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제목 HNF-I4102 설치시방서		Title Installation Guide of HNF-I4102		

Installation Guide

[Model No. HNF-I4102]

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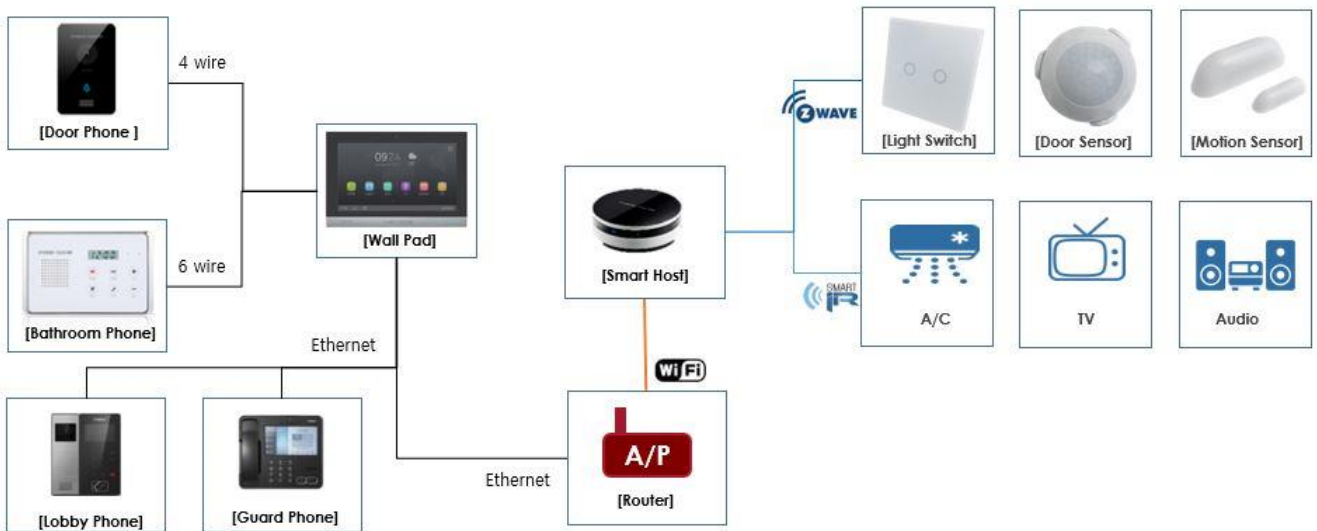
1. Product Overview
2. System Configuration
3. Description of Main Unit Terminal connection
4. How to connect
5. Installation for other devices

1. Product Overview

HNF-I4102 is Android OS based ALL LAN type Wall Pad featured with a 10.1 wide digital LCD screen and a capacitive full touch panel. It can be connected with lobby phone / guard phone and control other devices by cloud over the internet.

The main functions of HNF-I4102 are calling to guard phone, lobby phone, door phone, sub phone, and triggering and notifying an alarm when an abnormal situation is detected. It also can control wireless devices such as light switch and smart plug on its touch screen.

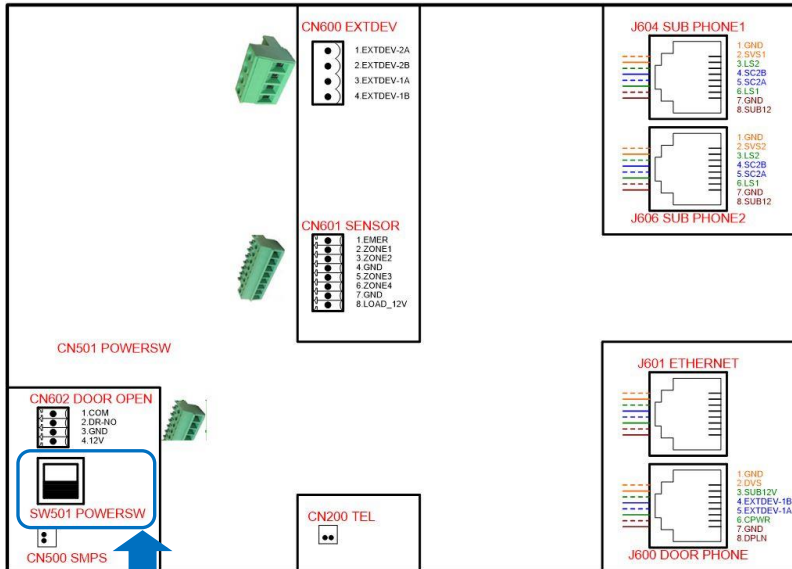
2. System Configuration



2.1 The description of device units

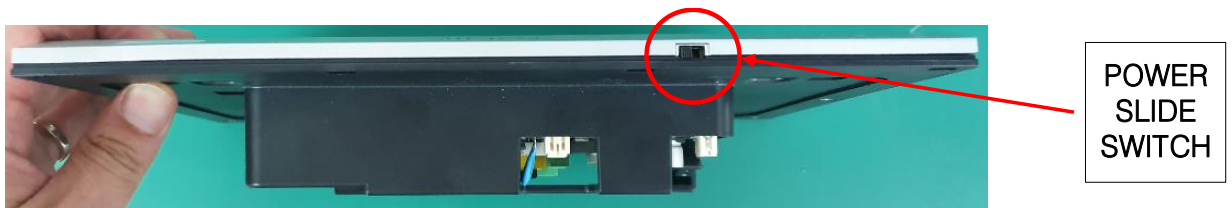
2.1.1 HNF-I4102 Unit

- HNF-I4102 basic model



Power Toggle Switch

(On/Off switch of DC Main power.)



