

Panasonic®

Installation Guide

Home Network System Full HD Camera

Model No. **KX-HNC800EX**



Thank you for purchasing a Panasonic product.

This document explains how to configure the camera and access it using a mobile device. These steps must be followed before you can use the camera. For details about how to use the camera, refer to the User's Guide (page 31).

Please read this document before using the unit and save it for future reference.

In order to use this device, download the latest version of the **[Home Network]** app.

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AC adaptor

Part number: S006AKV0500100

Other information

- Design and specifications are subject to change without notice.
- The illustrations in these instructions may vary slightly from the actual product.

Trademarks

- microSDXC Logo is a trademark of SD-3C, LLC.
- iPhone and iPad are trademarks of Apple Inc., registered in the U.S. and other countries.
- Android and Google Play are registered trademarks or trademarks of Google Inc.
- Microsoft, Windows, and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Wi-Fi, WPA, and WPA2 are registered trademarks or trademarks of Wi-Fi Alliance.
- All other trademarks identified herein are the property of their respective owners.

Notice

- The camera supports microSD, microSDHC, and microSDXC memory cards. In this document, the term “microSD card” is used as a generic term for any of the supported cards.

Integration with the Panasonic Home Network System

Although you can use the camera by itself, it can also be integrated into the Panasonic Home Network System.

What is the Panasonic Home Network System?

The Panasonic Home Network System is a wireless system that uses DECT technology to create a powerful network of devices, including motion sensors, window/door sensors, smart plugs, etc., and allows you to control them all with an easy-to-use app.

What are some example uses?

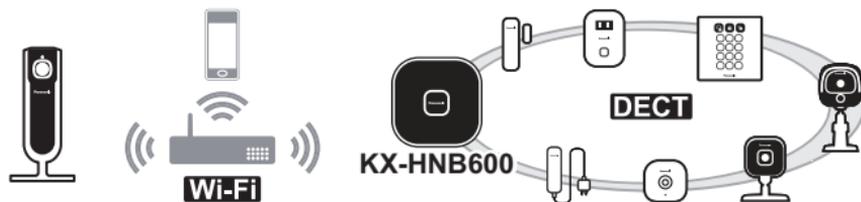
- Use the system's sensors to trigger camera recording
Camera images can be recorded automatically when a door is opened, when motion is detected, etc.
- Use the camera's motion sensor to trigger the alarm system
You can receive a phone call and notification when the camera's motion sensor detects motion.

What do I need to get started?

Your HD camera (up to 16) and a KX-HNB600 hub. The hub joins all system devices together using DECT technology, connects to your home network via your wireless router, and can also connect to your landline.

What other devices are available?

- Activity detection sensors, such as motion sensors and window/door sensors
- Smart plugs, which can turn electric devices on when triggered by a sensor or according to a schedule
- and more!



For information about the latest devices and bundles, visit the website below.

Poland: www.panasonic.pl

Hungary: www.panasonic.com/hu

Czech: www.panasonic.com/cz

Slovakia: www.panasonic.com/sk

Croatia: www.panasonic.com/hr

Romania: www.panasonic.com/ro

Bulgaria: www.panasonic.com/bg

Other countries: www.panasonic.eu

Note:

- Device availability and appearance may vary by region.

About this system

- This system is an auxiliary system; it is not designed to provide complete protection from property loss. Panasonic will not be held responsible in the event that property loss occurs while this system is in operation.
- This product should not be used as substitute for a medical or caregiver's supervision. It is the caregiver's responsibility to stay close enough to handle any eventuality.
- The system's wireless features are subject to interference, therefore functionality in all situations cannot be guaranteed. Panasonic will not be held responsible for injury or damage to property that occurs in the event of wireless communication error or failure.

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

Power connection

- Use only the power source marked on the product.
- Do not overload power outlets and extension cords. This can result in the risk of fire or electric shock.
- Completely insert the AC adaptor/power plug into the power outlet. Failure to do so may cause electric shock and/or excessive heat resulting in a fire.
- Regularly remove any dust, etc. from the AC adaptor/power plug by pulling it from the power outlet, then wiping with a dry cloth. Accumulated dust may cause an insulation defect from moisture, etc. resulting in a fire.
- Unplug the product from power outlets if it emits smoke, an abnormal smell, or makes an unusual noise. These conditions can cause fire or electric shock. Wait for the product to stop emitting smoke, then visit the following web page and contact Panasonic for support.
Poland: www.panasonic.pl
Hungary: www.panasonic.com/hu

Czech: www.panasonic.com/cz
Slovakia: www.panasonic.com/sk

Croatia: www.panasonic.com/hr

Romania: www.panasonic.com/ro

Bulgaria: www.panasonic.com/bg

Other countries:

www.panasonic.eu

- Unplug from power outlets and never touch the inside of the product if its casing has been broken open. Danger of electric shock exists.
- Never touch the plug with wet hands. Danger of electric shock exists.
- Do not connect non-specified devices.

