

Video intercom system

Outdoor Station DPC-53x

User's MANUAL

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1 Introduction of System and Parts

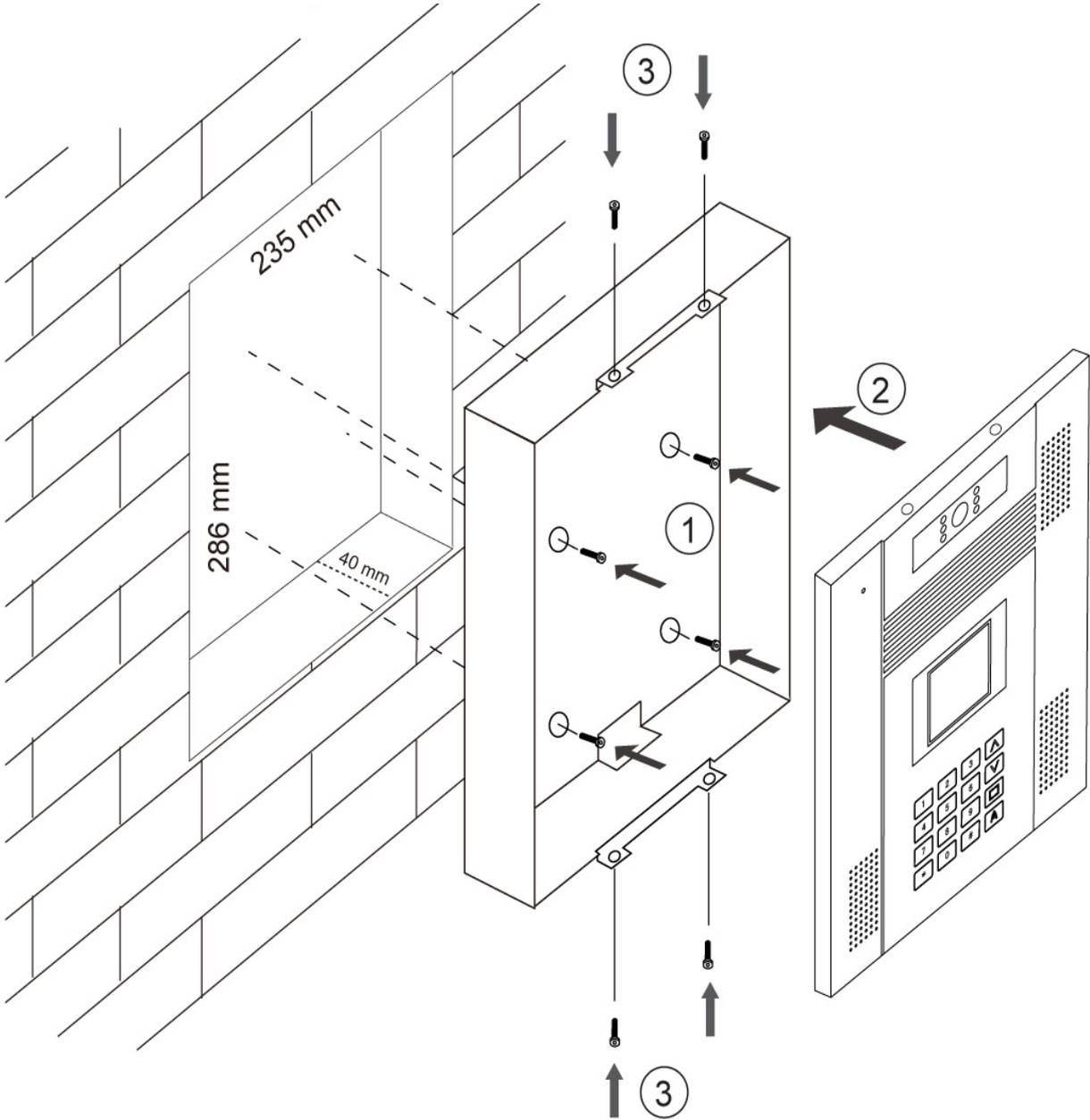
Outdoor station is public parts of intercom systems at entrance or exit of buildings. The main features are as below:

- 1) Outdoor station can call and talk with all indoor monitors in this block. Outdoor station can accept the command of indoor monitor and unlock the electronic lock in this block.
- 2) Outdoor station can call and talk guard center , and transmit images to guard center at the same time (In video frequency network), and also can require guard center to unlock or provide other services.
- 3) Input correct password to unlock electronic lock. Can set two passwords to unlock door and can change password conveniently and termly.
- 4) Can unlock by using IC card.