※ The power can be On / Off with Power Slide Switch if Power Toggle Switch is turned on.

2.1.2 Terminal Unit

- Terminal Unit is not applied / all in one type

2.1.3 ANY122A5C-NIH POWER

- Power supply is the PSU of Wall Pad and it supplies the power to the Wall Pad by converting from AC220V (AC110~240V Free Voltage) to **DC 12V/2.5A**.
- It's SMPS type PSU which has the efficiency over 70%, protective FUSE against overvoltage and overflow protection circuit.
- **(Caution) Use proper SMPS according to the field condition.**
- **(Caution) Protective earth terminal should be connected to the contact permanently when installing power supply.**

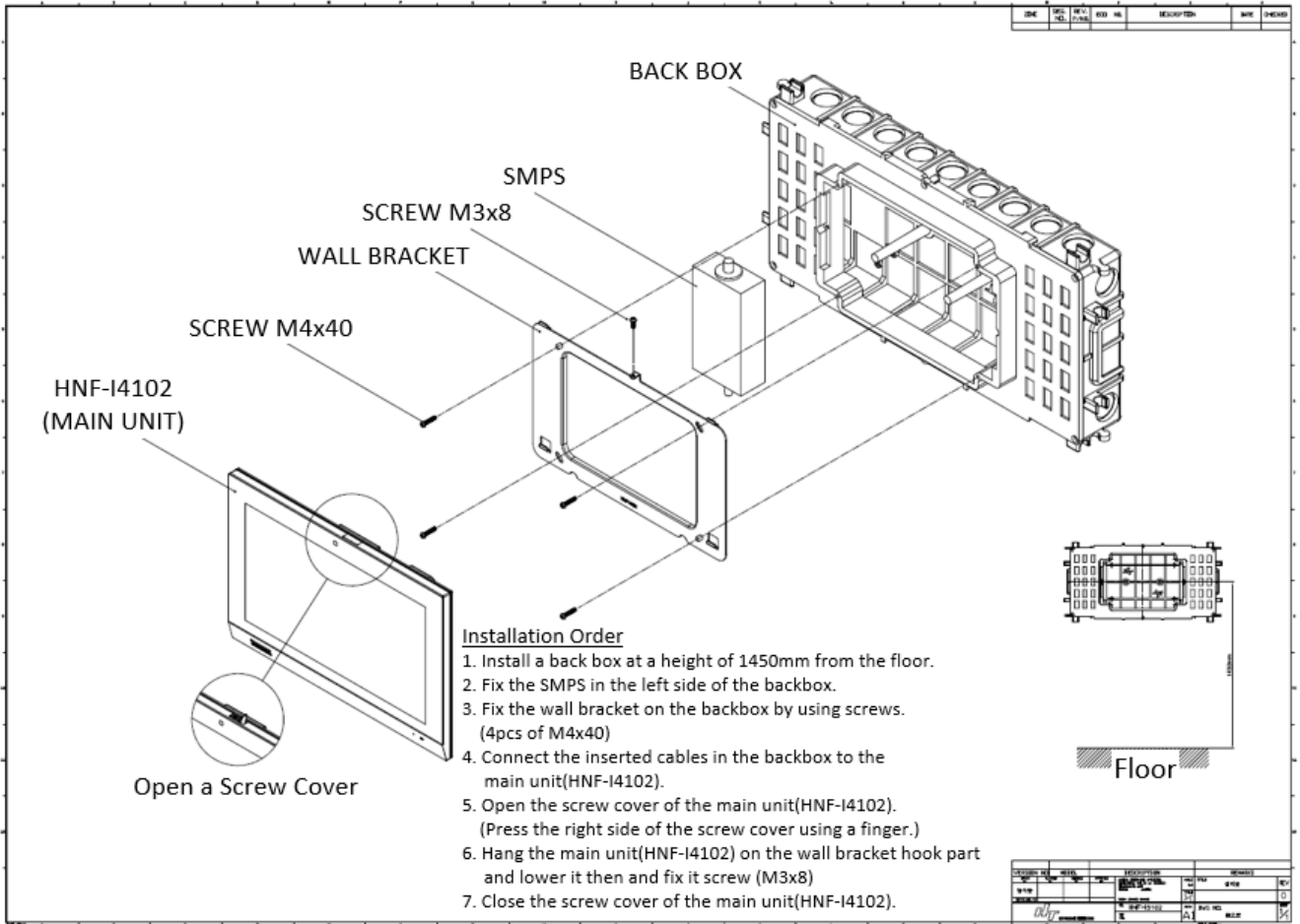
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2.2 The type of device unit

