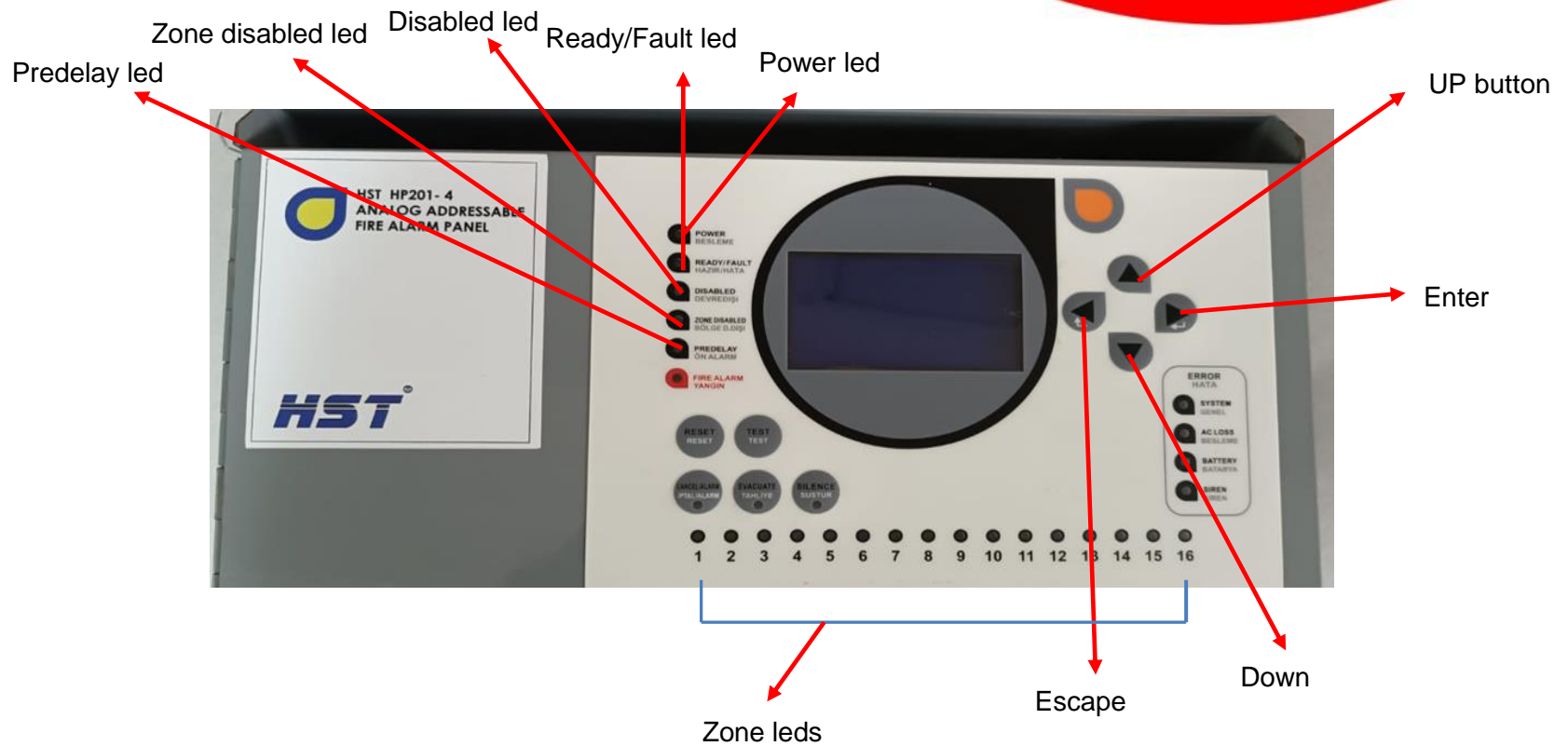




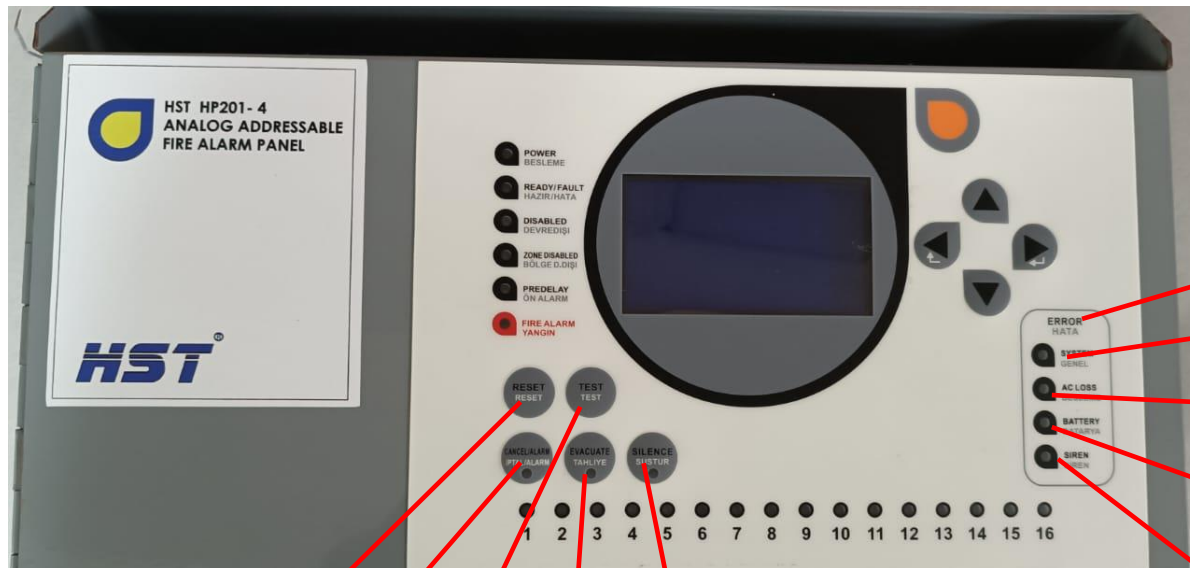


Each bell 18mA









Reset button

Cancel alarm  
button

Test button

Evacuate  
button

Silence  
button

Trouble indicators

System fault  
indicator

AC loss indicator

Battery indicator

Siren indicator



# ACCESS LEVELS

There are 4 access levels:

Level 1: Untrained User.

Lamp test, Silence buzzer, Menu navigation

Level 2: Authorized User.

Acknowledge alarms and reset the system, enable the panel controls.

Level 3: Service and Maintenance Engineer.

It is possible to read or interrogate the site specific data on the panel,  
The installer can do all facilities and programming in the Menu.

Level 4: Factory Setup and Senior Service Engineers.

Only manufacturer or authorized technical person of distributor can intervene to the panel, Return to factory defaults, Program memory can be changed

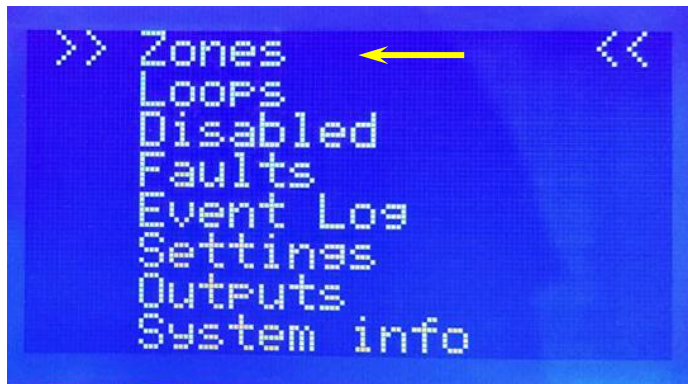


# MENU

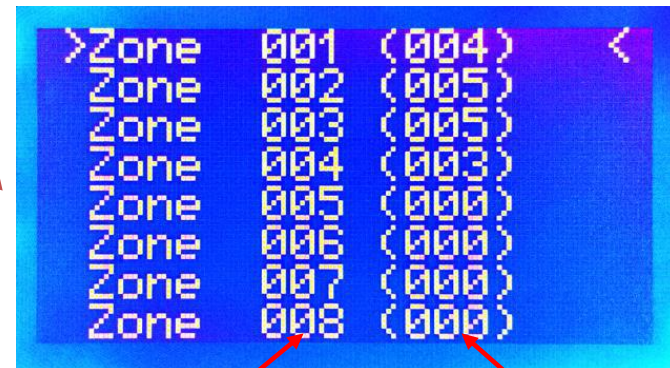
## 1-Zones:

Press Enter

1-The Main Menu items are as follows:



When entered in Zones Menu :



Zone number

Number of devices



A) To change Zone name :

```
Zone 001
tufan
>Total Devices:004 <
Change Zone Name ←
Zone Predelay:030
Zone is enabled
Multiple OFF
Outputs : 0
```

```
... Editing Text ...
Zone Name
-
```

B) To change Predelay:

```
Zone 001
tufan
>Total Devices:004 <
Change Zone Name
Zone Predelay:030 ←
Zone is enabled
Multiple OFF
Outputs : 0
```

```
Zone 006 Predelay
> 030 sn <
```



C) Change between enabled or disabled by UP & Down and save by pressing escape:

```
Zone 006      D
Total Devices:000
Change Zone Name
Zone Predelay:030
>Zone is disabled ←
Multiple OFF
Outputs :    0
```

D) Multiple trigger :

```
Zone 006      D
Total Devices:000
Change Zone Name
Zone Predelay:030
Zone is disabled
>Multiple OFF ←
Outputs :    0
```

In case of an alarm from the devices defined in the zone, the system waits for another device defined in the same zone to be alarmed in order to be alarmed.



E) Outputs are used to get zones to do various jobs with different delays.

```
Zone 001  
tufan  
>Total Devices:004 <  
Change Zone Name  
Zone Predelay:030  
Zone is enabled  
Multiple OFF ←  
Outputs : 0
```

Zone 006 Outputs

```
>Output 1:Disabled <  
Output 2:Disabled  
Output 3:Zone Out
```



## Output1:

This output group contains 250 output channels. Each channel means a job to be done.

it is possible to perform different operations as follows.

- Relay On
- Relay Off
- Switch Relay Position
- Periodic Relay On/Off
- Periodic Relay Off/On

Output delay between 1 and 250 seconds can be defined for this output. This output group can only activate the relays on the panel where it is set.

Zone 006 Outputs

>Output 1:Disabled ←  
Output 2:Disabled  
Output 3:Zone Out



## Output2:

Output delay between 1 and 250 seconds can be defined for this output.

In networked extended systems, the Output 2 Group effects directly. In case of an alarm coming from any panel in the network, the output units on any of the other panels in the network can be activated.

