

# Panasonic

Model No:

# KX-TCD650BX

Digital Cordless Phone

## Operating Instructions & Quick Guide

Centre Page Pullout

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**Caller ID compatible**

Please read before use and save

Charge the batteries for approx. 15 hours before initial use

## General Safety

- Only use the power supply included with the product.
- Do not connect the AC Adaptor to any AC outlet other than the standard AC230V.
- The apparatus is approved for use with PQLV19CE power supply.
- This apparatus is unable to make emergency telephone calls under the following conditions:
  - The portable handset batteries need recharging, or have failed.
  - During a mains power failure.
  - When the Key Lock is set to ON.
  - When the unit is in Direct Call mode.
- Do not open the base unit or handset (other than to change the batteries).
- This apparatus should not be used near emergency/intensive care medical equipment and should not be used by people with pacemakers.
- Care should be taken that objects do not fall onto, and liquids are not spilled into the unit. Do not subject this unit to excessive smoke, dust, mechanical vibration or shock.

### Environment

- Do not use this unit near water.
- This unit should be kept away from heat sources such as radiators, cookers, etc. It should also not be placed in rooms where the temperature is less than 5°C or greater than 40°C.
- The AC Adaptor is used as the main disconnect device, ensure that the AC outlet is located / installed near the unit and is accessible.

#### WARNING:

**TO PREVENT THE RISK OF ELECTRICAL SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY OTHER TYPE OF MOISTURE.**

## Battery Caution

- Use only specified batteries.
- **Only use rechargeable batteries.**
- Do not mix old and new batteries.
- Do not dispose of batteries in a fire, they may explode. Check local waste management codes for special disposal instructions.
- Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause burns or injury to the eyes or skin. The electrolyte may be toxic if swallowed.
- Exercise care in handling the batteries in order not to short the batteries with conductive materials such as rings, bracelets and keys. The batteries and/or conductor may overheat and cause burns.
- Charge the batteries provided in accordance with the information given in this operating guide.

## Setting Up

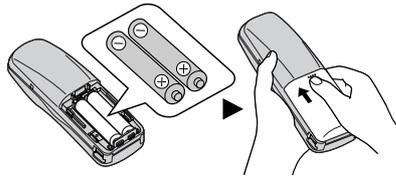
### Accessories (Included)

- AC Adaptor 1
- Telephone Line 1 Cord
- Batteries 2 (AA Size)
- Battery Cover 1
- Operating Instructions 1



Additional accessories are available for purchase. Contact your Panasonic Service Centre for further details.

### Insert the Batteries



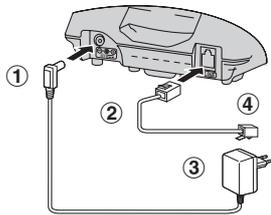
- Please ensure the batteries are inserted as shown.

### Connection

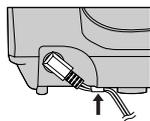
- Plug in the AC adaptor and the telephone line cord in order ①, ②, ③.

#### WARNING:

**DO NOT CONNECT THE TELEPHONE LINE CORD TO THE PHONE SOCKET ④ UNTIL THE HANDSET IS FULLY CHARGED.**



- Fasten the AC adaptor cord to prevent it from being disconnected.



Hook

- The AC Adaptor must remain connected at all times. (It is normal for the adaptor to feel warm during use).

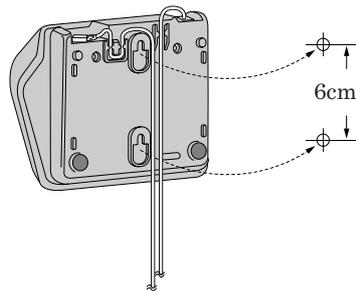
### Location

- For maximum distance noise-free operation, place your base unit:
  - Away from electrical appliances such as TV, radio, personal computer or another phone.
  - In a convenient high and central location.

### Wall Mounting

This unit can be mounted on a wall.

- Insert screws into wall. The centres of the screw holes should be 6cm vertically apart.
- Connect the AC adaptor and the telephone line cord.
- Arrange the wires as shown, then mount the unit.



### Notice

- Some features described in these operating instructions/Quick Guide are dependent upon subscription to your Network provider (e.g Caller ID). All features of this type will be marked throughout the manual with this icon. 
- Please note throughout this operating instructions/Quick Guide that the word "PRESS" is depicted by this symbol .

**Setting Up**

## Battery Charging

### (Before Initial Use)

- **! The batteries must be charged for approximately 15 hours before initial use.**
- After the batteries have been inserted into the handset, place the handset in the powered up base unit.
- **(The telephone line cord must not be connected to the telephone socket at this time. Please leave your standard telephone connected until battery charging is complete).**
- The batteries are fully charged only when  is flashing.

### (After Initial Use)

- When the battery icon flashes (and, if programmed, battery low alarm sounds), the handset should be charged immediately because there is little energy left in the batteries.

## Battery Life

- Battery life is dependent on use and conditions but in general when using fully charged Ni-MH batteries:  
Talk time: 20hrs approx.  
Standby time: 200hrs approx.  
When using Ni-Cd batteries (based on 800mA per hour)  
Talk time: 12hrs approx.  
Standby time: 100hrs approx.  
(Times indicated are for peak performance)  
The batteries reach peak performance after several full charges.
- The batteries cannot be overcharged unless they are repeatedly removed and replaced.
- If battery life is shortened then please check that battery and charge terminals are clean.
- For maximum battery life it is recommended that the handset is not recharged until battery icon flashes (.