Installation

- Do not use this product outdoors.
- To prevent the risk of fire or electrical shock, do not expose the product to rain or any type of moisture.
- Do not place or use this product near automatically controlled devices such as automatic doors and fire alarms. Radio waves emitted from this product may cause such devices to malfunction resulting in an accident.

- Do not allow the AC adaptor cord to be excessively pulled, bent or placed under heavy objects.
- Keep small parts, such as microSD cards, out of the reach of children. There is a risk of swallowing. In the event they are swallowed, seek medical advice immediately.

Operating safeguards

- Unplug the product from power outlets before cleaning. Do not use liquid or aerosol cleaners.
- Do not disassemble the product.
- Never put metal objects inside the product. If metal objects enter the product, turn off the circuit breaker and contact an authorised service centre.

Medical

- Consult the manufacturer of any personal medical devices, such as pacemakers or hearing aids, to determine if they are adequately shielded from external RF (radio frequency) energy. Wireless communication features operate between the frequencies listed below, with a peak transmission power of 100 mW.
2.412 GHz – 2.472 GHz

Important Information

5.180 GHz – 5.320 GHz

5.500 GHz – 5.700 GHz

5.745 GHz – 5.825 GHz

- Do not use the product in health care facilities if any regulations posted in the area instruct you not to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

CAUTION

Installation and location

- Never install wiring during a lightning storm.
- The AC adaptor is used as the main disconnect device. Ensure that the AC outlet is installed near the product and is easily accessible.
- To avoid the risk of strangulation, keep the product and the AC adaptor cord at least 1 m from a child's crib and out of the reach of small children.
- Mount the product on the stable location where the camera can be adequately supported when installing.
- Do not mount the product on soft material. It may fall down, break or cause injury.
- Do not mount the product on the following materials: gypsum

board, ALC (autoclaved lightweight cellular concrete), concrete block, plywood less than 25 mm thick, etc.

Preventing accidents and injuries

- Do not put your ear(s) near the speaker, as loud sounds emitted from the speaker may cause hearing impairment.

Important safety instructions

When using your product, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Do not use this product near water for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement or near a swimming pool.
2. Use only the power cord indicated in this document.

SAVE THESE INSTRUCTIONS

Security cautions

Take appropriate measures to avoid the following security breaches when using this product.

- Leaks of private information
- Unauthorised use of this product
- Unauthorised interference or suspension of the use of this product

Take the following measures to avoid security breaches:

- Configure the wireless router that connects your mobile device to this product to use encryption for all wireless communication.
 - You may be vulnerable to security breaches if the unit is used with the login password, disarm code, or PIN code, or other settings at their default values. Configure your own values for these settings.
 - Do not use passwords that could be easily guessed by a third party. If you keep a record of your passwords, protect that record. Change passwords regularly.
 - If you lose your mobile device, change the password used to access this product.
-
- If you enable the product's auto login feature, enable the screen lock or similar security feature on your mobile device.
 - Take care when performing important security related operations, such as deleting unit IDs.
 - To prevent disclosure of personal information, enable the screen lock or similar security feature on your mobile device.
 - When submitting the product for repair, make a note of any important information stored in the product, as this information may be erased or changed as part of the repair process.
 - Before handing the product over to a third party for repair or other purposes, perform a factory data reset to erase any data stored in the product and remove the microSD card. Use only trusted repair services authorised by Panasonic.
 - Before disposing of the product, perform a factory data reset to erase any data stored in the product. Remove and erase the microSD card.
 - If your mobile device will no longer be used with the product, delete your mobile device's registration from the product

Important Information

and delete the corresponding app from your mobile device.

- If this product experiences a power outage, its date and time setting may become incorrect. Confirm the date and time setting and correct it if necessary.

Additionally, note the following.

- Communications may be interrupted depending on network conditions and wireless signal quality.
- This product may be used in ways that violate the privacy or publicity rights of others. You are responsible for the ways in which this product is used.

For best performance

Product location/avoiding noise

This product uses radio waves to communicate with a wireless router.

- For maximum coverage and noise-free communications, place this product:
 - at a convenient, central location with no obstructions between this product and the wireless router.