UNIT	Model No.	Qty	Remark
MAIN UNIT	HNF-I4102	1 SET	ALL LAN Type
TERMINAL UNIT	N/A	-	All-in-one Main Unit
POWER UNIT	ANY122A5C-NIH	1 SET	DC 12V/2.5A
DOOR-PHONE	HCC-2000	1 SET	4 lines Door Phone Camera
SENSOR UNIT	Fire Detector	-	Not available.
	Gas Detector	-	Not available.
	Security Sensor	4 lines	Not available.
	Emergency Switch	1 line	Not available.
SUB-PHONE	Bathroom Phone (HBP-200/300)	1 SET	HA-room BUS Type

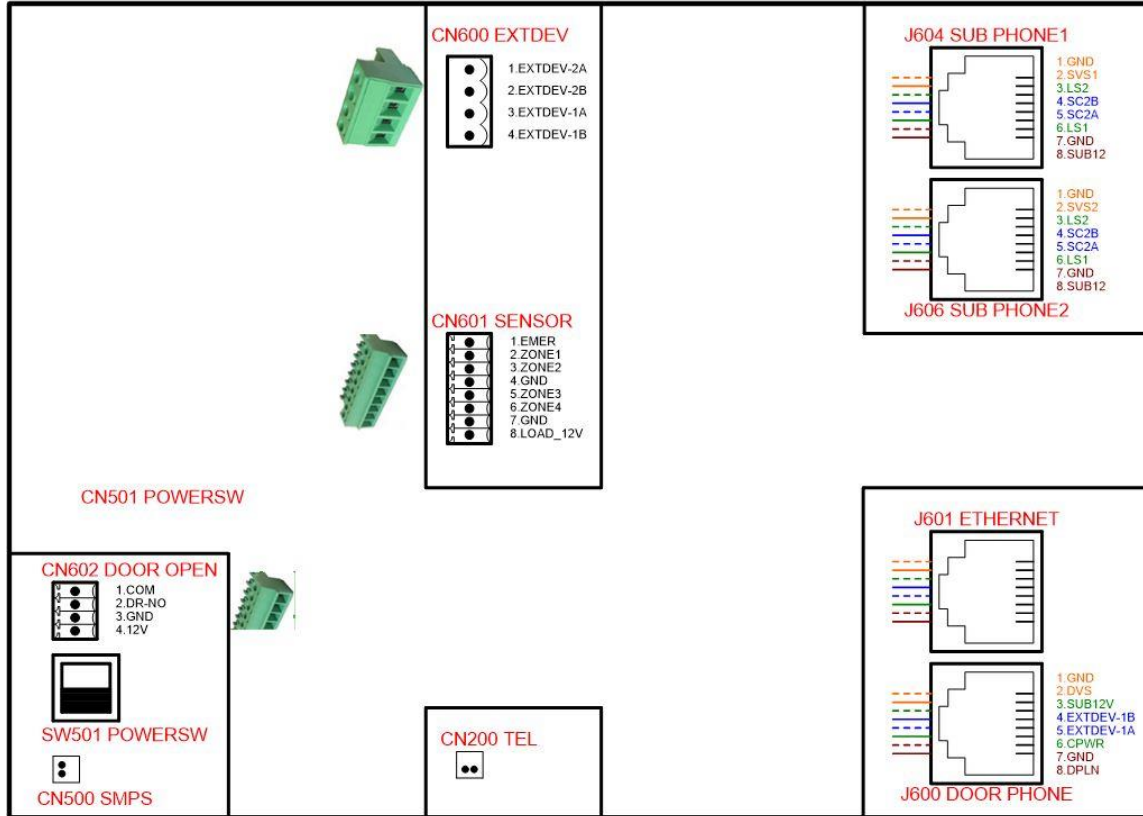
* Overseas HNF-I4102 model can't be interlocked with wired Sensor Unit directly.

2.3. Installation of the main unit.



3. The description of Main Unit Terminal connection

3.1 HNF-I4102 rear block diagram



3.1 The description of terminal block (CN600 / CN601 / CN602)

Classification	Name	Use	Standard	Remark
Remote device control	DCTRL-2A	Communication line for device control	CPEV-Φ0.65	Not available.
	DCTRL-2B			
	DCTRL-1A	Communication line for device control	CPEV-Φ0.65	Not available.
	DCTRL-1B			
Emergency Switch	EMER	Emergency monitoring loop terminal	TIV 0.8Φ	Not available.
Security Sensor	ZONE1	Security 1 loop terminal	TIV 0.8Φ	Not available.
	ZONE1	Security 1 loop terminal		
	D-GND	Security Sensor GND		
	ZONE3	Security 3 loop terminal		
	ZONE4	Security 4 loop terminal		
	D-GND	Security Sensor GND		
Auxiliary Power	LOAD12V	Power for Security Sensor	TIV 0.8Φ	Max. 12V/150mA
Door Open	DR-COM	Common contact	TIV 0.8Φ	Control contact N.O
	DR-NO	Contact N.O		
	D-GND	Power GND		

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	12V	Power for wireless module		
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* Overseas HNF-I4102 model can't use terminals except the terminal for door open because it's interlocked with other devices as wireless basically.

