

Wireless Video doorphone

Installation and operation manual

(Model: Wireless VDP for B/W or color)

1. Introduction

Thank you for purchasing this SynerTech product.

Wireless VDP is ideal for your home. Features included: communication, and Single door/Garage door release by using operating frequency at 2.4G Hz.

Full set of wireless video door phone system includes 1 door station and 1 indoor unit with charger. Accessories include one wall mounting bracket and screws.

The outdoor unit has 1 call button. When pressed, it allows communication and will ring from the wireless indoor handset corresponding to that call button. The wireless handset can be carried from floor to floor.

To obtain the best performance from this product, please read through this manual carefully.

2.Components

A. Name of parts, accessories and indicators for full set of VDP

Handset(Fig.1)	Indoor unit	Accessories (Included)
1. Select of video frequency 2. Antenna for handset 3. Built-in Speaker 4. Cradle LED 5. Off/Brightness slide switch 6. Contrast slide switch 7. Monitor Off button 8. Monitor On button 9. Antenna for VDP 10. Rating label 11. DC jack 12 & 13. Charger contact points from handset 14 & 15 Charger contact points from monitor	15. Metal wall mounting bracket 17. Charging contact	I. Screws

■ Handset and monitor

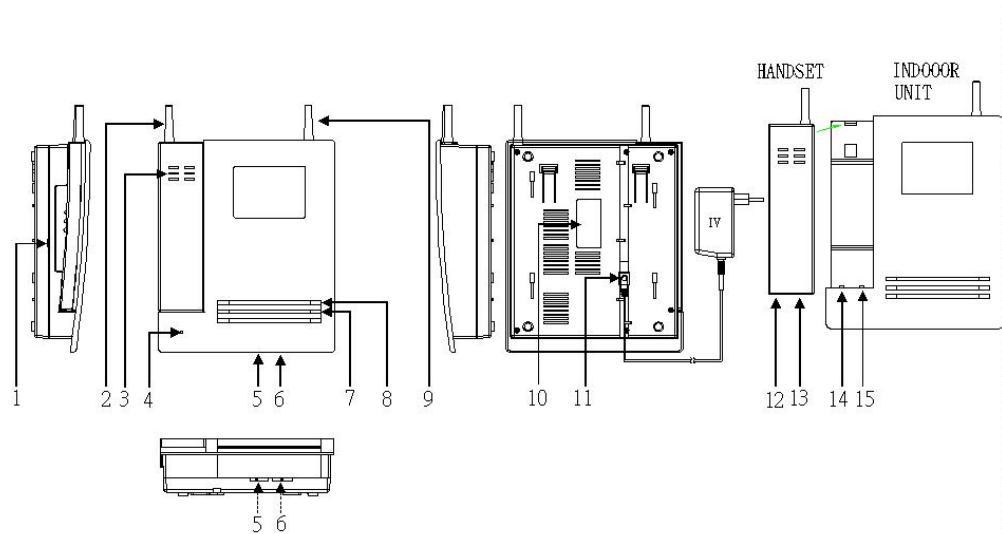


Fig. 1

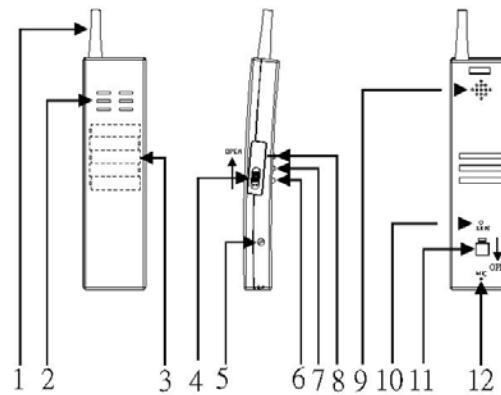


Fig.2

Door station

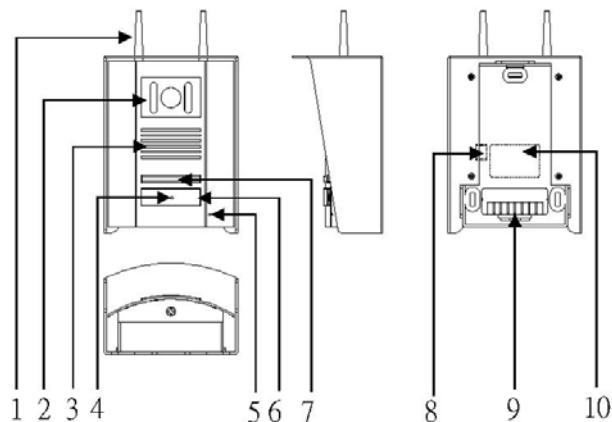


Fig. 3

Outdoor unit(Fig.3)	Handset (Fig.2)
1. Antenna 2. CMOS camera 3. speaker 4. LED 1: low battery indicator / coding setting indicator 5. Microphone 6. Name plate (two LEDs (LED 2 & 3) under name plate) 7. " Call " button 8. Dip switches 9. Terminal 10.Rating label	1. Antenna 2. Built-in speaker 3. Rechargeable Battery 4. Battery door 5. Volume control knob for 8 chorus sound 6. "GARAGE OPENER" button 7. "DOOR OPENER" button 8. "TALK" button 9. Built-in speaker 10. LED indicator (showing the low battery status for handset and door station) 11. DIP switches 12. Built-in microphone

3. Setting of Wireless System

A) Audio part

- 1) Put the relevant batteries inside the handset & door station
- 2) Battery pack for handset is provided. Simply plug the battery pack inside the socket near the battery door. (See fig.7-2)

You could select one out of 3 available channels to use.

Make sure the channel between door station and handset is the same.

Handset

Dip switch	Channel selection
1. 2-ON 3-ON	Channel 1
