Panasonic

Operating Instructions

Digital Cordless Answering System

Model No. **KX-TGC220AL**
KX-TGC222AL
KX-TGC223AL

Model shown is KX-TGC220.

Before initial use, see "Getting Started" on page 9.

Thank you for purchasing a Panasonic product.

Please read these operating instructions before using the unit and save them for future reference.

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Model composition

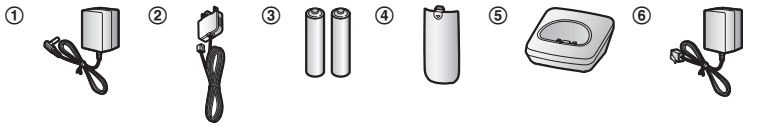
Series	Model No.	Base unit	Handset	
		Part No.	Part No.	Quantity
KX-TGC220 series	KX-TGC220	KX-TGC220	KX-TGCA20	1
	KX-TGC222	KX-TGC220	KX-TGCA20	2
	KX-TGC223	KX-TGC220	KX-TGCA20	3

Accessory information

Supplied accessories

No.	Accessory item/Part number	Quantity		
		KX-TGC220	KX-TGC222	KX-TGC223
①	AC adaptor for base unit/PNLV226AL	1	1	1
②	Telephone line cord*1	1	1	1
③	Rechargeable batteries*2	2	4	6
④	Handset cover*3	1	2	3
⑤	Charger	–	1	2
⑥	AC adaptor for charger/PNLV233AL	–	1	2

*1 The telephone line cord comes connected with the telephone plug.
*2 See page 4 for replacement battery information.
*3 The handset cover comes attached to the handset.



Additional/replacement accessories

Please contact your nearest Panasonic dealer for sales information.

Accessory item	Model number
Rechargeable batteries	HHR-4MY/2B*1
	Battery type: – Nickel metal hydride (Ni-MH) – 2 x AAA (R03) size for each handset
DECT repeater	KX-A405AL

*1 Replacement batteries may have a different capacity from that of the supplied batteries.

Other information

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

For your safety

To prevent severe injury and loss of life/ property, read this section carefully before using the product to ensure proper and safe operation of your product.

⚠WARNING

Power connection

- Use only the power source marked on the product.
- Do not overload power outlets and extension cords. This can result in the risk of fire or electric shock.
- Completely insert the AC adaptor/power plug into the power outlet. Failure to do so may cause electric shock and/or excessive heat resulting in a fire.
- Regularly remove any dust, etc. from the AC adaptor/power plug by pulling it from the power outlet, then wiping with a dry cloth. Accumulated dust may cause an insulation defect from moisture, etc. resulting in a fire.
- Unplug the product from power outlets if it emits smoke, an abnormal smell, or makes an unusual noise. These conditions can cause fire or electric shock. Confirm that smoke has stopped emitting and contact an authorised service centre.
- Unplug from power outlets and never touch the inside of the product if its casing has been broken open.
- Never touch the plug with wet hands. Danger of electric shock exists.

Installation

- To prevent the risk of fire or electrical shock, do not expose the product to rain or any type of moisture.
- Do not place or use this product near automatically controlled devices such as automatic doors and fire alarms. Radio waves emitted from this product may cause such devices to malfunction resulting in an accident.
- Do not allow the AC adaptor or telephone line cord to be excessively pulled, bent or placed under heavy objects.
- It is advised not to use the equipment at a refuelling point. Users are reminded to observe restrictions on the use of radio equipment in fuel depots, chemical plants or where blasting operations are in progress.

Operating safeguards

- Unplug the product from power outlets before cleaning. Do not use liquid or aerosol cleaners.
- Do not disassemble the product.
- Do not spill liquids (detergents, cleansers, etc.) onto the telephone line cord plug, or allow it to become wet at all. This may cause a fire. If the telephone line cord plug becomes wet, immediately pull it from the telephone wall socket, and do not use.

Medical

- Consult the manufacturer of any personal medical devices, such as pacemakers or hearing aids, to determine if they are adequately shielded from external RF (radio frequency) energy. (The product operates in the frequency range of 1.88 GHz to 1.90 GHz, and the RF transmission power is 250 mW (max.).)
- Do not use the product in health care facilities if any regulations posted in the area instruct you not to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

⚠CAUTION

Installation and location

- Never install telephone wiring during an electrical storm.
- Never install telephone line sockets in wet locations unless the socket is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.

- Use caution when installing or modifying telephone lines.
- The AC adaptor is used as the main disconnect device. Ensure that the AC outlet is installed near the product and is easily accessible.
- This product is unable to make calls when:
  – the handset batteries need recharging or have failed.
  – there is a power failure.
  – the key lock feature is turned on.

Battery

- We recommend using the batteries noted on page 4. **USE ONLY rechargeable Ni-MH batteries AAA (R03) size.**
- Do not mix old and new batteries.
- Do not open or mutilate the batteries. Released electrolyte from the batteries is corrosive and may cause burns or injury to the eyes or skin. The electrolyte is toxic and may be harmful if swallowed.
- Exercise care when handling the batteries. Do not allow conductive materials such as rings, bracelets, or keys to touch the batteries, otherwise a short circuit may cause the batteries and/or the conductive material to overheat and cause burns.
- Charge the batteries provided with or identified for use with this product only, in accordance with the instructions and limitations specified in this manual.
- Only use a compatible base unit (or charger) to charge the batteries. Do not tamper with the base unit (or charger). Failure to follow these instructions may cause the batteries to swell or explode.

General notices

- Please ensure that a separate telephone, not dependent on local power, is available for emergency use.
- This equipment will be inoperable when mains power fails.
- When a failure occurs which results in the internal parts becoming accessible, disconnect the power supply cord immediately and return this unit to an authorised service centre.
- To minimise the possibility of lightning damage, when you know that a thunderstorm is coming, we recommend that you:
  – Unplug the telephone line cord from the phone socket.
  – Unplug the AC adaptor from the AC power outlet.
- No “000” or other calls can be made from this device during a mains power failure.
- The earpiece on the handset is magnetised and may retain small metallic objects.

Important safety instructions

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

1. Do not use this product near water for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (including a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

SAVE THESE INSTRUCTIONS

For best performance

Base unit location/avoiding noise

The base unit and other compatible Panasonic units use radio waves to communicate with each other.

- For maximum coverage and noise-free communications, place your base unit:
  – at a convenient, high, and central location with no obstructions between the handset and base unit 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 base unit on a bay window or near a window.)
- Coverage and voice quality depends on the local environmental conditions.
- If the reception for a base unit location is not satisfactory, move the base unit to another location for better reception.

Environment

- Keep the product away from electrical noise generating devices, such as fluorescent lamps and motors.
- The product should be kept free from excessive smoke, dust, high temperature, and vibration.
- The product should not be exposed to direct sunlight.
- Do not place heavy objects on top of the product.
- When you leave the product unused for a long period of time, unplug the product from the power outlet.
- The product should be kept away from heat sources such as radiators, cookers, etc. It should not be placed in rooms where the temperature is less than 0 °C or greater than 40 °C. Damp basements should also be avoided.
- The maximum calling distance may be shortened when the product is used in the following places: Near obstacles such as hills, tunnels, underground, near metal objects such as wire fences, etc.
- Operating the product near electrical appliances may cause interference. Move away from the electrical appliances.

Routine care

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

Other information

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

Notice for product disposal, transfer, or return

- This product can store your private/ confidential information. To protect your privacy/confidentiality, we recommend that you erase information such as phonebook or caller list entries from the memory before you dispose of, transfer, or return the product.

Information on Disposal in other Countries outside the European Union

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

Note for the battery removal procedure

Refer to “Battery installation” on page 9.

