Panasonic®

User's Guide

[Home Network] app

Model No. [Home Network] app

Troubleshooting

About this document

Overview

The Panasonic Home Network System is a wireless network of powerful devices that help you monitor, control, and manage your home. Its easy-to-use app allows to stay in charge even when away from home.

Monitoring

You can use your smartphone or tablet to watch live images from your cameras, even when away from home. You can even talk to and listen to your cameras.
Select an item to learn more.

Peace of mind
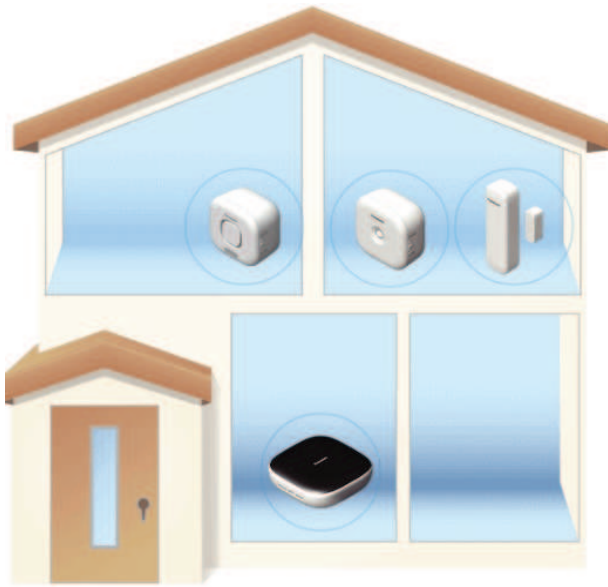
You can use a variety of sensors, including motion sensors, window sensors, door sensors, and the sensor features built in to cameras, to trigger camera recording features, call a pre-programmed phone number when the alarm system is triggered, or send a notification to your smartphone or tablet. Select an item to learn more.

Convenience

You can use your smartphone or tablet to turn on lights or other appliances that are connected to your smart plugs.
Select an item to learn more.

Communication

You can use your smartphone, tablet, or a cordless handset to make and receive phone calls using your landline while at home.
Select an item to learn more.

Overview

The Home Network System can be expanded to suit your needs. You can choose a pre-configured bundle, add individual devices to an existing bundle, or build your own system by selecting the desired devices.
Select an item to learn more.

Note:
- Availability and release dates of devices and bundles may vary by region.
- Device appearance may vary by region.

Maximum number of devices

The maximum number of devices for each device type is listed below.

	HUB KX-HNB600	1

	Indoor Camera KX-HNC200	4
	Outdoor Camera KX-HNC600	
	Window/Door Sensor KX-HNS101	50
	Motion Sensor KX-HNS102	
	Smart Plug[*1] KX-HNA101	
	Digital Cordless Handset KX-HNH100	6

*1 Smart plug appearance varies by region.

HUB (KX-HNB600)

● Joins all system devices together

- Connects to your landline for making and receiving calls
- Supports SD card connection for recording camera video and audio

Indoor Camera (KX-HNC200)

- Full-color camera with night vision and built-in microphone for live monitoring and recording
- Built-in motion sensor (visual detection), sound sensor, and temperature sensor can be used to trigger other actions (camera recording, turning on a light, etc.)
- Built-in microphone and speaker for two-way communication

Outdoor Camera (KX-HNC600)

- Full-color camera with night vision and built-in microphone for live monitoring and recording
- Built-in motion sensor features (visual detection and heat detection) can be used to trigger other actions (camera recording, turning on a light, etc.)
- Built-in microphone and speaker for two-way communication

- Splash-proof design for outdoor installation

Window/Door Sensor (KX-HNS101)
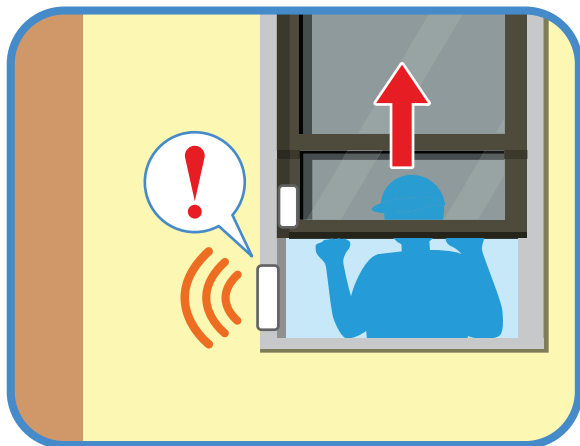
- Detects when the corresponding window or door is opened
- Can be used to trigger other actions (camera recording, turning on a light, etc.)

Motion Sensor (KX-HNS102)

- Uses a heat sensor to detect motion in the surrounding area
- Can be used to trigger other actions (camera recording, turning on a light, etc.)

Smart Plug (KX-HNA101)

- Can be turned on and off using the app, when a sensor is triggered, or according to a schedule
- Built-in overcurrent and overwattage detection for added peace of mind
- Power consumption is logged for your reference

Digital Cordless Handset (KX-HNH100)

- Makes and receives calls using your landline
- Can be used to change the system's arm mode
- Displays system status

System setup

There are 4 basic steps you need to perform in order to access the system from your mobile device.

Connections	Connect your hub to a power outlet and to your telephone line.[*1]
↓	
Download	Download the **[Home Network]** app to your mobile device.
↓	
Initial setup	Use the **[Home Network]** app to configure the hub to connect to your wireless router, and then register your mobile device to the hub.
↓	
Register devices	Add more mobile devices (smartphones and tablets), cameras, sensors, and other devices to the system.

*1 Refer to the System Setup Guide included with your hub for more information.

Download information is available at the web page listed below.
www.panasonic.net/pcc/support/tel/homenetwork/

Requirements

– HUB (KX-HNB600)
– A wireless router
– A compatible mobile device

Compatible mobile devices

– iPhone 4 and later, iPad (iOS 6.0 and later)
– Android smartphones and tablets (Android 4.0 and later)
– Minimum recommended screen size: 1280×720 (screen content may not be displayed properly on devices with smaller screens)

Note:
● The **[Home Network]** app may not function properly depending on the system environment, such as the model of your mobile device, the peripherals connected to your mobile device, and the apps installed on your mobile device.

In order to use your mobile device to access the system, you must first configure the hub to access your wireless router.

Note:
● If your hub is already configured to access your wireless router, you do not need to perform this procedure again.
● If you have completed this procedure and want to register another mobile device to the hub, see "Registering other mobile devices to the hub", Page 14.
● If you experience trouble while performing this procedure, refer to the information in "Sometimes I cannot access the system while at home", Page 82.

Before you begin

In this procedure, the hub will enter "temporary access point mode". In this mode, you can connect your mobile device directly to the hub using Wi-Fi®, and then use your mobile device to change the hub's Wi-Fi settings so that the hub can connect to your wireless router.
Confirm the following before you begin.
– Make sure you have installed the **[Home Network]** app on your mobile device

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– Make sure your wireless router and the hub are turned on
– 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

Note:
● The hub only supports the 2.4 GHz wireless band. Before performing the initial setup, make sure your mobile device is connected to the wireless router using the SSID that is assigned to the 2.4 GHz band of your wireless router. When prompted to enter your wireless router's password, enter the password that is assigned to the 2.4 GHz band.

Initial setup for iPhone, iPad

1   Start the **[Home Network]** app by tapping its icon (shown below).

● The end-user licence agreement is displayed the first time you start the app.
● If your device is not compatible with the app, a message about incompatibility will be displayed when you start the app.

2   Tap **[Set up the Hub]**.
● A description of the initial setup procedure is displayed.

3   When prompted, press the **Wi-Fi SETUP** button on the hub.
● The hub's LED indicator blinks in yellow.

4   Change your mobile device's Wi-Fi setting temporarily so that it connects to the hub directly.
● Open your mobile device's **[Settings]** app, tap **[Wi-Fi]**, select "KX-HNB600_Panasonic", enter "00000000" as the password, and then tap **[Join]**.
● If more than one item named "KX-HNB600_Panasonic" is displayed, wait approximately 10 minutes and perform this procedure from the beginning.

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

6   If necessary, enter the password required to connect to your wireless router and then tap **[Next]**.
● The hub 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, **[Setup failed.]** is displayed and the hub's LED indicator blinks in green. In this case, you must reset the hub's Wi-Fi settings. See "If the hub's LED indicator blinks in green", Page 14.
● The hub's MAC address is displayed on this screen. If your wireless router uses MAC address filtering for extra security, make a note of the hub's MAC address and add it to your wireless router's list of MAC address that are allowed to access the router.

7   When prompted, press the **Wi-Fi SETUP** button on the hub.
● Your mobile device will be registered to the hub.

8   When prompted, set the password used to log in to the hub while away from home and then tap **[OK]**.

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 or making intercom calls using a cordless handset.

10 When prompted, select whether you want to customize device profiles, i.e., the device name, location, and other settings for your devices.
● If you choose not to customize the device profiles now, you can change them later if desired (see "Device names, locations, and other settings", Page 69).

● If you choose to customize the device profiles now, change each setting as desired. When finished, tap ↰ repeatedly until the "completed" message is displayed.

● The app's home screen is displayed when initial setup is complete.

If the hub's LED indicator blinks in green

If you enter the wrong Wi-Fi password during the initial setup procedure for iPhone or iPad, **[Setup failed.]** is displayed and the hub's LED indicator blinks in green. In this case, perform the following.

1 Press and hold the 3 registration buttons on the side of the hub and the **Wi-Fi SETUP** button on the back of the hub at the same time (4 buttons total) until the hub's LED indicator blinks in green and yellow.

2 Wait for the hub's LED indicator to light in yellow.

3 Repeat the initial setup procedure ("Initial setup for iPhone, iPad", Page 13).

Initial setup for Android devices

1 Start the **[Home Network]** app by tapping its icon (shown below).

● The end-user licence agreement is displayed the first time you start the app.

2 Tap **[Set up the Hub]**.

3 When prompted, press the **Wi-Fi SETUP** button on the hub.
● The hub's LED indicator blinks in yellow.
● The app temporarily changes your mobile device's Wi-Fi setting so that it connects to the hub directly.

4 If necessary, enter the password required to connect to your wireless router and then tap **[Next]**.
● The hub and your mobile device connect to your wireless router.
● The hub's MAC address is displayed on this screen. If your wireless router uses MAC address filtering for extra security, make a note of the hub's MAC address and add it to your wireless router's list of MAC address that are allowed to access the router.

5 When prompted, press the **Wi-Fi SETUP** button on the hub.
● Your mobile device will be registered to the hub.

6 When prompted, set the password used to log in to the hub while away from home and then tap **[OK]**.

7 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 or making intercom calls using a cordless handset.

8 When prompted, select whether you want to customize device profiles, i.e., the device name, location, and other settings for your devices.
● If you choose not to customize the device profiles now, you can change them later if desired (see "Device names, locations, and other settings", Page 69).
● If you choose to customize the device profiles now, change each setting as desired. When finished, press your device's "back" button repeatedly until the "completed" message is displayed.
● The app's home screen is displayed when initial setup is complete.

In order to access the system from a mobile device, you must first register the mobile device to the hub. You can register 8 mobile devices to a hub.
Confirm the following before you begin.
– Make sure you have completed the initial setup procedure ("Initial setup", Page 12)
– Make sure your mobile device can connect to the Internet

– Make sure your wireless router and the hub are turned on
– Make sure your mobile device and the hub 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.

2 Tap **[Add This Mobile Device]**.
  ● If the **[Home Network]** app home screen is displayed ("Using the home screen", Page 20), your mobile device has already been registered to the hub. You do not need to perform this procedure.

3 When prompted, press the **Wi-Fi SETUP** button on the hub.
  ● Your mobile device will be registered to the hub.

4 When prompted, enter the password used to log in to the hub while away from home ("Login password", Page 72) and then tap **[OK]**.

5 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 or making intercom calls using a cordless handset.

6 When prompted, select whether you want to customize device profiles, i.e., the device name, location, and other settings for your devices.
  ● If you choose not to customize the device profiles now, you can change them later if desired (see "Device names, locations, and other settings", Page 69).
  ● If you choose to customize the device profiles now, change each setting as desired. When finished, tap ↰ (iPhone, iPad) or your device's "back" button (Android devices) repeatedly until the "completed" message is displayed.
  ● The app's home screen is displayed when registration is complete.

Note:
● To register other devices (cameras, sensors, etc.), see "Registering devices", Page 68.
● 8 mobile devices can be registered to the hub, however, only the first 4 can use phone features. If you want to use phone features with an additional mobile device, use the procedure described in There are more than 4 mobile devices registered to the hub. Page 87.
● For privacy, we recommend that you deregister your mobile device from the system (see "Deregistering devices", Page 69) before handing it over to a third party (such as when submitting your mobile device for service, lending it to someone else, selling it, etc.), before registering your mobile device to another hub, or if you no longer intend to use the mobile device with the system.

Usage examples

This section describes commonly used system features, the devices required for each example, and briefly explains the required settings.

While away from home, you can receive a notification on your mobile device if the alarm system is triggered.

Required devices
- Mobile device (smartphone or tablet) with an Internet connection
- Wireless router
- HUB (KX-HNB600)
- Any device equipped with a sensor that can trigger the alarm system
  – Indoor Camera (KX-HNC200)
  – Outdoor Camera (KX-HNC600)
  – Window/Door Sensor (KX-HNS101)
  – Motion Sensor (KX-HNS102)

Required procedures
- Hub initial setup and mobile device registration
  Refer to the System Setup Guide included with your hub.
- Device registration (if you didn't purchase the device as part of a pre-configured bundle)
  Refer to the Installation Guide included with your device.
- Use the **[Home Network]** app to make sure the desired sensor is enabled for the **[Arm: Away]** arm mode.
  See "Alarm system settings", Page 30.
- Use the **[Home Network]** app to set the arm mode to **[Arm: Away]**.
  See "Arming and disarming the alarm system", Page 29.

While away from home, you can access the system and view live camera images.

Required devices
- Mobile device (smartphone or tablet) with an Internet connection
- Wireless router
- HUB (KX-HNB600)
- A camera
  – Indoor Camera (KX-HNC200)
  – Outdoor Camera (KX-HNC600)

Required procedures
- Hub initial setup and mobile device registration
  Refer to the System Setup Guide included with your hub.
- Camera registration (if you didn't purchase the camera as part of a pre-configured bundle)
  Refer to the Installation Guide included with your camera.
- Use the **[Home Network]** app to access the desired camera.
  See "Viewing live camera images", Page 40.

You can configure the system to record video from a camera if motion is detected.

Required devices
- Mobile device (smartphone or tablet) with an Internet connection
- Wireless router
- HUB (KX-HNB600)
- A camera
  – Indoor Camera (KX-HNC200)
  – Outdoor Camera (KX-HNC600)

Required procedures
- Hub initial setup and mobile device registration
  Refer to the System Setup Guide included with your hub.
- Camera registration (if you didn't purchase the camera as part of a pre-configured bundle)
  Refer to the Installation Guide included with your camera.
- Use the **[Home Network]** app to configure a smart control scenario. Select a sensor as the trigger and your camera as the target device.
  See "Creating a scenario that uses a sensor as the trigger", Page 34.
- If using the camera's motion detection features as the trigger, use the **[Home Network]** app to adjust the camera's motion detection features, such as detection sensitivity and detection area, if necessary.
  See "Camera settings", Page 46.

You can configure the system to turn on a light or other electric device when your mobile device connects to your wireless router, such as when you return home from outside.

Required devices
- Mobile device (smartphone or tablet) with an Internet connection
- Wireless router
- HUB (KX-HNB600)
- Smart Plug (KX-HNA101)

Required procedures
- Hub initial setup and mobile device registration
  Refer to the System Setup Guide included with your hub.
- Smart plug registration (if you didn't purchase the smart plug as part of a pre-configured bundle)
  Refer to the Installation Guide included with your smart plug.
- Use the **[Home Network]** app to configure a smart control scenario. Select **[Trigger when Home Wi-Fi Connects]** as the trigger and your smart plug as the target device.
  See "Creating a scenario that uses a sensor as the trigger", Page 34.

You can configure the system to turn on a light or other electric device according to a schedule.

Required devices
- Mobile device (smartphone or tablet) with an Internet connection
- Wireless router
- HUB (KX-HNB600)
- Smart Plug (KX-HNA101)

Required procedures
- Hub initial setup and mobile device registration
  Refer to the System Setup Guide included with your hub.
- Smart plug registration (if you didn't purchase the smart plug as part of a pre-configured bundle)
  Refer to the Installation Guide included with your smart plug.
- Use the **[Home Network]** app to configure a smart control scenario that functions on a schedule.
  See "Creating a scenario that uses a schedule as the trigger", Page 34.

You can configure an indoor camera to notify your mobile device when sound (such as a crying baby) is detected.

Required devices
- Mobile device (smartphone or tablet) with an Internet connection
- Wireless router
- HUB (KX-HNB600)
- Indoor Camera (KX-HNC200)

Usage examples

Required procedures
- Hub initial setup and mobile device registration
  Refer to the System Setup Guide included with your hub.
- Camera registration (if you didn't purchase the camera as part of a pre-configured bundle)
  Refer to the Installation Guide included with your camera.
- Use the **[Home Network]** app to configure the camera's sound alert feature.
  See "Sound alert (indoor cameras only)", Page 45.

While at home, you can use your mobile device to make and answer calls that use your landline.

Required devices
- Mobile device (smartphone or tablet) with an Internet connection
- Wireless router
- HUB (KX-HNB600)

Required procedures
- Hub initial setup and mobile device registration
  Refer to the System Setup Guide included with your hub.
- Make sure the hub is connected to your landline.
  Refer to the System Setup Guide included with your hub.
- Use the **[Home Network]** app to make or answer calls.
  See "Making calls", Page 52 and "Answering landline calls", Page 53.

