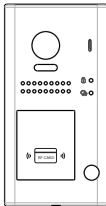


2 WIRE SYSTEM

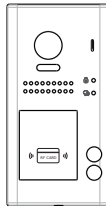
CDV97 Series

Fisheye door station with proximity access control

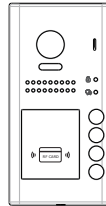
USER MANUAL



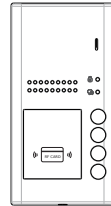
CDV97-1ID



CDV97-2ID



CDV97-4ID



CDV17-97A

Please read carefully to ensure safe and correct operation

Keep this manual safe for future use

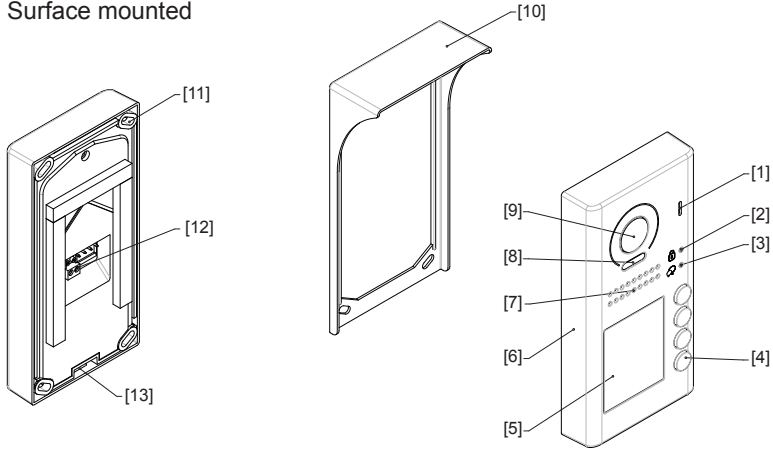
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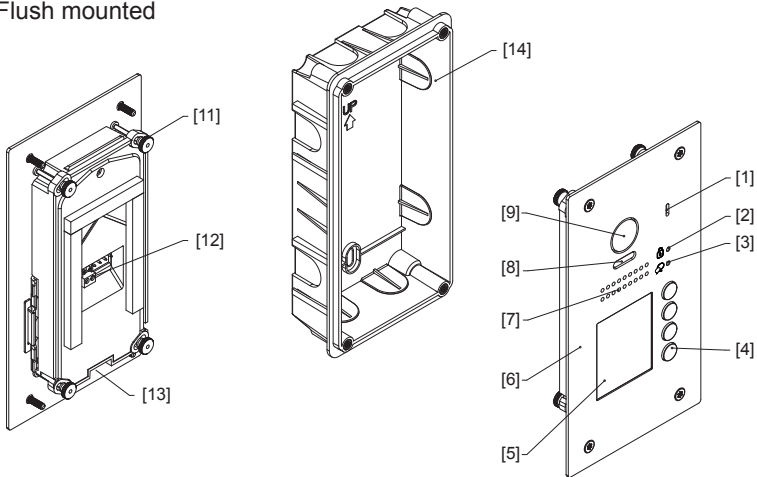
PARTS AND FUNCTIONS

Part Names

Surface mounted



Flush mounted



[1] Microphone

[2] UNLOCK indicator

[3] CALL indicator

[4] Call button

[5] Nameplate

[6] Front panel

[7] Speaker

[8] Night view LED

[9] Camera lens

[10] Rain Shield

[11] Mounting hook

[12] Connection port

[13] Screw hole

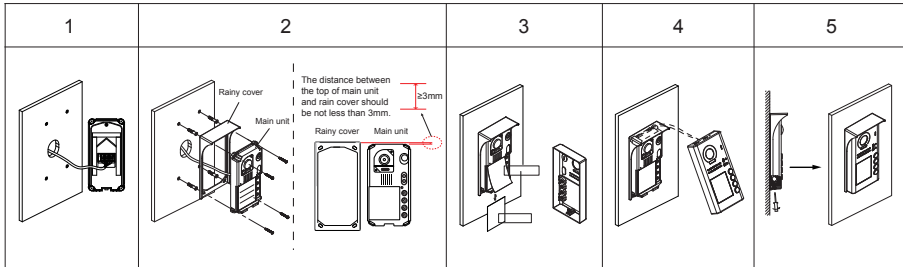
[14] Mounting box

PARTS AND FUNCTIONS

Mounting

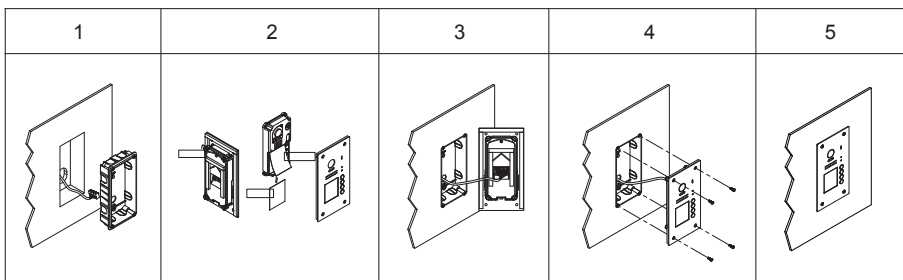
The installation height is suggested at 145~160cm.

Surface mounted



1. Connect the cable correctly.
2. Drill holes in the wall to match the size of screw wall plugs, then attach the rain shield and main unit to the wall, the distance between the top of main unit and rain cover should be not less than 3mm.
3. Install the name plate.
4. Attach the front panel to the main unit.
5. Use the special screwdriver and the screws to fix the panel.

