



VIDEO DOORPHONE

Model 94531

SET UP AND OPERATING INSTRUCTIONS



Diagrams within this manual may not be drawn proportionally.

Due to continuing improvements, actual product may differ slightly from the product described herein.

Distributed exclusively by Harbor Freight Tools®.

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**Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.**

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For technical questions or replacement parts, please call 1-800-444-3353.

Cover revised 07h

SPECIFICATIONS

Electrical Requirements	AC Adapter Power Input: 120 VAC / 60 Hz AC Adapter Power Output: 15 VDC AC Adapter Type: Class II Transformer AC Adapter Plug Type: 2-Prong (Non-Polarized) AC Adapter Power Cord Type: 22 AWG x 2C x 6 Ft.
Camera Dimensions	4-1/2" W x 7-7/8" H x 2-1/4" Depth
Camera Specifications	Power Input: 15 VDC / Power Consumption: 10 Watts 380 Line Resolution / Six Infrared LED's 13 Ft. (4m) Maximum Night Viewing Call & Talk Push-Button Control
Monitor Dimensions	10-3/8" W x 8-3/8" H x 3" Mounting Depth (From the Wall)
Monitor Specifications	4" CRT Diagonal (Flat Kinescope) / Black & White Screen 380 Line Resolution / Power Input: 15 VDC Power Consumption: 10 Watts
Features	Auto-Off Operation (60± Seconds) / Built-In Infrared Night Vision Outdoor Audio Limited (Inside Talking Cannot Be Heard by Caller, i.e., Mute Capable) Up to 3 Indoor Monitors Possible on One Camera / Wire Camera Input Button Controlled Door Opener (Requires Existing Electric Lock), Indoor Alarm Button

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES



WARNING! Read all instructions

Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.

SAVE THESE INSTRUCTIONS

- 1. Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the product should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- 2. Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- 3. Do not expose electrically powered products to rain or wet conditions.** Water entering an electrically powered product will increase the risk of electric shock.
- 4. Do not abuse the Power Cord. Never use the Power Cord to pull the AC Adapter from an outlet. Keep the Power Cord away from heat, oil, sharp**

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edges, or moving parts. Replace damaged Power Cords immediately. Damaged Power Cords increase the risk of electric shock.

5. **Disconnect the AC Adapter from the power source before making any adjustments, changing accessories, or storing the Video Doorphone.** Such preventive safety measures reduce the risk of electric shock.
6. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one product may become hazardous when used on another product.
7. **Product service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
8. **When servicing this product, use only identical replacement parts. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.
9. **Maintain labels and nameplates on the Video Doorphone.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
10. **Wear ANSI approved safety impact eye goggles when assembling the Video Doorphone.** Using personal safety devices reduce the risk for injury.
11. **Avoid accidental electrical shock.** Before attaching the Indoor and Outdoor Units to the walls, check hidden areas within the walls to avoid cutting into live electrical wires, gas and water pipes.
12. **For better product performance do not install the Indoor Unit near a television, and do not install the Outdoor Unit in direct sunlight.**
13. **Make sure adults *and* children in the household completely understand how to properly use the Video Doorphone.**
14. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
15. The warnings and cautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

GROUNDING

⚠️ WARNING

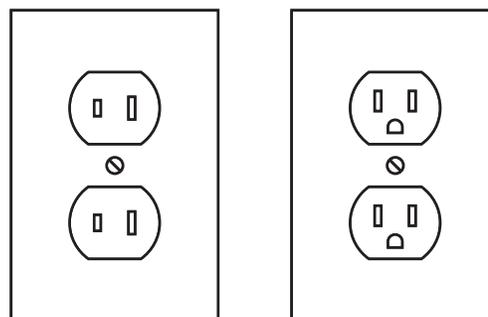
Improperly connecting the grounding wire can result in electric shock.



Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Double Insulated Tools: Tools with Two Prong Plugs

1. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code.
(See Outlets for 2-Prong Plug.)
2. Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration.
(See Outlets for 2-Prong Plug.)



