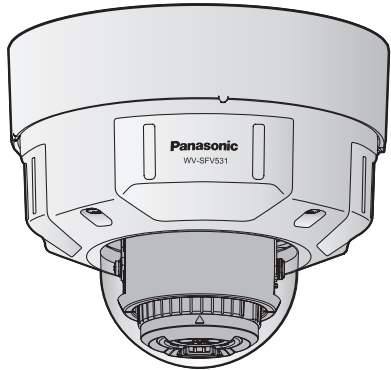


Network Camera

Model No. WV-SFV531



- This manual describes the installation procedures, network camera installation, cable connections, and the angle of view adjustment.
- Before reading this manual, be sure to read the Important Information.

For U.S. and Canada:

Panasonic System Communications
Company of North America,
Unit of Panasonic Corporation
of North America
www.panasonic.com/business/
For customer support, call 1.800.528.6747
Two Riverfront Plaza, Newark, NJ 07102-5490

Panasonic Canada Inc.
5770 Ambler Drive, Mississauga,
Ontario, L4W 2T3 Canada
(905)624-5010
www.panasonic.ca

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For Europe and other countries:

Panasonic Corporation
http://www.panasonic.com

Panasonic Corporation
Osaka, Japan

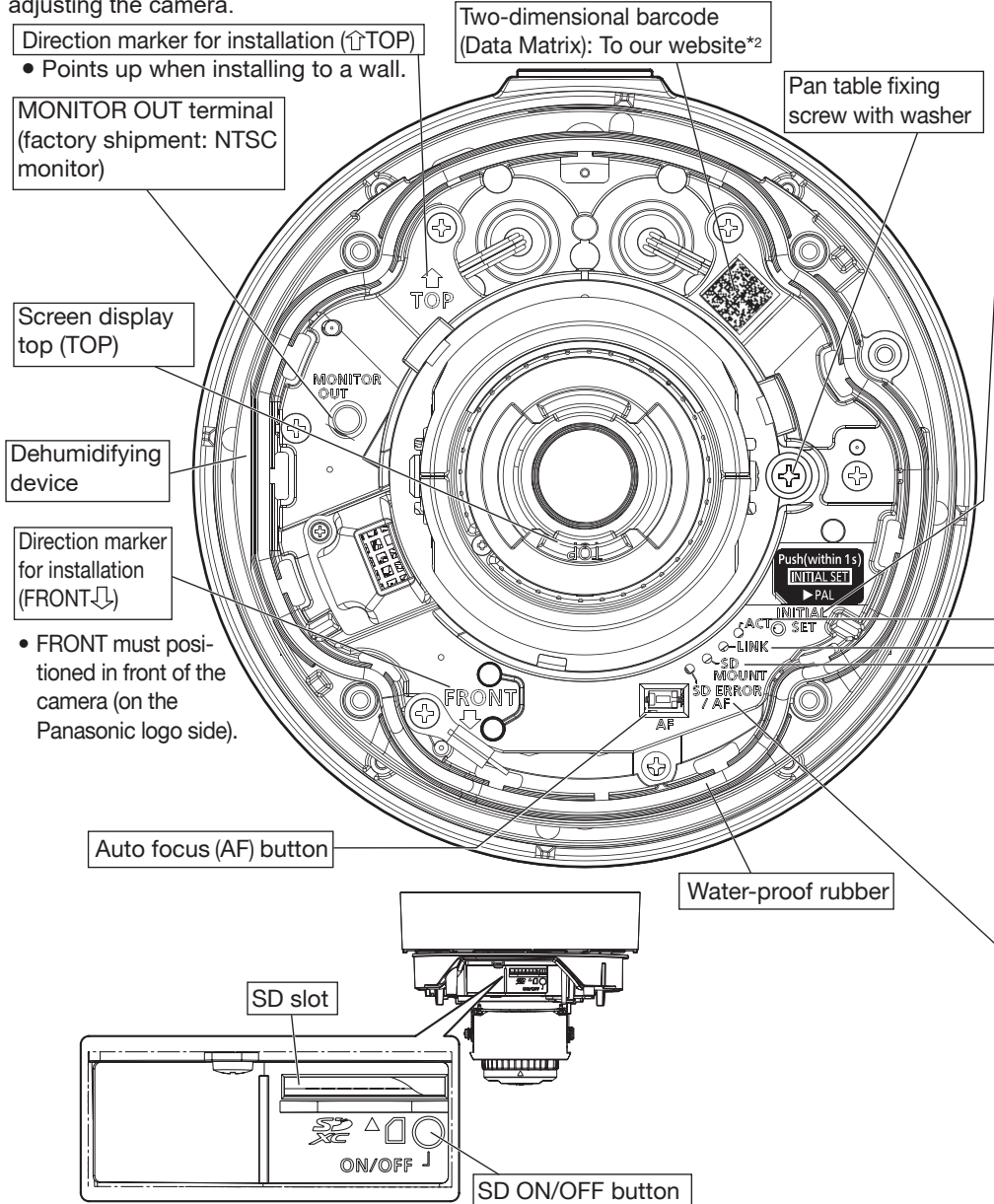
Authorised Representative in EU:

Panasonic Testing Centre
Panasonic Marketing Europe GmbH
Winsbergirg 15, 22525 Hamburg, Germany

PGQX1907XA sL0615-3047 Printed in China

Parts and functions

The component names of the camera are as follows. Refer to the illustration when installing or adjusting the camera.



*1 SDXC/SDHC/SD memory card is described as SD memory card.

*2 Depending on the scanning application used, the Data Matrix may not be able to be read correctly. In this case, access the site by directly entering the following URL.
http://security.panasonic.com/pss/security/support/qr_sp_select.html

Standard accessories

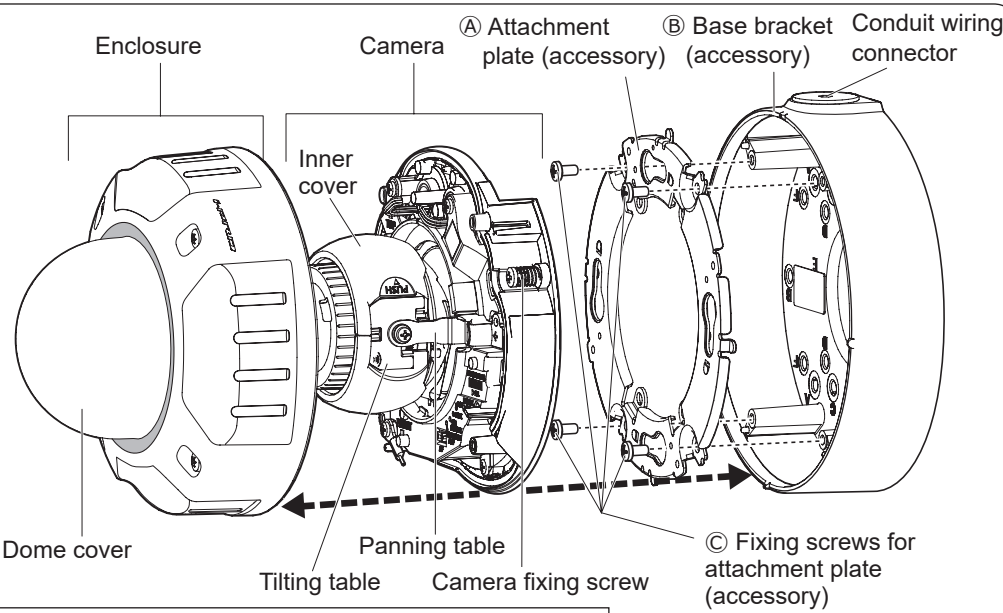
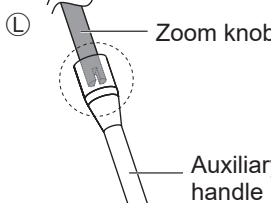
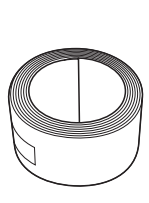
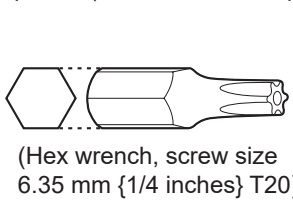
Important Information	1 pc.	CD-ROM*1	1 pc.
Installation Guide (this document)	1 set	Code label*2	1 pc.
Warranty card	1 set		

*1 The CD-ROM contains the operating instructions and different kinds of tool software programs.