Flush mounted

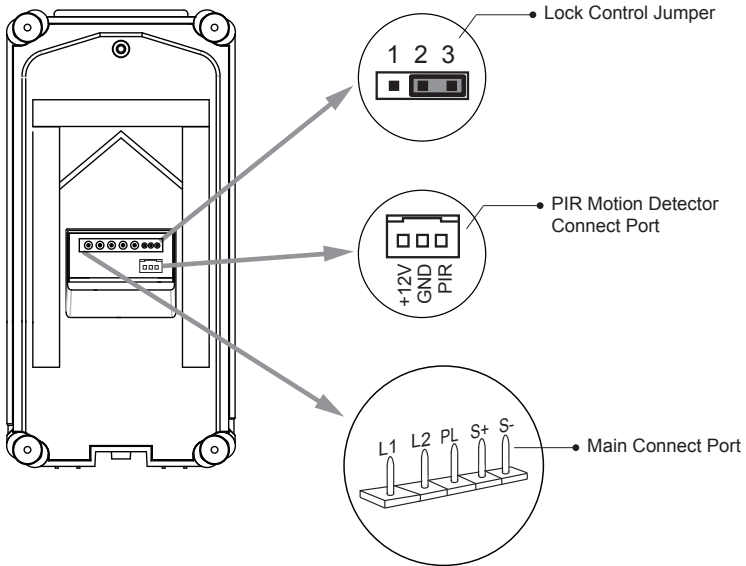


1. Drill a hole in the wall to match the size of mounting box, then attach the mounting box to the wall.
2. Loosen the high screws to install the name plate.
3. Connect the cable correctly.
4. Attach the front panel to the mounting box, then use the special screwdriver and the screws to fix the panel.
5. Finish the installation.

* The camera angle view of surface mount model may be less than 170°.

PARTS AND FUNCTIONS

Terminal description



Lock Control Jumper: To select the lock type.

Motion Detector Connect Port: To connect external PIR motion detector.

Main Connect Port: To connect the bus line and the electronic locks.

- **L1,L2:** Connect to the bus line, no polarity.
- **PL:** External lock power input, connect to the power positive(power +).
- **S+:** Lock power(+) output.
- **S-:** Lock power(-) output, connect to the power(-) input of locks(only when using the door station to power the locks, if using the external power supply for the locks, the S- will not be connected).

BASIC FUNCTIONS

Unlock Operations

Unlocking by ID Card/Tag

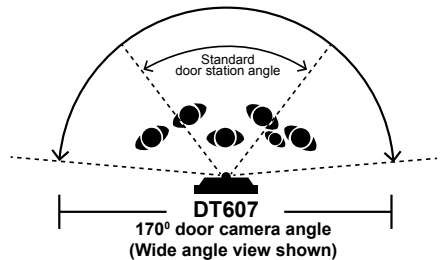
When the registered user card is shown to the ID card window, the UNLOCK indicator lights up, the buzzer sounds, and the electric door strike is unlocked.

- Present an authorised user card, the buzzer will beep once, the UNLOCK indicator will light up and the connected lock will release.
- Present an unauthorized user card, the buzzer will beep three times

Fisheye Camera

Please note that this function requires a monitor with fisheye function support.

The angle view is 170°, visitors within this angle of view can be seen clearly zoom can also be used to view individuals in close up via the indoor monitor with fisheye function.

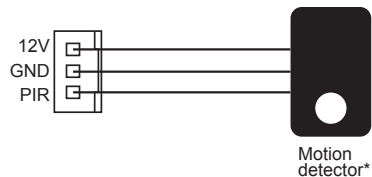


External Motion Detection

The door station is equipped with terminals to enable connection of an external motion detector*.

If the external motion detector is connected to the system the following functions will be effective:

'When detecting someone passing by, the door station can be set to unlock or turn on a light.



* Please contact your supplier for more details regarding detector connection.

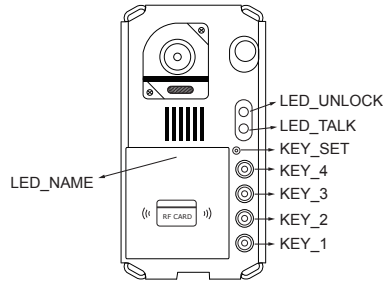
SETUP INSTRUCTIONS

Functions Setting Up

This section explains the settings of each function. Please refer to the following table:

To perform the settings for the function required, remove the metal front panel to gain access to the 'Key Set' button. Please refer to the diagram (right).

Each operation is indicated by the lighting of the **LED** indicator on the unit and by the sounding of the buzzer.