App basics (overview)

To access the system, simply start the **[Home Network]** app on your mobile device by tapping its icon (shown below).

To prevent unauthorized access to the system, you may need to enter a system password. Whether or not you need to enter the system password depends on how your mobile device is accessing the system, as explained below.

Accessing while at home

If your mobile device is connected to the same wireless network as the hub, you do not need to enter the system password when accessing the system. This is because it is assumed that in this situation, anyone in your home who is using your mobile device is authorized to access the system.
Note that even when you are at home, you will need to enter the system password if your mobile device is not connected to the same wireless network as the hub. This could occur if your mobile device is accessing the Internet using its mobile network connection instead of Wi-Fi, or if your mobile device is connected to a different wireless network.

Accessing while away from home

If your mobile device is not connected to the same wireless network as the hub, including situations when you are away from home, you will need to enter the system password when accessing the system. This is to prevent someone from using your mobile device to access the system in the event that you lose your mobile device while away from home, for example.

Note:
- The password is set during initial setup ("Initial setup", Page 12).
- You can change the password if necessary ("Login password", Page 72).
- Running the app while away from home when your mobile device is connected to a mobile network (3G, 4G, etc.) may cause your mobile device's battery to deplete faster than normal.

Automatic login

When entering the system password, you can enable the automatic login feature by turning on the **[Automatic Login when remotely access]** checkbox. In this case the password that you enter will be saved, allowing the **[Home Network]** app to log in to the system automatically.

Note:
- You can turn this feature on and off later if desired ("[Automatic Login] setting", Page 71).

Important:
- Turning on this feature could allow unauthorized parties to access the system if they are using your mobile device.

Using the home screen

The **[Home Network]** app home screen is displayed when you start the app.
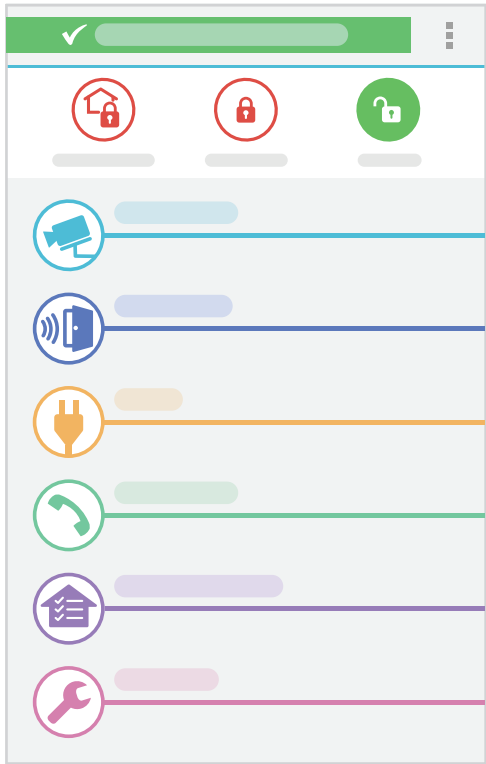
Connection mode

The message displayed at the top of the app's home screen indicates the current connection mode.
– **[Home Wi-Fi Connected]** is displayed when your mobile device is connected to the hub while at home (i.e., your mobile device is connected to the same wireless router as the hub).
– **[Remotely Connected]** is displayed when your mobile device is logged in to the system while away from home (i.e., your mobile device is not connected to the same wireless router as the hub).

Arm mode icons

The icons displayed near the top of the home screen indicate the current arm mode. For details about each mode, see "Arming and disarming the alarm system", Page 29.

[Arm: At Home] mode selected

[Arm: Away] mode selected

[Disarm] mode selected

Mobile device is not connected to hub; arm mode is unknown

Note:

● If another user changes the arm mode, the arm mode icons displayed at the top of the home screen of your mobile device will not change immediately. The icons will be updated and display the current arm mode the next time the app refreshes the home screen, such as when you start the app or return to the home screen from another screen.

Feature icons

The icons displayed on the left side of the home screen provide easy access to system features.

Displays the camera list.
At least one camera must be registered to the hub in order to select this icon.

Displays the sensor status screen or sensor history screen.

Displays the smart plug status screen.
At least one smart plug must be registered to the hub in order to select this icon.

Displays the app's phone features.
The hub must be connected to a home telephone line in order to make and receive calls using the **[Home Network]** app.

Displays the configuration screen for the system's smart control features.

Displays the system configuration screen.

Returning to the previous screen

iPhone, iPad

Tap   .

Android devices
Press your device's "back" button.

Returning to the [Home Network] app home screen

Press your mobile device's home button and then start the **[Home Network]** app again.

Displaying the options menu

The method used to display the options menu varies depending on your mobile device. Note that the options menu is not available on all screens.

iPhone, iPad
Tap ☰.

Android devices with a dedicated "menu" button
Press your device's menu button.

Android devices without a dedicated "menu" button

Tap ⋮.

Accessing from multiple mobile devices

There are certain limitations when multiple mobile devices are accessing the system at the same time, as explained below.

Limitations on camera features

If a mobile device is viewing a camera
There are no limitations on other mobile devices.

If a mobile device is recording camera images
● Other mobile devices cannot record images from that camera.
● Other mobile devices cannot play or erase that recording.

If a mobile device is talking to a camera
● Other mobile devices cannot talk to that camera.
● Other mobile devices cannot change settings for that camera.

If a mobile device is changing a camera's settings
● Other mobile devices cannot talk to that camera.
● Other mobile devices cannot change settings for that camera.

Limitations on sensor features

If a mobile device is accessing the system's sensor features
There are no limitations on other mobile devices.

Limitations on smart plug features

If a mobile device is accessing smart plug features
Other mobile devices cannot use smart plug features.

Limitations on phone features

If a mobile device is accessing certain phone features (talking on the landline, accessing the call log, etc.)
Other mobile devices cannot use those features.

Limitations on system setup features

If a mobile device is accessing certain system setup features
Other mobile devices cannot use certain system setup features.

Limitations when accessing while away from home

If a mobile device is accessing the system while away from home (i.e., accessing from a different network)
The next mobile device that tries to access the system while away from home will be allowed to access the system; the mobile device that was previously accessing the system will be disconnected.

Exiting and logging out

Exiting the app

Use this procedure to exit the app.

<u>iPhone, iPad</u>
Use the standard iOS method for exiting an app.

<u>Android devices</u>
Use the standard Android method for exiting an app.
From the app's home screen, you can also open the options menu ("Displaying the options menu", Page 22) and then tap **[Exit]**.

Logging out while away from home

To log out of the system while away from home (i.e., when your mobile device is accessing the hub while connected to a different network), press your mobile device's home button or power button.
From the app's home screen, you can also open the option menu ("Displaying the options menu", Page 22) and then tap **[Logout]** (iPhone, iPad) or **[Exit]** (Android devices).

Confirming system status (overview)

The system can provide information about system status in a variety of ways.
– Displaying status notifications on your mobile device using your mobile device's notifications features ("Status notifications", Page 24)
– Displaying animations and messages in the **[Home Network]** app home screen ("Confirming status in the [Home Network] app home screen", Page 25)
– Lighting the LED indicators on each device ("Device LED indicators", Page 25)
– Notifying you by telephone when the alarm system is triggered ("Alert by phone call", Page 31)
– Sounding an alert using the hub's speaker when the alarm system is triggered

Status notifications

The system uses status notifications to give you feedback about how the system is functioning. Details vary depending on system settings and the type of mobile device you are using.

Enabling and disabling status notifications

See "Notification settings", Page 70.

Alert tone

The app sounds an alert tone when your mobile device receives a notification from the system. The volume is determined by your mobile device's alert volume setting.

Status notifications for iPhone, iPad

The system provides information about system status by displaying status notifications and error messages in the iOS Notifications Center.

Status notifications for Android devices

The system provides information about system status by displaying status notifications, error messages, and the following icons in your mobile device's status bar and notifications panel.

🔲	Window sensor was triggered
🚪	Door sensor was triggered
🚶	Motion sensor was triggered
📷	Camera motion sensor was triggered
📹	Camera audio and video are being recorded
📶	Indoor camera sound sensor was triggered
🌡	Indoor camera temperature sensor was triggered
🔌	Smart plug overcurrent or overwattage sensor was triggered
🔌	Smart plug on/off error
⬆	App is connected to hub[*1]
⬆	App is not connected to hub[*1]
📞	Landline call is being received
📞	This mobile device is talking on a landline call or has a landline call on hold
📞	Another handset or mobile device is talking on a landline call or has a landline call on hold
📞	Landline call was missed

📟	New answering system message was recorded
✉	New landline voicemail service message was recorded
⚠	Device is out of range of the hub
⚠	Device is malfunctioning
⚠	Another user is using the device
⚠	Hub is busy
ⓘ	Hub's date and time setting was corrected after a power failure
ⓘ	Device was registered to the hub
🔒	Arm mode was changed
🔊	Entry delay countdown in effect
🌡	Outdoor camera is too cold

*1   You can disable these icons from being displayed in your mobile device's status bar, if desired
("[Connection Status Icon] (Android devices only)", Page 72).

Confirming status in the [Home Network] app home screen

The system can provide information about system status by displaying animations and messages in the
[Home Network] app home screen. The icons shown below are animated in the following situations.

📹〰	Camera audio and video are being recorded, indoor camera sound sensor was triggered, or indoor camera temperature sensor was triggered
🚪〰	Standalone sensor (window/door sensor, motion sensor, etc.) or camera motion sensor was triggered
🔌〰	Smart plug overcurrent or overwattage sensor was triggered, or the smart plug could not turn on or off properly

Device LED indicators

The system can provide information about the status of each device by turning on the device's LED
indicator.

Using the app

Meaning of symbols used in this section

⬤ Indicator off

🟢 Green, lit

🟢 Green, blinking

🟢 Green, blinking quickly

🟢🟡 Repeating pattern of blinking green and blinking yellow

🔴 Red, lit

🔴 Red, blinking slowly

🔴 Red, blinking

🔴 Red, blinking quickly

🟡 Yellow, lit

🟡 Yellow, blinking

🟡 Yellow, blinking quickly

🟠 Amber, blinking

Hub LED indicator

⬤ No power, or LED indicator is turned off[*1]

🟢 Normal operation, connected to wireless router[*1]

🟢 Registration mode

🟢 Failed to connect to wireless router

🟢🟡 Hub is starting up

🔴 Alarm system is armed[*1]

🔴 Alarm system was triggered

🟡 Initial setup required

🟡 Initial setup in progress, mobile device connected

🟡 Initial setup is starting

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*1 You can configure the hub so that its LED indicator does not light during normal operation. See "General settings", Page 71.

Camera LED indicator

⬤ No power, or LED indicator is turned off*1

🟢 Normal operation*1

🟢 Registration mode

🔴 Motion detection feature was triggered*2

🔴 Live images are being viewed or recorded

🔴 Camera is out of range of the hub, or device malfunction

🟠 Camera is not registered to a hub

*1 You can configure the camera so that its LED indicator does not light during normal operation. See "Device names, locations, and other settings", Page 69.
*2 The LED indicator does not light when the indoor camera's temperature sensor is triggered.

Motion sensor LED indicator

The LED indicator on the motion sensor does not light during normal operation. You can press •))C and check the LED indicator to confirm the sensor's status.

🟢 No motion detected

🔴 Motion was detected

🔴 Sensor is out of range of the hub

🟢 Registration mode (you pressed and held •))C)

⬤ No battery power

Note:
● The LED indicator does not indicate sensor status if the sensor has not been registered.

Window/door sensor LED indicator

The LED indicator on the window/door sensor does not light during normal operation. You can press •))C and check the LED indicator to confirm the sensor's status.

🟢 Window/door is closed

🔴 Window/door is open

🔴 Sensor is out of range of the hub

🟢 Registration mode (you pressed and held •))C)

○   No battery power

Note:
- The LED indicator does not indicate sensor status if the sensor has not been registered.

Smart plug LED indicator

○   No power, smart plug is off, or LED indicator is turned off[*1]

●   Smart plug is on[*1]

◌●◌   Registration mode

◌●◌   Smart plug is out of range of the hub

◌●◌   Connected electric device is drawing too much current or wattage[*2]

*1   You can configure the smart plug so that its LED indicator does not light when the smart plug is on. See "Device names, locations, and other settings", Page 69.
*2   In this case, the smart plug will turn off automatically. To turn the smart plug on again, disconnect it from the power outlet, disconnect the connected electric device, and then connect it again.

Alarm system features (overview)

You can use the system as an alarm system. When the alarm system is triggered, such as when motion is detected or when a window or door is opened, the system can:
– send a notification to your mobile devices ("Status notifications", Page 24)
– call a pre-programmed phone number (such as your mobile phone or work phone) and play a message to alert you to the situation ("Alert by phone call", Page 31)
– execute a smart control scenario, such as recording camera images or turning on a smart plug ("Smart control features (overview)", Page 33)

Important:
- 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.

Arm modes

You can arm and disarm the alarm system by changing the arm mode. When the alarm system is disarmed, all alarm system features are disabled.

Sensors that can be used to trigger alarm system features

The following sensors can be used to trigger alarm system features.
– Window sensors and door sensors (KX-HNS101)
– Motion sensors (KX-HNS102)
– Built-in motion sensors in outdoor cameras (KX-HNC600)
– Built-in motion sensors in indoor cameras (KX-HNC200)

Note:
- The following sensors cannot be used to trigger alarm system features.
  – Built-in sound and temperature sensors in indoor cameras (KX-HNC200)

– Built-in overcurrent and overwattage detection sensor in smart plugs (KX-HNA101)

Triggering the alarm system

The following explains what is needed to trigger the alarm system, and what happens when a sensor is triggered while the alarm system is armed.

1 The sensor must be enabled for the current arm mode in order for it to be triggered. You can also select whether or not the sensor uses entry time (explained below).
   ● See "Alarm system settings", Page 30.

2 The alarm system must be armed in order for it to be triggered.
   ● See "Arming and disarming the alarm system", Page 29.
   ● If the current arm mode is **[Arm: Away]**, exit time is in effect beginning when the arm mode was set. During this time, sensors cannot be triggered; this gives you time to leave the house after arming the alarm system. The exit delay alert sounds during this time. Once exit time runs out, the alarm system is armed.

3 The sensor makes a detection (a door sensor detects that its door was opened, a motion sensor detects motion, etc.).
   ● If the sensor is configured to use entry time, entry time is in effect beginning when the sensor was triggered. During this time, the entry delay alert sounds but the alarm system has not yet been triggered. If the alarm system is not disarmed before entry time runs out, the alarm system will be triggered.

4 The alarm system is triggered. The system responds as follows.
   – The hub sounds an alert.
   – The system sends a notification to your mobile devices. This feature can be disabled ("Notification settings", Page 70).
   – The event is logged in the sensor's history.

5 If the alert by phone call feature is enabled, the hub calls the pre-programmed phone number.
   ● See "Alert by phone call", Page 31.
   ● If you cancel the alert ("Canceling an alert", Page 29), the alert by phone call feature will be canceled for the current event.

6 If the sensor is configured to execute a smart control scenario, the scenario starts.
   ● See "Smart control features (overview)", Page 33.

Canceling an alert

When the alarm system is triggered, you can confirm the triggered event in the **[Home Network]** app home screen or by using your mobile device's notification features.
If the sensor alert screen is displayed, tap **[Stop]** to cancel the alert. If the **[Dismiss]** icon is displayed while viewing live images from a camera, tap **[Dismiss]** to cancel the alert.

Arming and disarming the alarm system

The alarm system features three modes. You can use the icons displayed at the top of the **[Home Network]** app home screen to confirm or change the current arm mode.

Arm: At Home
Use this mode when someone is at home.
When this mode is selected, the following sensors are enabled and disabled by default. You can change these settings if desired ("Alarm system settings", Page 30).
– **Window sensors and door sensors:** Enabled

– **Motion sensors (including camera motion sensor features):** Disabled

Arm: Away

Use this mode when no one is at home.

When this mode is selected, the following sensors are enabled and disabled by default. You can change these settings if desired ("Alarm system settings", Page 30).

– **Window sensors and door sensors:** Enabled
– **Motion sensors (including outdoor camera motion sensor features):** Enabled
– **Indoor camera motion sensor features:** Disabled

Disarm

Use this mode when alarm system features are not needed.

All sensors are disabled when this mode is selected.

Confirming the current arm mode

The icons displayed near the top of the home screen indicate the current arm mode.

See "Arm mode icons", Page 20 for details.

Changing the current arm mode

Tap the icon of the desired arm mode at the top of the **[Home Network]** app home screen.

Alarm system settings

You can customize settings for **[Arm: At Home]** mode and **[Arm: Away]** mode to suit your needs.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Arm Settings]**.

3 Select which type of settings you want to change.
   – **[Arm Settings (At Home)]**: The settings you change will be applied when the arm mode is set to **[Arm: At Home]**.
   – **[Arm Settings (Away)]**: The settings you change will be applied when the arm mode is set to **[Arm: Away]**.
   – **[Alert by Phone Call]**: See "Alert by phone call", Page 31.
   – **[Change Arm PIN]**: See "Alarm system PIN", Page 32.

4 Select the desired setting.

5 Change the settings as desired.
   ● Each setting is explained in this section.

6 Follow the on-screen instructions.

Enabling and disabling individual sensors

While configuring the settings for an arm mode, tap the name of the desired sensor and then select the desired operating mode.

