COLOUR HD VIDEO INTERCOM
INSTRUCTION MANUAL

"*Choose* **PSA** *for intercoms*"

PAN830SKHD

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CONTENTS

1. FEATURES

- 7″ TFT LCD touch screen aluminium front panel
- Support 6 monitors, 2 door stations with extra 2 CCTV Cameras and 2 PIR sensors
- Missed call feature: when doorbell is not answered, a notification icon will be shown.(note:Date/Clock feature must be activated)
- Different ringtones for Door A & Door B
- Support 32G TF card for pictures or video recording
- IP 65 surface outdoor camera
- Digital Photo Frame (Read date From SD Card under "user")

- Monitoring function
- Hands-free interom doorbell function
- Call transferring function
- Door release function
- Twelve polyphonic melodies
- Ringtone volume adjustable in the morning/afternoon/evening.
- Ring volume, talking volume, chroma and brightness adjustable
- Motion picture recording when SD card installed (SD card not supplied)
- Custom melody as ringtone

2. KIT CONTENTS

- One indoor monitor
- One outdoor camera
- One adapter
- One bracket for indoor monitor

- One rain cover & angle bracket
- Accessory pack

3. OUTDOOR CAMERA SPECIFICATION

Camera sensor	1/3 inch wide angle CMOS camera
View angle	110°
Definition(Hor.)	960P
LEDs for night	IR LEDs(120°)
Power consumption	150mA max.
Power supplier	Supplied from indoor unit
Operation temp.	-40~+50℃
Installation	Surface mounted
Lock	N/O, N/C Contact (30VDC 2A)
Ingress Protection Rating	IP 65
①	Weather shield
②	IR LEDS
③	Camera
④	Speaker
⑤	Call button
⑥	Microphone
⑦	Screw slot
⑧	Volume regulator
⑨	System port

48.5   40.6   128.0
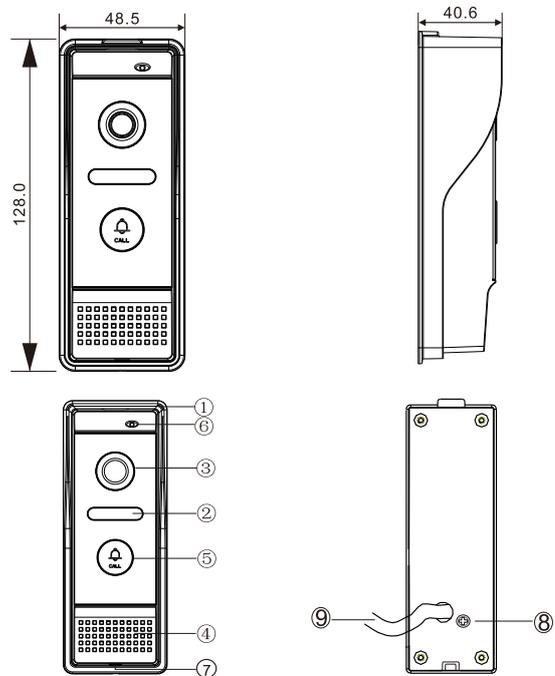
Front of surface mount camera PAN820SCHD

4.INSTALLATION OF OUTDOOR CAMERA

Angle mount

Surface mount

Hole

Rainhood

Angle bracket

Rainhood

A

A/B

50CM

60°

150~160cm
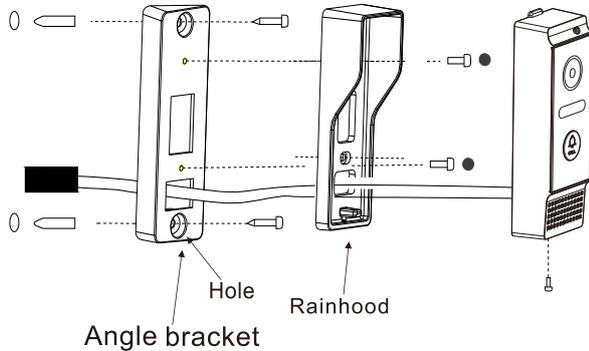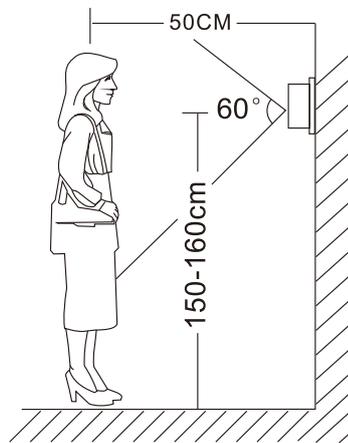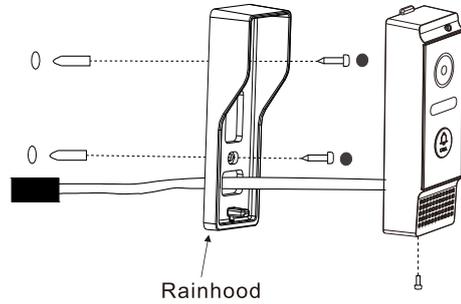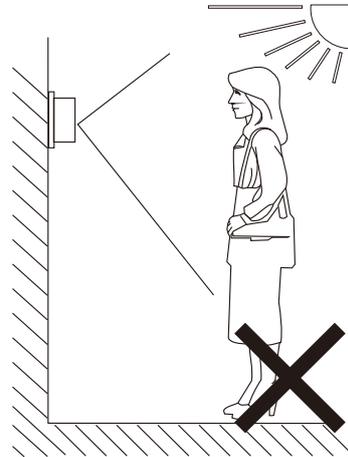
Do not install the camera directly
facing towards the sun

Door Speaker Volume Adjustment

To adjust the speaker volume of the door camera, remove the weather seal at
the back of the door camera and adjust the regulator with a screwdriver.(refer
to outdoor camera specification for regulator location)

NOTE: Default setting of door volume is already set as HIGH. Do not overturn
the volume regulator as it can easily be damaged.