*2 This label may be required for network management. The network administrator shall retain the code label.

The following parts are used during installation procedures.

Ⓐ Attachment plate	1 pc.	ⓐ Template B (for the base bracket) ...	1 sheet
Ⓑ Base bracket	1 pc.	ⓑ Bit (Hex wrench, screw size 6.35 mm	{1/4 inches} T20)
Ⓒ Fixing screws for attachment plate	(M4 × 8 mm)	ⓓ 2P power cable	1 pc.
	5 pcs.	ⓔ LAN connector cover	1 pc.
	(of them, 1 for spare)	ⓕ Waterproof tape	1 pc.
Ⓓ 4P alarm cable	1 pc.	ⓖ Auxiliary handle	1 pc.
Ⓔ MONITOR OUT conversion plug	1 pc.		
Ⓕ Template A (for the attachment plate).	1 sheet		



INITIAL SET button (Initializing / NTSC⇔PAL switch button)

- How to initialize the camera
- Follow the steps below to initialize the network camera.
- Turn off the power of the camera. When using a PoE hub, disconnect the LAN cable from the camera. When using an external power supply, disconnect the 2P power cable plug from the camera.
- Turn on the power of the camera while holding down the INITIAL SET button, and keep the INITIAL SET button held down till the SD MOUNT indicator is lit in green (more than 10 seconds). In about 2 minutes after releasing the INITIAL SET button, the camera will start up and the settings including the network settings will be initialized.

IMPORTANT:

- When the camera is initialized, the settings including the network settings will be initialized. Note that the CRT key (SSL encryption key) used for the HTTPS protocol will not be initialized.
- Before initializing the settings, it is recommended to write down the settings in advance.
- Do not turn off the power of the camera during the process of initialization. Otherwise, it may fail to initialize and may cause malfunction.

- When the INITIAL SET button (i.e. the initializing button) is pressed (less than 1 second) to switch the output signal of the MONITOR OUT terminal (NTSC⇔PAL output), the MONITOR OUT terminal can be switched for the NTSC monitor/PAL monitor.

ACT indicator

- When data is being sent via the network camera

Blinks green (accessing)

LINK indicator

- When the camera is able to communicate with the connected device

Lights orange

SD MOUNT indicator

- When an SD memory card*1 is inserted and could be recognized
- When data can be saved after the SD memory card is inserted and the SD ON/OFF button is pressed (less than 1 second)
- When data can be saved to the SD memory card
- When the SD memory card is removed after holding down the SD ON/OFF button (about 2 seconds)

Lights off → Blinks green →
Lights off
Lights off → Lights green

Lights green
Lights green → Blinks green →
Lights off (recording)
Lights green → Lights off
(waiting for recording)
Lights off

- When data cannot be saved to the SD memory card because an abnormality was detected or the SD memory card is configured not to be used

SD ERROR/AF indicator

- When AF (Auto Focus) operation is being executed
- When the set is being started
- When an SD memory card is recognized normally
- When an abnormality is detected in SD card or the SD slot is not used after the camera has started

Blinks red (Interval of 1 time/ second)
Lights red
Lights red → Lights off
Lights red → Stays red

Note:

- Lighting/blinking LED can be turned off with the software settings at any time. (The initial state is lighting or blinking.) Set the LED to be solid off if necessary, depending on the installation conditions. (☞ Operating instructions included in the CD-ROM)