– **[Enable]**: This setting enables the selected sensor during the corresponding arm mode.
– **[Enable (Entry Delay)]**: This setting is the same as when **[Enable]** is selected, but an entry delay is also applied. For more information, see "Entry delay time and alert volume", Page 31.
– **[Disable]**: This setting disables the selected sensor during the corresponding arm mode.

Exit delay time and alert volume

The exit delay can give you time to leave the house before the alarm system is armed. This setting determines the amount of time.

When you change the arm mode to **[Arm: Away]**, the exit delay begins counting down. During this time, the alarm system cannot be triggered.

Setting the exit delay time
Tap the current time setting, select the desired time, and then tap **[OK]**.

Setting the exit delay alert volume

The hub sounds an alert while the exit delay is counting down. To adjust the volume, tap 🔊, select the desired volume, and then tap **[OK]**. While adjusting this setting, the alert will sound from the hub so that you can confirm the selected volume.

Note:
● This setting is only available when **[Arm Settings (Away)]** is selected in step 3, page 30.

Entry delay time and alert volume

The entry delay can give you time to disarm the alarm system when you return home. This setting determines the amount of time.
If a sensor is configured to use the entry delay, the entry delay begins counting down when the sensor makes a detection. During this time, the system will ignore the sensor detection and continues counting down. If the alarm system is disarmed before this time runs out, the detection is ignored. If the alarm system is not disarmed before the entry delay time runs out, the alarm system is triggered.

Setting the entry delay time
Tap the current time setting, select the desired time, and then tap **[OK]**.

Setting the entry delay alert volume

The hub sounds an alert while the entry delay is counting down. To adjust the volume, tap 🔊, select the desired volume, and then tap **[OK]**. While adjusting this setting, the alert will sound from the hub so that you can confirm the selected volume.

Alert duration time and alert volume

The hub sounds an alert when the alarm system is triggered. This setting determines how long the alert will sound.

Setting the alert time
Tap the current time setting, select the desired time, and then tap **[OK]**.

Setting the alert volume

Tap 🔊, select the desired volume, and then tap **[OK]**. While adjusting this setting, the alert will sound from the hub so that you can confirm the selected volume.

Alert by phone call

You can configure the system to call a pre-programmed phone number when the alarm system is triggered. When the called party answers the call, the system will play back a message to alert the called party to the situation.

Usage example
1 You arm the alarm system.
2 A sensor is triggered.
3 The hub uses its connection to your landline to call a pre-programmed phone number.

4   When the called party answers the call, the system announces the name of the triggered sensor and prompts the called party to press $\boxed{\divideontimes}$.

- If the called party does not answer the call or does not press $\boxed{\divideontimes}$, the system calls the next pre-programmed phone number.

Note:
- In order to use this feature, the hub must be connected to your landline. For information about phone line connection, refer to the System Setup Guide included with your hub.

Configuring the alert by phone call feature

1   From the **[Home Network]** app home screen, tap **[Settings]**.

2   Tap **[Arm Settings]**.

3   Tap **[Alert by Phone Call]**.

4   Turn on the **[Alert by Phone Call]** switch.

5   Tap **[Arm Condition]**.

6   Select the desired setting and then tap **[OK]**.
  – **[Away/At Home]**: Alert by phone call is enabled for **[Arm: Away]** and **[Arm: At Home]** arm modes.
  – **[Away]**: Alert by phone call is enabled for **[Arm: Away]** arm mode only.

7   Tap the desired memory location (1–5).
  - When the system calls a phone number, it calls the phone number assigned to the lowest memory location. If the called party does not answer or does not press $\boxed{\divideontimes}$, the system calls the phone number assigned to the next memory location.
  - **[None]** is displayed for numbers with no phone number assigned to them.

8   Specify the party to be called by entering the desired name and then tap **[OK]**. Repeat this step and enter the desired phone number.
  - You can also select a contact that is stored in your mobile device by tapping **[Add from Contacts List]**.

9   When finished, tap **[OK]**.

Erasing phone numbers assigned to the alert by phone call feature

1   From the **[Home Network]** app home screen, tap **[Settings]**.

2   Tap **[Arm Settings]**.

3   Tap **[Alert by Phone Call]**.

4   Open the options menu (see "Displaying the options menu", Page 22).

5   Tap **[Delete Selected Items]**.

6   Turn on the checkbox for each phone number you want to erase, and then tap **[OK]**.

Alarm system PIN

The alarm system PIN is required when using a cordless handset to change the arm mode or cancel an alert. You can use the app to change the PIN.

1   From the **[Home Network]** app home screen, tap **[Settings]**.

2   Tap **[Arm Settings]**.

3   Tap **[Change Arm PIN]**.

4 Enter the current PIN and then tap **[OK]**.
  ● The default PIN is "0000".
5 Enter the desired PIN and then tap **[OK]**.
6 Enter the desired PIN again and then tap **[OK]**.

Smart control features (overview)

Smart control allows the system to operate by itself. You can configure smart control settings by creating "scenarios". Each scenario answers three questions:

1 **Which** devices do you want to control?
  – Example: entrance camera
  – Example: foyer smart plug
2 **When** do you want the devices to operate?
  – At a set time
  – When a sensor is triggered
  – When you come home
3 **What** do you want the devices to do?
  – Cameras: record audio and video
  – Smart plugs: turn on

Examples

Here are some examples of how you can use smart control scenarios.

I want to know who comes to the door while I'm at work.
1 **Which device:** Entrance camera
2 **When:** The entrance camera's motion sensor is triggered
3 **What:** Record audio and video for 1 minute

I want to turn on the lights while I'm away on vacation.
1 **Which device:** Living room smart plug
2 **When:** Every night from 8:00 PM to 10:30 PM
3 **What:** Turn the smart plug on

I want the lights to turn on automatically when I come home.
1 **Which device:** Foyer smart plug
2 **When:** When the alarm system is armed and the app detects that your mobile device has reconnected to your wireless router (because you came home)
3 **What:** Turn the smart plug on

I want to turn on my bedside lamp if my baby starts crying.
1 **Which device:** Master bedroom smart plug
2 **When:** The child's room camera's sound sensor is triggered between 10:00 PM and 6:00 AM
3 **What:** Turn the smart plug on for 2 minutes

Sensors that can be used to trigger smart control scenarios

The following sensors can be used to trigger smart control scenarios.
– Window sensors and door sensors (KX-HNS101)
– Motion sensors (KX-HNS102)

– Built-in motion sensors in outdoor cameras (KX-HNC600)
– Built-in motion sensors in indoor cameras (KX-HNC200)
– Built-in sound and temperature sensors in indoor cameras (KX-HNC200)
– Mobile device Wi-Fi connection (see "Using [Trigger when Home Wi-Fi Connects] to trigger smart control scenarios", Page 35)

Note:
● The following sensors cannot be used to trigger smart control scenarios.
  – Built-in overcurrent and overwattage detection sensor in smart plugs (KX-HNA101)

Creating smart control scenarios

Smart control scenarios can be executed on a schedule and when a sensor is triggered. You can create up to 50 smart control scenarios.

Creating a scenario that uses a schedule as the trigger

1 From the **[Home Network]** app home screen, tap **[Smart Control]**.
  ● A list of all devices that are ready to be controlled by a smart control scenario is displayed.

2 Select the device that you want to control.
  ● A list of all smart control scenarios that control the selected device is displayed.
  ● If the desired device is not displayed, tap ⊕ and then select the device.

3 Tap ⊕ to add a new scenario.
  ● This item is not available if the maximum number of scenarios have already been created.

4 Tap **[Schedule]**.

5 Tap the field next to **[Start Time]**, select the desired setting, and then tap **[OK]**.

6 Tap the field next to **[Recording Duration]** (for cameras) or **[End Time]** (for smart plugs), select the desired setting, and then tap **[OK]**.
  ● The maximum recording time (for cameras) is 15 minutes. The maximum power-time (for smart plugs) is 24 hours.

7 Tap **[Repeat]**, select the days on which the scenario can control the device, and then tap **[OK]**.

8 In the **[Arm Mode]** field, select the arm modes in which the scenario can control the device.

9 When finished, tap **[OK]**.

Note:
● If the conditions of this scenario (day, time, and arm mode) overlap with another scenario that is configured to control the same device, an error is displayed. The nature of the error is also displayed on the scenario's configuration screen.

Creating a scenario that uses a sensor as the trigger

1 From the **[Home Network]** app home screen, tap **[Smart Control]**.
  ● A list of all devices that are ready to be controlled by a smart control scenario is displayed.

2 Select the device that you want to control.
  ● A list of all smart control scenarios that control the selected device is displayed.
  ● If the desired device is not displayed, tap ⊕ and then select the device.

3 Tap (+) to add a new scenario.

  ● This item is not available if the maximum number of scenarios have already been created.

4 Tap **[Triggered by Sensor]**.

5 Select the sensor that you want to use to trigger the smart control scenario.
  ● If the device to control is a smart plug, you can use your mobile device's Wi-Fi connection to your wireless router as a trigger by selecting **[Trigger when Home Wi-Fi Connects]**. For more information, see "Using [Trigger when Home Wi-Fi Connects] to trigger smart control scenarios", Page 35.

6 **If you selected a camera as the device to control**
Tap the field next to **[Recording Duration]**, select the desired setting, and then tap **[OK]**.
  ● The maximum recording time is 15 minutes.
If you selected a smart plug as the device to control
Tap the field next to **[Power ON Duration]**, select the desired setting, and then tap **[OK]**.
  ● The maximum power-time is 24 hours.

7 Tap the field next to **[Start Time]**, select the start time of the period when the scenario can control the device, and then tap **[OK]**.

8 Tap the field next to **[End Time]**, select the end time of the period when the scenario can control the device, and then tap **[OK]**.

9 Tap **[Repeat]**, select the days on which the scenario can control the device, and then tap **[OK]**.

10 In the **[Arm Mode]** field, select the arm modes in which the scenario can control the device.

11 Tap **[OK]**.

Note:
● If the conditions of this scenario (day, time, and arm mode) overlap with another scenario that is configured to control the same device, an error is displayed. The nature of the error is also displayed on the scenario's configuration screen.
● When a sensor is triggered, the scenario is executed immediately, even if the sensor's operation mode is set to **[Enable (Entry Delay)]** ("Enabling and disabling individual sensors", Page 30).
● When using a smart control scenario to record camera images, there may be a short delay after the sensor is triggered before recording starts.

Using [Trigger when Home Wi-Fi Connects] to trigger smart control scenarios

You can use your mobile device's Wi-Fi connection to your wireless router as a trigger to turn on a smart plug. An example use of this feature would be having a light turn on automatically when you return home. When the app detects that your mobile device has reconnected to your wireless router (because you came home), it executes the scenario (turning on the light).
In order to use this feature, select **[Trigger when Home Wi-Fi Connects]** as the sensor when configuring a smart control scenario.

Note:
● When **[Trigger when Home Wi-Fi Connects]** is selected, the app checks your mobile device's Wi-Fi connection periodically so that it can detect when it has connected to your home wireless network again.

Recording camera images

For information about SD cards and how recordings are saved, see "Information about SD cards", Page 48.

Turning smart control scenarios on and off

1 From the **[Home Network]** app home screen, tap **[Smart Control]**.
- A list of all devices that are ready to be controlled by a smart control scenario is displayed.

2 Select the device that you want to control.
- A list of all smart control scenarios that control the selected device is displayed.
- If the desired device is not displayed, there are no scenarios assigned to that device.

3 Turn the checkbox for the desired scenario on or off.

Editing smart control scenarios

1 From the **[Home Network]** app home screen, tap **[Smart Control]**.
- A list of all devices that are ready to be controlled by a smart control scenario is displayed.

2 Select the device that you want to control.
- A list of all smart control scenarios that control the selected device is displayed.
- If the desired device is not displayed, there are no scenarios assigned to that device.

3 Select the desired scenario.

4 Edit the scenario as desired.

5 When finished, tap **[OK]**.

Erasing smart control scenarios

Erasing a single scenario

1 From the **[Home Network]** app home screen, tap **[Smart Control]**.
- A list of all devices that are ready to be controlled by a smart control scenario is displayed.

2 Select the device that you want to control.
- A list of all smart control scenarios that control the selected device is displayed.

3 <u>iPhone, iPad</u>
Swipe the desired scenario to the left and then tap **[Delete]**.
<u>Android devices</u>
Tap and hold the desired scenario and then tap **[OK]**.

Erasing all scenarios that control a device

1 From the **[Home Network]** app home screen, tap **[Smart Control]**.
- A list of all devices that are ready to be controlled by a smart control scenario is displayed.

2 <u>iPhone, iPad</u>
Swipe the desired device to the left and then tap **[Delete]**.
<u>Android devices</u>
Tap and hold the desired scenario and then tap **[OK]**.

Sensor features (overview)

The system supports a wide range of sensors. Some sensors are standalone devices and others are integrated into other devices.

The following tables describe each sensor, how they function, what features they can be used with, and which arm modes they are active during.

Standalone sensors

Description	Function	Uses
Window sensor or door sensor[*1] (KX-HNS101)	Uses a magnet to detect when the window or door is opened	– Alarm system[*2] – Smart control
Motion sensor (KX-HNS102)	Uses infrared light to detect heat	– Alarm system[*2] – Smart control

[*1] Whether the sensor operates as a window sensor or door sensor depends on the sensor's **[Installation Type]** setting. See "Device names, locations, and other settings", Page 69.

[*2] You can choose whether each of this sensor type is enabled or disabled for **[Arm: At Home]** and **[Arm: Away]** modes ("Alarm system settings", Page 30).

Integrated sensors

Description	Function	Uses
Motion sensor in outdoor camera (KX-HNC600)	Uses infrared light to detect heat, also can detect visual differences in the camera image over time	– Alarm system[*1] – Smart control
Motion sensor in indoor camera (KX-HNC200)	Can detect visual differences in the camera image over time	– Alarm system[*1] – Smart control
Sound sensor in indoor camera (KX-HNC200)	Detects sound	– Smart control – Sound alert feature[*2]
Temperature sensor in indoor camera (KX-HNC200)	Detects temperature	– Smart control – Temperature alert feature[*3]
Overcurrent and overwattage sensor in smart plug (KX-HNA101)	Detects when the connected electric device draws too much current or wattage	– Overcurrent or overwattage alert feature[*4]
Mobile device Wi-Fi connection feature built in to **[Home Network]** app	Detects when the mobile device reconnects to the wireless network	– Smart control

[*1] You can choose whether each of this sensor type is enabled or disabled for **[Arm: At Home]** and **[Arm: Away]** modes ("Alarm system settings", Page 30).

[*2] For more information, see "Sound alert (indoor cameras only)", Page 48.

[*3] For more information, see "Temperature alert (indoor cameras only)", Page 48.

[*4] For more information, see "What is overcurrent and overwattage?", Page 49.

Viewing sensor status

You can view the current status of each sensor.

1 From the **[Home Network]** app home screen, tap **[Sensor]**.

2 Select the **[Status]** tab.
- Each sensor is displayed under the appropriate category name as explained below.
  - **[Error]**: Sensors that are reporting an error. The nature of the error is also displayed.
  - **[Detected]**: Sensors that are currently being triggered.

– **[Ready]**: All other sensors.
● You can select a sensor and view the detailed trigger history for that sensor.
● To update the information displayed and view the latest information, tap **[Refresh]**.
● The following icons are displayed for each type of device.

	Window sensor (window is currently closed)
	Window sensor (window is currently open)
	Door sensor (door is currently closed)
	Door sensor (door is currently open)
	Motion sensor
	Camera motion sensor

Viewing sensor history

You can view a log of previous alarm events, including the date and time when sensors were triggered and when the arm mode was changed.

1 From the **[Home Network]** app home screen, tap **[Sensor]**.

2 Select the **[Alert Log]** tab.
● To update the information displayed and view the latest information, tap **[Refresh]**.

Viewing the history for a specific sensor

1 From the **[Home Network]** app home screen, tap **[Sensor]**.

2 Select the **[Status]** tab.

3 Select the desired sensor.
● To update the information displayed and view the latest information, tap **[Refresh]**.

Viewing the history for the alert by phone call feature

For information about this feature, see "Alert by phone call", Page 31.

1 From the **[Home Network]** app home screen, tap **[Sensor]**.

2 Select the **[Alert Log]** tab.

3 Open the options menu (see "Displaying the options menu", Page 22).

4 Tap **[Alert Call Log]**.
● To update the information displayed and view the latest information, tap **[Refresh]**.

Differences between window sensors and door sensors

You can select whether a KX-HNS101 Window/Door Sensor functions as a window sensor or as a door sensor. This setting affects the icon displayed for the sensor and the voice alert that can be announced when the sensor triggers the alarm system.
To change this setting, see "Device names, locations, and other settings", Page 69.

Sensor settings

The following sensor settings are available.

Motion sensor sensitivity

Set the sensitivity switch on the side of the motion sensor to the desired position.

Enabling and disabling individual sensors

You can enable and disable each sensor for **[Arm: At Home]** and **[Arm: Away]** arm modes. See "Alarm system settings", Page 30.

Changing the name and location assignment of a sensor

See "Device names, locations, and other settings", Page 69.

Changing the sensor type (window/door sensors only)

You can select whether a KX-HNS101 Window/Door Sensor functions as a window sensor or as a door sensor. To change this setting, see "Device names, locations, and other settings", Page 69.

Camera features (overview)

You can use indoor and outdoor cameras to monitor and record the sights and sounds of the area where the camera is located. Cameras have built-in motion sensor features that, when triggered, allow cameras to record images automatically or send a notification to your mobile device. Additionally, built-in speakers and microphones allow you to talk to anyone who is near the camera.
Indoor cameras feature a built-in temperature sensor, which allows the camera to alert you when the ambient temperature is too high or too low, and a sound sensor, which allows the camera to alert you when sound is detected. You can also select one of the preset "lullaby" melodies and play it through the camera's built-in speaker.
You can register 4 cameras to the system.