Specifications

- **Standard:**
  GAP (Generic Access Profile)
- **Frequency range:**
  1.88 GHz to 1.90 GHz
- **RF transmission power:**
  Approx. 10 mW (average power per channel)
- **Power source:**
  220–240 V AC, 50/60 Hz
- **Power consumption:**
  Base unit:
  Standby: Approx. 0.54 W
  Maximum: Approx. 2.7 W
  Charger:
  Standby: Approx. 0.12 W
  Maximum: Approx. 1.8 W
- **Operating conditions:**
  0 °C–40 °C, 20 %–80 % relative air humidity (dry)

Setting up

Connections

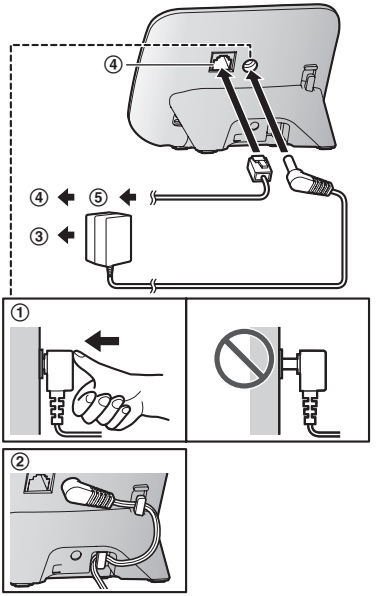
■ **Base unit**

① Connect the AC adaptor to the unit by pressing the plug firmly.
② Fasten the cord by hooking it.
③ Connect the AC adaptor to the power outlet.
④ Connect the telephone line cord to the unit, then to the telephone line socket until you hear a click.
⑤ A DSL/ADSL filter (not supplied)*1 is required if you have a DSL/ADSL service.

*1 Connect a DSL/ADSL filter between the telephone plug and telephone line cord.

Note:

- Use only the supplied Panasonic AC adaptor PNLV226AL.
- Use only the supplied telephone line cord.

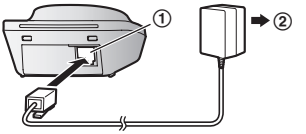


■ **Charger**

① Connect the AC adaptor plug to the unit until you hear a click.
② Connect the AC adaptor to the power outlet.

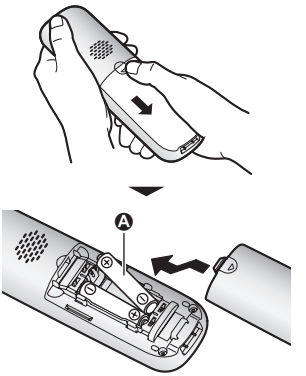
Note:

- Use only the supplied Panasonic AC adaptor PNLV233AL.



Battery installation

- USE ONLY rechargeable Ni-MH batteries AAA (R03) size (A).
- Do NOT use Alkaline/Manganese/Ni-Cd batteries.
- Confirm correct polarities (⊕, ⊖).

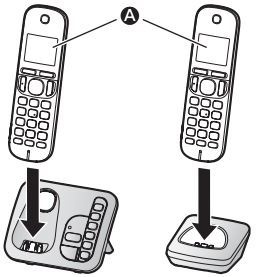


- Follow the directions on the display to set up the unit.

Battery charging

Charge for about 7 hours.

- Confirm **"Charging"** is displayed (Ⓐ).
- When the batteries are fully charged, **"Fully charged"** is displayed.



Note when setting up

Note for connections

- The AC adaptor must remain connected at all times. (It is normal for the adaptor to feel warm during use.)
- The AC adaptor should be connected to a vertically oriented or floor-mounted AC outlet. Do not connect the AC adaptor to a ceiling-mounted AC outlet, as the weight of the adaptor may cause it to become disconnected.
- The unit is not designed to be used with rotary/pulse dialling services.

During a power failure

The unit will not work during a power failure. We recommend connecting a corded-type telephone (without AC adaptor) to the same telephone line or to the same telephone line socket using a telephone double adaptor.

Note for battery installation

- Use the supplied rechargeable batteries. For replacement, we recommend using the Panasonic rechargeable batteries noted on page 4, 6.

Note for battery charging

- It is normal for the handset to feel warm during charging.
- Clean the charge contacts of the handset, base unit, and charger with a soft and dry cloth once a month. Before cleaning the unit, disconnect from power outlets and any telephone line cords. Clean more often if the unit is exposed to grease, dust, or high humidity.

Battery level

Icon	Battery level
	High
	Medium
	Low
	Needs charging.

Panasonic Ni-MH battery performance (supplied batteries)

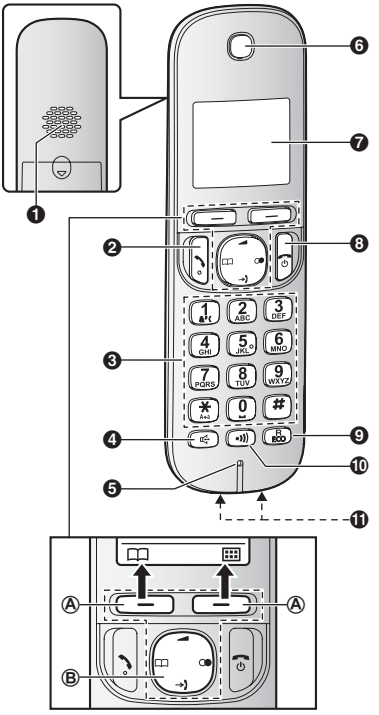
Operation	Operating time
In continuous use	16 hours max.
Not in use (standby)	200 hours max.

Note:

- Actual battery performance depends on usage and ambient environment.

Controls

Handset



1. **Speaker**
2. **【 】(Talk)**
3. **Dial keypad**
4. **【 】(Speakerphone)**
5. **Microphone**
6. **Receiver**
7. **Display**
8. **【 】(Off/Power)**
9. **【R/ECO】**
   R: Recall/Flash
   ECO: Eco mode shortcut key
10. **【 】(Intercom)**
    - This feature is not available for single handset models.
11. **Charge contacts**

■ **Control type**

Ⓐ **Soft keys**

By pressing a soft key, you can select the feature shown directly above it on the display.

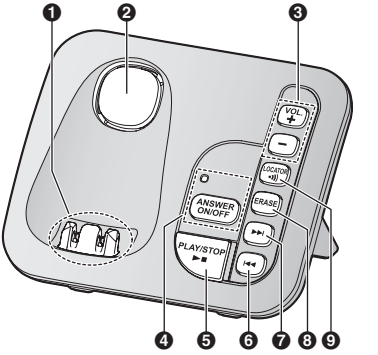
Ⓑ **Navigator key**

Navigator keys functions as follows.

Symbol	Meaning	
【 】	【▲】	Up
【 】	【▼】	Down
【 】	【◄】	Left
【 】	【►】	Right

– 【▲】, 【▼】, 【◄】, or 【►】: Scroll through various lists and items.
– 【▲】 or 【▼】 ( ): Adjust the receiver or speaker volume while talking.
– 【 】(Caller list): View the caller list.
– 【 】(Phonebook): View the phonebook entry.
– 【 】(Redial): View the redial list.

Base unit



1. **Charge contacts**
2. **Speaker**
3. **【+】/【−】(VOL.: Volume up/down)**

❹ 【ANSWER ON/OFF】
ANSWER ON/OFF indicator
❺ 【►■】 **(PLAY/STOP)**
Message indicator
❻ 【I◄◄】 **(Repeat)**
❼ 【►►I】 **(Skip)**
❽ 【ERASE】
❾ 【•))】 **(LOCATOR)**
- You can locate a misplaced handset by pressing 【•))】.

Display icons

Handset display items

Item	Meaning
	Range status: The more bars visible, the closer the handset is to the base unit.
	Out of base unit range
	Paging, intercom mode*1
	Speakerphone is on. (page 15)
	The line is in use. ● When flashing slowly: The call is put on hold. ● When flashing rapidly: An incoming call is now being received.
	Missed call*2 (page 27)
ECO	The base unit transmission power is set to "Low". (page 13)
	The LCD backlight is off. (page 22)
	● When displayed next to the battery icon: Answering system is on. (page 29) ● When displayed with a number: New messages have been recorded. (page 30)

Item	Meaning
	"Greeting Only" is selected as the caller's recording time. In this case, the answering system answers calls with a greeting message and caller messages are not recorded. (page 33)
	Battery level
	Alarm is on. (page 23)
	Privacy mode is on.*1 (page 22)
	Ringer volume is off. (page 21)
	Nuisance call blocked.*2 (page 24)
	New voice mail message received.*3 (page 34)
Line in use	Someone is using the line.*1
IN USE	Answering system is being used by: – another handset*1 – the base unit.