Outlets for 2-Prong Plug

Extension Cords

1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage.
(See Table A.)
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord.
(See Table A.)
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Table A.)**

5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size.
(See Table A.)
6. If you are using an extension cord outdoors, make sure it is marked with the suffix “W-A” (“W” in Canada) to indicate it is acceptable for outdoor use.
7. Make sure the extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect the extension cords from sharp objects, excessive heat, and damp or wet areas.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120/240 VOLT)					
NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH				
	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

TABLE A * Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List on page 11** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

ASSEMBLY INSTRUCTIONS

⚠ CAUTION

Always make sure the AC Adapter (3) of the Video Doorphone is disconnected from its electrical outlet prior to assembling the Doorphone, adding any accessories, or making adjustments to the product.

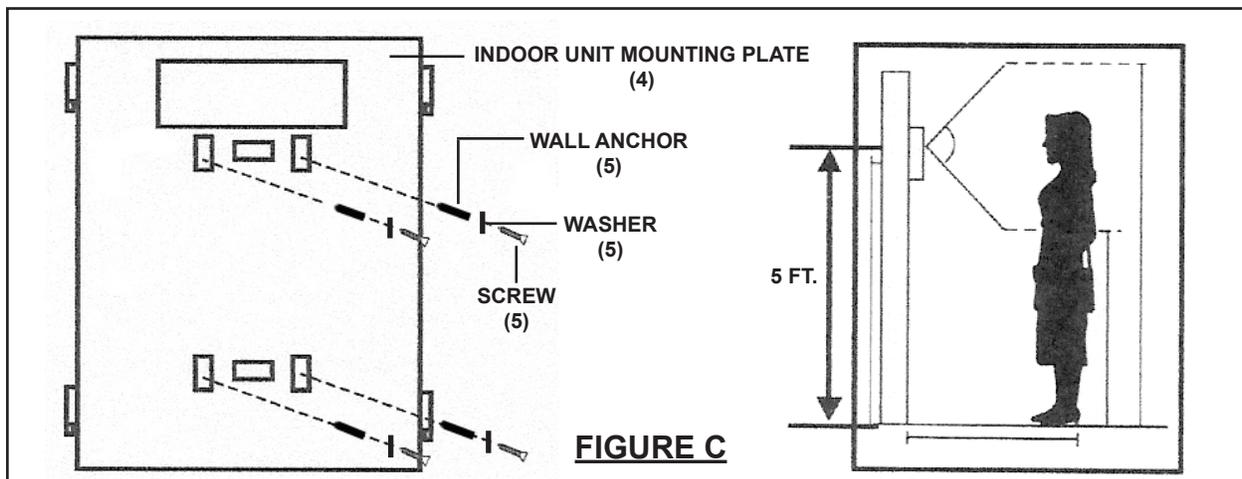
Note: For additional information regarding the parts listed in the following pages, refer to the **Assembly Diagram** on page 11.

To Install The Indoor And Outdoor Mounting Plates:

⚠ WARNING

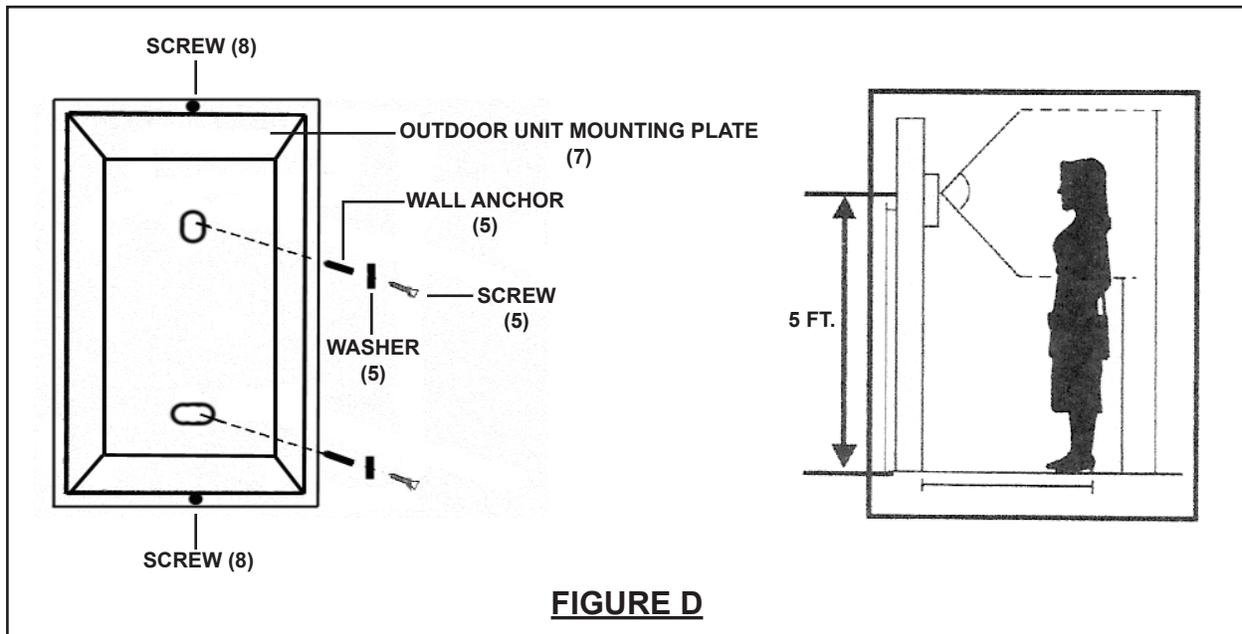
Avoid accidental electrical shock. Before attaching the Indoor Unit Mounting Plate (4) and Outdoor Unit Mounting Plate (7) to the walls, check hidden areas within the walls to **avoid cutting into live electrical wires, gas and water pipes.**