## Replacing the batteries

- If the  icon flashes after a few telephone calls even when the handset batteries have been fully charged, the batteries must be replaced.
- **! Charge new batteries for approximately 15 hours before initial use.**
- **(The telephone line cord must not be connected to the telephone socket at this time).**
- If the batteries are removed, the battery icon is reset to  (less than 30% capacity). In this case, even if fully charged batteries are fitted, the icon remains as  until a full charge cycle is complete.
- On replacing the batteries, ensure that the correct battery type is selected (see 'Handset Settings').

## Turning the Power ON/OFF

### Turn Power ON

-  and hold .
- When button is released, display changes to the standby mode and a confirmation tone sounds.

### Turn Power OFF

- From the standby mode,  and hold  until a long tone sounds. The display goes blank. If you put the handset in the base unit, the battery icon will display.

## Answering Calls

- **When the phone rings,** , -, ,  or .
- When an external call is incoming, you can temporarily turn off the handset ringer.
- During an incoming call,  and hold  is displayed and the handset ringing stops. (This function will not work when the handset is on the base unit or if an internal call is incoming.)

## Making Calls

- .
- **Dial the number.**  
After a few seconds, the call duration is displayed. The dialled number is stored in the redial memory.
- **When you are finished with the call,** .
  - Alternatively, dial the number, then . This procedure allows you to edit / confirm the number before dialling.
  - If you misdial, .
  - If flashes and an alarm tone sounds when you press , move closer to the base unit and try your call again.

### Setting the Receiver Volume

- **During a phone call,** / **to change the volume setting to LOW (o), MEDIUM (oo) or HIGH (ooo).**

### Handset Locator / Paging

Using this feature you can locate a misplaced handset by paging.

- **on the base unit.**  
All handsets ring for 1 minute.
- **again or** **on (one of) the handset(s) to stop ringing.**

## Redialling

### Redialling the Last Number Dialed

- .
- .  
The last number dialled displays and is dialled.

### Making a Call from the Redial List

The last 10 numbers dialled are stored.

- **From the standby mode** .
- / **to select number.**  
(To exit the redial list, ).
- .

## Caller ID Service

**Caller ID is a service of your Network provider and will only operate if you have subscribed to this feature.**

After subscribing to Caller ID, this phone will display the callers information.



If your unit is connected to a PBX or a telephone line that does not support this service you will not be able to use it. Caller ID does not display caller information while using the handset for an intercom call. However, the caller's information will be stored to the Caller ID List.

### Making a Call from the Caller ID List

The last 50 caller's phone numbers are stored in the order the calls were received.

- **From the standby mode** / .  
The newest number is displayed.
  - If there are no numbers stored in the Caller ID list **NO CALL** is displayed.
- / **to select number.**
  - **to scroll to previous calls and** **to the most recent calls.**
  - Only the most recent call from the same phone number is stored.
  - Only 12 digits of a phone number are displayed. To display the remaining digits of longer phone numbers, **3** .
- **On selection** .

### Making a Call from the Caller ID List (cont.)

After you have viewed a phone number, answered the call or called back the caller, "o" is added to the caller's number.

After viewing all new caller ID numbers, the call counter is reset to zero.

To exit the Caller ID list .

### Caller ID List Menu / Redial List Menu

You can save numbers from the redial list/Caller ID list into speed dial, edit or clear from memory.

- From the standby mode (to access Redial list) or / (to access Caller ID list).
  - / to select number from list.
  - .
- SAVE SPEED* is displayed.
- / to select a menu item then follow the instructions below.

*SAVE SPEED*

#### (Save a Number in the List as a Speed Dial):

- .
- is displayed.
- .

*Edit CALL NO*

#### (Edit a Number in the List):

- .
- / to move the edit point. Digits are added or deleted to the left of the flashing digit.

- To add digits .
  - To clear digits .
  - Either to dial or to save the number, .
- SAVE SPEED* is displayed.
- .
  - to save.

*CLEAR*

#### (Clear a Number in the List):

- .
- / to select *YES* (YES).
- .

*CLEAREd* is displayed, a confirmation tone sounds and the next number is displayed. If you clear the last number, *NO tEN* is displayed.

*ALL CLEAR*

#### (Clear all Numbers in the List):

- .
- / to select *YES* (YES).
- .

A confirmation tone sounds and *CLEAREd*, then *NO tEN* is displayed.

To exit the menu at any time,

.

## Speed Dialling

You can store up to 20 telephone numbers in the handset.

### Storing New Numbers

- From the standby mode . *NEW SPEED* is displayed.
- .
- and an index number *00 - 19* is displayed.
- \*Enter a phone number (max 24 digits).
- .
- *SAVE* is displayed. To enter another number repeat from \*.
- If speed dial memory is full *MEMORY FULL* is displayed.

### Dialling Stored Numbers

- .
- / to select number.
- OR
- *00 - 19* to select index number directly.
- .
- If you press (C), or no digits are entered for over 1 minute, speed dial is cancelled.

### Saving Numbers to Speed Dial from Other Lists

Please reference "Caller ID List Menu/Redial List Menu".

## Speed Dial List Menu

You can edit or clear a speed dial number from memory or assign a hot key to any speed dial number.

- From the standby mode .
- / to select number from list.

- .