2 Main feature and electronic parameter

- 1) Power supply: DC 15~18V (Static current: 100mA; Working current: 500mA)
- 2) Environment temperature: -10~50°C
- 3) Camera cell: 380TV lines, 1/3 inch CCD camera
- 4) Camera lens: F=2 (focus by hand), 78 degree horizontal visual angle, 0.1 Lux
- 5) Night vision: Infrared (six IR-LED)
- 6) Video signal: CCIR standard, 1Vp-p range, 75Ω impedance
- 7) Card type: IC card or ID card
- 8) Card capacity: 500 sheets
- 9) Method of adding card: operate by outdoor station keyboard or by computer
- 10) Keeping data times: 10 years (Not lose data when power is broken off)
- 11) Window of reading card: Share with display screen)
- 12) Audio output power: 0.8W (can adjust volume)
- 13) Audio frequency response: 300~3,400Hz
- 14) Audio transmit: among line, full duplex
- 15) Network cable type: RS-485 (card function do not need to be set extra cable)
- 16) Network cable distance: 2 kilometers (use twisted pair shielded cable)

Mounting



4. Operation Instruction

1). Call Units

- a) Under standby state, input correct room number and system will call corresponding room automatically.
For example, the second floor and room 1, please input 0201. The twelfth floor and room 8 please input 1208. Press to clear wrong number and input correct room number again.
- b) Press + to call the room which is called last time.
- c) Outdoor station has a “DI” bell when it is connected with room.
- d) If the indoor monitor do not hang up or do not have this number, it will be shown no the screen and can not connect.
- e) When connect room and the user does not pick up the handset, display calling process and ring “DI” bell.
- f) The indoor monitors which are called can display visitor image clearly, and can communicate with the visitor after pick up the handset. And the same time, outdoor station show duration of communication until hang up the handset or press on outdoor station to clear.
- g) Press button to open the electronic lock, *Please come in* was shown on outdoor station and it means the door is unlocked.
- h) The communication time 90 seconds, if overtime the system will shut off communication automatically and outdoor station return to standby condition.

2) Under common password mode, unlock by password.

- a) When outdoor station is under standby condition, press button and outdoor station shows *Please input password* , remind to input password to unlock the door.
- b) Input 4 digital number unlock password.
- c) If the password is correct, outdoor station show *Please come in* and it means unlocked.
- d) If the password is wrong, outdoor station show *Wrong password* and unlock failed.
- e) If input wrong password three times in 100 seconds, the system will forbid unlocking by password 100 seconds. Unlocking by password again, it will show *Cancel unlocking by password*. After

100 seconds, you can continue to use unlocking by password function.

3) Under user password mode, unlock by password

e Please refer to the section of administration parameter setting to know how to choose common password mode (default) and user password mode.

- a) When outdoor station is under standby condition, press button and show **Please input room number** , and show lock icon on top right corner, remind you input room number to unlock.
- b) Input correct room number and then show **Please input password**, remind to input user password.
- c) If the password is right, **Please come in** was shown on outdoor station. It means the lock is unlocked.
- d) If the password is wrong, **Wrong password** was shown on outdoor station and refuses to unlock.
- e) User can update the password (4 digital number), operation process as below:
 - 1) When outdoor station is under standby condition, press button and show **Please input room number** , and show lock icon on top right corner, remind you input room number.
 - 2) Input correct room number and will show **Please input password**, then press and will show **Please input original password** and remind to input original password. (When set user password first time, original password is set as one group of common unlock password, refer to parameter setup.)
 - 3) Input correct user password and show **Please input original password**, remind to input new user password, after finish it, show **Input new password again**. Remind to input new user password again. And then return to standby condition.
 - 4) If operation is wrong or overtime will show **Wrong password**, remind wrong operation and return to standby condition.
 - 5) If input wrong password three times in 100 seconds, the system will forbid unlocking by password 100 seconds. Unlocking by password again, it will show **Cancel unlocking by**

password. After 100 seconds, you can continue to use unlocking by password function.

4) Call guard center

- a) Press when outdoor station is under standby condition and show **Calling guard center**, remind in process of connecting guard center.
- b) If guard center is busy or refuse communication, system will show **System is busy, Please call later**. It means the line is busy and return to standby condition. Please call later.
- c) If guard center be picked up, outdoor station will show communication time, limit time is 60 seconds.
- d) If over 30 seconds guard center do not pick up, outdoor station will shut off calling automatically and return to standby condition.
- e) Press to quit calling guard center and return to standby condition.
- f) Above operation base on outdoor stations are network type. If not, it is no use when press and show **Not network type**, return to standby condition.

5 Open door by IC/ID card (not support all types)

- 1) Put card near display window 2~5CM (the distance is different from IC and ID card) when outdoor station under standby condition. If your card is authorized to open this door, outdoor station will show *com in Please*, remind the electronic lock is unlocked.
- 2) If your card is not authorized or authorization is overdue, outdoor station will show *Invalid Card*, remind this card can not unlock the door.

6 How to set outdoor station parameter

There are too many contents during setting outdoor station, so please read this manual carefully before any setup for this system to avoid any mistakes.