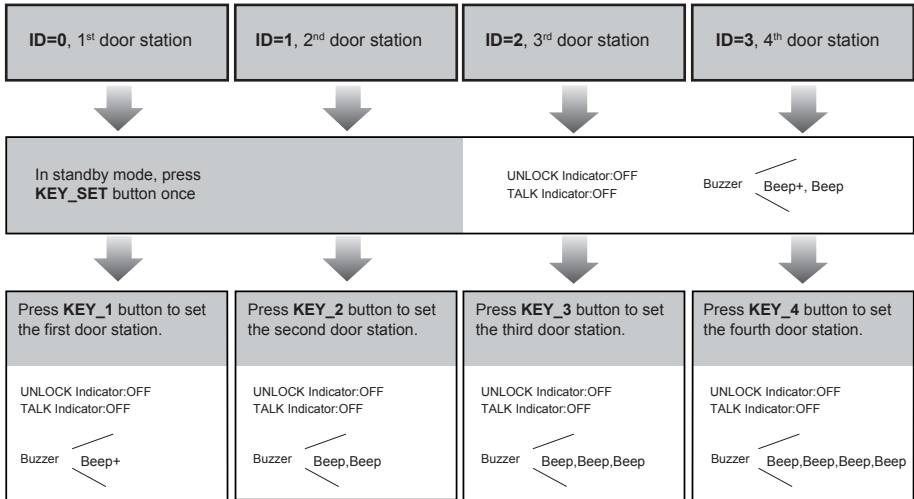


Order	Setting items	Setting range	Default value
1	Setting door station address	0~3	0
2	Setting door station calling mode	Standard/Group calling mode	Standard calling mode
3	Setting camera resolution	High/Low	High
4	Setting the unlock mode	0:opened/1:closed	0:opened
5	Setting the unlock time	01 to 99 seconds	1 seconds
6	Setting the nameplate illumination mode	On/Off/Auto	On
7	Setting night view LED illumination mode	On/Off/Auto	Auto
8	Setting ring-back tone	Ringing one time Ring continuously No ring-back tone	Ringing one time
9	Setting image display mode	Alternate switching mode Zoom mode Full screen mode	Alternate switching mode

SETUP INSTRUCTIONS

Setting Door Station Address

A total of 4 addresses can be configured. They can be modified either before or after installation. 0 is default, to change the setting, please use the following steps:



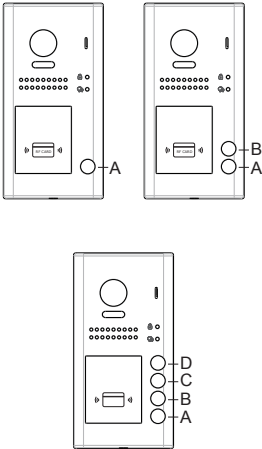
- While in the setting mode, the address of door station can be changed by pressing KEY1~4 freely.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

Setting Door Station Calling Mode

There are two calling modes for door station, **Standard calling** mode and **Group calling** mode. **Please note that the door station operates in Standard calling mode by default.**

SETUP INSTRUCTIONS

Each call button will respond different addresses when set in different calling mode. Refer to the following for more information.



1. Standard calling mode(Address range 01-04 by default)

Call button A: calls monitor address **01** by default.

Call button B: calls monitor address **02** by default.

Call button C: calls monitor address **03** by default.

Call button D: calls monitor address **04** by default.

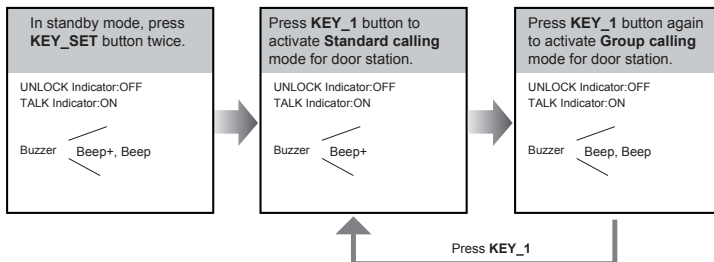
2. Group calling mode

Call button A: Calls all the monitors in the group address 00~15. **(One monitor must be set to 00)**

Call buttons B,C,D: Calls all the monitors in the group address 16~31. **(One monitor must be set to 16)**

* For more details regarding code settings for the monitor, please refer to corresponding user manual .

To change the call setting, please follow the steps:



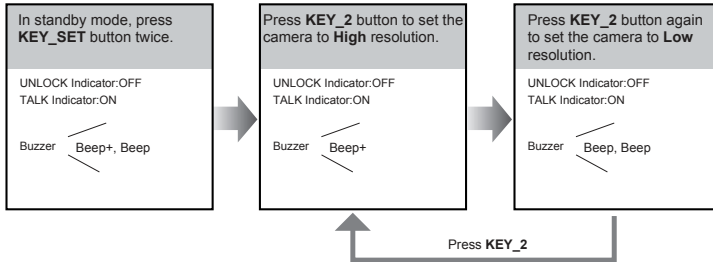
- While in the setting mode, the calling code can be changed mode by pressing KEY1 cyclically.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

SETUP INSTRUCTIONS

Setting Camera Resolution

The resolution of the camera can be changed between high and low quality at the door station.

High resolution is default, to change the setting, please follow the steps:

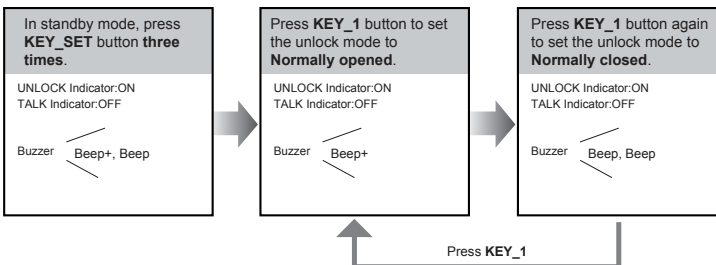


- While in the setting mode, the calling code can be changed mode by pressing KEY2 cyclically.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

Setting Unlock Mode

There are 2 unlock modes, **Normally open** and **Normally closed**.

Normally open is default, to change the setting, please follow the steps:



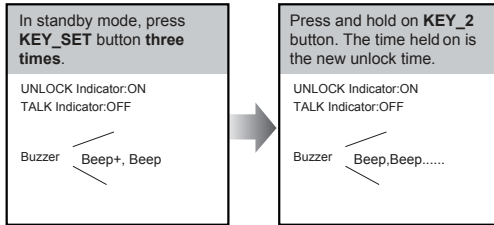
- While in the setting mode, the lock mode can be changed mode by pressing KEY1 cyclically.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

SETUP INSTRUCTIONS

Setting Unlock Time

By default, the unlock time is 1s, this can be changed between 1s~99s.