Making connections

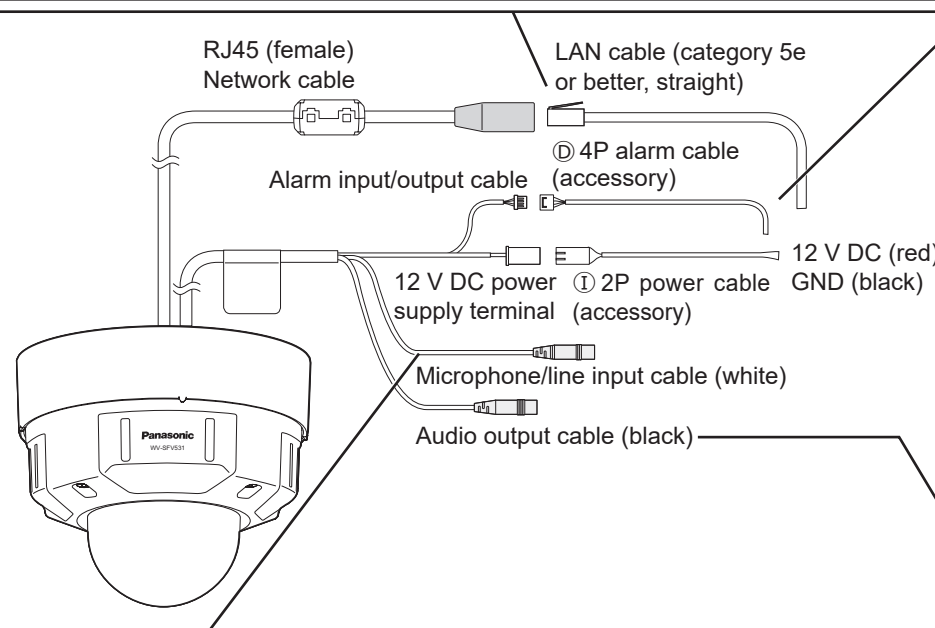
Turn off each system's power supply before making a connection. Before making connections, prepare the required peripheral devices and cables.

Connect a LAN cable to the RJ45 (female) network cable

* Use a LAN cable (category 5e or better, 8 pins, straight).

IMPORTANT:

- Use all 4 pairs (8 pins) of the LAN cable (category 5e or better, straight).
- The maximum cable length is 100 m {328 feet}.
- Make sure that the PoE device in use is compliant with IEEE802.3af standard.
- When connecting both the 12 V DC power supply and the PoE device for power supply, 12 V DC will be used for power supply*.
- If a 12 V DC power supply and a PoE hub or router are used at the same time, network connections may not be possible. In this case, disable the PoE settings. Refer to the operating instructions of the PoE hub or router in use.
- In the situation where a 12 V DC power supply and a PoE hub or router are used at the same time and the 12 V DC power supply is then disconnected, the power supply may be stopped and the camera may restart depending on the PoE hub or router used.
- When the LAN cable is disconnected once, reconnect the cable after around 2 seconds. When the cable is quickly reconnected, the power may not be supplied from the PoE device.
- When cables are used outdoors, there is a chance that they may be affected by lightning. In this case, install a lightning arrester just before where the cables connect to the camera.



Microphone/line input cable

Connect a stereo mini plug (ø3.5 mm).

- Input impedance: Approx. 2 kΩ (unbalanced)
- Recommended cable length: Less than 1 m {32.8 feet} (for microphone input)
Less than 10 m {32.8 feet} (for line input)
- Recommended microphone: Plug-in power type (option)
- Supply voltage: 2.5 V ±0.5 V
- Recommended sensitivity of microphone: -48 dB ±3 dB (0 dB=1 V/Pa, 1 kHz)
- Input level for the line input: Approx. -10 dBV

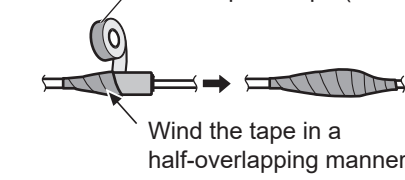
Waterproof treatment for the cable joint sections

Adequate waterproof treatment is required for the cables when installing the camera with cables exposed or installing it under the eaves. The camera body is waterproof, but the cable ends are not waterproof.

