

CDVI CD97-4ID USER MANUAL



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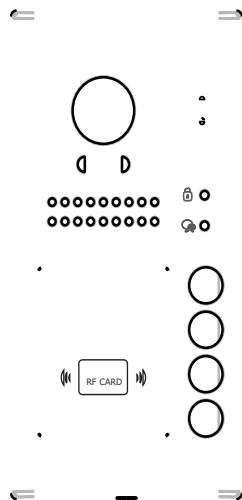
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2 WIRE SYSTEM

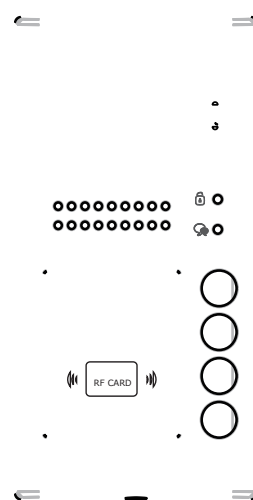
CDV97 Series

Fisheye Camera Door Station With Proximity Access Control

USER MANUAL



CD97-4ID



CDV17-97A

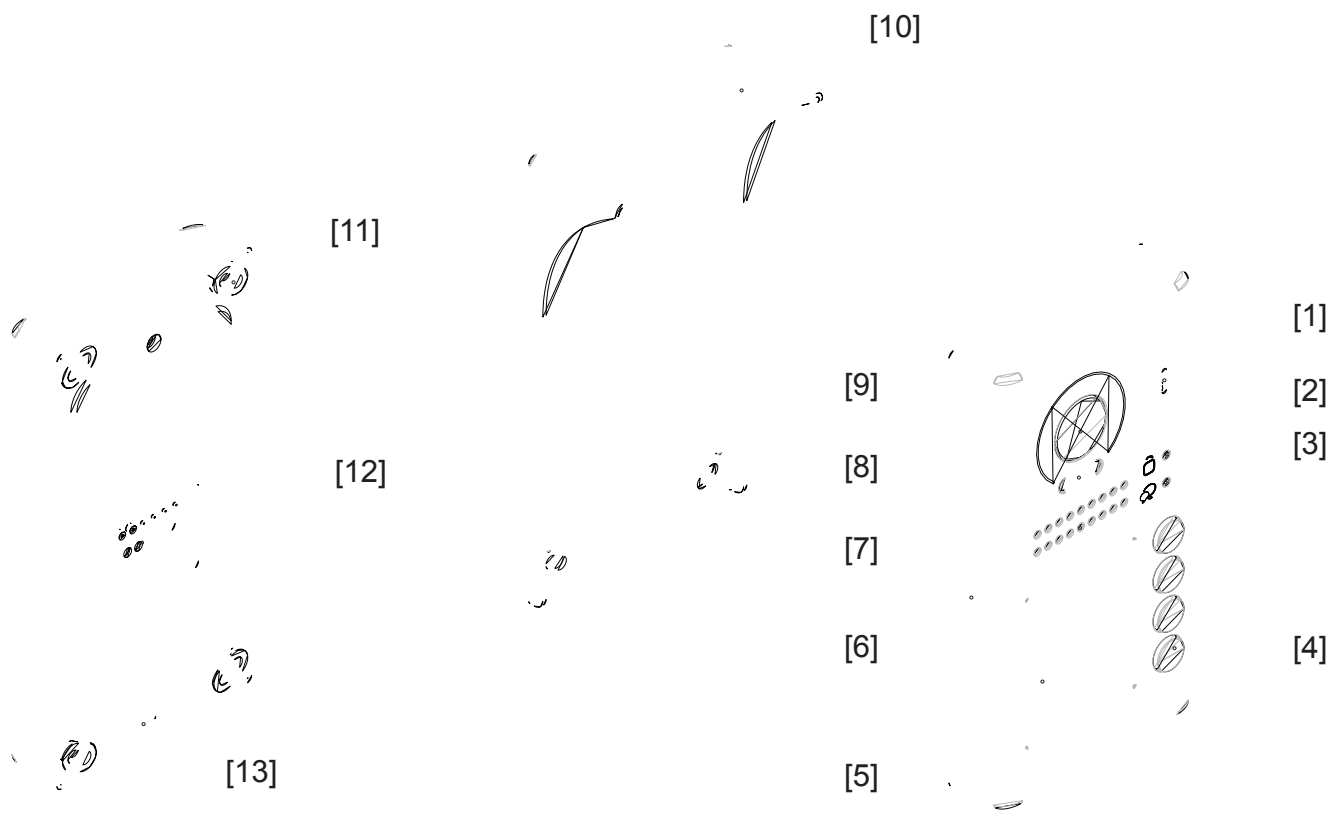
- Please read this manual carefully to ensure safe and correct operation.
- Keep this manual well for future reference.

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PARTS AND FUNCTIONS

Part Names



- [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

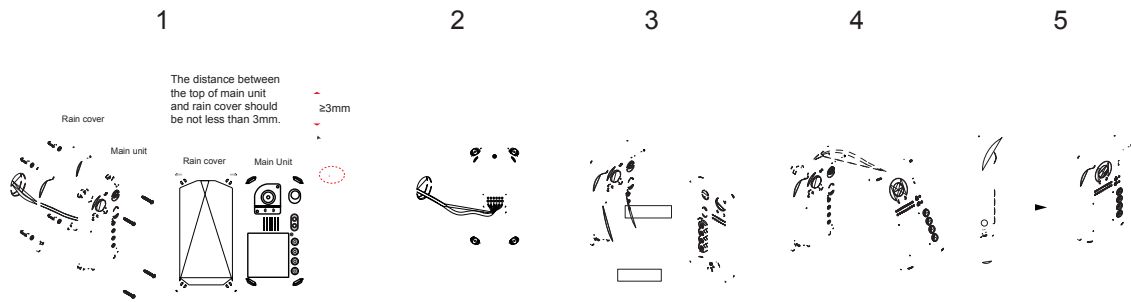
- [10] Rain cover
- [11] Mounting hook
- [12] Connection port
- [13] Screw hole
- [14] Mounting box

PARTS AND FUNCTIONS

Mounting

The installation height is suggested to 145~160cm.

Surface mounted

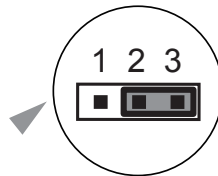


1. Drill holes in the wall to match the size of wall plugs, then attach the rain cover and main unit to the wall, the distance between the top of main unit and rain cover should be not less than 3mm.
2. Connect the cable correctly to the Bus terminals.
3. Install the name plate.
4. Attach the front panel to the main unit.
5. Use the Torx key (provided) to fit the front panel.

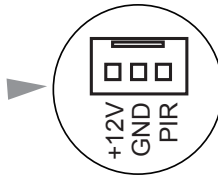
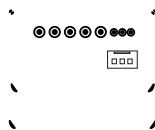
* The camera angle view of surface mount model may be less than 170° .

