1. Introduction

This Video Intercom System is an easy-to-use video intercom system offering many benefits and conveniences, such as relieving the anxiety of not knowing who is at the door, to the security-conscious business or homeowner:

©Automatic video transmission:
When the visitor presses the outdoor call button, the video camera automatically transmits the image of the visitor to the indoor unit while a pleasant electronic chime signals that a visitor is at the door in addition to providing two-way audio communications.

©No-fuss installation:
With the aid of the step-by-step instructions in this guide, the professional installer or the average person can complete fixing and wiring quickly and easily.

©Push-button simplicity:
The young and old alike will find the system extremely easy to operate.

©High quality image:
This system uses the latest CCD video camera technology for the clearest image.

©Auto-iris:
Camera exposure automatically adjusts to suit light conditions.

©Infrared LED for greater clarity in low light.
An LED lamp at the outdoor unit aids identification of night-time callers without the need for any extra lighting.

©Electronic Door Release (option):
An optional function that lets you open the door and lets your visitor in simply by pressing the DOOR KEY button.
Up to 3 Additional Monitors (option):
Supplementary monitors can be attached to the system. The last monitor must be placed on switch 1.

Camera with adjustable angles of view (option):
An optional function that helps you identify the visitors regardless of the place the camera is installed.
## 2. Technical specification

### Outdoor Unit

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CCD</strong></td>
<td>Black and White 1/3&quot; CCD</td>
</tr>
<tr>
<td><strong>SYNC System</strong></td>
<td>Internal</td>
</tr>
<tr>
<td><strong>Scanning Frequency</strong></td>
<td>EIA: 15.75kHz(H) 60Hz(V) / CCIR: 15.62kHz(H) 50Hz(V)</td>
</tr>
<tr>
<td><strong>Frame</strong></td>
<td>30/sec</td>
</tr>
<tr>
<td><strong>Lens</strong></td>
<td>F=2 FixedFocus, 92.5 degrees of viewing angle</td>
</tr>
<tr>
<td><strong>Output Signal</strong></td>
<td>Composite Video 75 Ω 1Vp-p</td>
</tr>
<tr>
<td><strong>External/Input jack</strong></td>
<td>Terminal Chime Bell</td>
</tr>
<tr>
<td><strong>Illumination</strong></td>
<td>0Lux (Auto Lighting)</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>DC 12V, 3W</td>
</tr>
<tr>
<td><strong>Telephone Call System</strong></td>
<td>4-Wire</td>
</tr>
<tr>
<td><strong>Scanning System</strong></td>
<td>525 Line(EIA), 625Line(CCIR)</td>
</tr>
<tr>
<td><strong>Auto iris</strong></td>
<td>Internal ALC system</td>
</tr>
<tr>
<td><strong>Microphone</strong></td>
<td>Built-in condenser type</td>
</tr>
<tr>
<td><strong>Audio Amp.</strong></td>
<td>Built-in RX and TX</td>
</tr>
<tr>
<td><strong>CCD Pixels</strong></td>
<td>270,000(EIA), 290,000(CCIR)</td>
</tr>
<tr>
<td><strong>Dimensions(mm)</strong></td>
<td>Plastic-96(W) × 128(H) × 46(D)</td>
</tr>
<tr>
<td><strong>Weight(g)</strong></td>
<td>Metal-112(W) × 172(H) × 55(D)</td>
</tr>
<tr>
<td></td>
<td>Plastic-177(g)</td>
</tr>
<tr>
<td></td>
<td>Metal-478(g)</td>
</tr>
</tbody>
</table>

### Indoor Unit

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monitor</strong></td>
<td>4&quot; Black and White type</td>
</tr>
<tr>
<td><strong>Scanning Frequency</strong></td>
<td>15.75kHz(H) 60Hz(V)</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>DC15V, 13W (SMPS 90~250V)</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>380TV lines</td>
</tr>
<tr>
<td><strong>Input Signal</strong></td>
<td>Composite Video 75 Ω 1Vp-p</td>
</tr>
<tr>
<td><strong>External/Input jack</strong></td>
<td>Terminal Chime Bell</td>
</tr>
<tr>
<td><strong>Dimensions(mm)</strong></td>
<td>190(W) × 230(H) × 52(D)</td>
</tr>
<tr>
<td><strong>Weight(g)</strong></td>
<td>1.229 (g)</td>
</tr>
</tbody>
</table>
3. Installation

Cable connection
When installing this Video Intercom System, please follow the steps as listed:

○ Important: Use only 0.65 diameter cable for inter-phone.
Installation length of the line between indoor and outdoor units should not exceed 50 meters. The recommended cable is available from your retailer.