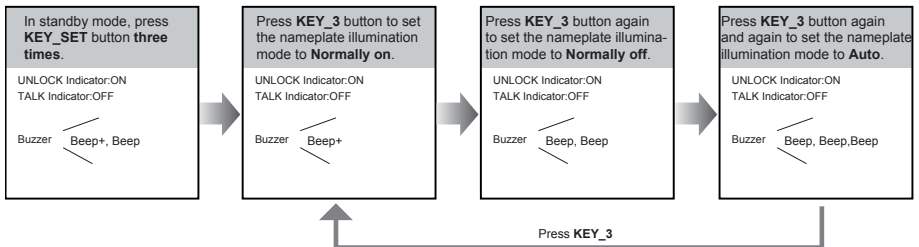
Follow the steps below:



- While holding Key 2 to enter the unlock time, a beep will be heard for each second.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

Setting Nameplate Illumination Mode

There are 3 illumination modes for the nameplate indicator, **Normally on**, **Normally off** and **Auto**. Normally on is default, to change this setting please use the following steps:

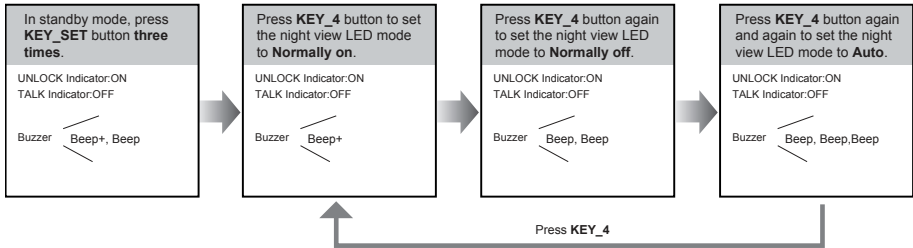


- While in the setting mode, the calling code can be changed mode by pressing KEY 3 cyclically.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

SETUP INSTRUCTIONS

Setting Night View LED Illumination Mode

There are 3 working modes for night view LED indicator, **Normally on**, **Normally off** and **Auto**. Auto is default, to change the setting, please use the following steps:



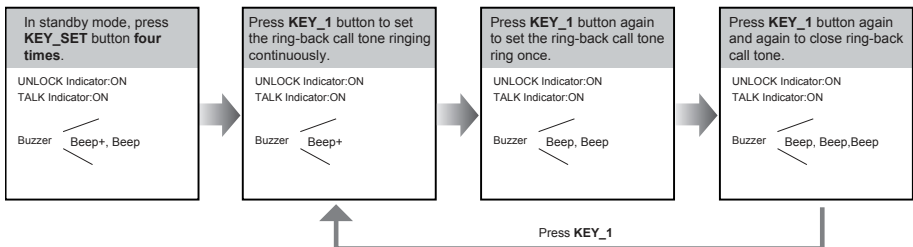
- While in the setting mode, the calling code can be changed mode by pressing KEY 4 cyclically.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

Setting Ring-back Tone - (Call repeat Tone)

With ring-back tone set, pressing the call button to call a monitor will a result in a tone being heard at door station.

There are 3 ring-back call tone settings, **Ring Continuously**, **Ring Once** and **No ring-back tone**.

Ring continuously is the default setting, to change the setting, please use the following steps:



- While in the setting mode, the calling code can be changed mode by pressing KEY1 cyclically.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

SETUP INSTRUCTIONS

Setting Image Display Mode

Please note this setting is only for monitors that do not support manual pan, tilt and zoom functions, i.e. CDV47M, CDV43 & CDV24.

When calling a monitor:

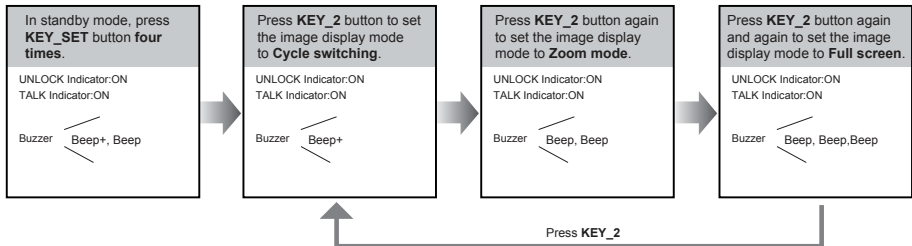
When a call is placed from door station to a monitor, the image is displayed on screen. There are 3 modes for the image that can be displayed; **Alternate switching mode**, **Zoom mode** and **Full screen mode**.

Alternate switching mode: when the monitor is called, the image will switch between **Full screen** and **Zoom** image at a time interval of 5 seconds.

Zoom mode: when the monitor is called, the image will be displayed on full screen for 5 seconds, then switch to **Zoom** image.

Full screen mode: when the monitor is called, the image will be displayed in **Full screen**.

Alternate switching mode is the default. To change the setting, please use the following steps:



- While in the setting mode, the calling code can be changed mode by pressing KEY 2 cyclically.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

When answering the call:

When answering the call, the image switching reminder can be activated or deactivated.

If set to activated, the image switching reminder will be different for each image display mode, see below.

Alternate switching mode: When answering the call, image switching reminder is not shown.

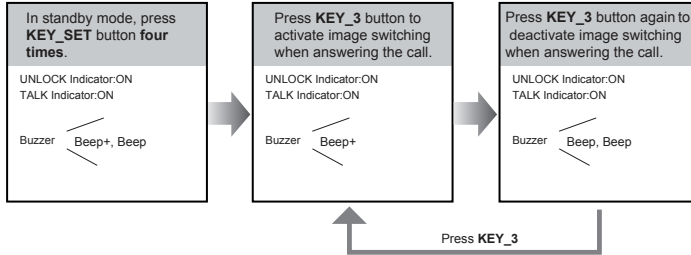
Zoom mode: When answering the call, the image will be displayed on **full screen** for 5 seconds, then switch to **Zoom** image as a reminder to enter the talk status.