Viewing the camera list

By opening the camera list, you can view a small preview image of each camera registered to the system. To view the camera list, tap **[Camera]** in the home screen.

Note:

● If a camera's images are being recorded, 🔴 is displayed in the camera list.

● If a camera's sensor features have been triggered, 🔊 is displayed in the camera list.

Camera list options

While viewing the camera list, you can open the options menu (see "Displaying the options menu", Page 22) and configure various settings that are applied to all cameras registered to the system. These settings are explained in "General camera settings", Page 46.

Viewing live camera images

1 From the **[Home Network]** app home screen, tap **[Camera]**.
2 Tap the camera image of the desired camera.
  ● A live image from the selected camera is displayed in single-camera display mode.

Note:
● Multiple mobile devices can view live images from the same camera at the same time, however, only one mobile device can use certain features at a time (image recording, talking to the camera, etc.).

Turning the camera audio on and off

Slide the switch to the desired position while viewing live images from a single camera.

(((())): Camera audio will be heard

((✳)): Camera audio will not be heard

Zooming in and out

Pinch in and out on the camera image while viewing live images from a single camera. While zoomed in, you can swipe your finger on the camera image to display a different area of the image.

Using night vision

If there is not adequate light to illuminate the subject, such as at night, the camera automatically switches to night vision mode. When night mode is active, colors may appear different from normal.

Camera viewing options

The following items are available in the options menu (see "Displaying the options menu", Page 22) while viewing live images from a single camera.

[Camera Speaker Volume]
Allows you to adjust the selected camera's speaker volume.

[Outdoor Camera Settings] (outdoor cameras only)
Allows you to adjust settings for the selected camera. See "Camera settings", Page 46.

[Indoor Camera Settings] (indoor cameras only)
Allows you to adjust settings for the selected camera. See "Camera settings", Page 46.

[Alert Log] (indoor cameras only)
Displays a log of previous sound alert and temperature alert detections.

Recording camera images

To record camera images manually, see "Recording camera images (manual recording)", Page 41.
To record images automatically according to a schedule, see "Creating a scenario that uses a schedule as the trigger", Page 34.
To record images automatically when a sensor is triggered, see "Creating a scenario that uses a sensor as the trigger", Page 34.

Taking snapshots

To save snapshots (i.e., still images) while viewing live camera images, see "Taking snapshots", Page 41.

Talking to the camera

To use your mobile device's microphone and the camera's built-in speaker to talk to someone where the camera is installed, see "Talking to the camera", Page 42.

Playing a lullaby (indoor cameras only)

To play a lullaby using the camera's built-in speaker, see "Playing a lullaby (indoor cameras only)", Page 42.

Recording camera images (manual recording)

You can record camera images while viewing live camera images. Recordings are saved on the hub's SD card.

1   From the **[Home Network]** app home screen, tap **[Camera]**.

2   Tap the camera image of the desired camera.

3   Tap **[Video]** to start recording.
● Recordings include both audio and video.

4   Tap **[Stop]** to stop recording.

Note:
● You can use smart control scenarios to record images. See "Smart control features (overview)", Page 33.
● The maximum recording time is 15 minutes.
● If **[The SD card in the hub is Memory Full.]** is displayed, the hub's SD card is full and new recordings cannot be saved. Erase unneeded recordings (see "Erasing recordings", Page 44).
● For information about SD cards and how recordings are saved, see "Information about SD cards", Page 48.

Taking snapshots

You can save snapshots (i.e., still images) while viewing live camera images. Snapshots are saved in your mobile device's default photo album app.

1   From the **[Home Network]** app home screen, tap **[Camera]**.

2   Tap the camera image of the desired camera.

3   Tap **[Photo]**.

Note:
● Snapshot sizes are scaled to fit the width of your mobile device's display.
● <u>iPhone, iPad</u>
Snapshots are saved as JPEG files in your mobile device's "Photos" app.
● <u>Android devices</u>
Snapshots are saved as JPEG files in your mobile device's "Pictures" directory. The file naming convention is: device name + the date and time.

Talking to the camera

You can use your mobile device's microphone and the camera's built-in speaker to talk to someone where the camera is installed.

1 From the **[Home Network]** app home screen, tap **[Camera]**.

2 Tap the camera image of the desired camera.

3 Tap and hold **[Talk]**.
- The audio from your mobile device's microphone is played through the camera's speaker until you release your finger.
- Talk in turns with the other party. (While you are talking to the camera, you will not be able to hear audio from the camera's microphone.)

Note:
- To adjust the camera's speaker volume, open the options menu (see "Displaying the options menu", Page 22) and tap **[Camera Speaker Volume]**.

Playing a lullaby (indoor cameras only)

You can play a lullaby using the camera's built-in speaker.

1 From the **[Home Network]** app home screen, tap **[Camera]**.

2 Tap the camera image of the desired camera.

3 Tap **[Lullaby]**.

4 Select the desired lullaby and then tap **[OK]**.
- The lullaby starts playing. To stop the lullaby, tap **[Lullaby]** again.
- Lullaby playback stops automatically after 30 minutes.

Note:
- If you talk to the camera (see "Talking to the camera", Page 42) while a lullaby is playing, the lullaby stops.

Adjusting the lullaby volume

While viewing a live image from the camera that is playing a lullaby, open the options menu (see "Displaying the options menu", Page 22) and tap **[Camera Speaker Volume]**.

Viewing the recording list

You can use the recording list to play back recordings saved on the hub's SD card and to confirm details about each recording.

1 From the **[Home Network]** app home screen, tap **[Camera]**.

2 Tap **[Recording List]**.
- A list of recording dates is displayed.

3 Select a recording date.
- A list of all recordings recorded on the selected date is displayed.
- The icons displayed indicate details about each recording.

The recording was recorded when a sensor was triggered.

The recording was recorded according to a timer.

The recording was recorded manually.

Recording list options

The following items are available in the options menu (see "Displaying the options menu", Page 22) while viewing the recording list.

[Sort]
Allows you to sort the recordings in the recording list.

[Delete All]
Allows you to erase recordings. See "Erasing recordings", Page 44.

[Delete Selected Contents]
Allows you to erase recordings. See "Erasing recordings", Page 44.

Playing back recordings

1 From the **[Home Network]** app home screen, tap **[Camera]**.
2 Tap **[Recording List]**.
3 Select a recording date.
4 Tap the desired recording.
   ● The recording is played back.

Playback controls

The following controls are available during playback.

Starts or resumes playback

Pauses playback

Stops playback

Allows you to quickly move to the desired area of the recording by sliding the progress bar

Erases the current recording

Copying recordings to your mobile device

During playback, open the options menu (see "Displaying the options menu", Page 22) and then tap
[Save to Mobile Device].
Recordings are saved in your mobile device's "Photos" app (iPhone, iPad) or "Movies" directory (Android devices).

Erasing recordings

1 From the **[Home Network]** app home screen, tap **[Camera]**.
2 Tap **[Recording List]**.
3 **To erase recordings recorded on one specific date**
Select the desired recording date.

   To erase recordings recorded on multiple dates
Continue to the next step.
4 Open the options menu (see "Displaying the options menu", Page 22).
5 **To erase all recordings**
Tap **[Delete All]** → **[OK]**. The procedure is complete.

   To erase selected recordings
Tap **[Delete Selected Contents]**.
6 Turn on the checkboxes for the dates or recordings that you want to erase.
7 Tap **[OK]**.

Note:

● You can also erase a recording during playback by tapping (🗑) → **[OK]**.

Temperature alert (indoor cameras only)

You can configure the camera to send notifications if the camera's ambient temperature is too cold or too hot.

1 From the **[Home Network]** app home screen, tap **[Settings]**.
2 Tap **[Device Profiles]**.
3 Tap **[Camera]**.
4 Select the device that you want to change settings for.
5 Tap **[Temperature Sensor]**.
6 Slide the **[Temperature Sensor]** switch to select whether or not the system notifies you if the camera's ambient temperature is above or below the specified temperature.
7 Slide the **[Units]** switch to select whether the temperature is displayed and specified in Fahrenheit or Celsius.
8 Tap the lower threshold of the acceptable temperature range, select the desired temperature, and then tap **[OK]**.
9 Repeat the previous step for the upper threshold of the acceptable temperature range.

Note:
● You can also change these settings while viewing live camera images by opening the options menu and selecting **[Indoor Camera Settings]**.

Confirming temperature alert history

You can view a log of previous temperature alert detections.

1 From the **[Home Network]** app home screen, tap **[Camera]**.

2 Tap the camera image of the desired camera.

3 Open the options menu (see "Displaying the options menu", Page 22).

4 Tap **[Alert Log]**.

Sound alert (indoor cameras only)

You can configure the camera to send notification if the camera's microphone detects sound.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Device Profiles]**.

3 Tap **[Camera]**.

4 Select the device that you want to change settings for.

5 Tap **[Sound Sensor]**.

6 Slide the **[Sound Sensor]** switch to select whether or not the system notifies you if the camera's microphone detects sound.

7 Select the desired setting.
   – **[High]**: The microphone is very sensitive to sound, i.e., even a small sound will trigger the notification.
   – **[Normal]**: The microphone is moderately sensitive to sound.
   – **[Low]**: The microphone is only slightly sensitive to sound, i.e., a large sound is required to trigger the notification.

Note:
● You can also change these settings while viewing live camera images by opening the options menu and selecting **[Indoor Camera Settings]**.
● The camera's microphone will not detect sound while a mobile device user is talking to the camera ("Talking to the camera", Page 42) or while a lullaby is playing ("Playing a lullaby (indoor cameras only)", Page 42).

Confirming sound alert history

You can view a log of previous sound alert detections.

1 From the **[Home Network]** app home screen, tap **[Camera]**.

2 Tap the camera image of the desired camera.

3 Open the options menu (see "Displaying the options menu", Page 22).

4 Tap **[Alert Log]**.

Camera settings

General camera settings

The settings explained below are applied to all cameras registered to the system. Each mobile device can adjust these settings as desired.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Device Profiles]**.

3 Tap **[Camera]**.

4 Tap **[Common Settings]**.

5 Select the desired setting.
  – **[Mobile Device Volume] (Android devices only)**
    Allows you to adjust the volume of your mobile device's microphone, which determines the volume of your voice that is sent to the camera when talking to the camera, and your mobile device's speaker, which determines the volume of the camera audio that is heard on your mobile device.
  – **[Camera Resolution]**: Determines the camera image quality. Select **[High 640x480]** to display larger images that refresh less often, or **[Low 320x240]** to display smaller images that refresh more often.

    Note:
    ● When viewing images from a single camera, the app will reduce or enlarge camera images if necessary so that they fill your mobile device's screen, regardless of this setting.
  – **[Frame Rate]**: Determines the speed at which images from the camera are refreshed. This setting only applies when viewing images while away from home.

    Note:
    ● When **[High]** is selected, images are refreshed faster and moving subjects are displayed more smoothly, however, images displayed on your mobile device may be delayed and sound may cut out or be delayed when talking to the camera, especially over a slow or congested network connection.
    ● When **[Low]** is selected, images are refreshed less often and moving subjects may appear "choppy", however, images displayed on your mobile device will be less delayed and sound may be more consistent when talking to the camera over a slow or congested network connection.
  – **[Overwrite Recordings]**: Determines whether recorded camera images are erased automatically by new images when the hub's SD card is full.

Note:
● You can also change these settings while viewing the camera list by opening the options menu.

Changing the name and location assignment of a camera

See "Device names, locations, and other settings", Page 69.

Image and heat sensor sensitivity (outdoor cameras only)

You can adjust the sensitivity of the camera's motion detection features.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Device Profiles]**.

3 Tap **[Camera]**.

4 Select the device that you want to change settings for.

5 Tap **[Motion Sensitivity]**.

6 Select the desired setting.
- **[High]**: The image sensor and heat sensor are very sensitive to changes in the image and heat, i.e., even a small change in the image or temperature will trigger the sensor.
- **[Normal]**: The image sensor and heat sensor are moderately sensitive to changes in the image and heat.
- **[Low]**: The image sensor and heat sensor are somewhat sensitive to changes in the image and heat.
- **[Very Low]**: The image sensor and heat sensor are only slightly sensitive to changes in the image and heat, i.e., a large change in the image or temperature is required to trigger the sensor.
- **[Advanced]**: Allows you to set the sensitivity of the image sensor and the heat sensor individually. See "Setting the image sensor and heat sensor individually", Page 47.

7 Tap **[OK]**.

Note:
- You can also change these settings while viewing live camera images by opening the options menu and selecting **[Outdoor Camera Settings]**.

Setting the image sensor and heat sensor individually

1 Set the camera's **[Motion Sensitivity]** setting to **[Advanced]**.

2 Tap **[IR Sensor]** or **[Video Motion]**.

3 Select the desired setting.
- **[High]**: The selected sensor is very sensitive to changes, i.e., even a small change will trigger the sensor.
- **[Normal]**: The selected sensor is moderately sensitive to changes.
- **[Low]**: The selected sensor is somewhat sensitive to changes.
- **[Very Low]**: The selected sensor is only slightly sensitive to changes, i.e., a large change is required to trigger the sensor.
- **[OFF]** (infrared sensor only): The heat sensor is disabled.

4 Tap **[OK]**.

Image sensor sensitivity (indoor cameras only)

You can adjust the sensitivity of the camera's motion detection features.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Device Profiles]**.

3 Tap **[Camera]**.

4 Select the device that you want to change settings for.

5 Tap **[Motion Sensitivity]**.

6 Select the desired setting.
- **[High]**: The image sensor is very sensitive to changes, i.e., even a small change will trigger the sensor.
- **[Normal]**: The image sensor is moderately sensitive to changes.
- **[Low]**: The image sensor is somewhat sensitive to changes.
- **[Very Low]**: The image sensor is only slightly sensitive to changes, i.e., a large change is required to trigger the sensor.

7 Tap **[OK]**.

Note:
- You can also change these settings while viewing live camera images by opening the options menu and selecting **[Indoor Camera Settings]**.

Detection area

You can adjust which areas of the camera image are monitored for motion detection. This allows you to ignore motion in certain areas of the camera's image.

1 From the **[Home Network]** app home screen, tap **[Camera]**.

2 Tap the camera image of the desired camera.

3 Open the options menu (see "Displaying the options menu", Page 22).

4 Tap **[Outdoor Camera Settings]** or **[Indoor Camera Settings]**.

5 Tap **[Set Detection Area]**.

6 Tap the desired areas of the camera image.
● Gray areas of the camera image indicate areas for which image sensitivity is disabled.

7 Tap **[OK]**.

Image brightness

You can adjust the overall brightness of the camera image.

1 From the **[Home Network]** app home screen, tap **[Camera]**.

2 Tap the camera image of the desired camera.

3 Open the options menu (see "Displaying the options menu", Page 22).

4 Tap **[Outdoor Camera Settings]** or **[Indoor Camera Settings]**.

5 Tap **[Brightness]**.

6 Tap (◀) or (▶) to decrease or increase the image brightness.

Temperature alert (indoor cameras only)

To configure the camera to send notifications if the camera's ambient temperature is too cold or too hot, see "Temperature alert (indoor cameras only)", Page 44.

Sound alert (indoor cameras only)

To configure the camera to send notifications if the camera's microphone detects sound, see "Sound alert (indoor cameras only)", Page 45.

Information about SD cards

SD card capacity and total recording time

The following recording times apply when images from one camera are recorded. All times are approximate.
– 2 GB card: 15 hours
– 4 GB card: 30 hours
– 8 GB card: 60 hours
– 16 GB card: 120 hours
– 32 GB card: 240 hours

Note:
● SD cards larger than 32 GB cannot be used.
● The times listed here are calculated theoretically. Actual recording time may vary.
● The file system and other information is stored on the SD card, therefore the card's actual available capacity will be less than the card's noted capacity.

SD card formatting

Before inserting an SD card in the hub, format the SD card using your computer and the SD formatting tool available from the web page listed below.
www.sdcard.org/downloads/formatter_4/

Note:

● All data stored on the SD card will be erased when it is formatted.

How recordings are saved on the SD card

● Recordings are saved on the hub's SD card in folders based on the recording date, in the following path.
\private\PANA_GRP\PSN\HOMENW\CAMERA
● The file naming convention is: camera number + recording type + recording start time.
  – First character: Camera number. Cameras 1-4 are indicated using 0-3.
  – Second character: Recording type. R=scheduled recordings, S=sensor recordings, M=manual recordings.
  – Remaining characters: Recording start time (hhmmss).
  Example: 2M123455.mp4
  This file is a manual recording ("M") from camera 3 ("2") that started at 12:34 PM and 55 seconds ("123455").

Smart plug features (overview)

Smart plugs allow you to turn electric devices on and off using your mobile device, when a sensor is triggered, or according to a schedule. They can also notify you in the event that the connected electric device draws too much current or wattage. Additionally, you can use your mobile device to view a log of smart plug power consumption.

What is overcurrent and overwattage?

Overcurrent and overwattage are potentially dangerous situations in which an electric device draws too much electrical current or wattage. They could be the result of short circuits and device malfunctions, which could cause fire and other hazards.
If a smart plug's overcurrent or overwattage sensor is triggered, the smart plug turns off and sends a notification. In this case, you should disconnect the electric device that is connected to the smart plug and inspect it for damage or malfunction.