5.INDOOR MONITOR SPECIFICATIONS

NO.	Name	Descriptions
1	Speaker	Sound from outdoor camera.
2	TFT display	View visitor's image displayed on the TFT screen.
3	Microphone	Transmit the voice to outdoor camera.
4	TF card slot	For the models with SD card, insert the SD card for recording and photograph.
Specification		
Display screen	7" TFT LCD screen	
Definition	7" (1024 x 600)	
CCTV camera input	AHD & CVBS only	
Standard	PAL	
Calling mode	Two-way conversation	
Calling time	120s	
Standby current	Maximum 250MA	
Work current	Maximum 600MA	
Power supply	External switching power supply (DC 12V)	
Work temperature	0~+50°C	
Installation way	Surface mounting	
Picture format	JPEG standard format	
Extension memory (Optional)	SD card (maximum 32GB)(>Class 10)	
Dimension	226(L)×151(W)×23(T)mm	
Digital Photo Frame	Yes (Read date from SD card)	
Custom Melody	Yes (Read date from SD card)	
Missed Call	Missed call indicator. Clock function needs to be activated.	
Motion Detection	Motion picture recording when SD card installed (SD card not supplied)	

● Select the most suitable position where the monitor is located at user's eye level.

150-160cm
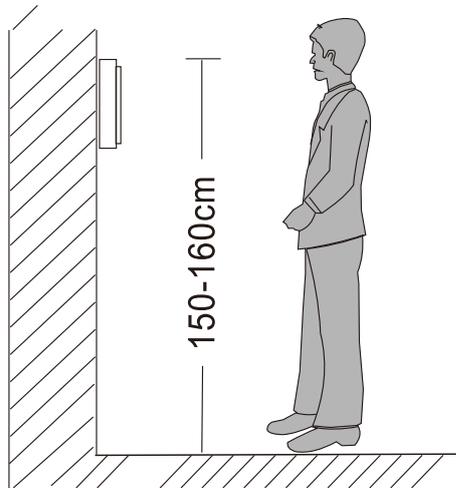
⚠ **NOTE:**

● keep more than 30cm away from AC power supply to avoid external interference.

● Avoid installation of the device near strong radiation e.g. TV set, video recorder and PC etc.

● Avoid hard shake , beating and collision ,otherwise the internal exact components maybe be damaged .

●To install the indoor unit , please follow these steps as below:

Plastic anchors　　**Bracket**

Connection cable

Transfer Call　Monitoring　Talk　Unlock　Hang up
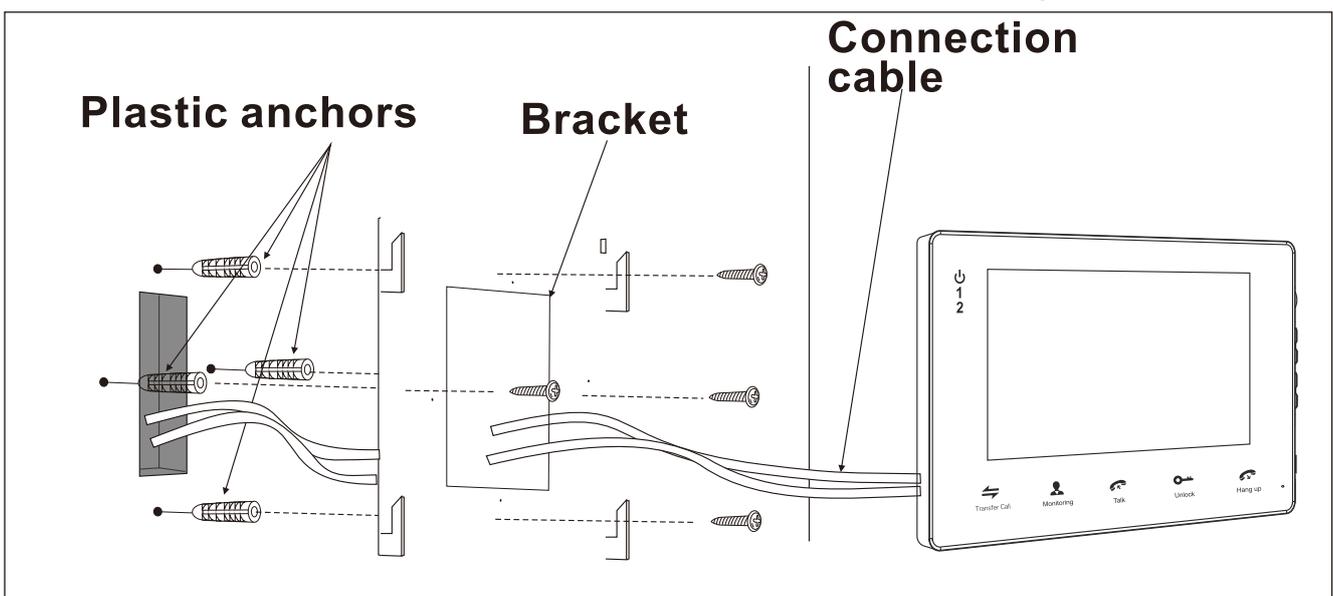
NOTES:

Keep intercom wires more than 30cm away from ac power to avoid interference

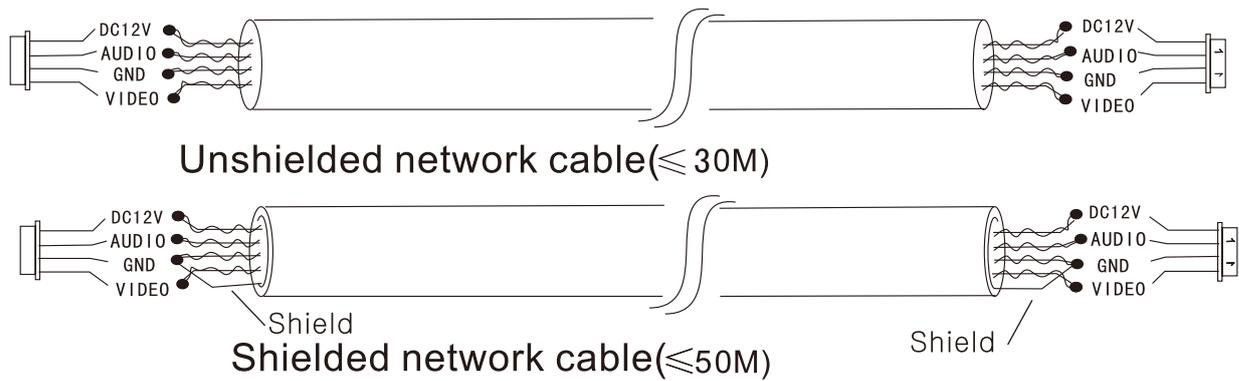The electric lock is not included in the package, Use 12VDC electric strike only.
Should not exceed 500mA.

Cable Requirements

1. CAT5e or CAT6 network cable connection mode:

DC12V
AUDIO
GND
VIDEO

DC12V
AUDIO
GND
VIDEO

Unshielded network cable(≤30M)

DC12V
AUDIO
GND
VIDEO

DC12V
AUDIO
GND
VIDEO

Shield

Shield

Shielded network cable(≤50M)

2. 4C ordinary unshielded and shielded wire connection mode:

Distance ≤50m(4*0.5mm^2)

DC12V
AUDIO
GND
VIDEO

DC12V
AUDIO
GND
VIDEO

Unshielded wire (≤50M)

DC12V
AUDIO
GND
VIDEO

DC12V
AUDIO
GND
VIDEO

Shield

Shield

Shielded wire (≤80M)
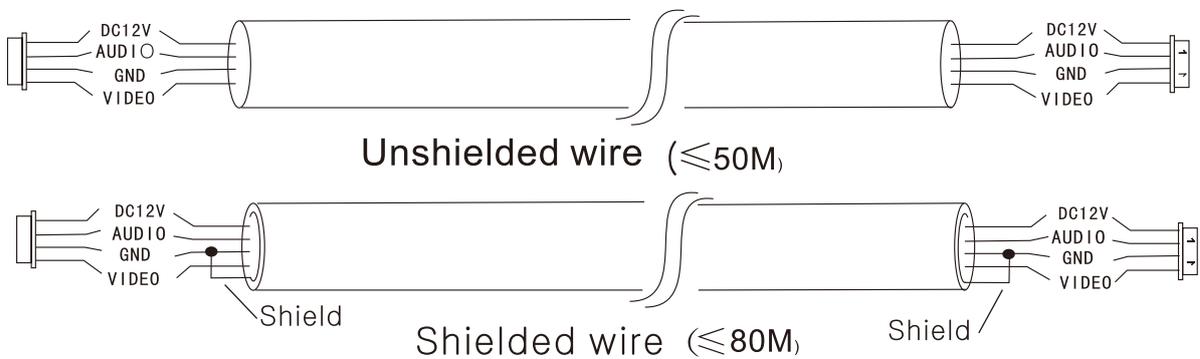
3. 3C ordinary unshielded +75 ohm coax video wire connection mode:

DC12V
AUDIO
GND
VIDEO

DC12V
AUDIO
GND
VIDEO

Shielded wire (≤100M)

Slave

Slave

4C
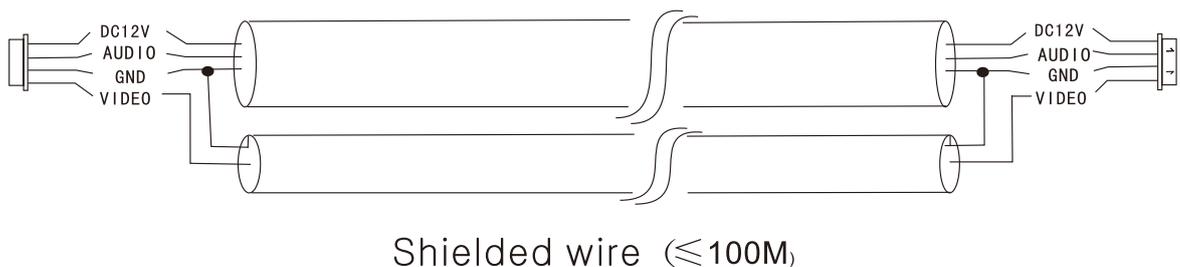
First monitor must be set as **MASTER**. All other monitors must be set as **SLAVE**. This can be done in the **SETTINGS** menu.
MONITOR ID SETTING
Master=01, Slave=02 to 06

4C

Slave

Note:

HD Monitor can accept **AHD** or **CVBS** analog signals. If using HD monitor with **CVBS** analog door station, you must reboot the monitor from the menu system after connecting the camera.