SETUP INSTRUCTIONS

Full screen mode: When answering the call, the image will be displayed on **Zoom** mode for 5 seconds, then switch to **Full screen** as a reminder to enter the talk status.

If deactivated, no image switching reminder is displayed on any image display mode.

Activated is default, to change the setting, please use the following steps:



- While in the setting mode, the calling code can be changed mode by pressing **KEY 3** cyclically.
- The **LED_NAME** indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- To exit the setting mode manually press the **KEY_SET** button four times.

Registering ID Card

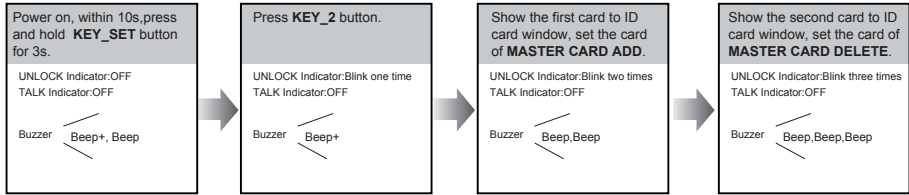
- A maximum of 320 user cards can be registered by the door station.
- Straight forward management with LED status and sound hints.
- There are two master cards, one **MASTER CARD ADD** and one **MASTER CARD DELETE**. When registering new master cards the existing master cards are invalidated automatically.
- Card reading distance is less than 3cm.
- The master cards are necessary when you add or delete user cards. Please keep safe for future use.
- EM card, 125kHz.
- Cards = Tags



Authorizing master cards:

By default there are two master cards marked **MASTER CARD ADD** and **MASTER CARD DELETE**, new master cards can be authorised by users at any time. This means any two user cards can be authorised as master cards. When registered new master cards, the existing master cards will be invalidated automatically.

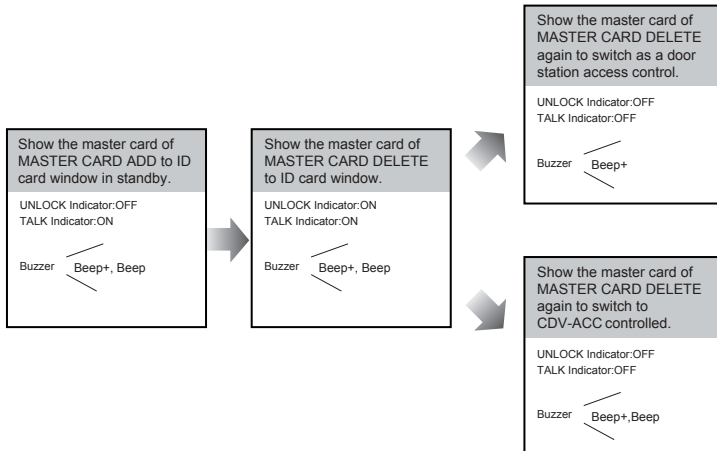
SETUP INSTRUCTIONS



- The LED_NAME indicator will continually flash while in the setting mode.
- If no operation is carried out within 10 s the setting mode will exit automatically.
- The door station will exit the setting mode after showing both cards, The UNLOCK & TALK will turn off.

Switching Access Control:

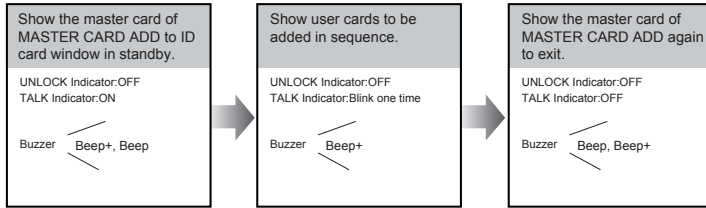
Access can be controlled by the door station or CDV-ACC, to change the access function. please use the following steps.



- If no operation is carried out within 10 seconds, the setting mode will exit automatically.
- If current access is controlled by door station, the next access setting will controlled by CDV-ACC.

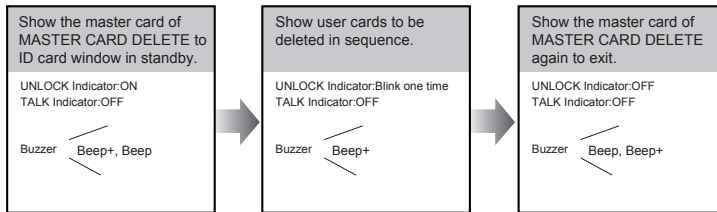
SETUP INSTRUCTIONS

Adding User Cards:



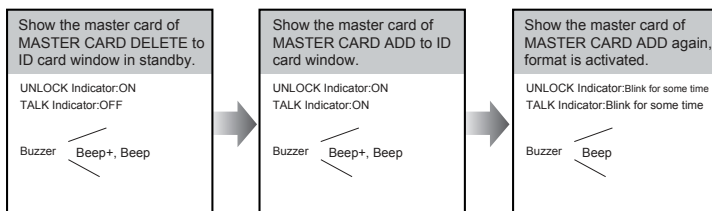
- If no operation is carried out within 10 seconds, the setting mode will exit automatically.
- To add user cards the door station must be set for access. See page 15.

Deleting User Cards:



- If no operation is carried out within 10 seconds, the setting mode will exit automatically.
- To add user cards the door station must be set for access. See page 15.