2. 2-ON 3-OFF	Channel 2
3. 2-OFF 3-ON	Channel 3

Door station

Dip Switch	Channel selection
1. 2-ON 3-ON	Channel 1
2. 2-ON 3-OFF	Channel 2
3. 2-OFF 3-ON	Channel 3
4. should be in " Off " position in normal condition	
5. should be in " Off " position in normal condition	

For example, the user choose channel 1 for setting:

The setting procedure is as below:

- 3) Put the DIP switch 1 to " ON " position from the handset.
- 4) Put the DIP switch 4 to " ON " position from the door station. (For program setting purpose)
- 5) Press the call button from the door station.
- 6) If the identification is done, the LED on the door station would be red & green blinking.
- 7) Put the DIP switch 4 to " OFF " position from the door station
- 8) Put the DIP switch 1 to " OFF " position from the handset
- 9) Press the call button from the door station to ensure the product is in function.

B) Video part

- 1) Select either channel 1 OR channel 2. (See Fig.1, point 1)
- 2) Select the other channel if any disturbance occurred.
- 3) When someone press the door station, press “ Monitor On “ on the monitor for viewing.
- 4) Press “ Monitor Off “ if no need to monitor outside.
- 5) The monitor and handset would be turned off automatically until 30sec.

LED indicator from handset: (see fig. 1)

- a) When the low battery status from door station, the LED would blink in red & green.
- b) When the low battery status from handset, the LED would be on in red.
- c) The LED would be in green when battery is charged up.

LED indicator from the door station (see fig.2: point 4)

- Low battery indicator: green light indicates the batteries level is charged up, red light indicates low battery. Red light would only turn back to green when batteries charged up.
- Press the call button from the door station once to activate the setting again after change of batteries.
- If the LED turns red & green blinking, it means the successful of code setting between handset and door station.

Installation Precaution:

- Please change to use another frequency if the conversation or images suffer interference from the surroundings.
- When in test model, there will be no door open function
- Quality of the images and sound for wireless system will vary according to environmental conditions, which will also affect the transmission and receiving range. For the best quality, these functions should be tested before actual installation.
- **To obtain the best signal transmission, install the indoor unit and door**

