

Hello,

Thank you for purchasing VK cellular phone.

VK2020 is a fabulous MP3 phone only for brilliant people. 262K OLED LCD allows you to enjoy multimedia functions through clear and precise screen. The 64 poly brings you incredible sound that is almost similar to that of the original sound quality and it will be your take-out audio system.

Thank you again for choosing VK product and we hope you have greatest success in your business with VK2020.

Please read 'Safety Precaution' prior to use.

The content of this manual and functions of cellular phone are subject to change depending on the software version and conditions in business.

Contents

PRIOR TO USE	6	BASIC FUNCTIONS	24
Safety Precaution	7	Basic Operation	25
Unpacking	13	Switching On/Off	25
Optional Items	13	Making a Call	25
Phone Layout and Keys Function	14	Answering a Call	27
Keys Description	15	Hanging up	27
LCD Icon Description	18	Options During a Call	28
Inserting SIM Card and Battery	19	Missed Calls	31
Charging Battery	21	Volume Adjustment	31
Reference About Battery Charging	22	Etiquette Mode	32
Handset Power off Status	22	Using Ear-microphone	32
Handset Power on Status	23	Standby Screen Function	33
		Contacts	34
		Storing Phone Numbers	34
		Search Phone Number	38
		Contacts Menu Function	41

BASIC FUNCTIONS		MENU FUNCTIONS	58
Menu Function of Selected Items	46	Menu Tree	59
Character Input Mode	49	Message	63
T9 Mode	49	Short Message	63
ABC Mode	52	Multimedia Message	70
Numeric Mode	55	Voice Message	76
Symbolic Mode	55	Info. Message	77
Changing Text Input Mode	56	Memory Status	78
		Calls	79
		Call History	79
		Network Services	83
		Gallery	87
		Image	87
		Animation	89

MENU FUNCTIONS

Sound	91
Music	93
Memory Status	95
Settings	96
Display	96
Sound	99
Phone Setting	102
Bluetooth	106
Security	108
PC Connection	111
Organizer	113
Calendar	113
Alarm	117
Memo	121

MENU FUNCTIONS

Calculator	122
Unit Converter	123
World Time	123
Stop Watch	124
MP3 Player	125
Music Play	125
Edit Playlist	127
Joy World	129
Internet	129
JAVA	135

OTHER FUNCTIONS

Safety Information	137
Using the Batteries	139
Safety Information	141
Care and Maintenance	146
FDA Consumer Update	147
FCC RF EXPOSURE INFORMATION	158
Radio Frequency (RF) Signals	160
Glossary	163

PRIOR TO USE

- Safety Precaution
- Unpacking
- Optional Items
- Phone Layout and Keys Function
- Keys Description
- LCD Icon Description
- Inserting SIM Card and Battery
- Charging Battery
- Reference About Battery Charging

VK2020

.....VK2020

■ Safety Precaution

Maintaining Safe Use of and Access to Your Phone

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Important Information

This user guide contains important information on the use and operation of this phone. Please read all the information carefully for optimal performance and to prevent any damage to or misuse of the phone. Any changes or modifications not expressly approved in this user guide could void your warranty for this equipment. **FAILURE TO FOLLOW THE INSTRUCTIONS OUTLINED MAY LEAD TO SERIOUS PERSONAL INJURY AND POSSIBLE PROPERTY DAMAGE.**

Always store your phone away from heat.

Never store your phone in settings that may expose it to temperatures less than 32°F or greater than 104°F, such as outside during a snowstorm or in your car on a hot day. Exposure to excessive cold or heat will result in malfunction, damage and/or catastrophic failure.

Be careful when using your phone near other electronic devices.

RF emissions from your mobile phone may affect nearby inadequately shielded electronic equipment. You should consult with manufacturers of any personal medical devices such as pacemakers and hearing aides to determine if they are susceptible to interference from your mobile phone. Turn off your phone in a medical facility or at a gas station. Never place your phone in a microwave oven as this will cause the battery to explode.

IMPORTANT! Please read the TIA SAFETY INFORMATION on page 137 before using your phone.

Safety Information

Please read and observe the following information for the safe and proper use of your phone and to prevent any unanticipated damage by accident. Also, keep the user's manual in an accessible place all the times after reading it.

- Unplug the power cord and charger during a lightning storm to avoid electric shock or fire.
- Do not use your phone in high explosive areas as the phone may generate sparks.

- Do not put your phone in a place subject to excessive dust, and keep the minimum required distance between the power cord and heat sources.
- Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it is dirty.
- Do not damage the power cord by bending, twisting, pulling, or heating. Do not use the plug if it is loose as it may cause fire or electric shock.
- Hold the power cord plug firmly to plug and unplug the power cord. Ensure the plug is firmly connected. If it is not firmly connected, it may cause excessive heat or fire.
- Do not place any heavy item on the power cord. Do not allow the power cord to be crimped as it may cause fire or electric shock.
- Be careful not to let the battery contact metal conductors such as a necklace or coins. When shorted, it may cause an explosion.
- Do not disassemble or impact to the battery as it may cause electric shock, short-circuit, and fire. Store the battery in a place out of reach of children.

- Using a damaged battery or placing a battery in your mouth may cause serious injury.
- Do not place items containing magnetic components such as a credit card, phone card, bank book and a subway ticket, near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.
- Do not hold or let the antenna come in contact with your body during a call.
- Talking on your phone for a long period of time may reduce the call quality due to heat generated during the use.
- Do not allow excessive vibration or impact to the phone.
- When you do not use the phone for a long period time, store it in a safe area with the power cord unplugged.

Cautions for Travel Adaptor and Battery

Adaptor (Battery Charger) Cautions

- Using the wrong Travel Adaptor could damage your phone and void your warranty.
- Ther travel adapter is intended for indoor use only.

Do not expose Travel Adaptor to direct sunlight or use it in places with high humidity, such as the bathroom.

“IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS and DANGER - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS”

“For connection to a supply not in the U.S.A., use an attachment plug adaptor of the proper configuration for the power outlet.”

“This power unit is intended to be correctly orientated in a vertical or floor mount position.”

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

- Do not disassemble.
- Do not short-circuit.
- Do not expose to high temperature : 60 (140).
- Do not incinerate.

Battery Disposal

- Please dispose of your battery properly or bring to your local wireless carrier for recycling.
- Do not dispose in fire or with hazardous or flammable materials.

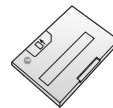
■ Unpacking

1. Handset

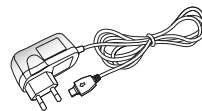


Cellular Phone

2. Battery and Travel Adapter



Battery

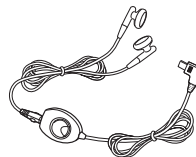


Travel adapter

3. Accessories



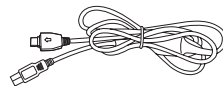
User's Manual



Ear-microphone



PC Sync CD

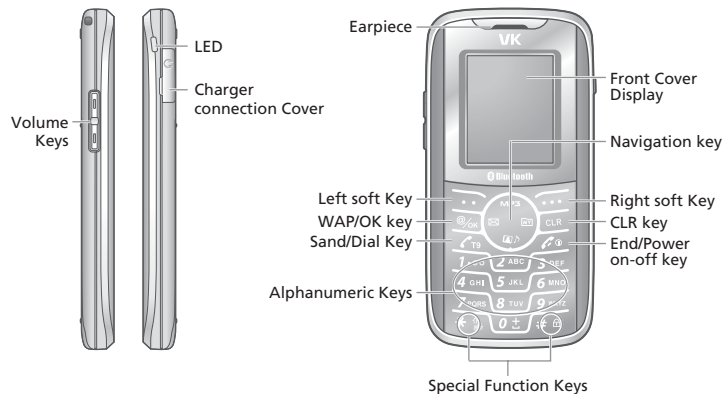


Data Cable

■ Optional Items

Actual product may look different from the above picture.

■ Phone Layout and Keys Function



■ Keys Description



Left soft key

Enter the left bottom menu of the display.



Send/Dial key

Make/Answer a calls.

When this button is pressed in standby mode, the last number you dialed will be redialed.



Navigation key

Up : MP3 Player

Down : Gallery

Left : Message

Right : My Favorite



WAP/OK key

Enter WAP from standby mode.

Access function indicated on the bottom of the display.



Right soft key

Enter the Right bottom menu of the display.
In standby mode enters Contacts.



End/Power on-off key

End a call. Hold down to switch the phone on and off.
In menu mode, cancels input and returns the phone to standby mode.



Alphanumeric keys

Enter number and characters.



CLR key

Delete characters from the display.
In menu mode returns to the previous menu level.



* key

Hold down to activate Manner mode on/off.



key

Hold down to activate Lock mode on/off.



Volume key

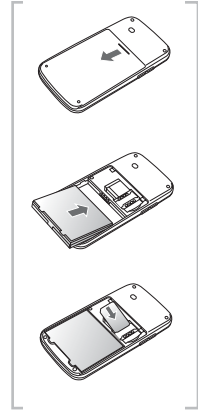
Adjust the button volume from standby mode. Conversation volume adjustment while speaking on the phone.

■ LCD Icon Description

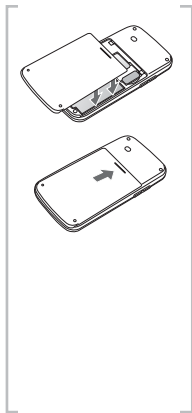


-  Shows the received signal strength. [Strong :  Weak : 
-  Appears when a call is in progress.
-  Appears when you set the alarm to ring at a specific time.
-  Appears when you have new or unread message.
-  Appears when you set the alert type for incoming calls to vibration.
-  Appears when you set the Bluetooth function.
-  Shows the level of your battery.
-  Appears when you set the key pad lock function.

■ Inserting SIM Card and Battery



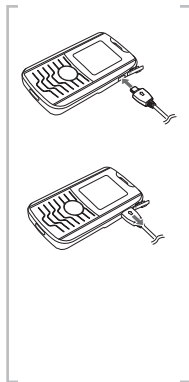
1. ① Turn off the power of cellular phone.
② Remove the battery cover as shown in the figure below.
2. Push in the battery as shown in the figure below.
Align the battery as shown in the figure.
3. Face the gold color contact point of SIM card towards the cellular phone and push in the SIM card into the slot.



4. Push in the battery cover until it makes 'Click' sound.

■ Charging Battery

Charging with traveler's kit



Battery can be charged without desktop charger, thus, it is easier to take the charger with you.

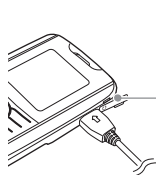
Charging through traveler's kit may take longer than using the desktop charger.

Connect traveler's kit to the external connector of cellular phone.

Connect the traveler's kit to the power outlet.

■ Reference About Battery Charging

Handset Power off Status



TA LED status

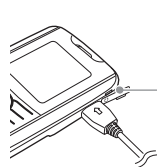
It is normal charging status that the LED displays Green Color.



Handset DISPLAY Status

Shows Battery charging status.

Handset Power on Status



TA LED status

It is normal charging status that the LED displays Green Color.



Handset DISPLAY Status
Charging Display Icon.

BASIC FUNCTIONS

- Basic Operation
- Contacts
- Character Input Mode

VK2020

■ Basic Operation

Switching On/Off

Switch On : Hold down  button for 2 seconds or longer.