Initializing Access (delete all user cards):



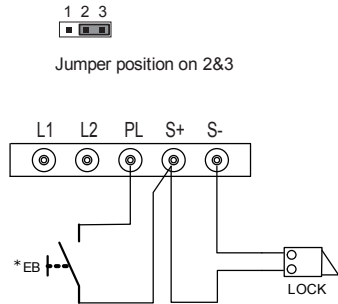
- If no operation is carried out within 10 seconds, the setting mode will exit automatically.
- To add user cards the door station must be set for access. See page 15.
- At step 3, the UNLOCK & TALK indicator will flash constantly until formatting is finished.
- When formatting is finished, UNLOCK & TALK indicator will turn off, a "Beep+" will be heard, and door station will exit the setting mode automatically.

WIRING

Connecting Electric Lock

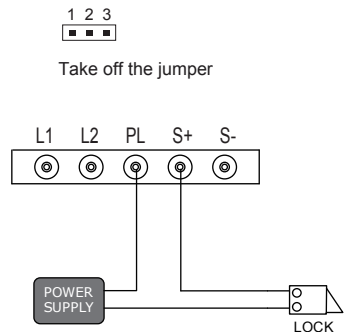
Door Lock Controlled with Internal Power

1. Electronic lock of Power-on-to-unlock (fail Secure) type should be used.
2. The door lock is limited to 12V, and holding current must be less than 250mA.
3. The jumper should be placed on position 2 and 3 before connecting.
4. The door lock control is not timed from Exit Button(EB).
5. The **Unlock Mode** is set to 0 (by default).



Door Lock Controlled with Dry Contact

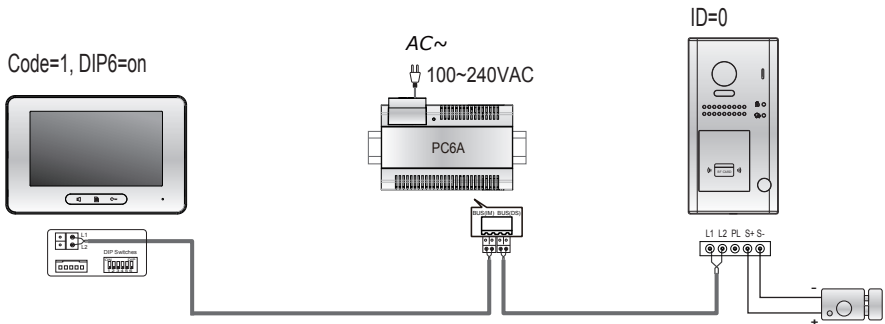
1. The external power supply must be used according to the lock requirements.
2. The internal relay contact is restricted to 230Vac 1A or 24Vdc 1A.
3. The jumper must be taken off before connecting.
4. Set the **Unlock Mode** according to different lock types.
 - Power-on-to-unlock type: Unlock Mode=0 (by default)
 - Power-off-to-unlock type: Unlock Mode=1



* CDV-RLC relay actuator is required for 2nd lock connection.

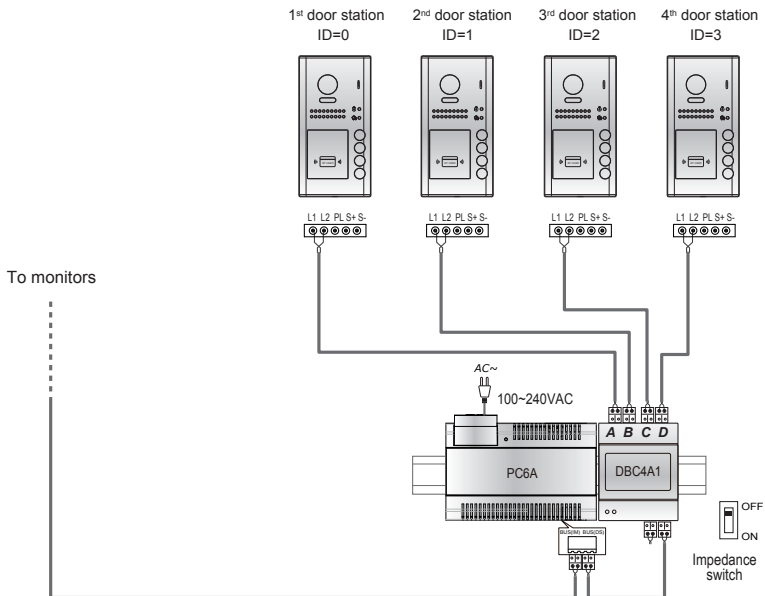
WIRING

Connecting Basic One-to-one



- The door station work in **Standard** mode in this example. Refer to Page 9 in detail.
- The door station is also compatible with other monitors which are provided by our company.