3.2 The description of terminal block (J604 / J606 / J601 / J600)

Classification	Name	Use	Standard	Remark
Bathroom Phone Connection	GND	Common Video SHIELD	CAT.5e UTP-4Pair TIA/EIA-568B	HA Room BUS SVS1 is Video signal Each line needs terminating resistor (75Ω).
	SVS1	Sub CH1 Video Line		
	LS1	Sub-Phone Call Line		
	SC2B	Sub-Phone		
	SC2A	Communication Line		
	LS2	Sub-Phone Call Line		
	GND	Common Power GND		Max. 12V/400mA
SUB12V	Sub-Phone Power			
Bathroom Phone Connection	GND	Common Video SHIELD	CAT.5e UTP-4Pair TIA/EIA-568B	HA Room BUS SVS2 is Video signal Each line needs terminating resistor (75Ω).
	SVS2	Sub CH1 Video Line		
	LS1	Sub-Phone Call Line		
	SC2B	Sub-Phone		
	SC2A	Communication Line		
	LS2	Sub-Phone Call Line		
	GND	Common Power GND		Max. 12V/400mA
SUB12V	Sub-Phone Power			
ETHERNET	Ethernet	Server Connection	CAT.5e UTP-4Pair TIA/EIA-568B	
Camera/Door Phone Connection	V-GND	Power for Camera(GND)	CAT.5e UTP-4Pair TIA/EIA-568B	Coil a line on FERRITE CORE once before connection. Connect 1 on 1 when interlocking with HCC-2000. Use Max. 12V/400 mA for SUB12V. Divide Communication and SUB12V line to interlock with normal door phones such as HCC-1000E.
	DVS	Door Phone Video		
	SUB12V	Sub-Phone Power terminal		
	DCTRL-1B	Communication Line for device control (For interlocking with HCC-2000)		
	DCTRL-1A			
	CPWR	Camera Power (+12V)		
	GND	Common Power GND		
DP-LN	Door Phone Call Line			

* CPEV-Φ0.65 can be replaced as CAT.5e or upper UTP line if necessary.

3.3 The description of the terminal (CN500, CN200)

- CN500: SMPS connect / Supply power to Main Unit
 - CN200: PSTN (Call Line) connect / Tip, Ring(Non-polar) connect
- (Not applicable for Overseas HNF-I4102 model)

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3.4 The description of pre-supplied items

- 1) DPHNT-ACC-INT-001//EC201/WJ2EDGK-5.0-04P, 4pin connector– CN600, Device Control
- 2) DPHNT-ACC-INT-002//EC201/WJ15EDGK-3.5-08P, 8pin connector – CN601, Security Sensor
- 3) DPHNT-ACC-INT-003//EC201/WJ15EDGK-3.5-04P, 4 pin connector– CN602, Wireless Module for Door lock
- 4) DPHNT-ACC-INT-004 // 2P 2.0mm pitch, 170mm – CN200, PSTN telephone (Tip, Ring) connection
- 5) 3540200048 // FERRITE CORE, 9-11-26, ZCAT2035-0930 – Apply Door Phone Cable

* For Overseas HNF-I4102 model, No. 3 & 5 are applicable only.

