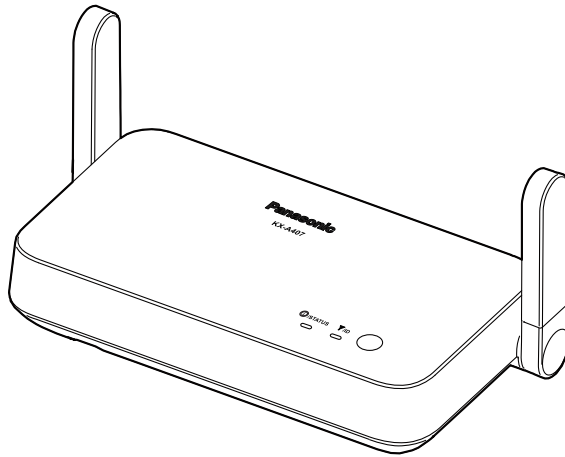


## Installation Manual

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Repeater  
Model No. **KX-A407**



Thank you for purchasing this Panasonic product.  
Please read this manual carefully before using this product and save this manual for future use.

### Note

- In this manual, the suffix of each model number is omitted unless necessary.

Document Version: 2020-01

# *Introduction*

## Introduction

### Outline

This manual describes information about the installation and registration of KX-A407.

### Related Documentation

- **Quick Start Guide**

Describes setup and safety information of the unit.

Manuals and supporting information are provided on the Panasonic Web site at:  
<https://panasonic.net/cns/pcc/support/sipphone/>

### Note

The contents and design of the software are subject to change without notice.

## About this Installation Manual

This Installation Manual is designed to serve as an overall installation reference when using this repeater with Panasonic SIP Cordless Phones.

The SIP Cordless Phone base unit is described as base unit in this manual.

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# 1 Important Information

## 1.1 Important Information

### CAUTION

#### SECURITY REQUIREMENTS

##### Preventing Data Disclosure Over the Network

- To ensure the security of private conversations, only connect the product to a secure network.
- To prevent unauthorized access, only connect the product to a network that is properly managed.

### Note

#### SAFETY REQUIREMENTS

- Before connecting the product, confirm that the product supports the intended operating environment.
- Do not change the DIP switch setting during power supplied.
- If the product does not operate properly, disconnect the AC adaptor cord, then connect again.
- The product may not operate in the event of a power failure.
- Satisfactory operation, interoperability, and compatibility cannot be guaranteed with all equipment connected to the product, nor with all services provided by telecommunications providers over networks connected to the product.

#### SECURITY REQUIREMENTS

- Privacy of communications may not be ensured when using the wireless systems.

### For Users in European countries

#### The following declaration is applicable to KX-A407CE/KX-A407UK only

Hereby, Panasonic Corporation declares that the radio equipment described in this manual is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

<https://www.ptc.panasonic.eu/compliance-documents>

Contact to Authorized Representative:

Panasonic Testing Center

Panasonic Marketing Europe GmbH

Winsbergring 15, 22525 Hamburg, Germany

#### Ecodesign information

Ecodesign information under EU Regulation (EC) No.1275/2008 amended by (EU) Regulation No. 801/2013.

The text of the ErP Free Web Product Information is available at the following internet address:

<https://www.ptc.panasonic.eu/compliance-documents>

Power consumption in networked standby and guidance are mentioned in the web site above.

### For Users in the United Kingdom Only

- This unit is designed to be installed under controlled conditions of ambient temperature and a relative humidity.
- Avoid installing the unit in damp or humid environments, such as bathrooms or swimming pools.

### For Users in the United States Only

#### FCC and Other Information

Privacy of communications may not be ensured when using this product.

#### FCC RF Exposure Warning

- This product complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- To comply with FCC RF exposure requirements, the product must be installed and operated 20 cm (8 inches) or more between the product and all person's body.
- This product may not be collocated or operated in conjunction with any other antenna or transmitter.

FCC ID can be found on the back of this product.

## 1.1 Important Information

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### Note

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### CAUTION

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

### For Users in Canada Only

#### Industry Canada Notices and Other Information

This product meets the applicable Industry Canada technical specifications.

### Note

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Privacy of communications may not be ensured when using this product. Some wireless telephones operate at frequencies that may cause interference to nearby TVs and VCRs. To minimize or prevent such interference, the base of the wireless telephone should not be placed near, or on top of, a TV or VCR.

This will often reduce, or eliminate, interference.

This Class B digital apparatus complies with Canadian ICES-003.

### CAUTION

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

#### RF Exposure Warning

- This product complies with IC radiation exposure limits set forth for an uncontrolled environment.
- To comply with IC RF exposure requirements, the product must be installed and operated 20 cm (8 inches) or more between the product and all person's body.
- This product may not be collocated or operated in conjunction with any other antenna or transmitter.

