

Installation Guide

Model Name	Model No.
Video Intercom System	VL-SV70



Door station



Main monitor station

- Door station is described as "doorphone" and Main monitor station is described as "main monitor" in this guide.
- In this guide, the suffix of each model number (e.g., the "BX" in "VL-SV70BX") is omitted unless necessary.

Note to the installer

- Before attempting to connect or operate this product, please read the nameplate on the bottom or rear of the product.
- Please read this guide carefully, and install the product safely and correctly by following the instructions. Carefully read the information found in the section titled "For your safety" in particular.
- Only use attachments/accessories specified by the manufacturer.
- The installation shall be carried out in accordance with all applicable installation rules.
- To the maximum extent permitted by law, Panasonic assumes no responsibility for injuries or property damage resulting from failures arising out of improper installation or operation inconsistent with this document.
- After installation, make sure to leave this guide with the customer.

For your safety

To prevent severe injury and loss of life/property, read this section carefully before using the product to ensure proper and safe operation of your product.



WARNING

Preventing fire, electric shock and short circuits

- **Leave installation work to the dealer. Installation work requires technique and experiences. Failure to observe this may cause fire, electric shock, injury, or damage to the product. Consult the dealer.**
- **Electrical connection work should be performed by certified personnel only. Certification is required for performing electrical connection work. Consult your dealer.**
- Do not attempt to disassemble or modify this product. Contact an authorised service centre for repairs.
- Never install wiring during a lightning storm.
- Do not connect non-specified devices.
- Do not connect a power cable to a terminal that is not specified in this guide.
- When opening holes in walls for installation or wiring, or when securing the power cable, make sure you do not damage existing wiring and ductwork.
- Do not make any wiring connections when the power supply is turned on.
- Do not install the main monitor in the following places:

- Places where the main monitor may be splashed with water or chemicals.
- Places where there is a high concentration of dust, or high humidity.
- Do not place objects on the power cables. Install the product where no one can step or trip on the power cables.
- Do not allow the power cables to be excessively pulled, bent or placed under heavy objects.
- When existing wires are used, it is possible that they contain AC voltage. Contact an authorised service centre.



CAUTION

Preventing electric shock

- If the wiring is underground, do not make any connections underground.
- If the wiring is underground, use a protection tube.
- If the wiring is outdoors, use a protection tube or a surge protector.

Preventing injury

- Install the product securely adhering to the instructions in this guide to prevent it from falling off the wall. Avoid installing onto low-strength walls, such as gypsum board, ALC (autoclaved lightweight concrete), concrete block, or veneer (less than 18 mm thick) walls.
- To prevent serious injuries due to the product unexpectedly falling, the product with a wall mount feature must be installed at a height of 2 m or lower.

Supplied accessories for installation

For the doorphone



Screw × 2
(3.8 mm × 20 mm)

For the main monitor	
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Mounting bracket × 1



Screw × 2
(4 mm × 16 mm)

Important:

- You will need the following additional items to install and configure the doorphone and the main monitor.

[Locally procured]

- Wires (for doorphone and other connections):
Prepare wires of the appropriate specification. (→ "Wire type and length")

Note:

- The illustrations in the supplied manual(s) may vary slightly from the actual product.

Precautions for installation

To avoid malfunction or communication disturbances, do not install the doorphone or the main monitor in the following locations:

- Places where vibration or any other kind of impact occurs.
- Places where echoing is frequent.
- Places near a high concentration of dust, hydrogen sulphide, ammonia, sulphur, or noxious fumes.

For the doorphone

- If a strong light is shining on the doorphone, the visitor's face may not be distinguishable. Do not place the doorphone in the following locations:
 - Where most of the background is the sky.
 - Where the background is a white wall, and direct sunlight will reflect off it.
 - Where direct sunlight will shine on the doorphone.
- Do not place the doorphone in locations where echoing occurs, as this will cause the doorphone to beep frequently.
- Make sure the rear of the doorphone is not subject to water.
- Depending on the installation location, condensation may form on the doorphone's lens cover. This may cause images to become obscured. Condensation will dissipate as the temperature rises.