1) Setup content of outdoor station including types as below:

- a) System parameter setup: For Debugging engineer only, including the type of system configure, running parameter and so on.
- b) Management parameter setup: Manager take charge of setup and amend, including unlock password and other items.
- c) Equipment parameter setup: For Debugging engineer only,, including the number of extension indoor monitors, the channels of outdoor station chosen and so on.
- d) Access parameter setup: For Debugging engineer only, including address of access network, clock setup and so on.
- e) Card management setup: manager take charge of setup, including adding card or cancel card (can be operated by computer).

2) First, should find out the password sorts of outdoor station and use occasion.

- a) Debugging password: 8 digits, which is handled by debugging engineer and used for setup system parameter.
- b) Management password: 8 digits, which is handled by manager people when system operate and used for setup management parameter.

Debugging and management password can be changed. Please contact supplier If forget debugging password.

Default Debugging password is 66666666 and management password is 88888888

Remark: Please change password in time to avoid others access system and confuse the system.

3) How to enter into setup state

a) System under standby condition:

- 1) Enter into *system parameter* setup: press and show **Please input password**, input and show **Please input password**, after input correct 8 digit debugging password, show **System parameter** and enter into system parameter setup.
- 2) Enter into *management parameter* setup: press and show **Please input password**, input and show **Please input password**, after input correct 8 digit management password, show **Management parameter** and enter into management parameter setup.
- 3) Enter into equipment parameter setup: press and show **Please input password**, input and show **Please input password**, after input correct 8 digit debugging password, show **Equipment parameter** and enter into equipment parameter setup.
- 4) Enter into *access parameter* setup: press and show **Please input password**, input and show **Please input password**, after input correct 8 digit debugging password, show **Access parameter** and enter into access parameter setup.
- 5) Enter into *card management* setup: press and show **Please input password**, input and show **Please input password**, after input correct 8 digit management password, show **Card management** and enter into card management setup.

Remarks: The priority of debugging password is higher than management password.

can be replaced by .

b) System under debugging condition:

System work at debugging condition, show **Debugging mode**, Please refer to debugging function and option section in this manual. Under debugging condition, omit process of password input, facilitate needed time.

4) Special remind on operation

- a) Under parameter mode, press to turn down pages and choose setup option.
- b) Input digit number directly to set up.
- c) Setup successful, show
- d) Setup failed, show
- e) Press to exit setup.

7. System parameter setup of outdoor station

Parameter No.	Setup item	Setup instruction	Default
8001-01	NET ADD	Set network address of outdoor station, address can not be same and address code is 3 bits. You can set scale from 001 to 120.	No
8001-02	MULTI MODE	If only one outdoor station, set as 0; if more, main control outdoor station should be set as 1 and another ones are set as 2~4 separately.	0
8001-03	E LOCK DELAY	Electric lock should be set as 0 (pulse style). As to delay time style, can set 1~9 seconds to unlock do.	1
8001-04	MON NUMBER	Set how many indoor monitor can monitor at same time. Please set it according to system power supply condition. This function can reduce system power supply quantity and monitor quantity can be 1~5.	2
8001-05	NET CALL	When guard center/outdoor station call indoor monitor, indoor monitor display or not. Set as 0, not display; set as 1, display.	1
8001-06	CAMERA PS	Set as 0, supply power when operate; set as 1, supply power all the time.	0
8001-07	ROOM NO.MODE	Choose regulation to input room No. Set 0 as whole mode, should input 4 bits room No. Such as "0301". Set 1 as intelligent mode, do not add 0 before room No. Such as input "301" is okay.	1
8001-08	SYSTEM CODE	Use to change outdoor station system password. Will show original system password when operate.	66666666
8001-09	RESTORE SETTING	Input the password, the system will restore to all the factory settings	66666666

8. Management parameter setup of outdoor station

Parameter No.	Setup item	Setup instruction	Default
8002-01	LOCK CODE 1	Setup first public Unlock password, 4 digital number。 This password is also the default password of the private Unlock mode.	1111
8002-02	LOCK CODE 2	Setup second public Unlock password, 4 digital number.	2222
8002-03	CODE ERR WARN	if set to 1, when input the wrong password 3 times within 1 minute, a warning message will be to guard center automatically. And the password unlock function will be forbidden automatically 3 minutes.	0
8002-04	CODE MODE	reserved	0
8002-05	ROOM RANGE	reserved	0
8002-06	CODE QUERY	reserved	
8002-07	DISPLAY MODE	reserved	0
8002-08	ADMIN CODE	To change outdoor station's management password。When operating, it will display original management password, then just input 8 digital new password directly.	88888888