*Edit* is displayed.

- / to select a menu item then follow the instructions that follow:

*Edit*

### (Edit the Speed Dial Number):

- .
- / to move the edit point. Digits are added or deleted to the left of the flashing digit.
- To add digits - (C).
- To clear digits .
- to save.

*CLEAR*

### (Clear a Speed Dial Number):

- .
- / to select *YES (YES)*.
- .

*CLEAR* is displayed, a confirmation tone sounds and the next number is displayed. If you clear the last number, *NO ITEM* is displayed.

*HOT KEY REG*

### (Register a Speed Dial Number as a Hot Key

*1 - cancel icon (C)*):

- .
- / to select a key from 1-9.

If a key has already been assigned as a hot key, it will flash in the display.

- .
- / to select *YES (YES)*.
- .

The speed dial number is displayed and a confirmation tone sounds.

To exit the menu at any time,

(C).

## Hot Key

### Dialling a Hot Key Number

You can assign the dialling buttons **1** - **9** as hot keys. You can choose 9 phone numbers from the speed dial list (See "Register a Speed Dial Number as a Hot Key").

-  and hold a key **1** - **9**.  
The number stored with that key is displayed.  
  /  to view other numbers stored.

-   to dial.

### Clearing Caller Information from a Hot Key

-  and hold a key **1** - **9**.  
The number stored with that key is displayed.
-  . **CLEAR** is displayed.
-  .
-   /  to select **YES** (YES).
-  .

## Key Lock

You can lock the handset dialling buttons. Only incoming calls are accepted while the key lock is ON.

### Turn Key Lock ON

-  and hold  until a beep sounds.
- '🔒' is displayed and all dialling buttons are locked.

**! When the key lock is ON, emergency calls cannot be made until key lock is cancelled.**

### Turn Key Lock OFF

-  and hold  until a beep sounds.
- '🔒' disappears and key lock is cancelled.
- The key lock is also cancelled if the handset is turned off.

## Recall Feature

-  is used to access special telephone services. Contact your Network provider for details.
- If your unit is connected to a PBX, pressing  allows you to access some features of your host PBX such as transferring an extension call.

## Temporary Tone Dialling

**! This function is for Rotary or Pulse service users.**

-   before entering access numbers which require tone dialling.
- The dialling mode is switched to tone. You can enter numbers for dialling which require tone dialling eg. electronic banking service.
- When you hang up, the mode will return to pulse.

## Dialling Pause

**! This function is for PBX line/long distance service users.**

- A dialling pause is used when a pause in the dialling of the phone number is necessary using a PBX or accessing a long distance service. (see "Select Pause Timing").
- For example, when 9 (line access number) is dialled followed by a pause to access an outside line through a PBX:
  -  .
  -  . ('P' is displayed on the LCD).
- **Enter telephone number.**
- .
- Entering a pause prevents misdialling when you redial or dial a stored number.
- Pressing  once creates one pause. To extend the pause requirement time,   accordingly.

## Handset Settings

You can change the handset settings using a handset near the base unit.

Before proceeding with any of the main menu items listed in this chapter, the following procedure must initially be carried out:

- 1 From the Standby mode, .
- 2 / to select **SEt t ING HS** (Setting Handset).
- 3 .
- 4 / to select main menu items from below (see menus in shaded text boxes):
  - To exit the menu at any time, .
  - or to return to previous step during programming.

### LINE ALARM

#### (Alarm Settings):\*

- .
- / .

SEE t ING

#### (Set Time of Alarm):\*

- .
- - to enter time (4 digits) - 24 hour clock. Digits are entered over the flashing digit.
- To clear .
- to save.
- / to select **ONCE** (Once), **REPEAT DAILY** (Repeat Daily) or **OFF** (Off).
- .

SEE ALARM

#### (Set Alarm):

- .
- / to select **ONCE** (Once), **REPEAT DAILY** (Repeat Daily) or **OFF** (Off).
- .

#### To Stop Alarm

- When the alarm sounds, , - , or .
- Alarm stops and display returns to the standby mode. If **ONCE** is selected, the setting is turned off.
- When in talk or intercom mode the alarm will not sound until the call is ended.

\* For this feature to work you must first set the Clock (see "Base Unit Settings").

### RINGER OPT

#### (Ringer Settings):

- .
- / .

RINGER VOL

#### (Select the Handset Ringer Volume):

- .
- / to select Ringer Volume. The choices are 6 levels or OFF.
- .

EXT RINGER

#### (Select Ringer Pattern for External Incoming call)\*\*

To program see \*\* below.

INT RINGER

#### (Select Ringer Pattern for Internal call)\*\*

To program see \*\* below.

PAGING

#### (Select Ringer Pattern for Paging tone)\*\*

To program see \*\* below.

ALARM

#### (Select Ringer Pattern for Alarm tone):\*\*

\*\* There are 20 patterns available for each ringer option.

- .
- / to select ringer pattern.
- .

Before programming, please follow steps 1 to 4 of 'Handset Settings'.

**tONE OPt**

**(Tone Settings):**

- 
- /

hEy tONE

**(Set Key Confirmation Tone ON/OFF)\*\*\***

To program see \*\*\* below.

CALL WAItING

**(Set Call Waiting Tone ON/OFF)\*\*\***

To program see \*\*\* below.  
Call waiting tone sounds when an incoming external call is received during an intercom call.