For the main monitor

- Leave at least 20 cm of space above, below, and to the left and right sides of the main monitor. Do not install on a wall that is deeply recessed.
- Do not install the main monitor inside a wall.
- Be sure to install the main monitor more than 5 m away from the doorphone.
- In areas surrounded by a high electrical field, disturbances may occur in the main monitor's image or sound.

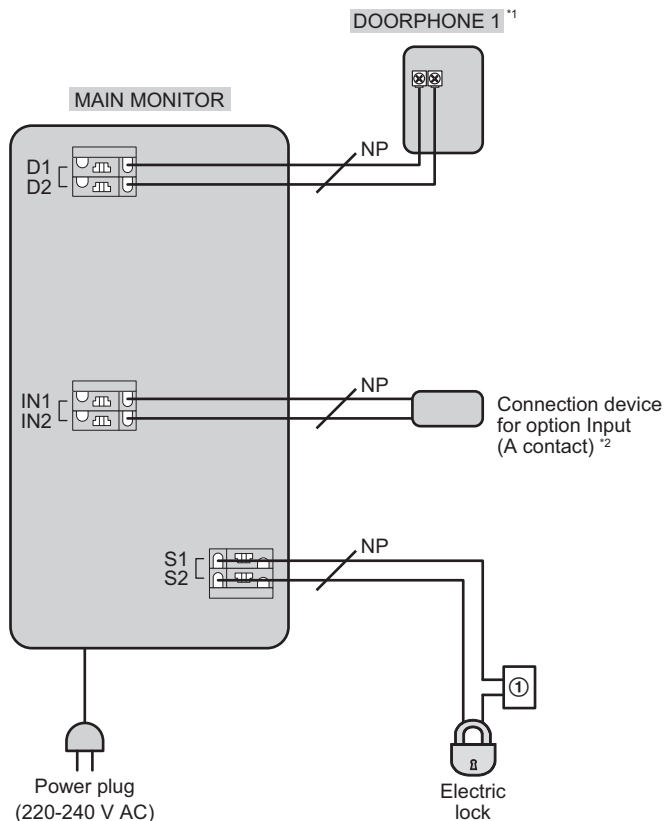
Important:

- **Do not use any cleaning products that contain alcohol, polish powder, powder soap, benzene, thinner, wax, petroleum, or boiling water. Also do not spray the product with insecticide, glass cleaner, hair spray or wall paint. This may cause a change in colour or quality of the product.**

Wiring schematic diagram

Set up correctly according to the following wiring schematic diagram and "Wire type and length".

- For information, such as order numbers, about optional devices that can be connected to, refer to the "Additional/replacement accessories" section in the Operating Instructions.



① Power supply

*1 When you use an additional doorphone, the maximum number of the electric locks that can be connected to the doorphone depends on the type of doorphone. Consult your dealer for further information.

For VL-V554 users:

- Only connect the electric lock to either the S1/S2 terminals of the main monitor or the S1/S2 terminals of the doorphone.

*2 Connection devices for option input (A contact).

- Make sure to connect doorbells to the IN1/IN2 terminals.

Wire type and length

Wiring run	Wire type*1		
	Diameter		Length (Max.)
Doorphone – Main monitor	ø 0.65 mm	22 AWG	100 m
	ø 1.0 mm	18 AWG	130 m
	ø 0.5 mm	CAT 5	50 m
Main monitor – Electric lock*2	ø 0.5 mm - ø 1.2 mm (24 AWG - 17 AWG)		According to the specifications of the connected device.
Main monitor – Connection device for option input (A contact)*2	ø 0.5 mm - ø 1.2 mm (24 AWG - 17 AWG)		According to the specifications of the connected device.

*1 Type: Single-pair cable with outer sheath (jacket)

Conductor: Copper solid

- A certified power supply wiring has to be used with this equipment. The relevant national installation and/or equipment regulations shall be considered. A certified power supply wiring not lighter than ordinary polyvinyl chloride flexible wiring according to IEC 60227 shall be used.