## 1.2 For best performance

#### Repeater location/avoiding noise

The repeater and other compatible Panasonic products use radio waves to communicate with each other.

- For maximum coverage and noise-free communications, place your repeater:
  - at a convenient, high, and central location with no obstructions between the handset and repeater in an indoor environment.
  - away from electronic appliances such as TVs, radios, personal computers, wireless devices, or other phones.
  - facing away from radio frequency transmitters, such as external antennas of mobile phone cell stations. (Avoid putting the repeater on a bay window or near a window.)
- Coverage and voice quality depends on the local environmental conditions.
- If the reception for a repeater location is not satisfactory, move the repeater to another location for better reception.

#### Environment

- Keep the repeater away from electrical noise generating devices, such as fluorescent lamps and motors.
- The repeater should be kept free from excessive smoke, dust, high temperature, and vibration.
- The repeater should not be exposed to direct sunlight.
- Do not place heavy objects on top of the repeater.
- When you leave the repeater unused for a long period of time, unplug the repeater from the AC outlet.
- The repeater should be kept away from heat sources such as radiators, cookers, etc. It should not be placed in rooms where the temperature is less than 0 °C (32 °F) or greater than 40 °C (104 °F). Damp basements should also be avoided.

## 1.2 For best performance

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- The maximum calling distance may be shortened when the repeater is used in the following places: Near obstacles such as hills, tunnels, underground, near metal objects such as wire fences, etc.
- Operating the repeater near electrical appliances may cause interference. Move away from the electrical appliances.
- To prevent malfunction, deformity, overheating, rust, and discolouration, do not install or place equipment in the following types of locations:
  - Locations where air ventilation is poor.
  - Locations that may be exposed to sulphurous gas, such as near hot springs.
  - Near devices that emit heat, such as heaters.
  - Near devices that emit electromagnetic noise, such as radios or televisions.
  - Near devices that emit high-frequency noise, such as sewing machines or welders.

### Routine care

- **Wipe the outer surface of the repeater with a soft moist cloth.**
- Do not use benzine, thinner, or any abrasive powder.
- Disconnect the AC adaptor cord from the product before cleaning. Clean the product with a soft, dry cloth. Do not use liquid, aerosol cleaners, abrasive powders, or chemical agents to clean the product.

### Placement

- Install the repeater within base unit range in an indoor environment. We recommend installing the repeater in a raised position (such as on a wall).
- Avoid positioning the repeater close to objects that will interfere with reception, such as thick walls, radiators, metal shelving, etc.
- For maximum distance noise-free operation, place the repeater away from electrical appliances such as TV, radio, personal computer, or other telephone equipment.
- Keep an appropriate distance from the base unit to maximize the range of your phone system.

Find the appropriate location by checking the RSSI<sup>1</sup>/ID indicator. If the RSSI/ID indicator turns red or amber, re-position the repeater in a place where the RSSI/ID indicator turns green.

For details about the RSSI/ID indicator, refer to "3.3 Indicators, page 18".

<sup>1</sup> RSSI: Received Signal Strength Indication



## 2 Overview

### 2.1 Overview

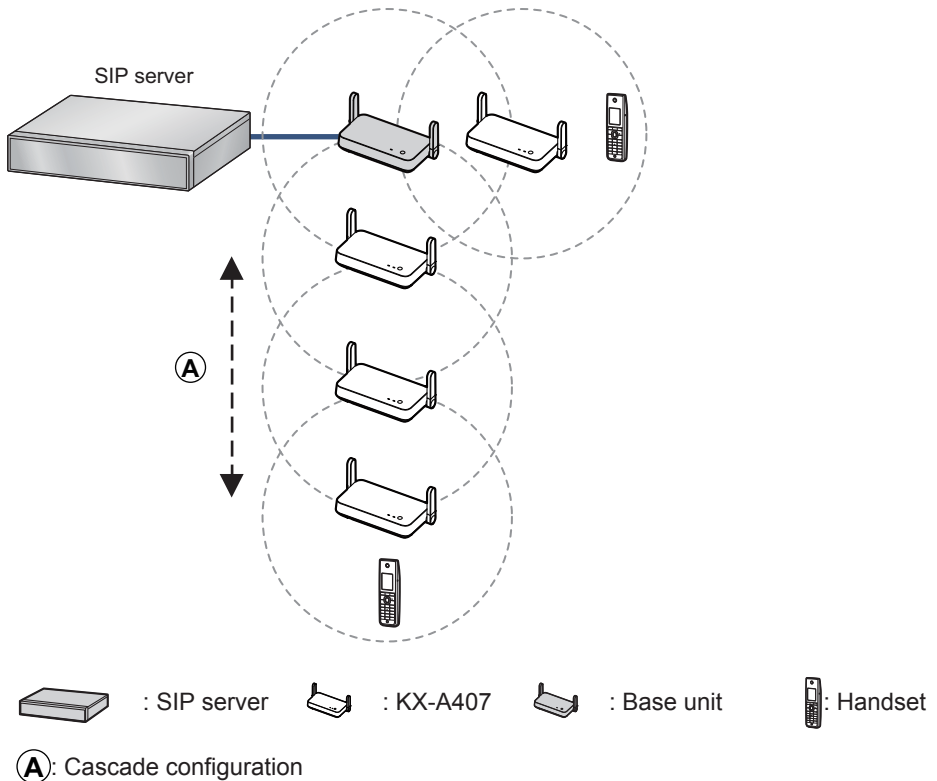
A repeater is used when you need to extend the range of a handset to include areas where reception was previously not available. The repeater extends the range in all directions, allowing several floors to be covered.

