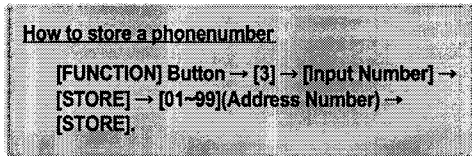


3. Using Memory Functions

3.1 To Store Telephone Numbers

- You can store up to 99 telephone numbers using 2-digit addresses from 01 to 99. To make a call to the stored telephone number, you have simply dial its address.



3.2 To Make a Phone Call to the Stored Telephone Number.

3.2.1 Speed Dial

(Before you can use Speed Dialing, you must enable this option. To learn how this option is enabled, refer to 4.1.3.)

1) 1-Digit Address

Using Speed Dialing you can quickly make a call to 9 telephone numbers stored under addresses 01 through 09:

- Pick up the handset, press a digit from 1 to 9, and then press [SEND].
- or
- Pick up the handset, press and hold a digit from 1 to 9.
- The telephone number will be dialed automatically.

2) 2-Digit Address

You can to easily make a call to the telephone numbers stored under addresses from 10 to 99:

- Pick up the handset, press 2 digits of the stored address (10~99), and then press [SEND].
- or
- Pick up the handset, press the first digit of the stored address, and then press and hold the second digit .
 - For example, if you want to dial to the number stored under the address“ 16”, press [1] and then press and hold [6].
- The telephone number will be dialed automatically.

3.2.2 Emergency Dialing

- You can quickly make a one-touch call to emergency numbers stored under addresses 01/ 02/ 03 (you have also to enable emergency dialing). Once the call is originated, it is kept connected until the called party goes off-hook. Refer to the Chapter 4.1.4 for more details.
- To make an emergency call in the off-hook state, you can press and hold the last digit of the address, or press two address digits one after other, and press [SEND].

Note :

- 1) If both Emergency Dialing and Speed Dialing options are enabled, addresses from 01 to 03 are used for the emergency call mode.
- 2) If Emergency Dialing is disabled, addresses from 01 to 03 are used for the Speed Dialing mode.
- 3) When Emergency Dialing is enabled, emergency calls to the addresses from 01 to 03 are available whether or not outgoing calls are locked.

3.2.3 Hot-Line Dial

Hot-line dialing lets you make a automatic calls to the phone number under the address 99 by simply picking up your handset.
 (Address 99 is supposed to be used for most frequently called number)
 Two hot-line wait modes are available. If you set the hot-line mode to " Immediate", the call is dialed as soon as you go off hook. If the hot-line mode is set to " Timed", the call is connected after a specified timeout (from 04 to 08 sec).
 The default hot-line state is " Off", and the default timeout is preset to 6 sec.
 Refer to the chapter 4.1.5 for how to set up hot-line.

3.3 To Erase the Stored Telephone Number

3.3.1 To delete the one address to delete the one telephone number

How to delete the one telephone number.

[FUNCTION] Button → [5](Security) → [Password] → [3](Clear One dial) → [01~99](Address Number) → [STORE].