*2 When using an electric lock or a connection device for option input (A contact), select a device that meets the following guidelines:

- Electric lock connection terminal (S1/S2):
 - N/O dry closure contact
 - 30 V AC (1 A)/24 V DC (1 A) or lower
- Connection device for option input (A contact) terminal (IN1/IN2):
 - Input method: No-voltage contact
 - Open-circuit voltage between terminals: DC 7 V or less
 - Detection definite time: 0.1 second or more
 - Short-circuit between terminals: 5 mA or less
 - Resistance value: make: 500 Ω or less, break: 15 KΩ or more

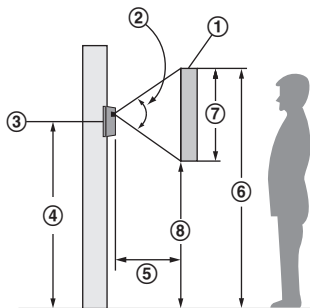
Doorphone installation position

Installation position of the doorphone and camera range

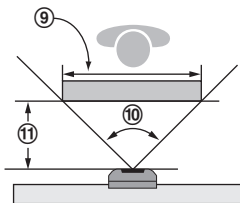
Views when the camera is facing forwards at 0° (default).

- Example: Installation height is 1450 mm (standard position).

(Units: mm)



A view when looking from above



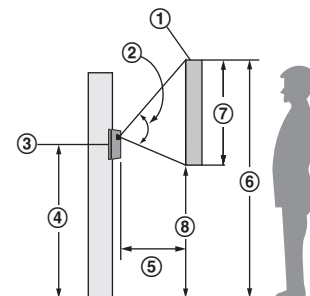
- ① Image range ② Approx. 66° ③ Centre of doorphone ④ Approx. 1450 ⑤ Approx. 500
 ⑥ Approx. 1810 ⑦ Approx. 650 ⑧ Approx. 1160 ⑨ Image range: Approx. 960 ⑩ Approx. 87°
 ⑪ Approx. 500

The camera angle can be adjusted using the camera angle control lever on the rear of the doorphone (step 3, "Installing the doorphone"), so that the image range can be changed.

Side view when the camera is installed lower than the standard position, and facing upwards at 15°.

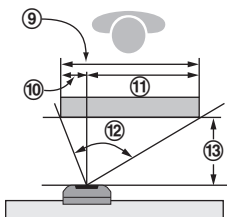
- Example: Installation height is 1100 mm.

(Units: mm)



Top view when the camera is facing left or right at 15° *1.

- Example: Camera angle faces left 15°.



- ① Image range ② Approx. 66° ③ Centre of doorphone ④ Approx. 1100 ⑤ Approx. 500
 ⑥ Approx. 1690 ⑦ Approx. 710 ⑧ Approx. 980 ⑨ Image range: Approx. 1080 ⑩ Approx. 270
 ⑪ Approx. 810 ⑫ Approx. 87° ⑬ Approx. 500

*1 If the camera points 15° upwards, the left or right angle is less than 7°.

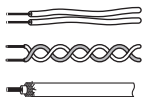
Note:

The measurements and angles are for reference purposes and may vary depending on the environment.

Installing the doorphone

Important:

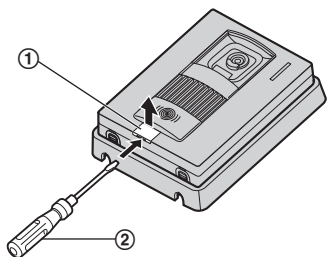
- On the bottom surface of the doorphone and the mounting base, there are holes to allow water to drain. Do not cover them up when installing.
- When existing wiring (such as chime wires) is used:
 - It may contain AC voltage that may cause electric shock and/or damage the product.
 - Never use the following types of wiring. Consult a qualified technician/dealer.



