Panasonic®

Installation Guide

**Home Network System
Smart On/Off Light Switch**
Model No. **KX-HNL200**

Thank you for purchasing a Panasonic product.

This document explains how to install the switch properly.
For details about how to use the system, refer to the User's Guide (page 13).

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

For assistance, please contact us at 1-800-272-7033 or visit our Web site: **http://shop.panasonic.com/support** for customers in the U.S.A.

Please register your product: http://shop.panasonic.com/support

Printed in China

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Other information

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

Trademarks

- iPhone and iPad are registered trademarks of Apple Inc.
- Android is a trademark 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.
- All other trademarks identified herein are the property of their respective owners.

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.
- 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 connect non-specified devices.

Installation

- 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.
- Keep small parts (screws, etc.) out of the reach of children. There is a risk of swallowing. In the event they are swallowed, seek medical advice immediately.

Operating safeguards

- Do not disassemble the product.

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. DECT features operate between 1.92 GHz and 1.93 GHz with a peak transmission power of 115 mW.
- 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

Battery

- The batteries should be used correctly, otherwise the product may be damaged due to battery leakage.
- Do not charge, short-circuit, disassemble, or heat the batteries.
- Do not dispose of batteries in a fire.
- Remove all the batteries when replacing.

- Do not mix old, new or different types of batteries.
- It is recommended that batteries are replaced annually.
- Keep out of the reach of small children. There is a risk of swallowing. If the battery is swallowed, seek medical attention immediately.
- Remove the battery if it becomes unusable. There is a risk of leakage, overheating, and rupture. Do not attempt to use a battery if it is leaking.
- Do not intentionally pour water on the battery or allow it to get wet. There is a risk of fire and smoke. If the battery becomes wet, remove it immediately and contact an authorized service center.

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 batteries indicated in this document. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

SAVE THESE INSTRUCTIONS

For best performance

Hub location/avoiding noise

The hub and other compatible Panasonic devices use radio waves to communicate with each other.

- For maximum coverage and noise-free communications, place your hub:
  - at a convenient, high, and central location with no obstructions between the product and hub in an indoor environment.
  - 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 the hub on a bay window or near a window.)
- If the reception for a hub location is not satisfactory, move the hub to another location for better reception.

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.
- The product should not be exposed to direct sunlight.
- Do not place heavy objects on top of the product.
- The product should be kept away from heat sources such as heaters, kitchen stoves, etc. It should not be placed in rooms where the

temperature is less than 0 °C (32 °F) or greater than 40 °C (104 °F). Damp basements should also be avoided.

● Operating the product near electrical appliances may cause interference. Move away from the electrical appliances.

Other information

CAUTION: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

Routine care

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

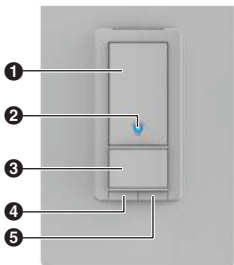**Information on Disposal in other Countries outside the European Union**

These symbols are 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.

Notice

● This product is designed for use in the United States of America. Sale or use of this product in other countries may violate local laws.

● Cet appareil est conçu pour être utilisé aux États-Unis d'Amérique. La vente ou l'emploi de cet appareil dans certains autres pays peut constituer une infraction à la législation locale.

● Este producto está diseñado para usarse en los Estados Unidos de América.
La venta o el empleo de este producto en ciertos países puede constituir violación de la legislación local.

● 本產品專為美國使用而設。若在其他國家銷售或使用，可能會違反當地法例。

● この製品は、日本国外での使用を目的として設計されており、日本国内での使用は法律違反となります。従って、当社では日本国内においては原則として修理などのサービスは致しかねます。

Part names and functions

❶ **On/off switch**
❷ **LED indicator**
❸ **Motion sensor**
❹ **Maintenance button**
Press this button to disable the switch while replacing light bulbs. When finished, press the button again.
❺ **【•))C】**
Used to confirm the status of the switch or register the switch to the hub.

LED indicator

During normal operation, the LED indicator lights in blue when the surrounding environment is dark, allowing you to use the LED indicator as a night light.
You can also press 【•))C】 and check the LED indicator to confirm the switch's status.