Be sure to use the supplied waterproof tape at the points where the cables are connected to apply waterproof treatment in the following procedure. Failure to observe this or use of a tape other than the (K) waterproof tape (accessory) (such as a vinyl tape) may cause water leakage resulting in malfunction.

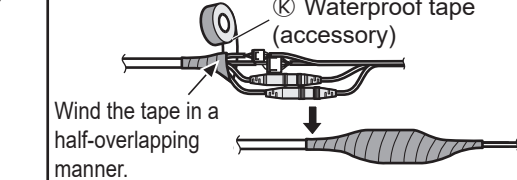
<LAN cable>

- Waterproof tape (accessory)



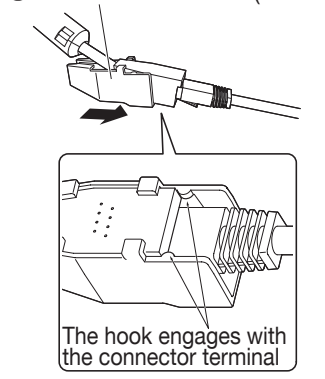
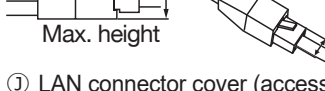
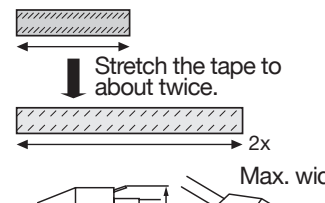
<Alarm input/output cable, power cable, microphone/line input cable, audio output cable>

- Waterproof tape (accessory)



IMPORTANT:

- Also waterproof the 2P power cable (accessory), 4P alarm cable (accessory), and external connections in the same way.
- Stretch the tape by approx. twice (see the illustration) and wind it around the cable. Insufficient tape stretch causes insufficient waterproofing.
- To prevent the LAN cable hook from coming loose easily, fit the LAN connector cover (accessory) onto the pigtail cable as illustrated, and then slide it in the direction indicated by the arrow. The connector of the LAN cable used with this camera must meet the following restrictions. Height when inserted (From bottom to hook.): Max. 16 mm {5/8 inches} Connector width: Max. 14 mm {9/16 inches}
- To install this product outdoors, be sure to waterproof the cables. Waterproof grade (IEC IP66 or equivalent) is applied to this product only when it is installed correctly as described in these operating instructions and appropriate waterproof treatment is applied. The internal parts of base brackets (accessory) are not waterproofed.



Connect the alarm input/output cable

④ 4P alarm cable (accessory)



<Ratings>

- ALARM IN1(DAY/NIGHT IN), ALARM IN2, ALARM IN3
- Input specification: No-voltage make contact input (4 V - 5 V DC, internally pulled up)
- OFF: Open or 4 V - 5 V DC
- ON: Make contact with GND (required drive current: 1 mA or more)
- ALARM OUT, AUX OUT
- Output specification: Open collector output (maximum applied voltage: 20 V DC)
- Open: 4 V - 5 V DC by internal pull-up
- Close: Output voltage 1 V DC or less (maximum drive current: 50 mA)
- * The default of EXT I/O terminals is "Off".

IMPORTANT:

- Be sure to use the ④ 4P alarm cable (accessory) provided with this product.
- When using the EXT I/O terminals as the output terminals, ensure they do not cause signal collision with external signals.
- Install external devices so that they do not exceed the ratings above.

Note:

- Off, input, and output of the external I/O terminal 2 and 3 can be switched by configuring the setting. Refer to the operating instructions on the provided CD-ROM for further information about the EXT I/O terminal 2 and 3 (ALARM IN2, 3) settings ("Off", "Alarm input", "Alarm output" or "AUX output").

Connect the power cable

Caution:

- A READILY ACCESSIBLE DISCONNECT DEVICE SHALL BE INCORPORATED TO THE EQUIPMENT POWERED BY 12 V DC POWER SUPPLY.
- ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY (UL 1310/CSA 223) or LIMITED POWER SOURCE (IEC/EN/UL/CSA 60950-1).