3.3.2 To delete the all address to delete the all telephone numbers

How to delete the all telephone numbers

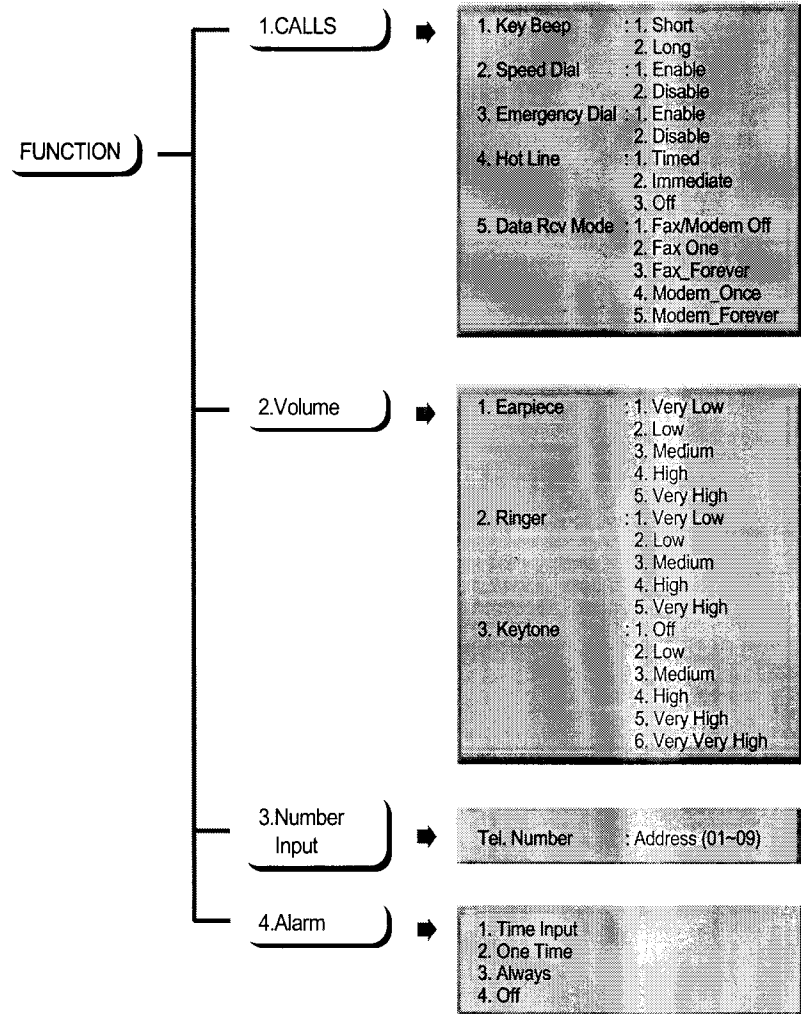
[FUNCTION] Button → [5](Security) → [Password] → [4](Clear dials) → [STORE].



Note : Press [FUNCTION] to return to the Waiting Mode without making changes.

