



**Wireless local Loop  
Fixed Wireless Terminal  
User's Manual  
(HWP-120 & HWP-220)**

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## 1. Introduction

This product is a WLL(Wireless Local Loop) terminal designed to be used with CDMA(Code Division Multiple Access) in order to sufficiently meet users' requirements for communication services. Before using this product, please read this chapter first.

### HWP-120/220 Main Feature

- IS-95B support
  - Data rate : 64kbps(max)
  - Backward compatibility
  - New Soft Handoff Algorithm
  - Enhanced Hard Handoff
  - True IMSI
- IS-707 Data Capability
  - PC Fax Receiving
  - Modem Termination
- Speed dial
- Emergency call hold
- Hot Line
- Alarm Reminder
- Battery backup
- Line Signal tone
  - Dial Tone
  - Warning Tone
  - Howler Tone
- Security
- OTASP(Over-the-Air-Service Provisioning)
- SMS(Short Message Service)
  - VMS(Voice Message Service)
  - Page service
  - Message service
- Vocoder Select
  - 8K QCELP
  - EVRC
  - 13K QCELP
- Call Waiting \*
- Call Forwarding\*
- Call Transfer \*
- Three-way Calling\*

\* : System dependant

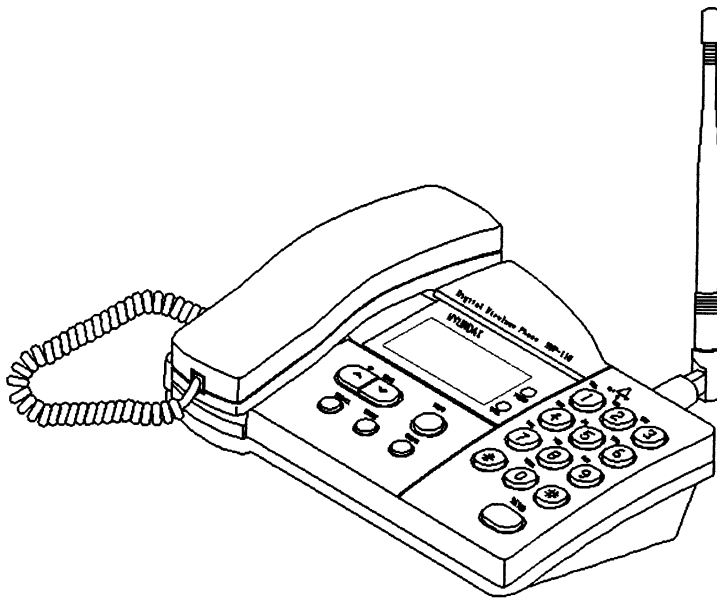
## 1.1 Notices for Using

- Do not disassemble or remodel WLL terminal at your own discretion.
- Do not hold the antenna or contact with it during a call.
- Avoid hot and moist places. Be careful not to wet the terminal or to spill any liquid on it, because it may cause a case impossible to repair.
- Avoid vibration or impact, and store the terminal in a place free of damage.
- Do not use it under an explosive environment or in a place where combustible liquid is used.
- Do not wipe the WLL terminal with a chemical solution like solvent or thinner.
- Switch off the WLL terminal and remove the SMPS and when you do not use the terminal for long.
- The backup battery should be used after being charged for long enough like more than 30 hours as it can be discharged.
- The backup battery can be used only when the power is on.

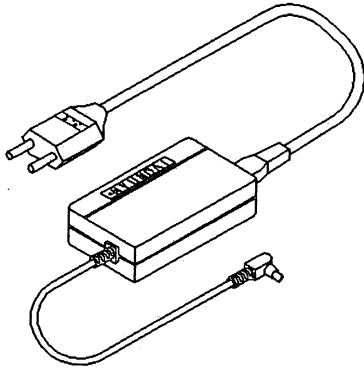
## 1.2 Checking the Package

Thank you for buying this product. Please check whether the product package contains the following items:

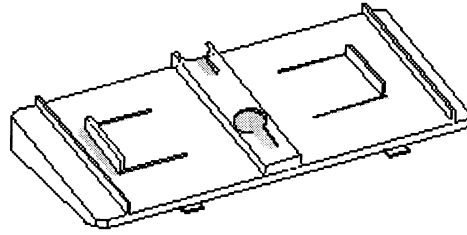
### \* WLL Phone



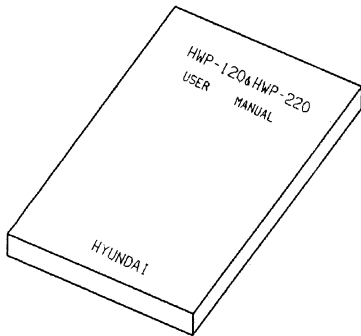
**\* Accessory**



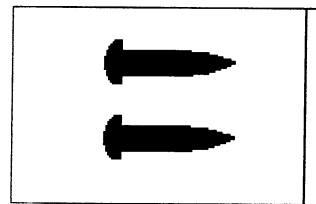
- Power Supply Unit(SMPS) -



- Wall Bracket Kit -

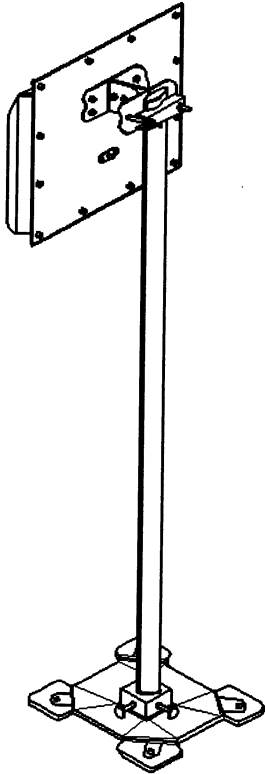


User's Manual -

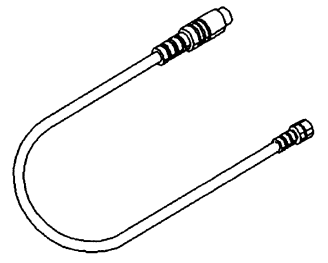


- Screw -

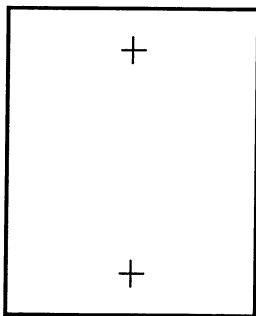
**\* Optional Accessory**



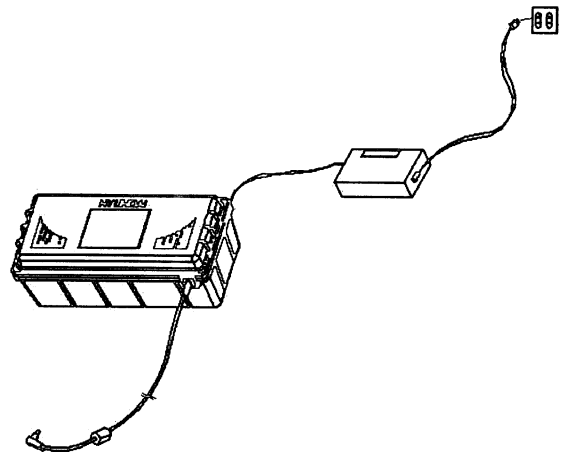
- External Antenna & Fastener -



- External Antenna Cable -

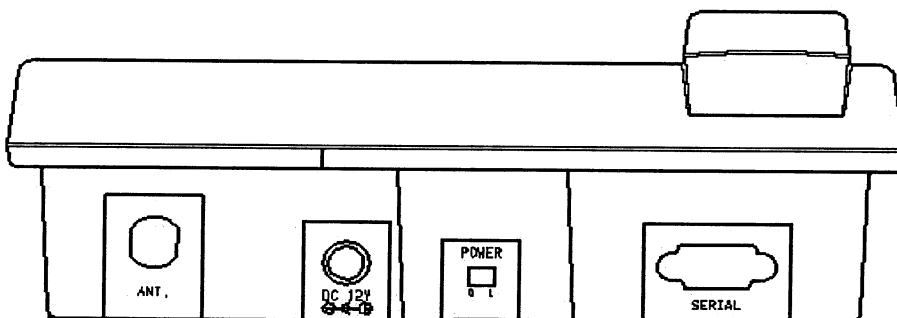
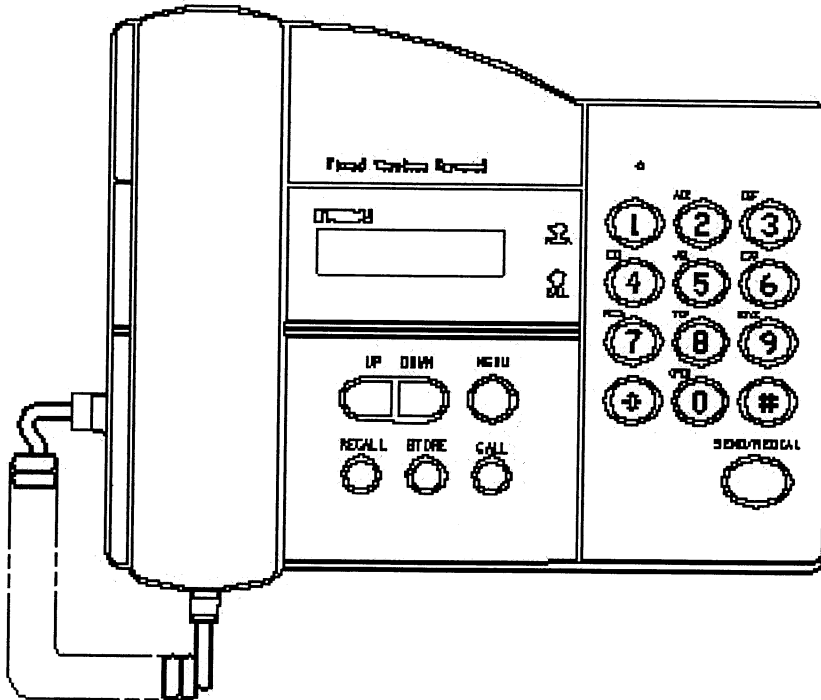