*1 KX-TGC222/KX-TGC223
*2 Caller ID subscribers only
*3 Voice mail subscribers only

Handset soft key icons

Icon	Action
	Returns to the previous screen or outside call.
	Displays the menu.
OK	Accepts the current selection.
	Makes a call. (page 15)
	Temporarily turns off the ringer for incoming calls. (page 15)
	Places a call on hold.*1
	Opens the phonebook.
	Allows you to edit phone numbers. (page 25)

Icon	Action
	Adds new entry. (page 19)
	Displays the character entry mode for phonebook search. (page 18)
	Turns the key lock feature off. (page 17)
	Stops alarm. (page 24)
	Snooze button on the alarm. (page 24)
✓	Selects entries or handsets. (page 24)
■	Stops recording or playback.
	Stores phone numbers. (page 18)
×	Erases the selected item.
	Allows you to make an intercom call.*1
C	Erases a number/character.
	Puts the call on mute.

*1 KX-TGC222/KX-TGC223

Turning the power on/off

Press 【⏻】 for about 2 seconds.

Language setting

Display language

1 【▦】#1 1 0
2 【▲▼】: Select your desired language. → 【OK】
3 【⏻】

Date and time

1 【▦】#1 0 1
2 Enter the current date, month, and year. → 【OK】
Example: 15 July, 2014
1 5 0 7 1 4
3 Enter the current hour and minute.
Example: 9:30
0 9 3 0
- You can select 24-hour or 12-hour clock format (“AM” or “PM”) by pressing ✱.

4 【OK】 → 【⏻】

Recording your greeting message

You can record your own greeting message instead of using a pre-recorded greeting message. See page 29 for details.

1 【▦】#3 0 2
2 【▲▼】: “Yes” → 【OK】
3 Record a greeting message. → 【■】 → 【⏻】

Other settings

One touch eco mode

The 【R/ECO】 button on the handset enables you to activate the eco function with one touch.
By activating eco mode, your unit can reduce the base unit transmission power by up to 90 % in standby mode.
You can turn on/off one touch eco mode by just pressing 【R/ECO】. The default setting is “Normal”.

– When the one touch eco mode is on: “Low” is temporarily displayed and ECO is shown on the handset display instead of .
– When the one touch eco mode is off: “Normal” is temporarily displayed and ECO goes off from the handset display.

Note:

- When there is another cordless phone nearby and it is in use, the base unit transmission power may not be reduced. (KX-TGC222/KX-TGC223)
- Activating one touch eco mode reduces the range of the base unit in standby mode.
- If you set the repeater mode to **"On"** (page 26):
  - One touch eco mode is cancelled.
  - **"Eco Setup"** is not shown in the display menu (page 22).

Making calls

1 Lift the handset and dial the phone number.
- To correct a digit, press 【C】.

2 【 】

3 When you finish talking, press 【 】 or place the handset on the base unit or charger.

Using the speakerphone

1 Dial the phone number and press 【 】.

2 When you finish talking, press 【 】.

Note:

- To switch back to the receiver, press 【 】/【 】.

Adjusting the receiver or speaker volume

Press 【▲】 or 【▼】 repeatedly while talking.

Making a call using the redial list

The last 10 phone numbers dialled are stored in the redial list (each 24 digits max.).

1 【 】

2 【 】: Select the desired phone number.

3 【 】

Erasing a number in the redial list

1 【 】

2 【 】: Select the desired phone number. → 【 】

3 【 】: “Yes” → 【OK】 → 【 】

Pause (for PBX/long distance service users)

A pause is sometimes required when making calls using a PBX or long distance service. When storing a calling card access number and/or PIN in the phonebook, a pause is also needed (page 19).

Example: If you need to dial the line access number “0” when making outside calls with a PBX:

1 0 → 【▲】 (Pause)

2 Dial the phone number. → 【 】

Note:

- A 3 second pause is inserted each time 【▲】 (Pause) is pressed.

Answering calls

1 Lift the handset and press 【 】 or 【 】 when the unit rings.

2 When you finish talking, press 【 】 or place the handset on the base unit or charger.

Any key answer: You can answer the call by pressing any dial key.
Auto talk: You can answer calls simply by lifting the handset (page 22).
Temporary handset ringer off: You can turn the ringer off temporarily by pressing 【 】.

Adjusting the ringer volume

Handset

Press 【▲】 or 【▼】 repeatedly to select the desired volume while ringing.

Base unit

Press 【+】 or 【−】 repeatedly to select the desired volume while ringing.

- To turn the ringer off, press and hold 【−】 until the unit beeps.

Useful features during a call

Hold

1 Press 【 】 during an outside call.

2 【 】: “Hold” → 【OK】

3 To release hold, press 【 】.

Note:

- After holding for 10 minutes, the call is disconnected.

Mute

1 Press **[⊠]** during a call.

2 To return to the call, press **[⊠]**.

Recall/flash

[R/ECO] allows you to use the special features of your host PBX such as transferring an extension call, or accessing optional telephone services.

Note:

- To change the recall/flash time, see page 22.

Call share

Available for:
KX-TGC222/KX-TGC223

You can join an existing outside call.
To join the conversation, press **[📞]** when the other handset is on an outside call.

Note:

- To prevent other users from joining your conversations with outside callers, turn the privacy mode on (page 22).

Transferring calls, conference calls

Available for:
KX-TGC222/KX-TGC223

Outside calls can be transferred or a conference call with an outside party can be made between 2 handsets.

1 During an outside call, press **[•))]**.
KX-TGC223:
[▲▼]: Select the desired unit. → **[OK]**

2 Wait for the paged party to answer.
- If the paged party does not answer, press **[↩]** to return to the outside call.

3 **To complete the transfer:**
Press **[⏻]**.
To establish a conference call:
[⌨] → **[▲▼]**: **"Conference"** → **[OK]**
- To leave the conference, press **[⏻]**. The other 2 parties can continue the conversation.
- To put the outside call on hold: **[⌨]** → **[▲▼]**: **"Hold"** → **[OK]**
To resume the conference: **[⌨]** → **[▲▼]**: **"Conference"** → **[OK]**
- To cancel the conference: **[⌨]** → **[▲▼]**: **"Stop Conference"** → **[OK]**
You can continue the conversation with the outside caller.

Intercom

Available for:
KX-TGC222/KX-TGC223

Intercom calls can be made between handsets.

Note:

- When paging the handset, the paged handset beeps for 1 minute.
- If you receive an outside call while talking on the intercom, you hear 2 tones. To answer the call, press **[⏻]**, then press **[📞]**.

Making an intercom call

1 **[•))]**
KX-TGC223:
[▲▼]: Select the desired unit. → **[OK]**

2 When you finish talking, press **[⏻]**.

Answering an intercom call

1 Press **[•))]** or **[📞]** to answer the page.

2 When you finish talking, press **[⏻]**.

Key lock

The handset can be locked so that no calls or settings can be made. Incoming calls can be answered, but all other functions are disabled while key lock is on.

To turn key lock on, press 【▦】 for about 3 seconds.

- To turn key lock off, press 【↩○】 for about 3 seconds.

Note:

- Calls to emergency numbers cannot be made until key lock is turned off.

Phonebook

You can add 50 names (16 characters max.) and phone numbers (24 digits max.) to the phonebook.

Important:

- All entries can be shared by any registered handset.

Adding phonebook entries

1 【📖】→【▦】
2 【▲▼】: “**New Entry**” →【OK】
3 Enter the party’s name. →【OK】
- You can change the character entry mode by pressing【R/ECO】(page 34).

4 Enter the party’s phone number. →【OK】2 times →【☎】

Storing a redial list number to the phonebook

1 【●】
2 【▲▼】: Select the desired phone number. →【↩】
3 To store the name, continue from step 3, “Editing entries”, page 18.