- away from electronic appliances such as TVs, radios, personal computers, wireless devices, or other phones.
- facing away from radio frequency transmitters, such as external antennas of mobile phone cell stations. (Avoid putting this product on a bay window or near a window.)
- Coverage and transmission quality depends on the local environmental conditions.
- If the transmission quality is not satisfactory, move this product to another location.

Environment

- Keep the product away from electrical noise generating devices, such as fluorescent lamps and motors.
- The product should be kept free from excessive smoke, dust, high temperature, and vibration.
- Do not expose this product to direct sunlight or other forms of powerful light such as halogen lights for long periods of time. (This may damage the image sensor.)
- Do not place heavy objects on top of the product.

- When you leave the product unused for a long period of time, unplug the product from the power outlet.
- The product should be kept away from heat sources such as heating devices, cooking appliances, etc. It should not be placed in rooms where the temperature is less than 0 °C or greater than 40 °C. Damp basements should also be avoided.
- The maximum communication range may be shortened when the product is used in the following places: Near obstacles such as hills, tunnels, underground, near metal objects such as wire fences, etc.
- Operating the product near electrical appliances may cause interference. Move away from the electrical appliances.

Privacy and rights of portrait

When installing or using the camera, please take into consideration the rights of others with regard to privacy.

It is generally said that “privacy” means the ability of an individual or group to stop information about

themselves from becoming known to people other than those whom they choose to give the information. “Rights of portrait” means the right to be safe from having your own image taken and used indiscriminately without consent.

Please observe the legal regulations (data protection, video surveillance) in your country during use.

Other information

Routine care

- Wipe the outer surface of the product with a soft moist cloth.
- Do not use benzine, thinner, or any abrasive powder.

Camera image quality

- Camera images may have the following characteristics.
 - Colours in images may differ from the actual colours.
 - Faces or objects may appear dark when there is light behind the subject (i.e., backlighting).
 - Image quality may be reduced in dark locations.
 - Images may appear hazy when there are outdoor lights in use.

Important Information

Protecting your recordings

- Do not remove the microSD card or disconnect the product's AC adaptor while reading or writing data to the microSD card. Data on the card could become corrupted.
- If a microSD card malfunctions or is exposed to electromagnetic waves or static electricity, data on the card could become corrupted or erased. Therefore, we recommend backing up important data to a computer or other device.

Disposal of Old Equipment (Only for European Union and countries with recycling systems)



This symbol on the products, packaging, and/or accompanying documents means that used electrical and electronic products must not be mixed with general household waste.

For proper treatment, recovery and recycling of old products,

please take them to applicable collection points in accordance with your national legislation. By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment. For more information about collection and recycling, please contact your local municipality.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

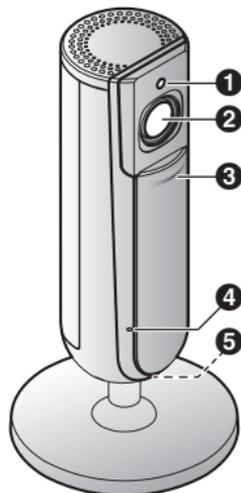
For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

Part names and functions



1 Brightness sensor
Allows the camera to switch automatically to night vision mode in low-light conditions.

2 Lens

3 Privacy shutter
Prevents others from monitoring live camera images or sound when the shutter is closed.

4 Microphone

5 LED indicator

6 microSD card slot

7 Stand

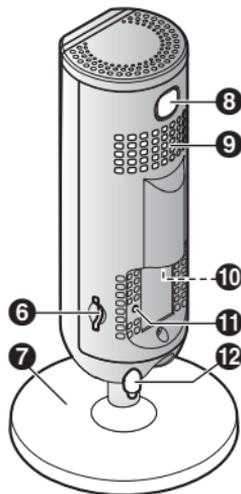
8 [SETUP]
Used when performing initial setup.

9 Speaker

10 micro-USB connector
Used to connect the AC adaptor to the camera.

11 Reset button
Used to reset the camera's settings (page 25).

12 Temperature sensor



LED indicator

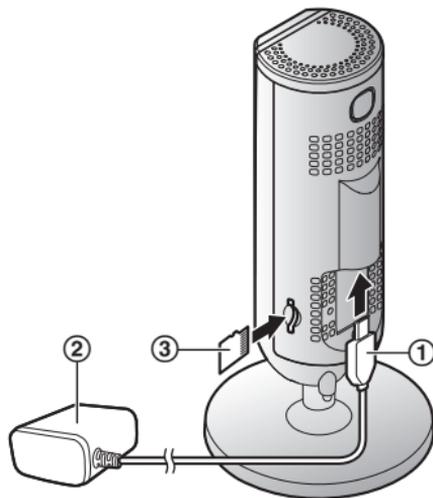
You can use the LED indicator to confirm the camera's status.