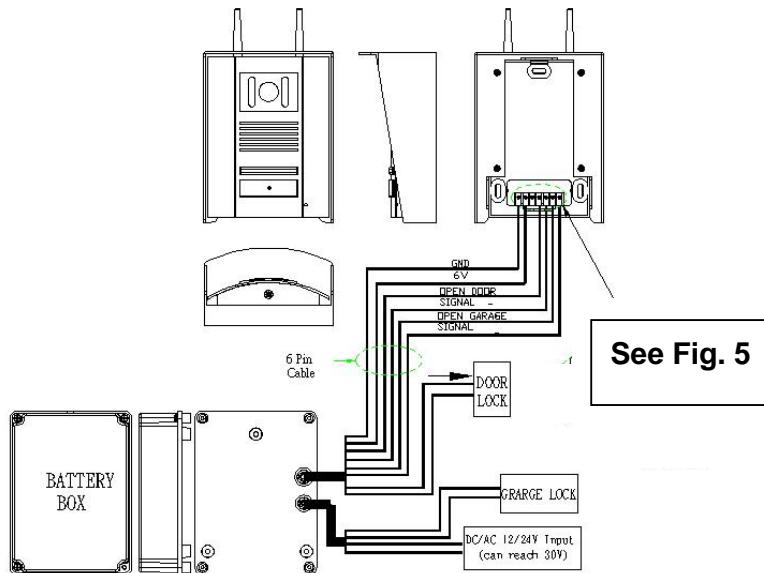


station vertically on the wall and they should be on the same height from the ground. (See Fig.6)

- If the signal transmission is weak when using “ table top “ for the indoor unit, install the indoor unit on the wall vertically to obtain better performance.

4. System Connection

Cable connection (Fig.4)



There are three power sources for this wireless system.

1. Basic mode: (Batteries inside door station only)

Function:

- * “Talk”: full duplex communication
- * Door open triggering (Release signal only. If door lock has to be opened, pls connect with access glass)
- * Garage open triggering (Release signal only not opening garage)

2. Basic mode with 6V access glass (not included in the set) See fig 3

Following the above wiring diagram, connect the wires provided if the access glass,

SynerTech

door open switch or garage open switch are available.

- * "Talk": full duplex communication
- * Electricity for opening the door lock
- * 6V power provide to the door station
- * Garage open triggering
- * Caution: Remove batteries from the door station when using 6V access glass.

3. Basic mode with 12V/24V (through 6V access glass) (6V access glass not included in the set) See fig.3

Following the wiring diagram (see fig.3), if 12/24V, door opening & Garage opening switch are available.

- * "Talk": full duplex communication
- * Electricity for opening door lock
- * 6V power provide to the door station
- * Garage open triggering
- * LED "ON" under name plate of door station
- * Remove batteries from the door station and 6V access glass.

Function of terminal from the door station :

Color from the 3M cable of access glass

BK	RED	RED	GREEN	BROWN	ORANGE	YELLOW
LR20	AC/DC	LOCK+	LOCK-	GARAGE+	GARAGE-	

Fig.4

D+ & D- is for the function of door lock triggering.

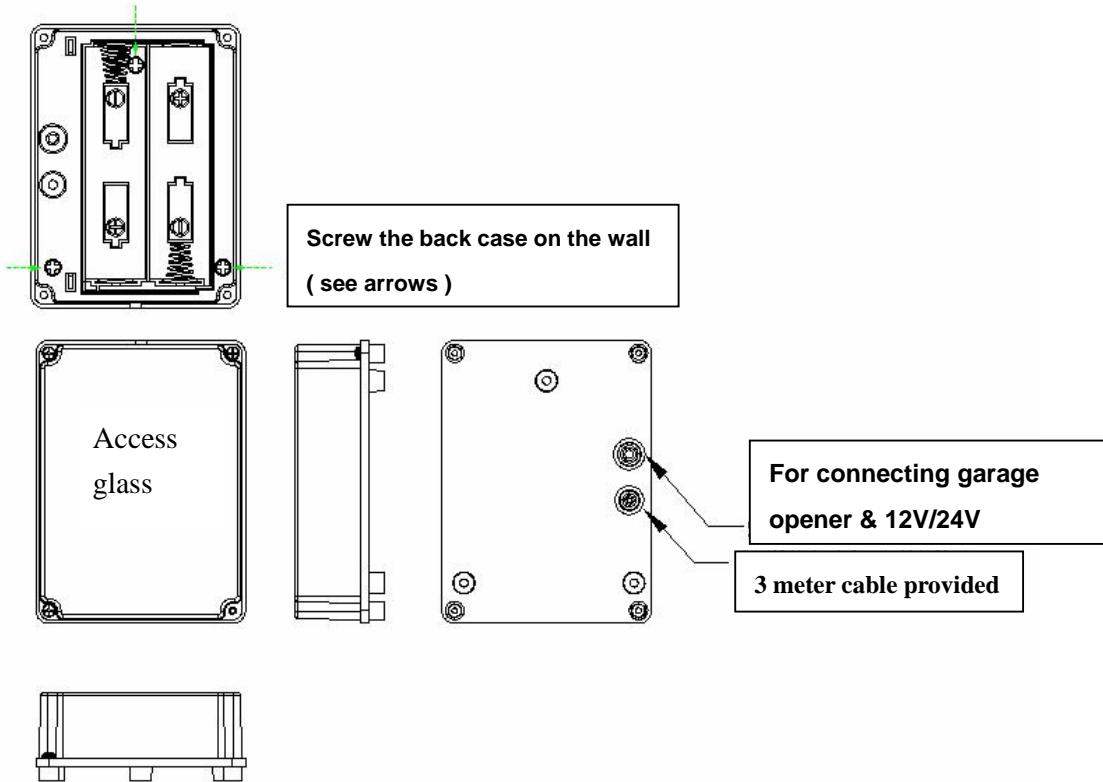
If connect through access glass, it could switch on the door lock.