9. Equipment parameter setup of outdoor station

Parameter No.	Setup item	Setup instruction	Default
8005-01	PHONE RANGE	This parameter is for testing function of the IDS800, if the extension address is out of the range, it can't be tested by the software. The setup format is [AABB]-[CCDD], you need to input the full four digital room number, thereinto, [AABB] is the minimum room number, [CCDD] is the maximum room number.	0101 ~ 1604
8005-02	LOG TRANSMIT	This parameter is used for IDS800 to record the facilities working information. If setup 1, outdoor station will upload the calling, unlocking status; if setup 0, outdoor station won't upload the information.	0
8005-03	MON-TALKING	If set up 1, the indoor monitor will show the picture and directly call with outdoor station; if set up 0, the indoor monitor won't show the picture and call with outdoor station.	0
8005-04	EXT PHONE	If users connect more than one indoor monitors (the same calling address), users should setup the number according to situation. The setup range is from 0 to 2, setup 0 for connecting one indoor monitor. About room number setup method, please see appendix of this chapter for reference.	0
8005-05	DUAL CHANNEL	This parameter is to choose whether the system is double channel system which means the guard center and outdoor station can call the indoor monitors at the same time. Setup 1 for the double channel, setup 0 for single channel. Please see appendix of Part B for reference.	0

8005-06	DOOR ALARM	To check whether the door opens for long time. When setup 1, if the door opens more than 1 minute, outdoor station will send hint sound and inform guard center; When setup 0, the above function is forbidden. Remark: This function need to be equipped with the door magnistor.	0
8005-07	SPEAK HINT	reserved	0
8005-07	TONE SELECT	Select the feed back ring tones when calling the monitors	11

Remark: The equipment parameter setup only fit for the outdoor station with V7.0 or above software version, the previous outdoor station doesn't support this setup.

10. Access parameter setup of outdoor station

ParameterNo	Setup item	Setup instruction	Default
8006-01	ACCESS	Setup the access control function. 0 means no access control function; 1 means ID card outdoor station with access control function; 2 means IC card outdoor station with access control function.	According to the access control function
8006-02	IN-PHASE	reserved	1
8006-03	NET ADD	reserved	No address
8006-04	TIME SET UP	This parameter is for setup the access controller's time and date of RTC. Press 1 to setup, the format is [YYYYMMDDHHMM], thereinto YYYY is year, MM is month, DD is date, HH is hour (24h), MM is minute. In the network system, the time of access controller is usually Synchronized by software, no need to setup by hand.	Present time and date
8006-05	CARD VALIDATE	reserved	0
8006-06	ACCESS LOG	reserved	
8006-07	ACCESS INIT	This operation will clean up all the registered cards and the records.	66666666

11. Card management

The access control function of the network can be managed by IDS800 which is an integrated management software. Meanwhile, outdoor station is also equipped with the card management function. The operation process are as follow: under standby condition, input -> [8007] -> [management password].

The card management of station comprise the follow operation:

SN	Setup item and	Setup instruction
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8007-01	ADD CARD	Enter the program, input the room number, and then take the card in front of the outdoor station to add. Remark: After input room number, you can add more cards for same room by repeating above step
8007-02	ERASE CARD	Enter the program, and then take the card in front of the outdoor station.
8007-03	ERASE BY ROOM	This operation will delete the card of the appointed room number. Operation method: Input the room number, outdoor station will show whether delete, press <input type="text" value="#"/> to delete.
8007-04	CARD STAT.	reserved

12. Programming room number online

Program room number online namely program online or change extension number (indoor monitor address). The number of this system address is memorized inner the extension, and the extension's location in the system has nothing to do with the address, information will not lose if the power shut up.

How to enter into waiting program status

When system is under debugging mode, press -> to enter into waiting program mode.

Instruction of waiting program status

It is shown **Please press call button** under waiting program status.

Under waiting program status, system will quit automatically if no operation in 30 seconds; or press to quit immediately.

Process of program operation

According to above hint, outdoor station enters into waiting program status.

Press "call" button of the being programmed monitor, then outdoor station shows the original number of the being programmed monitor, if this monitor is not programmed or change the inner memorizer, the outdoor station will show ; if the original number of this monitor can not be decoded, the outdoor station will show , then show "new room num ber", prompt to input the new number.

Input new monitor number, if input wrong, press to cancel and then input number over again.

After input new room number, press to start program. The outdoor station show **programing now**, which means the system is programming the monitor number.

The programming will cost 3-4 seconds. If it is successful, the outdoor station will return to being programmed status after shows ; If the programming is failed, outdoor station will return after shows . If outdoor station shows number repeated, which means this number is already in system, please input the correct room number over again.

Important hint:

- 1) The valid programming time is 10 seconds, the outdoor station will not be inputted anything and return the standby condition if exceed valid time.
- 2) Please don't program the monitors at the same, or they may be programmed the same number.

13 Process instruction of system debugging

- 1) The debugging person should have the following knowledge:
 - a) Be familiar with the project of the debugging, the configuration of the system and the installation of the equipments.
 - b) Be familiar with the system operation elements, and have a clear concept about the purpose and the signal which is transferred by cables of the system.
 - c) Be familiar with all equipment's function, operation elements and the configuration method of system.
 - d) Be familiar with the setup method, option and operation of the system.
- 2) Preparation work before debugging
 - e) Check if all the parts are installed correctly.
 - f) Electrify the system after check wire connection is correct and no short circuit.
 - g) After electrifying, check if the power guide light works normally, whether the outdoor station starts to work. Cut off the electricity when abnormal situation occurs.
- 3) Some important concept on debugging
 - a) For single building system, please connect the distributor floor by floor and connect the monitors apartment by apartment. It is easy to handle if you separate big area to small area.
 - b) For network system, please debug each single building and then debug the network.
 - c) For inner intercom system, basically, when system and each monitors work normally, you can just make the spot test of the intercom.
 - d) For the alarm system debugging, please see «alarm system debugging instruction» for reference.
 - e) During the debugging period, it is very important to find out failure reason correctly, please

see 《Judge and solve the familiar problem》 for reference.