Indicator	Status
Off	No power, or LED indicator is turned off* ¹
Blue, lit	Normal operation, connected to wireless router* ¹ , privacy shutter is open
White, lit	Normal operation, connected to wireless router* ¹ , privacy shutter is closed
White, blinking quickly	Camera is searching for wireless router
Green, lit	Initial setup required
Green, blinking slowly	Initial setup is in progress with mobile device connected
Green, blinking	Initial setup is starting
Red, lit	Motion detected* ¹ , or camera is starting up
Red, blinking slowly	Live images are being viewed or recorded, or camera is starting up
Red, blinking	Device malfunction

*¹ You can configure the camera so that its LED indicator does not light during normal operation or when motion is detected. For more information, refer to the User's Guide (page 31).

Connections

- 1 Insert the AC adaptor plug (①) firmly into the camera's micro-USB connector.
- 2 Connect the AC adaptor (②) to the power outlet.
- 3 Insert a microSD card (user-supplied; ③) into the camera's microSD card slot. (This is not necessary if you do not want to record camera images.)



Note:

- Use only the supplied AC adaptor S006AKV0500100.
- To remove the microSD card, push in the microSD card and then remove it.

Note about power connections

AC adaptor connection

- The AC adaptor must remain connected at all times. (It is normal for the adaptor to feel warm during use.)
- The AC adaptor should be connected to a vertically oriented or floor-mounted AC outlet. Do not connect the AC adaptor to a horizontally oriented AC outlet that faces the floor, such as an AC outlet installed on a ceiling or under a table, as the weight of the adaptor may cause the adaptor to become disconnected.

Setup

Power failure

- The camera will not work during a power failure.

Setup overview

After you have connected your camera, here is what you will need to do in order to access it from your mobile device. Each procedure is explained in this chapter.

Using the camera by itself (no integration with a Home Network System)	Integrating the camera with a Home Network System (registering to a KX-HNB600 hub)
<p>1 Download (page 18) Download the [Home Network] app to your mobile device.</p> <p>2 Set up the camera (page 19) Use the [Home Network] app to configure the camera to connect to your wireless router, and then register your mobile device to the camera.</p> <p>3 (Optional) Register additional mobile devices (page 23) You can register additional mobile devices to the camera, for a total of 8.</p>	<p>1 Download (page 18) Download the [Home Network] app to your mobile device.</p> <p>2 Set up the hub Refer to the System Setup Guide included with your hub.</p> <p>3 Register camera to hub (page 24) Use the [Home Network] app to register the camera and configure it to connect to your wireless router.</p>

Downloading the [Home Network] app

Download information is available at the web page listed below.

<https://panasonic.net/cns/pcc/support/tel/homenetwork/>



Using your device's app store

iPhone, iPad users

Search for "Panasonic Home Network System". iPad users should search in the "iPhone only" category.

Android™ device users

Search for "Panasonic Home Network System".

Compatible mobile devices

Please check the latest information at the following supported page.

<https://panasonic.net/cns/pcc/support/tel/homenetwork/>

- iPhone® and iPad® (iOS 8.0 and later) or Android™ devices

(Android 4.0 and later) (As of October 2017)

Note:

- The [Home Network] app may not function properly depending on the operating environment, such as the model of your mobile device, peripherals connected to your mobile device, and the apps installed on your mobile device.
- Operating systems for mobile devices are continually updated. Accordingly, the versions of operating systems the [Home Network] app supports may also be updated.
- The following Android devices are not compatible with the [Home Network] app.
 - Android devices that are not supported by Google Play™
 - Android devices with limited hardware features (Bluetooth, Wi-Fi®, and microphone support are required.)

Setting up the camera (initial setup)

Confirm the following before you begin.

- Make sure you have installed the **[Home Network]** app on your mobile device
- Make sure the camera is located within range of your wireless router
- Make sure your mobile device is connected to your wireless router
- Make sure your mobile device can connect to the Internet
- Make sure you know the network name (SSID) and password assigned to your wireless router

Initial setup (for iPhone, iPad users)

- Do not perform this procedure if you want to integrate the camera with your Home Network System. Use the procedure on page 24.
 - If your mobile device is already registered to a hub and you want to use your camera by itself, see “Information for current hub users”, page 22.
- 1** Plug in the camera and wait about 1 minute for the camera's LED to light in green.
 - If the LED does not light in green, or if you experience trouble during this procedure, reset the camera (page 25) and then repeat this procedure.
 - 2** Start the **[Home Network]** app.
 - If prompted, follow the on-screen instructions and select the appropriate region/country.
 - 3** Tap **[HD Camera]**.
 - 4** Tap **[Set up the HD Camera]**.
 - 5** When prompted, press the **[SETUP]** button on the back

Setup

of the camera, and then tap **[Next]**.