If no SIM card is inserted in the cellular phone, a message window that states no SIM card is inserted is displayed.

In this case, only emergency call can be used and the rest of functions cannot be used.

If you are asked with password, enter the password and press 'OK' button.

The default password is set to '0000'.

Switch Off : Hold down  button for 2 seconds.

Making a Call

[Dialing]

1. Enter area code and phone number in standby mode.
2. Press .

When you entered a wrong number, press  button to erase one number at a time.

Hold down  button for 2 seconds to erase all entered numbers.



[Making a Call from Contacts]

You can make a call without entering phone number. Using phone numbers that are pre-stored, you can make a call.

Press the right soft key to enter the contacts. For more details on contacts, see page 34.

[Latest Call List]

You can make a call using the latest call list.

1. Press  button shortly to display the latest call list in order of call time. Or, enter by accessing Menu ➔ 3. Calls ➔ 1. Call History.
2. Select desired phone number using the  key.
3. Press  button.

For more detail, refer to "Call History" on page 79.

[Speed Dialing]

You can make a call using speed dialing.

Using number keys from 2 to 9, hold down the pre-stored speed dial number for 2 seconds.

If the phone number is stored in your cellular phone hold down the speed dial number.

If the phone number is stored on SIM card press the speed dial number first, press  key, and press  key.

Speed dial number can be configured from 2 to 99.

For more detail, refer to "Contacts" on page 34.



[Making an International Call]

1. Holding down 0 button for 2 seconds displays + symbol.
2. Enter the country code, area code, and phone number after + symbol.
3. Press  button.

Answering a Call

1. When there is an incoming call, either bell tone or vibration is activated depending on the configuration.
2. Press  button.
3. To hang up, press  button.
If a caller ID service is activated and if the incoming phone number is already stored in your contacts, the name you have stored for the phone number is displayed.

Hanging up

Press  button to hang up.

Options During a Call

You can use a variety of functions while talking on the phone.

[Call Standby]

This function is available only when a network service is provided. Using this function, you can make a call or answer other calls during any time of call.

[Ending a Call]

End a call during a Call : This function ends the current call.

End a call on hold : This function ends a call on hold.

End all calls : This function ends both the current call and the call on hold.

[Adding a call]

With this function, you can make a new call during a call.

[Waiting a call]

When there is a new incoming call, you can either answer the call or put it on hold.

[Swap]

You can switch the current call with the new incoming call.

[DTMF Function]

You can enter numbers and send it during a call.

In case where you need to enter a long sequence of numbers such as paging, ARS, or Telebanking, you can store the frequently used numbers (social security number or bank account number) to send them with greater convenience.

[Mute]

You can turn off the microphone so that the caller on the other side cannot hear you.

Select a call list and select 'Mute'.

When a call is ended, 'Mute' function is automatically released.

[Contacts]

You can search the contacts during a call.

[SMS Function]

When this function is used during a call, you can send/SMS without handing up a call.

[Conference Call]

This function is available when a network service is provided.

Up to 6 people can talk at a time.

For more details, please contact your service provider.

[Private Call]

While using Conference Call function, you can use this function to talk to a specific person.

[Using Menu Function]

Menu function can be used during a call. During a call, use either the left soft key or option key to enter the call option. However, the available menu function during a call is limited.

For more details, refer to "Menu Tree" on page 59.

[Volume Adjustment During a Call]

You can adjust the volume during a call using  button located on the side of your cellular phone.

The volume can be adjusted in five steps.

Missed Calls

Missed calls are displayed with the Caller's phone number and how many times the caller had called you.

Press  key to exit Missed Call window.

Missed call phone number can be edited.

For more detail, refer to "Call History" on page 79.

Volume Adjustment

You can adjust the conversation volume using  button located on the side of your cellular phone during a call.

In standby mode and press  button on the side of the cellular phone to adjust the button volume.

Press UP button of  key to increase the volume. Press down button of  key to decrease the volume.

Etiquette Mode

This function puts the cellular phone into Etiquette mode. Bell tone and button sound are changed to vibration Etiquette mode.

In areas where etiquette is required, such as public area, concert hall, lecture hall and conference room, this function is convenient.

Hold down  key to setup Etiquette Mode.

Hold down  button again to release Etiquette Mode.

When Etiquette Mode is configured,  icon is displayed on the screen.

When Etiquette Mode is set up, schedule/anniversary /alarm/message are notified through vibration.

When the cellular phone is turned off in Etiquette Mode, the cellular phone stays in Etiquette Mode when it is turned on later.

Using Ear-microphone

Ear-microphone frees your hand during a call.

To use ear-microphone, insert the ear-microphone into ear-microphone slot on the side of the cellular phone.

Standby Screen Function

Run the standby screen function using  and  keys.



The left soft key executes function that left bottom line of the display.

In standby mode,
pressing this key enters menu.

The right soft key executes function that right bottom line of the display.

In standby mode,
pressing this key enters Contacts.

■ Contacts

You can store phone numbers and name in the contacts and retrieve to make a call. Data can be stored both in SIM card and your cellular phone, while you can search through one contacts list for data.

Note that the maximum amount of data stored depends on the type of SIM card.

When you purchase a new cellular phone, the phone numbers stored on SIM card can be inserted into the new cellular phone and retrieved.

Storing Phone Numbers

Phone numbers can be stored using either of two methods.

Directly Entering Phone Number.

Access Contacts and store a new phone number.

[Directly Entering Phone Number]

1. First, enter the phone number you want to store in the standby screen.
2. 'Save' is displayed on the left-bottom of the screen.
3. Confirm the entered phone number and press  key to save.

When you entered incorrect number, press  key to erase.

Press  key once to erase one number at a time. Hold down  key for longer than 2 seconds to erase all entered number.

4. Select whether to save on your cellular phone or on SIM card.

5. Set up the type of phone number.

Phone number types such as Mobile, Home, Office number can be saved on the cellular phone.

When the phone number is stored on SIM card, only one representative phone number for the individual can be saved.

6. Enter the name.

For more detail, refer to "Character Input Mode" on page 49.

7. Set up the group type.

8. Two more phone numbers other than the first phone number you have saved, can be stored.

Enter the related phone numbers next to each icon.

Note that only one phone number can be saved for the individual on SIM card.

9. Set up the default phone number.

10. Configure the speed dial number.

The speed dial number can be configured form 2 to 99.

11. Configure the image to be displayed for the phone number.

12. Enter e-mail address.

13. Enter homepage address.

14. Enter fax number.
15. Enter home address.
16. Configure special bell tone.
When this bell phone is configured, an incoming call from the configured phone number plays the selected number.
17. Enter Job title.
18. Enter name of company.
19. Enter note.
20. Confirm all the entries and press  key to save.



Functions from 8 to 19 can only be used when the phone number is stored on the cellular phone.
Only name, phone number, speed dial and group type can be configured on SIM card.

[Access Contacts and store a new phone number]

1. Press  key in standby mode to enter contacts.
2. The entire phone list is displayed.
3. Enter option screen by pressing  key.

4. Press 1 to enter 'New' screen.
5. Select whether to store phone number on the cellular phone or SIM card.
6. Enter the name.
For more detail, refer to "Character Input Mode" on page 49.
7. Configure group type.
8. Enter phone number and relevant phone number into fields located next to each icon.
Note that only one phone number can be stored on SIM card.
9. Set up the default phone number.
10. Configure speed dial number. Speed dial numbers can be configured from 2 to 99.
11. Configure the image to be displayed for the phone number.
12. Enter email, homepage URL, fax number, home address.
13. Configure the bell tone.
14. Enter occupation, name of company, and note.
15. Confirm all the entries and press  keys to save.



Functions from 11 to 14 can be used only when the phone number is stored on the cellular phone.
Only name, phone number, speed dial and group type can be configured on SIM card.

Search Phone Number

You can search phone number from the entire contacts list or perform selective search using various methods. (name, phone number, speed dial, group and etc.)

[Search All]

This function displays all phone numbers stored in the contacts. (The list includes stored in the cellular phone and SIM card)

1. Press  key in standby mode to enter the contacts.
2. The entire contacts list is displayed.
3. Select a phone number and press  key to make a call to the selected individual.

[By Name]

1. Press  key in standby mode to enter contacts.
2. Press  key to enter the search option.
3. Select 1 to enter 'By Name'.
4. When an edit window is displayed, enter the name of individual and press  key.
Entering only one character searches all names that contain the entered character.
5. Press  key to make a call to the selected individual.

[By Group]

1. Press  key in standby mode to enter the contacts.
2. Press  key to enter the search option.
3. Select 2 to enter 'By Group'.
4. Using left and right button on  key to select a group.
5. Search a phone number from the selected group.
6. Press  key to make a call to the selected individual.

[By Speed Dial]

You can save the phone number and then dial them easily whenever you want, simply by pressing the associated number key.

1. Press  key in standby mode to enter the contacts.
2. Press  key to enter the search option.
3. Select 3 to enter 'By Speed Dial'.
4. Enter the speed dial number that you want to search. If you don't know the speed dial number that you want to search, press  key to enter the entire speed dial number list.
The entire speed dial number list is searched.
Using  key, either select or enter the speed dial number to be searched.
5. Press  key to make a call to the selected individual.

[By Number]

1. Press  key in standby mode to enter the contacts.
2. Press  key to enter the search option.
3. Select 4 to enter 'By Number'.
4. Enter the number to search.

Entering only one number searches all phone numbers that contain the entered number.

5. Press  key to make a call to the selected individual.

[SDN]

You can search special service dial number via SDN. You can use this function in emergency paging. You can search items such as address, phone number, and voice mailbox number. Telephone numbers supplied by your network provider and giving access to special services, such as voice mail, directory inquiries, customer support and emergency services.

1. Press  key in standby mode to enter the contacts.
2. Press  key to enter the search option.
3. Select 5 to enter 'SDN'.
4. Using  key, select a phone number.
5. Press  key to make a call to the selected phone number.

[DDD]

With this function, you can search for the area code.

1. Press  key in standby mode to enter the contacts.
2. Press  key to enter the search option.
3. Select 6 to enter 'DDD'.
4. When the list of area code appears, select an area code using  key.

Contact Menu Function

You can use variety of contacts functions.

1. Press  key in standby mode to enter the contacts.
2. Press  key to enter the option.

[New]

This function stores a new phone number.

Standby Mode →  →  → Press 1

For more information, refer to "Storing Phone Numbers" on page 34.

[Details]

This function shows details of the selected item.

Standby Mode →  →  → Press 2

You can also enter this function by pressing  key in the entire phone number list of contacts.

[Delete]

You can either delete an item or the entire contacts.

Delete

Standby Mode →  →  → Press 3 → Press 1

Only the selected phone numbers are deleted.

Delete All

Standby Mode →  →  → Press 3 → Press 2 → Select among the Phone, SIM and Both.

All phone numbers in contacts are deleted.

[Copy]

Selected phone numbers can be copied. When a phone number stored in the cellular phone is copied, the phone number is copied to SIM card and vice versa. When 'copy all' is selected, all phone numbers are copied from the current storage medium to the other.