1. Select a location for the Indoor Unit Mounting Plate (4) to be mounted to the *interior* wall, preferably, near a 120 volt, grounded, electrical outlet.



2. Position the Indoor Unit Mounting Plate (4) against the wall, with its large rectangular opening at top, its four mounting prongs facing outward from the wall, and at a height of five feet from the floor surface. **NOTE:** Make sure to use a leveling device (not included) to ensure the Mounting Plate is straight and level against the wall. (See Figure C.)
3. Using the four small rectangular openings in the Indoor Unit Mounting Plate (4) as a template, mark the spots where four 1/8" diameter holes will be drilled in the wall. (See Figure C.)
4. Temporarily remove the Indoor Unit Mounting Plate (4) from the wall. Then, drill the four pre-marked 1/8" diameter holes in the wall. (See Figure C.)
5. Insert one plastic Wall Anchor (5) into each of the four pre-drilled holes in the wall. (See Figure C.)

6. Position the Indoor Unit Mounting Plate (4) against the wall, aligning the four small rectangular openings in the Mounting Plate with the four pre-drilled holes in the wall. Screw four Screws (5) with four Washers (5) into the plastic Wall Anchors (5) to secure the Mounting Plate to the wall. **NOTE:** Use a leveling device to ensure the Mounting Plate is straight and level before tightening the Screws. (See Figure C.)



7. Loosen the two Screws (8) and remove the Outdoor Unit Mounting Plate (7) from the Outdoor Unit (11). (See Figure D.)
8. Select a location for the Outdoor Unit Mounting Plate (7) to be mounted to the exterior wall, making sure to avoid direct sunshine and rain.
9. Position the Outdoor Unit Mounting Plate (7) against the wall at a height of five feet from the floor/ground surface. **NOTE:** Make sure to use a leveling device to ensure the Mounting Plate is straight and level against the wall. (See Figure D.)
10. Using the two small openings in the Outdoor Unit Mounting Plate (7) as a template, mark the spots where two 1/8" diameter holes will be drilled in the wall. (See Figure D.)
11. Temporarily remove the Outdoor Unit Mounting Plate (7) from the wall. Then, drill the two pre-marked 1/8" diameter holes in the wall. (See Figure D.)
12. Insert one plastic Wall Anchor (5) into each of the two pre-drilled holes in the wall. (See Figure D.)
13. Position the Outdoor Unit Mounting Plate (7) in a shaded spot against the wall, aligning the two openings in the Mounting Plate with the two pre-drilled holes in the wall. Screw two Screws (5) with two Washers (5) into the plastic Wall Anchors (5) to secure the Mounting Plate to the wall. **NOTE:** Use a leveling device

to ensure the Mounting Plate is straight and level before tightening the Screws.
(See Figure D.)