- The LED indicator blinks in green.

6 Change your mobile device's Wi-Fi setting temporarily so that it connects to the camera directly.

- Open your mobile device's **[Settings]** app, tap **[Wi-Fi]**, select "KX-HNC800_Panasonic", enter "00000000" as the password, and then tap **[Join]**.
- If more than 1 item named "KX-HNC800_Panasonic" is displayed, wait approx. 10 minutes and perform this procedure from the beginning.

7 Start the **[Home Network]** app again.

8 If necessary, enter the password required to connect to your wireless router and then tap **[Next]**.

- The camera and your mobile device connect to your wireless router.
- If prompted, follow the on-screen instructions and connect your mobile device to your wireless router, start

the app again, and then tap **[Add This Mobile Device]**.

- If you enter the wrong password, an error is displayed. Repeat the initial setup procedure from the beginning.

9 When prompted, press the **[SETUP]** button on the back of the camera.

- The camera registers your mobile device.

10 When prompted, set the password that will be used to access the camera.

11 When prompted, enter a name for your mobile device and then tap **[OK]**.

- This setting allows you to change the name assigned to your device. It can help you identify your mobile device when performing certain operations, such as deregistering a mobile device.
- A list of all cameras registered to the app is displayed when initial setup is complete.

Initial setup (for Android device users)

- Do not perform this procedure if you want to integrate the camera with your Home Network System. Use the procedure on page 24.
 - If your mobile device is already registered to a hub and you want to use your camera by itself, see “Information for current hub users”, page 22.
- 1** Plug in the camera and wait about 1 minute for the camera’s LED to light in green.
 - If the LED does not light in green, or if you experience trouble during this procedure, reset the camera (page 25) and then repeat this procedure.
 - 2** Start the **[Home Network]** app.
 - If prompted, follow the on-screen instructions and select the appropriate region/country.
 - 3** Tap **[HD Camera]**.
 - 4** Tap **[Set up the HD Camera]**.
 - 5** When prompted, press the **[SETUP]** button on the back of the camera.
 - The LED indicator blinks in green.
 - The app temporarily changes your mobile device’s Wi-Fi setting so that it connects to the camera directly.
 - 6** If necessary, enter the password required to connect to your wireless router and then tap **[Next]**.
 - The camera and your mobile device connect to your wireless router.
 - If you enter the wrong password, an error is displayed. Repeat the initial setup procedure from the beginning.
 - 7** When prompted, press the **[SETUP]** button on the back of the camera.
 - The camera registers your mobile device.
 - 8** When prompted, set the password that will be used to access the camera.
 - 9** When prompted, enter a name for your mobile device and then tap **[OK]**.
 - This setting allows you to change the name assigned

to your device. It can help you identify your mobile device when performing certain operations, such as deregistering a mobile device.

- A list of all cameras registered to the app is displayed when initial setup is complete.

Information for current hub users

If your mobile device is already registered to a hub and you want to use your camera by itself (i.e., you do not want to integrate the camera with your Panasonic Home Network System), perform the following.

- 1** Plug in the camera and wait about 1 minute for the camera's LED to light in green.
 - If the LED does not light in green, or if you experience trouble during this procedure, reset the camera (page 25) and then repeat this procedure.
- 2** Start the **[Home Network]** app.
- 3** From the **[Home Network]** app home screen, tap **[Settings]**.

4 Tap **[Device Registration]** → **[Registration]** → **[HD Camera]** → **[Method 2]**.

5 iPhone, iPad users

Continue from step 4 of the initial setup procedure on page 19.

Android device users

Continue from step 4 of the initial setup procedure on page 21.

Registering additional mobile devices to the camera

Do not perform this procedure if the camera is integrated with your Home Network System. Use the procedure found in the System Setup Guide included with your hub and register the additional mobile device to your hub.

After you set up the camera, you can register additional mobile devices. You can register up to 8 mobile devices to a camera. Each mobile device can be registered to up to 32 cameras.

Confirm the following before you begin.

- Make sure you have completed the initial setup procedure
- Make sure your mobile device can connect to the Internet
- Make sure your wireless router and the camera are turned on
- Make sure your mobile device and the camera are connected to the same wireless router

1 Using the mobile device that you want to register, download the **[Home**

Network] app and then start the app.