Copy

Standby Mode →  →  → Press 4 → Press 1

Copy All

Standby Mode →  →  → Press 4 → Press 2 → Selete 'phone to SIM' or 'SIM to phone'

[Move]

A selected phone number is moved from the cellular phone to SIM card, and vice versa.

Standby Mode →  →  → Press 5

[Group Manager]

Phone numbers can be categorized into groups. Selected bell tones can be configured for each group.

Standby Mode →  →  → Press 6

Select a group using  key.



New

1. Press key to enter to make a new group.
2. Enter the new group name.
3. Configure the bell tone.
4. Configure the image to be displayed for the phone number.
5. Select the members of the new group.
6. Confirm all the entries and press key to save.

Edit

Group bell tone, image, and group members can be edited.

Selecting image enters gallery.

Select one of stored images from the gallery and press to save.

Group member can be selected from all phone number list stored in the cellular phone.

Delete

Delete a selected group.

[Speed Dial]

Standby Mode → → → Press 7

A list of phone number for speed dial numbers is displayed.

Press key from a selected item to display 'Add' or 'Edit', 'Delete' and 'Goto' menus.



It appears 'Add' at display, if the selected speed dial number didn't indicate the phone number, otherwise it displays 'Edit'.

Press 'Add' to edit the selected speed dial number to other number.

Press 'Edit' to move the selected phone number to other speed dial number.

Pressing 'Delete' removes the selected speed dial number item.

Press 'Goto', if you want to confirm in use, you can check speed dial number whether you can use it or not.

If you have not set up speed dial number, <Empty> message is displayed.

[Own Number]

Enter a desired number to set up speed dial.

Standby Mode → → → Press 8

Only name and phone number can be stored using 'Own Number'.

[Memory Status]

This function displays the currently used memory by numbers.

Standby Mode → → → Press 9

This function shows the status of SIM card and the cellular phone separately.

Menu Function of Selected Items

1. Press  in standby mode to enter the contacts.
2. Select a phone number to edit and press  key to see the details.
Or, press  key and press 2 key to see the details.
3. Press  key to display the option for the selected number.

[Edit]

All configured items such as name, group, phone number, default number, image, email address, address, and etc. can be edited.

Standby Mode →  → Select a phone number →  →  → Press 1

For more details, refer to "Storing Phone Numbers" on page 38.

[Send message]

You can send SMS message to a selected phone number.

Standby Mode →  → Select a phone number →  →  → Press 2 → Select 'Short message' or 'Multimedia message' → Enter message → Send

For more details, refer to "Message" on page 63.

[Send Contact]

You can send the selected phone number to other people.

Standby Mode →  → Select a phone number →  →  → Press 3

Via Short Message : Send the selected phone number via SMS.

Via Bluetooth : Send the selected phone number via Bluetooth.

[Delete]

This function deletes the selected item.

Standby Mode →  → Select a phone number →  →  → Press 4

[Copy]

This function copies a selected item. A phone number stored in a cellular phone is copied to SIM card, and vice versa.

Standby Mode →  → Select a phone number →  →  → Press 5

[Move]

This function moves a selected phone number from the cellular phone to SIM card, and vice versa.

Standby Mode →  → Select a phone number →  →  → Press 6

■ Character Input Mode**T9 Mode**

This mode allows you to enter English words with only one keypress per letter. Each key on a keypad has more than one letter a single press on the 5 key could be J, K or L. The T9 mode automatically compares your key presses to an internal linguistic database to determine the correct word. This mode is based on a built-in dictionary. This mode requires far fewer keystrokes than the traditional multi-tap method.

[Typing English Words]

To type a word, press keys corresponding to the letters you need. Remember the following as you are typing :

1. Press key on the phone just once per desired letter. For example, to enter 'hello', press the following keystrokes : 4, 3, 5, 5, 6.
2. The word you are typing appears in the display. It may change with each key you press.
3. Press the  key, you can display alternate word choices for the keys that you have pressed.
4. Complete each word with a space by pressing the  key.

5. If the word that appears in the display is not the word that you desire, press the  one or more times to display alternate word choices for the keys you have typed. (For example, 'of' and 'me' both share the sequence 6, 3) The phone displays the most commonly used choice first.



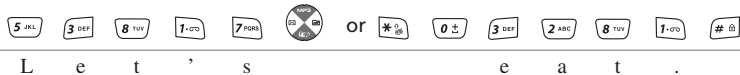
This mode displays all the words which are containing the letters you have entered.

By doing this, the T9 mode saves you typing extra keypress.

[Smart Punctuations]

Full stop, hyphen and apostrophe are available on the 1 key. The T9 mode applies rules of grammar to insert the correct punctuation.

Notice that the 1 key is used twice in this example to display two punctuation marks :



[Shifting a Case]

To change the case in T9 mode, press the  key or the  key. Lower case, Capital lock and Initial capital are available.

[Scrolling]

The  key scrolls to the alternative characters corresponding the keypress.

To view your message without moving the cursor, press  keys on the left side of the phone.

To move the cursor left or right through your text message, press the  key. Note that pressing the key without completing a word by the  key displays the alternative word.

[Clearing Characters]

Press the  key one or more times to remove characters from the text area.

ABC Mode

When typing in ABC mode, you should press numbers key labeled with the required character:

- Once for the first character.
- Twice for the second character and so on.

For example, you press the 2 key three times quickly to display the character "C", the 5 key three times quickly to display the character "L".

So, this method is called Multi-tap typing.

The cursor moves to the right when you press a different key. When entering the same character twice (or a different character on the same key), just wait for a few seconds for the cursor to move right automatically, and then select the next character.

Refer to the table on page 54 for the list of characters assigned on each key.

[Shifting a Case]

To change the case in ABC mode, press the  key or the  key. Lower case, Capital lock and Initial capital are available.

[Scrolling]

To view your message without moving the cursor, press  keys on the left side of the phone. To move the cursor left or right through your text message, press the  key. Note that pressing the key without completing a word by the  key displays the alternative word.

[Clearing Strokes and Characters]

Press the  key one or more times to remove characters from the Text Area.

For list of characters available see table.



Key	Characters in the Order Displayed	
	ABC	abc
	. , ? ! 1 - / @	. , ? ! 1 - / @
	A B C 2	a b c 2
	D E F 3	d e f 3
	G H I 4	g h i 4
	J K L 5	j k l 5
	M N O 6	m n o 6
	P Q R S 7	p q r s 7
	T U V 8	t u v 8
	W X Y Z 9	w x y z 9
	□ 0 * < > % # £ €	□ 0 + () & _ \$ €



Numeric Mode

Numeric mode is indicated by 123. It enables you to enter numbers into a text message. Press number keys corresponding to the desired digits.

Symbolic Mode

Symbolic mode enables you to enter symbols into a text message. To scroll through the available symbol categories, press the key. When you see the desired symbol on the display, press the appropriate number key (1 to 6) to insert the symbol. The phone automatically switches back to the text entry mode used just prior to selecting Symbolic mode.

Changing Text Input Mode

When you are in a field that allows characters entry, you should notice the text input mode indicator in the display.

To change to another text input mode :

1. Press the  key repeatedly until you find the desired input mode.
2. Press the  key. You will see the text input mode indicator in the top line of the display.

- T9 mode > T9 ABC (T9 Abc, T9 abc)
- ABC > ABC (Abc, abc)
- Numeric > 123
- Symbol > Symbol

Directions for using each of the text input modes appear later in this chapter.



You can also change the text input mode by pressing the  key repeatedly in text entry screen. Each time you press the  key, the mode is changed in the following order :

T9 ABC (T9 Abc, T9 abc) > ABC (Abc, abc) > 123 > Symbol

MENU FUNCTIONS

- Menu Tree
- Message
- Calls
- Gallery
- Settings
- Organizer
- MP3 Player
- Joy World

Menu Tree

Message

Short Message

- Inbox
- Outbox
- Write
- Settings

Multimedia Message

- Inbox
- Outbox
- Write
- Settings

Voice Message

- Listen to Voice MSG
- Set Voice MSG No.

Info. Message

- Read
- Receive
- Topics

Memory status

Calls

Call History

- Missed calls
- Received calls
- Dialed calls
- Delete All
- Call Duration

Network Services

- Call Diverting
- Call Barring
- Call Waiting
- Send My Number
- Select Network
- Select Band

Gallery

Image

- Send
- Use as Wallpaper
- Delete
- Rename
- Details

Animation

- Send
- Use as Wallpaper
- Delete
- Rename
- Details

Sound

- Send
- Use
- Delete
- Rename
- Details

Music

- Send
- Use
- Delete
- Rename
- Details
- Go to play

Memory Status

Settings

Display

- Main LCD
- Lighting
- Menu Type

Sound

- Incoming Calls
- Message Alert
- Key Tone
- Volume

Phone Setting

- Date & Time
- Language

Organizer

Calendar

- New
- Delete All
- Schedule List
- Go to Date

Alarm

- Morning Call
- Reminder

Memo

- Edit
- Delete
- Delete All

Security

- PIN
- Change PIN
- Lock
- FDN
- Change PIN 2

PC Connection

- PC Sync
- USB Mass Storage

Bluetooth

- Answer Key
- Auto Key Lock
- Auto Answer
- Auto Redial
- Factory Set
- My Favorite
- Switch
- Handsfree
- Phone Visibility
- Phone Name



- Calculator
- Unit Converter
- World Time
- Stop Watch

- MP3 Player**
 - Music Play
 - Edit Playlist
 - Select All
 - Clear All
 - Invert
 - About Track

- Joy World**
 - Internet
 - Home
 - Bookmarks
 - Go to URL
 - Profile Settings
 - General Settings
 - History
 - WAP Inbox
 - Clear Cache
 - JAVA**
 - Applications
 - Profile Settings
 - Lighting Time
 - Memory Status



■ Message

Messaging is a network service. Using this function, you can input, send, receive, check and edit messages. The VK2020 model supports sending and receiving both Short Messaging Service (SMS) and Multimedia Message (MMS) types. A new message notification is displayed on the screen when a message arrives. In Standby mode, press the left key  to quickly enter Messages mode.

Short Message

This function enables a user to write and send a new message. You can check and save received or sent messages.

1. In Standby mode, press the  key to display the menu screen.
2. Press number 2 to enter Message.
3. Press number 1 to enter Short Message.

[Inbox]

Check received messages.

Standby mode →  → Press 2 → Press 1 → Press 1

On the screen with the list of received messages, press the  key to enter the Options menu.

Delete

Deletes messages stored in your Inbox.

Inbox →  → Press 1

Delete All

Deletes all the messages stored in your Inbox.

Inbox →  → Press 2

On the screen with the list of received messages, press the  key to display the content of the received messages.

On the screen displaying the message content, press the  key to enter the Options menu.

Delete : Deletes the selected message.

Reply : Send a reply to the message sender.

Forward : Forward (with or without editing) a received message to another recipient.

Call Back : Call the message sender.

Copy to SIM(Phone) : Copies the message to SIM or phone.

Move to SIM(Phone) : Moves the message to SIM or phone.

Extract All : Extracts all of the message sender's information including ; images, animations, sound and other items. (Only EMS)

Including : Images, Animations, Sound and other items. (Only EMS)

Details : Displays the time and sender info for the selected message.

[Outbox]

The Outbox can store sent messages and message drafts to be sent.