Storing caller information to the phonebook

1 【→】
2 【▲▼】: Select the desired entry. →【▦】
3 【▲▼】: “**Save CID**” →【OK】
4 【▲▼】: “**Phonebook**” →【OK】
5 To store the name, continue from step 3, “Editing entries”, page 18.

Finding and calling from a phonebook entry

1 【📖】
2 **To scroll through all entries**
【▲▼】: Select the desired entry.
To search by first character
① Press the dial key (0 to 9, or #) which contains the character you are searching for (page 34).
② 【▲▼】: Scroll through the phonebook if necessary.

3 【☎】

Note:

- In step 1, change the character entry mode if necessary:
【🔍】→【▲▼】: Select the character entry mode. →【OK】

Editing entries

1 Find the desired entry (page 18). →【▦】
2 【▲▼】: “**Edit**” →【OK】
3 Edit the name if necessary. →【OK】
4 Edit the phone number if necessary. →【OK】2 times →【☎】

Erasing entries

Erasing an entry

1 Find the desired entry (page 18). →【▦】
2 【▲▼】: “**Erase**” →【OK】
3 【▲▼】: “**Yes**” →【OK】→【☎】

Erasing all entries

1 【📖】→【▦】
2 【▲▼】: “**Erase All**” →【OK】
3 【▲▼】: “**Yes**” →【OK】
4 【▲▼】: “**Yes**” →【OK】→【☎】

Chain dial

This feature allows you to dial phone numbers in the phonebook while you are on a call. This feature can be used, for example, to dial a calling card access number or bank account

PIN that you have stored in the phonebook, without having to dial manually.

1 During an outside call, press **[⌨]**.
2 **[▲▼]**: **"Phonebook"** → **[OK]**
3 **[▲▼]**: Select the desired entry.
4 Press **[📞]** (right soft key) to dial the number.

Note:

- When storing a calling card access number and your PIN in the phonebook as one phonebook entry, press **[▲]** (Pause) to add pauses after the number and PIN as necessary (page 15).

Speed dial

You can assign 1 phone number to each of the dial keys (1 to 6) on the handset.

Adding phone numbers to speed dial keys

■ **By entering phone numbers:**

1 Press and hold the desired speed dial key (1 to 6). → **[📖]**
2 **[▲▼]**: **"Manual"** → **[OK]**
3 Enter the party's name (16 characters max.). → **[OK]**
4 Enter the party's phone number (24 digits max.). → **[OK]** 2 times → **[⏻]**

■ **From the phonebook:**

1 Press and hold the desired speed dial key (1 to 6). → **[📖]**
2 **[▲▼]**: **"Phonebook"** → **[OK]**
3 **[▲▼]**: Select the desired entry.
4 **[OK]** → **[⏻]**

Note:

- If you edit a phonebook entry which is assigned to a speed dial key, the edited entry does not transfer to the speed dial key.

Editing an entry

1 Press and hold the desired speed dial key (1 to 6). → **[⌨]**
2 **[▲▼]**: **"Edit"** → **[OK]**
3 Edit the name if necessary. → **[OK]**
4 Edit the phone number if necessary. → **[OK]** 2 times → **[⏻]**

Erasing an entry

1 Press and hold the desired speed dial key (1 to 6). → **[⌨]**
2 **[▲▼]**: **"Erase"** → **[OK]**
3 **[▲▼]**: **"Yes"** → **[OK]** → **[⏻]**

Viewing an entry/Making a call

1 Press and hold the desired speed dial key (1 to 6).
2 To make a call, press **[📞]**.

Menu list

To access the features, there are 2 methods.

■ **Scrolling through the display menus**

1 【▤】

2 Press 【▼】, 【▲】, 【►】, or 【◄】 to select the desired main menu. → 【OK】

3 Press 【▼】 or 【▲】 to select the desired item from the next sub-menus. → 【OK】

4 Press 【▼】 or 【▲】 to select the desired setting. → 【OK】

■ **Using the direct command code**

1 【▤】 → Enter the desired code.
Example: Press 【▤】#101.

2 Select the desired setting. → 【OK】

Note:

- To exit the operation, press 【☎】.
- In the following table, < > indicates the default settings.
- In the following table, ☞ indicates the reference page number.
- Display menu order and sub-menu may vary depending on your model.

Display the menu tree and direct command code table

Main menu: 📼 **"Answer System"**

Sub-menu 1	Sub-menu 2	Settings	Code	☞
Play New Msg.	–	–	#323	30
Play All Msg.	–	–	#324	30
Erase All Msg.*1	–	–	#325	31
Greeting	Start REC*1 (Record greeting)	–	#302	29
	Play Greeting	–	#303	30
	Default*1 (Reset to pre-recorded greeting)	–	#304	30
Settings	Number of Rings*1	2-9 Rings <5 Rings> Auto	#211	32
	Recording Time*1	1 Minute <3 Minutes> Greeting Only*2	#305	33
	Remote Code*1	–	#306	31
	Call Screening	<On> Off	#310	32

Sub-menu 1	Sub-menu 2	Settings	Code	☞
Answer On*1	–	–	#327	29
Answer Off*1	–	–	#328	29

Main menu: ◴ **"Time Settings"**

Sub-menu 1	Sub-menu 2	Settings	Code	☞
Set Date/Time*1	–	–	#101	13
Memo Alarm	Alarm1-3	Once Daily Weekly <Off>	#720	23
Time Adjustment*1, *3	–	<Caller ID> Manual	#226	–

Main menu: •)) **"Intercom"*4**

Operation	Code	☞
Paging the desired unit.	#274	16

Main menu: 🔧 **"Initial Setup"**

Sub-menu 1	Sub-menu 2	Settings	Code	☞
Ringer Setup	Ringer Volume – Handset	Off-6 <6>	#160	–
	Ringer Volume – Base Unit*1	Off-6 <3>	#✱160	–
	Ringtone*5, *6 (Handset)	<Ringtone 1>	#161	–
	First Ring*1, *7	<On> Off	#173	–
Time Settings	Set Date/Time*1	–	#101	13
	Memo Alarm – Alarm1-3	Once Daily Weekly <Off>	#720	23
	Time Adjustment*1, *3	<Caller ID> Manual	#226	–
Handset Name	–	–	#104	25
Nuisance Call Block*1	Single Number	–	#217	24
	Range of Numbers	–		
	Withheld	On <Off>	#240	25

Sub-menu 1	Sub-menu 2	Settings	Code	☞
Speed Dial	–	–	#261	19
Eco Setup	Transmission Power*1	<Normal> Low	#725	13
Display Setup	Backlight	<On> Off	#276	–
	Contrast (Display contrast)	Level 1-4 <2>	#145	–
Keytones*8	–	<On> Off	#165	–
Area Code*1	–	–	#255	25
Call Restrict*1	–	–	#256	25
Auto Talk*9	–	On <Off>	#200	15
Line Setup	Recall/Flash*1, *10	900 msec. 700 msec. 600 msec. 400 msec. 300 msec. 250 msec. 200 msec. 160 msec. 110 msec. <100 msec.> 90 msec. 80 msec.	#121	16
Privacy Mode*1, *4, *11	–	On <Off>	#194	–
Base Unit PIN*1	–	<0000>	#132	26
Repeater Mode*1	–	On <Off>	#138	26
Register	Register H.set	–	#130	40
	Cancel Register*2	–	#131	40
Language	Display	<English>	#110	13

Main menu: ➔) "Caller List"

Operation	Code	☞
Viewing the caller list.	#213	27

Main menu: ♪ “Ringer Setup”

Sub-menu 1	Sub-menu 2	Settings	Code	☞
Ringer Volume	Handset	Off-6 <6>	#160	–
	Base Unit*1	Off-6 <3>	#✱160	–
Ringtone*5, *6 (Handset)	–	<Ringtone 1>	#161	–
First Ring*1, *7	–	<On> Off	#173	–