- If prompted, follow the on-screen instructions and select the appropriate region/country.

2 Tap **[HD Camera]**.

3 Tap **[Add This Mobile Device]**.

4 When prompted, press the **[SETUP]** button on the back of the camera.

- The camera registers your mobile device.

5 When prompted, enter the password required to access the camera.

- This password was set during initial setup.

6 When prompted, enter a name for your mobile device and then tap **[OK]**.

- This setting allows you to change the name assigned to your device. It can help you identify your mobile device when performing certain operations, such as deregistering a mobile device.
- A list of all cameras registered to the app is displayed when registration is complete.

Registering the camera to your hub

Do not perform this procedure if you are using the camera by itself (i.e., you do not have a KX-HNB600 hub). Use the initial setup procedure (page 19).

If you want to integrate your HD camera with a Panasonic Home Network System, you must register the camera to the hub.

Registering the camera

Confirm the following before you begin.

- Make sure you can use your mobile device to access the hub
- Make sure the hub's firmware is up to date and that you are using the latest version of the **[Home Network]** app.

For more information, refer to the System Setup Guide included with your hub and the User's Guide (page 31).

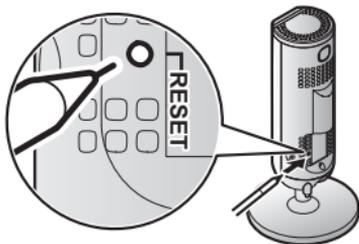
- 1 Plug in the camera and wait about 1 minute for the camera's LED to light in green.
 - If the LED does not light in green, or if you experience trouble during this procedure, reset the

- camera (page 25) and then repeat this procedure.
- 2 Start the **[Home Network]** app.
- 3 From the **[Home Network]** app home screen, tap **[Settings]**.
- 4 Tap **[Device Registration]** → **[Registration]** → **[HD Camera]** → **[Method 1]**.
- 5 When prompted, press the **[SETUP]** button on the back of the camera.
 - The camera registers your mobile device.
 - The app's home screen is displayed when registration is complete.
- 6 Follow the on-screen instructions. When prompted, set the password that will be used to access the camera.

Resetting the camera

Use this procedure if you have trouble setting up the camera.

- 1 Plug in the camera.
- 2 Using an object with a thin tip, press and hold the reset button on the back of the camera for about 10 seconds, then release the button when the camera beeps.



- The camera's settings are reset.
- 3 Wait for the camera's LED to light in green.

Note:

- After resetting the camera, you cannot use the camera again until it is set up. Refer to the relevant page in this section to set up the camera.

Information about wireless communication

The camera uses wireless technology to communicate with your wireless router. Refer to the following information when planning where to place the camera.

- Do not use the camera in the following areas or locations, as they may cause malfunction or interference to radio communication.
 - Indoor areas that have certain types of radio or mobile communications equipment
 - Locations near microwave ovens or Bluetooth devices
 - Indoor areas where antitheft devices or 2.4 GHz frequency devices such as POS systems are used
- Do not place the camera in areas where the following materials or objects are located between the camera and the wireless router. These materials and objects may interfere with wireless communication or cause wireless transmission speed to become slower.
 - Metallic doors or shutters
 - Walls containing aluminum-sheet insulation
 - Walls made of concrete, stone, brick, or tin
 - Multiple walls
 - Steel shelving
 - Fireproof glass

Information about sensor features

The camera has 3 sensor features: a visual sensor used for motion detection, a temperature sensor, and a sound sensor. Please read the following information about each sensor before deciding where to install the camera.

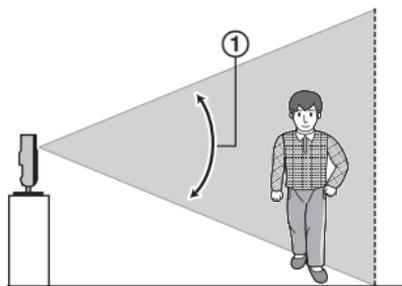
Note:

- The camera's sensor features are not designed to be used in situations that require high reliability. We do not recommend use of the sensor features in these situations.
- Panasonic takes no responsibility for any injury or damage caused by the use of the camera's sensor features.

Using visible light to detect motion

The camera can detect motion by recognizing changes in the

brightness of areas that are visible to the camera.