1. Peel off the Grey outer covering of the cable to expose the Red, Blue, White and Yellow wires, strip back the colored plastic by approximately 10 mm to expose bare wire.

2. Following the wiring diagram below, connect the Red line to the terminal marked IR; the White line to the terminal marked 2W; the Yellow line to the terminal marked 3Y, and the Blue line to the terminal marked 4B; Any color cable of the recommended diameter can be used but make sure the same color is connected to the corresponding terminals on the camera and the monitor.

3. If the Electronic Door Release function is to be used, connect the wire Door Strike to the terminals marked “KEY” on the back of the monitor unit. (12 Volts 300mA)

When installing additional monitors.
1. When 1 camera and 1 monitor are used, switch the Multi Monitor selecting switch, located on the back of the monitor, to “1”

2. When 1 camera and more than 2 monitors are connected, switch the Multi-Monitor selecting switch, located on the back of the monitor unit, to “1” on any monitor unit and switch it to “4” on the rest of monitors.
IMPORTANT: Installation precautions
Before installing this Video Intercom System, please take note of the following:

○ DO NOT position the units where they will be subjected to extremes of moisture, temperature, rust or dust. Do not install the units in extremely cold locations and avoid any extreme temperature variations.

○ DO NOT install the outdoor unit where it will be exposed to direct sunlight, rain and extreme moisture. A closed-in porch or sheltered area is the ideal location.

○ DO NOT install the outdoor unit in a location where the lens filter is likely to get scratched or very dusty.

○ DO NOT overload mains wall outlets or extension cords.
DO NOT expose the units to direct sunlight or any strong reflected light. Avoid extremely bright locations for the indoor unit as the monitor screen image will be adversely affected.

DO NOT install near other electronic equipment such as computers, TVs, VCRs etc.

DO NOT press both the indoor buttons at the same time as this could cause an overload. A recommended installation height is approximately 145cm from ground level for the indoor unit (if wall mounted) and around 140cm from ground level for the outdoor unit.

4. Key components

Indoor unit
1. Handset
2. Handset ear piece
3. Handset mouthpiece
4. On Hook / Off Hook Switch
   Handset must be replaced in the correct position on this switch for the Video image to be received and the chime to sound
5. Integral speaker
   Electric door chime is heard through this speaker
6. Monitor Screen
   Visual image appears on this screen when caller presses the Call button on the outer unit
7. Power LED lamp

8. DOOR KEY Button
   An option feature that automatically opens the door once the caller has been identified. The current Voltage contact is 300mA

9. MONITOR ON Button

10. MONITOR OFF Button

11. Contrast control
    Adjusts the contrast of the image on the monitor screen.

12. Volume control
    Adjusts the volume of the door chime heard through the speaker

13. Wall mounting bracket
    Used when the indoor unit is to be wall mounted.
**Outdoor unit**

14. CCD video camera lens
   - Activates when the Call button on the outdoor unit is pressed or when the Monitor button on the indoor unit is pressed.
   - An image of the caller is transmitted to the monitor screen of the indoor unit.

15. Integral microphone
   - The visitor speaks through this microphone and the voice is heard through the speaker on the indoor unit.

16. Camera lens filter
   - A protective cover for the camera lens.

17. CALL button
   - Activates the CCD video camera and the electronic door chime.
   - When the button is pressed, the chime is heard through the speaker of the indoor unit and the visual image is shown on the monitor screen.

18. Camera fixing screw and cover
   - Fixes the outdoor unit securely to the wall.

19. Integral speaker
   - For two-way intercom between indoor unit and caller

20. Integral LED lamp
5. Operating instructions

Identifying and conversing with visitors

When a visitor presses the CALL button on the outdoor unit:

- An electronic door chime DING-DONGS and the visual image appears on the screen.
  Assuming that your visitor is standing within range of the camera, you will see the visitor on the monitor screen of the indoor unit.
  After identifying the visitor you can:

- Talk to the visitor shown on the screen by lifting the handset.
  You can now talk just as you would on a normal phone.

- Electronic Door Release option
  If your Video Intercom System is equipped with the Electric Door Release option (or has been installed for the use of this feature), you can let your caller in simply by pressing the DOOR KEY button.