- f) Fully understand the debugging function, simplify the debugging method, and judge the failure area quickly.

The explanation of the user password mode

If under un-public password mode, namely the user password mode, the operation step to enter into system parameter setup is as follow: when outdoor station is under standby condition, press button, outdoor station shows **Please input room number**, and there is a lock icon on top right corner. Then input , outdoor station shows **Please input password**, prompt to input the item be set necessarily. After input, outdoor station shows **please input password** to prompt to input the system password. The other remaining operation is the same as public password. If you want to return to the public password mode, please see item 4 on “outdoor station management parameter”.

How to enter into and quit debugging mode

SN	Steps	Explanation
1	<input type="text" value="#"/> -> <input type="text" value="9007"/> -> <input type="text" value="debug password"/>	Enter into debugging mode without starting any option.
2	<input type="text" value="#"/> -> <input type="text" value="9008"/> -> <input type="text" value="debug password"/>	Enter into debugging mode and start 9002 option.
3	<input type="text" value="#"/> -> <input type="text" value="9009"/>	Quit debugging mode and return to normal status.

The waiting hint under the debugging mode is: **debugging mode**, operations in this mode are as follow:

1.Basic debugging function list

SN	Option and operation	Function and simple operation explanation
1	Adjust outdoor station's Volume <input type="text" value="#"/> -> <input type="text" value="9001"/>	Use to adjust the outdoor station's volume.(Hardware of station higher than version 4.0 is necessary)
		When outdoor station's volume is small or with noise, you can adjust the volume to solve this problem.
		Outdoor station answer channel: press"1" to rise, press "4" to low. Outdoor station calling channel: press"3" to rise, press "6" to low.
2		

	<i>Call and answer in native</i> # -> 9002	Use to simple debugging and realize single debugging, and also use to look up monitor number. Press “call” button to send message of calling guard center, outdoor station will show the monitor’s number and chime the hint sound after receives it. Outdoor station will call this monitor 3 seconds later after shows the calling information and monitor address, which can substitute the handiwork calling
3	<i>Alarm parameter display</i> # -> 9003	This option is used to debug the alarm system and decompose the alarm function in the cell level. Startup this option, alarm information will be not sent to the guard center but displays on the outdoor station immediately with hint sound, the display format is “monitor number”+”alarm information”/”set alarm information”. Usually, startup this function then debug it in the running outdoor station.
4	<i>Communication parameter display</i> # -> 9004	Network calls to assistant debugging system and the intercom debugging. After startup this option, the data of network call and intercom will be shown on the outdoor station screen automatically, namely, system cell, network bus’s relative data will be shown to the debugging person in order to find out problem easily.

i. Extension debugging function list

SN	Option Name and operation	Function and simple operation explanation
1	<i>Search online monitor</i> # -> 9011	Function: Automatically search the certain range or monitor which is for checking the information of the online monitor. After startup this operation, the outdoor station search and display the present online monitor according to the setup range automatically.
1	<i>Equipment information of Monitor</i> # -> 9012	Function: Display the equipment information of the appointed monitor in order to check the monitor information. Enter into program, input address of the monitor await to be checked, then press # to operate. After outdoor station obtains monitor information, it will display hardware, software, date of production in three lines. There the hardware information is displayed as: [monitor address]-[monitor model No.], in the monitor model code bit 1 is series No., bit 2 is the function code (1-standard; 2-alarm; 3-message; 4-full function; 5-customize) Remark: The software should be above version 3.0, otherwise outdoor station can not obtain equipment information and display “old version”.

1	<i>Test monitor's voltage</i> <input type="text" value="#"/> -> <input type="text" value="9013"/>	<p>Function: can measure monitor's voltage from long-distance in order to avoid bothering tenements and using the millimeter.</p> <p>There are two numerical values of voltage measurement: the "wait voltage" when screen shuts down, and "work voltage" when screen displays. The normal range is: wait voltage [15.0~18.5V], work voltage [14.0~18.0V], usually the test time is less than 1 second.</p> <p>Remark: Hardware above Version 3.0 is put the bit 10 A/D conversion inside to measure the voltage, but which below version 3.0 don't have this function.</p>
1	<i>Simulation call from monitor</i> <input type="text" value="#"/> -> <input type="text" value="9014"/>	<p>Function: Can process to test the simulation call of the appointed monitor or batch monitors, in order to test the monitor call function without bothering the tenements.</p> <p>When test, you need to input the monitor range, please press <input type="text" value="#"/> to process test. During the batch testing, LCM outdoor station can list all monitors, thereinto, reverse video means the monitors passed testing, normal display means failed testing. LED outdoor station only display the normal online monitors.</p> <p>Simulation call process operates all practical call signal, but the being tested monitors will be in silent. The monitors will display 3 seconds image during testing, and shut down automatically after testing. It will cost 5 seconds to test one monitor.</p>

2.Debugging instruction.