*1 If you program these settings using one of the handsets, you do not need to program the same item using another handset. (KX-TGC222/KX-TGC223)
*2 This menu is not displayed when scrolling through the display menus. It is only available in direct command code.
*3 This feature allows the unit to automatically adjust the date and time each time caller information including date and time is received.
To turn this feature on, select “Caller ID”. To turn this feature off, select “Manual”. (Caller ID subscribers only)
To use this feature, set the date and time first (page 13).
*4 KX-TGC222/KX-TGC223
*5 The ringer tone may continue to play for several seconds even if the caller has already hung up. You may either hear a dial tone or no one on the line when you answer the call.
*6 The preset melodies in this product (“Ringtone 3” - “Ringtone 15”) are used with permission of © 2012 Copyrights Vision Inc.
*7 If you do not want the unit to ring before the caller information is received, set to “Off”. (Caller ID subscribers only)
You can only remove the first ring if the unit rings 2 times or more by default, which depends on your service provider/telephone company.
*8 Turn this feature off if you prefer not to hear key tones while you are dialling or pressing any keys, including confirmation tones and error tones.
*9 If you subscribe to a Caller ID service and want to view the caller’s information after lifting up the handset to answer a call, turn off this feature.
*10 The recall/flash time depends on your telephone exchange or host PBX. Contact your PBX supplier if necessary.You can access your service provider/telephone company “call waiting” service by having the recall/flash time set at “100 msec.”, and then follow your service provider/telephone company “call waiting” instructions to operate this service.
*11 To prevent other users from joining your conversations with outside callers, turn this feature on.

Alarm

An alarm sounds at the set time for 1 minute and is repeated 5 times at 5 minute intervals (snooze function). A text memo can also be displayed for the alarm. A total of 3 separate alarm times can be programmed for each handset. You can set one of 3 different alarm options (once, daily, or weekly) for each alarm time.

Important:

- Make sure the unit’s date and time setting is correct (page 13).

1 【▦】#720

2 Select an alarm by pressing 1 to 3. → 【OK】

3 【▲▼】: Select the desired alarm option. → 【OK】

"Off" Turns alarm off. Go to step 9.
"Once" An alarm sounds once at the set time.
"Daily" An alarm sounds daily at the set time. Go to step 5.
"Weekly" Alarm sounds weekly at the set time(s).

4 Proceed with the operation according to your selection in step 3.

■ **Once:**
Enter the desired date and month. → 【OK】

■ **Weekly:**
【▲▼】: Select the desired day of the week and press 【✓】. → 【OK】

5 Set the desired time. → 【OK】

6 Enter a text memo (10 characters max.). → 【OK】

7 【▲▼】: Select the desired alarm tone. → 【OK】
- We recommend selecting a different ringer tone from the one used for outside calls.

8 【▲▼】: Select the desired snooze setting. → 【OK】

9 【OK】 → 【☎】

Note:

- Press 【✓】 to stop the alarm completely.
- When the handset is in use, the alarm will not sound until the handset is in standby mode.
- Press any dial key or 【🔊】 to stop the sound but keep the snooze function activated.
- If you want to make an outside call when the snooze function is activated, please stop the snooze function before making the call.

Nuisance call block

This feature rejects calls from unwanted callers (Caller ID subscribers only). The following items are available when storing phone numbers in the call block list (30 max.).
– **"Single Number"**: The unit can reject calls from specific phone numbers.
– **"Range of Numbers"**: The unit can reject calls that begin with a number stored in the call block list, such as a toll-free phone number prefix or certain area codes.

You can also set the unit to reject calls that do not have a phone number.
When a call is received, the unit does not ring while the caller is being identified. If the caller's phone number matches an entry in the call block list, the unit emits no sound to the caller, and disconnects the call.

Important:

- Rejected calls are logged in the caller list.

Storing unwanted callers

Storing a single phone number

Important:

- You must include the area code when storing phone numbers in the call block list.

■ **From the caller list:**

1 【→】

2 【▲▼】: Select the entry to be blocked. → 【▦】

3 【▲▼】: "Save CID" → 【OK】

4 【▲▼】: "Nuisance Call Block" → 【OK】

5 【▲▼】: "Yes" → 【OK】 → 【☎】

■ **By entering phone numbers:**

1 【▦】#217

2 【▲▼】: "Single Number" → 【OK】

3 【▦】 → 【▲▼】: "Add" → 【OK】

4 Enter the phone number (24 digits max.).
- To erase a digit, press 【C】.

5 【OK】 → 【☎】

Storing a range of numbers

1 【▦】#217
2 【▲▼】: "Range of Numbers" → 【OK】
3 【▦】 → 【▲▼】: "Add" → 【OK】
4 Enter the desired number (2-8 digits).
- To erase a digit, press 【C】.

5 【OK】 → 【☎】

Blocking incoming calls that have no phone number

You can reject calls when no phone number is provided, such as private callers.

1 【▦】#2400
2 【▲▼】: Select the desired setting. → 【OK】
3 【☎】

Viewing/editing/erasing call block numbers

1 【▦】#217
2 【▲▼】: "Single Number" or "Range of Numbers" → 【OK】
3 【▲▼】: Select the desired entry.
- To exit, press 【☎】.

4 **To edit a number:**
【📖】 → Edit the number. → 【OK】 → 【☎】
To erase a number:
【✕】 → 【▲▼】: "Yes" → 【OK】 → 【☎】

Note:

- When editing, press the desired dial key to add, 【C】 to erase.

Erasing all call block numbers

1 【▦】#217
2 【▲▼】: "Single Number" or "Range of Numbers" → 【OK】
3 【▦】 → 【▲▼】: "Erase All" → 【OK】
4 【▲▼】: "Yes" → 【OK】
5 【▲▼】: "Yes" → 【OK】 → 【☎】

Other programming

Changing the handset name

Each handset can be given a customised name (“Bob”, “Kitchen”, etc.). This is useful when you make intercom calls between handsets. You can also select whether or not the handset name is displayed in standby mode. The default setting is "No". If you select "Yes" without entering any handset name, "Handset 1" to "Handset 3" is displayed.

1 【▦】#104
2 Enter the desired name (10 characters max.).
3 【OK】
4 【▲▼】: Select the desired setting. → 【OK】
2 times → 【☎】

Storing an area code to be deleted automatically

In some situations, phone numbers stored automatically in the caller list (page 27) will include area codes. If you do not want to dial the area code when making calls from the caller list, you can store the area code which you want the unit to delete automatically.
Example: You have stored the area code“123”. If you make a call from the caller list to the phone number “123-456-7890”, the unit dials “456-7890”.

1 【▦】#255
2 Enter an area code (5 digits max.). → 【OK】 → 【☎】

Call restriction

You can restrict selected handsets from dialling certain numbers. You can assign up to 6 phone numbers to be restricted, and select which handsets are to be restricted. Storing area codes here prevents the restricted

handsets from dialling any phone number in that area code.

1 **[▦]#256**

2 Enter the base unit PIN (default: **"0000"**).
- If you forget your PIN, contact an authorised service centre.

3 Select the handsets to be restricted by pressing 1 to 3.
- All handsets registered to the base unit are displayed.
- "✓" is displayed next to the selected handset numbers.
- To cancel a selected handset, press the same dial key again. "✓" disappears.

4 **[OK]**

5 Select a memory location by pressing 1 to 6. → **[OK]**

6 Enter the phone number or area code to be restricted (8 digits max.). → **[OK]** → **[☎]**

Changing the base unit PIN

Important:

- If you change the PIN (Personal Identification Number), please make note of your new PIN. The unit will not reveal the PIN to you. If you forget your PIN, contact an authorised service centre.

1 **[▦]#1332**

2 Enter the current 4-digit base unit PIN (default: **"0000"**).

3 Enter the new 4-digit base unit PIN. → **[OK]**

4 **[▲▼]**: **"Yes"** → **[OK]** → **[☎]**

Increasing the range of the base unit

You can increase the signal range of the base unit by using a DECT repeater. Please use only the Panasonic DECT repeater noted on page 4. Contact your Panasonic dealer for details.

Important:

- Before registering the repeater to this base unit, you must turn the repeater mode on.
- Do not use more than one repeater at a time.

Setting the repeater mode

1 **[▦]#138**

2 **[▲▼]**: Select the desired setting. → **[OK]** → **[☎]**

Registering the DECT repeater (KX-A405AL) to the base unit

Note:

- Please use a repeater that has not yet been registered to another unit. If the repeater is registered to another unit, deregister it first, referring to the Installation Guide for the DECT repeater.