#### Note

- You must register the repeater with your base unit before it can be used.

### 2.2 System Connection Example

#### Example: Connecting Repeaters and handsets



## 2.2 System Connection Example

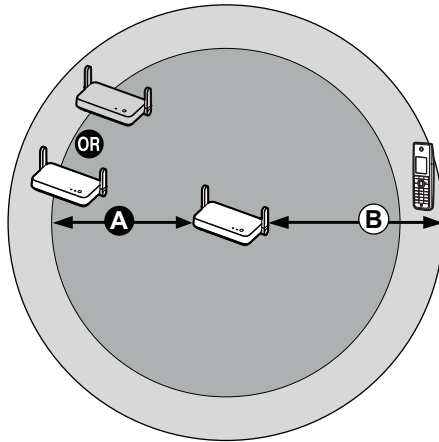
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### Repeater Coverage Area

As a guideline, the example below shows the size of the coverage area where one repeater can synchronize with a base unit/destination repeater, or provide coverage for a handset, if it is installed in an area with no obstacles.

#### Note

- The distance may vary depending on the environment.
- If the repeater's STATUS indicator and RSSI/ID indicator turn green (the radio signal strength level is strong) after turning on the repeater, the site is suitable for installing the repeater.



KX-A407



Base unit

**A**

Repeater coverage area for synchronization between base unit/destination repeater and repeater.

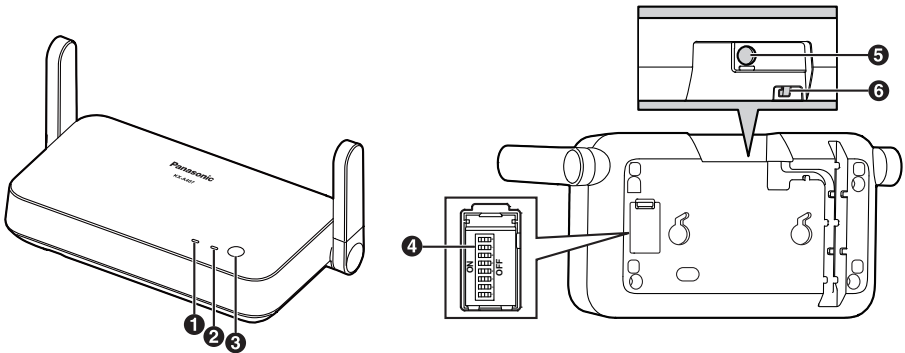
Maximum Distance: 40 m to 50 m (98 ft to 131 ft)

**B**

Repeater coverage area for handset.

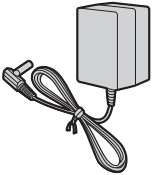

Maximum Distance: 50 m to 60 m (131 ft to 164 ft)

## 2.3 Location of Controls



- 1 STATUS Indicator
- 2 Ψ/ID RSSI/ID Indicator  
The RSSI (Received Signal Strength Indicator) shows the strength of the wireless network.  
Throughout this manual, the term "RSSI/ID" refers to Ψ/ID.
- 3 PROGRAM Button  
Used to power off the repeater, or to switch to Operation Mode, ID Confirmation mode, De-registration Mode or Site Survey Mode.
- 4 DIP switch
- 5 DC Jack
- 6 Hook

## 2.4 Included Accessories

AC adaptor: 1  	<table border="1"> <thead> <tr> <th>Model No.</th> <th>Part No.</th> </tr> </thead> <tbody> <tr> <td>KX-A407</td> <td>PNLV236</td> </tr> <tr> <td>KX-A407UK</td> <td>PNLV236E</td> </tr> <tr> <td>KX-A407CE</td> <td>PNLV236CE</td> </tr> <tr> <td>KX-A407AL</td> <td>PNLV236AL</td> </tr> </tbody> </table>	Model No.	Part No.	KX-A407	PNLV236	KX-A407UK	PNLV236E	KX-A407CE	PNLV236CE	KX-A407AL	PNLV236AL	Screws: 2 Washers: 2  
Model No.	Part No.											
KX-A407	PNLV236											
KX-A407UK	PNLV236E											
KX-A407CE	PNLV236CE											
KX-A407AL	PNLV236AL											

### Note

**For users in the United States only**

To order accessories, call toll-free **1-800-322-5368**.