Indicator	Status
Off	Switch is off, no power supplied to switch
Green, lit	Switch is on
Green, blinking slowly	Registration mode (You pressed and held 【•))C】)
Red, blinking very quickly	Motion was detected
Red, blinking	Switch is out of range of the hub

Note:
● The LED indicator does not indicate the status of the switch if the switch has not been registered to a hub (page 11).

Setup overview

1 **Initial setup**
Make sure you can access the system using your mobile device. For details, refer to the System Setup Guide included with your hub.

2 **Confirm the installation conditions**
Read the information in this document to confirm that the installation conditions are suitable to proper operation.

3 **Installation**
Install the switch in the desired location.

4 **Registration**
Required only if the switch was purchased separately (i.e., not as part of a bundle).

Confirming the usage conditions

Confirming the usage area

Wireless communication range

In optimal conditions, the wireless communication range of each device in the system from the hub is approximately 50 m (160 feet) indoors and approximately 300 m (1,000 feet) outdoors.

● Wireless communication may be reduced or unreliable when the following obstacles are located between the hub and other devices.
  – Metal doors or screens
  – Walls containing aluminum-sheet insulation
  – Walls made of concrete or corrugated iron
  – Double-pane glass windows
  – Multiple walls
  – When using each device on separate floors or in different buildings
● Wireless communication is reduced by approximately xx% if the switch is installed in a metal junction box.
● Wireless communication is reduced by approximately xx% for each wall located between the hub and the switch.
● After the switch is installed and registered to the hub, you can check the switch's communication status by pressing 【•))C】 (page 7).

Usage area cautions

Using the switch in the following areas may cause deformation, malfunction, or operational failure.

● In direct sunlight
● Areas exposed to grease or steam, such as kitchens
● Near fire or heating devices
● Near magnetic fields (such as near microwaves and magnets)
● Areas subject to extreme temperature changes, such as next to air conditioners
● Areas with reflective objects, such as glass, that can interfere with detection of temperature variation
● Areas where the temperature is affected by strong illuminating objects (such as fluorescent lights)
● Near devices that emit strong radio waves, such as mobile phones

Information about motion sensor features

The switch utilizes an infrared sensor (i.e., heat sensor) to detect motion. In this document, this sensor is referred to as a "motion sensor".
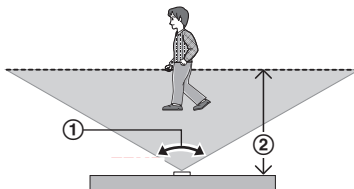Please read the following information before deciding where to install the switch.

Note:

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

Using heat to detect motion

The switch's motion sensor can detect motion by recognizing temperature differences that occur within the range of the sensor. It does this by detecting
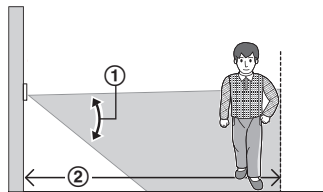
the infrared rays that are emitted naturally by people, animals, etc., which correlate to the object's temperature. The detection range is indicated in the illustration by the gray area in front of the switch.

Detection range when looking from above

① **Horizontal detection range**
Approx. 120°
② **Distance of detectable motion**
Approx. 10 m (32.8 feet)

Detection range when looking from the side

① **Vertical detection range**
Approx. 40° (pitched upward by 1.5°)
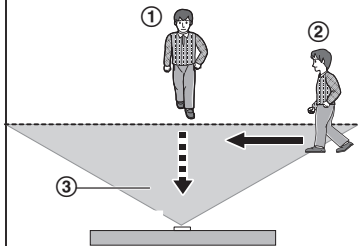② **Distance of detectable motion**
Approx. 10 m (32.8 feet)

Note:
● Detection becomes difficult when there is little difference between the temperatures of objects and the surrounding environment, such as during summer. Conversely, detection becomes easier when there is a large difference between the temperatures of objects and the surrounding environment, such as during winter or at night.