G+ & G- is for the function of garage opener triggering.

If connect through access glass , it could trigger the garage opener as well.

When the access glass is used, connect “-“ to GND and “+“ to the terminal LR20.

When 12V/24V is used, connect “-“ to GND and “+“ to the terminal AC/DC (see fig 3).



Structure of access glass (not included in the set) Fig 5-1

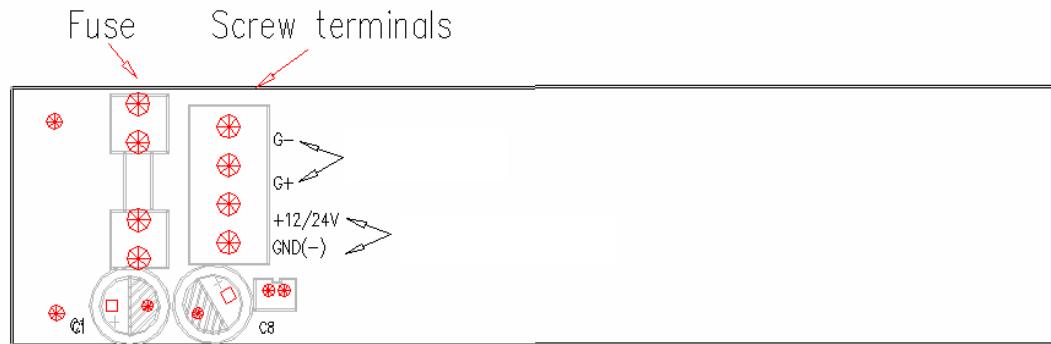


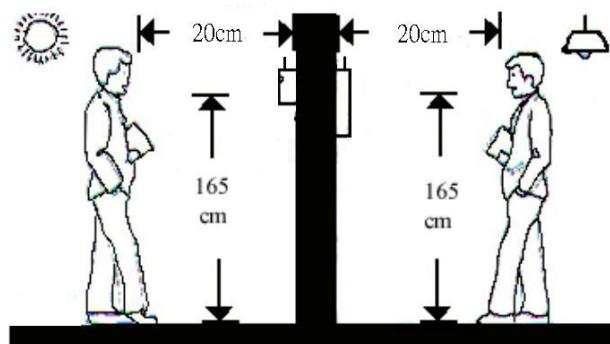
Fig. 5-2

Connection of terminal block inside the access glass:

- 1) Open the battery cover
- 2) Install external wires into the terminal block inside the access glass
- 3) "G-" & "G+" for connecting the garage opener
- 4) "+24V" & "—" for connecting 12/24V power source
- 5) Use the provided clip and screws to hold the wires inside the access glass after connection.

5. Preparation for Installation

Recommended installation height (Fig.6)



The above diagram shows the position of the door station and indoor phone unit. Recommended installation height is approximately 165cm from the ground level for both units. It is usually installed near the door.

Indoor/door station installation

For indoor unit

1. Referring to the "Recommended installation height" diagram (See fig. 6) to locate and mark the screw's positions onto the wall.
2. For the indoor set wall-mounting bracket, make sure the unit is in up direction when placing on to the wall. The connection between the indoor unit and the corresponding bracket is shown in the following figure 7-1. Tips of the bracket have to face upwards; otherwise, the phone set will be upside down.

Step 1: Locate and mark screwing positions on the wall.

Step 2: Drill the screws in but leave 5mm exposed.

Step 3: Plug in the adaptor.