- See "Wire type and length" for information about wiring materials.

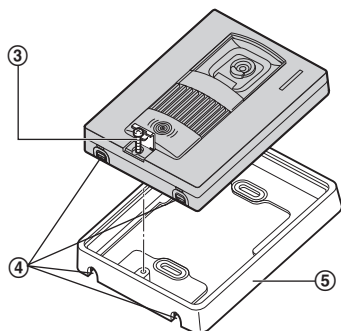
1 Remove the mounting base.

- 1 Open the screw cover (1).



② ⊖ Screwdriver

- 2 Loosen the mounting screw (3).

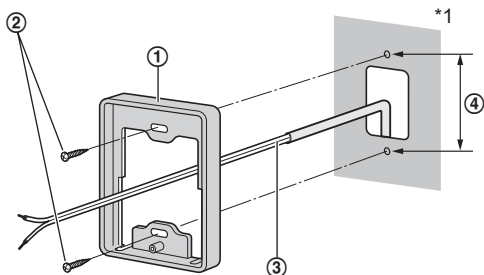


④ Water drain holes

⑤ Mounting base

2 Attach the mounting base (1) to the wall securely using the wood screws (2) (accessory).

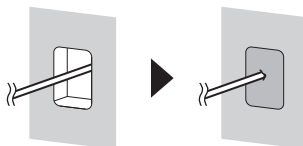
- Install the mounting base on a vertical flat wall.
- Before drilling, refer to "Precautions for installation" for installation location.



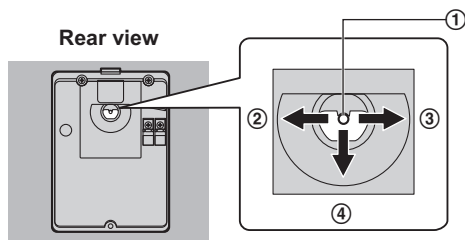
③ Wire (locally procured)

④ 83.5 mm

- *1 To prevent dew condensation, fill a hole for wiring as much as possible.



3 Adjust the camera angle using the camera angle control lever.



① Camera angle control lever

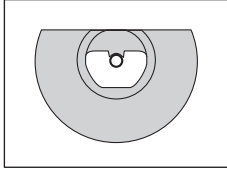
② Left (maximum 15°)

③ Right (maximum 15°)

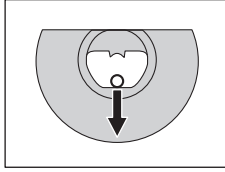
④ Upwards (maximum 15°)

Examples of camera angle

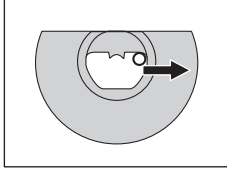
Facing forwards



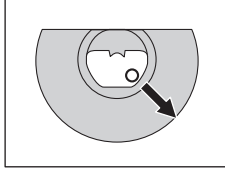
Facing upwards



Facing left



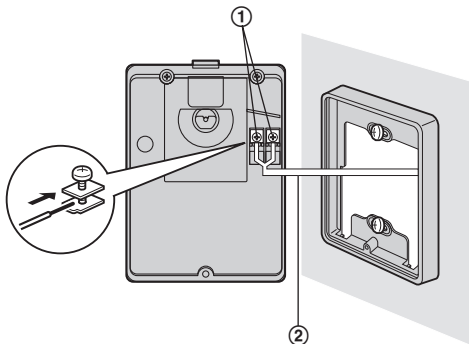
Facing upper left



- The angle can also be adjusted to the right or upper right.