PARTS AND FUNCTIONS

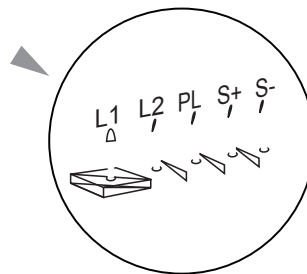
Terminal description



- Lock Control Jumper



- PIR Motion Detector Connect Port



- Main Connect Port

Lock Control Jumper: To select the lock type.

Motion Detector Connection 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 PSU positive (lock control jumper removed).
- **S+:** Lock positive(+) output.
- **S-:** Lock negative(-) output, connect to the negative (-) connection of the lock (only when using the door station to power the lock. When using an external PSU S- will not be connected).

BASIC FUNCTIONS

Unlock Operation

Unlocking by Card/Tag

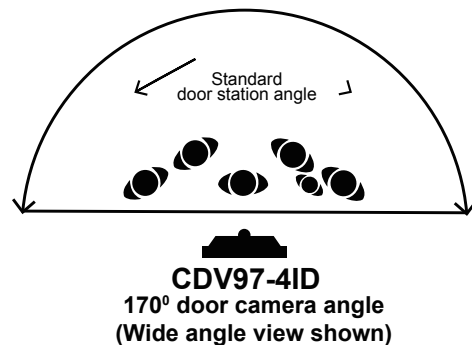
When a registered user card/tag is presented to the ID card window, the UNLOCK indicator lights up, a single beep will be heard and the lock relay will activate.

- If an unauthorised user card/tag is presented, three beeps will be heard and the lock relay will NOT activate.

Fisheye Camera

Please note that this function requires a monitor with fish-eye function to support.

The angle of view is 170°, visitors within this angle can be seen clearly the image can then be zoomed to see individuals up close



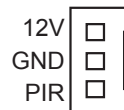
External Motion Detection

The door station is equipped with a terminal to connect external motion detector.

If an external motion detector is connected to the door station the following functions will be active:

If someone is detected at the door or passing by, the door station can be set to activate the unlock function or turn on a light.

* Please contact with supplier for more details about detector connection.



Motion detector

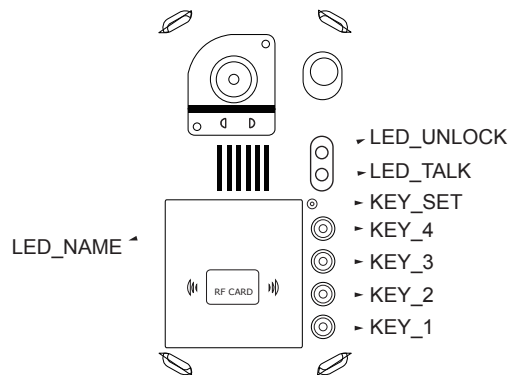
SETUP INSTRUCTIONS

Function Programming

This section explains the settings of each function, please refer to the table below:

To carry out programming of the function required, the metal front panel must be removed. Please refer to Fig 1.

Each operation is indicated by the **LED** indicator and the buzzer on the unit,

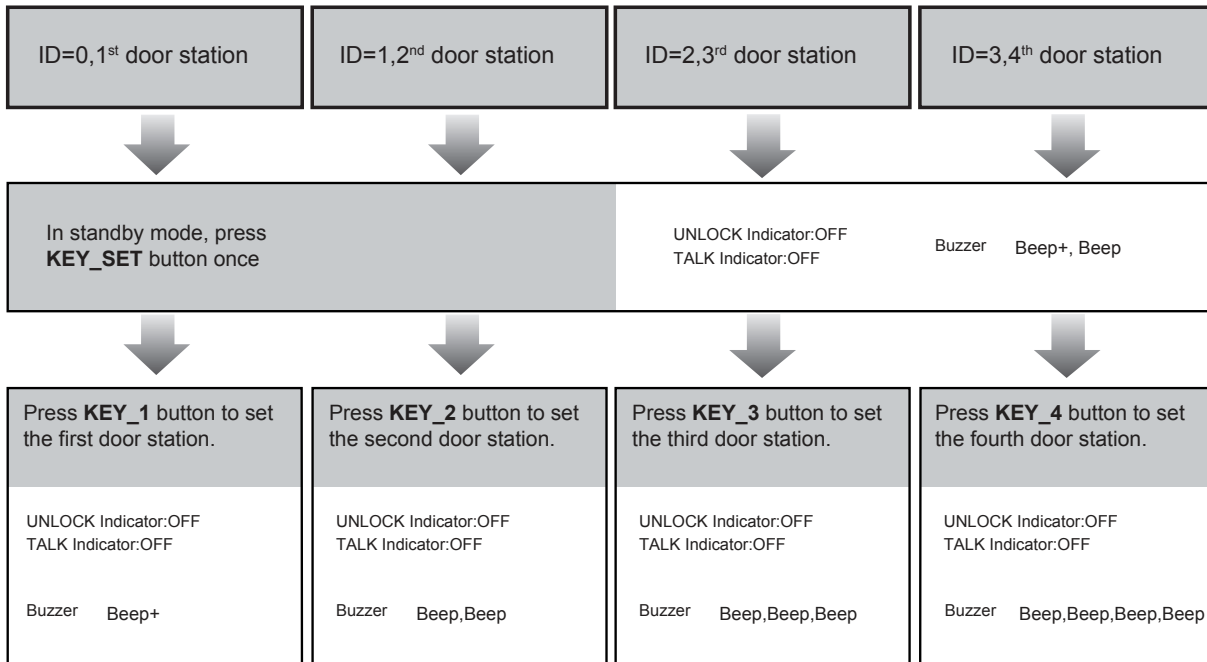


Order	Setting items	Setting range	Default value
1	Setting door station address	0~3	0
2	Setting door station calling mode	Standard/Group calling mode	Standard calling mode
3	Setting camera resolution	High/Low	High
4	Setting the unlock mode	0 = Opened/1 = Closed	0 = Opened
5	Setting the unlock time	01 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
		Ring Once Ring Continuous No ring-back tone	
9	Setting image display mode	Alternate switching mode Zoom mode Full screen mode	Alternate switching mode

PROGRAMMING INSTRUCTIONS

Setting Door Station Address

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



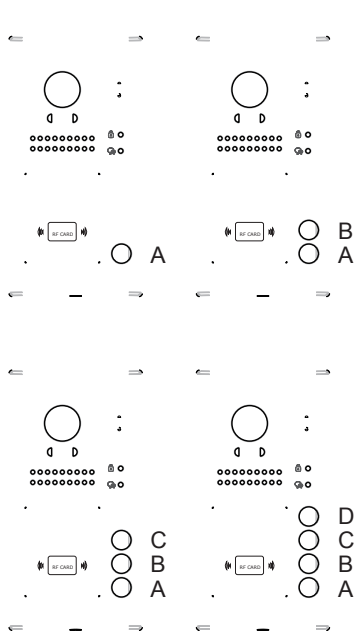
- If still in programming mode, addresses can still be changed by pressing KEY1~4 freely.
- The **LED_NAME** indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press **KEY_SET** button four times to exit manually.