- 1) Enter into debugging status, please press button, screen displays **please input password**, then input the special startup serial number (for example), to enter into the corresponding debugging items. The screen will show reverse video activated icon.
- 2) Can enter into the multi-debugging items at the same time. For example, if you already enter into to regulate the volume of outdoor station, you can enter into other debugging items at the same time according to 1) step.
- 3) If you already enter into certain debugging item, press again, then input startup serial number of deserved debugging item to quit
- 4) When outdoor station is under standby condition, press button, screen displays **please input password**, then input , screen displays **please input password**. Then input 8 digit correct system password to enter into debugging status, screen displays **debugging mode**, and the local call receive function is activated.

5) Enter into the debugging mode, press # button, display shows please input password, then input 9 0 0 9 to quit system debugging status, and return to standby condition.

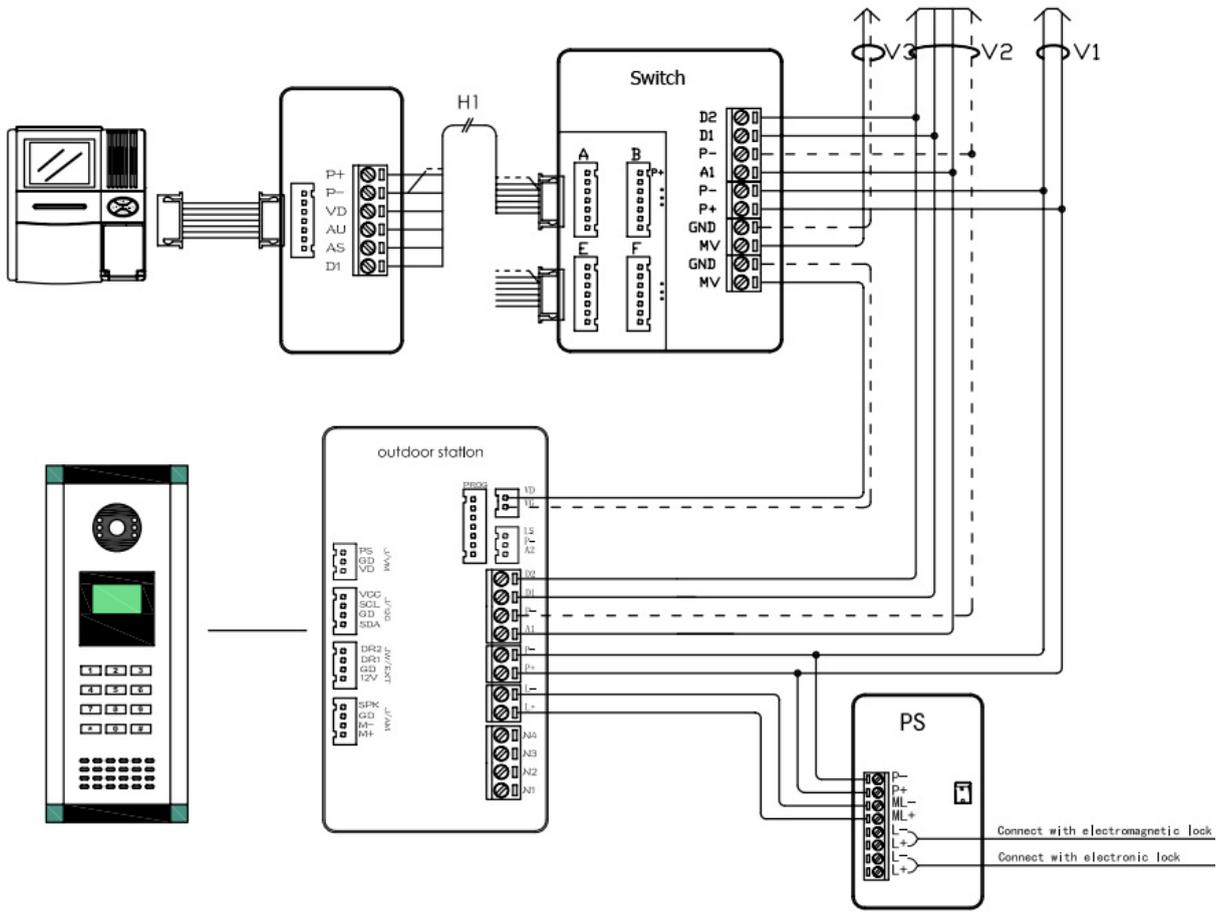
6) Debugging instruction:

A) When startup *show alarm data*, outdoor station will show the operation status of integrated alarm monitors:

- a. Set alarm, show *set alarm* and room number.
- b. Cancel, show *cancel alarm* and room number.
- c. Alarm of defense area, show *defense area X* and room number (X is the defense area number)

B) Startup *search online monitors*, if the start room number and end room number are same, it means only search this monitor. After startup, outdoor station shows the search range first. The search will be started automatically after input.