1 **Base unit:**
Press and hold **[•))]** for about 5 seconds.

2 **DECT repeater:**
Connect the AC adaptor, then wait until the ⓘ indicator and Y indicator light green.

3 **Base unit:**
To exit the registration mode, press **[•))]**.

Using Caller ID service

Important:

- This unit is Caller ID compatible. To use Caller ID features (such as displaying caller phone numbers), you must subscribe to a Caller ID service. Contact your service provider/telephone company for details.

Caller ID features

When an outside call is being received, the caller information is displayed.
Caller information for the last 50 callers is logged in the caller list from the most recent call to the oldest.

- If the unit cannot receive caller information, the following is displayed:
  - **"Out of Area"**: The caller dials from an area which does not provide a Caller ID service.
  - **"Private Caller"**: The caller requests not to send caller information.
- If the unit is connected to a PBX system, caller information may not be properly received. Contact your PBX supplier.

Missed calls

If a call is not answered, the unit treats it as a missed call and 📞 is displayed. This lets you know if you should view the caller list to see who called while you were away.
Even if only one missed call in the caller list is viewed (page 27), 📞 disappears from the display. When you receive another new call, 📞 is displayed again.

Note:

- Even when there are unviewed missed calls, 📞 disappears from the standby display if the following operation is performed by one of the registered handsets:
  - Being replaced on the base unit or charger.
  - Pressing **[** ☎ **]**.

Phonebook name display

When caller information is received and it matches a phone number stored in the phonebook, the stored name in the phonebook is displayed and logged in the caller list.

Call waiting and Caller ID compatible

If you subscribe to Caller ID service, your handset displays the 2nd caller's information while talking. After you hear a call waiting tone, the caller's phone number will be displayed.
You can answer the 2nd call, keeping the 1st call on hold. Follow your service provider/ telephone company instructions using **[R/ ECO]**. (Recall/flash function)

- If the phone number is stored in the phonebook with its name, the caller's name will also be displayed.
- Please contact your service provider/ telephone company for details and availability in your area.

For Caller ID Type II users

When you receive a 2nd call during a conversation, you will hear a signal tone following the call waiting tone and the **conversation will be interrupted or muted for a short period of time**. This is not a fault of the product as these events are normal.

- The tones are generated by your service provider/telephone company.

Caller list

Important:

- Make sure the unit's date and time setting is correct (page 13).

Viewing the caller list and calling back

1 **[📞]**

2 Press 【▼】 to search from the most recent call, or press 【▲】 to search from the oldest call.

3 To call back, press 【📞】.
To exit, press 【⏻】.

Note:

- If ▶ is displayed in step 2, not all of the information is shown. To see the remaining information, press 【►】. To return to the previous screen, press 【◄】.
- If the entry has already been viewed or answered, "✓" is displayed, even if it was viewed or answered using another handset.
- If you do not want to dial the area code when making calls from the caller list, you can store the area code which you want the unit to delete automatically (page 25).

Editing a caller's phone number

1 【→】

2 【▲▼】: Select the desired entry. → 【⌨】

3 【▲▼】: "Edit" → 【OK】

4 Edit the number.

5 【📞】

Erasing selected caller information

1 【→】

2 【▲▼】: Select the desired entry.

3 【✕】 → 【▲▼】: "Yes" → 【OK】 → 【⏻】

Erasing all caller information

1 【→】

2 【✕】 → 【▲▼】: "Yes" → 【OK】 → 【⏻】

Answering system

The answering system can answer and record calls for you when you are unavailable to answer the phone.
You can also set the unit to play a greeting message but not to record caller messages by selecting **"Greeting Only"** as the recording time setting (page 33).

Important:

- Make sure the unit's date and time setting is correct (page 13).

Memory capacity (including your greeting message)

The total recording capacity is about 18 minutes. A maximum of 64 messages can be recorded.

Note:

- When message memory becomes full:
  - **"Messages Full"** is shown on the handset display.
  - The ANSWER ON/OFF indicator on the base unit flashes rapidly if the answering system is turned on.
  - and the total number of new messages are not displayed on the handset even if the answering system is turned on.
  - If you use the pre-recorded greeting message, the unit automatically switches to another pre-recorded greeting message asking callers to call again later.
  - If you recorded your own greeting message, the same message is still announced to callers even though their messages are not recorded.

Turning the answering system on/off

The answering system is preset to on.

Base unit

Press **[ANSWER ON/OFF]** to turn on/off the answering system.

Handset

1 **To turn on:**
[MENU]#327
To turn off:
[MENU]#328

2 **[OFF]**

Note for base unit and handset:

- When the answering system is turned on:
  - the ANSWER ON/OFF indicator on the base unit lights up.
  - is displayed on the handset.

Greeting message

When the unit answers a call, a greeting message is played to callers.
You can use either:
– your own greeting message
– a pre-recorded greeting message

Recording your greeting message

1 **[MENU]#302**

2 **[▲▼]**: **"Yes"** → **[OK]**

3 After a beep sounds, hold the handset about 20 cm away and speak clearly into the microphone (2 minutes and 30 seconds max.).

4 Press **[■]** to stop recording. → **[OFF]**

Using a pre-recorded greeting message

The unit provides 2 pre-recorded greeting messages:
– If you erase or do not record your own greeting message, the unit plays a pre-recorded greeting asking callers to leave a message.
– If the message recording time (page 33) is set to **"Greeting Only"**, callers' messages are not recorded and the unit

plays a different pre-recorded greeting message asking callers to call again.

Resetting to a pre-recorded greeting message

If you want to use a pre-recorded greeting message once you record your own greeting message, you need to erase your own greeting message.

1 【▦】#304
2 【OK】→【☎】

Playing back the greeting message

1 【▦】#303
2 【☎】

Listening to messages

Using the base unit

When new messages have been recorded, 【►■】 on the base unit flashes.
Press 【►■】 (PLAY).

- If new messages have been recorded, the base unit plays back new messages.
- If there are no new messages, the base unit plays back all messages.

Operating the answering system during playback

Key	Operation
【+】or【−】	Adjust the speaker volume
【I◄◄】	Repeat message*1
【►►I】	Skip message
【►■】	Stop playback
【ERASE】	Erase currently playing message

*1 If pressed within the first 5 seconds of a message, the previous message is played.

Erasing all messages

Press 【ERASE】 2 times while the unit is not in use.

Using the handset

When new messages have been recorded, 📼 is displayed on the handset with the total number of new messages.

1 **To listen to new messages:**
【▦】#323
To listen to all messages:
【▦】#324
2 When finished, press 【☎】.

Note:

- To switch to the receiver, press 【📞】.

Operating the answering system

【▦】→ 📼 →【OK】

Key	Operation
【▲】or【▼】	Adjust the receiver or speaker volume (during playback)
1 or【◄】	Repeat message (during playback)*1
2 or【►】	Skip message (during playback)
3	Enter the “Settings” menu
4	Play new messages
5	Play all messages
6	Play greeting message
76	Record greeting message
8	Turn answering system on
【▦】	Pause message*2
9 or【■】	Stop recording Stop playback
0	Turn answering system off
✱4*3	Erase currently playing message

Key	Operation
✱5	Erase all messages
✱6	Reset to a pre-recorded greeting message

*1 If pressed within the first 5 seconds of a message, the previous message is played.
*2 To resume playback:
【▲▼】: “Play” → 【OK】
*3 You can also erase as follows:
【▤】 → 【▲▼】: “Erase” → 【OK】 → 【▲▼】: “Yes” → 【OK】

Calling back (Caller ID subscribers only)

1 Press 【▤】 during playback.
2 【▲▼】: “Call Back” → 【OK】

■ **Editing the number before calling back**
1 Press 【▤】 during playback.
2 【▲▼】: “Edit & Call” → 【OK】
3 Edit the number. → 【☎】

Erasing all messages

1 【▤】#325
2 【▲▼】: “Yes” → 【OK】 → 【⏻】

Remote operation

Using a touch-tone phone, you can call your phone number from outside and access the unit to listen to messages or change answering system settings. The unit’s voice guidance prompts you to press certain dial keys to perform different operations.