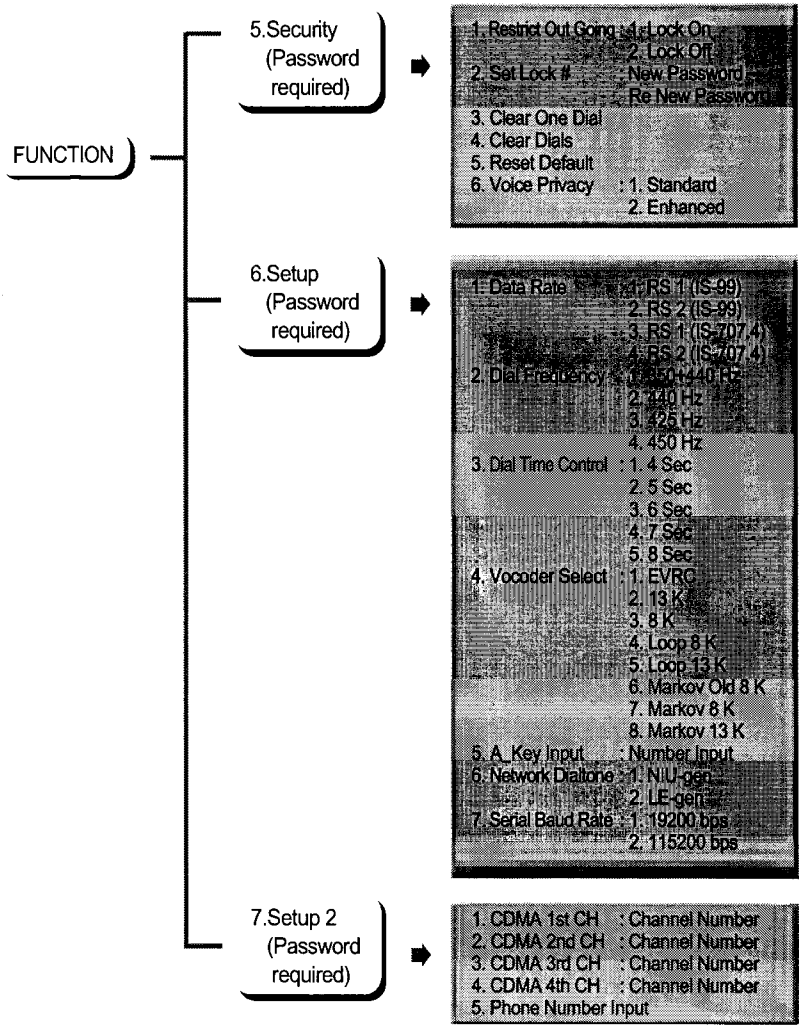
4. Using Menu Mode

• Flow-Chart of Menu Operation



4. Using Menu Mode

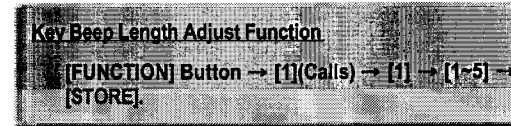
- Flow-Chart of Menu Operation



4.1 Calls

4.1.1 Key Beep Length Adjust Function (Key Beep)

This function is allows you to change the duration of WLL terminal beep tone.



Press [FUNCTION] to return to the Waiting Mode without making changes.



Note: 1) SHORT : KEY TONE sound is played once.
2) LONG : KEY TONE sound is played as long as the key is pressed.

4.1.2 Ring Type Function

You can select between 10 ring types to inform about incoming call:

- ① When you press [RING] in the waiting mode, you can choose 10 ring types (Ring Type 1 ~ Ring type 10).
- ② If you press [RING], you can hear sample melody for 2 seconds and this sample melody will be selected as "RING TYPE".



Note: There are 10 types of the rings (Ring Type 1 ~ Ring Type 10).
The default value is "Bell Type 1".

4.1.3 Speed Dialing Function (Speed Dial)

This menu is used to turn the speed dialing on and off.

Speed Dialing Function

[FUNCTION] Button → [1](Calls) → [2](Speed dial)
→ [1~2] → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.



Note : 1) SPEED DIAL' ENABLE* : Speed dial is enabled.
2) SPEED DIAL' DISABLE* : Speed dial is disabled.
The default is ' Enable'.

4.1.4 Emergency Call Hold Function (Emergency)

You can store up to three numbers (addresses 01 to 03) to quickly make a call in case of emergency. The main feature of emergency calling is that the call is kept connected until the called party picks up the handset. In other words, until the call is answered. By default, Emergency Call Hold is disabled. To enable this function:

Emergency Call Hold Function

[FUNCTION] Button → [1](Calls) → [3](Emergency dial)
→ [1~2] → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.



Note : 1) EMERGENCY DIAL' ENABLE* : Emergency call hold is enabled.
2) EMERGENCY DIAL' DISABLE* : Emergency call hold is disabled.
The default is ' Disable'.

4.1.5 Hot Line Function (Hot Line)

You can make a call automatically without entering the phone number. In other words, if you store a frequently used number at the address 99 and the hot line function is enabled (timed or immediate), you can automatically make a call to that number :
For immediate call, you simply pick up the handset and the call will be connected. For timed call, you pick up the handset and wait for a few seconds until the call is connected.

Hot Line Function

[FUNCTION] Button → [1](Calls) → [4](Hot Line) →
[1~3] → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.



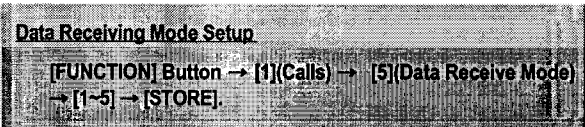
Note : 1) HOT LINE' TIMED* : Timed hot line enabled.
2) HOT LINE' IMMEDIATE* : Immediate hot line function enabled.
3) HOT LINE' OFF* : Hot line disabled.
The default is ' Off'.

4.1.6 Data Receive Mode

- This service enables you to access the Internet and PC communication and to receive/send fax messages by connecting your PC to the WLL terminal. The wireless data communication service may not be available from your service provider. Please check whether or not the service provider supports data communication services.
- You will also need RS-232 cable.
- For more details about settings up the computer environment and other related issues, refer to the correspondent technical documentation.