7) Under debugging status, press # + 8001, 8002, 8003, 8004, 8005, 8006, 8007 to enter into parameter setup or check directly, or enter into other option setup etc without input password. When finish the parameter operation, press “ ← ” to return to debugging status.



<p>Remarks:</p> <p>P+ : DC 18V</p> <p>P- : GND</p> <p>MV/VD : Video</p> <p>AU/A1/MA1 : Audio</p> <p>D1/MD1 : Data go up</p> <p>D2/MD2 : Data go down</p> <p>L+:LOCK+</p> <p>L-:LOCK-</p>	<p>Remarks:</p> <p>V1=RVV2X1.0mm²</p> <p>V2=RVVP3X0.5mm²</p> <p>V3=SYV75-3</p> <p>H1=RVVP6X0.3mm²</p>
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SYSTEM POWER SUPPLY --- PS2

TECHNICAL INSTRUCTIONS



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1. Introduction

The PS2 power supply is used to support the whole video/audio intercom system. It can supply the power to the Door Station, Distributor and Indoor Monitor at the same time. One PS2 can support one Door Station together with 10 Indoor Monitors, if only power the Indoor Monitors, it can support 16 pcs Indoor monitors.

< Install precaution:

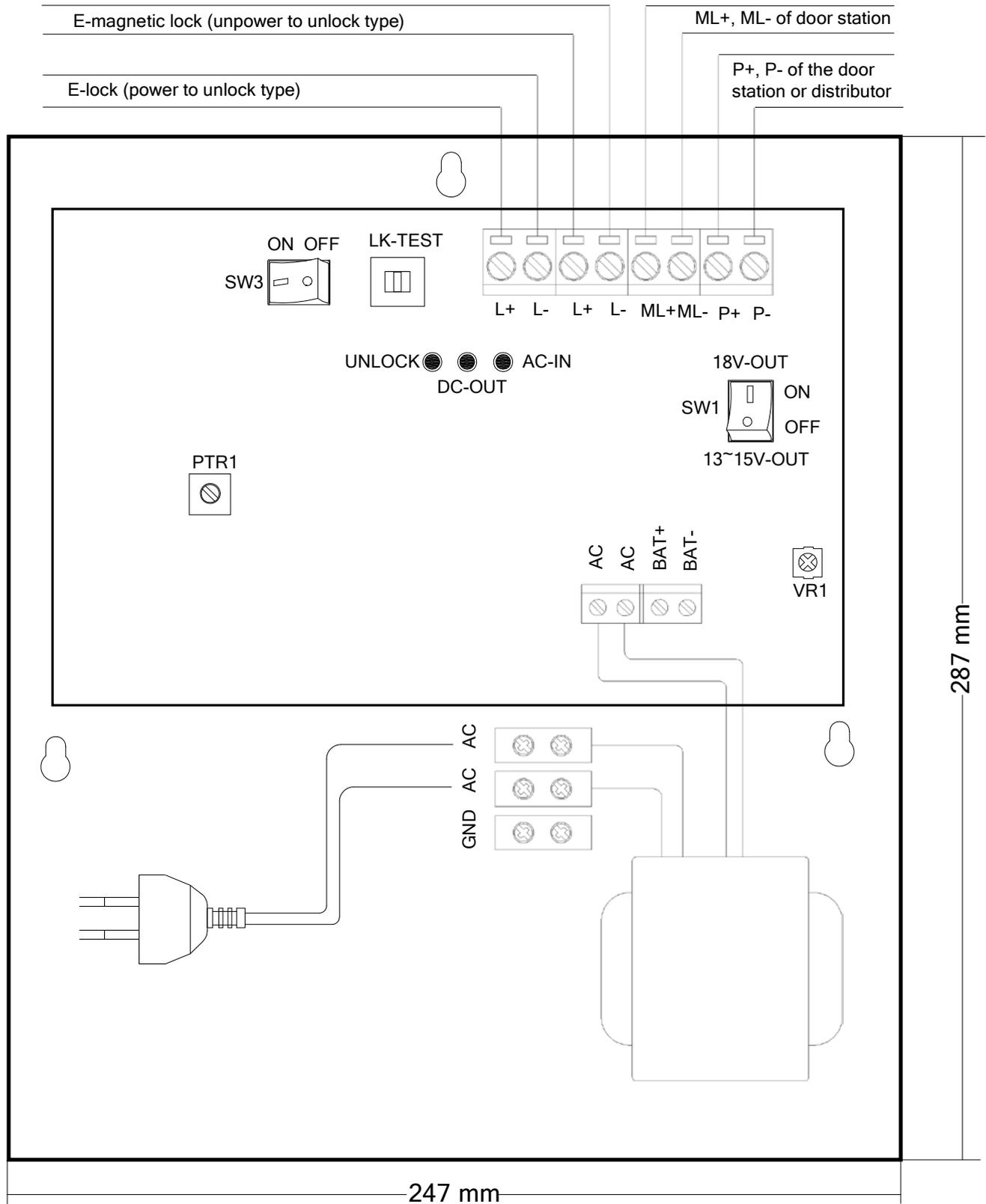
The PS2 usually install on the first floor near the Outdoor Station, and the distance from ground should be over 2 meters.