Zone 006 Outputs

```
>Output 1:Disabled <  
Output 2:Disabled  
Output 3:Zone Out
```





### Output3:

Output delay cannot be defined for this output. The exit delay defined for the zone is also valid for this group.

In networked extended systems, the Output 3 Group effects directly.

Zone 006 Outputs

```
>Output 1:Disabled <  
Output 2:Disabled  
Output 3:Zone Out
```





## 2-Loops:

```
>> Zones <<
  Loops
  Disabled
  Faults
  Event Log
  Settings
  Outputs
  System info
```

When enter key is pressed:

```
LOOP 01 (006) Sea.
>LOOP 02 (009) <
LOOP 03 (008)
LOOP 04 (004)
LOOP 05 -----
LOOP 06 -----
LOOP 07 -----
LOOP 08 -----
```

```
Loop 02 - Normal
>All Devices (009)<
  Disabled Dev.(000)
  Faulty Device(000)
  Alarm Devices(000)
  Loop Tools
  Auto Search
```



### Loop 02 - Normal

```
>All Devices (009)<
Disabled Dev.(000)
Faulty Device(000)
Alarm Devices(000)
Loop Tools ←
Auto Search
```

- **Loop xx Enabled:** Loop can be disabled and reactivated from this menu.
- **All Loop Leds On:** It turns on the alarm leds of all devices connected in the relevant loop continuously.
- **Cancel All Tests:** Ends all tests started in the loop.
- **Walk test mode:** After this mode is activated, the panel monitors all devices in order of address.

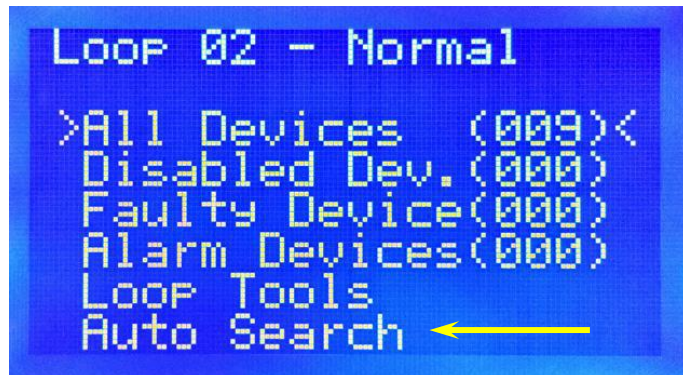
### Loop Tools

```
> Loop-02 Enabled <
All Loop Leds On
Cancel All Tests
Walk Test Mode
Walk Period :020
```

- **Walk Period:** The duration of each device being active in the walk test.



Selecting Auto-Search will initiate a search over the loop.



```
Loop 02 - Normal
>All Devices (009)<
Disabled Dev.(000)
Faulty Device(000)
Alarm Devices(000)
Loop Tools
Auto Search ←
```

Automatic search does not start in case of loop errors or it does not end successfully.



If “All Devices” is selected, the list of the detectors sorted by the addresses, and the types of the detectors , followed by status text

The abnormal status Codes are :

M : Missing  
D : Disabled  
O : Open  
S : Short  
P : Prealarm  
A : Alarm





Possible device types are:

type 1	HRD	Heat Detector
type 2	ION	Ionized Smoke Detector
type 3	OSD	Optical Smoke Detector
type 4	COM	Combined Detector
type 5	BEA	Beam Detector
type 6	MCP	Manual Call Point
type 7	SIM	Single Input Module
type 8	SOM	Single Output Module
type 9	GAS	Gas Detector



## Devices:

In the All devices menu, move the cursor over a desired device and press enter twice.



```
Loop 02 - Normal
>All Devices (009)
Disabled Dev.(000)
Faulty Device(000)
Alarm Devices(000)
Loop Tools
Auto Search
```

```
COM 02-058 Normal
>Disable device <
Set test mode OFF
Change device text
Change zone
Indicator Settings
Diagnose Device
```

Set test mode on/off is using for lit of the device leds always.

In order to test the relay contacts of SOM (output module) devices, the "toggle output off/on" line in the detail menu of the device is reached and pressed once.

```
SOM 01-065 Normal
>Disable device <
Toggle Output OFF
Change device text
Out Channels : 000
Evacuate Trig OFF
Diagnose Device
```



```
COM 02-058 Normal
>Disable device    <
Set test mode OFF
Change device text
Change zone
Indicator Settings
Diagnose Device
```

Change Device Text allows to show and change the name of the device.

```
SOM 01-065 Normal
>Disable device    <
Toggle Output OFF
Change device text
Out Channels : 000
Evacuate Trig OFF
Diagnose Device
```

If the device is an output unit, output channel is the menu that displays the output channels and enables them to be changed.

The task of forwarding the alarm information from the zone to the output units will be done from output channel menu.



```
SOM 01-065 Normal  
>Disable device <  
Toggle Output OFF  
Change device text  
Out Channels : 000  
Evacuate Trig OFF  
Diagnose Device
```

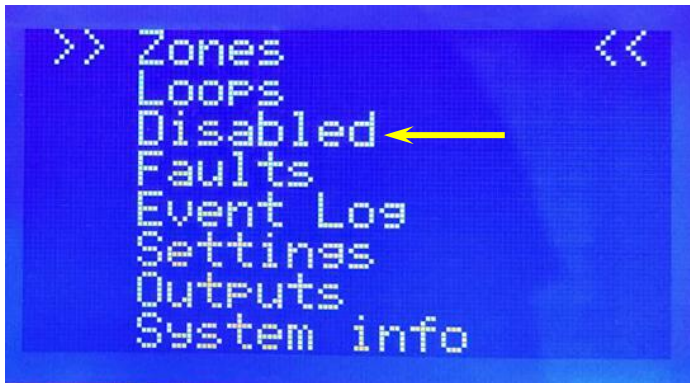
When the evacuate trig is select as “ON” the device will trig by evacuate if the device is an output unit (SOM).

```
SOM 01-065 Normal  
>Disable device <  
Toggle Output OFF  
Change device text  
Out Channels : 000  
Evacuate Trig OFF  
Diagnose Device
```

Diagnose is including engineering parameter of device.