Remote access code

A 3-digit remote access code must be entered when operating the answering system remotely. This code prevents unauthorised parties from listening to your messages remotely.

Important:

- In order to operate the answering system remotely, you must first set a remote access code.

1 【▤】#306
2 To turn on remote operation, enter the desired 3-digit remote access code.
3 【OK】 → 【⏻】

Deactivating remote operation

Press ✱ in step 2 on “Remote access code”, page 31.

- The entered remote access code is deleted.

Using the answering system remotely

1 Dial your phone number from a touch-tone phone.
2 After the greeting message starts, enter your remote access code.
3 Follow the voice guidance prompts as necessary or control the unit using remote commands (page 31).
4 When finished, hang up.

Voice guidance

During remote operation, the unit’s voice guidance starts and prompts you to press 1 to perform a specific operation, or press 2 to listen to more available operations.

Note:

- If you do not press any dial keys within 10 seconds after a voice guidance prompt, the unit disconnects your call.

Remote commands

You can press dial keys to access certain answering system functions without waiting for the voice guidance to prompt you.

Key	Operation
1	Repeat message (during playback)*1

Key	Operation
2	Skip message (during playback)
4	Play new messages
5	Play all messages
6	Play greeting message
7	Record greeting message
9	Stop recording Stop playback
0	Turn answering system off
✱4	Erase currently playing message
✱5	Erase all messages
✱6	Reset to a pre-recorded greeting message (during greeting message playback)
✱#	End remote operation (or hang up)

*1 If pressed within the first 5 seconds of a message, the previous message is played.

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 (page 31).

Answering system settings

Call screening

While a caller is leaving a message, you can listen to the call through the handset's speaker. To adjust the speaker volume, press **[▲]** or **[▼]** repeatedly. You can answer the call by pressing **[ ]** on the handset. Call screening can be set for each handset. The default setting is **"On"**.

1. **[ ]#310**
2. **[▲▼]**: Select the desired setting. → **[OK]** → **[ ]**

Number of rings before the unit answers a call

You can change the **"Number of Rings"** before the unit answers a call. You can select 2 to 9 rings, or **"Auto"**.
The default setting is **"5 Rings"**.
"Auto": The unit's 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 phone from outside to listen to new messages (page 31), you 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.

1. **[ ]#211**
2. **[▲▼]**: Select the desired setting. → **[OK]** → **[ ]**

For service provider voice mail subscribers

To receive voice mail and use the answering system properly, please note the following:

- "Voice mail" is a service provided by your service provider/telephone company . You will need to first subscribe or activate this service through your service provider/ telephone company. Contact your service provider/telephone company on how to operate this service and how you will be notified that you have messages on your voice mail.
  To use this service, you will be required to leave your answering machine off on your unit.
  This will allow the voice mail to receive any messages.
- To use the unit's answering machine rather than the voice mail service provided by your service provider/telephone company,

please contact your service provider/ telephone company to have it removed or deactivated permanently or temporarily. Alternatively you can leave this service connected and change the **"Number of Rings"** to a shorter duration on your unit so your unit's answering machine can pick up the call prior to the voice mail provided by your service provider/telephone company.

Caller's recording time

You can change the maximum message recording time allowed for each caller. The default setting is **"3 Minutes"**.

1 **【】**#305

2 **【▲▼】**: Select the desired setting. → **【OK】** → **【】**

Selecting "Greeting Only"

You can select **"Greeting Only"** which sets the unit to announce a greeting message to callers but not record messages.
Select **"Greeting Only"** in step 2 on "Caller's recording time", page 33.

Note:

- When you select **"Greeting Only"**:
  - If you do not record your own message, the unit will play the pre-recorded greeting-only message asking callers to call again later.
  - If you use your own message, record the greeting-only message asking callers to call again later (page 29).

Voice mail service

Voice mail is an automatic answering service offered by your service provider/telephone company. After you subscribe to this service, your service provider/telephone company's voice mail system answers calls for you when you are unavailable to answer the phone or when your line is busy. Messages are recorded by your service provider/telephone company, not your telephone.

When you have new messages, ✉ is displayed on the handset if message indication service is available. Please contact your service provider/telephone company for details of this service.

Important:

- If ✉ still remains on the display even after you have listened to new messages, turn it off by pressing and holding # for 2 seconds.
- To use the voice mail service provided by your service provider/telephone company rather than the unit's answering system, turn off the answering system (page 29). For details, see page 32.

Character entry

The dial keys are used to enter characters and numbers. Each dial key has multiple characters assigned to it. The characters that can be entered depend on the character entry mode (page 34).

– Press 【◄】 or 【►】 to move the cursor left or right.
– Press dial keys to enter characters and numbers.
– Press 【C】 to erase the character or number highlighted by the cursor. Press and hold 【C】 to erase all characters or numbers.
– Press * (A→a) to switch between uppercase and lowercase.
– To enter another character located on the same dial key, press 【►】 to move the cursor to the next space, then press the appropriate dial key.
– If you do not press any dial key within 5 seconds after entering a character, the character is fixed and the cursor moves to the next space.

Character entry modes

The available character entry modes are Alphabet (ABC), Numeric (0-9), Greek (ΑΒΓ), Extended 1 (AÄÅ), Extended 2 (SŚŠ), and Cyrillic (АБВ). When in these entry modes except Numeric, you can select which character is entered by pressing a dial key repeatedly.

When the unit displays the character entry screen:
【R/ECO】 → **【▲▼】**: Select a character entry mode. → **【OK】**

Note:

- ␣ in the following tables represents a single space.

Alphabet character table (ABC)

0	1	2	3	4	5	6	7	8	9	#
␣ 0	& ' ( ) * , - . / 1	A B C 2	D E F 3	G H I 4	J K L 5	M N O 6	P Q R S 7	T U V 8	W X Y Z 9	#
		a b c 2	d e f 3	g h i 4	j k l 5	m n o 6	p q r s 7	t u v 8	w x y z 9	

Numeric entry table (0-9)

0	1	2	3	4	5	6	7	8	9	#
0	1	2	3	4	5	6	7	8	9	#

Greek character table (ΑΒΓ)

0	1	2	3	4	5	6	7	8	9	#
␣ 0	& ' ( ) * , - . / 1	A B Γ 2	Δ E Z 3	H Θ I 4	K Λ M 5	N Ξ O 6	Π P Σ 7	T Υ Φ 8	X Ψ Ω 9	#

Extended 1 character table (AÄÅ)

0	1	2	3	4	5	6	7	8	9	#
␣ 0	& ' ( ) * , - . / 1	A À Á Â Ã Ä Å Æ B C Ç 2	D E È É Ê Ë Ẽ F 3	G Ğ H I Ì Í Î Ï Ĩ Ĭ 4	J K L 5	M N Ñ O Ò Ó Ô Õ Ö ø 6	P Q R S Ș ß 7	T U Ù Ú Û Ü Ũ V 8	W Ŵ X Y ŷ Z 9	#
		a à á â ã ä å æ b c ç 2	d e è é ê ë ẽ f 3	g ğ h i ì í î ï ĩ ı ĭ 4	j k l 5	m n ñ o ò ó ô õ ö ø 6	p q r s ș ß 7	t u ù ú û ü ũ v 8	w Ŵ x y ŷ z 9	

- The following are used for both uppercase and lowercase: ø Ŵ ŷ

Extended 2 character table (SŚŠ)

0	1	2	3	4	5	6	7	8	9	#
␣ 0	& ' ( ) * , - . / 1	A Á Ä Ą B C Ć Č 2	D Ď E É Ę Ě F 3	G H I Í 4	J K L Ł Ĺ Ľ 5	M N Ń Ň O Ó Ö Ő 6	P Q R Ŕ Ř S Ś Š 7	T Ť U Ú Ü Ű ů V 8	W X Y ỳ Ý Z Ź Ž Ż 9	#
		a á ä Ą b c ć č 2	d ď e é Ę ě f 3	g h i í 4	j k l Ł Ĺ Ľ 5	m n Ń ň o ó ö ő 6	p q r Ŕ ř s Ś Š 7	t ť u ú ü ű ů v 8	w x y ỳ ý z Ź Ž Ż 9	