3.5 Wiring to sub device

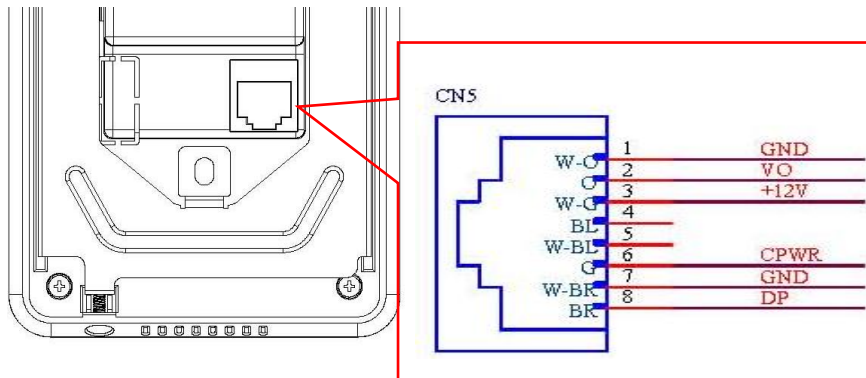
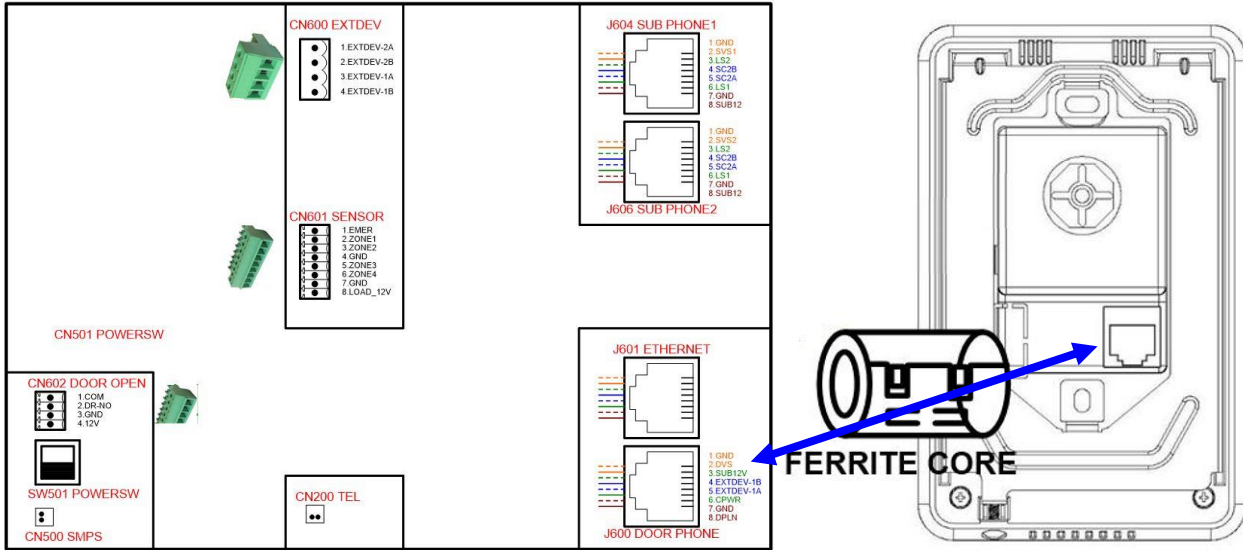
3.5.1 Wiring to a telephone circuit

- Terminal: CN200 (Non-polar)
- Connect a telephone circuit to TIP, RING with pre-supplied 2P Wire
- * PSTN function is not applicable for Overseas HNF-I4102 model.

3.5.2 Wiring to DOOR PHONE

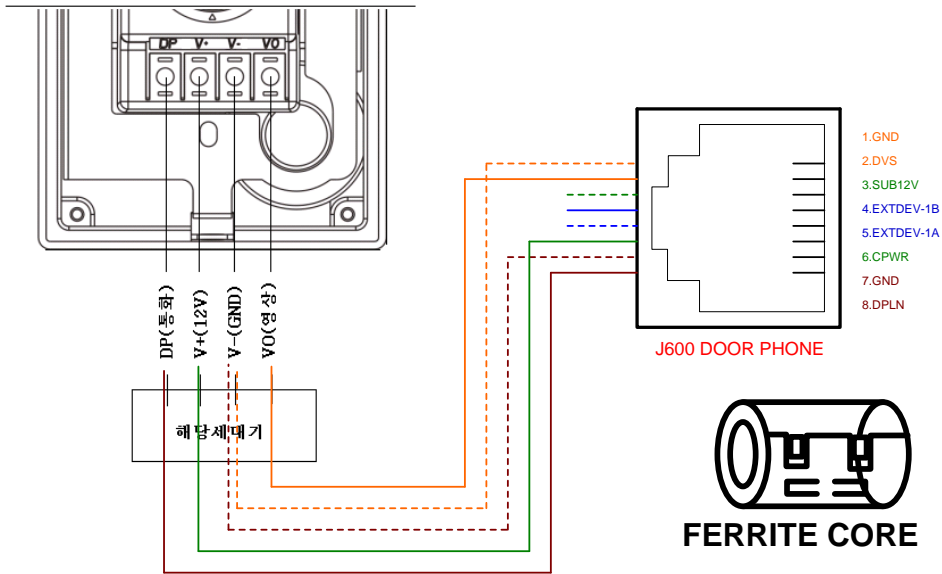
- DOOR PHONE UTP-4Pair, TIA/EIA-568B, **Coil a line on FERRITE CORE once close to RJ-45 of Wall Pad before connection (Common).**