4.1.6.1 Data Receiving Mode Setup

Method ① Setup using other method



Press [FUNCTION] to return to the Waiting Mode without making changes.



Note : 1) FAX/MODEM Mod^e OFFⁿ : Data service is disabled.
 2) FAX Mod^e ONE TIMEⁿ : Fax mode is enabled for 10 minutes following which it is disabled again.
 3) FAX Mod^e ALWAYSⁿ : Fax mode is kept enabled as long as the power is on.
 4) MODEM Mod^e ONE TIMEⁿ : Modem mode is enabled for 10 minutes following which it is disabled again.
 5) MODEM Mod^e ALWAYSⁿ : Modem mode is kept enabled as long as the power is on.
 The default is FAX/MODEM Mod^e OFFⁿ at power up.

Method ② Setup using AT command

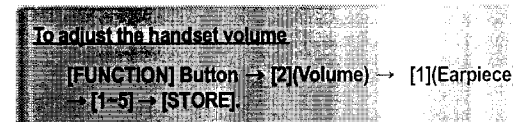
You can setup receiving mode you want using AT commands from your computer connected to the WLL terminal.

- Enter [AT+HDVAD=0] and press Enter.
This command disables data receiving mode.
- Enter [AT+HDVAD=1] and then press Enter.
This command enables PC fax receiving mode for one time.
- Enter [AT+HDVAD=2] and then press Enter.
This command enables PC fax receiving mode for always.
- Enter [AT+HDVAD=3] and press Enter key.
This command enables modem mode for one time.
- Enter [AT+HDVAD=4] and press Enter.
This command enables modem mode for always.
- Default is [AT+HDVAD=0].

4.2 To Adjust Volume

4.2.1 To adjust the handset volume

Method ①



- Use [UP]/[DOWN] buttons to adjust the volume, and press [STORE] to save the changes you have made.
- Press [FUNCTION] to return to the Waiting Mode without making changes.



Note: 1) Volume Min.
 2) Volume Average.
 3) Volume Max.
 Enable to adjust 5 level of handset volume.
 The default is "Level 3".

Method ② • Use [UP]/[DOWN] button to adjust the volume during the call.

4.2.2 To adjust the ringer volume

Method ①

To adjust the ringer volume

[FUNCTION] Button → [2](Volume) → [2](Ringer) → [1-5] → [STORE].

- Use [UP]/[DOWN] buttons to adjust the volume, and press [STORE] to save the changes you have made.
- Press [FUNCTION] to return to the Waiting Mode without making changes.



Note: 1) Volume Min.
2) Volume Average
3) Volume Max
Enable to adjust 5 level of handset ringer volume.

Method ② • Adjust the volume using [UP]/[DOWN] Button while the ringer works.

4.2.3 To adjust the key beep volume

Method ①

To adjust the key beep volume

[FUNCTION] Button → [2](Volume) → [3](Keytone) → [1-6] → [STORE].

- Use [UP]/[DOWN] buttons to adjust the volume, and press [STORE] to save the changes you have made.
- Press [FUNCTION] to return to the Waiting Mode without making changes.



Note: 1) Off.
2) Min
5) Average
6) Max
Enable to adjust 6 level of key beep volume.

Method ② • Adjust the volume using [UP]/[DOWN] Button in on-hook the Waiting Mode.

4.3 Alarm Reminder Function (ALARM REMINDER)

Alarm reminder enables the alarm ring when the specified time is reached. The ring discontinues when you pick up the handset. The default is disabled.

Alarm Reminder Function

[FUNCTION] Button → [4](Alarm) → [1~4] → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.



- Note:**
- 1) ALARM MODE "TIME INPUT": After entering the alarm time you want, this alarm time is automatically set up for one time.
 - 2) ALARM MODE "ONE TIME": Alarm reminder enabled for one time.
 - 3) ALARM MODE "ALWAYS": Alarm reminder enabled for always.
 - 4) ALARM MODE "OFF": Alarm reminder disabled.