RANGE ALARn

**(Set Range Alarm ON/OFF)\*\*\***

To program see \*\*\* below.  
Alarm will sound when you move out of range of a base unit.

bAtteRy LOw

**(Set Battery Low Tone ON/OFF)\*\*\***

\*\*\* Program as follows:

- 
- / to select ON/OFF.
- 

dISPLAy OPt

**(Display Options):**

- 
- /

StANdbY nOdE

**(Select Standby Mode Display):**

- 
- / to select from *bS nD* (Base Unit number), *HS nD* (Handset number), *CLOCk* (Clock) or *OFF* (Off).
- 

! Time will only be displayed if the clock has been set (see "Base Unit Settings").

tALh nOdE

**(Select Talk Mode Display):**

- 
- / to select from *tALh* (Length of Call) or *PHONE nD* (Phone Number).
- 

CALL OPt

**(Call Options):**

- 
- /

CALL bAR

**(Set Call Prohibition ON/OFF):**

This allows you to make emergency and intercom calls only.

- 
- Enter handset PIN (4 digits).  
If the PIN is incorrect an error tone sounds.
- / to select *ON* (On) or *OFF* (Off).
- 

If *ON* is selected, is displayed.

dIRECT nD

**(Enter a Direct Call Number):**

After a Direct Call phone number has been entered and Direct Call set to ON, you can call the Direct Call number **only**, by pressing . Incoming calls are accepted.

- 
- Enter phone number.
- 
- to save the entered number.
- / to select *ON* (On) or *OFF* (Off).
- 

If *ON* is selected, is displayed.

Before programming, please follow steps 1 to 4 of 'Handset Settings'.

SEt dIRECT

**(Set Direct Call ON/OFF):**

- - / to select **ON** (On) or **OFF** (Off).
  -
- If ON is selected, is displayed.

Other Opt

**(Other Options):**

- 
- /

HSP IN CHANGE

**(Change Handset PIN):**

You can change the 4 digit password for the handset. The factory preset is 0000.

- 
- Enter current handset PIN (4 digits).
- Enter new PIN (4 digits). (The new PIN does not display).
- Re-enter the new PIN. (If the PIN is entered incorrectly, an error tone sounds and display returns to **NEW PIN \_\_\_\_**).

! Once you have programmed the password, you cannot confirm it. We recommend you write down the password. If you forget it, please consult your nearest Panasonic Service Centre.

Auto tALK

**(Set Auto Talk ON/OFF):**

If you set Auto Talk to ON, you can answer the phone by lifting the handset off the base unit.

- 
- / to select **ON** (On) or **OFF** (Off).
- 

bATTERY tYPE

**(Set Battery Type Ni-MH / Ni-Cd):**

Select the type of battery installed. If the battery type selected is not the same as the type of battery installed, the battery level icons will not be correct.

- 
- / to select **NI-MH** (Ni-MH) or **NI-Cd** (Ni-Cd).
- 

REGIStRAtION

**(Registration):\***

- 
- /

REGIStER HS

**(Registering a Handset to a Base Unit)\***

CANCEL bASE

**(Cancelling a Base Unit)\***

SELEct bS

**(Select Base Unit)\***

\*For information on registering handset(s), cancelling and selecting base unit(s), please refer to 'For Optional Multi-Unit Users'.

RESEt HS

**(Reset the Handset Settings):**

You can reset all of the handset settings to their initial factory settings (see 'Handset Initial Settings').

- - Enter handset PIN (4 digits). If PIN is correct, **NO** is displayed.
  - / to select **YES** (Yes).
  -
- CLEARt** is displayed and display returns to settings menu.

# Panasonic

A basic guide to operations & features.  
Pull out this Quick Guide for easy reference

## Quick Guide & Useful Information

Function	Action
<b>Switch handset on / off</b>	until a confirmation tone sounds.
<b>Answer a call</b>	.
<b>Make a call</b>	Dial the number and  .
<b>Hang up</b>	.
<b>Turn Key Lock on/off</b>	and hold for more than 2 seconds.
<b>Redial last number</b>	,  .
<b>Store a number</b>	.   enter number,  .
<b>Dial a stored number</b>	.  / to select a number,  .
<b>Dial from the Redial List</b>	.  / to select a number,  .
<b>Adjust Receiver volume</b>	/ during a call.
<b>Call another handset</b>	then the handset number.
<b>Transfer a call</b>	enter the handset number,  .
<b>Three way call</b>	enter the handset number,  .
<b>Dial from the Caller ID List</b>	/ to select a number,  .

## Your Guide to the Display

**Note:** The LCD display of the handset can display up to 7 segments and each character will be displayed as shown in the following table. Some characters will be displayed in a different way; for example, the character M is displayed *ll*. This is not a defect of the handset display, it is simply the representation of the characters used in this kind of display.