Master

4C

CAM2

ALARM

CAM1

ALARM

4C

4C

DOOR1

DOOR2

AC/DC power
adapter for
camera
(not included)

Note:
CCTV cameras to be
AHD or **CVBS** only

BLACK = GND
RED = TV

CAM1
ALM1

RED = DC12V
WHITE=ALM
BLACK = GND
YELLOW = VIDEO

CAM2
ALM2

WHITE=ALM
BLACK = GND
YELLOW = VIDEO
RED = DC12V

AC/DC power
adapter for
camera
(not included)

GND TV	COM NO	GND 12V
TV-out	LOCK OUTPUT	DC-IN

VCC AUDIO GND VIDEO	VCC ALM GND VIDEO	AUDIO GND DATA VIDEO
DOOR1	CAM 1	IN

VCC AUDIO GND VIDEO	VCC ALM GND VIDEO	AUDIO GND DATA VIDEO
DOOR2	CAM 2	OUT

TV-out   Unlock   Power

DOOR1   CAM 1   IN

DOOR2   CAM 2   OUT

Master

External switching power supply
(AC100v-240V)

Gate unlock

RED = AUDIO
WHITE = GND
BLACK = DATA
YELLOW = VIDEO

AC100v-240V

Slave

RED = DC12V
WHITE = AUDIO
BLACK = GND
YELLOW = VIDEO

RED = DC12V
WHITE = AUDIO
BLACK = GND
YELLOW = VIDEO

DOOR1

DOOR2

TV-out   DC-IN

DOOR1   CAM 1   IN

DOOR2   CAM 2   OUT

next Slave

Red-12V
AUDIO
Black-GND
Orange
Green

AC/DC
electric lock
(not included)

Red-12V
AUDIO
Black-GND
Orange
Green

AC/DC
electric lock
(not included)

LOCK RELAY
ORANGE = GND relay
GREEN = N/O relay
BROWN = N/C relay
WHITE = AUDIO
YELLOW = VIDEO
RED = DC12V
BLACK = GND

9

9.Alarm instructions

CAM1 and CAM2 of this production have each an alarm function. When the trigger terminal and GND is shorted, the alarm is activate, the speaker of the indoor unit rings and continues 120s, during this time, click " 🔽 " to stop alarming and enter the standby mode.
For the models with SD card, simultaneously, triggers recording or snapshotting (related to the system settings). The recording time is 120s, during this time, click " 🔽 " to stop alarming and enter the standby mode.

Connection diagram:

ⓘ Be applicable to connect 2 normally closed (NC) or normally open (NO) alarm inputs.
2 camera channels of alarm input without limitations on input type (can either be the normally open type or the normally closed type).
ALM terminal of the alarm detector is connected in parallel with the ALM terminal (The alarm detector shall be supplied by external power supply).
Ground terminal of the alarm detector is connected in parallel with the GND terminal of the camera.
For NO alarm inputs, when the GND and ALM are in the connection state, it will trigger the alarm.
For NC alarm inputs, when the GND and ALM are in the disconnect state, it will trigger the alarm.
It applys to any alarm sensor.

AC/DC power adapter
for camera(not included)

GND
ALM

CAM

DC12V

ALM
GND
Video
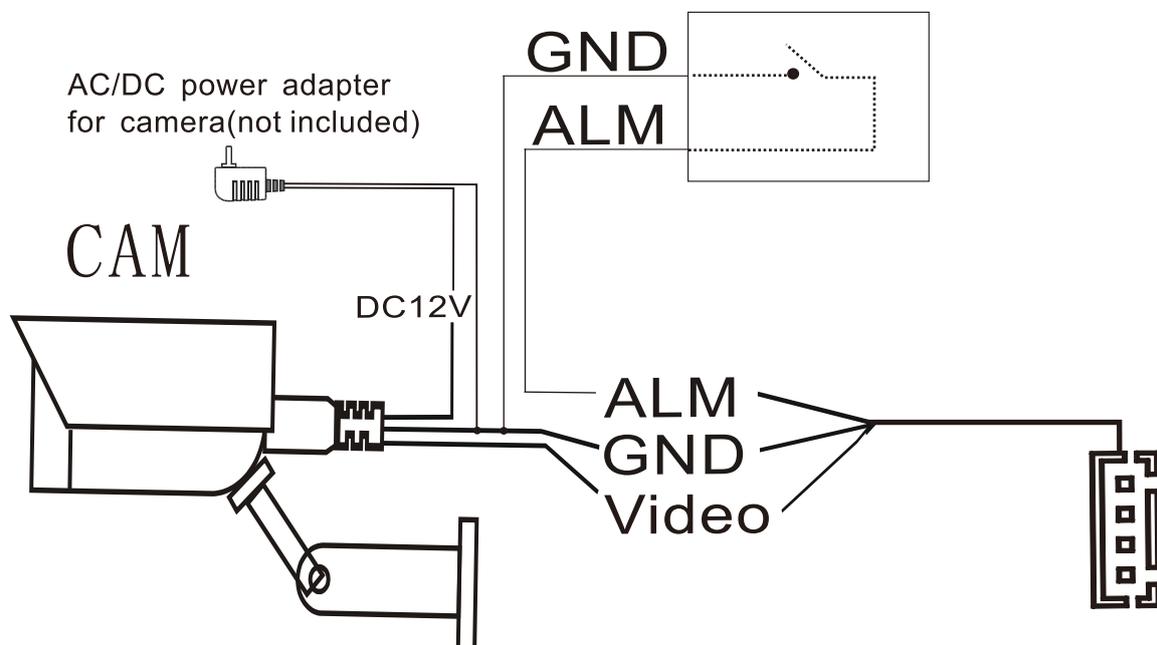
VISITOR CALL

Standby Mode

The Visitor press the **call** button on outdoor camera 1

The Visitor press the **call** button on outdoor camera 2

A 10s of continuous
▼ Ding Dong tone is heard inside and outside

ⓘ NOTICE:

The visitor's image automatically displayed on the screen

If both call button on two outdoor camera are pressed at approximate to the same time, the preference will be given to the outdoor camera which call button was pressed first, unless the call button is pressed again after the indoor monitor go into standby mode, please be aware of that there is no indication on second outdoor camera .