4.4 Security

4.4.1 Outgoing Call Restrict Function (RESTRICT. OUTGOING)

Outgoing Call Restrict Function

[FUNCTION] Button → [5](Security) → [Password] → [1](Restrict Outgoing) → [1~2] → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.



- Note:**
- 1) Lock Off
 - 2) Lock On
- The default is "Allow".

4.4.2 Lock NO. SET Function (SET LOCK#)

Lock NO. SET Function

[FUNCTION] Button → [5](Security) → [Password] → [2](SET LOCK#) → [New Password] → [STORE] → [Re New Password] → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.



Note: The default of password is "0000".

4.4.3 To Delete One Address in Memory

To Delete One Address in Memory

[FUNCTION] Button → [5](Security) → [Password] → [3](Clear On Dial) → [00~99](Address Number) → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.

4.4.4 Memory Clear Function (CLEAR MEMORY)

Memory Clear Function

[FUNCTION] Button → [5](Security) → [Password] → [4](Clear Dials) → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.



Note : [STORE] : Clears the list of dials.

4.4.5 Reset Default Function

You can easily restore all options of your WLL terminal to their default values. You are not recommended however, to use this command too often.

Reset menus	Default values
Speed dial	Enable
Emergency call hold	Disable
Hot line	off
Alarm	off
Rest. Outgoing	Allow
Earpiece volume	Level 3

Reset Default Function

[FUNCTION] Button → [5](Security) → [Password] → [5](Reset Default) → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.

4.4.6 Voice Privacy

4.4.6.1 During Menu Setup

During Menu Setup

[FUNCTION] Button → [5](Security) → [Password] → [6](Voice Privacy) → [1~2] → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.



Note : [1] Standard
[1] Enhanced

4.4.6.2 In on-hook state, menu set up

In on-hook state, menu set up

[FUNCTION] Button → [1] → [1~2] → [STORE].

Press [FUNCTION] to return to the Waiting Mode without making changes.

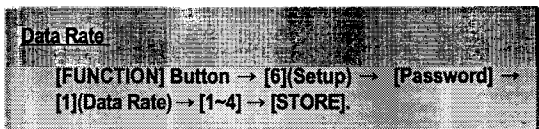


Note : [1] Standard
[1] Enhanced

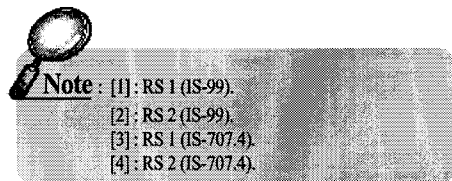
4.5 Setup 1

4.5.1 Data Rate

You can change the default data transmission speed. Available data speed options are: Rate set 1 based on IS-99, Rate set 2 based on IS-99, Rate set 1 based in IS-707.4, and Rate set 2 based on IS-707.4.

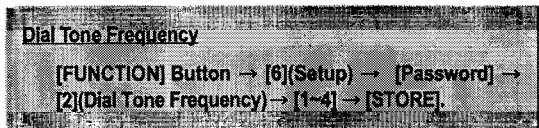


Press [FUNCTION] to return to the Waiting Mode without making changes.

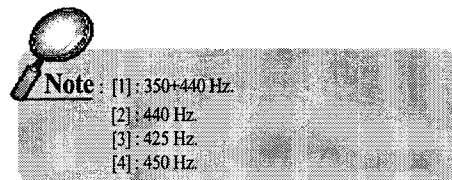


4.5.2 Dial Tone Frequency

You can change the dial tone frequency. Four types are available: 350+440 Hz dual, 300+400Hz dual, 400 Hz single, 425 Hz single and 450 Hz single.

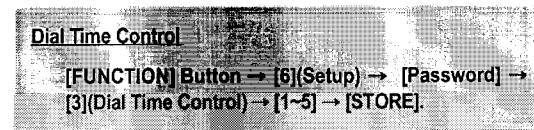


Press [FUNCTION] to return to the Waiting Mode without making changes.