### 3-Disabled.



If any of the zones is disabled, all outputs set in that zone are disabled. Data exchange of all devices in that area is interrupted.



## 4-Faults:

```
>> Zones <<
  LOOPS
  Disabled
  Faults ←
  Event Log
  Settings
  Outputs
  System info
```

```
      Faults Menu
>Panel Faults (00)< ←
  Loop Faults (00)
  Device Faults (00)
  Network Fault (00)
  NW RxTx Fault (01)
```

```
Panel Faults Menu
Battery Error
```



### Faults Menu

```
>Panel Faults (00)<  
Loop Faults (00)  
Device Faults (00)  
Network Fault (00)  
NW RxTx Fault (01)
```

Possible loop faults are short circuit, open circuit or the loop card cannot be exist.  
When the circuit is short-circuited, the panel will display as an open-circuit fault.

### Faults Menu

```
>Panel Faults (00)<  
Loop Faults (00)  
Device Faults (00)  
Network Fault (00)  
NW RxTx Fault (01)
```

### Device Faults(01/01)

```
L3-D081 SOM 0
```





The communication of the network cards with the panel is checked. When there is a break or short-circuit, it is displayed on the panel. In this case, the connection between the panel and the network card is checked.



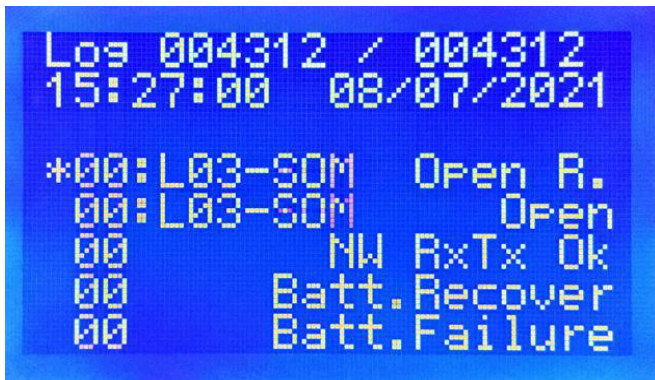
If the communication between the network cards is broken, the panel will give this error.



## 5-Event log:



The total number of events that can be kept is limited to 65536.

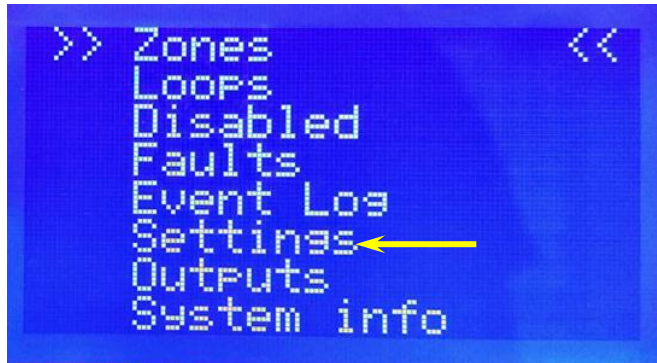


there are a total of 4312 records and the record shown is record number 4312. The record number 4312 took place on 08.07.2021 at 15:27:00, this signal is open-circuit restored.

The data can be read and printed through the software.



## 6-Setting:



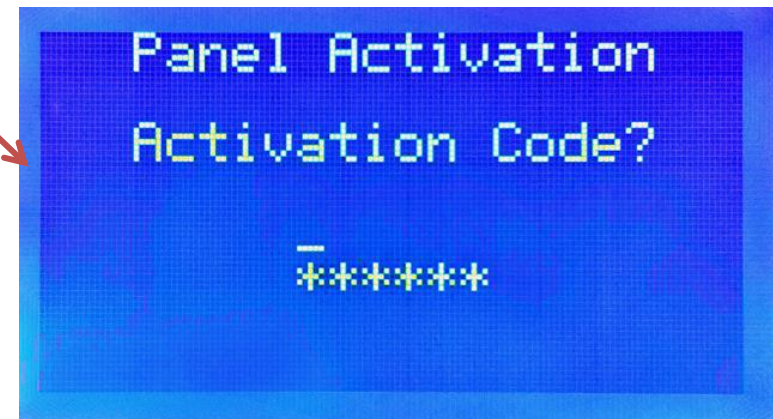
When the access level is 2 and 3, the system settings menu will be accessible.