Standby mode →  → Press 2 → Press 1 → Press 2

Unsent Items

Unsent messages, whether due to a sending failure or those explicitly saved before sending, are stored.

Delete

Deletes stored messages in the Outbox.

Outbox → Press 1 →  → Press 1

Delete All

Deletes all the messages stored in the Outbox.

Outbox → Press 1 →  → Press 2 → Select among 1 : Phone, 2 : SIM and 3 : Both.

On the screen with the list of unsent messages, press the  key to display the content of those unsent messages.

On the screen displaying the message content, press the  key to enter the Options menu.

Send : Resend a selected message.

Edit : Edit a selected message.

Delete : Delete a selected message.

Copy to SIM(Phone) : Copies the item to SIM or phone.

Move to SIM(Phone) : Moves the item to SIM or phone.

Extract All : Extracts all of the message sender's information including ; images, animations,, sound and other items. (Only EMS)

Including : Images, Animations, Sound and other items. (Only EMS)

Details : Displays the time and sender info for the selected message.

Sent Items

Stores sent messages.

Delete

Outbox → Press 2 →  → Press 1

Delete All

Outbox → Press 2 →  → Press 2 → Select among 1 : Phone, 2 : SIM and 3 : Both.

On the screen with the list of sent messages, press the  key to display the content of the sent messages.

On the screen displaying the message content, press the  key to enter the Options menu.

Send : Resend a selected message.

Edit : Edit a selected message.

Delete : Delete a selected message.

Copy to SIM(Phone) : Copies the item to SIM or phone.

Move to SIM(Phone) : Moves the item to SIM or phone.

Extract All : Extracts all of the message sender's information including ; images, animations,, sound and other items. (Only EMS)

Including : Images, Animations, Sound and other items. (Only EMS)

Details : Displays the time and sender info for the selected message.

[Write]

This function enables the user to write and send new messages.

Standby mode →  → Press 2 → Press 1 → Press 3

1. Write the message to send.
2. After inputting the message, press the  key to enter the Options menu.
 - Add Object** : Using this function, you can add simple images, animations and sound to your message.
 - Save** : You can save edited messages to send later.
These messages will be saved under the Unsent Messages tab in the Outbox and you can edit and send them later.
 - Exit** : Return to the Message menu.
3. Press the  key to enter the screen for keying in the sender's number. After you input the number, press the  key to send it.
If you have forgotten the telephone number, press the  key, while on the screen for keying in the sender's number, to enter the telephone directory.

[Settings]

You can set various options for SMS Center, delivery report, and validity period.

Standby mode →  → Press 2 → Press 1 → Press 4

SMS Center No.

Set SMS Center No.

Delivery Report

Report whether the message successfully reached the SMS Center.

On : Reports whether or not the sent message was delivered.

Off : Does not report whether or not the sent message was delivered.

Validity Period

Sets the storage period of a message.

If this function is selected, received messages will expire and be automatically deleted after a set period of time.

Be sure to save important pictures, sound clips and messages in the gallery before they expire.

Multimedia Message

Multimedia message is a service that enables the sending of messages including images, animation and sound clips in addition to the text.

Using this function, you can send a message to mobile phones and e-mail recipients.

In addition, you can save multimedia resources such as images, animation and sound files attached to received multimedia messages, into your gallery.

Multimedia message service is available only when the service provider supports the service, and can be displayed only on a mobile phone that supports the service.

1. In Standby mode, press the  key to display the Menu screen.
2. Press 2 to enter Message.
3. Press 2 to enter Multimedia Message.

[Inbox]

Check received Multimedia messages.

Standby mode →  → Press 2 → Press 2 → Press 1

On the screen listing the received messages, press the  key to enter the Options menu.

Delete

Deletes messages stored in your Inbox.

Inbox →  → Press 1

Delete All

Deletes all messages stored in your Inbox.

Inbox →  → Press 2

On the screen listing the messages received, press the  key to display the content of the received message.

On the screen displaying the content, press the  key to enter the Options menu.

Delete : Deletes the selected message

Reply : Send a reply to the message sender.

Reply All : Send a reply to all people.

Forward : Forward or send after editing a received Multimedia MSG to another recipient.

Call Back : Call the message sender.

Extract : Extracts the message sender's phone number, Image, Animation Sound and other items.

Details : Displays the message topic, storage capacity, sender, all the recipients, and delivery time.

[Outbox]

The Outbox stores both sent messages and messages waiting to be sent.

Standby mode →  → Press 2 → Press 2 → Press 2

Unsent Items

Unsent messages, whether due to a sending failure or those explicitly saved before sending, are stored here.

Delete

Deletes messages stored in your Outbox.

Outbox → Press 1 →  → Press 1

Delete All

Deletes all messages stored in your Outbox.

Outbox → Press 1 →  → Press 2

On the screen listing the unsent messages, press the  key to display the content of the unsent message.

On the screen displaying the message content, press the  key to enter the Options menu.

Send : Resend the selected message.

Edit : Edit the selected message.

Delete : Delete the selected message.

Details : Displays the time the selected message was saved, sent and the number to which it was sent.

Sent Items

Stores sent messages.

Delete

Outbox → Press 2 →  → Press 1

Delete All

Outbox → Press 2 →  → Press 2

On the screen listing the sent messages, press the  key to display the content of sent messages.

On the screen displaying the message content, press the  key to enter the Options menu.

Send : Resend the selected message.

Edit : Edit the selected message.

Delete : Delete the selected message.

Details : Displays the time the selected message was saved, sent and the number to which it was sent.

[Write]

This function enables the user to write and send a new message.

Standby mode →  → Press 2 → Press 2 → Press 3

1. Write the message to send.
2. After inputting the message, press the  key to enter the Options menu.
 - Add Object** : Using this function, you can add text, edit text, add images and add sound to your message.
 - Remove Object** : Using this function, you can delete the object.
 - Page** : The page function enables you to send several pictures, sound and other items in a row, rather than splitting them into several segments. A single page can include one image, animation and one sound attachment. You can send several pages in a row.
 - Save** : Save edited messages to send later. The messages will be kept under the Unsent Messages tab in the Outbox. You can edit and send these messages later.
 - Edit Subject** : Using this function, you can edit the subject of message.
 - Preview** : Check the message before sending.
 - Exit** : Return to the Message menu.

3. Press the  key to enter the screen for keying in the recipient's number. Send the message by pressing the  key.

If you have forgotten the telephone number, press the  key, while on the screen with the recipient's name, to enter the telephone directory.

[Settings]

You can set various options for the SMS Center, delivery reports, validity periods, as well as setup a proxy server.

Standby mode →  → Press 2 → Press 2 → Press 4

General

You can set the validity period, delivery report, read report, and auto download, report sending.

Profile Settings

You can setup the option of a WAP browser using this function.

Voice Message

When a new voice mail arrives, an indicator icon is displayed on the screen. You can listen to the voice mail using this function.

Press the voice mailbox number if the number is stored in the handset's memory, or input the number manually.

Voice mail is a network service. For further details, consult your nearest service center.

1. In Standby mode, press the  key to display the Menu screen.
2. Press 2 to enter Message.
3. Press 3 to enter Voice Message.

[Listen to Voice MSG]

Listen to Voice Mail waiting in the Voice Mailbox.

Voice Message → Press 1 → Enter a Voice MSG No. → 

[Set Voice MSG No.]

Stores the Voice Mailbox Number.

Voice Message → Press 2 → Enter a Voice MSG No. → 

Info. Message

Informational Msg. is a network service that provides Informational Messages to many GSM mobile phone users.

For example, it provides information on weather forecast, traffic and stock prices.

1. In Standby mode, press the  key to display the Menu screen.
2. Press 2 to enter Message.
3. Press 4 to enter Info. Message.

[Read]

You can search and read the desired message.

Info. Message → Press 1 → Select a desired message

[Receive]

Choose whether to receive informational messages or not.

Info. Message → Press 2 → Please select an item 1 : On, 2 : Off

[Topics]

Choose the message topics.

Info. Message → Press 3 → Select a message topic.

At the topics list, press the  key to display the option menu.

Edit : Edit the selected message topic.

Delete : Delete the selected message topic.

Memory Status

You can check the Memory Status of your handset's memory.

1. In Standby mode, press the  key to enter the Menu screen.
2. Press 2 to enter Message.
3. Press 5 to enter Memory Status.

■ Calls

You can check your call history and utilize various network services in Calls.

Call History

Using this function, you can check recent calls you made, calls received and missed calls.

Also, you can check the time of each call.

1. In Standby mode, press the  key to display menu screen.
2. Press number 3 to enter Calls.
3. Press number 1 to enter Call History.
4. Full list of the Call History is displayed.

Pressing the  key displays currently selected call's information such as phone number, name and time spent.

Press the  keys to enter menu screen and following menu items will be displayed:

Save : Saves the phone number in your Contacts.

Delete : Deletes the phone number.

5. When the full list of Call History is displayed, press the  key to enter option screen.

[Missed Calls]

Displays phone numbers of calls you missed.

Standby Mode →  → Press 3 → Press 1 →  → Press 1

Pressing the  key displays information of caller's phone number, name and calling time.
Press the  key to enter menu screen and following menu items will be displayed :

Save : Saves the phone number in your Contacts.

Delete : Deletes the phone number.

[Received Calls]

Displays phone numbers of received calls.

Standby Mode →  → Press 3 → Press 1 →  → Press 2

Pressing the  key displays currently selected call's information such as phone number, name and time spent.

Press the  key to enter menu screen and following menu items will be displayed :

Save : Saves the phone number in your Contacts.

Delete : Deletes the phone number.

[Dialed Calls]

Displays phone numbers of dialed calls you made.

Standby Mode →  → Press 3 → Press 1 →  → Press 3

Pressing the  key displays currently selected call's information such as phone number, name and call time.

Press the  key to enter menu screen and following menu items will be displayed :

Save : Saves the phone number in your Contacts.

Delete : Deletes the phone number.

[Delete All]

Deletes call History information.

Standby Mode →  → Press 3 → Press 1 →  → Press 4

Select among Missed Calls / Received Calls / Dialed Calls / All Calls.

[Call Duration]

Displays the duration of selected calls including received and dialed.

Call Duration time displayed on your handset may differ from the actual time recorded by the service provider according to network performance, calculation formula and other reasons.

Standby Mode ➔  ➔ Press 3 ➔ Press 1 ➔  ➔ Press 5

Voice Call

Show the every variety of call duration.

Last Call : Displays last call's duration.

All Calls : Displays the sum of all received and dialed calls' duration.

Received Calls : Displays the sum of all received calls' duration up to now.

Dialed Calls : Displays the sum of all dialed calls' duration up to now.

Press the  key to reset the selected call duration.

Data Call

All Sent Data : Displays the sum of all sended data duration.

All Received Data : Displays the sum of all received data duration.

Press the  key to reset the selected data duration.

Network Services

Using this function, you can configure various network services.

Before using this service, check available services from your service provider.

1. In Standby mode, press the  key to display menu screen.
2. Press number 3 to enter Calls.
3. Press number 2 to enter Network Services.

[Call Diverting]

Using this function, you can divert incoming calls to a specified phone number.

For example, if you are off business and enjoying a movie in a theatre, you can divert incoming calls to your *(kidding -) HATRED* colleague's phone number.