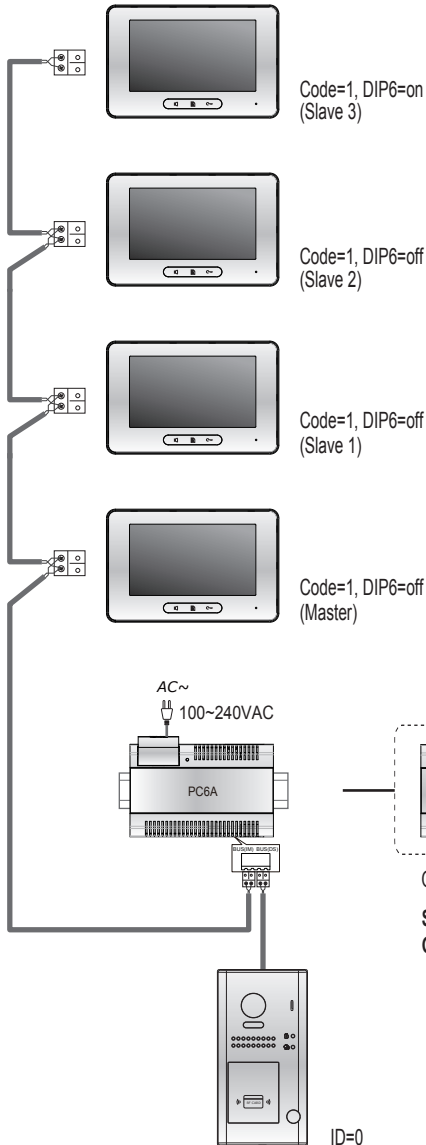
Connecting Multi Door Stations



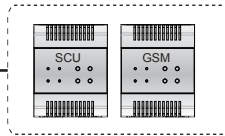
- Max.4 door stations can be connected to the system.
- Ensure the correct address is set for each door station, Refer to Page 8 for more details about the address setting of door stations.

Connecting Multi Monitors

Basic IN-OUT Wiring in Standard Mode



- The door station is also compatible with other monitors within the 2Easy range.
- Please set door station into group calling mode if there is more than 4 monitors in villa (house or apartment). Refer to Page 9.
- A distributor is unnecessary in full audio system, and Daisy Chain connection is recommended.
- For the last monitor connected to the system, DIP6 should set to **ON** (EOL = End of Line)



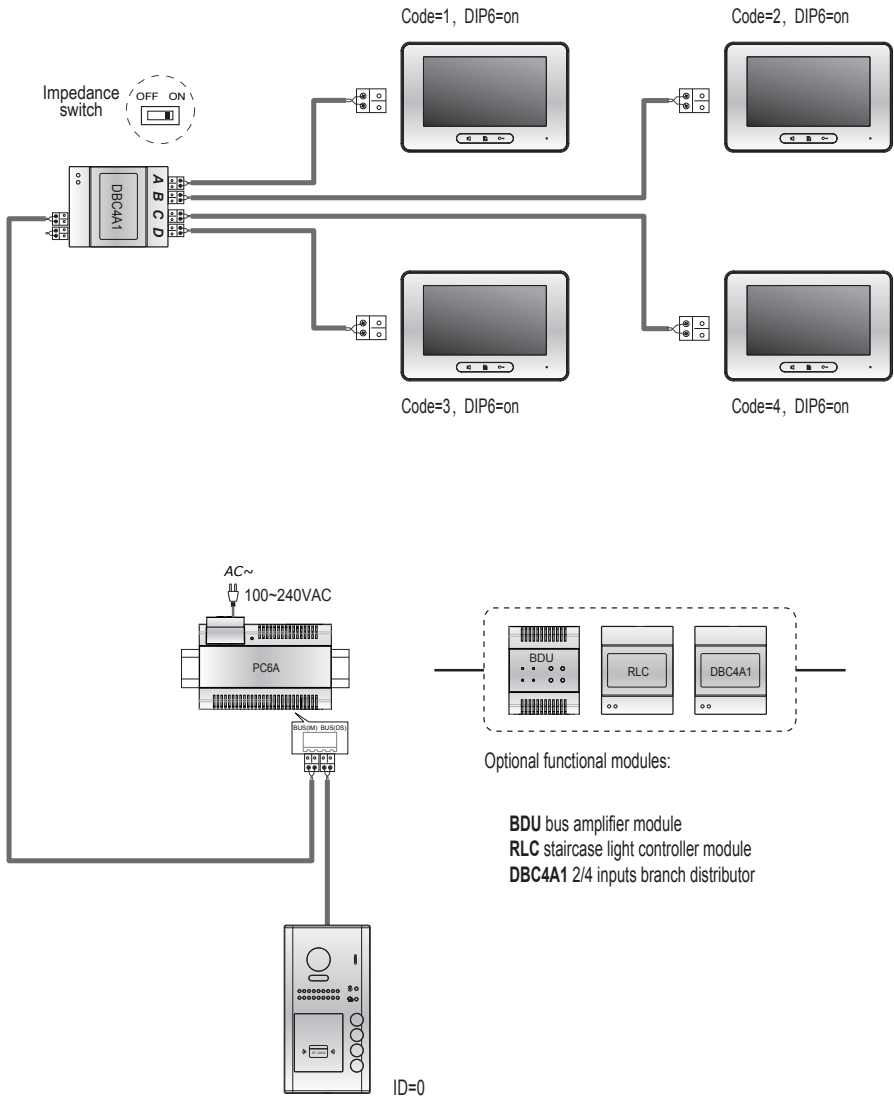
Optional functional modules:

SCU camera module(max.4)

GSM module(mobile phone transfer)

WIRING

Star Topology Wiring With DBC4A1 in Standard Mode



- The door station is also compatible with other monitors from the 2Easy range.
- The system can be extended up to 3 slave monitors for each monitor. It is recommended to use extra distributor CDV-DBC4A for the extension.

APPENDIX

Precautions

- Please clean the unit with soft cotton cloth, do not use chemical clean agents. If necessary, use a little pure water or dilute soap & water to clean off the dust and dirt.
- The unit is weather resistant. However do not spray high pressure water on access control keypad directly, excessive moisture will damage the unit.
- You must use the right adaptor supplied by the manufacture or approved by the manufacture..
- Pay attention to the high voltage inside the products, please refer service only to trained and qualified professionals.