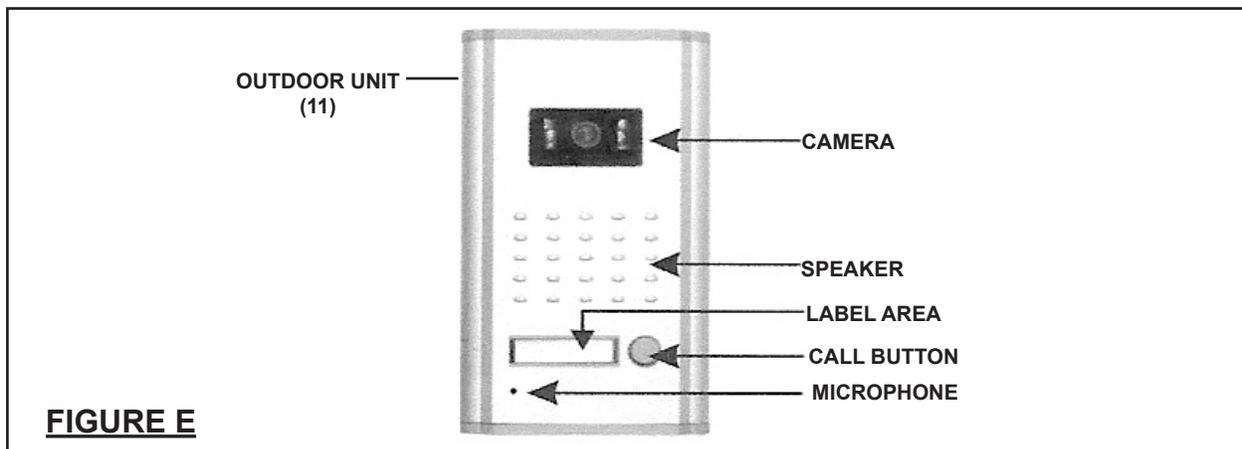
To Connect The Wiring:

Note: The Outdoor Unit (11) is factory pre-wired with approximately fifty feet of Telephone Cord (6). If more length is required between the Indoor Unit (1) and Outdoor Unit, use **RVV5 x 0.5 mm²** cord (not included). (See Assy. Diagram.)

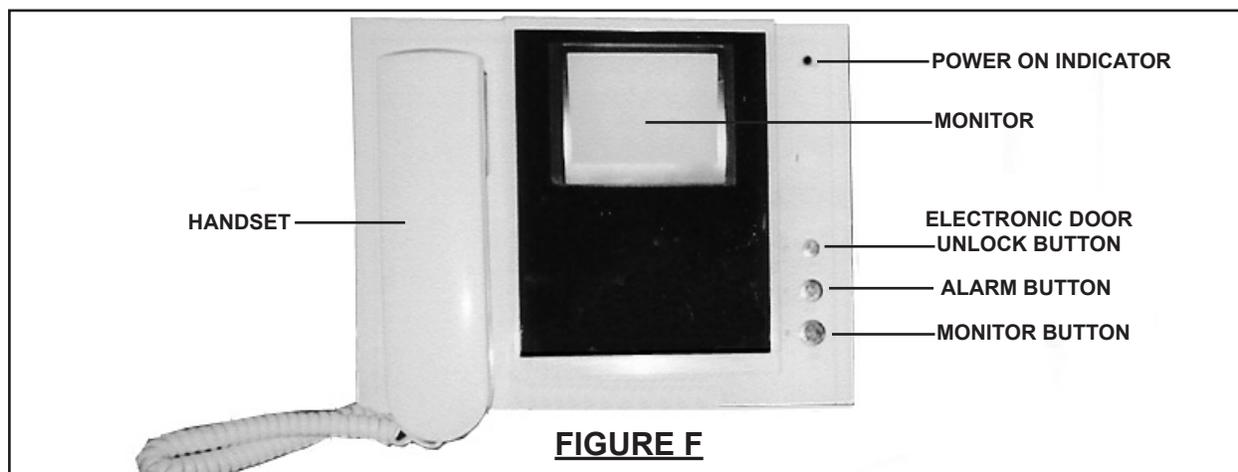
1. **⚠ WARNING! Avoid accidental electrical shock.** If running the Telephone Cord (6) within wall, floor, or ceiling spaces from the Outdoor Unit (11) to the Indoor Unit (1) check hidden areas within the spaces to avoid cutting into live electrical wires, gas and water pipes. (See Assy. Diagram.)
2. Place the Outdoor Unit (11) in its Outdoor Unit Mounting Plate (7), and secure the Outdoor Unit to the Mounting Plate by tightening the two Screws (8). (See Figure D and Assy. Diagram.)
3. Hang the Indoor Unit (1) on its Indoor Unit Mounting Plate (4). (See Figure C and Assy. Diagram.)
4. Run the Telephone Cord (6) from the Outdoor Unit (11) to the Indoor Unit (1). Then, connect the plug of the Telephone Cord to the receptacle on the Indoor Unit. (See Assy. Diagram.)
5. Connect the plug of the AC Adapter (3) to the power input socket on the Indoor Unit (1). Then, plug the AC Adapter into the nearest 120 volt, grounded, electrical outlet. (See Assy. Diagram.)