Direction of motion

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

① **Difficult to detect**
People approach the switch from the front
② **Easy to detect**
People pass in front of the switch from side to side
③ **Detection range**

Compatible lighting

The switch can be used to control the following types of lighting.
– Incandescent or halogen bulbs Total maximum output of all connected bulbs: 600 W
– LED or CFL bulbs Total maximum output of all connected bulbs: 150 W

Installation

Important:

● Switch off the power of the corresponding circuit before performing any electrical work.
● Follow all local codes and regulations.
● Installation should be performed by a licensed electrician.
● The switch cannot be used in 3-way circuits, i.e., situations where two light switches control the same light fixture, such as at the top and bottom of a stairway.

Preparation

These steps are necessary when replacing a switch.

1 Turn off the power to the circuit at the circuit breaker or fuse panel.

2 Remove the existing wall plate, then remove the existing switch from the junction box.

● Be careful not to touch any wires connected to the existing switch.

3 Use a non-contact circuit tester to confirm that the wires connected to the existing switch are not carrying power.

4 Disconnect the wires from the existing switch.

Wiring

1 Loosen each of the 3 screws on the switch.

2 Prepare the wires to be connected to the switch.
  ● Strip each black wire as shown below. Snip any excess bare wire if necessary.

  ① xx mm (xx inches)
  ● Straighten the bare copper wire if it is bent.

3 Insert the ends of 2 black wires and 1 ground wire into the holes on the back of the switch as shown below, then tighten each screw.
  ● Pull slightly on each wire to make sure it is firmly connected.
  ● Insert the wires fully into the switch. Make sure there is no bare wire exposed on the 2 black wires.
  ● If the existing switch (the switch you are replacing) did not have a ground wire connected to it, use a piece of bare copper wire to ground the new switch as shown.

Finishing the installation

1 Carefully insert the switch into the junction box.
  ● Bend the wires as necessary. Make sure there are no bare

wires exposed (except for ground wires).

2 Use the xx-included screws to secure the switch to the junction box.

3 Attach the included face plate.

4 Turn on the power to the circuit at the circuit breaker or fuse panel.

5 Press the on/off switch to turn the lights on and off.
  ● If the lights turn on and off, you are ready to register the switch to the hub.

Registering the switch

This procedure is not required for devices that were included as part of a bundle.

Before you can use the switch as part of the system, it must be registered to the hub.
If you purchased devices separately (i.e., not as part of a bundle), you must register each device to the hub.

You can register each device by using the registration buttons or the **[Home Network]** app.

Using registration buttons

1 **Hub:**
Press and hold 【•)))C OTHER DEVICE】 until the LED indicator blinks slowly in green.

2 **Switch:**
Press and hold 【•)))C】 until the LED indicator blinks slowly in green (page 7).

- When registration is complete, the hub sounds one long beep.

Note:
- To cancel without registering the switch, press **[•))C]** on the hub and on the switch again.
- If registration fails, the hub sounds several short beeps.

Using the app

When you register the switch by using the **[Home Network]** app, you can assign a name to your devices and group them by location. For more information, refer to the User's Guide (page 13).

Testing the motion sensor

You can observe the switch's LED indicator and test the performance of the motion sensor.

1 Press **[•)C]**.

2 Move to an area near the switch.

3 While moving near the switch, observe the LED indicator.
   ● When motion is detected, the LED indicator blinks very quickly in red.

4 Note the areas where movement is detected.
   ● You can use the **[Home Network]** app to adjust the sensitivity of the motion sensor. For more information, refer to the User's Guide (page 13).

5 Press **[•)C]** again.

Using the switch (manual control)

● Turn on the lights by pressing the on/off switch.
● Turn off the lights by pressing the on/off button.
● By default, the lights turn on when motion is detected, and turn off if no motion is detected for xx minutes. You can use the **[Home Network]** app to adjust these settings. For more information, refer to the User's Guide (page 13).

Features available when using the [Home Network] app

Some of the switch's features that are available when using the **[Home Network]** app are listed below. For more information, refer to the User's Guide (page 13).