Standby Mode ➔  ➔ Press 3 ➔ Press 2 ➔ Press 1

Always : Diverts all incoming calls to the specified number.

If Busy : Diverts incoming calls to the specified number if your line is busy.

If Out of Reach : Diverts incoming calls to the specified number if your handset is turned off, not in a service area or unreachable for other reason.

If No Reply : Diverts incoming calls to the specified number if you don't reply to the call.

Cancel All : Releases the all Call Diverting settings.

[Call Barring]

Using this network service, you can limit incoming and outgoing calls from your handset. You can limit following calls :

Standby Mode ➔  ➔ Press 3 ➔ Press 2 ➔ Press 2

Outgoing Calls : You cannot make an outgoing call from your handset.

International Calls : You cannot make an international call from your handset.

Int. Calls Except to Home : You can make an international call to only a domestic phone number or the number serviced by a domestic service provider.

Incoming Calls : You cannot receive an incoming call.

When Roaming : You cannot receive an incoming call when you are not in a serviced area.

Cancel All : Cancels all Call Barring settings and all incoming / outgoing calls are made properly.

Change password : You can set and change the password given by the service provider.

[Call Waiting]

Using this network service, you are notified with an incoming call when you are on another call.

Standby Mode ➔  ➔ Press 3 ➔ Press 2 ➔ Press 3

[Send My Number]

This function sends your previously specified phone number automatically.

It is convenient to use this function when you need to send your phone number for a call, ARS, phone banking and other services not to press your phone number by manual.

Standby Mode ➔  ➔ Press 3 ➔ Press 2 ➔ Press 4

Default : Sends the default number specified.

Hide Number : Does not send any number.

Send Number : Sends your phone number.



[Select Network]

Select Network is a function to choose a network when you are using an international roaming service whether by manual or by automatic selection. However, a roaming network is available to choose when your network provider has an agreement on roaming service with the roaming network provider.

Standby Mode ➔  ➔ Press 3 ➔ Press 2 ➔ Press 5 ➔ Select an option among Automatic and Manual.

[Select Band]

Using this function, you can select network band.

Standby Mode ➔  ➔ Press 3 ➔ Press 2 ➔ Press 6



■ Gallery

Using gallery function, you can manage various contents such as Image, Animation, Sound, Music and Memory Status.

Image

You can manage image files stored on your cellular phone. Using this function, selected image files can be sent to your friends or can be configured as a wallpaper.

1. Press  key in standby mode to enter the menu screen.
2. Select 4 to enter Gallery.
3. Select 1 to enter Image.
4. When a list of stored images appears, press  key to enter the option screen.

[Send]

Selected image among stored images can be sent to your friends.

Standby Mode ➔  ➔ Press 4 ➔ Press 1 ➔  ➔ Press 1

Send via MMS : You can send the selected image via MMS. For more details, refer to "Message" on page 63.



Send via Bluetooth : You can send the selected image via Bluetooth.
For more details, refer to “Bluetooth” on page 106.

[Use as Wallpaper]

Selected files among stored images can be assigned as a wallpaper.

Standby Mode →  → Press 4 → Press 1 →  → Press 2

[Delete]

Selected files or all stored image files can be deleted.

Standby Mode →  → Press 4 → Press 1 →  → Press 3 → Select ‘Delete’ or ‘Delete All’

[Rename]

Selected file among store images can be renamed.

Standby Mode →  → Press 4 → Press 1 →  → Press 4 → Enter a new name → 

For more details, refer to “Character Input Mode” on page 49.



[Details]

You can view details such as title, data, and size of selected image.

Standby Mode →  → Press 4 → Press 1 →  → Press 5

Animation

This function manages animation files stored in your cellular phone.

1. Press  key in standby mode to enter the menu screen.
2. Select 4 to enter Gallery.
3. Select 2 to enter Animation.
4. When a list of stored animations appears, press  key to enter the menu screen.

[Send]

Selected animation among stored animation can be sent to your friends.

Standby Mode →  → Press 4 → Press 2 →  → Press 1

Send via MMS : You can send the selected animation via MMS.
For more details, refer to “Message” on page 63.



Send via Bluetooth : You can send the selected animation via Bluetooth.
For more details, refer to “Bluetooth” on page 106.

[Use as Wallpaper]

Selected animation file among stored animations can be assigned as a wallpaper.

Standby Mode →  → Press 4 → Press 2 →  → Press 2

[Delete]

Selected files or all stored animations can be deleted.

Standby Mode →  → Press 4 → Press 2 →  → Press 3 → Select ‘Delete’ or ‘Delete All’

[Rename]

Selected files among stored animations can be renamed.

Standby Mode →  → Press 4 → Press 2 →  → Press 4 → Enter a new name → 

For more details, refer to “Character Input Mode” on page 49.



[Details]

You can view details such as title, data, and size of selected animation.

Standby Mode →  → Press 4 → Press 2 →  → Press 5

Sound

This function manages ring tones stored in your cellular phone. Using this function, a selected ring tone can be assigned.

1. Press  in standby mode to enter menu screen.
2. Select 4 to enter Gallery.
3. Select 3 to enter Sound.
4. When a list of stored ring tone appears, press  key to enter option screen.

[Send]

One of the stored sound can be selected and sent to your friends.

Standby Mode →  → Press 4 → Press 3 →  → Press 1

Send via MMS : You can send the selected sound via MMS.
For more details, refer to “Message” on page 63.



Send via Bluetooth : You can send the selected sound via Bluetooth.
For more details, refer to "Bluetooth" on page 106.

[Use]

Selected sound among stored sound can be assigned as bell sound.

Standby Mode → → Press 4 → Press 3 → → Press 2

As Ringtone : You can set the selected sound as ringtone.

As Morning call : You can set the selected sound as morning call bell sound.

[Delete]

Selected photos or all stored photos can be deleted.

Standby Mode → → Press 4 → Press 3 → → Press 3 → Select 'Delete' or 'Delete All'

[Rename]

Selected ring tone among stored ring tone can be renamed.

Standby Mode → → Press 4 → Press 3 → → Press 4 → Enter a new name →

For more details, refer to "Character Input Mode" on page 49.



[Details]

You can view details such as title, data, and size of selected ring tones.

Standby Mode → → Press 4 → Press 3 → → Press 5

Music

This function manages music files stored in your cellular phone. You can manage MP3 files in Gallery music folder and assign a music file as your ring tone.

1. Press key in standby mode to enter the menu screen.
2. Select 4 to enter Gallery.
3. Select 4 to enter Music.
4. When a list of stored music files appears, press key to enter the option screen.

[Send]

One of the stored MP3 file can be selected and sent to your friends.

Standby Mode → → Press 4 → Press 4 → → Press 1

Send via Bluetooth : You can send the selected MP3 file via Bluetooth.
For more details, refer to "Bluetooth" on page 106.



[Use]

Select to use the ringtone as selected MP3 file.

Standby Mode →  → Press 4 → Press 4 →  → Press 2

As Ringtone : You can set the selected MP3 file as ringtone.

As Morning call : You can set the selected MP3 file as morning call bell sound.

[Delete]

Selected file or all stored MP3 files can be deleted.

Standby Mode →  → Press 4 → Press 4 →  → Press 3 → Select 'Delete' or 'Delete All'

[Rename]

Selected files among stored MP3 files can be renamed.

Standby Mode →  → Press 4 → Press 4 →  → Press 4 → Enter a new name → 

For more details, refer to "Character Input Mode" on page 49.



[Details]

You can view details such as title, data, and size of selected MP3.

Standby Mode →  → Press 4 → Press 4 →  → Press 5

[Go to player]

You can go back to player mode.

Standby Mode →  → Press 4 → Press 4 →  → Press 6

Memory Status

You can check the Memory Status of your handset's memory.

1. In Standby mode, press the  key to enter the Menu screen.
2. Press 4 to enter Gallery.
3. Press 5 to enter Memory Status.

■ Settings

Using this function, you can set various options of Display, Sound, Phone setting, Security and Bluetooth.

Display

Using this function, you can set various Standby and Lighting options.

1. In Standby mode, press the  key to display menu screen.
2. Press number 5 to enter Settings.
3. Press number 1 to enter Display.

[Main LCD]

You can set an image and clock displayed in Standby mode, and also you can input words and set the color of characters.

Standby Mode ➔  ➔ Press 5 ➔ Press 1 ➔ Press 1

Image

You can select an image from images provided with your handset and those stored in your Gallery to set it as your Standby screen.

Select Image, and then select an image from provided images using the left and right side of  key to set it as your Standby screen.

Alternatively, you can select an Images from your Gallery by pressing the  key for your Standby screen.

Animation

You can select an Animation from animations provided with your handset and those stored in your Gallery to set it as your Standby screen.

Select Animation, and then select an animation from provided animations using the left and right side of  key to set it as your Standby screen.

Alternatively, you can select an Animation from your Gallery by pressing the  key for your Standby screen.

Clock

Sets the Clock type displayed on your Standby screen.

You can select from None / Digital / Dual / Analogue options.

If Dual is set, your time and the selected region's time are displayed.

You can adjust the dual zone's time by -1, off, +1 hour to apply the summertime or other adjustment.



Calendar

Sets a calendar as your Standby screen.

Text Input

You can display words on your Standby screen.

After inputting words, you can select the font color.

[Lighting]

Using this function, you can set Time, and Brightness of Lighting.

Standby Mode ➔  ➔ Press 5 ➔ Press 1 ➔ Press 2

Time

Sets the Lighting duration time for the LCD backlight.

Select from 5 sec / 10 sec / 20 sec / 1 Min.

Brightness

Sets the Brightness of the LCD display.

Four levels are available.

LED

Sets to appear the LED light in the Service area. Select an option from on/off.



[Menu Type]

Using this function, you can select the menu display.

Standby Mode ➔  ➔ Press 5 ➔ Press 1 ➔ Press 3

Select Matrix or Circular.

Sound

Using this function, you can set the Sound and its volume for incoming calls, Message Alert, Key tone and volume.

1. In standby mode, press the  key to display menu screen.

2. Press number 5 to enter Settings.

3. Press number 2 to enter Sound.

[Incoming Call]

You can select a ring tone from various ring tones provided for Incoming Calls.

Standby Mode ➔  ➔ Press 5 ➔ Press 2 ➔ Press 1

Mode

Sets the way of notification for Incoming Calls.

Ring Tone Only : The Ring Tone rings only.

Vibration Only : The handset vibrates only.

Ring Tone + Vib : Ring Tone rings, and your handset vibrates at the same time.

Silent : Your handset does not vibrate nor ring.

Ring Tone to Vib : Ring Tone rings, and then your handset vibrates afterwards.

Vib to Ring Tone : The handset vibrates, and then the Ring Tone rings.

Ascending : Ring Tone rings increasingly loud.

Ring Tone

You can select your Ring Tone from various tones and melodies provided with your handset and those stored in your Gallery.

Select Ring Tone, and then press the  key to select a Ring Tone or a Melody from your Gallery.

[Message Alert]

You can set the sound for incoming messages.

Standby Mode ➔  ➔ Press 5 ➔ Press 2 ➔ Press 2

You can set various options for message arrivals.

Alert Period : Sets the interval between repeating alerts when a message arrives.

Select from Once / Every 2 Min. / None.