▼

Press the **talking** button on indoor monitor

Talk

▼ Stop ringing

ⓘ NOTICE:

Start conversation with outdoor camera

The indoor unit will automatically go into standby mode if you are not at home or have not reached the indoor unit in 60s.

▼ The conversation duration is 120s at a time

Press the **unlock** button on indoor monitor

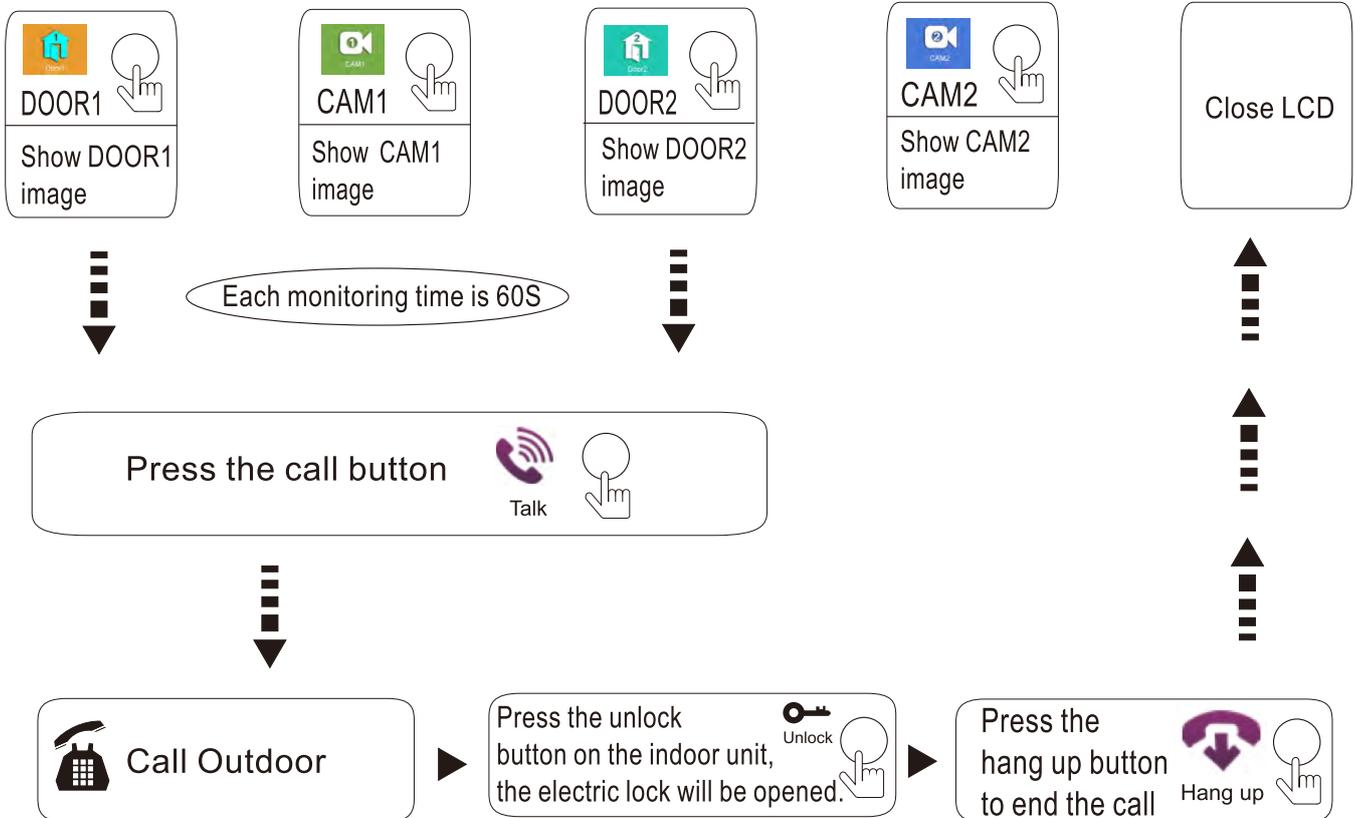▶ release the door lock

Press the hang up button on indoor monitor

Hang up

▶ End

ⓘ Both the visitor's voice and image will be not switched off within 20s of time span when the **unlock** button is pressed, this individualized function allow you to make sure whether the visitor already come in.

ⓘ For the models with SD card, when the doorbell record for the video mode: From the start of a call, the whole process will be recording. If the user press the button "▯", the recording will be stopped manually.

ⓘ For the models with SD card, when the doorbell record for the snapshot mode: The whole process will be capture, user can press the button "⬡" to capture an image.

ⓘ In the monitoring state: the machine can listen to the sound of the outdoor machine, you can press the button " 📞 " to conversation and press the button "⚷" to unlock.