1) Wiring diagram of HCC-2000



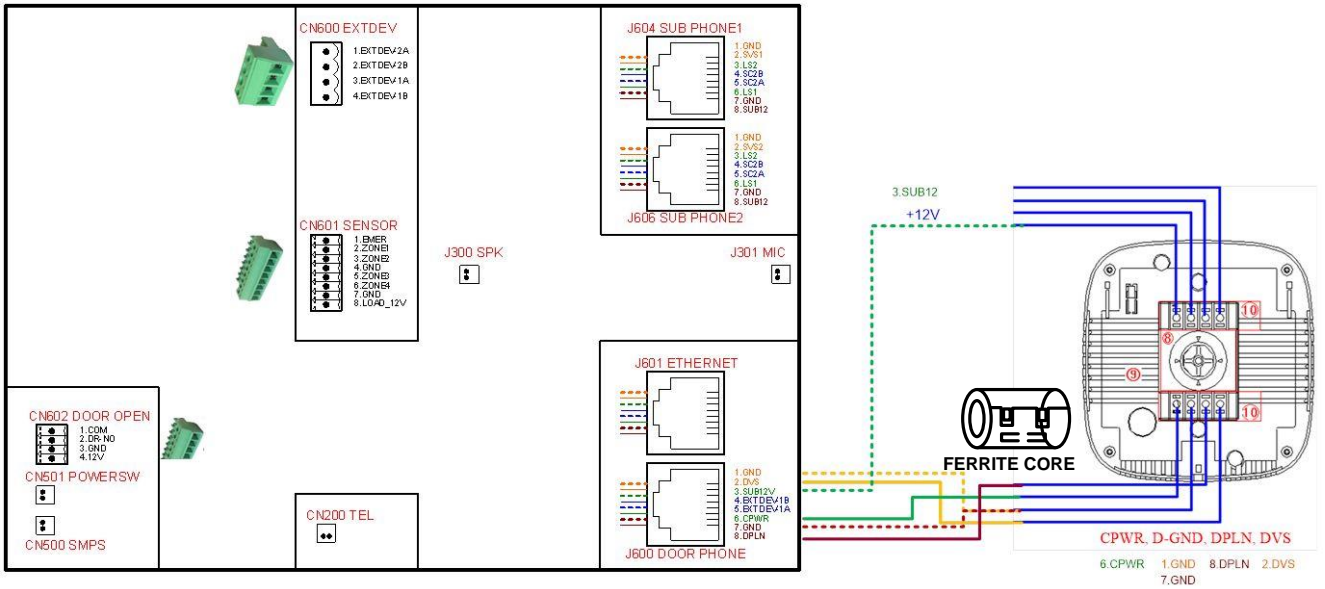
- RS-485 port of HCC-2000 is opened and it doesn't matter to connect Line No. 4 and 5 to the door phone.
- However, be careful not to let RS-485 lines interfere each other or allow short-circuit.

2) Wiring diagram of HCC-1000E



- Be careful not to let unused wire allow short-circuit with other signals.

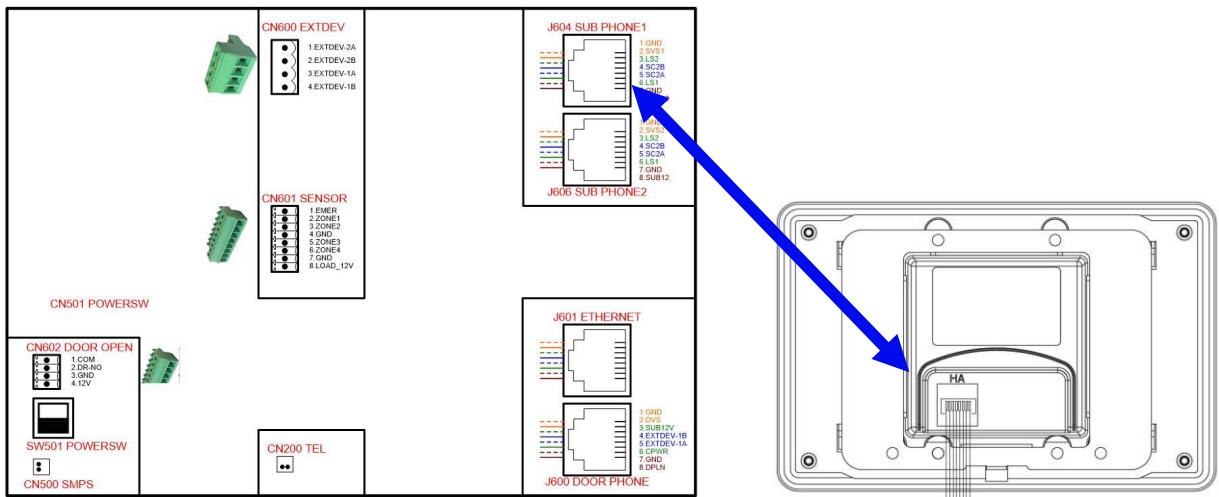
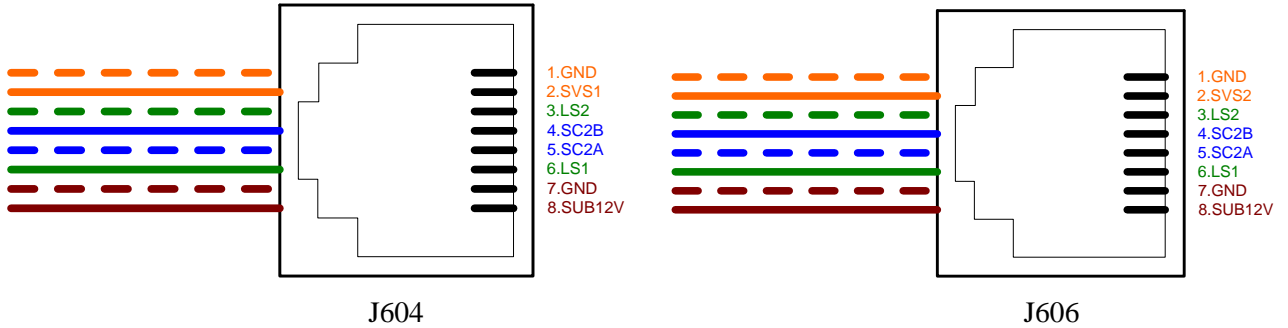
3) Wiring diagram of HCC-300D