## 2.5 Indicators

The indicator patterns and the corresponding status of the repeater in each mode are as follows.

Mode	Status	Indicators	
		STATUS	RSSI/ID
—	Power Off	Off	Off
	Hardware Error	Quick Amber Flashing	Off
De-registration Mode	Entering De-registration mode (0–5 seconds <sup>*1</sup> )	Red Flashing	Off
	Entering Site Survey mode (5–10 seconds <sup>*1</sup> )	Quick Red Flashing	
	De-registration complete (after 10 seconds <sup>*1</sup> )	Red On	
Registration Mode (Easy/ Manual)	Searching for devices	Red Flashing	Off
Operation Mode	Standby (signal is strong)	Green On	Green On
	Standby (signal is weak)		Amber On
	Standby (out of range)	Red On	Red On
	Talking (signal is strong)	Green Flashing	Green On
	Talking (signal is weak)		Amber On
	Busy (signal is strong)	Quick Green Flashing	Green On
	Busy (signal is weak)		Amber On

Mode	Status	Indicators	
		STATUS	RSSI/ID
ID Confirmation Mode (Program Key)	ID1	Amber On	1 Green Flash
	ID2		2 Green Flashes
	ID3		3 Green Flashes
	ID4		4 Green Flashes
	ID5		5 Green Flashes
	ID6		6 Green Flashes
ID Confirmation Mode (Remote)	Signal is strong	3 Amber Flashes	Green On
	Signal is weak		Amber On
Site Survey Mode	Channel 1 (signal is strong)	1 Green Flash	Green ON
	Channel 1 (signal is weak)		Amber ON
	Out of range		Red ON
	Channel 2 (signal is strong)	2 Green Flashes	Green ON
	Channel 2 (signal is weak)		Amber ON
	Out of range		Red ON
	Channel 3 (signal is strong)	3 Green Flashes	Green ON
	Channel 3 (signal is weak)		Amber ON
	Out of range		Red ON
	Channel 4 (signal is strong)	4 Green Flashes	Green ON
	Channel 4 (signal is weak)		Amber ON
	Out of range		Red ON
	Channel 5 (signal is strong)	5 Green Flashes	Green ON
	Channel 5 (signal is weak)		Amber ON
	Out of range		Red ON

## 2.5 Indicators

Mode	Status	Indicators	
		STATUS	RSSI/ID
	Channel 6 (signal is strong)	6 Green Flashes	Green ON
	Channel 6 (signal is weak)		Amber ON
	Out of range		Red ON
	Channel 7 (signal is strong)	7 Green Flashes	Green ON
	Channel 7 (signal is weak)		Amber ON
	Out of range		Red ON
	Channel 8 (signal is strong)	8 Green Flashes	Green ON
	Channel 8 (signal is weak)		Amber ON
	Out of range		Red ON
	Channel 9 (signal is strong)	9 Green Flashes	Green ON
	Channel 9 (signal is weak)		Amber ON
	Out of range		Red ON
	Channel 0 (signal is strong)	10 Green Flashes	Green ON
	Channel 0 (signal is weak)		Amber ON
	Out of range		Red ON
Firmware update mode	In progress	Amber Flashing	Amber Flashing
	Success	Green On	Green On
			Amber On
Failure	Red On (3 seconds)	Red On (3 seconds)	
RPN (Radio Port Number) duplication error	RPN duplication	Green/Red Flashing	Green/Red Flashing

\*1 The time elapsed after turning on the repeater while pressing and holding down the PROGRAM button.

### Flashing Speeds

Indicators flash in a cycle at the following speeds:

Type of Flashing	Speed
Regular Flashing	640 ms On → 640 ms Off
Quick Flashing	320 ms On → 320 ms Off
1 Flash	Regular Flashing → 3 s Off
2 Flashes	Regular Flashing × 2 → 3 s Off
3 Flashes	Regular Flashing × 3 → 3 s Off
:	:

## 2.6 Repeater ID Confirmation

### ID Confirmation Mode

The ID of currently registered repeaters can be checked as below:

Using the Repeater

1. In Operation mode, press the PROGRAM button to switch to ID Confirmation mode. The STATUS indicator will turn amber.
2. The current ID is indicated by the number of times the RSSI/ID indicator flashes green.










### Note

If the repeater loses synchronization with the destination repeater in ID Confirmation mode, the repeater will automatically reset. After synchronization is established, the repeater will automatically enter ID Confirmation mode again.