- Installation Sheet -



- External Battery -

### 1.3 Name and Function of Each Part





- CALL LED

Indicates the ring incoming state. Call LED indicates that an incoming call is present. This one flashes during incoming bell rings.

- POWER LED

Indicates the main power supply state. POWER LED indicates the status of externally supplied power. This LED keeps steady "ON" status while external power supplied. When the terminal operates on internal back-up battery, the LED keeps steady "OFF".

- LCD Screen

Displays every sort of information (in 2 lines of 16 characters).

Specific description regarding user information will be provided in feature description in detail.

- Hook Switch

A switch to turn on/off a call, which initiates and completes the operation of WLL terminal.

- DC Jack

A part through which the power is supplied from SMPS for WLL terminal.

- Serial Port

A port through which new software loading or connection of Diagnostic Modem(DM) is possible.

- Power Switch

Turns on/off the power supply to WLL terminal.

- Functions of Buttons

DIAL Buttons: Used to input telephone numbers or characters(0-9, \*, #), and to choose menu items.

[UP]/[DOWN] Button : Used to retrieve stored telephone numbers, to adjust key beep volume, to adjust ringer volume while the phone is ringing, to move to menu item and to adjust handset volume during a call.

[MENU] Button : Used to choose a function menu.

[STORE] Button : Used to store the set value, and to check names and telephone number at the time of retrieving telephone numbers.

[RECALL] Button : Used to retrieve stored telephone numbers.

[CLEAR] Button : Used to edit the typed number, or to move to a previous mode at the time of specifying a mode.

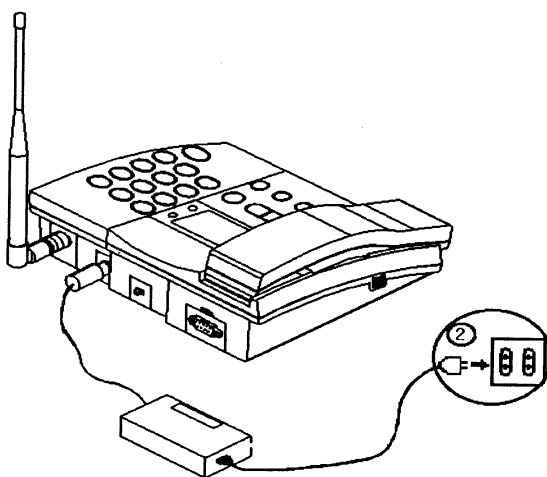
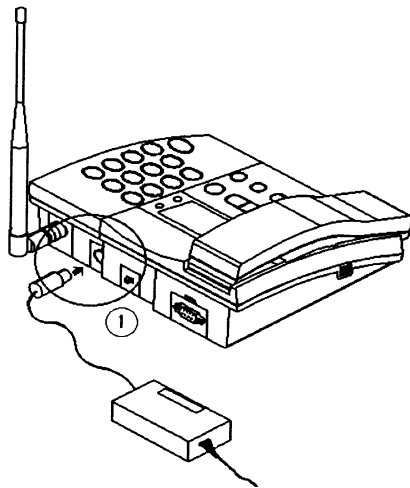
[SEND/REDIAL] Button : Used to attempt a call in off-hook state, or to make a call to the telephone number dialed last.