Specification

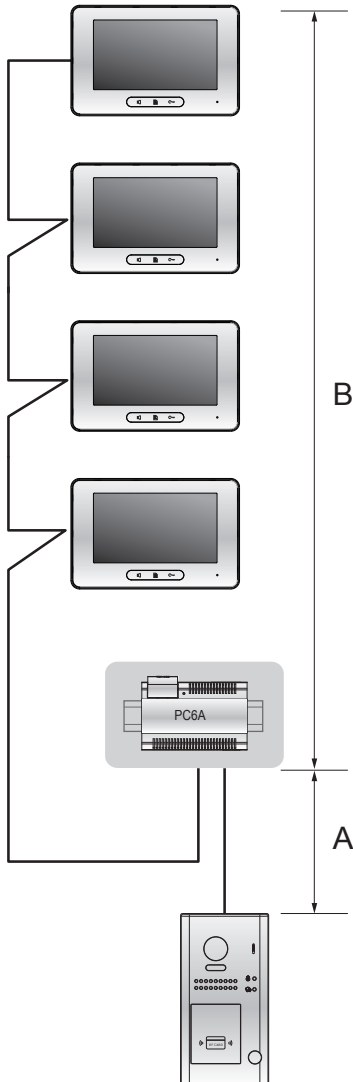
Power supply:	DC 24V
Power consumption:	Standby 0.8W; Operating 3W
Camera lens:	Color CMOS, 2.0 Mega pixel 1/2.7" fisheye camera, 170° wide angle
Lock Power supply:	12Vdc, 280mA(Internal Power);
Number of relay circuits:	2(the second lock need external device to support)
Mounting:	Surface wall-mount / flush mount
Working temperature:	-20°C ~ +55°C
Protection:	IP54
Material:	Zinc alloy panel(surface mounted) Stainless steel panel(flush mounted)
Wiring:	2 wires, non-polarity
Dimension:	176(H)×90(W)×27(D)mm(surface mounted) 220(H)×119(W)×52(D)mm(flush mounted)

APPENDIX

Cables and Requirments

The maximum distance of the wiring is limited within the 2Easy system. Using different cables may also affect the maximum distance which the system can reach.

Basic IN-OUT Wiring Mode

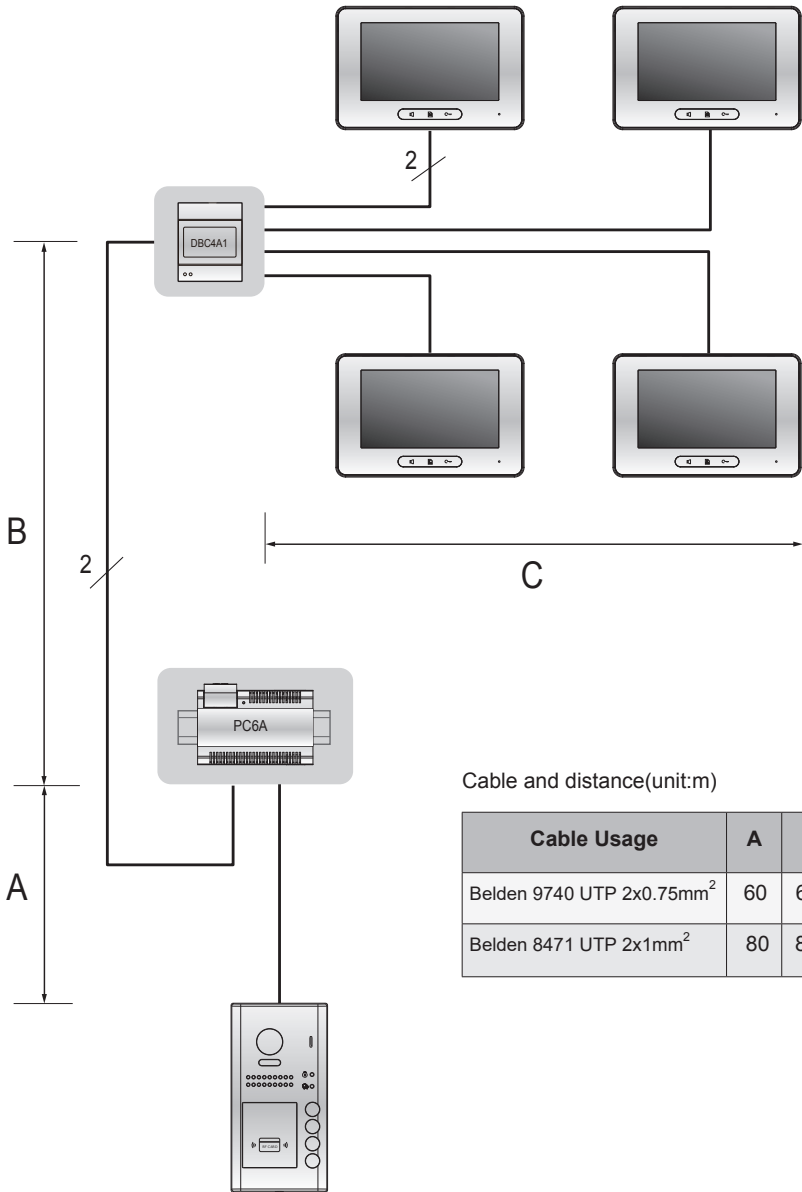


Cable and distance(unit:m)

Cable Usage	A	B	B
		≤2 IM	≤16 IM
Belden 9470 UTP 2x0.75mm ²	60	100	40
Belden 8471 UTP 2x1mm ²	80	120	60

APPENDIX

Star Topology Wiring Mode With DBC4A1



Cable and distance(unit:m)

Cable Usage	A	B	C
Belden 9740 UTP 2x0.75mm ²	60	60	30
Belden 8471 UTP 2x1mm ²	80	80	40