3. Return the repeater to Operation mode by pressing the PROGRAM button again.


### ID Confirmation Mode (Remote)

Using the Handset (KX-TPA70/KX-TPA73) connected to the repeater.

1. In Operation mode, move to the System Settings menu using the handset (KX-TPA70/KX-TPA73) as below:
  - a. /[CENTER]
  - b. : "System Settings" → /[CENTER]
  - c. : "Base Unit Settings" → /[CENTER]
  - d. : "Repeater" → /[CENTER]
  - e. : "Flash LED" → /[CENTER]

## 2.7 Site Survey

---

2. Select the repeater ID to confirm the target repeater, and press .
3. The target repeater's Status LED will flash amber at 3 times.

## 2.7 Site Survey

This function can be used to measure the transmission quality, and identify problematic transmission areas of the repeater installation. This function can be used when registered or de-registered.

### Note

- The repeater's Site Survey mode works independently from the Base unit. This means that the Base unit does not have to be placed into Site Survey mode.
  - When using more than 1 repeater in Site Survey mode simultaneously, please ensure repeaters are set to different channels.
1. While pressing and holding down the PROGRAM button, turn on the repeater by connecting the AC adaptor.  
The STATUS indicator will flash red.
  2. Continue to hold down the PROGRAM button for 5 seconds.  
The STATUS indicator will flash red quickly.

### Note

If you continue to hold down the PROGRAM button for 10 seconds, the repeater will enter De-registration mode.

3. Release the PROGRAM button.  
The STATUS indicator will flash red to indicate the current channel number, and a carrier sense will start to check whether the current channel is available (idle) or not.
4. If the current channel is available, the STATUS indicator will change to flash green. Site Survey mode on the current channel is now operational.

### Note

A carrier sense is performed regularly in Site Survey mode. If the selected channel is not available (busy), the STATUS indicator will flash red to indicate the channel number and the repeater will stop transmitting.

5. Activate the site survey function on the handset to measure the radio signal strength level. The repeater Base unit ID is 1234567890.

### Note

- It is recommended that the radio signal strength level is "03" or greater.
  - For details about using the handset during a site survey, refer to the appropriate documentation for the Base unit.
6. To change the site survey channel, press the PROGRAM button.



The channel number will change by one each time the PROGRAM button is pressed.

7. To turn off Site Survey mode, turn off the repeater by disconnecting the AC adaptor, and then turn on the repeater by connecting the AC adaptor.

# 3 Linking to SIP Cordless Phones

## 3.1 Linking to SIP Cordless Phones

This section describes how to use the repeater to connect SIP cordless phone base units and handsets.

## 3.2 Compatible Devices

Compatible Device	Model No.
Base unit	KX-TGP700

## 3.3 Indicators

Indicators	Light Status		Meaning
STATUS	Green	On	• Within base unit range. The repeater is ready for use.
		Flashing	• 1 handset is communicating with the base unit through the repeater.
		Quick Flashing	Narrowband mode: • 8 handsets are communicating with the base unit through the repeater. Wideband mode: • 4 handsets are communicating with the base unit through the repeater.
	Red	On	• Out of base unit range.
		Flashing	• The repeater is not registered to the base unit.
	Off		• The power is off. (AC adaptor is not connected properly.)

Indicators	Light Status		Meaning
RSSI/ID	Green	On	• Signal strength of the base unit is strong.
		Flashing	• The number of times the RSSI/ID indicator flashes indicates the current ID of registered repeaters. When it flashes green once, it indicates that the ID is currently set to 1. • The base unit is in repeater range.
	Amber	On	• Signal strength of the base unit is weak.
	Red	On	• Out of base unit range. • The ID has been registered to the repeater.
		Flashing	The number of times the RSSI/ID indicator flashes indicates the ID that will be registered to the repeater. When it flashes red once, it indicates that the ID will be set to 1.
	Off		• The repeater is not being used. • The power is off.

## 3.4 Installation/Registering the Repeater

Once the repeater is connected to an AC outlet, it automatically goes into registration mode (if not already registered).

### Important

- Before registering the repeater to the base unit, you must turn the repeater mode on. Refer to the appropriate documentation for the base unit.
- If the repeater is already registered, deregister the repeater first, then re-register it. For registering and deregistering the repeater, refer to "Deregister" and "Re-register" in "3.5 Troubleshooting".

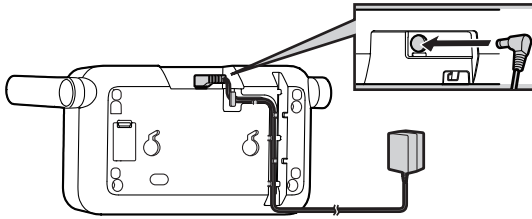
### Note

- Use only the supplied Panasonic AC adaptor.
- When connecting the AC adaptor to the repeater, press the plug firmly into the repeater for secure connection.