Power cable

	12 V DC
Red	Positive
Black	Negative

Connect the output cable of the AC adaptor to the 2P power cable (accessory).

IMPORTANT:

- The 12 V DC power supply shall be insulated from the commercial AC power.
- Be sure to use the 2P power cable (accessory) provided with this product.
- Be sure to fully insert the 2P power cable (accessory) into the 12 V DC power supply terminal. Otherwise, it may damage the camera or cause malfunction.
- When installing the camera, make sure that excessive force is not applied to the power cable.
- Be sure to use an AC adaptor compliant with the Specifications (written in the indication label on the bottom side of this unit) regarding power source and power consumption.

Connect an external amplifier-embedded speaker to the audio output cable

Connect a stereo mini plug (ø3.5 mm).

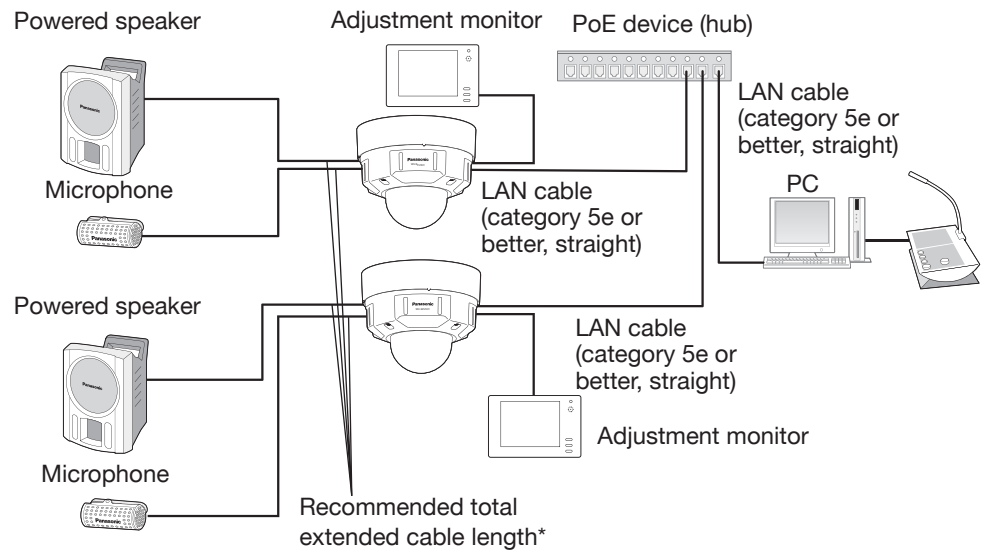
- Output impedance: Approx. 600 Ω (unbalanced)
- Recommended cable length: Less than 10 m {32.8 feet}
- Output level: -20 dBV

IMPORTANT:

- Connect/disconnect the audio cables and turn on the power of the camera after turning off the power of the audio output devices. Otherwise, loud noise may be heard from the speaker.
- Make sure that the stereo mini plug is connected to this cable. When a monaural mini plug is connected, audio may not be heard. When connecting a monaural speaker with amplifier, use a locally procured conversion cable (mono-stereo).

When connecting to a network using a PoE hub

Before starting the installation, check the entire system configuration. The following illustration gives a wiring example of how to connect the camera to the network via a PoE device (hub).



<Required cable>

- LAN cable (category 5e or better, straight)
- Use a LAN cable (category 5e or better, cross) when directly connecting the camera to a PC.
- * Recommended cable length from the speaker: less than 10 m {32.8 feet}
- Recommended cable length from the microphone: less than 1 m {3.28 feet}

IMPORTANT:

- The adjustment monitor is used for checking the adjustment of the angular field of view when installing the camera or when servicing. It is not provided for recording/monitoring use.
- Depending on the monitor, some characters (camera title, preset ID, etc.) may not be displayed on the screen.
- Use a switching hub or a router which is compliant with 10BASE-T/100BASE-TX.
- If a PoE hub is not used, each network camera must be connected to a 12 V DC power supply.
- When using 12 V DC, power supply from a PoE hub or router is not required.