Alert Sound : Sets the Ring Tone for the message alert when you selected Ring Tone Only or Ring Tone + Vib option for your Alert Mode.

Alert Mode : Sets the type of notification for arriving messages.

Select from Ring / Vibrator / Vib + Ring / Silent.

[Key Tone]

You can set the key tone for number and menu keys.

Standby Mode ➔  ➔ Press 5 ➔ Press 2 ➔ Press 3

Dial Sound

Sets the Dial Sound.

Menu Sound

Sets the sound for a menu traversal.

[Volume]

Sets the Volume of the ring tone which listed above, Incoming Calls, Message, Keytone, Power On/Off, Others.

Standby Mode →  → Press 5 → Press 2 → Press 4

Five levels are available.

Phone Setting

You can set the date, time, language and other various options of your handset.

1. In Standby mode, press the  key to display menu screen.
2. Press number 5 to enter Settings.
3. Press number 3 to enter Phone Setting.

[Date & Time]

You can set Date, Time and Time Zone. You can select the indication formats for Date and Time.

Standby Mode →  → Press 5 → Press 3 → Press 1

1. Set the date.
2. Select input type among YYYY / MM / DD, DD / MM / YYYY, MM / DD / YYYY.
3. Set the Time Zone.
4. Set the time.
5. Select the time format from 12hours / 24hours.
6. After finishing, press the  key to save your settings.



When user changed time value, the schedule could be deleted, which saved on handset.

[Language]

You can set the Language for your handset.

Standby Mode →  → Press 5 → Press 3 → Press 2

[Answer Key]

You can set a key as the Answer Key to answer an incoming call.

Standby Mode →  → Press 5 → Press 3 → Press 3

Select an option from Any Key / Send Key.

[Auto Key Lock]

Using this function, buttons are locked automatically.

Standby Mode →  → Press 5 → Press 3 → Press 4

[Auto Answer]

You can take advantage of this function when you use an ear-mic-phone (hands-free) connected to your handset. When the ear-mic-phone is connected to your handset and Auto Answer is set, an incoming call will be answered automatically without pressing the Answer Key.

Standby Mode →  → Press 5 → Press 3 → Press 5

Select an option from Off / 5 sec / 10 sec.

[Auto Redial]

Using this function, you can automatically redial the number from missed and other failed calls.

Standby Mode →  → Press 5 → Press 3 → Press 6

Select an option from Off / On.

[Factory Set]

Using this function, you can reset all settings of your handset to factory default values. Entering password will enable the Factory Set.

Standby Mode →  → Press 5 → Press 3 → Press 7

[My Favorite]

Using this function, you can configure your own menu screen with frequently used and preferred menu items.

Standby Mode →  → Press 5 → Press 3 → Press 8 → Select a desired menu by pressing the  key → 

After saving menu items, press the right side of the  key in Standby mode to directly enter Favorite menu screen.

Bluetooth

You can use this function to make a wireless connection to other Bluetooth devices for data exchange or to make a call or configure your mobile phone without using your hands.

1. In the standby screen, press the  key to go to the menu screen.
2. Press number 5 to enter Settings.
3. Press number 4 to enter Bluetooth.

[Switch]

Enable or disable Bluetooth.

Standby Mode →  → Press 5 → Press 4 → Press 1

On : Enable Bluetooth.

Off : Disable Bluetooth.

[Handsfree]

Search for other Bluetooth devices that are available for connection.

Standby Mode →  → Press 5 → Press 4 → Press 2

If Bluetooth is not set to "On", a pop-up window appears asking whether to enable Bluetooth or not. Select "Yes" to enable Bluetooth.

Press the  key to go to "Add" and then all available Bluetooth devices found will be displayed.

Select a desired Bluetooth device and enter a password for that device to complete connection.

(The initial password is set to "0000".)

[Phone Visibility]

Allow connections from other Bluetooth mobile phones to my mobile phone.

Standby Mode →  → Press 5 → Press 4 → Press 3

Show Phone : Allow other mobile phones to search for and connect to my mobile phone.

Hide Phone : Do not allow other mobile phones to search for my mobile phone.

[Phone Name]

Specify the name of my mobile phone that is shown to other Bluetooth devices.

Standby Mode →  → Press 5 → Press 4 → Press 4

Security

Sets security numbers for your privacy and protection of your handset.

1. In Standby mode, press the  key to display menu screen.
2. Press number 5 to enter Settings.
3. Press number 5 to enter Security.

[PIN]

PIN (Personal Identification Number) prevents the use of an unapproved SIM card.

PIN is usually provided with the SIM card. When your PIN has been approved, you must enter the PIN each time you switch the phone on.

Standby Mode →  → Press 5 → Press 5 → Press 1

Enable PIN : As the SIM card is locked, you must enter your PIN whenever you switch the phone on.

[Change PIN]

To some SIM cards, PIN is also provided on some SIM cards. To use a function, this number may be required. This feature requires support of the SIM card.

Standby Mode →  → Press 5 → Press 5 → Press 2

Change PIN : You can change your current PIN to a new one. You must enter the current PIN before you can specify a new one.

[Lock]

You can lock a selected menu item or your entire handset for your privacy.

Standby Mode →  → Press 5 → Press 5 → Press 3

Private Lock

Locks a selected menu item.

A locked menu item requires access password for each use.

Select a menu to be locked by pressing the  key and then press the  key to save your setting.

The initial password is "0000".

Power on Lock

Locks your entire handset.

If this function is set, a password input is required every time the handset is turned on.

Change Password

Changes the password.

Enter the current password and then enter the new password to be set.

[FDN]

FDN : With the phone FDN (Fixed Dialing Numbers) is provided, you can dial only several numbers you specify. To use this mode, you have to enter PIN2 number.

Standby Mode ➔  ➔ Press 5 ➔ Press 5 ➔ Press 4

The following options are available :

Enable : Activates or deactivates the FDN mode.

The number of your phone may be different from the number of the SIM card.

[Change PIN2]

To some SIM cards, PIN2 is also provided. To use a function, this number may be required. This feature requires support of the SIM card.

Standby Mode ➔  ➔ Press 5 ➔ Press 5 ➔ Press 5

Change PIN2 : You can change your current PIN to a new one. You must enter the current PIN before you can specify a new one.

PC Connection

You can connect your handset to a computer for receiving or sending your data. You need to pre-set the connection method.

1. In Standby mode, press the  key to display the Menu screen.
2. Press 5 to enter Settings.
3. Press 6 to connect your computer.

[PC Sync]

Connects your handset to PC Sync in the computer software. You can receive or send data for the telephone directory, calendar, and memo function.

Standby Mode ➔  ➔ Press 5 ➔ Press 6 ➔ Press 1

[USB Mass Storage]

Connects the storage stick to your computer. You can receive and send image, animation and other data.

Standby Mode ➔  ➔ Press 5 ➔ Press 6 ➔ Press 2

Available saving extension at USB Mass Storage

Folder	Extension
My Image	.jpg / .bmp / .wbmp / .png / .ems / .gif (not animation)
My Animation	.gif (animation)
My Sound	.wav / .mid / .imy
My Music	.mp3 / .aac

■ Organizer

Organizer provides various functions such as Calendar, Alarm, Memo, Calculator, World Time, Unit Convert and Stop watch.

Calendar

Using this function, you can input and check your anniversaries, important appointments, and other events of which you can be reminded by setting the alarm.

1. In Standby mode, press the  key to display menu screen.
2. Press number 6 to enter Organizer.
3. Press number 1 to enter Calendar.
4. After the calendar is displayed, press the  key to select a date and then press the  key to display a submenu screen of the selected date.
To check your schedule, press the  key to select a date and then press the  key, and number 3 to display the Schedule List.

[New]

Inputs a new schedule item.

Standby Mode →  → Press 6 → Press 1 →  → Press 1

1. Input following items :

Subject

Input the subject of the schedule item.

Start Date & Time

Input the start date and time of the schedule item.

End Date & Time

Input the end date and time of the schedule item.

Location

Input the location of the schedule item.

Notes

Input a reminding note of the schedule item.

Alarm

Set the alarm time.

Alarm Sound

Set the ring tone for the alarm.

2. After finishing, press the key to save the schedule item.

[Delete All]

Deletes all the schedule items stored on the selected date.

To delete all the schedule items, confirm the prompt message displayed by pressing the  key.

Standby Mode →  → Press 6 → Press 1 →  → Press 2 →  → Enter the password → 

[Schedule List]

Displays all the schedule items stored on the selected date.

Standby Mode →  → Press 6 → Press 1 →  → Press 3

New

Inputs a new schedule item for the selected date.

1. Input respective schedule data items.

2. After inputting schedule data items, press the  key to save it.

For further details, please refer to "New" of "Calendar" on page 113.

Send via Bluetooth

Using Bluetooth wireless communication, you can send data to another device.

When Bluetooth is activated, an indicator  is displayed.

For further details on Bluetooth, please refer to "Bluetooth" of "Settings" on page 106.

Delete

Deletes one selected schedule item only.

To delete selected item, confirm the prompt message displayed by pressing the  key.

Delete All

Deletes all the schedule items stored on the selected date.

To delete all the schedule items, confirm the prompt message displayed by pressing the  key.

Go to Date

Moves to the selected date when you press the  key.

Auto Delete

Deletes schedule items automatically according to the selected expiry date.

You can select from Never / After 1 Day / After 1 Week / After 1 Month.



If you change the Date & Time of Phone Setting in Settings menu to the one following the date and time of a preset schedule item, this schedule item will not be automatically deleted by the Auto Delete setting.

[Go to Date]

Moves to the selected date when you press the  key.

Standby Mode →  → Press 6 → Press 1 →  → Press 4

Alarm

Sets the Alarm to notify you at the time you set.

1. In Standby mode, press the  key to display menu screen.
2. Press number 6 to enter Organizer.
3. Press number 2 to enter Alarm.

[Morning Call]

You can set the Morning Call time.

The Morning Call repeats after an interval set unless you stop it by pressing  key.

Standby Mode →  → Press 6 → Press 2 → Press 1

1. Input following items to set the Morning Call :
Time : Using number keys, set the time of Morning Call.

Days : Select the day on which you want to set the Morning Call.

Select from Everyday/Once/Mon - Fri/Mon - Sat/None.

Snooze : Select the Snooze interval of the Morning Call.

The Morning Call will repeat with a selected ring tone after an interval you set.

If Snooze is set to a value other than Off, you need to open up the slide of the handset and then press the  key to release the Snooze not to repeat the ring.

Select from Off / 1 min / 5 min / 10 min / 30 min / 1 hour.

Alarm Mode : Sets the Alarm Mode of the Morning Call.

Select from Sound / Vibration / Vibration + Sound.

Alarm Sound : Sets the Alarm Sound of the Morning Call.

2. After finishing, press the  key to save and complete your Morning Call settings.

[Reminder]

You can set a Reminder to ring alarms for anniversaries, important and repeating schedule events at the time you set.

Standby Mode ➔  ➔ Press 6 ➔ Press 2 ➔ Press 2

Pressing the  key displays the Menu.

New

Sets a new Reminder item.

Select repeating interval from Once / Daily / Weekly / Monthly.

Once : Reminder will alarm on the date you set only.

- Subject : Set the Subject of the Reminder.

- Date : Set the date of the Reminder.