- Connect Line No. 1 and 7 of Wall Pad GND to Door Phone GND

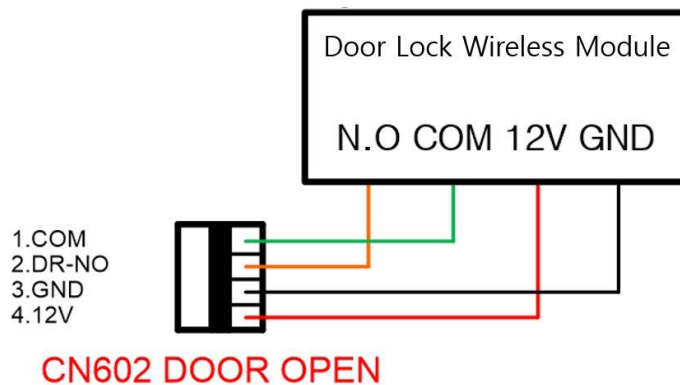
3.5.3 Wiring diagram of bathroom phone (HBP-300)

- Power(SUB12V), Data(SC2A/2B), Voice(LS1/2), Telephone(TIP/RING)
- Connect 1:1 using CAT.5 UTP-4Pair TIA/EIA-568B



3.5.4 Wiring diagram of Wireless Module of Door Lock

- Connect to DR-COM, DR-NC

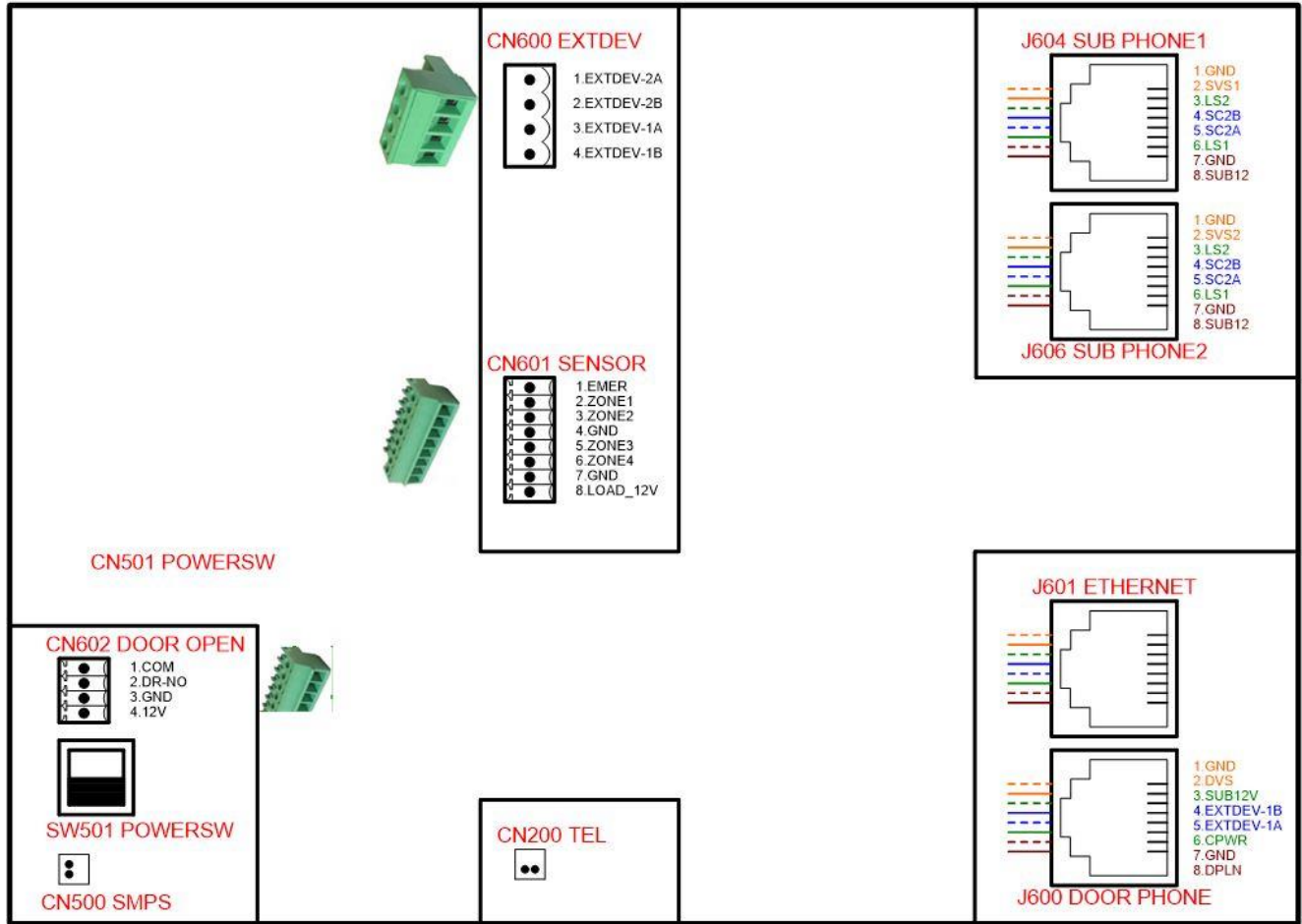


3.5.5 Wiring of ANY122A5C-NIH Power UNIT

- Use terminal to connect AC 220V to WIRE ASS'Y
- Connect WIRE ASS'Y(2P) of Power Unit to 2P CON (CN500) on the rear side of HNF-I4102

4. Wiring diagram of Wall Pad

4.1 The interface of HNF-I4102 and connection to the server



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5. Installation of other devices

5.1 Installation Order

- 1) Select proper position for installing the device.
- 2) Install the back box for the device if necessary.
- 3) Do piping work for wiring between the back box and the device.
- 4) Complete to mold at wall.
- 5) Do wiring work according to the wire diagram.
(Wiring / Installing of every device. Must coil LAN Cable on Ferrite Core once.)
- 6) Test and demonstrate the system.

5.2 Installation Condition

- 1) Operating temperature of the system is 0°C~40°C. Recommended operating temperature / humidity is 18°C~26°C / 20% ~ 70%.
- 2) Avoid to be exposed to direct sunlight and keep clean the circumstance.
- 3) Be care not to get damp.
- 4) No magnetic materials and no devices affect to temperature / humidity are allowed near the system.
- 5) Choose the place where the distance between device is minimum considering the wiring.
- 6) The color of LCD screen can be displayed differently according to viewing angle.
(Up 40°, Down 65°, Left 65°, Right 65°)
- 7) Check every wire condition before operating the device and connect AC110~240V power.
(Must connect power frame GND.)

5.3 The type of the back box

- 1) The back box of HNF-I4102
- 2) The back box of door phone (flush type)

5.4 Select the position of the back box

- 1) The position of the back box of HNF-I4102 MAIN UNIT
Choose proper position for MAIN UNIT on the wall of a living room or mater bed room.
(Recommended installation height: 1,300mm ~ 1,400mm)