Character	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Display	<i>A</i>	<i>b</i>	<i>C</i>	<i>d</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>	<i>J</i>	<i>k</i>	<i>L</i>	<i>ll</i>	<i>ll</i>	<i>O</i>	<i>P</i>	<i>q</i>	<i>r</i>	<i>S</i>
Character	T	U	V	W	X	Y	Z	1	2	3	4	5	6	7	8	9	*	0	#
Display	<i>t</i>	<i>U</i>	<i>U</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>*</i>	<i>0</i>	<i>#</i>

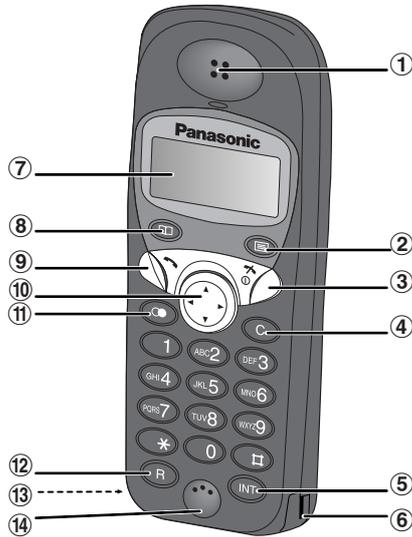
Display Message	Display Meaning
<i>ALARM</i>	Alarm
<i>ALL CLEAR</i>	All Clear
<i>AUTO</i>	Automatic
<i>AUTO TALK</i>	Automatic Talk
<i>BASE</i>	Base
<i>BATTERY LOW</i>	Battery Low
<i>BATTERY TYPE</i>	Battery Type
<i>BS NO</i>	Base Number
<i>BS PIN</i>	Base Unit Pin
<i>CALL BAR</i>	Call Bar
<i>CALL OPT</i>	Call Option
<i>CALL WAITING</i>	Call Waiting
<i>CANCEL BASE</i>	Cancel Base
<i>CLEAR</i>	Clear
<i>CLEARED</i>	Cleared
<i>CLOCK</i>	Clock
<i>DIRECT NO</i>	Direct Number
<i>DISPLAY OPT</i>	Display Option
<i>Edit</i>	Edit
<i>Edit CALL NO</i>	Edit a Call no.
<i>EXT RINGER</i>	External Ringer
<i>HS NO</i>	Handset Number
<i>HS PIN</i>	Handset PIN
<i>HS PIN CHANGE</i>	Change Handset PIN
<i>HOT KEY REG</i>	Register Hot Key
<i>INPUT CODE</i>	Input Code
<i>INT RINGER</i>	Internal Ringer
<i>KEY TONE</i>	Key Tone
<i>MEMORY FULL</i>	Memory Full
<i>NEW SPEED</i>	New Speed
<i>NEW PIN</i>	New PIN
<i>NO</i>	No

## Display Message

## Display Meaning

Ni-Cd	Ni-Cd
Ni-MH	Ni-MH
NO ITEM	No Item
OFF	Off
OLD PIN	Old Pin
ON	On
ONCE	Once
OTHER OPT	Other Option
OUT OF AREA	Out of Area
PAGING	Paging
PHONE NO	Phone Number
PRIVATE	Private
RANGE ALARM	Range Alarm
REGISTER HS	Register Handset
REGISTRATION	Registration
RINGER	Ringer
RINGER OFF	Ringer Off
RINGER OPT	Ringer Option
RINGER VOL	Ringer Volume
REPEAT DAILY	Repeat Daily
RESET HS	Reset Handset
SAVE	Save
SAVED	Saved
SAVE SPEED	Save Speed
SELECT BS	Select Base
SET ALARM	Set Alarm
SET DIRECT	Set Direct
SET TIME	Set Time
SETTING BS	Setting Base
SETTING HS	Setting Handset
STANDBY MODE	Standby Mode
TALK MODE	Talk Mode
TALK TIME	Talk Time
TIME ALARM	Time Alarm
TONE OPT	Tone Option
VERIFY	Verify
VOL	Volume
YES	Yes

## Location of Controls



### Handset controls

- ① - Receiver
- ② - Function/OK Button
- ③ - Talk Off/Power Button
- ④ - Cancel Button
- ⑤ - Intercom Button
- ⑥ - Charge Contact
- ⑦ - Display
- ⑧ - Speed Dial Button
- ⑨ - Talk Button
- ⑩ - Navigator Key
- ⑪ - Redial/Pause Button
- ⑫ - Recall Button
- ⑬ - Charge Contact
- ⑭ - Microphone

### Base unit controls

 - Page button

## Handset Display

Icon	Displays	Flashes
	Within range of a base unit	Out of range
	Intercom mode	Paging or another unit pages the handset
	Making or answering calls	Outside call is received
	Less than 30% battery capacity	 - Recharge battery
	30% to 50% battery capacity	 - Fully charged
	50% to 100% battery capacity	
	In Direct Call mode	
	In Call Prohibition mode	
	In setting mode	
	Ringer tone temporarily OFF	
	Key Lock ON	
	Speed Dial List/Mode	

## Base Unit Settings

You can change the base unit settings using a handset near the base unit.

Before proceeding with any of the base settings listed in this chapter, the following procedure must initially be carried out:

- 1 From the standby mode, .
- 2 / to select **SEtting bS** (Setting Base).
- 3 .

**INPUT CODE** is displayed. From this display, follow the instructions after each heading.

Please note: Where 'Enter PIN' is stated in this chapter, it refers to the 4 digit Base Unit PIN. (The factory setting is 0000).

- To exit the menu at any time, .

## Ringer Mode

### To select all handsets to ring

- .
- Enter PIN.
- .
- .

### To select specific handset(s) to ring

- .
- Enter PIN.
- .
- - to select handset(s). The selected handsets will be flashing.
- .

### To select specific handset(s) then all handsets to ring

The specific handset(s) will ring for a selected number of rings. If not answered, all handsets will ring.

- .
- Enter PIN.
- .
- - to select handset(s) to ring.
- .
- - to select number of rings.
- .