Setting Door Station Calling Mode

There are two call modes for the door station, **Standard calling** mode and **Group calling** mode. **Please note that the door station is set to Standard calling mode by default.**

SETUP INSTRUCTIONS

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



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

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

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

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

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

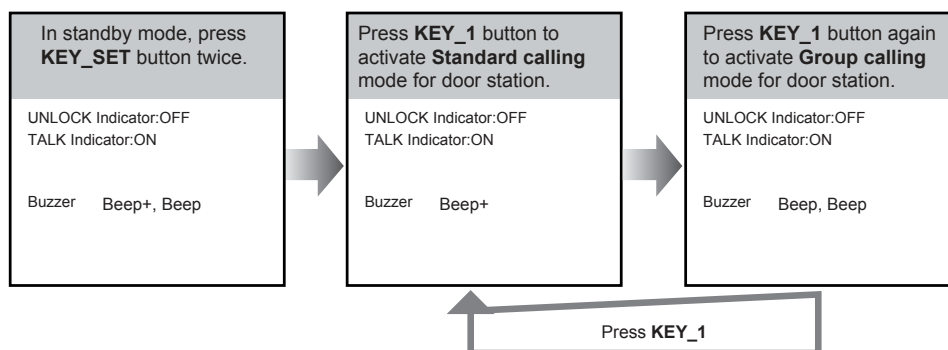
2. Group calling mode

Call button A: Calls all monitors in group address from 00~15. (at least one monitor must be set to **00**)

Call button B,C,D: Calls all monitors in group address from 16~31. (at least one monitor must be set to **16**)

* For more details about monitor code(address) settings, please refer to corresponding user manual .

To change this setting, please follow the steps below:



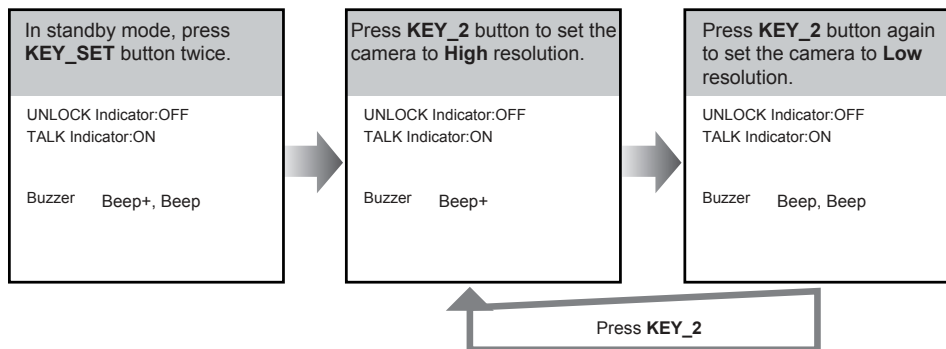
- If still in programming mode, the calling mode can be changed by pressing KEY1 cyclically.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

SETUP INSTRUCTIONS

Setting Camera Resolution

The resolution of the camera can be changed at any time between high or low resolution.

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

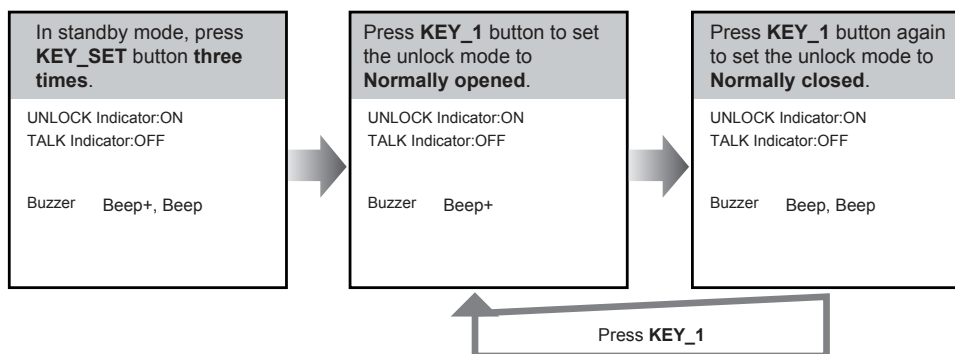


- If still in programming mode, the calling mode can be changed by pressing KEY2 cyclically.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

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 below:



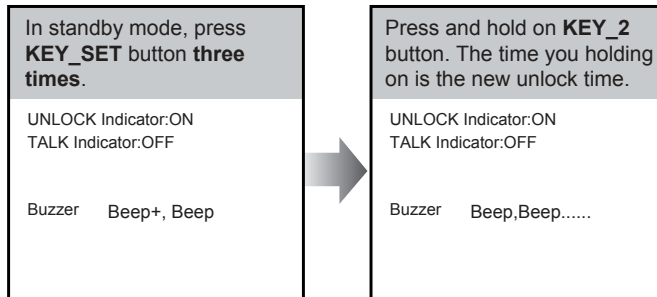
- If still in programming mode, the calling mode can be changed by pressing KEY1 cyclically.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

SETUP INSTRUCTIONS

Setting Unlock Time

By default, the unlock time is 1 second, the time setting range is 1~99 seconds.

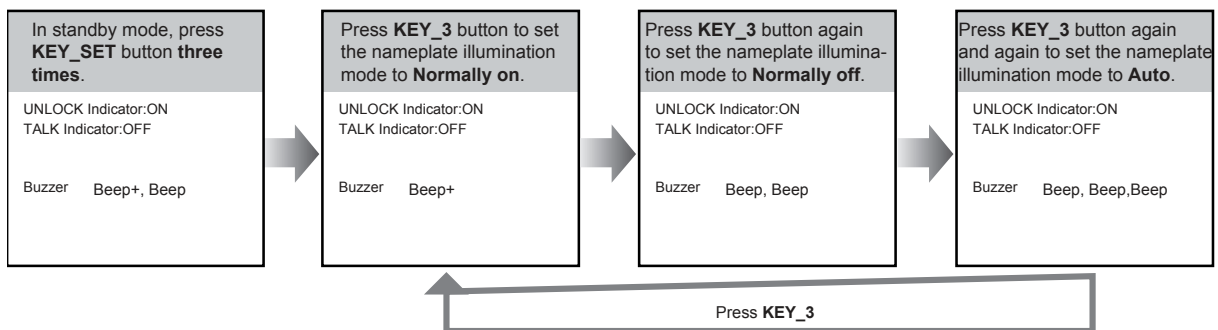
To change the unlock time follow the steps below:



- When entering the unlock time setting, the buzzer will beep once every second.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

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 the setting, please follow the steps below:

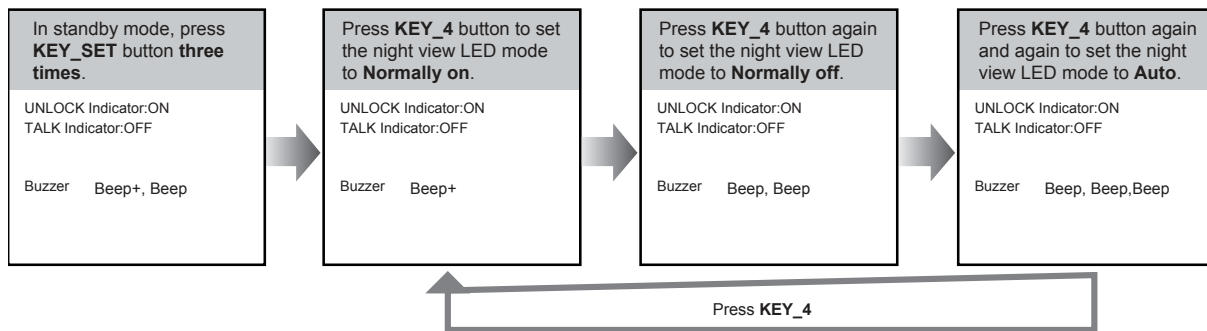


- If still in programming mode, the calling mode can be changed by pressing KEY3 cyclically.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

SETUP INSTRUCTIONS

Setting Night View LED Illumination Mode

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



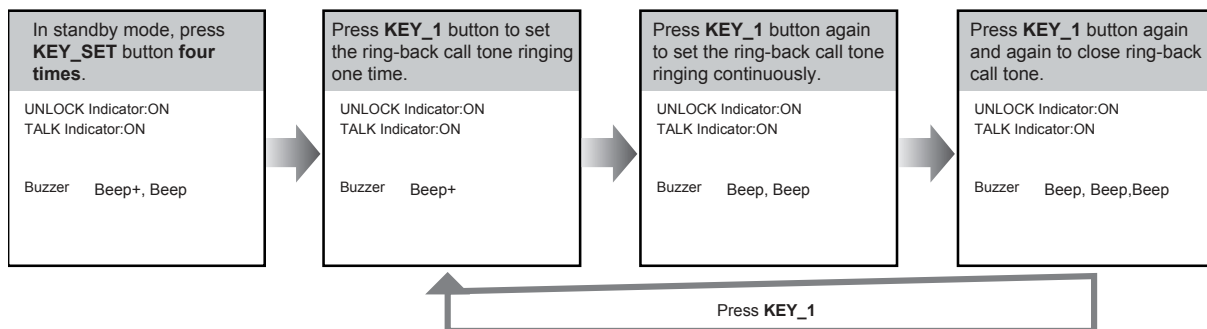
- If still in programming mode, the calling mode can be changed by pressing KEY4 cyclically.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

Setting Ring-back Tone

If the ring-back tone is set to either **Once** or **Continuously**, pressing the call button to call an internal monitor will result in a ring-back call tone being heard at door station.

There are 3 ring-back call tones, **Ring Once**, **Ring continuously** and **No ring-back tone**.

Ring once is the default setting, to change the setting, please follow the steps below:



- While in programming mode, ring-tone callback mode can be changed by pressing KEY1 cyclically.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

SETUP INSTRUCTIONS

Setting Image Display Mode

PLEASE NOTE: The following settings are only applicable for monitors that do not support manual screen operation for pan-tilt, i.e. CDV47M, CDV43 and CDV24

When the monitor is being called:

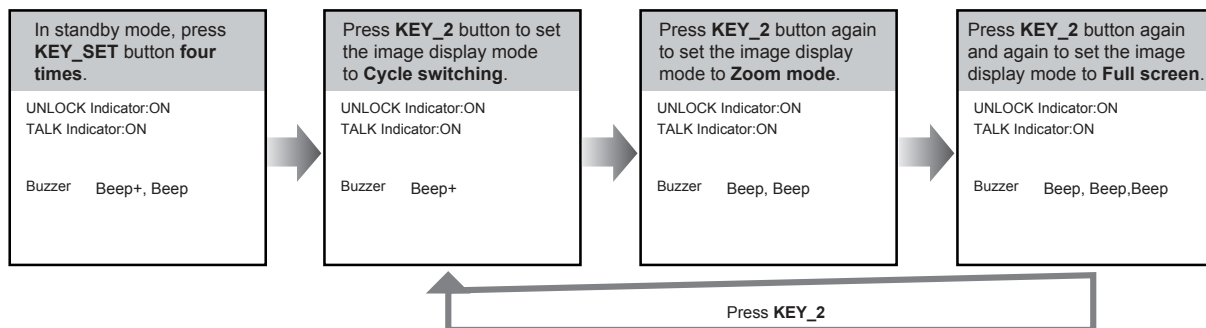
When the door station calls a monitor, the camera image will be displayed on screen, there are 3 modes for the displayed image, **Alternate switching mode**, **Zoom mode** and **Full screen mode**.

Alternate switching mode: when a monitor is called, the displayed image will switch between **Full screen** and **Zoom** every 5 seconds.

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

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

Alternate switching mode is the default setting, to change the setting, please follow the steps below:



- While in programming mode the image display setting can be changed by pressing KEY2 cyclically.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

When answering a call

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

If set to activated, the image switching reminder will be dependant on the image display mode set.

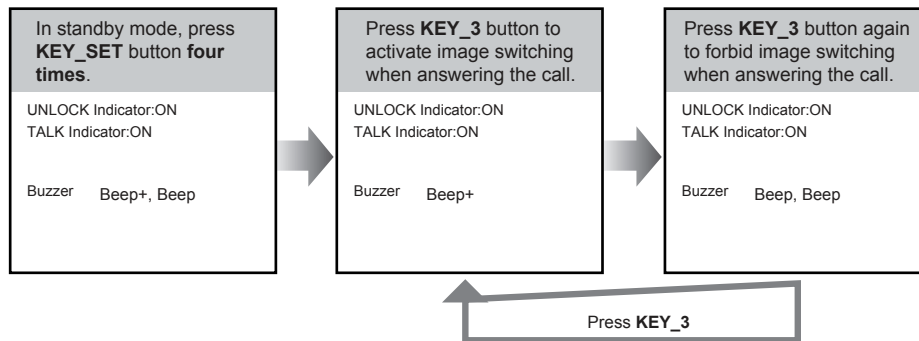
Alternate switching mode: When answering the call, the reminder does not operate.

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

SETUP INSTRUCTIONS

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

'Image Switching' Off Mode: the image switching reminder will not function in any image display mode. Activated is default, to change the setting, please follow the steps below:



- While in programming mode the image display setting can be changed by pressing KEY3 cyclically.
- The LED_NAME indicator will always flash while in programming mode.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To exit programming mode, press KEY_SET button four times to exit manually.