– **Turning the switch on and off**
  You can use the app to turn the lights on and off manually, or program a schedule and turn the lights on and off automatically.
– **System integration**
  You can configure the switch to turn on when another device is triggered, such as a window or door sensor, a sound sensor of an indoor camera, etc. (Appropriate device required.)
– **Motion switch details**
  You can adjust the motion sensor's sensitivity, change how long the lights stay on when motion is detected, etc.

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

www.panasonic.net/pcc/support/tel/homenetwork/manual/

Specifications

● **Standards**
  DECT (Digital Enhanced Cordless Telecommunications)
● **Frequency range**
  DECT: 1.92 GHz – 1.93 GHz
● **RF transmission power**
  DECT: 115 mW (max.)

● **Operating conditions**
  0 °C – 40 °C (32 °F – 104 °F)
● **Motion detection method**
  Pyroelectric infrared sensor (heat sensor)
● **Infrared sensor detection range**
  Horizontal: approx. 120°
  Vertical: approx. 40°
  Distance*1: approx. 10 m (32.8 feet)

*1 When the surrounding temperature is approx. 25 °C (77 °F) and the motion sensor's sensitivity is set to the highest setting.

FCC and other information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Privacy of communications may not be ensured when using this device.

CAUTION:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

Some devices operate at frequencies that may cause interference to nearby TVs and VCRs. To minimize or prevent such interference, this device should not be placed near or on top of a TV or VCR. If interference is experienced, move this device further away from the TV or VCR. This will often reduce or eliminate interference.

FCC RF Exposure Warning:
● This product complies with FCC radiation exposure limits set forth for an uncontrolled environment.
● To comply with FCC RF exposure requirements, the device must be installed and operated 20 cm (8 inches) or more between the product and all person's body.
● This product may not be collocated or operated in conjunction with any other antenna or transmitter.
● For body-worn operation, the device must be used only with a non-metallic accessory. Use of other accessories may not ensure compliance with FCC RF exposure requirements.
Notice:
● FCC ID can be found on the rear of the product.

Customer services

As of June 2015

Limited Warranty (ONLY FOR U.S.A.)

Panasonic Products Limited Warranty

Limited Warranty Coverage (For USA Only)

If your product does not work properly because of a defect in materials or workmanship, Panasonic Corporation of North America (referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by the warrantor.

Product or Part Name	Parts	Labor
Home Network System Products	One (1) Year	One (1) Year
microSD card (Included model only)	90 days	N/A

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. This Limited Warranty excludes both parts and labor for non-rechargeable batteries, antennas, and cosmetic parts (cabinet). This warranty only applies to products purchased and serviced in the United States. This warranty is extended only to the original purchaser of a new product which was not sold "as is".

Mail-In Service--Online Repair Request

Online Repair Request

To submit a new repair request and for quick repair status visit our Web Site at http://shop.panasonic.com/support

When shipping the unit, carefully pack, include all supplied accessories listed in the Owner's Manual, and send it prepaid, adequately insured and packed well in a carton box. When shipping Lithium Ion batteries please visit our Web Site at http://shop.panasonic.com/support as Panasonic is committed to providing the most up to date information. Include a letter detailing the complaint, a return address and provide a daytime phone number where you can be reached. A valid registered receipt is required under the Limited Warranty.

IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD, THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.

Limited Warranty Limits and Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE".

THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.

(As examples, this excludes damages for lost time, travel to and from the servicer, loss of or damage to media or images, data or other memory or recorded content. The items listed are not exclusive, but for illustration only.)

ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Service Center. If the problem is not handled to your satisfaction, then write to:

> Consumer Affairs Department
> Panasonic Corporation of North America
> 661 Independence Pkwy
> Chesapeake, VA 23320

PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

As of June 2015

IMPORTANT!

If your product is not working properly. . .

① **Make sure the product is wired properly.**
   (Consult a licensed electrician.)

② Use the **Home Network app** to access the **User's Guide**
   and refer to the **Troubleshooting** section.

Visit our Web site: http://shop.panasonic.com/support
● **FAQ and troubleshooting hints are available.**

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 product) Name and address of dealer	

Attach your purchase receipt here.