## Select Base Unit Ringer Volume

- twice.
- (Off) or - to select volume.
- .

## Select Dialling mode (Tone/Pulse)

You can change the dialling mode to tone or pulse depending upon your network service. If you have a touch tone service, select tone. If you have rotary or pulse service, select pulse.

- .
- Enter PIN.
- .
- for Tone  
OR  
 for Pulse
- .

Before programming, please follow steps 1 to 3 of 'Base Unit Settings'.

### Select the Earth or Flash Mode

An earth relay can be installed as an option depending on your PBX requirements (see 'Additional Features'). Please consult your nearest Panasonic Service centre for installation. On installation, you can select flash or earth mode to suit your PBX or network provider.

- DEF 3.
- Enter PIN.
- ABC 2 then ABC 2 for earth mode
- OR
- ABC 2 then 1 for flash mode.
- If flash is selected and flash times are required:
  - 1 for flash 1 (100 msec) or
  - ABC 2 for flash 2 (600 msec) or
  - DEF 3 for flash 3 (300 msec)
- ▶.

### Select Pause Timing

You can set the pause timing to 3 or 5 seconds, depending on your PBX requirements (see "Dialling Pause").

- DEF 3.
- Enter PIN.
- DEF 3.
- 1 to select 3 seconds
- OR
- ABC 2 to select 5 seconds.
- ▶.

### Set the 4 - Digit Base Unit PIN

You can change the 4 - digit password for the base unit. The factory preset is 0000.

- JKL 5.
- Enter PIN.
- Enter New PIN (4 digits) twice.

If entered incorrectly, an error tone sounds.  
If entered correctly, a confirmation tone sounds.

**! Once you have programmed the password, you cannot confirm it. We recommend you write down the password. If you forget it, please consult your nearest Panasonic Service Centre.**

### Set Call Restriction

You can restrict selected handset(s) from dialling selected phone numbers. You can assign up to 6 call restriction numbers (up to 8 digits).

- MNO 6.
- Enter PIN.
- All registered handset numbers are displayed.
- 1 - MNO 6 to select handset(s) to restrict.
- The selected handset(s) will flash.
- ▶.
- Enter a restriction number (max. 8 digits).
- (If you misdial C).
- MNO 6 to confirm restriction number.
- To continue entering call restriction numbers (max. 8 digits), enter the number, then MNO 6.
- On completion, MNO 6.

**! If you dial a restricted number, the call does not connect and restricted number flashes.**

### Cancel Call Restricted Handset(s)

- MNO 6.
- Enter PIN.
- 1 - MNO 6 to select handset(s) to cancel.
- The selected handset(s) will stop flashing.
- ▶.
- MNO 6 to return to the standby mode.

Before programming, please follow steps 1 to 3 of 'Base Unit Settings'.

### Cancel Call Restricted Numbers

- 6.
- Enter PIN.
- .
- to cancel number.
- .
- to return to the standby mode.

### Set the Clock

- .
  - Enter a new time (4 digits) (24 hour time) ( - .
  - .
- ! After a mains power failure the clock needs to be reset.

### Reset the Base Unit

You can reset all of the base unit settings to their initial factory settings. (see "Base Unit Initial Settings").

- .
- Enter PIN.
- .

! If the base unit is reset, the Caller ID list will clear.



## Handset Initial Settings

To reset handset to initial settings refer to “Handset Settings”.

Function	Initial Setting
Time Alarm Mode	OFF
Alarm Time	Clear
Handset Ringer Volume	3
Handset External Ringer Pattern	1
Handset Internal Ringer Pattern	1
Handset Paging Tone Pattern	1
Handset Alarm Tone Pattern	1
Key Tone	ON
Call Waiting Tone	ON
Range Warning Alarm	OFF
Battery Low Alarm	ON
Standby Mode Display	Base Unit Number
Talk Mode Display	Length of the Call
Call Prohibition Mode	OFF
Direct Call Mode	OFF
Direct Call Number	Clear
4 Digit Handset PIN	0000
Auto Talk	OFF
Base Unit Access	Automatic Base Unit Access
Handset Receiver Volume	2
Redial Memory	All Clear

## Base Unit Initial Settings

To reset base unit to initial settings refer to “Base Unit Settings”.

Function	Initial Setting
Ringer Mode	All Handsets
Number of Rings	3
Dialling Mode	Tone
Earth/Flash	Flash
Flash Timing	600m seconds
Pause Timing	3 seconds
Call Restricted Handset(s)	All Clear
Call Restriction Number(s)	All Clear
Base Unit PIN	0000
Base Unit Ringer Volume	Medium

## Operating Additional Handsets

Additional KX-A120EX handsets are available to purchase separately. Up to 6 handsets can be registered to a single base unit. Using additional handsets allows you to have an intercom call while simultaneously conducting a call to an outside line.

## Operating Additional Base Units

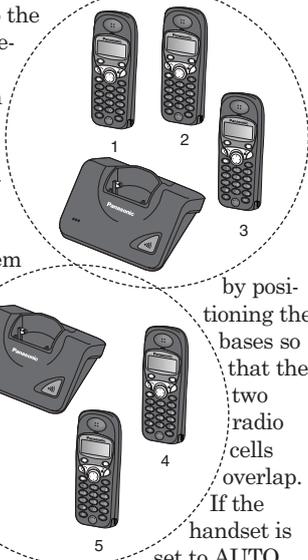
You can register and operate your handset with up to 4 base units. Each base unit forms 1 radio cell. If the individual bases are linked to the same telephone line then you can extend the operating range of the system

by positioning the bases so that the two radio cells overlap. If the handset is set to AUTO

base selection, then in standby mode the handset will automatically swap to the second base if the range on the first base is exceeded.