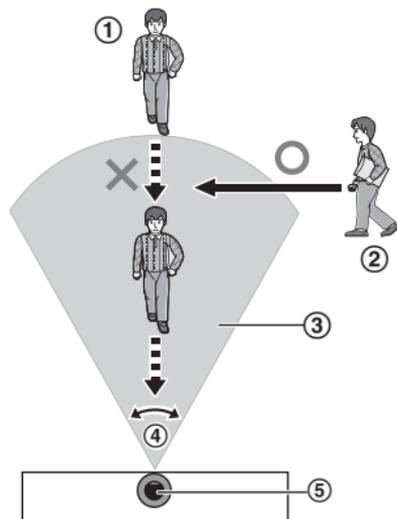
- ① Vertical detection range: approx. 67°

Note:

- Movement may be incorrectly detected when the moving object and the background have similar colours.
- Movement may be incorrectly detected when there are sudden changes to the overall brightness level, such as when lights are turned on.
- Detection becomes difficult when the image is dark.
- You can adjust the sensitivity of the camera's motion detection feature, and select which areas of the camera image are monitored for motion detection. For more information, refer to the User's Guide (page 31).

Direction of motion

It is easier to detect objects that move sideways in front of the camera, and more difficult to detect objects that move directly toward the front of the camera.



- ① It is difficult to detect movement directly towards the front of the camera.
- ② It is easy to detect movement sideways in front of the camera.
- ③ Detection range
- ④ Horizontal detection range: approx. 121°
- ⑤ Camera

Temperature sensor

The sensor is triggered when the set temperature range is exceeded.

Note:

- The temperature sensor may not detect temperature accurately if the camera is exposed to warm or cool breezes from heating/cooling systems.
- You can adjust the temperature setting of the temperature sensor. For more information, refer to the User's Guide (page 31).

Sound sensor

The sensor is triggered when the set sound level is exceeded.

Note:

- The sound sensor may not function as desired when the camera is placed in noisy environments.
- You can adjust the sound level setting of the sound sensor. For more information, refer to the User's Guide (page 31).

Information about night vision mode

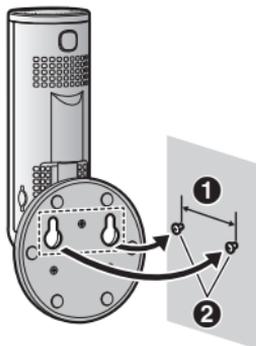
The camera features an array of infrared LEDs that light automatically in low-light conditions, allowing camera images to be viewable even when the surrounding area is dark.

Note:

- When night vision mode is active, the colours in camera images may appear different from normal.
- When night vision mode is active, the array of infrared LEDs that surround the camera's lens light up in a faint red colour that can be seen in the dark.
- If the camera is installed in front of a window and points directly at the window, images may be poor when night vision mode is active.

Wall mounting

Drive two screws (not supplied) into the wall, and then mount the unit as shown.



- ❶ 31 mm
- ❷ Screws

Note:

- Make sure that the wall and the fixing method are strong enough to support the weight of the unit.

Adjusting the angle

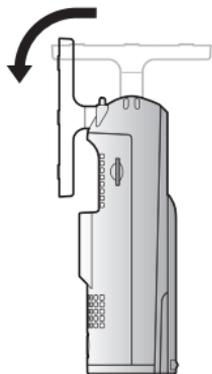
Adjust the angle as desired.

Note:

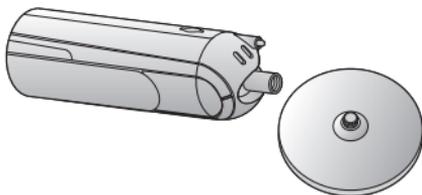
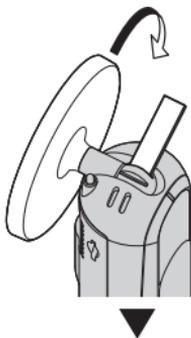
- When adjusting the angle, make sure the unit does not tip over.

Removing the stand

- 1 Hold the camera upside down and adjust the angle of the stand as shown.



- 2 Insert a thin, non-metallic object into the groove on the bottom of the camera body, and then remove the stand by rotating its base as shown.



Note:

- When mounting a tripod to the camera, do not mount a tripod with a screw length of 6.5 mm or more. This may damage the camera.

Attaching the stand

Insert a thin, non-metallic object into the groove on the bottom of the camera body, and then attach the stand by rotating its base as shown.



Accessing the User's Guide

The User's Guide is a collection of online documentation that helps you get the most out of the [Home Network] app.

1 iPhone/iPad

Tap  in the app's home screen.

Android devices

Tap  or press your mobile device's menu button in the app's home screen.