11.MONITORING

Option in the settings in the menu: DOOR1, CAM1, DOOR2, CAM2 operating mode (open or closed)

Standby Mode

DOOR1	CAM1	DOOR2	CAM2	Close LCD
Show DOOR1 image	Show CAM1 image	Show DOOR2 image	Show CAM2 image	

Each monitoring time is 60S

Press the call button   Talk

Call Outdoor ▶ Press the unlock button on the indoor unit, the electric lock will be opened. Unlock ▶ Press the hang up button to end the call Hang up

NOTICE:

If you are using only one outdoor camera in monitoring mode, you can also end the monitoring mode by pressing the monitoring button again（Must be Close CAM1; DOOR2; CAM2 in the menu option）.

If you use two indoor units, you can also simultaneously in other indoor unit starts monitoring mode, the same images are displayed on the screen of the different indoor unit.

If a conversation with outdoor unit is underway in monitoring mode, during this time a visitor press the call button on either of outdoor unit, the monitoring mode will be switched off, the just visitor's image will appear on its screen and continuous ringing will be heard. If you are using the indoor unit with hands-free, you can press the talking button to reactivate conversation with the visitor.

For the models with SD card, in monitoring mode, press the button " 🎥 " or " 📷 " to perform manual video / camera; press the button " 🎥 " can manually stop recording; Select to record video or picture.

12. CALL TRANSFER TO OTHER EXTENSION

Internal communication function requires at least two indoor and one outdoor units to be connected.

Outdoor camera call indoor monitor and conversation is underway

▼

keep pressing transfer call button to activate the function of **call transfer to the extension which you choose**

A continuous Ding Dong tone is heard

▼

Press the **talking** button on any of indoor units

► Talking with visitor

► The Electric Unlock lock can be opened

► End the call Hang up and return to standby mode.

(i) NOTICE:

When you are transferring a call to other extension, the original conversation indoor unit will return to standby mode, and the indoor unit which the call is being transferred will also sound a continuous Ding Dong tone and the video image will appear on its screen.

13. INTERNAL COMMUNICATION AMONG INDOOR UNITS

At least 2 indoor units is required.

Standby Mode

Press the **Transfer Call** button — Transfer Call

A continuous Ding Dong tone is heard

▼

Press the **talking** button on any of indoor units — Talk

▼

Select a extension which you want

▼ The called slave monitor will get ring tone

Start conversation among indoor units.

► Press Hang up button Hang up

► End

(i) NOTICE:

In **internal communication** mode, if a visitor press the call button on either of outdoor unit, the **internal communication** mode will be switched off. The visitor' s image will appear on its screen and continuous ringing will be heard, you can press the **talking** button to activate conversation with the visitor.

1.0 STANDBY MODE

There are 2 mode options during standby mode: Clock and date mode or digital photo frame mode.

1.1 Clock and date Mode

1.2 Digital Photo Frame Mode

When digital photo frame is activated, motion detection feature will be deactivated.
The system will automatically detect pictures from SD card.
If no insert SD card is inserted, this function will not operate.

ⓘ NOTED:

1. When digital photo frame function is activated, the monitor will automatically detect pictures from SD card and start to play the files(picture scroll time can be adjusted between 1-10s).
2. Two folders should be created in the SD card, "ring" and "user". All music files should be loaded in the "ring" folder. All picture & video files to be in the "user" folder.
3. If you missed a call, a "mail" icon will be shown on the top left side of the screen during standby mode. **Note**: The clock function must be activated for this feature to operate.
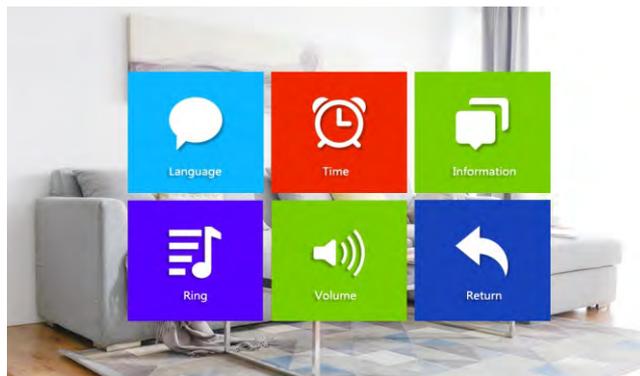
2.0 MAIN MENU

On standby mode, touch screen enter main menu. If no operation in main menu, system auto back to standby mode after 60s. Click blank place back to standby mode when stay on menu interface.
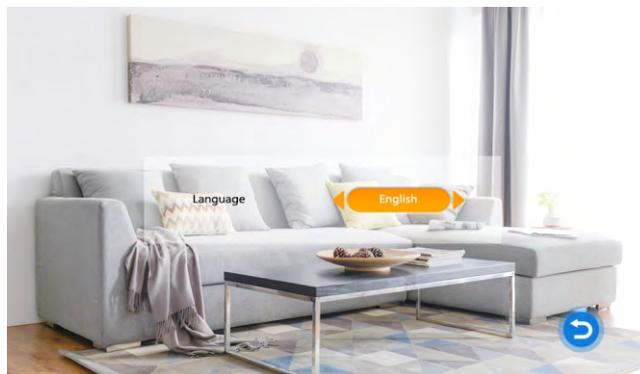

3.0 SYSTEM

On main menu, pressing the SYSTEM button will access setup of language, clock, system information, ring tone and volume.
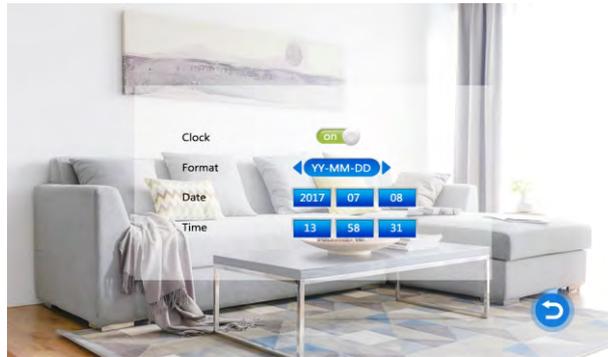