Step 4: Place the indoor unit onto the exposed screw heads and slide until the unit is secured.

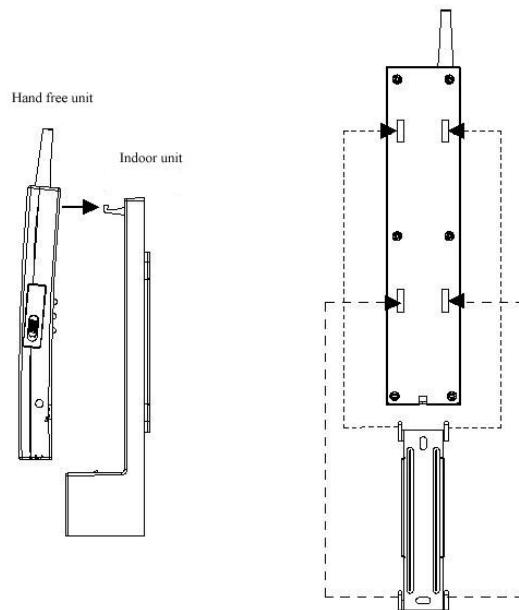


Fig.7-1

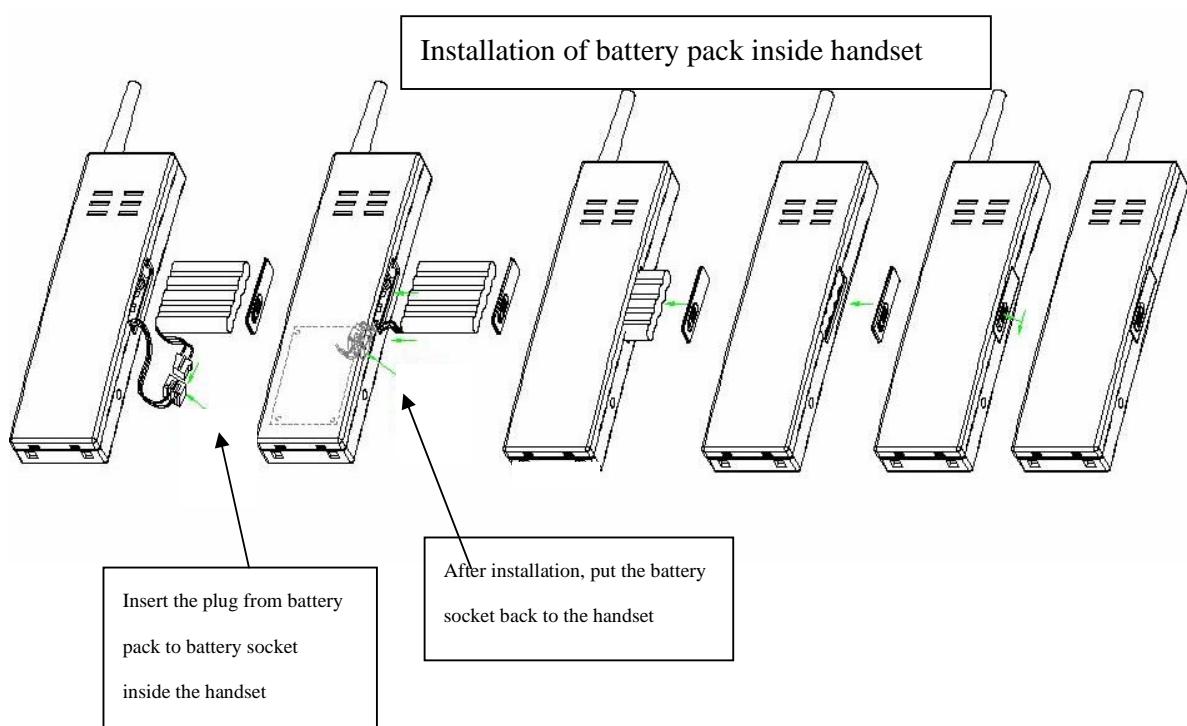


Fig.7-2

For door station

SynerTech

- Step 1: Locate and mark screwing positions on the wall.
- Step 2: Fix the flush in bracket securely onto the wall. **Ensure it is leveled against the wall.**
- Step 3: Separate the audio box from the aluminum panel.
- Step 4: Screwing out the screws between the audio box and flush-in bracket. (Fig. 8)
- Step 6: Screw back the audio board and the flush-in bracket before put back the aluminum panel.
- Step 7: Name plate: Remove the plastic cap by using flat type screwdriver. Print the name on the PVC white sheet, and covered by the plastic cap again.
- Step 8: Ensure the connecting cable runs tidily from the door lock and the door station.