It is not possible to transfer calls between bases (only between handsets linked to the same base unit).

**Radio Cell**  
Eg. Additional handsets (KX-A120EX) registered with 2 base units.



**NOTE:** Calls are disconnected when the handset moves from one radio cell to another.

## Registering a Handset to a Base Unit

The handset supplied with the base unit is already registered. If an optional handset is purchased, it must be registered as follows.

**! Charge the optional handset batteries for 15 hours before initial use.**

- 1 From the Standby mode, .
- 2 / to select **SEtting HS** (Setting Handset).
- 3 .
- 4 / to select:

**REGISTRATION**

**(Registration):**

- 5 .

**REGISTRATION**

**(Register Handset):**

- .
- and hold on the base unit for 10 seconds. A base registration tone sounds
- ! Handset must be registered within 1 minute. If over 1 minute , then restart registration.**
- / to select **base 1-4** (base 1-4).
- .
- Enter base unit PIN (4 digits - factory preset is 0000).
- .
  - When handset and base unit connect a confirmation tone sounds.
  - If handset registration is not successful within 5 minutes, an error tone sounds.

**For Optional Multi-Unit Users**

## Cancelling a Handset

Each handset can cancel itself or another handset.

- From the standby mode, .
- / to select *SEtting b5*.
- .
- when *INPUT CODE* is displayed.
- Enter base unit PIN (4 digits).
- - to select handset to cancel.
- .

## Cancelling a Base Unit

Follow steps 1 to 5 of “Registering a Handset to a Base Unit”, then:

- / to select:

*CANCEL bASE*

### (Cancel a Base Unit)

You can cancel any base unit that your handset is registered to.

- .
  - Enter handset PIN (4 digits).
  - / to select base unit(s) to cancel.
  - to set selection.
- Selected base number(s) flash(es).
- .
  - / to select *YES* (Yes) or *NO* (No).
  - to confirm selection.

If selection was *YES*, *CLEARed* is displayed briefly.

## Selecting a Base Unit

When *AUTO* (Automatic Base Unit Access) is selected, if you move outside of the radio range of the current base unit the handset automatically searches for other registered base units.

When a specified base unit is selected, the handset will access that base unit only.

Follow steps 1 to 3 of “Registering a Handset to a Base Unit”, then:

- / to select:

*SELECT b5*

### (Select Base Unit):

- .
- / to select *AUTO* or a specific base unit 1 -4 (only registered base unit numbers are displayed).
- to confirm selection.

Calls (both incoming and outgoing), can be conducted only via the selected base unit, even if the radio cells overlap with neighbouring base units.

## Intercom Between Handsets

You can use your handsets as a 2-way intercom. For example, when Handset 1 calls Handset 2:

Handset 1-

- blinks.
- (desired handset number).

Handset 2 (ringing) -

- to answer.

Handset 1 and 2 -

- to end the call.

! Intercom calls can be conducted within the radio cell of the current base unit, but not with units in neighbouring radio areas.

## Transferring Calls to Another Handset

The intercom can be used during a call to transfer an external call between handsets that are registered to the same base unit.

For example, when handset 1 transfers a call to Handset 2:

### Handset 1 -

- During the call,   is displayed and the call is put on hold.
  -   (desired handset number).
- A ring back tone is heard until Handset 2 answers.\*

### Handset 2 (ringing) -

-   or  to answer.

### Handset 1 & Handset 2 -

- (Have conversation).

### Handset 1 -

-   to release the call for transfer
- OR
-   to connect to external caller again.

To transfer the call directly, without speaking to the other handset:

### Handset 1 -

-   at \*.

### Handset 2 -

-  .

The transfer is complete.

If the transferred call is not answered within 30 seconds, Handset 1 will ring again.   to answer the call.

## Conference Calls

During a conversation in an external call, you can make an intercom call to another handset and then combine the calls together to establish a conference call.:

### Handset 1 -

- During the call,   then   (desired handset number).
- The call is put on hold.  
If there is no answer,   to return to the caller.

### Handset 2 (ringing) -

-   or  to answer.

### Handset 1 -

-   to establish the conference call.

### Handset 1 or Handset 2 -

-   to end the conference call.

## Before Requesting Help

If you experience any problems with the normal use of your apparatus, you should unplug it from the telephone outlet and connect a known working telephone in its place. If the known working telephone still has problems, then please contact the customer service department of your Network provider. If it operates correctly, then the problem is likely to be a fault in your apparatus. In this case, contact your supplier for advice. Your Network provider may charge you if they attend a service call that is not due to apparatus supplied by them.