3.1 Language

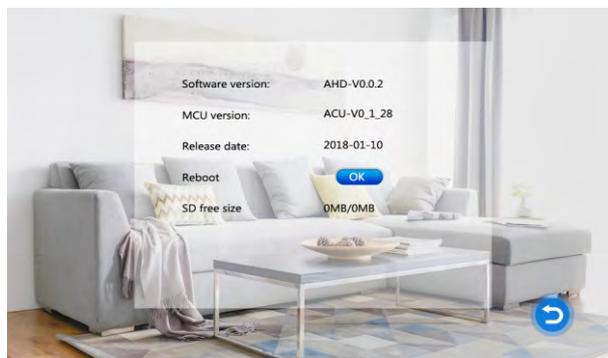Select any type of language and confirm back to main menu.

3.2 Time

1). Select clock switch on/off during standby mode. (Note: if clock is switched off, the digital photo frame not work)

2). Type of date, with three type format YY-MM-DD / MM-DD-YY / DD-MM-YY options.

3.3 System information

Display: FW version, MCU, FW release date, Restart monitor, SD card rest capacity.

[Format SD card]: Click "OK" to format the SD card, will pop-up window prompt "Do you need to format SD card?" Choose "Yes" format the SD card, after formatting would prompt "success", choose "No" cancel format.

Notice: Support 32G Class 10 SD card.

3.4 Ring

Enter ring menu to setup the outdoor station/s ring tone.

[Mode]: Default and user defined two mode. Default melody have 12 ringtone, user defined select from SD card.
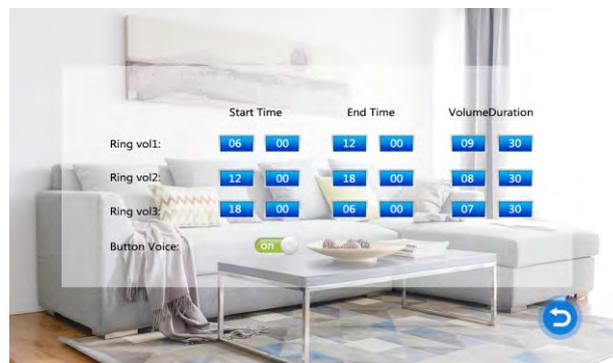
ⓘ **NOTED**:

1. Make sure create name with "Ring" format file in SD card, and download music inside, otherwise user defined ringtone will be failed.
2. Use user defined ringtone only show 100ringtone, exceed 100ringtone will auto hide.

[Return]: Back to superior menu.

3.5 Volume

Set three times parameter.
Noted: Volume setting means control monitor ringtone volume.

[Ring Vol1-3]: From 0-10 level options, continue time 10-45S options.

[Button Voice]: Support switch on/off.

4.0 DIGITAL PHOTO

When this function is on, during standby mode it will start to play pictures from your SD card.
Be sure the clock feature is switched on as well for this feature to function. Picture scroll times can be set between 1-10s.

Noted: Motion detection feature will not work when digital photo frame feature is used. All digital photo frame pictures should be stored in folder name "user" in SD card.

5.0 MODE

Enter MODE menu to enter setup menu for:

[Device_ID]: Indoor monitor ID number 01/02/03/04/05/06 options, "01" means master monitor, "02-06" means slave monitor.

[Door2 status]: Switch ON if 2 doors are connected to system.

[Door1 unlock time]: Unlock time 2-10s options, default 5s.

[Door2 unlock time]: Unlock time 2-10s options, default 5s.

[Record mode]: Record and snapshot mode options. If set it as record, when visitor call from outdoor station, start to record; If set it as snapshot, when visitor call from outdoor station, start to snapshot.

[Motion detection]: Door1, Door2, CAM1, CAM2, OFF options.

[MD sensitivity]: Motion detection sensitivity of door 1. doo2,cam1,cam2 can be set with low, medium, high level, Low level: motion detection hard to be activated. Medium level: motion detection easier to be activated. High level: motion detection very easy to activated.

[MD duration]: Motion detection duration time can be set with 1~5minute.

[Missed call]: Switch on/off options. If switch on, outdoor station call monitor with no answer, the monitor will show a mailbox icon on standby screen to show you missed a call. This feature can only operate when using clock mode on standby screen.

6.0 ALARM

Enter Alarm setting.

[Alarm record]: Two type options: recording or snapshot. If Cam 1 or 2 detect alarm, monitor start to recording or snapshot picture save in SD card.

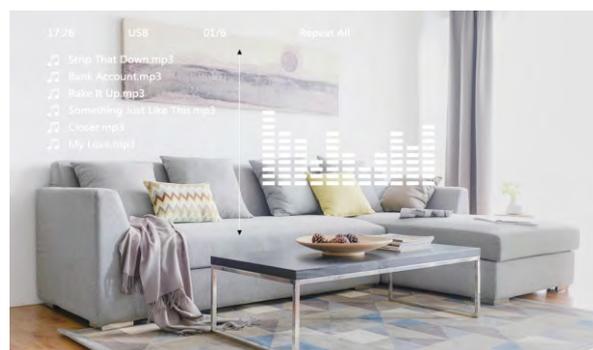**Noted:** Alarm time default 2Min.