Important:

● Use caution when connecting electrical devices to a smart plug, just as you would with any other electric outlet. The overcurrent and overwattage sensor features of a smart plug are not designed to take the place of safe usage and handling of electric devices.

Turning smart plugs on and off

Turning individual smart plugs on and off

1 From the **[Home Network]** app home screen, tap **[Plug]**.
2 Select the **[Individual]** tab.
  ● The smart plug's icon indicates whether it is currently turned on or off.

Turned off

Turned on

3   Tap the desired smart plug's icon.

Turning groups of smart plugs on and off

If you have grouped smart plugs together by location ("Device names, locations, and other settings", Page 69), you can turn them on and off as a group.

1   From the **[Home Network]** app home screen, tap **[Plug]**.

2   Select the **[Group]** tab.
- A list of all smart plug groups is displayed.

3   Tap **[ON]** or **[OFF]** next to the desired group's name.
- In some situations it may take several minutes for the smart plugs to turn on or off.

Turning smart plugs on and off according to a schedule

See "Creating a scenario that uses a schedule as the trigger", Page 34.

Turning smart plugs on when a sensor is triggered

See "Creating a scenario that uses a sensor as the trigger", Page 34.

Confirming smart plug status

1   From the **[Home Network]** app home screen, tap **[Plug]**.

2   Select the **[Individual]** tab.
- The status of each smart plug is displayed under the appropriate category name as explained below.
  - **[Excess Power]**: Smart plugs that are reporting overcurrent or overwattage. The date and time each smart plug detected the error is also displayed.
  - **[Out of Range]**: Smart plugs that are not within range of the hub (perhaps because they are disconnected from the wall outlet).
  - **[Ready]**: All other smart plugs.
- The status of each smart plug is displayed using the following icons.

Turned off

Turned on

Overcurrent or overwattage was detected

⚠ No link to hub

● To update the information displayed and view the latest information, tap **[Refresh]**.

Viewing smart plug excess power history

You can view a log of previous smart plug overcurrent and overwattage detections.

1 From the **[Home Network]** app home screen, tap **[Plug]**.

2 Select the **[Individual]** tab.

3 Open the options menu (see "Displaying the options menu", Page 22).

4 Select **[Alert Log]**.
   ● A list of previous overcurrent and overwattage detections is displayed.
   ● To update the information displayed and view the latest information, tap **[Refresh]**.

Viewing smart plug energy consumption

You can view a daily log of how much energy is consumed by your smart plugs.

1 From the **[Home Network]** app home screen, tap **[Plug]**.

2 Select the **[Individual]** tab.

3 Open the options menu (see "Displaying the options menu", Page 22).

4 Select **[Power Usage Log]**.
   ● Daily power consumption information for all smart plugs is displayed.
   ● To update the information displayed and view the latest information, tap **[Refresh]**.

Note:
● The power consumption information that is displayed is for reference only and may differ from the actual amount of power consumed.
● A smart plug's power consumption will be displayed as 0.00 kWh for about an hour after it is connected, even if it has consumed power during that time.

Phone features (overview)

By connecting the hub to your landline, you can use your mobile device as an extension of your home phone. The following phone features are available.
– Making and receiving calls using your landline
– Making and receiving intercom calls (i.e., calls to and from other cordless handsets)
– Playing answering system messages
– Checking your call log
– Transferring landline calls between your mobile device and your cordless handsets

Important:
● In order to use most phone features, the hub must be connected to your landline. For information about phone line connection, refer to the System Setup Guide included with your hub.

- In order to use many phone features, such as making and answering landline and intercom calls, your mobile device must be connected to the same wireless network as the hub. These features are not available when away from home.
- The app will not receive landline calls if the app is not running.
- 8 mobile devices can be registered to the hub, however, only the first 4 can use phone features. If you want to use phone features with an additional mobile device, use the procedure described in There are more than 4 mobile devices registered to the hub. Page 87.
- Mobile call features are not available when using iPad or an Android device that does not support mobile calls. Other features may not be available depending on your device's specifications and limitations.

Screen layout

The following screens are available when accessing phone features. You can switch to a different screen by tapping the corresponding tab.
[Keypad]
Used to dial phone numbers and make calls using your landline.
[Call log]
Used to display a list of outgoing and incoming landline calls.
[Contacts]
Used to make calls to contacts stored in your mobile device.
[More]
Used to access other phone features, such as answering system features and copying contacts from your mobile device to the hub.

Making calls

You can use the app to make landline calls, mobile calls, and intercom calls.

Dialing manually

1 From the **[Home Network]** app home screen, tap **[Phone]**.
2 Enter the phone number.

- To erase a number, tap ⟨ × ⟩ .

- To enter a dialing pause, tap and hold ✳ until a "," (comma) is displayed.

3 Tap **[Landline]** or **[Cell phone]** according to the line you want to use to make the call.
4 If you made a landline call, tap **[Disconnect]** to end the call.

Note:
- If you are talking on a landline call and then receive and answer a mobile call, the landline call is either disconnected or put on hold, according to the **[Landline Call Handling]** setting (see "App behavior settings", Page 59).
- Make sure to tap **[Disconnect]** when ending a landline call, even if the other party hangs up first. Otherwise the connection to the landline will not be disconnected.
- If the hub is busy when you try to make a landline call, you may hear a busy tone.
- Mobile call features are not available when using iPad or an Android device that does not support mobile calls.

Calling contacts

1 From the **[Home Network]** app home screen, tap **[Phone]**.
2 Open the **[Contacts]** screen.

3 Tap the desired contact and then select the desired phone number if necessary.

4 Tap **[Landline]** or **[Cell phone]** according to the line you want to use to make the call.

5 If you made a landline call, tap **[Disconnect]** to end the call.

Other features available during landline calls

The following features are available while talking on a landline call.

Keypad

Tap **[Keypad]** during a call if you need to enter numbers, such as when navigating a call center's voice guided menu system. To hide the keypad, tap ✕.

Audio output

Tap **[Audio Source]** (iPhone, iPad) or **[Speaker]** (Android devices) to select a different audio output device.

Mute

Tap **[Mute]** during a call to mute your mobile device's microphone so that the other party cannot hear you. Tap **[Mute]** again to turn the mute off.

Hold

Tap **[Hold]** during a call to place the call on hold. Tap **[Hold]** to return to the call.

Flash

Tap **FLASH Callwait** during a call to use your landline phone service's recall feature, such as to answer a second call or to switch between two different calls.

Answering landline calls

When you receive a landline call, the call receiving screen is displayed. Tap **[Answer]** to answer the call.

Important:
● The app will not receive landline calls if the app is not running.

Note:
● Make sure to tap **[Disconnect]** when ending a call, even if the other party hangs up first. Otherwise the connection to the landline will not be disconnected.
● You can turn the ringer off temporarily by tapping **[Ringer off]**. Other mobile devices and cordless handsets registered to the system will continue to ring.
● To change the ringtone heard for landline calls and intercom calls, see "Sound settings", Page 59.
● **iPhone, iPad**
  If you want the app to receive calls even when it is in the background, turn the **[App Battery Save]** feature off (see "Reducing battery consumption (iPhone, iPad only)", Page 75).
  When a call is received, your mobile device behaves according to the app's sound settings ("Sound settings", Page 59) and the app's volume. Note that your device's ring/silent switch does not affect the app.
● **Android devices**
  When a call is received, your mobile device behaves according to its vibration and silent mode settings.

Using cordless handsets

If there are cordless handsets registered to the system, the following features are available.

Making intercom calls

You can call a cordless handset registered to the system and talk to the cordless handset user.

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Tap **[Intercom]**.

3 Select the cordless handset that you want to call.

4 When finished, tap **[Disconnect]** to end the call.

Note:

● You cannot use the app to make intercom calls to other mobile devices.

● <u>iPhone, iPad</u>
 When you are talking on an intercom call, the intercom call is disconnected automatically if you receive a mobile call.

● <u>Android devices</u>
 When you are talking on an intercom call, the intercom call is disconnected automatically if you answer a mobile call.

Transferring calls

You can transfer a landline call to a cordless handset registered to the system.

1 While on a landline call, open the options menu (see "Displaying the options menu", Page 22).

2 Tap **[Intercom]**.

3 Select the desired cordless handset, and then wait for the user to answer.
 ● You can cancel and return to the call by tapping **[Hold]**.

4 After the other user answers, tap **[Disconnect]** to end your call and transfer it to the other user.

Note:

● You cannot transfer landline calls to other mobile devices.

Creating conference calls

You can talk together on a landline call with a cordless handset user.

1 While on a landline call, open the options menu (see "Displaying the options menu", Page 22).

2 Tap **[Intercom]**.

3 Select the desired cordless handset, and then wait for the user to answer.
 ● You can cancel and return to the call by tapping **[Hold]**.

4 After the other user answers, open the options menu and tap **[Conference]** to start the conference call.
 ● You can talk to the outside party together with the cordless handset user.

5 When finished, tap **[Disconnect]** to leave the conference call.
 ● The cordless handset user can continue to talk to the outside party.

Note:

● Only one mobile device can participate in a conference call.

Joining calls

If a cordless handset user is talking on a landline call, you can join the call by tapping **[In use]**.

Note:
- Only one mobile device can join a landline call.

Call logs

You can use call logs to confirm previous landline call history, call back previous callers, and add new phone numbers to your contacts.

Viewing the call log

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[Call log]** screen.

3 Tap the desired tab to view outgoing or incoming landline calls.

Note:
- The outgoing call log displays landline calls made by your mobile device only. Landline calls made by other devices are not displayed.
- ✆ is displayed for calls that were blocked using the call block feature (see "Blocking incoming calls", Page 57).
- **Android devices**
  You can tap an item in the incoming call log to view details about previous calls from that caller.

Making calls from the call log

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[Call log]** screen.

3 **iPhone, iPad**
  Tap the desired phone number or person.
  Android devices

  Tap ✆ next to the desired phone number or person.

4 Make the call from the **[Keypad]** screen.

Adding information from the call log to your contacts

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[Call log]** screen.

3 Tap the desired tab to view outgoing or incoming landline calls.

4 **iPhone, iPad**

  Tap (i) next to the person or phone number you want to add.

  Android devices
  Tap the person or phone number you want to add.

5 Tap **[Create new contact]** or **[Add to existing contact]**, and then follow the on-screen instructions.
  - **[Create new contact]** and **[Add to existing contact]** are not displayed if the phone number has already been added to your contacts.

Erasing the call logs

iPhone, iPad

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[Call log]** screen.

3 Tap the desired tab to view outgoing or incoming landline calls.

4 Open the options menu (see "Displaying the options menu", Page 22).

5 **To erase all calls**
Tap **[Delete All Calls]**.

   To erase selected calls
   Tap **[Delete Selected Calls]**, use the standard iOS method for selecting items to be deleted, and then tap **[Done]**.

Android devices

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[Call log]** screen.

3 Tap the desired tab to view outgoing or incoming landline calls.

4 **To erase all calls**
Open the options menu (see "Displaying the options menu", Page 22) and then select the erase option.

   To erase one call

   Tap the call you want to erase and then tap 🗑 .

5 Tap **[OK]**.

Phonebook features

iPhone, iPad
You can use the app's phonebook features similarly to the way you use the contacts app of your mobile device.

Note:
● Many features of the app function by accessing the information stored in your mobile device's contacts. Depending on the software version of your mobile device, a dialog may be displayed that asks whether you want to allow the app to access your contacts. If desired, you can change this setting later in the privacy section your mobile device's "Settings" app.
● If you change the privacy setting while on a landline call, the call will be disconnected, therefore we recommend changing the setting only when you are not on a call.

Android devices
Use the phonebook app included with your mobile device to add, edit, and erase contacts that are stored in your mobile device.

Copying contacts to the hub

You can copy contacts from your mobile device to the hub's phonebook. These contacts can then be accessed by any cordless handsets that you have registered to the system.

Notes about copying contacts
● These features are only available if a cordless handset is registered to the system.
● Only names (the first 16 characters) and phone numbers (the first 24 digits) are copied. If a contact has multiple phone numbers assigned to it, only the first 6 phone numbers are copied.

- Up to 500 contacts (500 phone numbers total) can be stored in the hub's phonebook.
- Contacts with no phone number assigned to them will not be copied.
- If contact information includes characters not supported by the hub or cordless handsets, those characters will be replaced by "*" when they are copied.

Phone numbers stored with country codes

If you have added the country code to phone numbers stored in your mobile device (i.e., if you begin certain phone numbers with "+" and a country code), those phone numbers will be converted according to the hub's phone number conversion settings (see "Phone numbers with country codes", Page 61). Therefore, after you copy contacts from your mobile device to the hub, we recommend that you confirm the phone numbers were converted properly.

Copying specific contacts

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[More]** screen.

3 Tap **[Send contacts]** → **[Add to list]**.
- A list of the contacts stored in your mobile device is displayed.

4 Select the desired contact.
- The contact is added to the list of items that will be copied to the hub. Tap **[Add to list]** to select another contact.

5 After you have added all the contacts that you want to copy, tap **[Next]**.

6 Tap **[Send]**.

Copying all contacts

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[More]** screen.

3 Tap **[Send contacts]** → **[Send all]** → **[OK]** → **[Next]** → **[Send]**.

Blocking incoming calls

You can use the caller barring feature to block junk calls or calls from certain people. When a landline call is received from a phone number that you have added to the blocked caller list, the hub disconnects the call.

Important:
- Caller ID is required to use this feature ("Caller ID support", Page 61).

Blocking specific phone numbers

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Call Block]**.

4 Tap **[Block a Single Number]**.

5 Open the options menu (see "Displaying the options menu", Page 22).

6 Tap **[ADD]**.

7 Enter the phone number and then tap **[OK]**.

Blocking ranges of numbers

By storing only the first few digits of a phone number, such as the area code, you can block all phone numbers that begin with the number you stored.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Call Block]**.

4 Tap **[Block Range of Numbers]**.

5 Open the options menu (see "Displaying the options menu", Page 22).

6 Tap **[ADD]**.

7 Enter the number and then tap **[OK]**.

[Block Unknown CID] setting

This setting allows you to block calls that do not contain caller information.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Call Block]**.

4 Slide the **[Block Unknown CID]** switch to the desired position.

[First Ring] setting

See "First ring setting", Page 60.

Editing or erasing blocked phone numbers or ranges of numbers

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Call Block]**.

4 **To edit or erase a blocked phone number**
   Tap **[Block a Single Number]**.

   To edit or erase a range of phone numbers
   Tap **[Block Range of Numbers]**.

5 **To edit an item**
   Tap the item, edit it as desired, and then tap **[OK]**.

   To erase an item
   iPhone, iPad
   Swipe the item to the left and use the standard iOS method for deleting an item.
   Android devices
   Tap and hold the item and then tap **[OK]**.

Erasing all blocked phone numbers or all ranges of numbers

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Call Block]**.

4 **To erase all blocked phone numbers**
   Tap **[Block a Single Number]**.

   To erase all ranges of phone numbers
   Tap **[Block Range of Numbers]**.

5 Open the options menu (see "Displaying the options menu", Page 22).

6 Tap **[Delete All]** → **[OK]**.

Phone settings

Sound settings

You can change various settings related to how your mobile device behaves when landline calls and intercom calls are received.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Change the settings as desired.
   – **[Ringtone]** setting
   This setting determines the ring tone heard when your mobile device rings for a landline call.
   – **[Intercom Ringtone]** setting
   This setting determines the ring tone heard when your mobile device rings for an intercom call.
   – **[Vibrate]** setting (iPhone, iPad only)
   This setting determines whether your mobile device vibrates when landline calls and intercom calls are received.

   Note:
   ● This setting has no effect if your mobile device's vibration feature is disabled.
   ● This setting has no effect if your mobile device does not support a vibration feature.

   – **[Keypad Tones]** setting (iPhone, iPad only)
   This setting determines whether key tones are heard when you dial phone numbers.
   – **[Mobile Device Volume]** setting (Android devices only)
   Allows you to adjust the volume of your mobile device's microphone, which determines the volume of your voice that is heard by the other party when talking on a landline call, and your mobile device's speaker, which determines the volume of the other party that is heard on your mobile device.

App behavior settings

These settings determine how the app functions for landline calls.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Change the settings as desired.
   – **[Out of Range Alert]** setting
   This setting determines whether an alert tone is heard when the wireless signal between your mobile device and wireless router becomes weak while talking on a landline call. When this tone is heard, voice quality may become poor; move closer to your wireless router.
   – **[Landline Call Handling]** setting
   If you are talking on a landline call and then receive and answer a call on your mobile device, this setting determines how the landline call will be handled.

Voicemail tone detection (certain regions only)

This feature is used to display "new voicemail" notifications. Turn this feature on if you use your landline phone service provider's voicemail service ("Voicemail support", Page 62).

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[VM Tone Detect]**.

4 Select the desired setting.

Clearing the "new voicemail" notification

If the "new voicemail" notification remains displayed even if you have no new landline voicemail messages, use this feature to clear the notification.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Remove Voicemail Notification]** → **[Yes]**.

First ring setting

This setting determines whether the first ring is heard when a landline call is received. If your landline has Caller ID service and you do not want your mobile devices and cordless handsets to ring before caller information is received, turn this setting off. Note that you can only remove the first ring if the system rings 2 times or more by default, which depends on your landline phone service.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.
  ● The next step varies depending on the region.

3 **If [Call Block] is displayed on the [Telephone Settings] screen**
   Tap **[Call Block]**, and then slide the **[First Ring]** switch to the desired position.

   If [First Ring] is displayed on the [Telephone Settings] screen
   Tap **[First Ring]**, and then select the desired setting.

Hub PIN setting (certain regions only)

In certain regions, the hub PIN is required when using a cordless handset to perform certain operations. You can change this PIN if desired.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Hub PIN]**.