To end the conversation and turn off the outdoor camera unit:

- Replace the handset.
  Pressing the CALL button on the outdoor unit activates the camera for 30 seconds only without lifting the handset. However, should you continue to talk using the handset for longer than 30 seconds, the camera and monitor screen will be on for 3 minutes or longer by pressing the monitor button.
  Now you can let your visitor in through the door in the normal way.
IMPORTANT PRECAUTIONS

**DO NOT** press both the indoor buttons at the same time as this could cause an overload.

**DO NOT** drop, shake, or subject units to shock.

**DO NOT** clean the units with benzene, thinners, or any solvents. Wipe off dust and marks with a soft cloth slightly moistened in mild soapy water. Do disconnect the unit from the main power even when the unit is not to be used for some time.

**DO NOT** connect to the Public switched telephone network.
6. Additional information

General care and cleaning

To clean simply wipe with a soft cloth, dampened slightly in a mild soap solution.

**DO NOT** spray with an aerosol polish as it may get in the units and cause damage.

*Never aim directly at sunlight*

![Diagram showing the correct and incorrect positioning of the unit](image)

Installing the indoor unit

1. Connect the 4-wire cable to the unit as described earlier in ‘Cable connection.
   Then follow the advice in the ‘Recommended installation heights’ diagram and the section
Important installation precaution: Decide on a convenient location for the indoor unit.

2. If the unit is to be wall mounted, fix the wall-mounting bracket securely to the wall using spacers and screws provided. Ensure that the bracket is against the wall and level.
   
   If wall mounting is not required, simply position the unit on a suitable table or desktop.

3. With the wall bracket securely fixed to the wall, place the indoor unit firmly against the bracket and line up the clips (A) on the wall bracket with the wall mounting slots (a) on the rear of the indoor unit.

4. When you are sure that the wall bracket clips are correctly aligned with the wall mounting slots on the rear of the indoor unit, press down on the indoor unit so that it slides easily onto the wall bracket hooks.

5. Ensure that the unit is correctly and securely positioned on the wall bracket. Now run the connecting cable to the point where the outdoor unit is to be sited, ensuring that the cable runs tidily, either in a channel on the wall or floor, or fastened neatly onto the surface of walls, skirting boards etc.

Installing the outdoor unit

1. Following the advice in the “Recommended installation heights” diagram and the section “Important installation advice”, decide on the best location for the outdoor unit. Now connect the 4-wire cable to the outdoor unit as described earlier in “cable connection”.

2. Fix the wall-mounting bracket securely to the wall using spacers and screws provided.
   
   Ensure that the bracket is flat against the wall and level.
3. With the wall bracket securely fixed to the wall, place the outdoor unit into the bracket, clipping in the top of the unit first and then carefully pushing the lower part of the unit into the wall bracket.

4. With the unit in position in the wall bracket, take off the camera fixing screw cover and mark the position of the camera fixing screw onto the wall.

★ Important: Take care not to drop and damage the unit at this stage as the unit is only loosely positioned in the wall bracket—it is not secured.

5. Remove the outdoor unit from the wall bracket and drill spacer into the camera fixing screw hole. Be sure to use the correct diameter screw for this fixing hole.

6. Replace the outdoor unit in the wall bracket, position the camera fixing screw and tighten, replace the screw cover, do not over-tighten the screw otherwise you could damage plastic casing.
   It’s vital that the completed mountings are strong and secure.

► How to adjust the angle of camera (If equipped):

1. Unscrew the bolt, on the back of camera unit until it is loose.

2. Adjust the angle of camera with your finger as desired.

3. Screw the bolt back to fix the angle of camera.
7. Guarantee and Service Information

1. Your new Video Intercom System is guaranteed free from defects in materials and workmanship for a period of one year from the date of purchase.

2. The product must have been used only for its intended purpose, and not been subjected to damage by misuse, willful or accidental damage, damage caused by excessive voltage or lightning.

3. The system must have been installed in accordance with the instructions given in the instruction manual and only compatible equipment may be connected to it.

4. The product must not have been tampered with or repaired by anyone other than its authorized service agents.

5. Should the serial numbers be tampered with in any way then the guarantee will be considered null and void.

6. This guarantee does not affect your statutory rights.

In the event of a fault

1. Carefully check that the installation has been carried out in accordance with the instructions.

2. Only return the unit/system if you are absolutely certain it is faulty, otherwise a service charge may have to be made.

3. Should a fault persist, contact your system installer for guidance.

4. If the problem persists, your system installer will arrange repair of the faulty unit.

Alternatively you may return the defect item. Please enclose a note stating the nature of the fault together with the proof of purchase.
IMPORTANT

Further charges may be incurred if this product is out of the guarantee period (in which case a repair estimate will be sent to you), or if the repairs are not covered by the guarantee.

PLEASE RETAIN ALL ORIGINAL PACKAGING MATERIALS IN THE EVENT THAT YOU NEED TO RETURN THE ITEM.