- 2) Precaution
Ensure to exact balance of right and left to be parallel. Keep the front of the back box parallel to the surface.
- 3) The position of the back box of door phone
Avoid to be exposed to direct sunlight or reflected rays. Otherwise it will be hard to recognize an object due to backlight.

5.5 The standard of Wiring

Purpose		Standard	Line	Remark
AC Power (System Operation)		KSC3302 vinyl insulated wire IV Φ1.6 ~Φ2.0	3	
Connection to Video Door Phone	Call	TIV 0.8Φ	1	
	Video	EXC-3C/2V	1	
	Power	TIV 0.8Φ	2	
Connection to Server		CAT.5 UTP	4 Pair	ETHERNET
Bathroom Phone	Call	TIV 0.8Φ	2	
	Data	TIV 0.8Φ	2	
	Video	EXC-3C/2V	1	
	Power	TIV 0.8Φ	2	Bathroom Phone Power

5.6 Installation for UNIT

5.6.1 Install ANY122A5C-NIH power UNIT

Install it inside the back box by using Velcro Tape which is at the bottom of power UNIT.

5.6.2 Install HNF-I4102 MAIN UNIT

- 1) Disconnect AC power in home before installation.
- 2) Connect other devices to MAIN UNIT with Pluggable Type Terminal and Wire Ass'y.
- 3) Put on MAIN UNIT on the back box and fix it with fixing screws.
- 4) After the installation of the system is complete, operate and demonstrate the system.

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5.7 Installation of HCC-2000 Camera Door Phone UNIT
Refer to a following installation drawing for installation.

1 Gang Backbox

Wall Mount Bracket

Screw 4x25

HCC-2000 Ass'y

Screw 3x8

"A"

Installation height of the backbox
1400 ~ 1500 mm

Floor

Installation Order

1. Install a back box at a height of 1400~1,500mm from the floor.
2. Arrange the wires to connect the product and pull out the wires from the backbox. Fix the wall mount bracket on the backbox by adjusting the angle using screws (Mx25 2EA).
3. Connect the wires each other.
4. Hang the HCC-2000 Ass'y on the hooks (2ea) of the wall mount and match the hole center of "A" to the hole center of HCC-2000 Ass'y.
5. Fix the screws in the hole center of "A"

VERSION NO.	MODEL	DESCRIPTION	TITLE	REMARKS
장기호		설치도	설치도	REV
2019.5.19		HCC-2000	TOTAL ASS'Y	0
			DWG NO.	참고도
				1/1

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5.8 Installation of HBP-300

Refer to a following installation drawing for installation.