4 Enter the current PIN and then tap **[OK]**.
  ● The default PIN is "0000".

5 Enter the desired PIN and then tap **[OK]**.

6 Enter the desired PIN again and then tap **[OK]**.

Landline settings

Important:
● Typically these settings do not need to be changed. If they are set improperly, the hub may not be able to make and receive calls properly.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Set Tel Line]**.

---

4 Change the settings as desired.
● For the **[Dial Mode]** setting, select **[Tone]** if your landline phone service supports "tone" dialing; select **[Pulse]** if your landline phone service supports "pulse" or "rotary" dialing.

Phone numbers with country codes

If you store phone numbers in your mobile device's contacts using "+" and the country code, we recommend that you use this procedure to store the following codes.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Phone Number Settings]**.

4 Change the settings as desired.
– **[International Code]** setting
Store the international dialing prefix that you need to dial when dialing international phone numbers manually.
– **[Country Code]** setting
Store the country code required when calling your country from overseas.
– **[Trunk Prefix]** setting
If you store domestic phone numbers in your mobile device using "+" and the country code, store the number that should replace the country code when calling domestically.

Country setting (certain regions only)

This setting determines how certain phone features behave. Set this setting according to the region where the system is being used.

Important:
● This setting should be set during Initial Setup; typically it does not need to be changed. If it is set improperly, the hub may not be able to make and receive calls properly.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Telephone Settings]**.

3 Tap **[Country]**.

4 Select the appropriate setting and then tap **[OK]**.
● The hub restarts.

Caller ID support

The hub is Caller ID compatible. Caller ID is a service provided by your landline phone service provider which may require a subscription. Contact your landline phone service provider for details and availability.

Caller ID features

When you receive a landline call, Caller ID allows the hub to receive caller information provided from your landline phone service provider. The hub automatically logs caller information for the last 50 callers and stores this information in the hub call log. The app also logs information for calls that are received on the landline while your mobile device is connected to the hub.

Caller information display

If a caller's phone number matches the phone number stored in your mobile device's contacts, the stored name is displayed and logged in the call log displayed on that mobile device.

Voicemail support

Voicemail is an automatic answering service that may be offered by your landline phone service provider. After you subscribe to this service, your landline phone service provider's voicemail system answers calls for you when you are unavailable to answer the landline or when the landline is busy. Messages are recorded by your service provider, not by the answering system ("Answering system features (overview)", Page 62).
The app will notify you when you have new voicemail messages if your service provider supports message indication service. Please contact your service provider for details. You may also need to turn on the **[VM Tone Detect]** setting ("Voicemail tone detection (certain regions only)", Page 59).

Important:
- Make sure you read the information for landline voicemail service subscribers ("For landline voicemail service subscribers", Page 67).
- To use your landline phone service provider's voicemail service rather than the answering system, turn off the answering system ("Turning the answering system on or off", Page 62).

Answering system features (overview)

The hub features a built-in answering system that can answer calls received on your landline after a certain number of rings. When it answers a call, it plays a greeting message and can then record caller messages. Messages are stored in the hub, and you can play them back even when you are away from home. The answering system cannot answer calls when you are already talking on the landline.

Note:
- In order to use most answering system features, the hub must be connected to your landline. For information about phone line connection, refer to the System Setup Guide included with your hub.

Recording capacity

The total recording capacity is about 38 minutes. A maximum of 64 messages can be recorded.

Note:
- The following occur if the recording memory becomes full.
    – A beep will sound.
    – A memory full announcement will be heard.
    – If you use a pre-recorded greeting message, the hub will answer calls with a different pre-recorded message that asks callers to call again later. (If you have recorded your own greeting message, it will continue to be played for callers.) No new messages will be recorded.

Turning the answering system on or off

Activating the answering system

You must activate the answering system before you can use it. The answering system is disabled by default.

1 From the **[Home Network]** app home screen, tap **[Settings]**.
2 Tap **[Answering Device]**.
3 Tap **[Settings]**.
4 Turn on the **[Answering Device]** switch.

Turning the answering system on or off

This setting determines whether the answering system answers landline calls when you do not answer them.

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[More]** screen.

3 Tap **[Connect to answering system]**.

4 Tap **[Answer on]** or **[Answer off]**.

Playing your messages

When the answering system has recorded new messages, ⚏ is displayed in the status bar (Android devices only) and your mobile device's notification feature displays a notification. To play back your messages easily, tap the notification and then use the playback controls described below.

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[More]** screen.

3 Tap **[Connect to answering system]**.

4 Tap **[Play]**.
- Your new messages are played back. If there are no new messages, old messages will be played back.
- The following operations are available when playing back messages.
  – **[Skip]**: Plays the next message.
  – **[Repeat]**: Repeats the current message from the beginning, or plays the previous message.
  – **[Stop]**: Stops message playback and returns to the previous screen.
  – **[Erase]**: Erases the current message.
  – **[Disconnect]**: Stops message playback and exits the answering system.
  – **[Audio Source]** (iPhone, iPad only): Allows you to select a different audio output device for playback.
  – **[Speaker]** (Android devices only): Switches between your mobile device's speaker and earpiece. If a Bluetooth-compatible device is connected to your mobile device, tap the audio icon (speaker, Bluetooth, etc.) to switch between the available devices.

5 When finished, tap **[Disconnect]** to exit the answering system.

Erasing all messages

1 From the **[Home Network]** app home screen, tap **[Phone]**.

2 Open the **[More]** screen.

3 Tap **[Connect to answering system]**.

4 Tap **[Erase all]** → **[OK]**.

Greeting message

The greeting message is played to callers when the answering system answers a call.

Recording your greeting message

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Answering Device]**.

3 Tap **[Greeting]**.

4 Tap **[Record Greeting]**.

5 Tap **[OK]** to start recording.
  ● Recording starts after the beep.

6 Tap **[Stop]** to stop recording and save your greeting message.
  ● Your greeting message is played back for confirmation.

Playing your greeting message

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Answering Device]**.

3 Tap **[Greeting]**.

4 Tap **[Check Greeting]**.
  ● Your greeting message is played back for confirmation.

Using a pre-recorded greeting message

If you have recorded your own personal greeting message, it will be erased when you select the pre-recorded greeting message.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Answering Device]**.

3 Tap **[Greeting]**.

4 Tap **[Pre-recorded]** → **[OK]**.

Remote operation features

Remote operation features (overview)

While away from home, you can use your mobile device and the **[Home Network]** app to access the system and play your answering system messages.
You can also use a standard touch-tone phone while away from home to access the hub and listen to answering system messages or change answering system settings. This is called "remote operation". When using remote operation, the answering system's voice guidance prompts you to press certain dial keys to perform different operations.
There are two methods of remote operation.
– New message alert: The hub calls you at an outside phone number.
– Standard remote access: You call the hub while away from home.

New message alert

After the answering system records a caller message, the hub can call a phone number of your choosing and then play the new message back when you answer the phone.

Important:

● When this feature is enabled, the hub will call the specified phone number when it records a caller message. Make sure you carefully check the phone number assigned to this feature.

First time setup

1 From the **[Home Network]** app home screen, tap **[Settings]**.
2 Tap **[Answering Device]**.
3 Tap **[New Message Alert]**.
4 Tap **[Outgoing Call]**.
5 Turn on the **[Outgoing Call]** switch.
6 Enter the desired name and phone number, and then tap **[OK]**.
  ● You can also select a contact that is stored in your mobile device by tapping **[Contacts]**.
7 Tap **[OK]**.

Making remote access code entry required or not required

If this setting is turned on, you must enter the remote access code in order to play back new messages when you receive a new message alert.

1 From the **[Home Network]** app home screen, tap **[Settings]**.
2 Tap **[Answering Device]**.
3 Tap **[New Message Alert]**.
4 Tap **[Outgoing Call]**.
5 Turn the **[Remote Code Activated]** switch on or off to determine whether remote code entry is required or not required, respectively.
6 Tap **[OK]**.

Note:
● To set the remote access code, see "[Remote Code] setting", Page 68.

Turning the "new message" beep on and off

This setting determines whether the hub beeps when a new message has been recorded by the answering system.

1 From the **[Home Network]** app home screen, tap **[Settings]**.
2 Tap **[Answering Device]**.
3 Tap **[New Message Alert]**.
4 Turn the **[Hub Beep]** switch on or off.

Turning new message alert on and off

1 From the **[Home Network]** app home screen, tap **[Settings]**.
2 Tap **[Answering Device]**.
3 Tap **[New Message Alert]**.
4 Tap **[Outgoing Call]**.
5 Turn the **[Outgoing Call]** switch on or off.

Changing the phone number used for new message alert

1 From the **[Home Network]** app home screen, tap **[Settings]**.
2 Tap **[Answering Device]**.
3 Tap **[New Message Alert]**.
4 Tap **[Outgoing Call]**.
5 Turn on the **[Outgoing Call]** switch.

6 Edit the name and phone number, and then tap **[OK]**.
 ● You can also select a contact that is stored in your mobile device by tapping **[Contacts]**.
7 Tap **[OK]**.

Answering a new message alert call

1 When the answering system calls the outside phone number you specified, answer the call.
2 If you set a remote access code, enter the code.
3 Follow the voice guidance prompts as necessary or operate the answering system using remote commands ("Remote commands", Page 66).
4 When finished, hang up.

Standard remote access

You must set the remote access code in order to use standard remote access ("[Remote Code] setting", Page 68).
1 Dial your home phone number from a touch-tone phone.
2 After the greeting message starts, enter the remote access code.
3 Follow the voice guidance prompts as necessary or operate the answering system using remote commands ("Remote commands", Page 66).
4 When finished, hang up.

Remote commands

You can press dial keys to operate the answering system as explained below, without waiting for the voice guidance to prompt you.

Note:
● If you do not press any dial keys within 10 seconds after a voice guidance prompt, the answering system disconnects your call.

1	Repeat message (during playback)[*1]
2	Skip message (during playback)
4	Play new messages
5	Play all messages
9	Stop playback Start voice guidance[*3]
0	Turn answering system off
# 9	Turn new message alert off[*2]
✱ 4	Erase currently playing message
✱ 5	Erase all messages
✱ #	End remote operation and end call

*1 If pressed within the first 5 seconds of playback, the previous message is played.
*2 Available for 10 seconds after listening to new messages.

*3   Certain regions and/or languages only.

Turning on the answering system remotely

1   Dial your phone number from a touch-tone phone.

2   Let the phone ring 15 times.
● A long beep is heard.

3   Enter your remote access code within 10 seconds after the long beep.
● The greeting message is played back.
● You can either hang up, or enter your remote access code again and begin remote operation.

Answering system settings

1   From the **[Home Network]** app home screen, tap **[Settings]**.

2   Tap **[Answering Device]**.

3   Tap **[Settings]**.

4   Change the settings as desired.
● Each setting is explained in this section.

5   Follow the on-screen instructions.

[Ring Count] setting

You can change the number of times the system rings before the answering system answers a call.

Note:
● If you select **[Toll Saver]**, the answering system answers at the end of the 2nd ring when new messages have been recorded, or at the end of the 5th ring when there are no new messages. If you call your home phone from outside to listen to new messages using remote operation ("Standard remote access", Page 66), you will know that there are no new messages when the phone rings for the 3rd time. You can then hang up without being charged for the call.

For landline voicemail service subscribers

To receive voicemail and use the answering system properly, please note the following.
● To use your landline phone service provider's voicemail service ("Voicemail support", Page 62) rather than the answering system, turn off the answering system ("Turning the answering system on or off", Page 62).
● To use the answering system rather than your landline phone service provider's voicemail service, please ask the service provider to deactivate your voicemail service. If your landline phone service provider cannot do this:
  – Set the answering system's **[Ring Count]** setting so that it answers calls before your landline's voicemail service does. It is necessary to check the number of rings required to activate your landline's voicemail service before changing this setting.
  – Increase the number of rings required for your landline phone service provider's voicemail service, so that the answering system can answer calls before your landline's voicemail service does. Contact your landline phone service provider as necessary.

[Recording Time] setting

This setting determines the maximum recording time allowed for each caller.

Note:
● If you select **[Greeting Only]**, the answering system does not record caller messages.

- If you do not record your own greeting message and **[Greeting Only]** is selected, the answering system will play the pre-recorded greeting-only message asking callers to call again later. If you record your own greeting message ("Recording your greeting message", Page 64), ask callers to call again later.

[Remote Code] setting

The remote access code is a 3-digit code that must be entered in order to access the answering system remotely using standard remote access. This code prevents unauthorized parties from listening to your messages remotely, and is also used for the new message alert feature (see "New message alert", Page 64).

[Voice Prompt] setting (certain regions only)

This setting determines the language used for answering system voice guidance prompts.

System expansion (overview)

You can expand the system by registering additional devices to the hub.

Maximum number of cameras	4
Maximum number of sensors and smart plugs	50
Maximum number of cordless handsets	6
Maximum number of mobile devices	8[*1]

*1   8 mobile devices can be registered to the hub, however, only the first 4 can use phone features.

Registering devices

If you purchased any devices separately from the hub, you must register them to the hub before you can use them.

Note:
- To register a mobile device, use the procedure described in "Registering other mobile devices to the hub", Page 14.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Device Registration]**.

3 Tap **[Registration]**.

4 Select the type of device that you want to register.

5 **When registering a handset**
When prompted, place the handset on its charger.
When registering a camera, sensor, or smart plug
When prompted, press and hold the registration button on the device that you want to register until the device's LED indicator blinks in green.
- When registration is complete, the hub sounds one long beep.
- If registration fails, the hub sounds several short beeps.

Note:
- If you register a large number of devices to the hub, you may forget which name is assigned to each device. In this case, see "I cannot remember the names I assigned to my devices", Page 86.

● You can customize the name of each device and assign them to locations for easier management. For details, see "Device names, locations, and other settings", Page 69.

Deregistering devices

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Device Registration]**.

3 Tap **[Deregistration]**.

4 Select the type of device that you want to deregister.

5 Tap the name of the device that you want to deregister, and then tap **[OK]**.

Device names, locations, and other settings

You can change the name and location assigned to each device. These settings are especially convenient when you have several devices of the same type.
Additional settings are available depending on the type of device.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Device Profiles]**.

3 Select the type of device that you want to change settings for.

4 Select the device that you want to change settings for.

5 Change the settings as desired, and then tap **[OK]**.
   ● The following settings are also available depending on the type of device.
      – **For cameras**
        [Camera LED]: This setting determines whether the device's LED indicator lights or is disabled.
        [Motion Sensitivity]: See "Image and heat sensor sensitivity (outdoor cameras only)", Page 46 or "Image sensor sensitivity (indoor cameras only)", Page 47.
        [Temperature Sensor]: See "Temperature alert (indoor cameras only)", Page 44.
        [Sound Sensor]: See "Sound alert (indoor cameras only)", Page 45.
      – **For window sensors and door sensors**
        [Installation Type]: This setting determines whether the device functions as a window sensor or as a door sensor. For details, see "Differences between window sensors and door sensors", Page 39.
      – **For smart plugs**
        [Smart Plug LED]: This setting determines whether the device's LED indicator lights or is disabled.

Device signal strength

You can check the signal strength of each device's wireless connection to the hub.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Device Registration]**.

3 Tap **[Signal Strength]**.

4 Select the type of device that you want to check.

5 **For window sensors, door sensors, and motion sensors**

Tap the name of the device that you want to check, and then press the registration button (•))) on the device when prompted.

For cameras and smart plugs

Tap the name of the device that you want to check.

6 Confirm the number of blue bars.
- More blue bars indicate a stronger signal.

Strongest signal

Good signal

Weak signal

Weakest signal (connection may be unreliable)

No signal

Notification settings

You can select which types of status notifications are displayed, and which are not.

Important:
- In order to receive notifications, your mobile device must be able to access the Internet. If your mobile device is not connected to a Wi-Fi network, a mobile network connection is required.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Notification Settings]**.

3 Change the settings as desired.
- Each setting is explained in this section.

[Missed Call] setting

This setting determines whether a notification is displayed when there is a missed landline call.
- This notification is only received when your mobile device is connected to the same wireless router as the hub.

[Answering System] setting

This setting determines whether a notification is displayed when there is a new message in the answering system.
- This notification is only received when your mobile device is connected to the same wireless router as the hub.

[Voice Mail] setting

This setting determines whether a notification is displayed when the landline's voicemail service has recorded a new message.
- This notification is only received when your mobile device is connected to the same wireless router as the hub.

[Arm Alert] setting

This setting determines whether a notification is displayed when a the alarm system is triggered.

[Entry Delay Start] setting

This setting determines whether a notification is displayed when the entry delay timer is counting down.

[Camera Recording] setting

This setting determines whether a notification is displayed when camera images are being recorded.

[Temperature Alert (Indoor Camera)] setting

This setting determines whether a notification is displayed when an indoor camera's temperature sensor is triggered.

[Sound Detection Alert] setting

This setting determines whether a notification is displayed when an indoor camera's sound sensor is triggered.

[Excess Power Alert] setting

This setting determines whether a notification is displayed when a smart plug's overcurrent and overwattage sensor is triggered.

[Device Error] setting

This setting determines whether a notification is displayed when a device error is detected, such as low battery, disconnection, etc.

[Arm Mode Change] setting

This setting determines whether a notification is displayed when the arm mode is changed by another device.

[Hub Powered Up] setting

This setting determines whether a notification is displayed when the hub starts up. This notification can be used to indicate that a power failure occurred.

[Cold Alert (Outdoor Camera)] setting

This setting determines whether a notification is displayed when an outdoor camera has detected ambient temperatures of -30 °C (-22 °F).