7.0 MEDIA

Enter media setting.

Media menu including: Music, Movie, Pictures, file (Only insert SD card can use media).

7.1 Music

Enter music, select to play list, interface including music list, play mode, play status.

Noted: All music files to be created in folder named "ring" in the SD card.

1). On play music mode, press right side blank space move up or down adjust music volume.

2). During play musics, through different icon switch play mode including once, shuffle, order, repeat once, list of circulation.

Noted: If doorbell is pressed during music play, the doorbell will override the music. Once back to standby mode, you must activate music play again via the menu system.

7.2 Movie

In media menu, choose movie enter movie list.

Noted: All video files to be created in folder named "user" in the SD card.

1. On play movie mode, press right side blank space move up or down adjust music volume.
2. During play movie, if have calling signal input, calling will first, music stop.

7.3 Pictures

In media menu, press picture enter list.

Note: Only show "Photo" file inside all pictures.

7.4 File Management

In media menu, press file management enter, choose SD card file enter, including DCIM, RING, USER three file.

[DCIM File]: System auto set up, all calling/motion detection/alarm videos or pictures will keep inside.

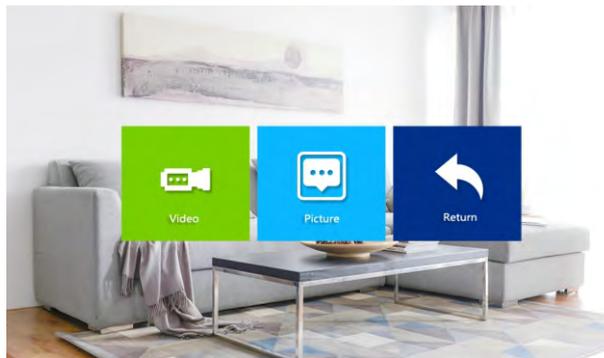**[RING File]:** All download melodies will keep inside.

[USER File]: All download movies and pictures will keep inside.

Note: xxx.img is system program, if you want to update FW, please choose yes. During update program, please keep power on, after updated monitor will reboot.

8.0 RECORD

Enter RECORD menu to view recorded video and pictures.

Note: Only show "Photo" file inside all pictures.

8.1 Video information

In recording list, choose the file playback, note: recording list including motion detction videos; Alarm videos and calling videos.

8.2 Pictures information

In pictures list, choose pictures playback, note: pictures list including motion detction pictures; Alarm pictures and calling pictures.

9. Color Setting

In standby mode touch screen enter main menu, press door1, door2, cam1, cam2 make color setting.

Note: During in monitoring, calling, talking, alarm page support color setting.

[Volume]: 0-10 optional, default 10.

Note: Volume setting only work for indoor monitor talking volume.

[Brightness]: 0-50 optional, default 25.

[Contrast]: 0-50 optional, default 25.

[Saturability]: values can be set up from 0 to 50, default as 25.

[Refresh]: When mix connect PAL/NTSC cctv camera or outdoor station and CVBS/AHD cctv camera or outdoor station; during keep power on and do some connection change for cctv camera or outdoor station, if no image come in, please press "R" refresh signal.
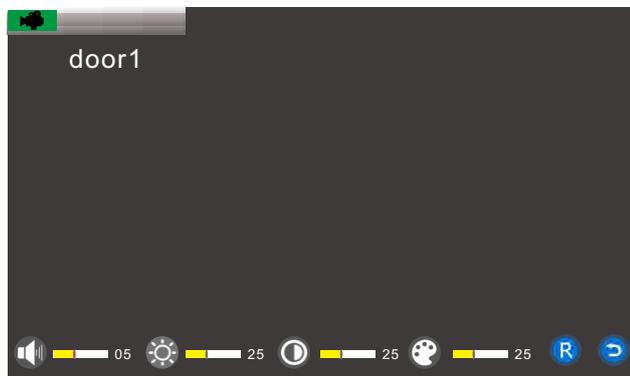
15.WARRANTY & LIABILITY

1   PSA Products Pty Ltd (ABN: 99 076 468 703) of 17 Millicent Street, Burwood 3125 Victoria, Australia warrants this product for a period of one year from the date of purchase, as reflected on the Authorised Resellers or Distributors invoice / receipt provided to you. PSA Products Pty Ltd will repair or replace the product (at the option of PSA Products) due to any manufacturing defect, at the cost of PSA Products Pty Ltd (excluding any labour costs relating to removal or re-installation of product, and transport costs).

2   This warranty shall not apply to the product if it has been damaged, modified, abused or altered after the date of purchase, or if it fails to operate due to improper maintenance.

3   To the extent permitted by law, the liability of PSA Products Pty Ltd arising from the sale or under the terms of this limited warranty shall not in any case exceed the cost of replacement and subject to this clause. In no case shall PSA Products Pty Ltd be liable for consequential loss or damages resulting from the failure of the product or breach of this, or: Any other warranty, express or implied, loss or damage caused by failure to abide by the instructions supplied in the leaflets.

4   To the extent permitted by law, PSA Products Pty Ltd., makes no warranty, expressed or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the consumer replaceable battery if any. A product with non-serviceable built-in battery is covered under warranty of the product as per point 1.

5   This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. What constitutes a major failure is set out in the Australian Consumer Law.

6   To make a claim under warranty, take the product (with a proof of purchase) to the store where you purchased the product or contact PSA Products Pty Ltd. Phone (03) 9888 9889. or Email: enquiry@ psaproducts.com.au with details, proof of purchase or expense claim in writing.

psaproducts.com.au
1300 772 776
enquiry@psaproducts.com.au

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