#### 1. Repeater: Connect the AC adaptor.

### 3.4 Installation/Registering the Repeater

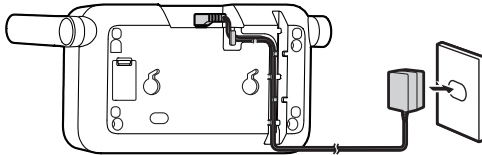
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**2. Base unit: Press and hold the Handset locator button for about 4 seconds until the STATUS indicator flashes red.**

- The button and indicator depend on the base unit.
- If all registered handsets start ringing, press the same button to stop. Then repeat this step.
- The next step must be completed within 90 seconds.

**3. Repeater: Connect the AC adaptor to an AC outlet.**



- Check the label color of the AC adaptor cord and the AC adaptor jack of KX-A407. Use AC adaptor for the KX-A407 with the same color label attached.
- When the repeater is turned on, the STATUS indicator and RSSI/ID indicator turn amber for about 2 seconds.

**4. Repeater: Wait until the STATUS indicator and RSSI/ID indicator turn green. (The repeater is ready for use.)**

- If the indicators do not turn green, re-position the repeater in a place where the indicators turn green.

**5. Base unit: To exit registration mode, press the Handset locator button.**

- The button depends on the base unit.

#### Note

- The AC adaptor must remain connected at all times. (It is normal for the adaptor to feel warm during use.)
- The repeater can support a maximum of 8 calls at a time.
- When the STATUS indicator flashes green rapidly, a handset registered to the repeater cannot make/receive a call through the repeater. Neither can a handset during a conversation within the base unit range switch to the repeater range.

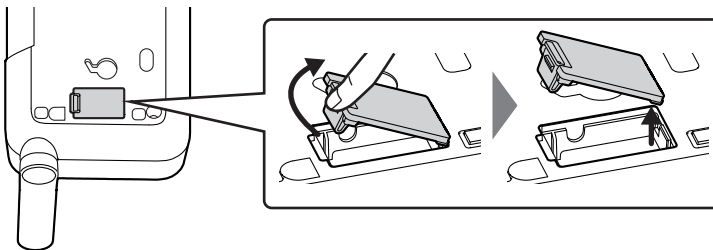
### Cascade Configuration

In manual registration, the repeater can be registered to another repeater to create a cascade configuration.

#### Note

- The following limitations apply when the KX-A407 (repeater) is connected to a KX-TGP700 base unit.
  - Narrowband mode:  
Up to 3 KX-A407 units can be connected in a cascade configuration, and up to 8 calls can be made simultaneously.
  - Wideband mode:  
Up to 3 KX-A407 units can be connected in a cascade configuration, and up to 4 calls can be made simultaneously.
- It is necessary to check the ID of the repeater you are attempting to register to (destination repeater) just before starting the manual registration.

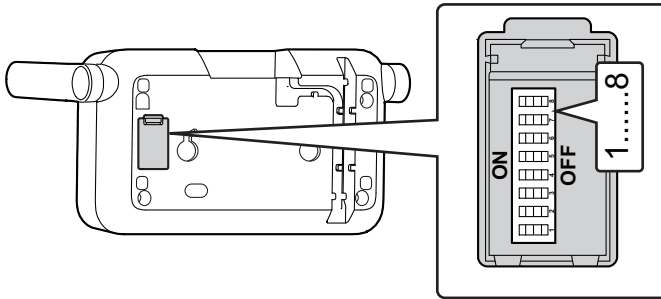
1. Check the ID of the destination repeater.  
Refer to "2.6 Repeater ID Confirmation".
2. Turn on the repeater you want to register by connecting the AC adaptor.  
The STATUS indicator and the RSSI/ID indicator will turn amber for 2 seconds.
3. **When the repeater is unregistered:**  
The STATUS indicator will flash red.  
**When the repeater is registered:**  
The repeater automatically enters Operation mode.
4. **Repeater:**  
Unplug the AC adaptor, and remove the DIP switch cover on the back side of the cabinet as shown below.



5. **Repeater:**  
If the ID of the destination repeater is not 1, turn on the same number DIP switch bit as the ID that matches the destination repeater.

### 3.4 Installation/Registering the Repeater

---



6. **Repeater:**  
Plug the AC adaptor to reset the repeater.
7. **Base unit:**  
Press and hold the Handset locator button for about 4 seconds until the STATUS indicator flashes red.
8. **Repeater:**  
When the repeater has found a repeater with the assigned ID, the STATUS indicator will turn green.  
Registration is complete.
9. **Base unit:**  
To exit registration mode, press the Handset locator button.