- The following are used for both uppercase and lowercase:

  Ą Ć Č Ę Ł Ĺ Ľ Ń Ŕ Ś Š ů ỳ Ź Ż Ž

Cyrillic character table (АБВ)

0	1	2	3	4	5	6	7	8	9	#
␣ 0 Ґ Є І Ї ў	& ’ ( ) ✱ , - . / 1	А Б В Г 2	Д Е Ж З 3	И Й К Л 4	М Н О П 5	Р С Т У 6	Ф Х Ц Ч 7	Ш Щ Ъ Ы 8	Ь Э Ю Я 9	#

Error messages

Display message	Cause/solution
Base no power or **No link. Reconnect AC adaptor.**	● The handset has lost communication with the base unit. Move closer to the base unit and try again. ● Unplug the base unit’s AC adaptor to reset the unit. Reconnect the adaptor and try again. ● The handset’s registration may have been cancelled. Re-register the handset (page 40).
Check Phone Line	● The supplied telephone line cord has not been connected yet or not connected properly. Check the connections (page 9).
Error	● Recording was too short. Try again.
Memory Full	● The phonebook memory is full. Erase unwanted entries (page 18). ● The call block list memory is full. Erase unwanted entries (page 25).
Use rechargeable battery.	● A wrong type of battery such as Alkaline or Manganese was inserted. Use only the rechargeable Ni-MH batteries noted on page 4, 6.
You must first subscribe to Caller ID.	● You must subscribe to a Caller ID service. Once you receive caller information after subscribing to a Caller ID service, this message will not be displayed.

Troubleshooting

If you still have difficulties after following the instructions in this section, disconnect the base unit’s AC adaptor and turn off the handset, then reconnect the base unit’s AC adaptor and turn on the handset.

General use

Problem	Cause/solution
The handset does not turn on even after installing charged batteries.	● Place the handset on the base unit or charger to turn on the handset.
The unit does not work.	● Make sure the batteries are installed correctly (page 9). ● Fully charge the batteries (page 10). ● Check the connections (page 9). ● Unplug the base unit's AC adaptor to reset the unit and turn off the handset. Reconnect the adaptor, turn on the handset and try again. ● The handset has not been registered to the base unit. Register the handset (page 40).
The handset display is blank.	● The handset is not turned on. Turn the power on (page 13).
I cannot hear a dial tone.	● Make sure that you are using the supplied telephone line cord. Your old telephone line cord may have a different wiring configuration. ● The base unit's AC adaptor or telephone line cord is not connected. Check the connections. ● Disconnect the base unit from the telephone line and connect the line to a known working telephone. If the working telephone operates properly, contact our service personnel to have the unit repaired. If the working telephone does not operate properly, contact your service provider/telephone company.
I cannot use the intercom feature.	● This feature is available between the handsets. Although the handset displays **"Intercom"**, this feature is not available for single handset models.

Menu list

Problem	Cause/solution
The display is in a language I cannot read.	● Change the display language (page 13).
I cannot activate the eco mode.	● You cannot set eco mode when you set the repeater mode **"On"**. If required, set the repeater mode to **"Off"** (page 26).
I cannot register a handset to a base unit.	● You entered the wrong PIN. If you forget your PIN, contact an authorised service centre.

Battery recharge

Problem	Cause/solution
The handset beeps and/or flashes.	● Battery charge is low. Fully charge the batteries (page 10).

Problem	Cause/solution
I fully charged the batteries, but – [battery] still flashes or – the operating time seems to be shorter.	• Clean the battery ends (⊕, ⊖) and the charge contacts with a dry cloth and charge again. • It is time to replace the batteries (page 9).

Making/answering calls, intercom

Problem	Cause/solution
[no signal] is displayed.	• The handset is too far from the base unit. Move closer. • The base unit's AC adaptor is not properly connected. Reconnect AC adaptor to the base unit. • The handset is not registered to the base unit. Register it (page 40). • Activating one touch eco mode reduces the range of the base unit in standby mode. If required, turn eco mode off (page 13).
Noise is heard, sound cuts in and out.	• You are using the handset or base unit in an area with high electrical interference. Re-position the base unit and use the handset away from sources of interference. • Move closer to the base unit. • If you use a DSL/ADSL service, we recommend connecting a filter (contact your DSL/ADSL service provider) to the telephone line between the base unit and the telephone line socket. Contact your DSL/ADSL provider for details.
The handset does not ring.	• The ringer volume is turned off. Adjust ringer volume (page 15, 21).
The base unit does not ring.	• The ringer volume is turned off. Adjust ringer volume (page 21).
I cannot make a call.	• You dialled a call restricted number (page 25). • The key lock feature is turned on. Turn it off (page 17). • The unit is not designed to be used with rotary/pulse dialling services.

Caller ID

Problem	Cause/solution
Caller information is not displayed.	• You must subscribe to a Caller ID service. Contact your service provider/telephone company for details. • If your unit is connected to any additional telephone equipment, remove and plug the unit directly into the wall socket. • If you use a DSL/ADSL service, we recommend connecting a filter (contact your DSL/ADSL service provider) to the telephone line between the base unit and the telephone line socket. Contact your DSL/ADSL provider for details. • Other telephone equipment may be interfering with this unit. Disconnect the other equipment and try again.

Problem	Cause/solution
Caller information is slow to display.	● Depending on your service provider/telephone company, the unit may display the caller's information at the 2nd ring or later. Set the first ring to **"Off"** (page 21). ● Move closer to the base unit.
Time on the unit has shifted.	● Incorrect time information from incoming Caller ID changes the time. Set the time adjustment to **"Manual"** (off) (page 21).
The name stored in the phonebook is not fully displayed while an outside call is being received.	● Edit the phonebook entry name to fit in 1 line of text (page 18).

Answering system

Problem	Cause/solution
The unit does not record new messages.	● The answering system is turned off. Turn it on (page 29). ● The message memory is full. Erase unwanted messages (page 30). ● The recording time is set to **"Greeting Only"**. Change the setting (page 33). ● Your service provider/telephone company's voice mail service may be answering your calls before the unit's answering system can answer your calls. Change the unit's number of rings setting (page 32) to a lower value, or contact your service provider/telephone company.
I cannot operate the answering system remotely.	● The remote access code is not set. Set the remote access code (page 31). ● You are entering the wrong remote access code. If you have forgotten your remote access code, enter the remote access code setting to check your current code (page 31). ● The answering system is turned off. Turn it on (page 32).
The unit does not emit the specified number of rings.	● If the first ring is turned off, the number of rings decreases by 1 from the specified number of rings.

Liquid damage

Problem	Cause/solution
Liquid or other form of moisture has entered the handset/base unit.	● Disconnect the AC adaptor and telephone line cord from the base unit. Remove the batteries from the handset and leave to dry for at least 3 days. After the handset/base unit are completely dry, reconnect the AC adaptor and telephone line cord. Insert the batteries and charge fully before use. If the unit does not work properly, contact an authorised service centre.

Caution:

● To avoid permanent damage, do not use a microwave oven to speed up the drying process.

Registering a handset to the base unit

1 **Handset:**
【▦】#130

2 **Base unit:**
Press and hold 【•))】 for about 5 seconds.
- If all registered handsets start ringing, press 【•))】 again to stop, then repeat this step. (KX-TGC222/KX-TGC223)

3 **Handset:**
【OK】 → Wait until "Base PIN" is displayed. → Enter the base unit PIN (default: "0000"). → 【OK】
- If you forget your PIN, contact an authorised service centre.

Deregistering a handset

1 【▦】#131
- All handsets registered to the base unit are displayed.

2 【▲▼】: Select the handset you want to cancel. → 【OK】

3 【▲▼】: "Yes" → 【OK】 → 【☎】

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

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

Attach your purchase receipt here.

Customer Care Centre Tel. No.: 132600
or website www.panasonic.com.au

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