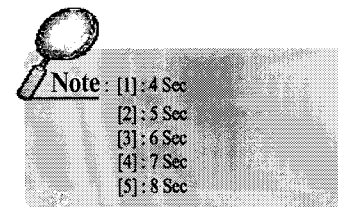


4.5.3 Dial Time Control

You can adjust the automatic calling time. If you set up dial time to 4 sec, the terminal will make a call 4 sec after you press the last digit of called number. (You can set up dial time from 4 to 8 sec. The default is 6 sec.)

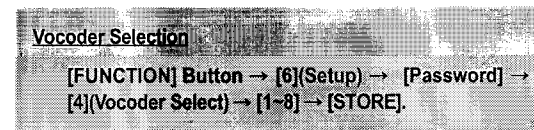


Press [FUNCTION] to return to the Waiting Mode without making changes.

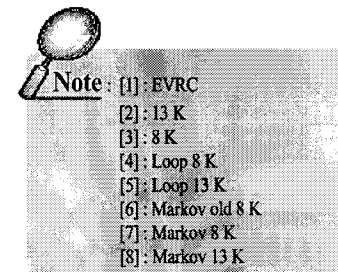


4.5.4 Vocoder Selection

You can use 8 types of Vocoder when speaking on the phone: 8K QCELP, 13K QCELP, 8K EVRC (8K Loop Back, 13K Loop Back, Markov old 8k, Markov 8k, Markov 13k).

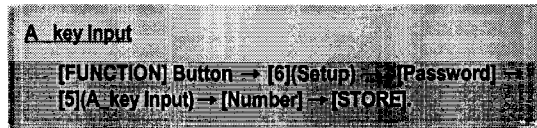


Press [FUNCTION] to return to the Waiting Mode without making changes.



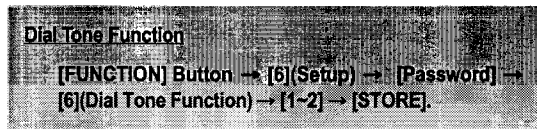
4.5.5 A_key Input

Enables you to input authentication key.



4.5.6 Dial Tone Function

Dial Tone feature is available in HWP-130/230 depending upon system configuration. For the Network Dial Tone support, HWP-130/230 must provide "LE-Generated dial tone". Otherwise, HWP-130/230 supports "NIU-Generated dial tone".



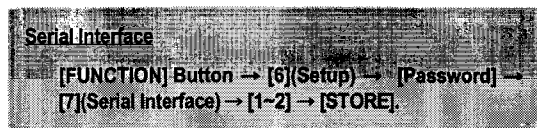
Press [FUNCTION] to return to the Waiting Mode without making changes.



Note : [1] : NIU
[2] : LE

4.5.7 Serial Interface (Serial Data Rate)

Your WLL terminal supports RS-232 serial interface for data communication. Two baud rates are available: 19200bps for modem, PC Fax and QNC services; and 115200bps for High-Speed Packet service.



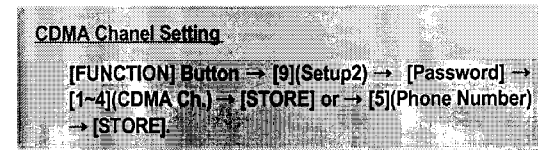
Press [FUNCTION] to return to the Waiting Mode without making changes.



Note : [1] : 19200 bps
[2] : 115200 bps

4.6 Setup 2

4.6.1 CDMA Chanel Setting



Press [FUNCTION] to return to the Waiting Mode without making changes.

4.6.2 Input telephone number

Input telephone number.