#### De-registration

Perform de-registration to delete the ID of the base unit/repeater that the repeater is registered to.

1. While pressing and holding down the PROGRAM button (page 11), turn on the repeater by connecting the AC adaptor.
2. Continue to hold down the PROGRAM button for 10 seconds.  
When the STATUS indicator turns red, de-registration is complete.
3. Release the PROGRAM button to reset the repeater.

## 3.5 Troubleshooting

Problem	Cause/solution
The repeater does not work.	<ul style="list-style-type: none"> <li>• When the indicators do not turn on, the AC adaptor is not connected properly. Check the connections.</li> <li>• When the indicators do not turn green, move the repeater closer to the base unit.</li> <li>• Registration may have been canceled. Deregister the repeater, then re-register.</li> </ul> <p><b>Deregister</b></p> <ol style="list-style-type: none"> <li>1. Unplug the AC adaptor, then press and hold the PROGRAM button.</li> <li>2. While pressing and holding the PROGRAM button, re-connect the AC adaptor.</li> <li>3. Keep pressing and holding the PROGRAM button for about 10 seconds until the STATUS indicator stops flashing and RSSI/ID indicator turns red. Then release the PROGRAM button.</li> </ol> <ul style="list-style-type: none"> <li>• The STATUS indicator and the RSSI/ID indicator turn amber for about 2 seconds and the STATUS indicator flashes red again.</li> <li>• If the STATUS indicator flashes green after releasing the PROGRAM button, deregistration failed. Deregister the repeater again.</li> </ul> <p><b>Re-register</b></p> <p>Unplug the AC adaptor, then perform from step 2 of “Installation/Registering the Repeater”.</p>
While talking using the handset, sound cuts in and out.	<ul style="list-style-type: none"> <li>• The handset is out of range. Move the handset closer to the repeater.</li> </ul>
A repeating tone is heard while talking using the handset. or The STATUS indicator is amber and the RSSI/ID indicator flashes green.	<ul style="list-style-type: none"> <li>• The PROGRAM button was pressed. The repeater is in programming mode. To exit, press the PROGRAM button again. Do not press the PROGRAM button, except when deregistering the repeater.</li> </ul>

## 3.5 Troubleshooting

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Problem	Cause/solution
<p>The repeater's STATUS indicator and RSSI/ID indicator flash green and red alternately (alarm indication).</p>	<ul style="list-style-type: none"><li>• The ID of the repeater is the same as the ID of another repeater that is registered to the same base unit. Deregister both of the repeaters, then re-register them near the base unit.</li></ul> <p><b>Deregister</b></p> <ol style="list-style-type: none"><li>1. Unplug the AC adaptor, then press and hold the PROGRAM button.</li><li>2. While pressing and holding the PROGRAM button, re-connect the AC adaptor.</li><li>3. Keep pressing and holding the PROGRAM button for about 10 seconds until the STATUS indicator stops flashing and RSSI/ID indicator turns red. Then release the PROGRAM button.</li></ol> <ul style="list-style-type: none"><li>• The STATUS indicator and the RSSI/ID indicator turn amber for about 2 seconds and the STATUS indicator flashes red again.</li><li>• If the STATUS indicator flashes green after releasing the PROGRAM button, deregistration failed. Deregister the repeater again.</li></ul> <p><b>Re-register</b></p> <p>Unplug the AC adaptor, then perform from step 2 of "Installation/Registering the Repeater".</p>
<p>The handset registered to the repeater cannot make/receive a call.</p>	<ul style="list-style-type: none"><li>• When the STATUS indicator flashes green rapidly, a handset registered to the repeater cannot make/receive a call through the repeater. Move closer to the base unit or wait until the STATUS indicator flashes slowly or the STATUS indicator is on.</li></ul>



## 4 Appendix

### 4.1 Appendix

This section describes about mounting the repeater on a wall and its specifications.

### 4.2 Wall Mounting

#### Mounting

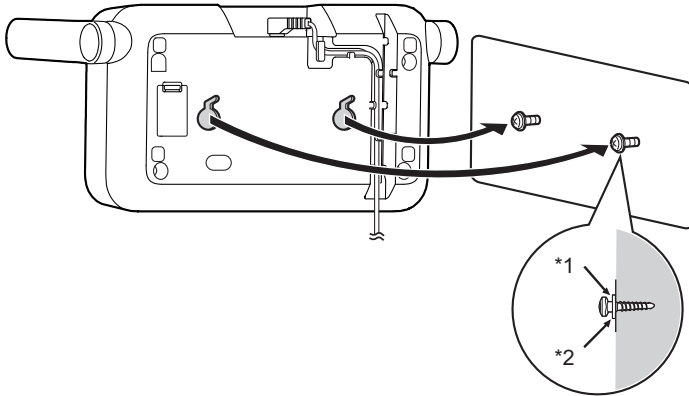
#### CAUTION

- Make sure the cable is securely fastened to the wall.