Problem	Possible cause	Solution
NO LCD display in handset.	<ul style="list-style-type: none"> <li>Handset not turned on.</li> </ul>	<ul style="list-style-type: none"> <li>Turn on power (pg. 4).</li> </ul>
Handset will not turn on.	<ul style="list-style-type: none"> <li>Batteries not inserted.</li> <li>Batteries not charged.</li> </ul>	<ul style="list-style-type: none"> <li>Insert x 2 rechargeable batteries supplied (pg. 3).</li> <li>Place handset in base and connect AC adaptor to base and AC outlet (<b>full charge period 15 hrs</b>).</li> </ul>
Batteries charge icon not counting up.	<ul style="list-style-type: none"> <li>Dirty charge contact.</li> <li>Base not powered up.</li> </ul>	<ul style="list-style-type: none"> <li>Clean charge / battery contact and retry charge.</li> <li>Connect AC adaptor to base unit and AC outlet.</li> </ul>
 icon flashing.	<ul style="list-style-type: none"> <li>Handset not registered to base.</li> <li>Handset out of range of base.</li> </ul>	<ul style="list-style-type: none"> <li>Register handset to base.</li> <li>Move handset closer to base.</li> </ul>
Handset busy tone heard when  is pressed.	<ul style="list-style-type: none"> <li>Handset out of range of base.</li> <li>Another handset in use.</li> </ul>	<ul style="list-style-type: none"> <li>Move handset closer to base.</li> <li>Wait for other user to complete call.</li> </ul>
No dial tone.	<ul style="list-style-type: none"> <li>Telephone line not connected.</li> </ul>	<ul style="list-style-type: none"> <li>Insert telephone cord to network.</li> </ul>
Cannot dial out.	<ul style="list-style-type: none"> <li>Call prohibition mode set.</li> <li>Particular dialled number is restricted.</li> <li>Key lock mode ON.</li> </ul>	<ul style="list-style-type: none"> <li>Turn feature off.</li> <li>Remove number from call restricted list.</li> <li>Turn key pad lock OFF.</li> </ul>
Base unit will not ring.	<ul style="list-style-type: none"> <li>Base ringer turned off.</li> </ul>	<ul style="list-style-type: none"> <li>Set ringer to one of 3 volume levels (see "Base Unit Settings").</li> </ul>
Handset will not ring.	<ul style="list-style-type: none"> <li>Ringer switched off.</li> </ul>	<ul style="list-style-type: none"> <li>Set ringer to one of 6 volume levels (see "Handset Settings").</li> </ul>
Last number redial does not work.	<ul style="list-style-type: none"> <li>Number exceeded 24 digits.</li> </ul>	<ul style="list-style-type: none"> <li>Redial manually.</li> </ul>
No Caller ID number displayed.	<ul style="list-style-type: none"> <li>Service not supplied.</li> <li>Caller has withheld info.</li> </ul>	<ul style="list-style-type: none"> <li>Caller ID service must be arranged with Network provider.</li> </ul>
 icon flashes.	<ul style="list-style-type: none"> <li>Battery low.</li> </ul>	<ul style="list-style-type: none"> <li>Recharge batteries.</li> </ul>
Transferring calls on PBX not possible.	<ul style="list-style-type: none"> <li>Recall time incompatible.</li> </ul>	<ul style="list-style-type: none"> <li>Change handset or PBX setting (see "Base Unit Settings").</li> </ul>

Problem	Possible cause	Solution
Cannot register handset to base.	<ul style="list-style-type: none"> <li>• Max. number of bases already registered to handset.</li> <li>• Max. number of handsets already registered to base unit.</li> <li>• Wrong PIN number entered (Default 0000).</li> <li>• Electrical noise in local area.</li> </ul>	<ul style="list-style-type: none"> <li>• Delete unused base registrations from handset.</li> <li>• Delete unused handset registrations from base.</li> <li>• If PIN number is lost, contact your Panasonic Customer Care Helpline.</li> <li>• Move base / handset away from sources of electrical noise ( e.g TV, radio ).</li> </ul>

## Technical Information

### Specifications:

<b>Standard:</b>	DECT=( <u>D</u> igital <u>E</u> nhanced <u>C</u> ordless <u>T</u> elecommunications). GAP=( <u>G</u> eneric <u>A</u> ccess <u>P</u> rofile).
<b>Number of channels:</b>	120 Duplex Channels.
<b>Frequency range:</b>	1.88 GHz to 1.9 GHz.
<b>Duplex procedure:</b>	TDMA (Time Division Multiple Access).
<b>Channel spacing:</b>	1728 kHz.
<b>Bit rate:</b>	1152 kbit/s.
<b>Modulation:</b>	GFSK.
<b>RF Transmission Power:</b>	approx. 250 mW.
<b>Voice coding:</b>	ADPCM32kbit/s.
<b>Operating range:</b>	Up to 300 m outdoors (line of sight), up to 50 m indoors.
<b>Power source:</b>	AC Adaptor 220-240 V AC ~50/60Hz.
<b>Power consumption, base unit:</b>	5 VA.
<b>Operating conditions:</b>	5° - 40°C, 20 - 80% relative air humidity (dry)
<b>Dimensions, Base Unit:</b>	About (103mm x 122mm x 60mm) x 180gr
<b>Dimensions, Handset:</b>	About (134mm x 46mm x 30mm) x 85gr (without batteries)
<b>Telephone line cord length:</b>	About 2.3m
<b>AC adaptor cord length:</b>	About 1.9m

- Specifications are subject to change.
- The illustrations used in this manual may differ slightly from the original device.

**Before Requesting Help**

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MODEL No. KX-TCD650BX

**For your future reference**

Serial No. \_\_\_\_\_ Date of purchase \_\_\_\_\_  
(found on the bottom of the unit)

Name and address of dealer \_\_\_\_\_

Technical specifications are subject to change.

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