General settings

You can customize general system settings to suit your needs.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[General]**.

3 Change the settings as desired.
   ● Each setting is explained in this section.

[Change Login Password] setting

See "Login password", Page 72.

[Automatic Login] setting

This setting determines whether or not you must enter a password to connect to the system when accessing it from away from home.

Note:
- You can also disable automatic login quickly from the app's home screen.
   1. From the home screen, open the options menu ("Displaying the options menu", Page 22).
   2. Tap **[Cancel Automatic Login]** → **[OK]**.

[Auto Launch] setting (Android devices only)

This setting determines whether the **[Home Network]** starts automatically when you turn on your mobile device.

[Hub LED] setting

This setting determines whether the hub LED indicator lights during normal operation.

[Time Adjustment] setting

This setting allows you to synchronize the hub's date and time setting with the date and time setting of your mobile device.
To synchronize the date and time setting of the mobile device displayed on this screen, tap **[Adjustment]**.
To change the mobile device used for time synchronization, tap the name of the mobile device displayed on this screen, select the desired mobile device, and then tap **[OK]**.

[Quick Monitoring Access] setting

See "Quick access", Page 73.

[SD card in the hub] information

Information about the SD card's recording capacity is displayed.

[Connection Status Icon] (Android devices only)

This setting determines whether the app's connection status icons are displayed in your mobile device's status bar.

[Firmware Update]

See "Hub firmware", Page 73.

[Firmware Version]

Information about the system's firmware is displayed.

[App Version]

Information about the **[Home Network]** app installed on your mobile device is displayed.

Login password

The login password is used to access the system while away from home.
1. From the **[Home Network]** app home screen, tap **[Settings]**.
2. Tap **[General]**.
3. Tap **[Change Login Password]**.
4. Enter the desired password and then tap **[OK]**.
   - To display the characters that you have entered, turn on the **[Show Password]** checkbox.

Note:
● If you forget the login password, access the system while at home and change the password. (The password is not required to access the system while at home.)

Quick access

You can use this feature to choose the screen that is displayed when you start the app or tap a notification.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[General]**.

3 Tap **[Quick Monitoring Access]**.

4 Select the desired setting and then tap **[OK]**.
  – **[Auto]**: The app's home screen is displayed. If a sensor was triggered or images from a camera are being recorded, the corresponding screen is displayed.
  – **[Quad View]**: The camera list is displayed.
  – **Camera 1–4**: Live images from the selected camera are displayed.

Hub firmware

You can use this feature to check for a newer version of the hub firmware (i.e., system software). If a newer version is found, you can update the firmware.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[General]**.

3 Tap **[Firmware Update]**.
  ● The hub will access the Internet and check for a newer version of its firmware.

4 Follow the on-screen instructions.

If the "firmware update is available" message is displayed automatically

If the hub finds that a firmware update is available, it will display a message automatically that prompts you to update the firmware. Follow the on-screen instructions to update the firmware.

Network features

Changing your mobile device's name

You can change the name assigned to your device. This can help you identify your mobile device when performing certain operations, such as deregistering or making intercom calls using a cordless handset.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Wi-Fi Settings]**.

3 Tap **[Set Mobile Device Name]**.

4 Edit the name as desired and then tap **[OK]**.

Confirming network information

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Wi-Fi Settings]**.

3 Tap **[Current Status]**.

Changing IP settings

Typically these settings should not be changed.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Wi-Fi Settings]**.

3 Tap **[IP Settings]**.

4 Select the desired IP address mode.
- In most cases **[Auto (DHCP)]** is preferred. In this case, no other settings are available on this screen.
- If you select **[Manual (Static)]**, other settings on this screen become available. If these settings are not configured to match your wireless router's requirements, the hub will not be able to connect to your wireless router and all app features will become unavailable.

5 Configure the settings as needed and then tap **[OK]**.

Note:
- If you make a mistake while configuring the hub to use a static IP address and you can no longer access the hub, reset the hub's Wi-Fi settings and set up the hub again (see "Setting the hub's Wi-Fi settings again", Page 75).

Deleting wireless access points

The app remembers the SSIDs of wireless routers that you use at home to access the system; it can remember 10 SSIDs, and saves them in the wireless access point list. If the list is full and you try to access the system using a new SSID while at home, the app may connect to the hub over the Internet even though you are at home, i.e., **[Remotely Connected]** will be displayed at the top of the home screen. In this case, we recommend deleting unused SSIDs from the wireless access point list.

1 From the **[Home Network]** app home screen, open the options menu (see "Displaying the options menu", Page 22).

2 Tap **[Wireless Access Point]**.

3 Select the wireless access point that you want to delete and then tap **[Delete]**.

Note:
- You cannot delete the wireless access point that your mobile device is currently connected to.

[Port Forwarding] settings

These settings are only required if you need to configure your wireless router's port forwarding feature in order to access the hub while away from home.

Important:
- In order to use this feature, you must first configure the hub to use a static IP address ("Changing IP settings", Page 74).

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Wi-Fi Settings]**.

3 Tap **[Port Forwarding]**.

4 Turn on the **[Enable]** radio button.

5 Tap the field next to **[Port A]** and then enter the desired port number.
Repeat this step for **[Port B]** and **[Port C]**.
- A value must be assigned to each port.
- Only port numbers 62000–63000 can be assigned.

- Configure your wireless router's port forwarding feature to forward these ports to the static IP address that you have assigned to the hub.

6 When finished, tap **[OK]**.

[MTU Settings]

This setting affects how data is sent over the network. Typically this setting does not need to be changed.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Wi-Fi Settings]**.

3 Tap **[MTU Settings]**.

4 Select the desired value and then tap and then tap **[OK]**.

Setting the hub's Wi-Fi settings again

If your wireless router's SSID (i.e., network name) or password changes, or if you replace your wireless router with a new one that uses a different SSID or password, you will need to set the hub's Wi-Fi settings again.

If a cordless handset is registered to the hub, you can use the cordless handset to set the hub's Wi-Fi settings. Refer to the operating instructions included with your cordless handset.

1 Press and hold the 3 registration buttons on the side of the hub and the **Wi-Fi SETUP** button on the back of the hub at the same time (4 buttons total) until the hub's LED indicator blinks in green and yellow.

2 Wait for the hub's LED indicator to light in yellow.

3 Reset the app's settings (see "Resetting the app's settings", Page 75).

4 Follow the initial setup procedure (see "Initial setup", Page 12).

Reducing battery consumption (iPhone, iPad only)

The **[App Battery Save]** feature can help you conserve your mobile device's battery power. When this feature is turned on, the app will not receive landline calls when it is in the background, thus reducing battery consumption.

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[App Battery Save]**.

3 Select the desired setting and then tap **[OK]**.

Note:
- Turning this feature off can affect battery performance.
- Even when this feature is turned on, the app can continue to receive calls for a few minutes (iOS 6 and earlier: about 10 minutes; iOS 7 and later: about 3 minutes) after the app switches to the background.

Resetting the app's settings

Important:
- After resetting the app's settings, your mobile device will not be able to access the system. Refer to the following after performing this procedure.
  If the hub's LED indicator is lit in yellow
  Perform the procedure described in "Initial setup", Page 12.

If the hub's LED indicator is lit in green or red
Perform the procedure described in "Registering other mobile devices to the hub", Page 14.

1 From the **[Home Network]** app home screen, open the options menu (see "Displaying the options menu", Page 22).

2 Tap **[Deregistration from Hub]** → **[OK]**.

Resetting the hub's settings

1 From the **[Home Network]** app home screen, tap **[Settings]**.

2 Tap **[Reset]**.

3 Select the desired feature.
   – **[Reset All Settings]**: Resets all hub settings, including Wi-Fi settings.
   – **[Reset Hub Settings]**: Resets all hub settings except Wi-Fi settings.
   – **[Reset Wi-Fi Settings]**: Resets Wi-Fi settings only.

4 Follow the on-screen instructions.

5 **If you selected [Reset Hub Settings]**
   The procedure is complete.
   If you selected [Reset All Settings] or [Reset Wi-Fi Settings]
   Wait for the hub's LED indicator to light in yellow, then follow the initial setup procedure (see "Initial setup", Page 12).

Forcing the hub to reset all settings

You can use this procedure to force the hub to reset all of its settings, including Wi-Fi settings.

1 Disconnect the AC adaptor from the hub.

2 While pressing the **Wi-Fi SETUP** button on the rear of the hub and the **CAMERA** and **OTHER DEVICE** buttons on the side of the hub (3 buttons total), connect the AC adaptor to the hub. Do not release the buttons yet.

3 Continue to hold the buttons down until the hub's LED indicator lights in yellow, then release the buttons.
   ● If the hub's LED indicator blinks in green and yellow, repeat this procedure and make sure to follow step 2 carefully.

4 Wait for the hub's LED indicator to light in green (about 2 minutes).

5 Press and hold the **Wi-Fi SETUP** button until the hub's LED indicator blinks in green.

6 Wait for the hub's LED indicator to light in red.
   ● The hub has been successfully reset.

7 Disconnect the AC adaptor from the hub and then connect it again to restart the hub.

8 Reset the app's settings (see "Resetting the app's settings", Page 75), then follow the initial setup procedure (see "Initial setup", Page 12).

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

Software information

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

Troubleshooting

If you experience any trouble while using the system, the following information will solve most problems. If the trouble persists, refer to the appropriate section in this chapter according to the trouble you are experiencing.

For the latest troubleshooting information, visit www.panasonic.net/pcc/support/tel/ homenetwork/.

Power

Use these steps to make sure that each of your system devices are receiving power.

1 Make sure the hub and all cameras are connected to their AC adaptors. Make sure the AC adaptors are connected to electric outlets.
→Refer to the System Setup Guide included with your hub and the Installation Guide included with your cameras for information about power connections.

2 Make sure the electric outlets used to power the hub, cameras, and smart plugs are functioning. If an electric outlet can be turned on and off by a switch, make sure the switch is turned on.

3 Make sure the batteries installed in all sensors have adequate charge remaining.
→Check the sensor's status screen for "low battery" or "out of range" errors ("Viewing sensor status", Page 37). Refer to the Installation Guide included with your device for information about battery replacement.

Network devices

Use these steps to make sure that each of your network devices and your Internet connection are working properly.

1 Make sure your wireless router any other network devices (cable or DSL modem, network switches, etc.) are turned on.
→Refer to the operating instructions included with your wireless router and any other devices for troubleshooting information if necessary.

2 Make sure all cables connected between your wireless router and any other network devices are functioning and connected properly.

3 Make sure that devices connected to your wireless router can connect to the Internet.
→Refer to the operating instructions included with your wireless router for troubleshooting information if necessary. For some Internet connection issues, you may need to contact your Internet service provider.

System connection

Use these steps to make sure that your mobile device can connect to the hub and that each of your system devices are registered to the hub.

1 Make sure the hub can connect to your wireless router.
→Disconnect the hub's AC adaptor, connect it again, and wait for the hub to start up. If the hub's LED indicator remains blinking in green after a few minutes, the hub is not connected to your wireless router. In this case, reconnect the hub to your wireless router ("Setting the hub's Wi-Fi settings again", Page 75).

2 Make sure your mobile device can connect to your hub while you are at home.
→Check your mobile device's Wi-Fi settings and confirm that it is connected to your wireless router. Next, use the **[Home Network]** app to connect to the hub, and confirm that **[Home Wi-Fi Connected]** is displayed at the top of the home screen.

3 Make sure your devices are registered to the hub. Register them if they are not ("Registering devices", Page 68).

→**Cameras**

Check the camera list ("Viewing the camera list", Page 39). If a camera is displayed in the camera list, it is registered; if it is not displayed, it is not registered.

→**Sensors**

Press the sensor's registration button. If the sensor's LED indicator lights in red or green, the sensor is registered; if it blinks in red, the sensor is not registered.

→**Smart plugs**

Check the smart plug's LED indicator. If the smart plug's LED indicator blinks in red, it may be out of range of the hub or not registered. If the LED indicator is not blinking in red, try turning the smart plug on or off; if you can turn it on or off, it is registered.

4 Make sure your devices have adequate signal strength.

→Check the signal strength ("Device signal strength", Page 69) and move devices closer to the hub if necessary.

The following error codes and messages may be displayed in the Notifications Center (for iPhone, iPad) and the status bar (for Android devices).

[Unable to connect to the network.] is displayed

Error code: E1-01

Error code: E1-02

● Your mobile device's Wi-Fi feature is turned off.

→Turn it on.

● Your mobile device cannot connect to your wireless router.

→Make sure your wireless router is turned on and functioning.

[Not connected] is displayed

Error code: E1-04

● Your mobile device cannot connect to the hub.

→Make sure the hub and your wireless router are turned on and functioning.

● You replaced your wireless router, or changed your wireless router's network settings.

→Configure the hub's Wi-Fi settings ("Initial setup", Page 12).

[The application could not start.] is displayed

Error code: E1-05

● Another app running on your mobile device is preventing the **[Home Network]** app from starting.

→**iPhone, iPad**

Press your device's home button two times and force the **[Home Network]** app to exit. Quit other apps and then try to start the **[Home Network]** app again later.

→**Android devices**

Tap **[OK]** to exit the **[Home Network]** app. Quit other apps and then try to start the **[Home Network]** app again later.

[The maximum number of mobile devices are already registered to the hub.] is displayed

Error code: E2-01

● There are already 8 mobile devices registered to the hub.

→Use a handset to deregister any unused mobile devices from the hub.

[The hub refused this connection.] is displayed

Error code: E2-02

Error code: E2-03

● There is a problem with registration information stored in the hub.

→Deregister your mobile device ("Deregistering devices", Page 69) and register it again ("Registering other mobile devices to the hub", Page 14).

[The hub didn't respond. Please use another handset to cancel the registration later.] is displayed
Error code: E2-04
● There was a problem when deregistering your mobile device.
   →Use a cordless handset or another mobile device to deregister the mobile device from the hub.

[The hub is not responding.] is displayed
Error code: E3-01
● There is a communication problem.
   →Make sure that the hub and your wireless router are turned on and functioning, turn your mobile device's Wi-Fi feature off and then on again, and then try again.

[Communication error] is displayed
Error code: E5-06
● The Wi-Fi connection between your mobile device, wireless router, and hub was lost.
   →Make sure you are in a location where your mobile device can connect to your wireless router (if at home) or the Internet (if away from home), and then try using the app again.
● If you have never been able to access the system while away from home, this error message may be displayed because your router does not allow devices outside your network (such as your mobile device when used away from home) to access devices within your network (such as the hub). The likely cause is that your wireless router does not support UPnP, or your wireless router's UPnP feature is turned off.
   →If your wireless router supports UPnP, make sure the feature is turned on. Refer to the operating instructions included with your wireless router for details.
   →You may be able to resolve this issue by using your wireless router's port forwarding feature.
      1. Assign a static IP address to the hub ("Changing IP settings", Page 74).
      2. Configure your wireless router's port forwarding feature to forward ports 62000–63000 to the hub. Refer to the operating instructions included with your wireless router for details.
      3. Configure the hub's port forwarding feature ("[Port Forwarding] settings", Page 74).

I cannot perform initial setup
● Your wireless router is using the 5 GHz band for wireless communication.
   →The hub only supports the 2.4 GHz band. Make sure your wireless router is configured to use the 2.4 GHz band. "Dual band" configurations are acceptable as long as devices that connect via the 2.4 GHz are able to communicate with devices that connect via the 5 GHz band.
   →Before performing the initial setup, make sure your mobile device is connected to the wireless router using the SSID that is assigned to the 2.4 GHz band of your wireless router. When prompted to enter your wireless router's password, enter the password that is assigned to the 2.4 GHz band.
● Your wireless router uses MAC address filtering to limit the devices that can access the router.
   →The hub's MAC address is displayed while performing initial setup. Make a note of the hub's MAC address and add it to your wireless router's list of MAC address that are allowed to access the router.
● Your wireless router is using "stealth mode", i.e., it is not broadcasting its SSID.
   →If your wireless router is configured to use stealth mode, temporarily disable stealth mode while performing initial setup.
● Your mobile device is connecting to a different wireless router during the initial setup procedure.
   →If your mobile device can connect to other nearby wireless routers, we recommend you turn them off or "forget" their settings while performing initial setup.
● If you continue to have trouble performing initial setup, you may be able to configure the hub's Wi-Fi settings using the WPS feature of your wireless router.
   →See "Configuring the hub using your wireless router's WPS feature", Page 81.

Configuring the hub using your wireless router's WPS feature

If you continue to have trouble performing initial setup, you may be able to configure the hub's Wi-Fi settings using the WPS feature of your wireless router.

Note:
- This procedure requires a wireless router that supports WPS. If your wireless router supports WPS, make sure the feature is turned on, and locate its WPS button before beginning this procedure. The WPS button is typically labelled "WPS" or has two curved arrows on it.
- If the hub's LED indicator is lit in yellow, start from step 1. If it is lit in green or red, start from step 5.

1 Disconnect the AC adaptor from the hub.

2 While pressing the **Wi-Fi SETUP** button on the rear of the hub, connect the AC adaptor to the hub. Do not release the button yet.

3 Continue to hold the **Wi-Fi SETUP** button down until the hub sounds a short beep, then release the button.

4 Wait for the hub's LED indicator to start blinking.

5 Press and hold the hub's **Wi-Fi SETUP** button until the LED indicator blinking changes speed (about 3 seconds).

6 Within 2 minutes, activate your wireless router's WPS mode (e.g., press and hold its WPS button, etc.).

7 Wait for the hub's LED indicator to light in green.
   - Initial setup is now complete.

8 Register your mobile device to the hub ("Registering other mobile devices to the hub", Page 14).

Refer to the following after checking the general troubleshooting information described in "General information", Page 78.