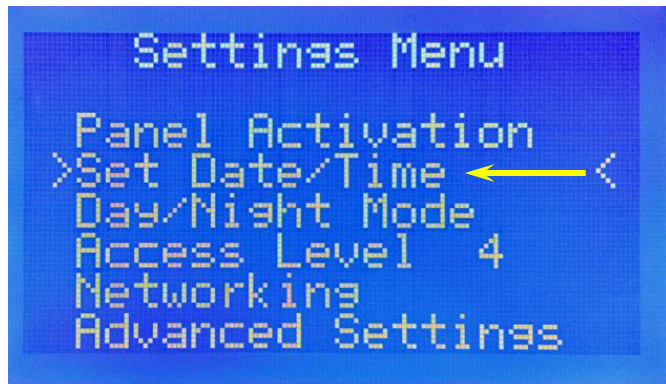




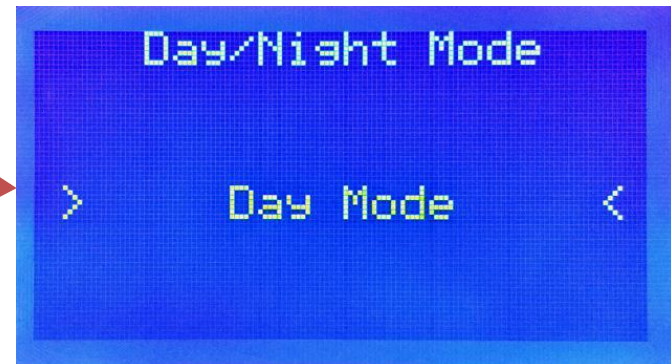
In order for the activation process to be carried out, the manufacturer must be contacted.



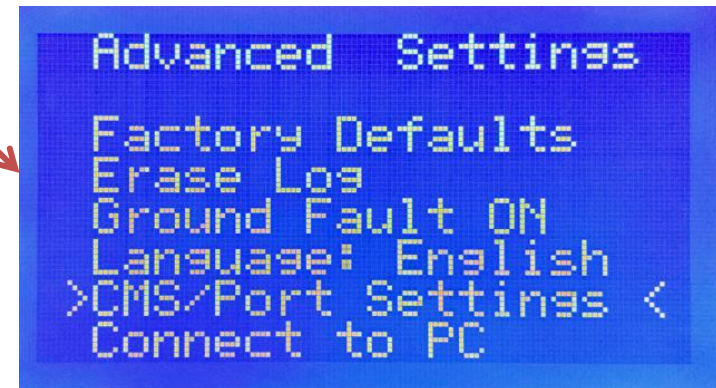




In day mode, alarm delays defined in the system are used. In night mode, alarm signals are processed without delay, ignoring delays.



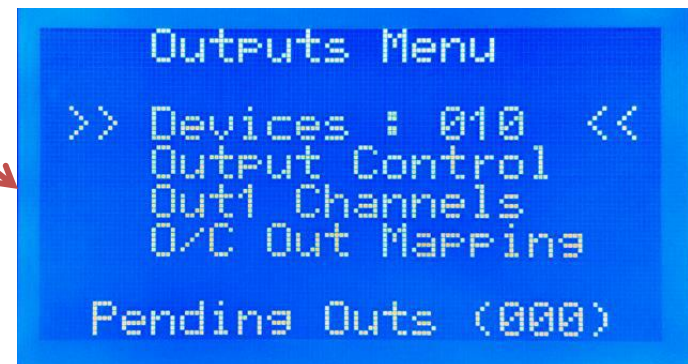
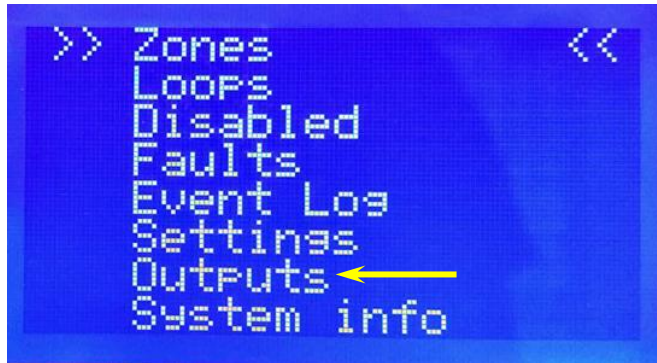




This menu will be used by the installer and can only be used when AL4 is active.



## 7-Outputs.

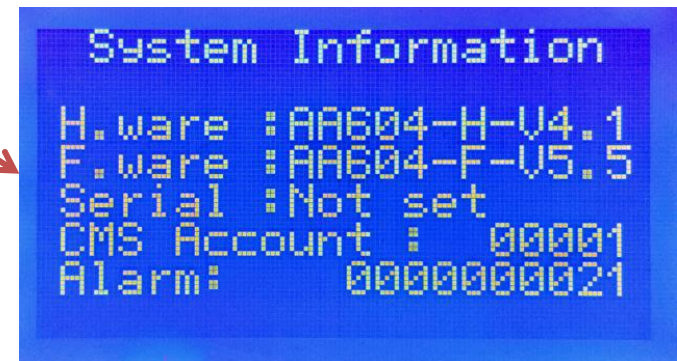
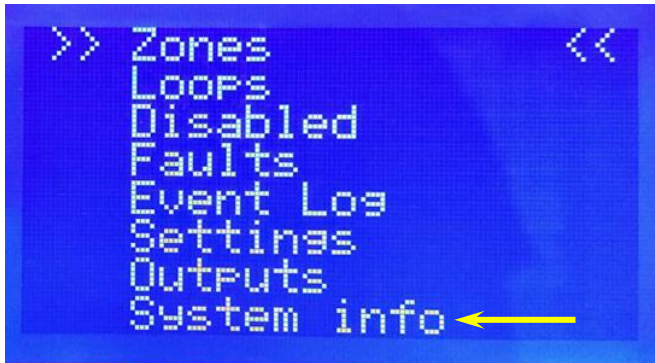


The control of the relays and loop-powered sirens on the panel is done from the output control menu.