1. Place the reference for wall mounting on the wall to mark the 2 screw positions.
2. Install the 2 screws and washers (included) into the wall.

#### Note

- Make sure that the screw heads are at the same distance from the wall.
  - Install the screws perpendicular to the wall.
3. Hook the repeater on the screw heads.



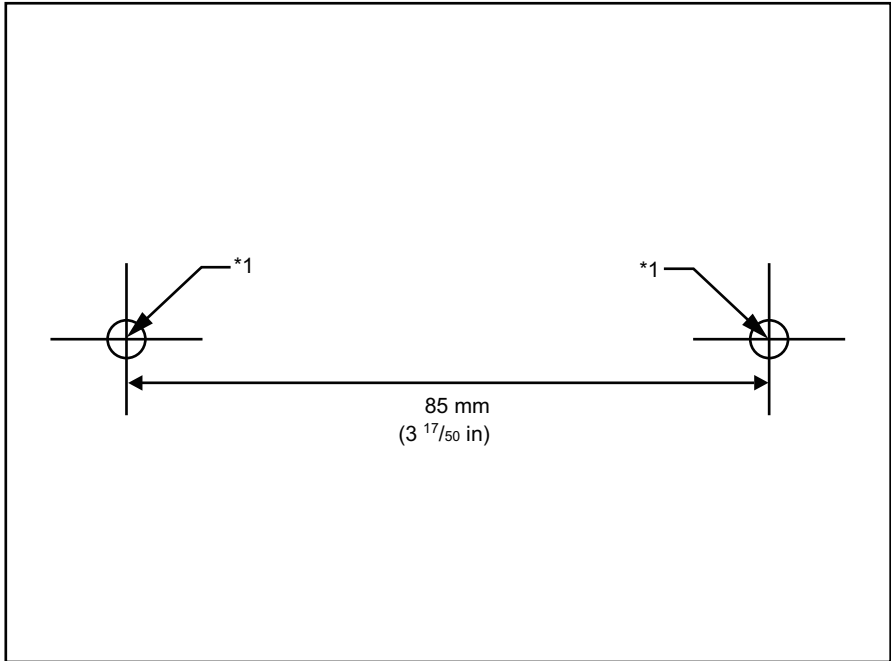
- \*1 Washer
- \*2 Drive the screw to this point.

## 4.2 Wall Mounting

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### Reference for Wall Mounting

Print this page and use as a reference for wall mounting.



\*1 Install a screw here.

### Note

Make sure to set the print size to correspond with the size of this page. If the dimension of the paper output still deviates slightly from the measurement indicated here, use the measurement indicated here.

## 4.3 Specifications

### Basic Specifications

Maximum Number of Simultaneous Calls	8 <sup>*1</sup>
Maximum Number of Cascade Steps	3 <sup>*2</sup>
Maximum Number of Repeaters Registered to a base unit	6 <sup>*3</sup>

\*1 The maximum number of simultaneous calls is 4 when connecting with KX-TGP700 base units, or using wideband audio codec G.722 or G.722.2.

\*2 Cascade connections are not available when connecting with KX-TGP700 base units.

\*3 The maximum number of repeaters is 2 when connecting with KX-TGP700 base units.

### Note

The maximum number of simultaneous calls may decrease depending on the wireless environment or the PBX's system configuration.

### General Specifications

Dimensions (Width × Depth × Height)	223 mm (W) × 110 mm (D) × 44 mm (H) (8.78 in × 4.33 in × 1.73 in)
Weight	350 g (0.77 lb)
Power Supply	AC Adaptor  Input: KX-A407 AC 100 V–120 V, 60 Hz  KX-A407CE/KX-A407UK/KX-A407AL AC 220 V–240 V, 50 Hz/60 Hz  Output: DC 5.5 V, 1.0 A
Operating Temperature	0 °C to 40 °C ( 32 °F to 104 °F)

### RF Specifications

Wireless Interface	DECT/DECT 6.0 <sup>*1</sup>
Radio Access Method	MultiCarrier TDMA-TDD

### 4.3 Specifications

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Frequency Band	KX-A407 1920 MHz to 1930 MHz  KX-A407CE/KX-A407UK/KX-A407AL 1880 MHz to 1900 MHz
Number of Carriers	KX-A407 5  KX-A407CE/KX-A407UK/KX-A407AL 10
Carrier Spacing	1728 kHz
Bit Rate	1152 kbps
Modulation Scheme	GFSK
Transmission Output	KX-A407 Peak 0.11 W  KX-A407CE/KX-A407UK/KX-A407AL Peak 0.25 W

\*1 The wireless interface differs according to the country/area.

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