[Device is in use.] is displayed
- Another user (i.e., mobile device) is already accessing the hub, the same screen, or the same feature.
   →Wait for the other user to finish and then try again.

[Hub busy.] is displayed
- Another event, such as a sensor detection or a landline call being received, interrupted the current operation.
   →Wait and try again later.

[This function is only available when this mobile device is connected to the same Wi-Fi Home Network as the hub.] is displayed
- While away from home (i.e., while your mobile device was not connected to the same wireless router as the hub), you tried to use a feature that is only available while at home.
   →Try again when at home.

[The hub is not receiving a signal.] is displayed
- The hub cannot receive a signal from the device you are trying to operate.
   →Make sure the device is receiving power, or that its batteries have adequate charge remaining.
   →Move the device closer to the hub or, if possible, remove any obstacles between the device and the hub.

[Time out] is displayed
- While operating a system feature, you paused for a length of time without performing any actions.
   →If you pause for too long while operating certain features, the system will cancel the operation so that other users can access the system. Try again.

[Deregistered by other user] is displayed
- Another user deregistered your mobile device.
  - →Register your mobile device to the hub again ("Registering other mobile devices to the hub", Page 14).

[The hub is not responding.] is displayed
- The hub is not turned on.
  - →Make sure the hub is connected to a power outlet.
- The hub's firmware is being updated.
  - →Wait for the firmware update to finish and then try again.

[Failed] is displayed
- An error occurred while configuring the hub.
  - →Check all connections and try again.

[Setup failed.] is displayed
- An error occurred while configuring the hub.
  - →Check all connections and try again.

[Remotely Connected] is displayed even when accessing from home
- Your mobile device is not connected to your wireless router.
  - →Make sure your mobile device's Wi-Fi feature is turned on and that your mobile device is connected to your wireless router.
- The app's wireless access point list is full.
  - →Delete any unnecessary wireless access points from the list ("Deleting wireless access points", Page 74).

The connection to the system is slow or disconnects while away from home
- There is too much traffic on your home network or on the mobile device's network.
  - →Wait for network traffic to decrease.

I cannot access the system
- Your wireless router is using the 5 GHz band for wireless communication.
  - →See "I cannot perform initial setup", Page 80.
- Your wireless router at home is connected to another router.
  - →If your wireless router is connected to another router, make sure your network is configured so that your mobile device and the hub can communicate over your home network. We recommend making sure the DHCP feature of only one router is enabled and setting the other routers to "access point mode" or "bridge mode".
- Your wireless router uses MAC address filtering to limit the devices that can access the router.
  - →Temporarily disable your wireless router's MAC address filtering feature, then access the system. Make a note of the hub's MAC address and add it to your wireless router's list of MAC address that are allowed to access the router. You can confirm the hub's MAC address on the **[Current Status]** screen ("Confirming network information", Page 73).

I cannot access the system while away from home
- You are using a public Wi-Fi network.
  - →Network traffic, network conditions, and the network provider's settings or policies may inhibit access to the system. Use a private Wi-Fi network or your mobile phone service provider's wireless network (3G, 4G, etc.).
- The hub's date and time setting is incorrect.
  - →Adjust the date and time setting ("[Time Adjustment] setting", Page 72).

Sometimes I cannot access the system while at home
- There is too much traffic on your home network.
  - →Wait for network traffic to decrease.
  - →Refer to the operating instructions included with your wireless router for other possible solutions.

- Your mobile device is discovering too many nearby wireless networks.
  →Move your mobile device closer to your wireless router.
- Your mobile device has too many wireless networks stored in its Wi-Fi list.
  →Use your mobile device's "forget this Wi-Fi network" feature and delete any unnecessary/unused wireless networks from the list. Refer to your mobile device's operating instructions or support site for details.

I forgot the system's login password
→Access the system while at home and change the password. (The password is not required to access the system while at home.)
→If for some reason you cannot access the system while at home and change the password, force the hub to reset its settings ("Forcing the hub to reset all settings", Page 76) and then configure the hub again.

Refer to the following after checking the general troubleshooting information described in "General information", Page 78.

[Device is in use.] is displayed
- Another user (i.e., mobile device) is already accessing the hub, the same screen, or the same feature.
  →Wait for the other user to finish and then try again.

The arm mode icon at the top of the home screen does not indicate the current mode
- Another user changed the arm mode.
  →If another user changes the arm mode, the arm mode icons displayed at the top of the home screen of your mobile device will not change immediately. The icons will be updated and display the current arm mode the next time the app refreshes the home screen, such as when you start the app or return to the home screen from another screen.

Status notifications are not received
- The system's status notification features are disabled.
  →Make sure the desired type of notifications are enabled ("Notification settings", Page 70).
- Your mobile device's notifications feature is disabled for the **[Home Network]** app.
  →Enable your mobile device's notifications feature.
- The app was forcibly quit.
  →Start the **[Home Network]** app. To exit the app, use the procedure described in "Exiting and logging out", Page 23.
- Too many notifications were sent from the hub during this calendar month.
  →If an excessive number of notifications (i.e., thousands of notifications) were sent from the hub during this calendar month, an error message is displayed and no additional notifications can be received this calendar month. Notifications will be received again when the new month starts.
- **iPhone, iPad**
  Too many notifications were sent from the hub in a short amount of time.
  →If many notifications were sent from the hub in a short time, in some cases only the last notification may be received. This is a characteristic your mobile device's notifications service.

Status notifications are received late
- Notifications are not received in real time; it may take some time for notifications to be received. This is not a malfunction.
- **Android devices**
  Too many notifications were sent from the hub in a short amount of time.
  →If many notifications were sent from the hub in a short time, notifications may be received late. This is a characteristic your mobile device's notifications service.

Refer to the following after checking the general troubleshooting information described in "General information", Page 78.

[Device is in use.] is displayed
● Another user (i.e., mobile device) is already accessing the hub, the same screen, or the same feature.
  →Wait for the other user to finish and then try again.

**A "conflict" error is displayed on the scenario screen or when configuring a scenario**
● The scenario's conditions (day, time, and arm mode) overlap with another scenario that is configured to control the same device.
  →Edit the scenario so that it does not conflict with another scenario.

Camera recording does not start immediately after the sensor is triggered
● When using a smart control scenario to record camera images, there may be a short delay after the sensor is triggered before recording starts. This is not a malfunction.

Camera recordings are shorter than they should be
● If you configure a smart control scenario to record camera images when triggered by a sensor, and if the sensor is triggered multiple times, subsequent recordings may be shorter than anticipated.
  →This is not a malfunction. Camera recordings for the same camera cannot overlap, therefore if the sensor is triggered multiple times, recordings may be shorter than anticipated.
  In the example below, the system is configured to record 10 minutes of camera video when the motion sensor is triggered. The sensor was triggered at 12:00 and the system recorded 10 minutes of video. When the sensor was triggered again at 12:05, recording was already underway, so the system waited until 12:10 (when the first recording stopped) and recorded 5 minutes from the second trigger.
  The first recording is 10 minutes long, and the second is 5 minutes long.

| 12:00 | 12:05 | 12:10 | 12:15 |

Sensor was triggered

Recording

Overlap (already recording)
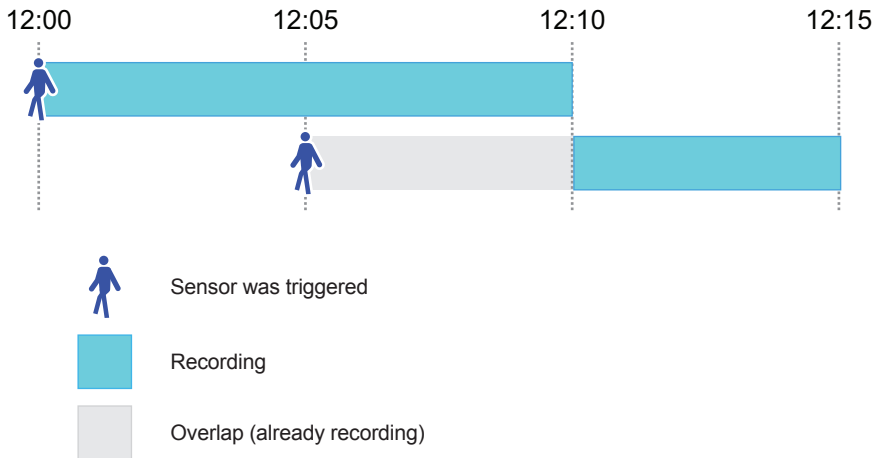
Smart plugs stay on longer than they should be
● If you configure a smart control scenario to turn on a smart plug when triggered by a sensor, and if the sensor is triggered multiple times, the smart plug may stay turned on longer than anticipated.
  →This is not a malfunction. The smart plug stays turned on for the set amount of time each time the sensor is triggered. If the sensor is triggered again before the previous "power on" time ends, the smart plug may stay turned on longer than you anticipated.
  In the example below, the system is configured to turn the smart plug on for 10 minutes when the motion sensor is triggered. The sensor was triggered at 12:00 and the system turned the smart plug on for 10 minutes. When the sensor was triggered again at 12:05, the smart plug was already on, so the system waited until 12:15 (10 minutes after the last trigger) to turn off the smart plug.

The smart plug remained on for 15 minutes.
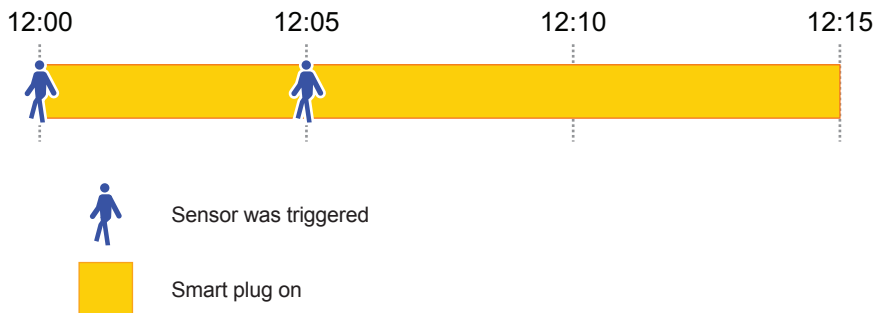
Sensor was triggered

Smart plug on

Refer to the following after checking the general troubleshooting information described in "General information", Page 78.

[Device is in use.] is displayed
- Another user (i.e., mobile device) is already accessing the hub, the same screen, or the same feature.
  →Wait for the other user to finish and then try again.

[The SD card in the hub is Memory Full.] is displayed
- The SD card is full.
  →Erase unnecessary images from the SD card. If you saved other data on the SD card using another device, use the other device and erase any unnecessary data.
  →Turn on the recording overwrite feature ("General camera settings", Page 46) so that new recordings automatically erase old ones.

[The SD card is not inserted in the hub.] is displayed
- There is no SD card inserted in the hub.
  →Insert a compatible SD card.

[Communication error] is displayed
- Your mobile device could not communicate with the hub.
  →Check all connections and settings and try again.

[Out of Range] is displayed
- The hub could not communicate with the camera.
  →Check all connections and settings and try again.
  →Move the camera closer to the hub or, if possible, remove any obstacles between the camera and the hub.

[Error on the SD card in the hub.] is displayed
- The SD card is not formatted for use with the hub.
  →Format the card ("SD card formatting", Page 49).
- You just inserted the SD card into the hub.
  →Wait and try again.

[Failed] is displayed
- An error occurred while saving the picture.
  →Check all connections and try again.

[This function isn't available.] is displayed
- The hub could not access the camera.
  →Wait and try again.

Colors in camera images appear different from normal
● The camera is aimed at a dark location, or it is nighttime.
→If there is not adequate light to illuminate the subject, such as at night, the camera automatically switches to night vision mode. In this case, colors may appear different from normal.
● When viewing images from an indoor camera, black areas of the image appear purplish.
→When the subject is lit by sunlight or halogen lights, black areas of the image may appear purplish. This is not a malfunction.

Colors in indoor camera images appear washed out
● Lighting conditions are poor or inconsistent.
→Adjust the camera's brightness ("Image brightness", Page 48).
→Place the camera in a different location or position.

There is a long delay when talking to the camera while away from home
● Your mobile device's network connection is slow or congested.
→Wait for network traffic to decrease.
→Lower the **[Frame Rate]** setting ("General camera settings", Page 46).

I have to wait a long time before camera images are displayed while away from home
● There is too much traffic on your home network or on the mobile device's network.
→Wait for network traffic to decrease.

Camera recording does not start immediately after the sensor is triggered
● See "Camera recording does not start immediately after the sensor is triggered", Page 84.

Refer to the following after checking the general troubleshooting information described in "General information", Page 78.

[Out of Range] is displayed
● The hub could not communicate with the sensor.
→Make sure the sensor is located within range of the hub and that its battery has adequate charge remaining.
● The hub was recently turned on or restarted.
→Sensors may appear to be out of range of the hub for 30 minutes or longer after the hub is turned on or restarts. The sensors will make detections as normal during this time. The **[Out of Range]** message will be cleared when you operate the sensors.

I cannot remember the names I assigned to my devices
● If you register a large number of devices to the hub, you may forget which name is assigned to each device.
→**Window/door sensors**
Close all the windows and doors that have sensors attached to them. Open one window or door. You can find the name of the corresponding window/door sensor by checking the sensor status screen (app's home screen → **[Sensor]** → **[Status]**): the corresponding window/door sensor's icon will be listed under **[Detected]** and the icon will appear as an open window or door.
→**Motion sensors**
Arm the alarm system and enable the desired motion sensor for the current arm mode. Trigger the motion sensor. If the app is configured to display notifications when the alarm system is triggered ("Notification settings", Page 70), the name of the motion sensor will be displayed in the notification that is displayed.
→**Smart plugs**
Turn off all smart plugs. Turn on one smart plug. You can find the name of the corresponding smart plug by checking which smart plug's LED indicator is lit in green.

Notifications are not received, sensor detections are not displayed in the [Sensor] screen
● The alarm system is not armed.

→Arm the alarm system ("Arming and disarming the alarm system", Page 29).
● The sensor is not enabled for the current arm mode.
→Change the settings for the current arm mode ("Alarm system settings", Page 30).
● The desired feature is not enabled.
→Temperature alert (indoor cameras only) and sound alert (indoor camera only) do not function as part of the alarm system. Make sure the desired feature is enabled ("Temperature alert (indoor cameras only)", Page 44, "Sound alert (indoor cameras only)", Page 45)
● The hub's date and time setting is incorrect.
→Adjust the date and time setting ("[Time Adjustment] setting", Page 72).

Refer to the following after checking the general troubleshooting information described in "General information", Page 78.

[Device is in use.] is displayed
● Another user (i.e., mobile device) is already accessing the hub, the same screen, or the same feature.
→Wait for the other user to finish and then try again.

[Failed] is displayed
● The smart plug is out of range of the hub.
→Move the smart plug closer to the hub and try again.
● An error occurred while accessing the smart plug.
→Check all connections and try again.

[System is busy. Please try again later.]
● Another event, such as a sensor detection or a landline call being received, interrupted the current operation.
→Wait and try again later.

I cannot remember the names I assigned to my smart plugs
● See "I cannot remember the names I assigned to my devices", Page 86.

Energy consumption is displayed as "0.00 kWh" even though I am using the connected electric device
● If an electric device that consumes very little power is connected, such as a low-power LED lamp, energy consumption may be displayed as "0.00 kWh".

Refer to the following after checking the general troubleshooting information described in "General information", Page 78.

[Device is in use.] is displayed
● Another user (i.e., mobile device) is already accessing the hub, the same screen, or the same feature.
→Wait for the other user to finish and then try again.

I cannot use phone features
● You are away from home or your mobile device is not connected to the same wireless router as the hub.
→Connect your mobile device to the same wireless router as the hub.
● The hub is not connected to your landline.
→Connect the hub to your landline. Refer to the System Setup Guide included with your hub.
● There are more than 4 mobile devices registered to the hub.
→8 mobile devices can be registered to the hub, however, only the first 4 can use phone features. If you want to use phone features with an additional mobile device, use the following procedure.
  1. Deregister the mobile device that you want to use phone feature with ("Deregistering devices", Page 69).
  2. Deregister one of the previously registered mobile devices.

- You may need to register more than one of the previously registered mobile devices. You can confirm the number of mobile devices registered on the deregistration screen.
3. Register your mobile device ("Registering other mobile devices to the hub", Page 14).
4. Register the mobile devices you deregistered.

I cannot receive landline calls
- The hub is not connected to your landline.
  →Connect the hub to your landline. Refer to the System Setup Guide included with your hub.
- The app is not running.
  →The app will not receive landline calls if the app is not running. Start the app.
  →**iPhone, iPad**
  If you want the app to receive calls even when it is in the background, turn the **[App Battery Save]** feature off (see "Reducing battery consumption (iPhone, iPad only)", Page 75).

Compatible environments

For best results when viewing this document, we recommend the following environments.

When using a computer
– Internet Explorer 9 or later
– Firefox, latest version
– Google Chrome, latest version
– Safari 4.1 or later

When using a mobile device
– iOS 6 or later
– Android 4.1 or later

Note:
● Internet Explorer 8 and earlier versions are not supported.
● Some content may not be displayed properly when using Android 4.0.

Terms used in this document
● The hub supports microSD and microSDHC memory cards. In this document, the term "SD card" is used as a generic term for any of the supported cards.

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Other information
● The suffix is omitted from model numbers listed in this document.
● Screen shots and icons that appear in this document are for reference only. Actual appearance varies depending on your mobile device, its operating system and display language, the devices that are connected to the system, the system's current status, etc.
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