Registering ID Card/Tags

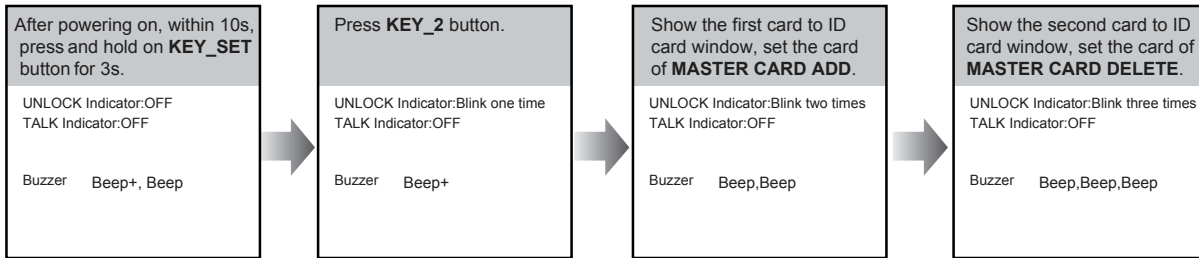
- Up to 320 user cards can be registered to the door station.
- Easy management with LED status and sound hints.
- There are two master tags, one **MASTER CARD ADD** tag and one **MASTER CARD DELETE** tag. When registering new master cards, the old master cards are overwritten automatically.
- Card reading distance is less than 3cm.
- The master cards are necessary adding or deleting user cards. Important: Please keep safe for future use.
- Proximity card frequency - 125kHz.



Authorising 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 old master cards will be overwritten automatically.

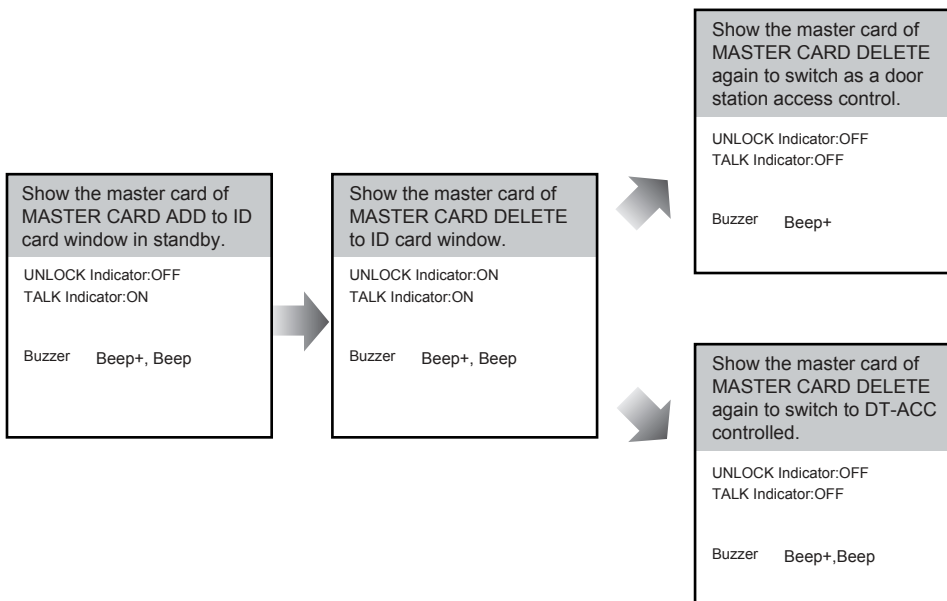
SETUP INSTRUCTIONS



- The **LED_NAME** indicator will constantly flash until the master card authorisation mode has been exited.
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- The CDV97 will exit the setting mode automatically after presentation of the Master/Delete cards/Tags, the UNLOCK&TALK indicator will turn off.

Access Control Outputs:

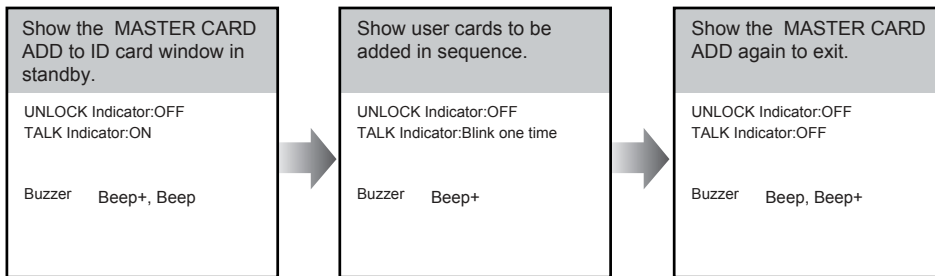
The access control output can be set to either the door station (local relay) or a CDV-ACC to allow user and access level control from an online access control system such as Atrium.



- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- If current access is controlled by door station, performing the above will 'toggle' to CDV-ACC, performing once again will 'toggle' back to the door station.

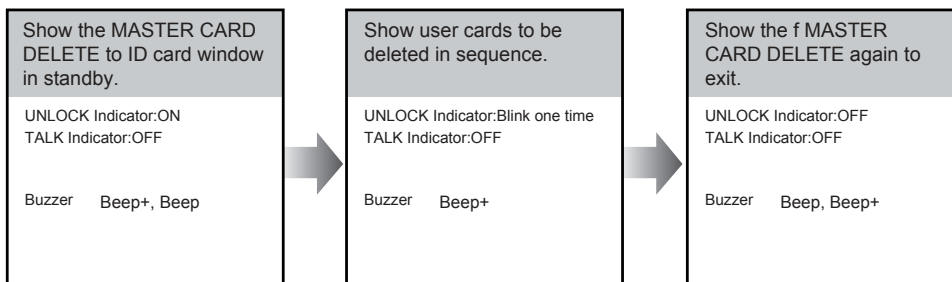
SETUP INSTRUCTIONS

Adding User Cards:



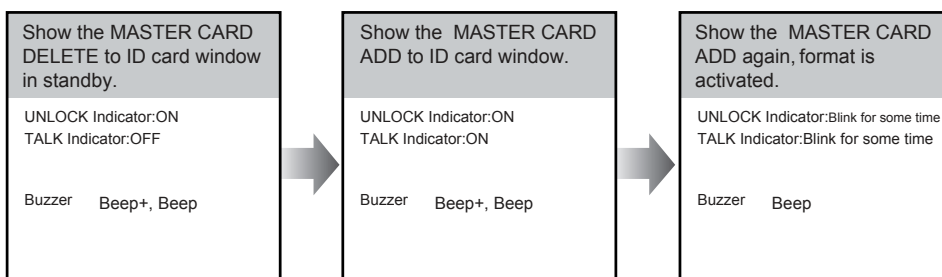
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To add a user card, access control must be set to by station, see page 15.

Deleting User Cards:



- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To add a user card, access control must be set to door station, see page 15.

Initializing Access (delete all user cards):



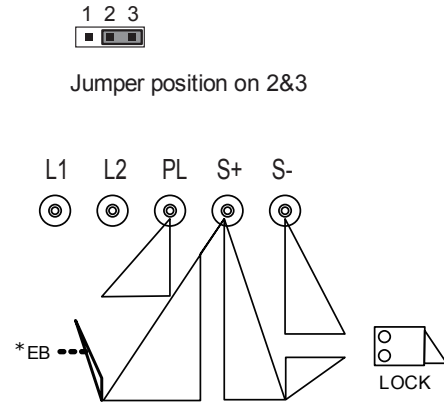
- If there is no operation within 10 seconds, the door station will exit programming mode automatically.
- To add user card, access control must be set to door station.
- During step 3, the UNLOCK & TALK indicator will flash constantly until formatting has finished.
- When formatting is finished, UNLOCK & TALK indicator will turn off followed by a " Beep+ ", exit of setting mode will be completed automatically.