2 Tap [User's Guide].

Note:

- Microsoft® Windows® Internet Explorer® 8 and earlier versions are not supported.
- Android 4.1 or later versions are recommended.

Accessing directly

You can also access the User's Guide at the web page listed below.

If you are using the camera by itself

<https://panasonic.net/cns/pcc/support/tel/homenetwork/hdcamera>



If you are integrating the camera with your Home Network System

<https://panasonic.net/cns/pcc/support/tel/homenetwork/manual/>



Specifications

- **Standards**
IEEE 802.11a/b/g/n
- **Frequency range***1
2.412 GHz – 2.472 GHz (channels 1–13)
5.180 GHz – 5.320 GHz (channels 36–64)
5.500 GHz – 5.700 GHz (channels 100–140)
5.745 GHz – 5.825 GHz (channels 149–165)
- **RF transmission power**
100 mW (max.)
- **Encryption**
WPA2™-PSK (TKIP/AES), WPA™-PSK (TKIP/AES), WEP (128/64 bit)
- **Power source**
100 – 240 V AC, 50/60 Hz
- **Power consumption**
Standby: 2.3 W
Maximum: 3.8 W
- **Operating conditions**
0 °C – 40 °C
20 % – 80 % relative air humidity (dry)
- **Image sensor**
2.0 megapixel CMOS
- **Minimum illuminance required***2
0 lx
- **Focal length**
Fixed (0.2 m – infinity)
- **Angular field of view**
Horizontal: approx. 121°
Vertical: approx. 67°
- **Motion detection method**
Visual sensor
- **Adjustable mounting angles***3
Vertical: facing forward - facing down, approx. 130°
- **Dimensions (including stand) (height × width × depth)**
Approx. 142 mm × 68 mm × 68 mm
- **Mass (weight) (including stand)**
Approx. 210 g

*1 Outdoor use of Wi-Fi in the 5.150 GHz – 5.350 GHz range is restricted.

*2 The infrared LEDs that surround the camera lens will illuminate in low-light conditions.

*3 Adjustable when mounting.

Limitations on the use of 5 GHz communications

- European regulations limit the frequencies of the 5 GHz band (IEEE 802.11a/n) that are available for outdoor use.
- 5.180 GHz – 5.240 GHz (channels 36–48) and 5.260 GHz – 5.320 GHz (channels 52–64) are permitted for indoor use only.
- If your wireless router detects radar waves, it may change channels automatically and use frequencies that are restricted for outdoor use (5.180 GHz – 5.240 GHz (channels 36–48) and 5.260 GHz – 5.320 GHz (channels 52–64)).
- When using frequencies in the 5.260 GHz – 5.320 GHz range (channels 52–64) or the 5.500 GHz – 5.700 GHz range (channels 100–140), the following limitations apply according to regulations.
 - Before communication starts on each channel, the wireless router scans for radar waves for 1 minute. During this time, the wireless router will not communicate.
 - If the wireless router detects radar waves while communicating, the wireless router changes the channel automatically and communication may be interrupted.

Appendix

The abbreviations for Member States shall be as follows.

Abbreviation	Country name	Abbreviation	Country name
AT	Austria	MT	Malta
BE	Belgium	NL	Netherlands
HR	Croatia	PL	Poland
CY	Cyprus	PT	Portugal
CZ	Czech Republic	SK	Slovakia
DK	Denmark	SI	Slovenia
EE	Estonia	ES	Spain
FI	Finland	SE	Sweden
FR	France	UK	United Kingdom
DE	Germany	IS	Iceland
EL	Greece	LI	Lichtenstein
HU	Hungary	NO	Norway
IE	Ireland	CH	Switzerland
IT	Italy	BG	Bulgaria
LV	Latvia	RO	Romania
LT	Lithuania	TR	Turkey
LU	Luxembourg		

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<https://panasonic.net/cns/pcc/support/tel/homenetwork/>

At least three (3) years from delivery of this product, Panasonic Corporation will give to any third party who contacts us at the contact information provided below, for a charge of no more than the cost of physically distributing source code, a complete machine-readable copy of the corresponding source code and the copyright notices covered under the GPL and the LGPL.

Please note that software licensed under the GPL and the LGPL is not under warranty.

<https://panasonic.net/cns/pcc/support/tel/homenetwork/>

Software information

- The End User License Agreement (EULA) for the Home Network app is available at the following web page:
<https://panasonic.net/cns/pcc/support/tel/homenetwork/>

For your future reference

We recommend keeping a record of the following information to assist with any repair under warranty.

Serial No.	Date of purchase
(found on the rear of the unit)	
Name and address of dealer	

Attach your purchase receipt here.

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