## 7-System Info.

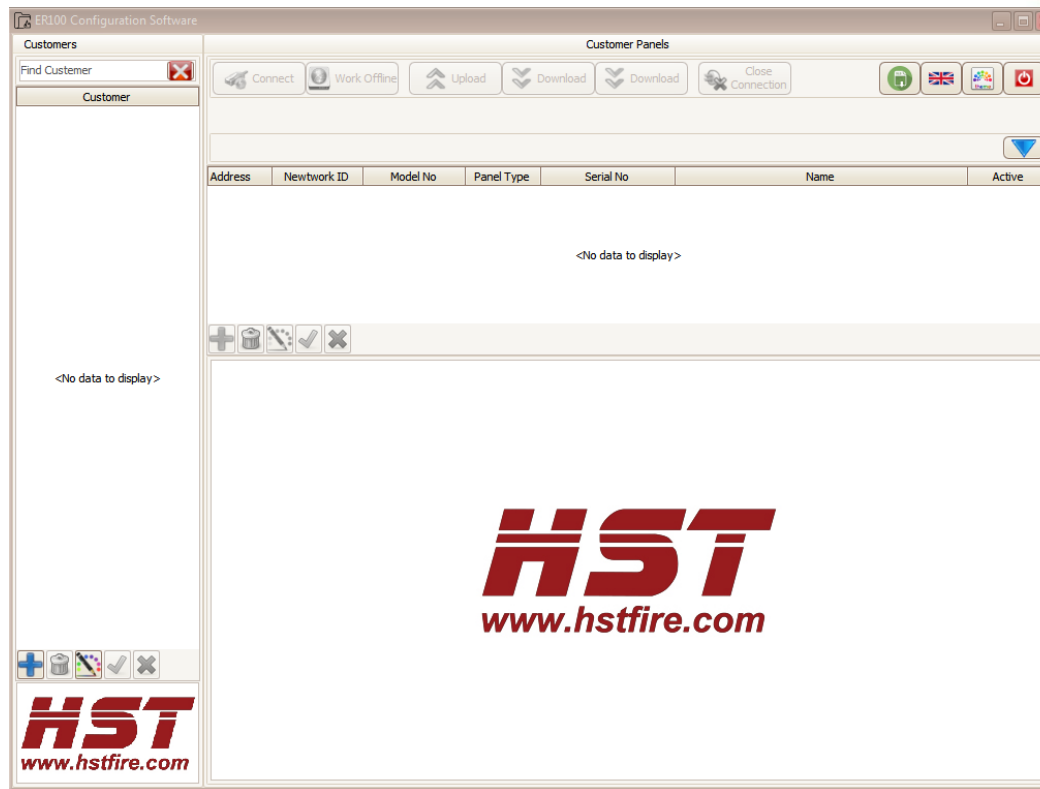


This information can be changed via computer with configuration software.