WIRING

Connecting Electric Lock

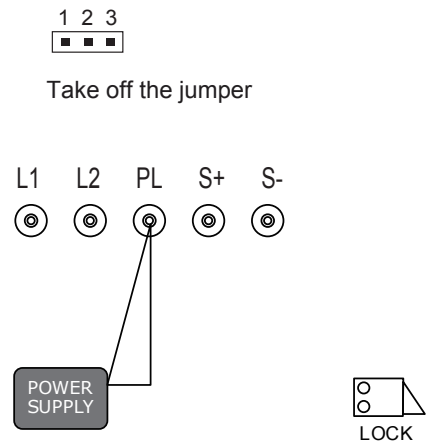
Door Lock Controlled with Internal Power

1. A fail secure (power on to unlock) should be used.
2. The door lock output is limited to 12V at a maximum of 250mA.
3. Connect the jumper across on position 2 and 3 before connecting the lock.
4. NOTE: The door lock control is not timed from Exit Button(EB).
5. The **Unlock Mode** must be set to 0 (default).



Door Lock Controlled with Dry Contact

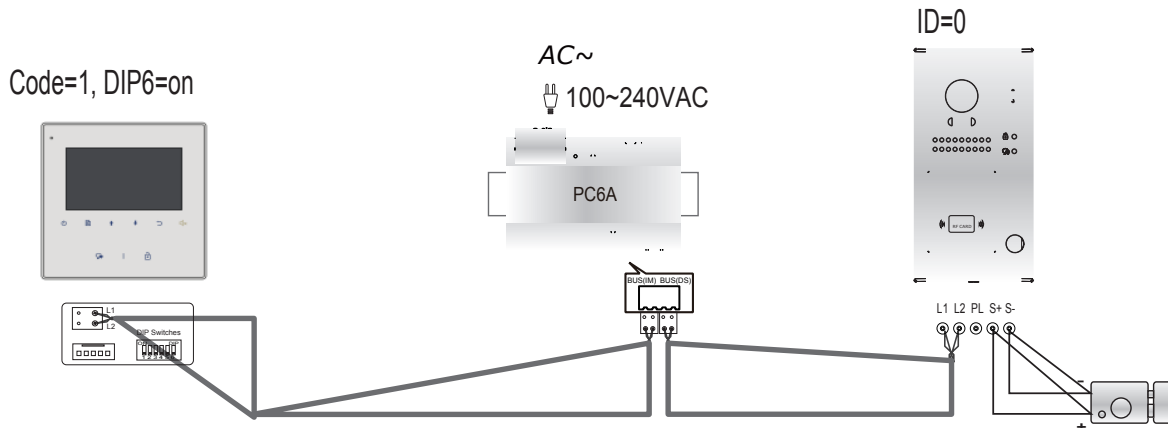
1. An external power supply must be used in accordance to the lock requirements.
2. The internal relay contact is restricted to 230Vac at 1A or 24Vdc at 1A.
3. The jumper must be removed before connecting the lock etc.
4. Set the **Unlock Mode** according to the lock type.
 - Power-on-to-unlock, fail secure:
Unlock Mode=0 (default)
 - Power-off-to-unlock, fail safe:
Unlock Mode=1



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

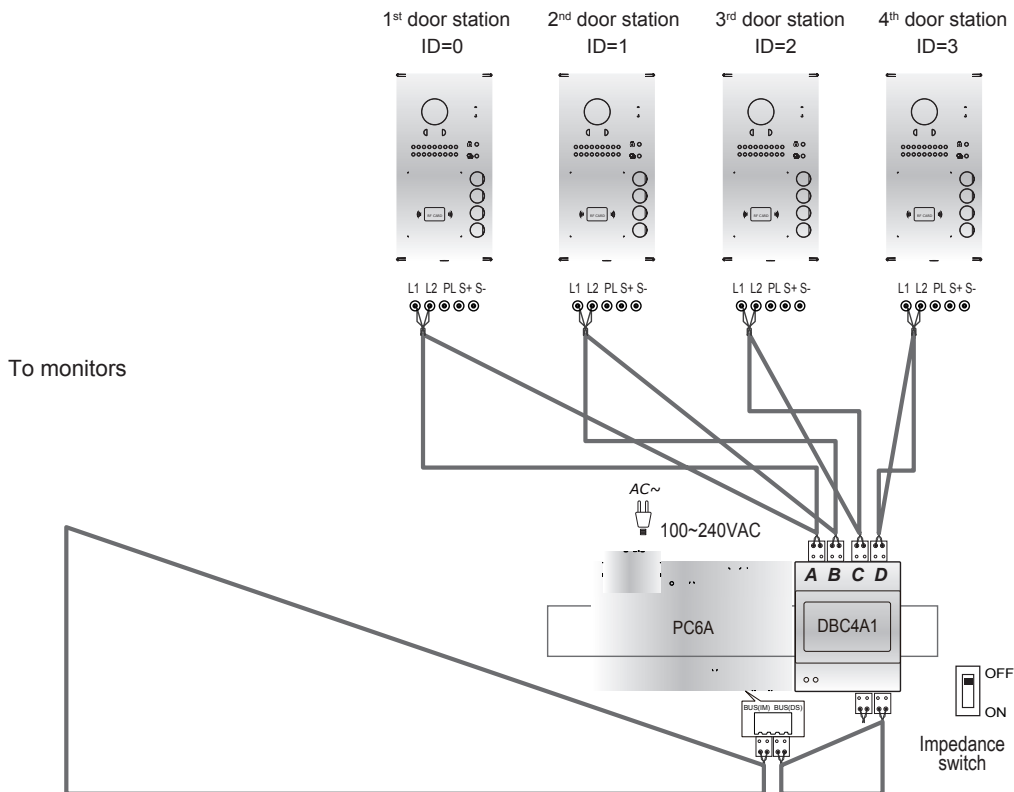
WIRING

Connecting Basic One-to-one



- The door station is set to **Standard** mode in the example above. Refer to Page 9 for details.
- The door station is compatible with all monitors within the CDVI 2Easy range.