Note: The Video Doorphone may also be wired to control an electronic door lock (not included). Refer to the **“Electrical Schematic”** in this manual for wiring instructions.

OUTDOOR UNIT FEATURES



INDOOR UNIT FEATURES



OPERATING INSTRUCTIONS

Note: The Camera on the Outdoor Unit (11) has a *maximum* field of vision of approximately 13 feet. **(See Figure E.)**

1. To operate the Video Doorphone, press the Call Button on the Outdoor Unit (11). A chime will immediately sound on the Indoor Unit (1), and the visitor's image will automatically appear on the Monitor of the Indoor Unit. **(See Figures E and F.)**
2. Pick up the Handset on the Indoor Unit (1) and you can speak with the visitor. The visitor's image will disappear from the Monitor when you hang up the Handset. **(See Figure F.)**
3. An image of the visitor on the Monitor will last for one minute, and then disappear. By pressing the Monitor Button on the Indoor Unit (1), the visitor's image will reappear for *another* sixty seconds or until you hang up the Headset. **(See Figure F.)**
4. You must pick up the Handset on the Indoor Unit (1) to operate the Electronic Door Opener (if an electronic lock is used). To operate, simply press the Electronic Door Unlock Button on the Indoor Unit. **(See Figure F.)**

Note: The Alarm Button, located on the indoor unit, activates an alarm on the outdoor unit when pressed. It is designed to deter unwanted guests or summon help. **(See Figure F.)**

IMPORTANT: Always hang up the Handset when the Video Doorphone is not in use.

INSPECTION, MAINTENANCE, AND CLEANING

⚠️ WARNING

Make sure the AC Adapter (3) of the Video Doorphone is disconnected from its electrical outlet prior to performing any inspection, maintenance, or cleaning procedures. All maintenance, service, or repairs not mentioned in this manual must only be performed by a qualified service technician.

1. **Before each use**, inspect the general condition of the Video Doorphone and its accessories. Check for loose screws, damaged wiring, cracked or broken parts, and any other condition that may affect safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
2. **To clean the Monitor and Camera**, use only a dry, clean cloth. Do not use liquid detergents or solvents. Do not immerse any part of this product in liquids.
3. **To clean the remaining exterior parts of the Video Doorphone**, use a clean cloth with a mild detergent. Do not use solvents.

TROUBLESHOOTING

Problem	Possible Solution
The Video Doorphone is assembled, but does not operate.	<ol style="list-style-type: none"> 1. Make sure to press the Call Button on the Outdoor Unit. Then, press the Monitor Button on the Indoor Unit. 2. Check to make sure the AC Adapter is properly connected to the Indoor Unit. Make sure the AC Adapter is properly connected to a working, 120 volt, grounded, electrical outlet. 3. Make sure the Telephone Cord is properly connected from the Outdoor Unit to the Indoor Unit. Make sure the Telephone Cord is not damaged.
Video quality is poor.	<ol style="list-style-type: none"> 1. The visitor must be within 13 feet of the Camera on the Outdoor Unit for proper video quality. 2. Adjust the Contrast and Brightness controls on the Indoor Unit. 3. Make sure the Camera on the Outdoor Unit is free of dirt and debris. Avoid placing the Camera in direct sunlight.
Sound quality is poor.	<ol style="list-style-type: none"> 1. The visitor must be within 13 feet of the Speaker on the Outdoor Unit, and must speak clearly in a normal tone of voice. 2. Adjust the Volume control on the Indoor Unit.
Electronic Door Unlock does not operate.	Have a qualified service technician check the electronic door lock and its wiring to the Indoor Unit. (Two wires of the electronic door lock must be connected to terminals C and D on the Indoor Unit, using RVV2 x 1.0mm ² or RVV2 x 1.5mm ² cord.)