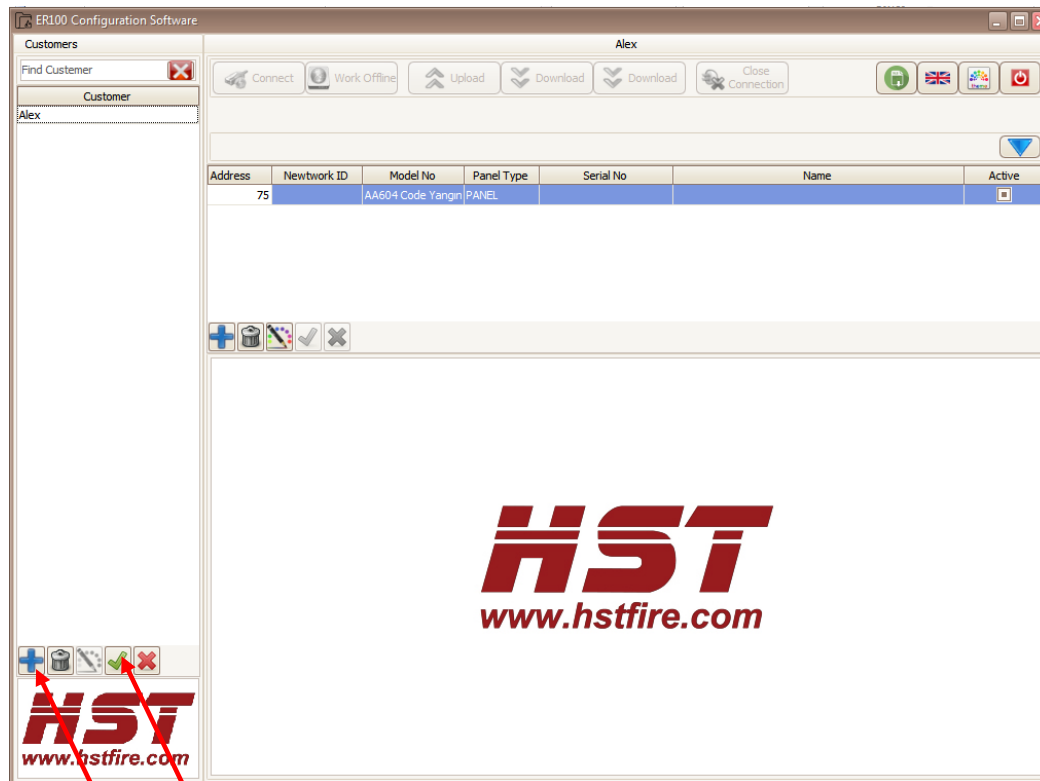
# SOFTWARE

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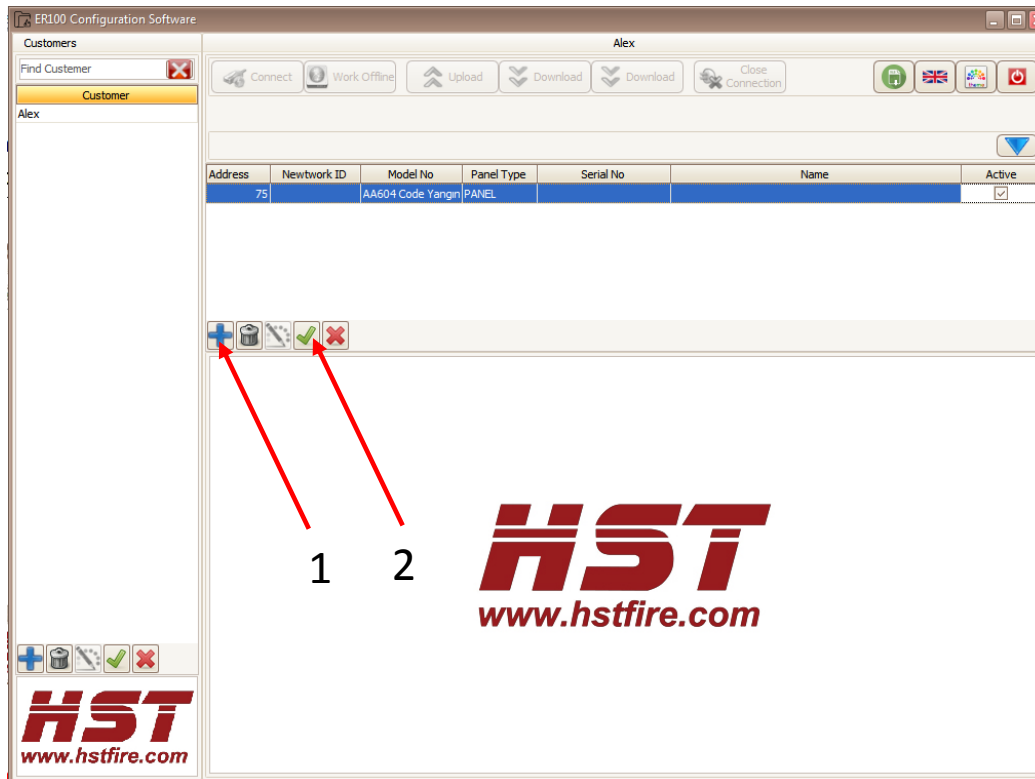