- Time : Set the time of the Reminder.

Daily : Reminder will alarm everyday at the time you set.

- Subject : Set the Subject of the Reminder.

- Time : Set the time of the Reminder.

Weekly : Reminder will alarm every week on the day you set.

- Subject : Set the Subject of the Reminder.

- Date : Set the day of the week of the Reminder.

- Time : Set the time of the Reminder.

Monthly : Reminder will alarm every month on the date you set.

- Subject : Set the Subject of the Reminder.

- Date : Set the dates of the Reminder. Set the dates using number keys.

- Time : Set the time of the Reminder.

After finishing, press the  key to save and complete your Reminder settings.

Delete
Deletes a selected Reminder.

Delete All
Deletes all the Reminder items stored.

Alarm Option
Sets Alarm Mode and Alarm Sound.

Memo

Using this function, you can edit and delete Memos.

Standby Mode →  → Press 6 → Press 3

Press the  key, you can enter a new Memo.
Enter the contents in the selected empty item.
Press the  key to save it.
Press the  key to display the option menu.

[Edit]

After editing a Memo, press the  key to save it.

[Delete]

Deletes a selected Memo.

[Delete All]

Deletes all the Memo items stored.

Calculator

Using this function, you can perform simple calculations such as addition, subtraction, multiplication, and division.

Standby Mode →  → Press 6 → Press 4

[Function Keys]



Resets the Calculator.



Returns to previous screen.



 : Multiply X Divide ÷

 : Add + Subtract -

 : Shows the result.



Deletes a number wrong fully entered.



Enters a decimal point.



Enters a plus or minus sign.

Unit Converter

You can convert one length, weight, volume, surface and temperature unit into another unit.

Standby Mode →  → Press 6 → Press 5

After selecting the original unit, select your target unit to convert into by using left and right side of the  key.

World Time

Displays the World Time for the selected region.

Standby Mode →  → Press 6 → Press 6

Using the  key, select the region you want to display the time for.

Stop Watch

You can use a stop watch function.

Standby Mode →  → Press 6 → Press 7

Start : Press the  key to start.

Stop : Press the  key to stop, when you use the Stop Watch function.

Lap : Use this function, you can measure the lap time.

Reset : Use this function, you can reset the measured time recording.

MP3 Player

You can always enjoy music using the embedded MP3 Player.

In Standby mode, press the upper key of  to enter MP3 Player mode.

Music Play

Using this function, you can playback MP3 music files.

1. In Standby mode, press the  key to display menu screen.
2. Press number 7 to enter MP3 Player.
3. Press number 1 to enter Music play.

[Function Keys]

	Returns to setting menu screen from MP3 playback mode.
	Shows the list of MP3 files currently played back.
	 : Volume Control.
	 : Moves to the previous and next music file.
	 : Play / Pause.
	Volume Control.
	Returns to the previous stage.
	Returns to Standby mode.

[Set]

Standby Mode →  → Press 7 → Press 1 → 

Equalizer

You can choose a equalizer effect of the MP3 player.

Repeat

Sets the repeating option of MP3 playback.

Off : Does not repeat.

One : Repeats the MP3 file currently played back.

All : Plays back all the MP3 files in the list and then repeats from the beginning.

Shuffle

Shuffles and plays back music files in the list.

Setting it to On shuffles and plays back music files in arbitrary order where Off plays back music files sequentially in the order of list.

Edit Playlist

You can choose an MP3 file to playback.

1. In Standby mode, press the  key to display menu screen.
2. Press number 7 to enter MP3 Player.
3. Press number 2 to enter Edit Playlist.

[Function Keys]

-  Returns to the option screen.
-  Returns to the MP3 Player mode.
-  : Selects a Playlist.
-  : Selects a music file.
-  Returns to the previous stage.
-  Returns to Standby mode.

[Option]

Standby Mode →  → Press 7 → Press 2 → 

Select All : Selects all music files in the list to playback.

Clear All : Deselects all selected music files in the list.

Invert : Inverts your selection by deselecting selected files and selects not selected files.

About Track : Shows the details of the selected file.

■ Joy World

You can enjoy various functions such as Internet and JAVA.

Internet

Your handset supports WAP browser so that you can connect to and use wireless internet connection.

1. In Standby mode, press the  key to display menu screen.
2. Press number 8 to enter Joy World.
3. Press number 1 to enter Internet.

Or, press the  key in Standby mode to enter Internet directly.

[Home]

Select this item to connect to the internet and it will display the Home page of the wireless internet service provider.

Standby Mode →  → Press 8 → Press 1 → Press 1

[Bookmarks]

Using this function, you can store a URL of your favorite site.

Standby Mode →  → Press 8 → Press 1 → Press 2

Add

1. Press the  key to display the option screen.
2. Press number 1 to add a new bookmark.
3. Give the bookmark a URL, Title, and assign a Folder.
Press the  key to save the bookmark.

Edit

1. Select a URL to edit and then press the  key to display the option screen.
2. Press number 2 to edit the bookmark.
3. Edit selected bookmark as in Adding a New Bookmark, and then press the  key to save it.

Delete

1. Select a URL to delete and then press the  key to display the option screen.
2. Press number 3 to delete the selected URL only.

Set as Home

1. Select a URL to set as homepage and then press the  key to display the option screen.
2. Press number 4 to set the selected URL as home.

[Go to URL]

You can enter the URL directly and connect to the site.

Standby Mode →  → Press 8 → Press 1 → Press 3

[Profile Settings]

Using this function, you can setup WAP browser options.

Standby Mode →  → Press 8 → Press 1 → Press 4 → Select a service provider

Profile Name

Enter Profile Name.

Homepage

Enter Homepage.

Connect Mode

Select the connect mode option from CL / CO / TCP.

IP Address

Enter IP Address

GPRS Data Attach

Attach the selected service provider.

GSM Data Attach

Attach the selected service provider.

Detach Data Account

Detach the selected service provider.

[General Settings]

Standby Mode →  → Press 8 → Press 1 → Press 5

Access Type

Select the Access Type option from GPRS preferred / GSM only / GPRS only.

Push Access

Sets the WAP push access option.

Load Images

Sets to display the image in WAP.

Data Account

GSM Settings

- Setup : Using this function, you can set the selected service provider's data call type, dial-up number, log-in name and password.
- Add : Using this function, you can add a new service provider.

- Edit : Using this function, you can edit the name of the selected service provider.
- Delete : Using this function, you can delete the selected service provider.

GPRS Settings

- Setup : Using this function, you can set the selected service provider's APN, Log-in Name, Password and Local address.
- Add : Using this function, you can add a new service provider.
- Edit : Using this function, you can edit the name of the selected service provider.
- Delete : Using this function, you can delete the selected service provider.

[History]

Shows the list of the contacted URL records.

Standby Mode →  → Press 8 → Press 1 → Press 6

[WAP Inbox]

Stores the WAP Push Messages.

Standby Mode →  → Press 8 → Press 1 → Press 7

[Clear Cache]

Clears the WAP browser's cache memory.

Standby Mode ➔  ➔ Press 8 ➔ Press 1 ➔ Press 8 ➔ 

JAVA

You can set the programs about JAVA.

Java application programs are installed.

1. In Standby mode, press the  key to display menu screen.
2. Press number 8 to enter Joy World.
3. Press number 2 to enter Java.

OTHER FUNCTIONS

- Safety Information
- Glossary

■ Safety Information

Password Input

There are several passwords that are used by your phone and its SIM card. These passwords help you protect your phone against unauthorized use.

Phone Password

The phone password is used for unlocking the keys, deleting all Phonebook entries, restoring the factory setting, and locking or unlocking the phone. If the Phone Lock feature is enabled, you must enter the password each time the phone is turned on.

This password can be used to avoid unauthorized use of your phone. The password is usually preset to "0000".

PIN Code

PIN(Personal Identification Number)code protects your SIM card against unauthorized use. The PIN code is usually supplied with the SIM card. When the PIN code request is enabled, the code is asked each time the phone is switched on.

If you key in incorrect PIN code three times in succession, the phone will lock and you will be required to enter a PUK code. When you enter a new PIN code, you will have to enter your new password twice to confirm correct.

PIN2 code

Some SIM cards are provided with a PIN2 code. To use a function this code may be required. The use of this code requires the support of the SIM card.

If you key in an incorrect PIN2 code three times in succession, enter the PUK 2 code and then press the  key.

When you enter a new PIN2 code, you will have to enter it twice for confirmation and then press the  key.

PUK code

The PUK (Personal Unblocking Key) code is used for changing a blocked PIN code. This code is usually supplied with the SIM card, if not contact your service provider.

If you key in an incorrect PUK code ten times in succession, the SIM card will become void and you must obtain a new card. As the PUK code cannot be changed, contact your service provider if you forget the code.

PUK2 code

The PUK2 code, supplied with some SIM cards, is required to change a blocked PIN2 code. If you key in an incorrect PUK2 code ten times in succession, you cannot use the functions requiring the PIN2 code. Contact your service provider for a new card. You cannot change the PUK2 code. If you lose the code, contact your service provider.

Barring Password

The 4-digit barring password is required when you use the Call Barring function. You can obtain the password from your service provider when you subscribe to this function.

Using the Batteries

The battery provided with the phone is a Lithium slim battery.

Precautions When Using Batteries

- Never use any charger or battery that is damaged in any way.
- Use the battery only for its intended purpose.
- If you use the phone near the network base station, it uses less power ; talk and standby times are greatly affected by the signal strength on the cellular network and the parameters set by the network operator.
- Battery charging times depend on the remaining battery charge, the type of battery, and charger used. The battery can be charged and discharged hundreds of times, but it will gradually wear out. When the operation time (talk time and standby time) is noticeably shorter than normal, it is time to buy a new battery.

- If left unused, a fully charged battery will discharge itself over time.
- Use only approved batteries and recharge your battery only with approved chargers. When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for more than a week, since overcharging may shorten its life.
- Extreme temperatures will affect the charging capacity of your battery: it may require cooling or warming first.
- Do not leave the battery in hot or cold places, such as in a car in summer or winter conditions, as you will reduce the capacity and life-time of the battery. Always try to keep the battery at room temperature. A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Li-ion batteries are particularly affected by temperatures below 0°C (32°F).
- Accidental short circuiting can occur when a metallic object (coin, clip or pen) causes a direct connection between the + and - terminals of the battery (metal strips on the back of the battery), for example when you carry a spare battery in a pocket or bag. Short-circuiting the terminals may damage the battery or the object causing the short-circuit.
- Dispose of used batteries in accordance with local regulations. Always recycle. Do not dispose of batteries in a fire.

Safety Information

Traffic Safety

Do not use a hand-held mobile phone while driving a vehicle. If using a hand-held phone, park the vehicle before conversing. Always secure the phone in its holder, do not place the phone on the passenger seat or where it can break loose in a collision or sudden stop. The use of an alert device to operate a vehicle lights or horn on public roads is not permitted.

Remember, road safety always comes first!

Operating Environment

Remember to follow any special regulations in force in any area and always switch off your phone whenever it is forbidden to use it, or when it may cause interference of danger. When connecting the phone or any accessory to another device, read its users guide for detailed safety instructions. Do not connect incompatible products. As with other mobile radio transmitting equipment, users are advised that for the satisfactory operation of the equipment and for the safety of personnel, it is recommended that the equipment should only be used in the normal operating position (held to your ear with the antenna pointing over your shoulder).