Connecting Multi Door Stations

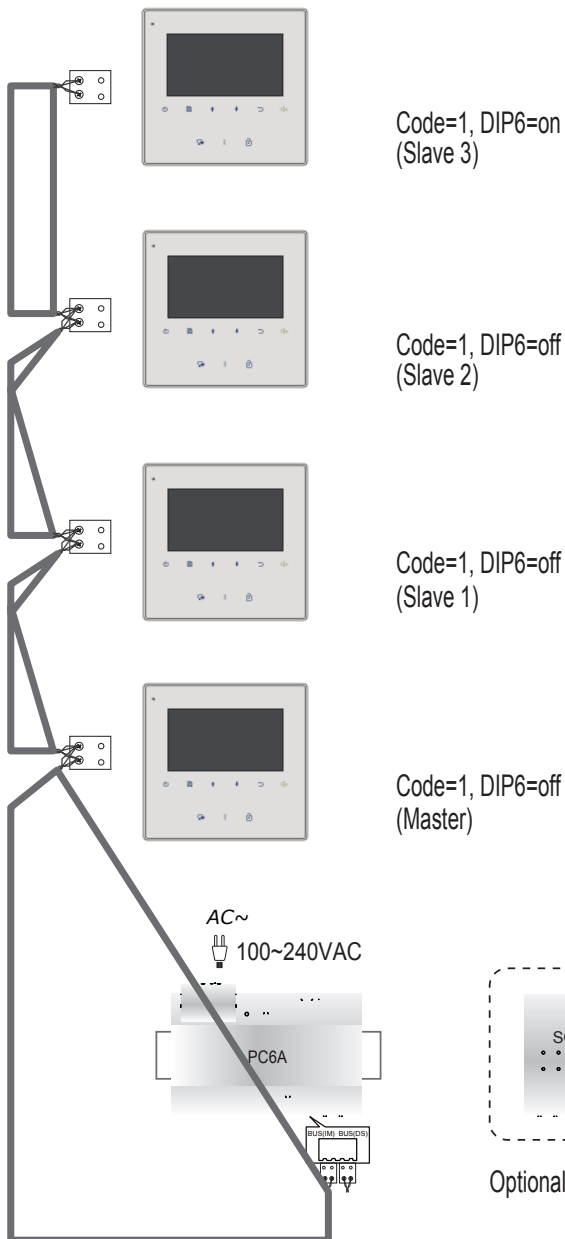


- A maximum of 4 door stations can be connected to the system.
- Please ensure to set the correct address for each door station, please refer to Page 8 for more details regarding setting the addresses of door stations.

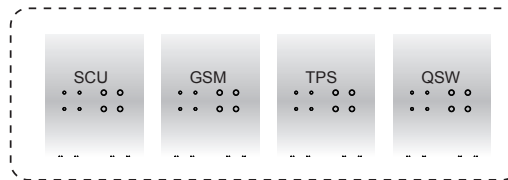
WIRING

Connecting Multi Monitors

Basic IN-OUT Wiring in Standard Mode

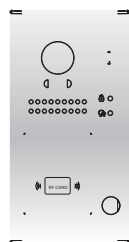


- The door station is compatible with all monitors within the CDVI 2Easy range.
- Please set door station to group calling mode if there are more than 4 monitors on the system (Refer to Page 9)
- A Distributor (CDV-DBC4A) is not required for a full audio system, daisy chain connection is the recommended wiring format.
- The last monitor connected in this format, should set to **ON**.



Optional functional module

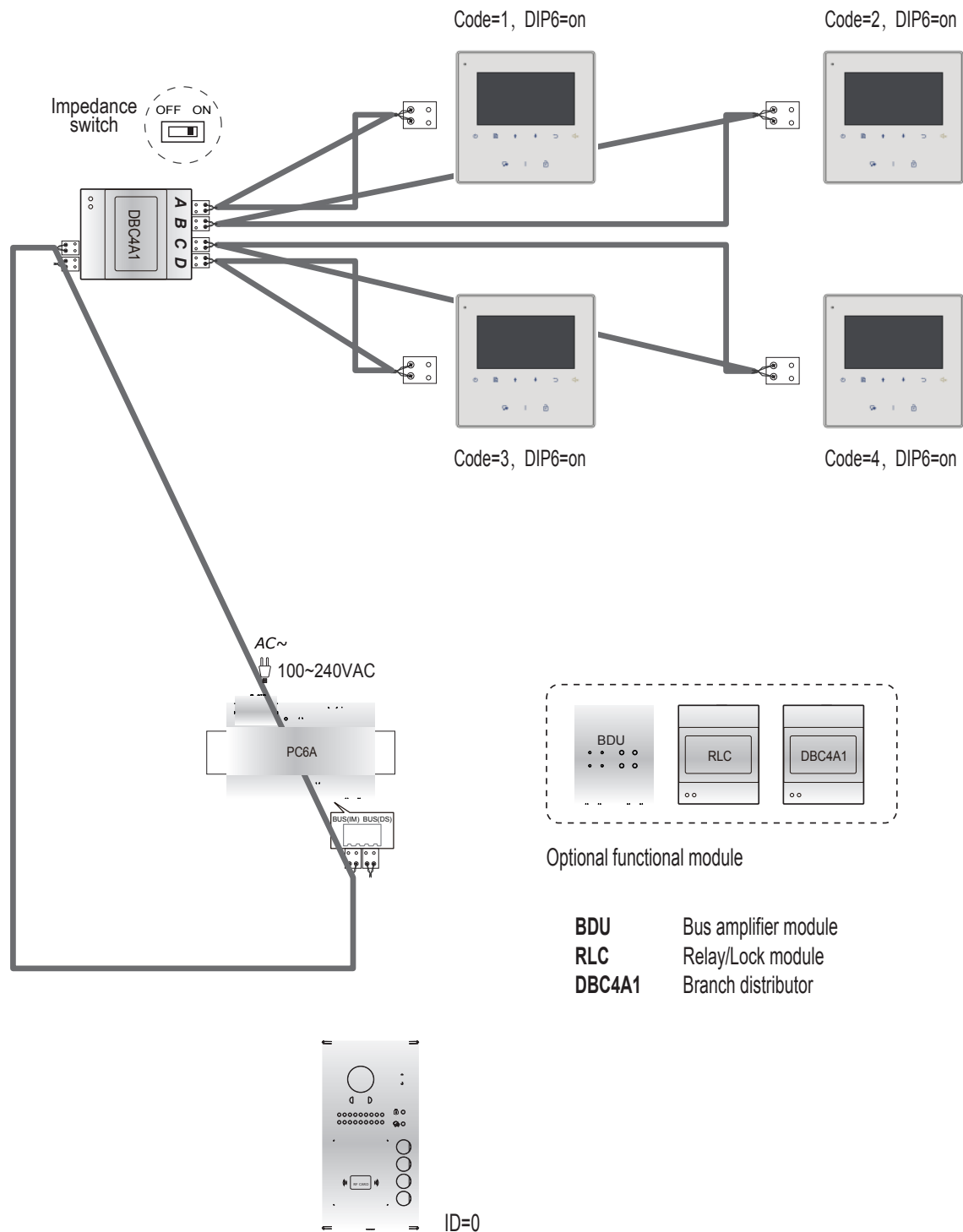
- SCU** camera module(max.4)
GSM module(mobile phone transfer)
TPS module(PBX transfer)
QSW image quad splitter module



ID=0

WIRING

Star Topology Wiring With DBC4A1 in Standard Mode



- The door station is compatible with all monitors within the CDVI 2Easy range.
- The system can be extended by up to a maximum of 3 slave monitors for each monitor.(Connection via a CDV-DBC4A branch distributor is recommended)

APPENDIX

Precautions

- Clean the unit with soft cotton cloth, do not use the organic impregnate such as polishes or chemical clean agents. If necessary, use a little pure water or diluted soap and water to clean off dirt.
- The unit is weather resistant. However do not use high pressure water cleaners on the door panel directly. Excessive moisture may cause problems with the unit.
- The correct power adapter supplied by the manufacturer or approved by the manufacturer must be used.
- **Warning:** Internal high voltage, service by qualified personnel only.