- > Do not install the PS2 on the position with rain or high humidity
- > Make sure fix the box firmly enough on the wall.
- > Pay attention to the isolation when connect the AC electricity
- > Install the box first, then place the storage battery; do not use the battery with very low voltage.
- > Usually, the distance between PS2 and Door Station should within 10 meters.
- > Do not use the old and new or different brand storage battery together.

< Electronic parameters:

- > **Output voltage:** DC 18.0V(can be adjusted from 14~20V)
- > **Output current:** DC 2.50 A
- > **Standby battery:** 18V maintenance free lead-acid pile; standard 3*6V in series
- > **Self-protect circuit:** short circuit, over flow(self-resume); pile under voltage protection

2. The Connection ports and functions



< Connect ports:

- > **P+, P-** : Main power output, 18V, 2.5A; connect to the Outdoor Station, Distributor and Indoor Monitors. The output voltage can be changed by using the PTR1.
- > **ML+, ML-** : Unlock signal input, connect to the ML+, ML- of the Outdoor Station.
- > **L+, L- (left)** : Unlock signal output; connect to the electronic lock. Note that this port is no power in standby, it should connect to the Power-to-Unlock type lock, Normally is the electronic lock
- > **L+, L- (right)** : Unlock signal output; connect to the electron-magnetic lock. Note that this port is 13~15V in standby, it should connect to the Unpower-to-Unlock type lock, normally is the electron-magnetic lock.
- > **BAT+, BAT-** : Connect to the battery pile. Please mind the polarity.

< Switchers:

- > **SW1** : Use for lock type select; if switch to on, the L+ and L- signal output will be 18V(which is normally the voltage for electronic lock); if switch to off, the L+ and L- signal output will be 13~15V(which is normally the voltage for electron-magnetic lock).
- > **SW3** : Power output switcher, if switch to off, the P+ and P- will no voltage output.
- > **PTR1** : To change the output voltage of P+ and P-. (14~20 V)
- > **VR1** : To change the output voltage of L+ and L- when the SW1 is set to off.(13~15V)
- > **LK-TEST** : Lock signal test button, press this button will generate a unlock signal.

< LED indicators:

- > **UNLOCK(yellow)** : Lighten up when unlock signal sent in.
- > **DC-OUT(green)** : Lighten up when P+ and P- have output voltage.
- > **AC-IN(red)** : Lighten up when there is AC input.

3. Trouble Shooting

Phenomenon	Malfunction Cases	Malfunction analysis	Eliminate methods	Remark
No output	No 220V AC	The AC-IN LED is off, check the AC electricity by the multimeter, and check the connection and the connectors	Deal with the AC supply	
	AC fuse melted down	The AC-IN LED is off, exam the fuse by the multimeter to check whether it's open	Change the fuse	
	AC transformer damaged	The AC-IN LED is off, AC fuse is intact, 220V input is okay, but the transformer no output.	Change the transformer	transformer must be the same specification
	The SW3 is turned off	The AC-IN LED is on, but the DC-OUT LED is off. Check if the SW3 is turned off.	Turn on the SW3	
	Output over load or short circuit	Disconnect the output load, and check the P+ P-, the output return to normal.	Check the load circuit	
Low output	Overload or shorted	the DC-OUT is dim out, and return to normal after disconnect the load.	Check the load circuit	
	The VR1 set to low	Adjust the VR1 and then exam the output voltage.	Adjust the output to 18V	
	VR1 maladjustment	Adjust the VR1 but nothing change	Change the VR1	
Auto-jump out	SW3 connection badness	Turn the SW3 on and off, connection badness happened sometimes	Change the SW3	
	Load over flow	Overloaded or load partial shorted, or connect too many Indoor Monitors	Check the wiring or add other PS2	
Battery switch failure	Battery charge failure	Charge voltage is higher than the battery voltage, but can not charge.	Change the battery	
	Battery connect port connection badness	Battery voltage is normal, the connect port are oxidative	Retouch the connect port	
	F1self-resume fuse melt down	Battery charging port no output, or battery damage, fuse melt down for protection.	Change the battery	
Charge failure	Charging circuit badness	Charging port without voltage or voltage low.	Change the power supply	
	Battery badness	Charging voltage okay, all connect ports are normal.	Change the battery	