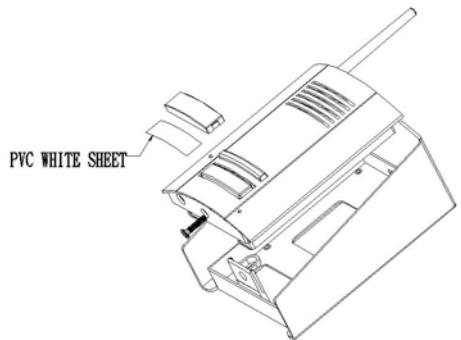


Fig. 8

6.Operating Instructions

- ◆ **Identifying**
 - **Step 1:** When a visitor presses the call button on the door station, an electronic door chime will spell out from the handset. The 8 chorus sound of volume could be adjusted by the knob.
 - Assuming that the visitor is talking near the microphone (around 20cm), you can hear the visitor's voice via the handset.

After identifying the visitor you can:

- Step 2:** Talk to the visitor by lifting the handset just as you do with regular phone.

Step 3:

Press “TALK” button to start the conversation. The background light of the icons will be turned on during the conversation. During the conversation, you can press and hold the “Door open” button OR “Garage open” button for 5 seconds; the door will then remain open for 1 second. The handset and door station will be activated for 30 seconds. Then the door station will be switched off automatically.

Step 4: To end the conversation, press the “Talk” button again, the door station would be switched off then. The handset unit would return stand-by mode.

**** Step 5: Put back the handset to the cradle for charging after used. ****

If the battery pack at the handset completed discharge, you may need to unplug the batteries (handset and door station) and reset the dip switch for at least 1 minute.

CAUTION:

The LED would be in red on the cradle which indicates the handset locates the correct position on the cradle. (Handset must be on the cradle)

The LED on the cradle would not be turned on either with / without plugging in adaptor power and without handset on the cradle.

7.Operation Precautions

- DO NOT expose the units to where they will be subjected to extreme moisture, temperature, rust or dust. A closed-in porch or sheltered area is an ideal location.
- DO NOT install near to other electronic equipment.
- DO NOT drop or shake the unit or subject the unit to shock.
- DO NOT clean the unit with benzene, thinners, or any solvents. Wipe off dust and marks with a soft cloth which is slightly moistened in mild soap water.
- DO NOT connect the unit to public telephone network.
- DO disconnect from the main power if the unit is not being used for a while.
- DO unplug the batteries (handset and door station) and reset the dip switch for at least 1 minute when the items do not perform function regularly.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to



operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Reorient or relocate the receiving antenna
- The performance of 2.4G would be affected significantly when raining, snowing or in high humidity. The frequency range would be shorter as water absorb the microwave energy and convert as heat.
- The transmission range would be reduced if obstacles occur within the transmission range (e.g. wall, metal objects) The reducing level would be according to the thickness of the obstacles.

FCC Caution :To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

8.Specifications

- Mains power supply: 230V AC~50Hz
- Transmission range in open area: 70meter
- Chime sound : 8 chorus sound
- Ambient temperature of outdoor unit: -10~+40

Electrical characteristic:

For handset

Standby mode	Current :60mA
Talk mode	Current: 150mA
Rechargeable batteries used	5pcs x AAA (included in the set)
Battery life :	
a) Handset not on the charge but in stand-by mode (after fully charged)	10hours
b) Keep " Talk " all the time	2hours

For door station

Standby mode	Current : less than 30µA
Talk mode	Current :170mA
Batteries used	4pcs x AA (Not included in the set)
Batteries life : (based on Durcell batteries)	
a) Stand-by all the time	1 year
b) Keep " Talk " all the time	2 hours

** For example:

a) Door station: 4pcs x AA batteries used:

(calculated by using Durcell batteries, without connecting power box or 12/24V)

" Talk " x 2 times (30sec per time)
" Door opener " triggering x 2 times
" Garage opener " triggering x 2 times

Per day

Batteries could last for 3 months.

<< If there is any unexpected problems occurred during installation, please consult the qualified technicians. >>