Specification

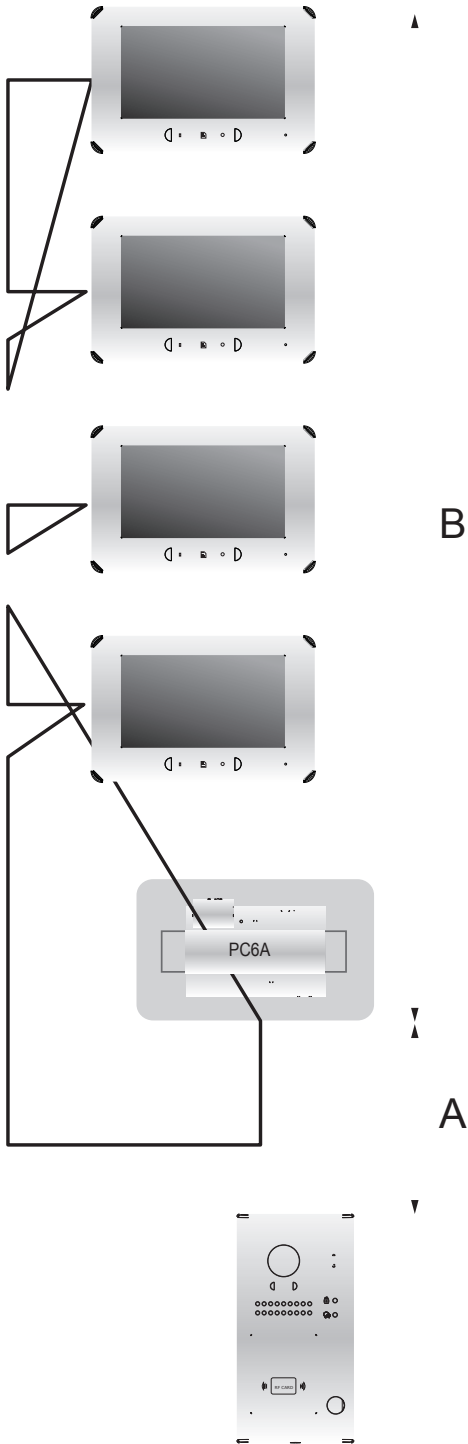
Power supply:	DC 24V
Power consumption:	Standby 0.8W; Working 3W
Camera lens:	Color CMOS, 2.0 Mega pixel 1/2.7" fisheye camera, 170° wide angle
Lock Power supply:	12Vdc, 280mA(Internal Power);
Number of relay circuits:	2(the second lock need external device to support)
Mounting:	Surface wall-mount / 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 in the DT system. Using different cables may also affect the maximum distance which the system can reach.

Basic IN-OUT Wiring Mode

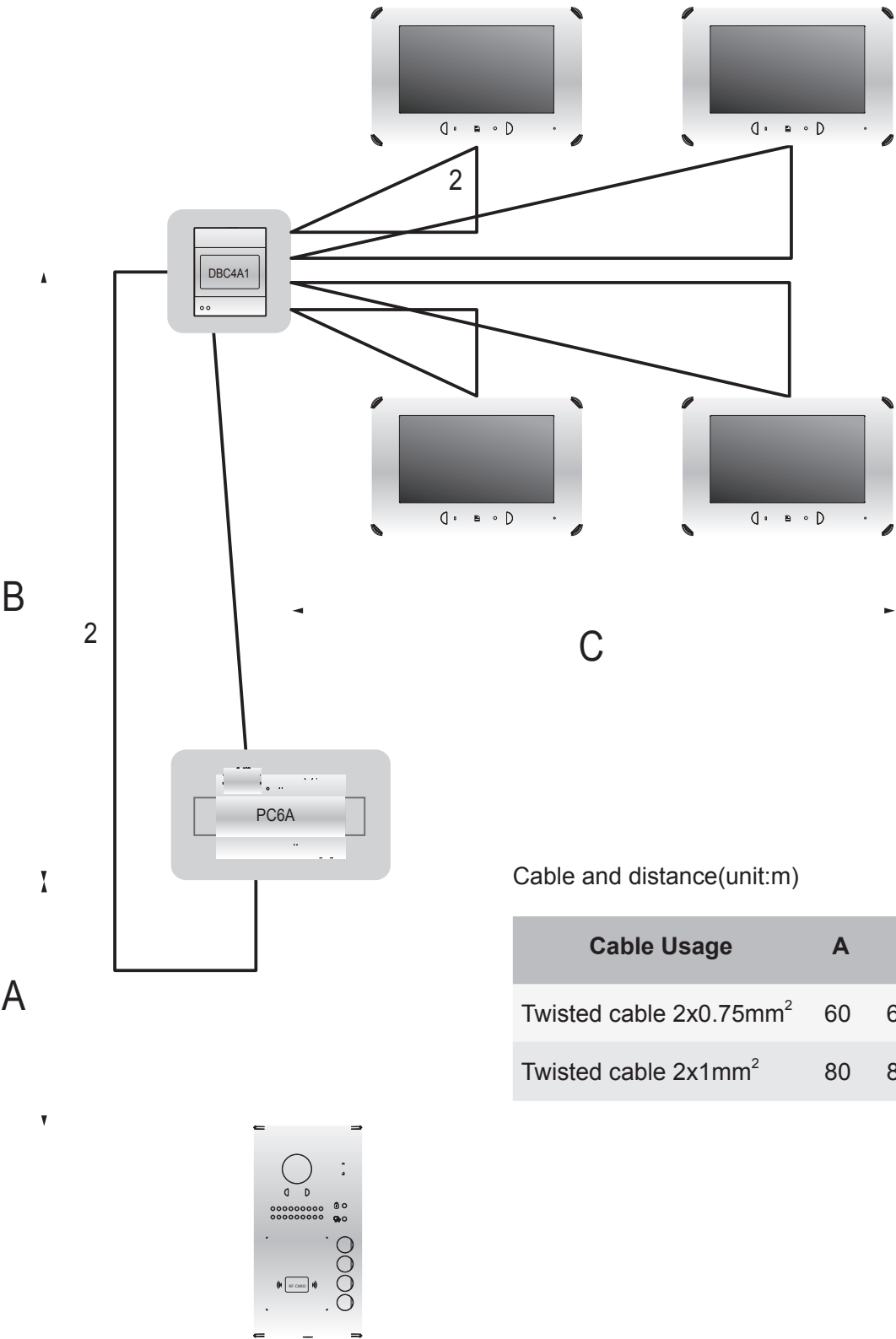


Cable and distance(unit:m)

Cable Usage	A	B	B
		≤2 IM	≤16 IM
Twisted cable 2x0.75mm ²	60	100	40
Twisted cable 2x1mm ²	80	120	60

APPENDIX

Star Topology Wiring Mode With DBC4A1



DT-ENG-DT607-V1

The design and specifications can be changed without notice to the user. Right to interpret and copyright of this manual are preserved.