To add new customer click on  , Enter the name then click on 



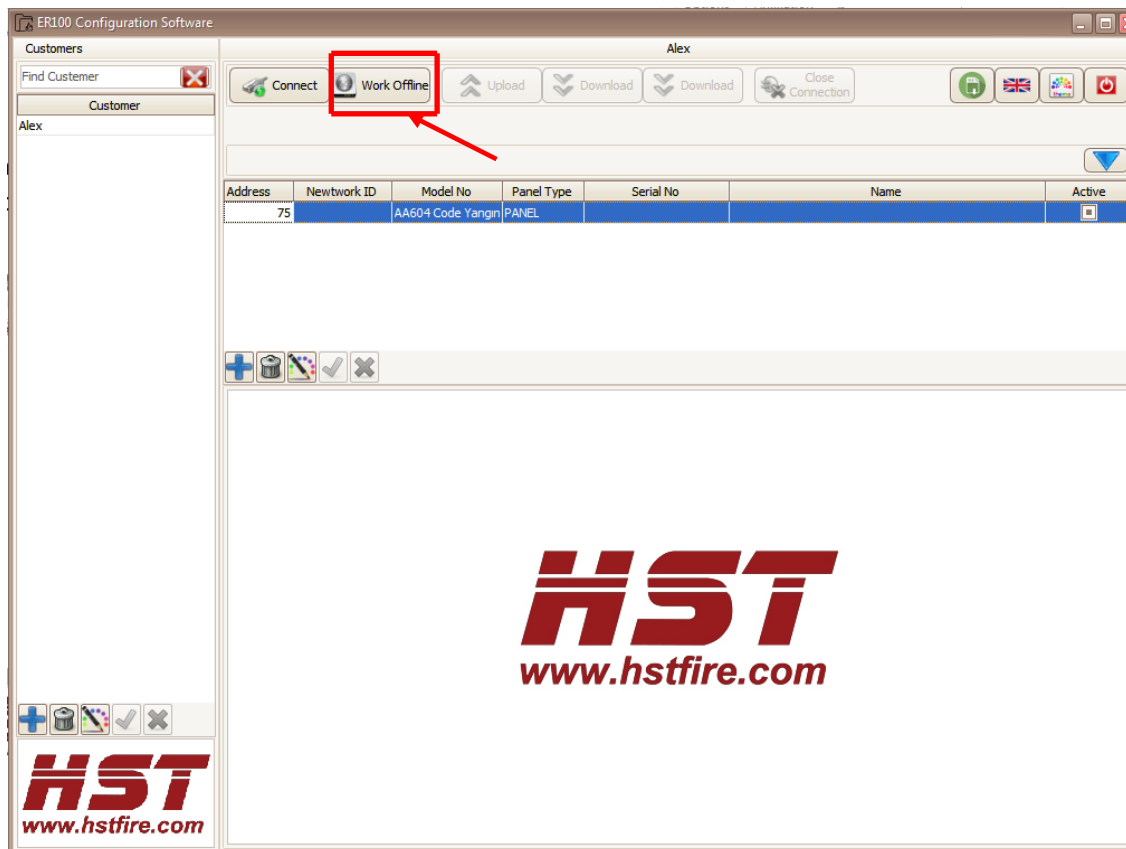


To add the panel click on  , Choose the model no., panel type and active then click .





Click on Work Offline.





Change whatever you need.

ER100 Configuration Software

Customers

Find Customer

Customer

Alex

Connect Work Offline Upload Download Download Close Connection

Address	Newwork ID	Model No	Panel Type	Serial No	Name	Active
75		AA604 Code Yangin	PANEL			<input type="checkbox"/>

General Zones Loops / Devices Output Channel Settings O/C Channel Settings Event Logs Network panels

General

Error ☐ Network ID 0

Access Level 2 Passord

Access Level 3 Passord

Access Level(1..3) 0

Access Level(1..3)

Panel Language English

Hardware Version

Software Version

Alarm Count

Alarm Relay Silence ☐

Day & Night

☐ Day ☐ Night

Connection

☒ Serial Port

☐ TCP/IP

Connection Settings

Com Port 6

Baud Rate 9600

CMS Settings

CMS Account Code CMS Active ☐

CMS IP

CMS Port

CMS Local Port

Panel Ethernet Settings

IP Repeater C ☐

Port

Subnet Mask

Gateway

Supervision

CO Mode On/Off ☐

Alarm ☐

Siren ☒

Loop Siren ☒

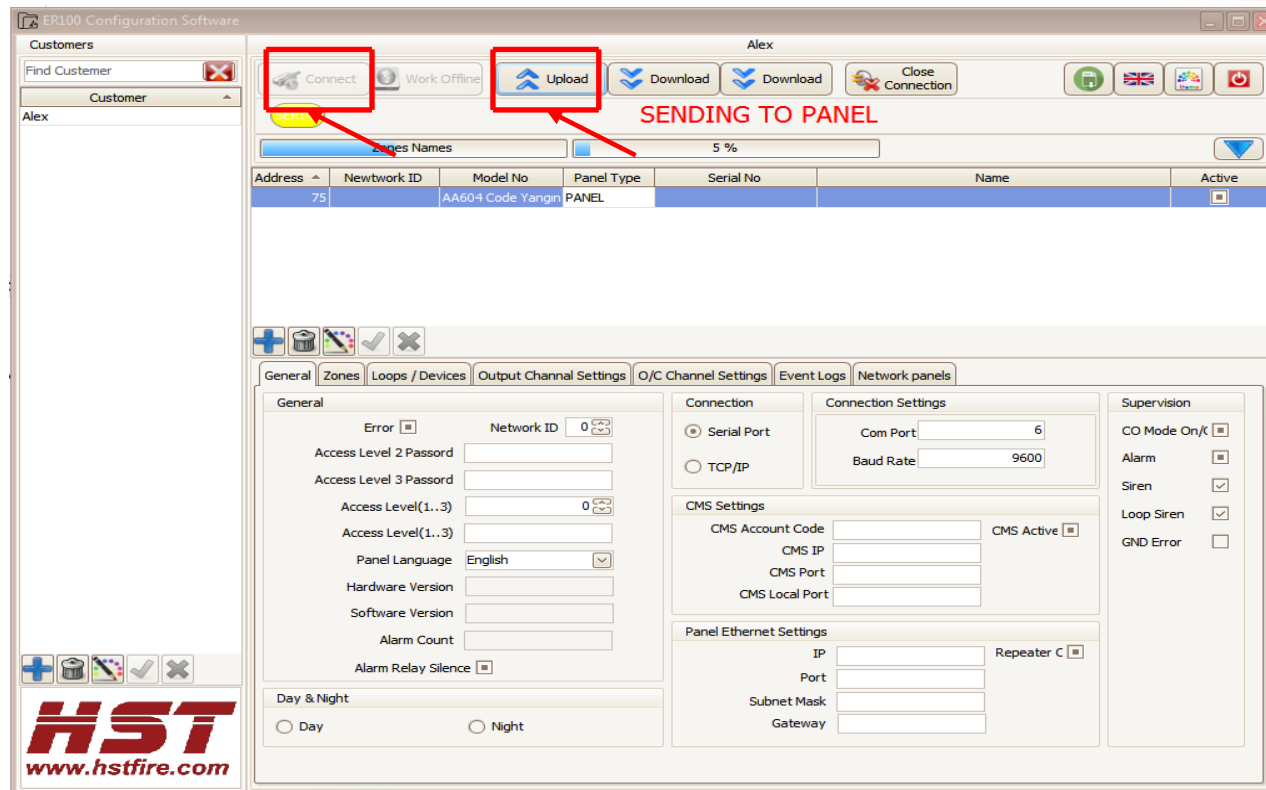
GND Error ☐

HST

www.hstfire.com



Click connect then upload.





**Thank you**