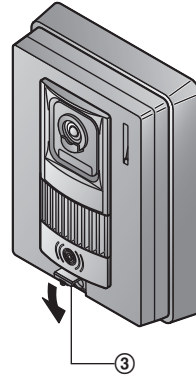
Important:

- When the camera angle is adjusted to the upper left or upper right, the image may be slightly distorted.
- 4** Connect the wire, then mount the doorphone to the mounting base.
- 1** Unscrew the screws.
Push in the wire to the terminal connectors (non polar), then tightly fasten the screws (1).
- ① – Recommended torque: 0.5 N·m {5.1 kgf·cm}
 - Maximum torque: 0.7 N·m {7.1 kgf·cm}



② Wire (connecting to the main monitor)

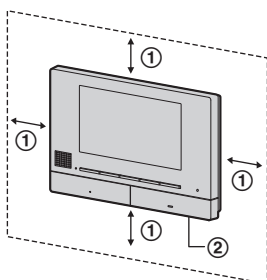
- 2** Mount the doorphone to the mounting base. Fasten the screw, then close the screw cover (3).



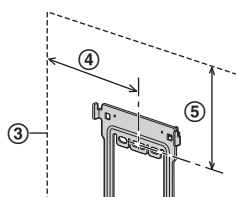
Main monitor installation position

About the installation position of the main monitor and mounting bracket

- Place the main monitor in a location that your eyes are the same height as the centre of the display.
- For the following reasons, leave at least 20 cm (①) of space above, below, and to the left and right sides of the main monitor:
 - To prevent malfunction and sound cutting out
 - To ensure to make sure the reset button (②) can be used (the reset button is on the bottom of the main monitor)



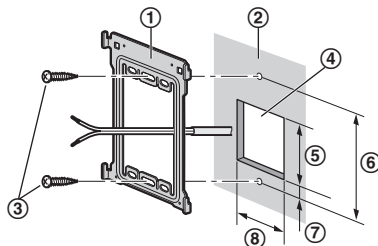
- After deciding where to install the main monitor, attach the mounting bracket in the location shown below.



- ③ Main monitor installation position
- ④ 121.5 mm
- ⑤ 58 mm

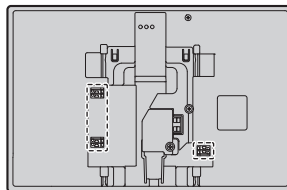
Installing the main monitor

- 1 Attach the mounting bracket (①) to the wall securely.
 - Install the mounting bracket on a vertical flat wall (②).

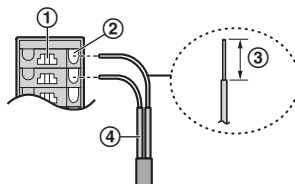


- ③ Screws (accessory)
- ④ Hole in wall ⑤ 60 mm ⑥ 83.5 mm
- ⑦ 7 mm ⑧ 50 mm

- 2 Connect the wires.
 - Connect the wires correctly according to "Wiring schematic diagram".



- **How to make wiring connections**
While pressing on the button (①) with a pointed object such as a screwdriver, insert the wire into the terminal connector (②). (To disconnect a wire, while pressing on the button (①), pull out the wire.)

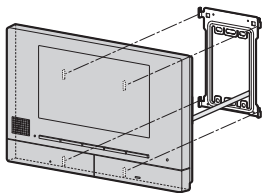


- ③ Core conductor wire at tip: 9 mm
- ④ Wiring from doorphone or other device

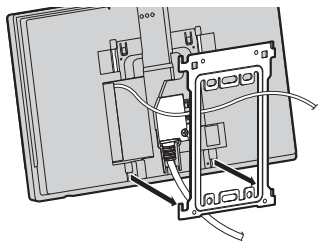
Important:

Do not connect the power cable.
(Damage may occur.)

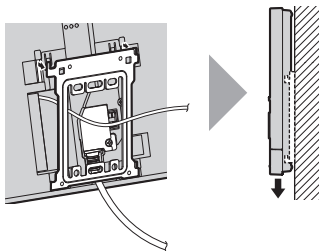
3 Mount the main monitor to the mounting bracket.



3-1 Line up the tab on the bottom of the bracket with the groove on the main monitor.



3-2 Line up the tab on the top of the bracket with the groove on the main monitor, and push the main monitor down until it is secure.



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PNQX9134ZA

PNQX9134ZA C1020MM0