Electronic Devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your mobile phone.

Pacemakers

Using the phone within 6 inches (20cm) may cause a potential interference with a pacemaker.

Persons with pacemakers:

- Should always keep the phone more than 6 inches (15cm) from their pacemaker when the phone is switched on.
- Should not use the phone near around their chests.
- Should use the ear opposite the pacemaker to minimize the potential for interference.
- If you have any reason to suspect that interference is taking place, switch off your phone immediately.

Hearing Aids

Some digital mobile phones may interfere with some hearing aids. For more information, contact your service provider.



Other Medical Devices

Electromagnetic waves generated from the cellular phones may dangerously affect medical devices. Switch off your phone in health care facilities in accordance with their regulations.

Car

Electromagnetic wave signals may affect improperly installed or inadequately shielded electronic systems in a car. Check with the manufacturer regarding your car before using your phone.

Potentially Explosive Atmospheres

Switch off your phone when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Users are advised to switch off the phone while at a refueling point (service station). Also switch your phone off when you are below deck on boats; in chemical transfer or storage facilities and in vehicles using liquefied petroleum gas as the air may contain chemicals or particles such as grain, dust or metal powders.

Vehicles

Only qualified personnel should service the phone, or install the phone in a vehicle. Faulty installation or service may be dangerous.

Check regularly that all mobile phone equipment on your vehicle is mounted and operating properly. Do not store or carry flammable liquids, gases or explosive materials in the same compartment as the phone, its parts or accessories.

Do not install your mobile phone equipment near an air bag. If the air bag inflates, your phone may be damaged.

Switch off your phone before boarding an aircraft. The use of mobile phones in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network and may be illegal.

Failure to observe these instructions may lead to the suspension or denial of telephone services to the offender, or legal action, or both.

Emergency Calls

Important!

This phone, like any mobile phone, operates using radio signals, wireless and landline networks as well as user-programmed functions that cannot guarantee connection in all conditions.

Therefore, you should never rely solely upon any wireless phone for essential communications (for example, medical emergencies).

Remember, to make or receive any calls the phone must be switched on and in a service area with adequate signal strength. Emergency calls may not be possible on all wireless phone networks or when certain network services and phone features are in use. When you cannot use this function, contact your local service provider.

To Make an Emergency Call :

1. If the phone is not on, switch it on.
2. Key in the emergency number for your present location (for example, 999 or other official emergency number). Emergency numbers vary by location.
3. Press the SOS key. If certain features are in use (key guard, restrict calls, etc.), you may first need to turn those features off before you can make an emergency call. Consult this document and your local cellular service provider. When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your phone may be only means of communication at the scene of an accident-do not cut off the call until given permission to do so.

Care and Maintenance

Your phone is a product of superior design and craftsmanship and should be treated with care. Carefully read the following information :

- Keep it and all its parts and accessories out of small children's reach.
- Keep it dry. Precipitation humidity and liquids contain minerals that will corrode electronic circuits.
- Do not use or store it in dusty, dirty areas.
- Do not store it in hot or cold areas. High or low temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store it in cold areas. When the phone warms up (to its normal operating temperature), moisture can form inside the phone, which may damage the phone.
- Do not drop, knock or shake it. Rough handling can break internal circuit boards.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it. Wipe it with a soft cloth slightly dampened in a mild soap and water solution.
- Do not paint the phone. Paint can clog the devices moving parts and prevent proper operation.

VK2020

- Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications of attachments could damage the phone and may violate regulations governing radio devices.
- If the phone, battery, charger, or any accessory is not working properly, take it to your nearest qualified service facility.

FDA Consumer Update

Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the stand-by mode.

Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects.



Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

What is FDA's role concerning the safety of wireless phones?

Under the law, FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, FDA has urged the wireless phone industry to take a number of steps, including the following :

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;
- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health



FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group :

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Federal Communications Commission
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC).

All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure.

FCC relies on FDA and other health agencies for safety questions about wireless phones.



FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the primary subject of the safety questions discussed in this document.

What kinds of phones are the subject of this update?

The term wireless phone refers here to hand-held wireless phones with built-in antennas, often called cell, mobile, or PCS phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety guidelines that were developed with the advice of FDA and other federal health and safety agencies.

When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called cordless phones, which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures well within the FCC's compliance limits.



What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures.

However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.



What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists.



Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

What is FDA doing to find out more about the possible health effects of wireless phone RF?

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF).

FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues. FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety.



FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

How can I find out how much radio frequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radio frequency energy (RF) exposures. FCC established these guidelines in consultation with FDA and other federal health and safety agencies. The FCC limit for exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6W/kg).

The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissue that absorb energy from the wireless phone and is set well below levels known to have effects.



Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (<http://www.fcc.gov/oet/rfsafety>) gives directions for location the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

What has FDA done to measure the radio frequency energy coming from wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radio frequency energy (RF) exposure from wireless phones and other wireless hand sets with the participation and leadership of FDA scientists and engineers. The standard, Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices :

Experimental Techniques, sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissue simulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone.

SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guideline.



What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

If there is a risk from these products--and at this point we do not know that there is--it is probably very small.

But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.

* If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna.

Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.



What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers.

If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

FCC RF EXPOSURE INFORMATION

Read this information before using your phone
In August 1996 the Federal Communications Commission (FCC) of the United States with its action in Report and Order FCC 96-326 adopted an updated safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this phone complies with the FCC guidelines and these international standards.
Use only the supplied or an approved antenna. Unanthorized antennas, modifications, or attachments could impair call quality, damaged the phone, or result in violation of FCC regulations.
Do not use the phone with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result. Please contact your local dealer for replacement antenna.

Body-worn Operation
This device has been tested for body-worn operation and meets FCC RF exposure guidelines. Body-worn operation is restricted to accessories that maintain a minimum of 1.5cm separation to the body and do not contain metallic components.
Use of any other body-worn accessories may not compliance with FCC RF exposure guidelines.

For more information about RF exposure, please visit the FCC website an www.fcc.gov

Specific Absorption Rate (SAR) for Wireless Phones
The SAR is a value that corresponds to the relative amount of RF energy absorbed in the head of a user for a wireless handset. The SAR value of a phone is the result of an extensive testing, measuring and calculation process. It does not represent how much RF the phone emits. All phone models are tested at their highest value in strict laboratory settings. But when in operation, the SAR of a phone can be substantially less that the level reported to the FCC. This is because of a variety of factors including its proximity to a base station antenna, phone design and other factors. What is important to remember is that each phone meets strict federal guidelines. Variations in SAR's do not represent a variation in safety. All phones must meet the federal standard, which incorporates a substantial margin of safety. As stated above, variations in SAR values between different model phones do not mean variations in safety. SAR values at or below the federal standard of 1.6W/kg are considered safe for use by the public.

The highest reported SAR values of VK2020 are :
PCS mode-Head : 1.330 W/kg Body-worn : 0.325 W/kg

FCC Radio Frequency Emission

This phone meets the FCC Radio Frequency Emission Guidelines.

FCC ID number : SBWVK2020

More information on the phone's SAR can be found from the following FCC website :

<http://www.fcc.gov/oet/fccid>

FCC Part 15 Class B Compliance

This device and its accessories comply with part 15 of FCC rules. Operation is subject to the following two conditions : (1) this device and its accessories may not cause harmful interference, and (2) this device and its accessories must accept any interference received, including interference that may cause undesired operation.

Radio Frequency (RF) Signals

This VK2020 model meets international standards for exposure to radio waves.

Your mobile phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population.

Those guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The guidelines include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. Under the guidelines for your phone model, the SAR limit is 2.0 W/kg. *

Tests for SAR are conducted in accordance with CENELEC * testing procedures using standard operating positions with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operation can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output of the phone.

Before a phone model is available for sale to the public, it is tested to confirm compliance with the guidelines.

The tests are performed in positions and locations (e.g., at the ear and worn on the body) that conform to a uniform testing methodology determined by an expert standards body.

The highest SAR values of this model are DCS band head SAR : 1.130, GSM band head SAR : 0.914. While there may be differences between the SAR levels of various phones and at various positions, they all meet the governmental requirement for safe exposure. Please note that improvements to this product model could cause differences in the SAR value for later products; in all cases, products are designed to be within the guidelines.

*** The SAR limit recommended by international guidelines (ICNIRP) for mobile phones used by the public is 2.0 watts/kilogram (W/kg) averaged over ten grams of tissue. The limit incorporates a substantial margin for safety to give additional protection for the public and to account for any variations in measurements.**

**** CENELEC is a European Union standard body.**

■ Glossary

Airtime

Actual time spent talking on the wireless phone. You are billed according to this reference.

Antenna

A device for transmitting or receiving signals. The size and shape of antennas is determined, in part, by the frequency of the signal they receive. Wireless phones and the base station must have antennas.

ALS (Alternate Line Service)

ALS provides the capability of associating two alternate lines with one SIM card. You can make and receive calls on either line as desired with this service.

Call Barring

Ability to restrict outgoing and incoming calls.

Call Divert

Ability to reroute calls to another mobile or fixed line.

Call Holding

Ability to put one call on standby while answering or making another call; you can then switch between the two calls, as required.

Call Waiting

Ability to inform users that they have an incoming call when engaged on another call.

CLI (Caller Line Identification) Service
Service allowing subscribers to view or block the telephone numbers of callers.

Conference Calling
Ability to establish a conference call involving up to five additional parties.

DTMF (Dual-Tone Multi Frequency)
You send DTMF signals when you enter numbers by pressing the digit keys.

Hands-Free
A feature that permits a driver to use a wireless phone without lifting or holding the handset an important safety feature for automobiles, tractors and most other motorized vehicles.

GSM
(Global System for Mobile Communication)
International standard for cellular communication, guaranteeing compatibility between the various network operators. GSM covers most European countries and many other parts of the world.

LCD (Liquid Crystal Display)
Commonly used to refer to the screen display on the wireless phone.

LED (Light Emitting Diode)
Commonly used to refer to a small light on the wireless phone or on the Desktop Charger. The lights on the charger indicate that battery charging is taking place.

PIN (Personal Identification Number)
Security code that protects the phone against unauthorized use. The PIN is supplied by the service provider with the SIM card. It may be a four to eight-digit number and can be changed, as required.

PUK (PIN Unblocking Key)
Security code used to unlock the phone when an incorrect PIN has been entered three times in succession. The eight-digit number is supplied by the service provider with the SIM card.

Roaming
Use of your phone when you are outside your home area (when traveling for example).

SIM (Subscriber Identification Module)
A card containing an integrated circuit. The circuit contains the information about the phone operation.

SMS (Short Message Service)
A network service sending and receiving messages to and from other persons without the need to call. The incoming messages immediately appear on the display, and you can edit, receive and send the messages.



Soft Keys

The function of this key :

- Varies according to the function that you are currently using.
- Is indicated on the bottom line of the display just above the corresponding key.

Voice Mail

When you cannot be reached, you can record your voice using this function.

Wireless

Receives signals. There is not need to connect using a physical connection, such as a metal wire (copper) or fiber optic cable.

For more details, contact your local service provider. There may be some differences between the phone and user manual.