<Appendix>

1. Summary Table

Save / Delete Phone Number	SAVE	FNC_K → 3 → Number → STO_K → Address → STO_K
		Delete One Address
	Delete All Address	FNC_K → 5 → Password → 4 → STO_K
Speed Dial	On	FNC_K → 1 → 2 → 1 → STO_K
	Off	FNC_K → 1 → 2 → 2 → STO_K
Emergency Call Hold	On	FNC_K → 1 → 3 → 1 → STO_K
	Off	FNC_K → 1 → 3 → 2 → STO_K
Hot Line	Time Hot Line On	FNC_K → 1 → 4 → 1 → STO_K
	Immediate Hot Line	FNC_K → 1 → 4 → 2 → STO_K
	Off	FNC_K → 1 → 4 → 3 → STO_K
Alarm Reminder	Time Input (One Time)	FNC_K → 4 → 1 → TIME → STO_K
	One Time mode	FNC_K → 4 → 2 → STO_K
	Always Mode	FNC_K → 4 → 3 → STO_K
	Alarm Off	FNC_K → 4 → 4 → STO_K
Lock	On	FNC_K → 5 → Password → 1 → 1 → STO_K
	Off	FNC_K → 5 → Password → 1 → 2 → STO_K
	Change Password	FNC_K → 5 → Password → 2 → New Password → STO_K → Re New Password → STO_K
Ear-Piece Volume Adjusting (5steps)	FNC_K → 2 → 1 → 1/2/3/4/5 → STO_K (1:Very Low...5:Very High) Press Up or Down Key (Off Hook)	
Reset	FNC_K → 5 → Password → 5 → STO_K	
Data Service	Using The Normal Phone	FNC_K → 1 → 5 → 1 → STO_K
Receive Mode Release	Using The Emulator	[AT+HDVAD=0] → Enter
Fax Receive Mode Setting (One Time)	Using The Normal Phone	FNC_K → 1 → 5 → 2 → STO_K
	Using The Emulator	[AT+HDVAD=1] → Enter
Fax Receive Mode Setting (Until Power Off)	Using The Normal Phone	FNC_K → 1 → 5 → 3 → STO_K
	Using The Emulator	[AT+HDVAD=2] → Enter
Modem Receive Mode (One Time)	Using The Normal Phone	FNC_K → 1 → 5 → 4 → STO_K
	Using The Emulator	[AT+HDVAD=3] → Enter
Modem Receive Mode (Until Power Off)	Using The Normal Phone	FNC_K → 1 → 5 → 5 → STO_K
	Using The Emulator	[AT+HDVAD=4] → Enter

2. Troubleshooting

Problem	What To Do
● There is no indication on the POWER LED.	● Make sure the terminal is turned on. If the switch is on, turn off the terminal and then turn it on again.
● RSSI LED goes on and off at the interval of 15 seconds.	● The WLL terminal must be placed in the location where service coverage is available. If necessary, move the terminal to the serviced location.
● Your terminal beeps or you can hear nothing in the handset.	● Your handset is not properly placed. Place the handset normally.
● There is no ring when a call comes.	● The ringer is switched off. Press [UP] button several times to adjust the ringer volume

In case that simple remedy steps does not help, contact the local agency from where you have purchased the product, a service center or a qualified technician to solve the trouble.

3. FWT Technical Specifications

Classification		HWP-130	HWP-230
Air interface	Common air interface standard	IS-95B(IS-95A, TSB-74)	IS-95B(IS-95A, J-STD-008)
	Frequency	TX: 824 ~ 849MHz	TX: 1850 ~ 1910MHz
		RX: 869 ~ 894MHz	RX: 1930 ~ 1990MHz
	Frequency accuracy	Fo± 300Hz	Fo± 150Hz
	TX output power	200mW	
	RX sensitivity	- 104dBm	
	Vocoder	8K/13K QCELP	
		8K EVRC	
Channel bandwidth	CDMA 1.25Mhz		
MOD/DEMOD	O QPSK/QPSK		
Battery backup	Type	Ni-Cd	
	Capacity	4.8V @ 1.7A	
	Conversation time	2 ~ 3 hours	
	Standby time	50 hours	
	Serial port	<ul style="list-style-type: none"> • Data service purpose (Internet, Modem , PC fax) • Maintenance purpose 	
Physical	Dimension (Dx Wx H)	181x 232x 66(mm)	
	Weight (including backup battery)	986g	
Environmental	Operating temperature	-10°C ~ +50°C	
Power supply	Input power	110 ~ 240V(± 20V), 50/60Hz	
	Output power	DC 12V @ 1.3A	
Etc	Accessories	<ul style="list-style-type: none"> • Internal antenna: Dipole antenna • Power supply (SMPS) • Antenna 	