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISKS AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

PARTS LIST & ASSEMBLY DIAGRAM

Part	Description
1	Indoor Unit
2	Hand Set & Cord
3	AC Adapter
4	Indoor Unit Mounting Plate
5	Mounting Hardware (Screws, Washers, Anchors)
6	Telephone Cord

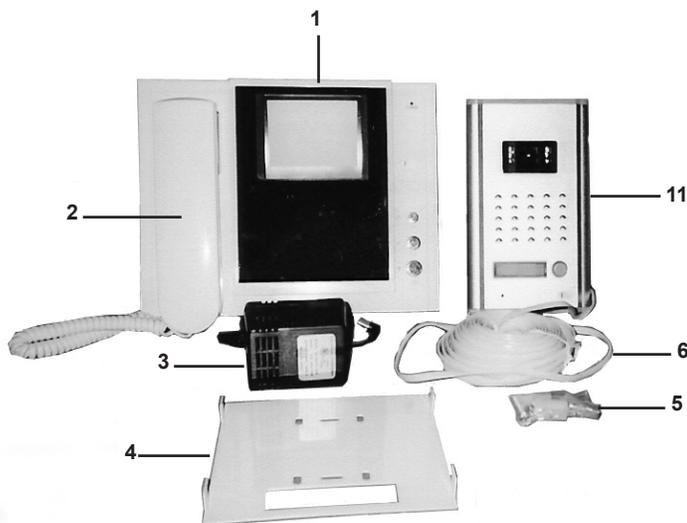
Part	Description
7	Outdoor Unit Mounting Plate
8	Screw
9	Bottom Panel (Outdoor Unit)
10	Top Panel (Outdoor Unit)
11	Outdoor Unit

7: Outdoor Unit Mounting Plate Not Shown.

8: Screw Not Shown.

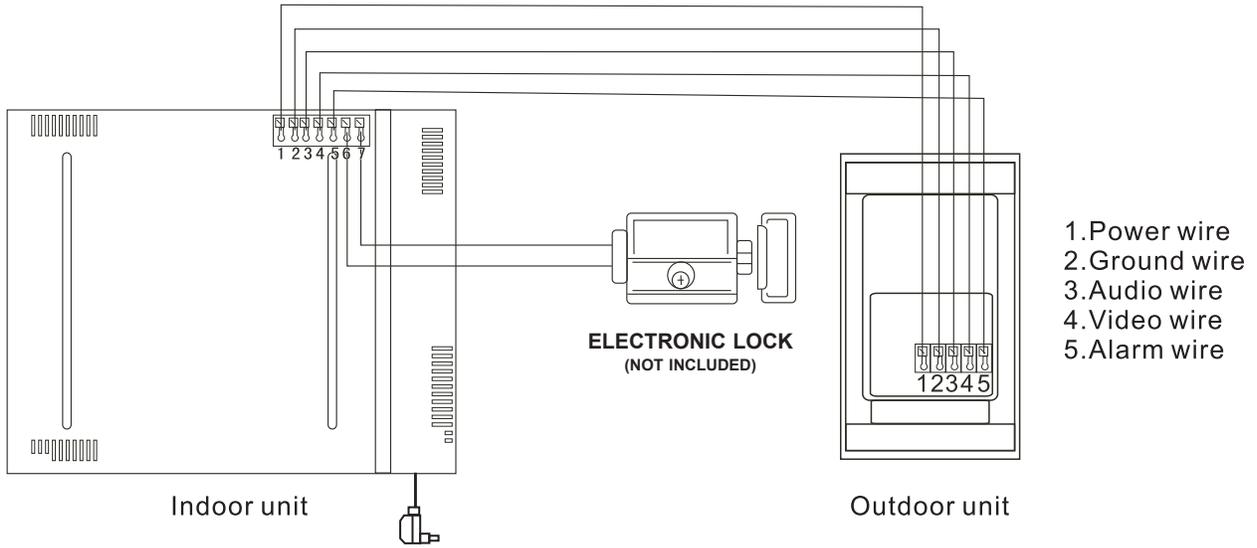
9: Bottom Panel (Outdoor Unit) Not Shown.

10: Top Panel (Outdoor Unit) Not Shown.



Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

ELECTRICAL SCHEMATIC



Note: If connecting the Indoor Unit (1) to an electronic lock, terminals C and D on the Indoor Unit must be connected with the electronic lock using RVV2 x 1.0mm² or RVV2 x 1.5mm² cord.