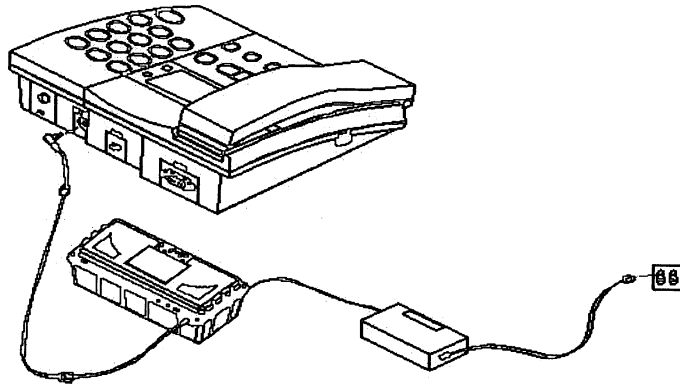
## 1.4 Installing WLL Terminal (INSTALLING ANTENNA)

### (General Installation)

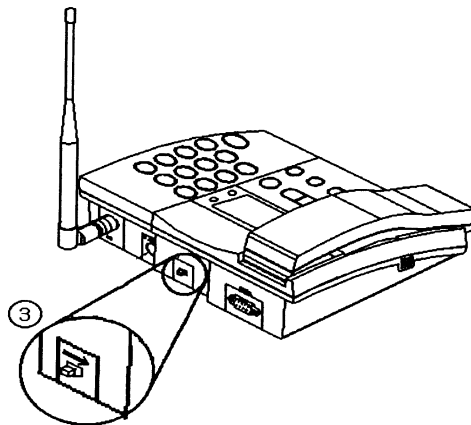
1) Connect DC jack as shown below.

2) Connect the plug to an outlet and to SMPS for WLL terminal





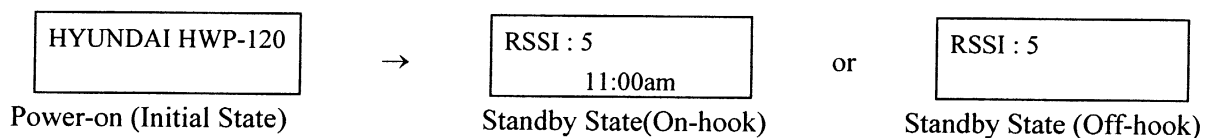
3) Turn on the power switch as following, and then the WLL terminal is initialized with power-on beep sound.



4) After initialization, it enters into standby state.

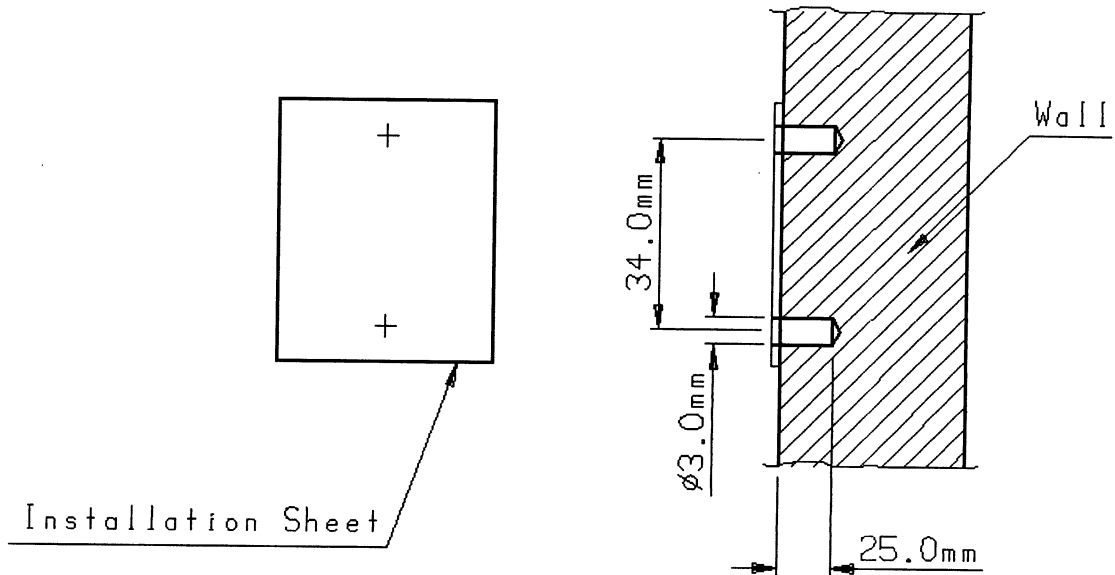
5) In standby state, adjust the antenna location until the largest RSSI value is displayed on LCD screen.

Note : RSSI(Received Signal Strength Indicator) refers to a parameter which indicates the strength of received radio frequency. The larger the value is, the better the speech quality is. (1 is the minimum value, and 5 is the maximum)

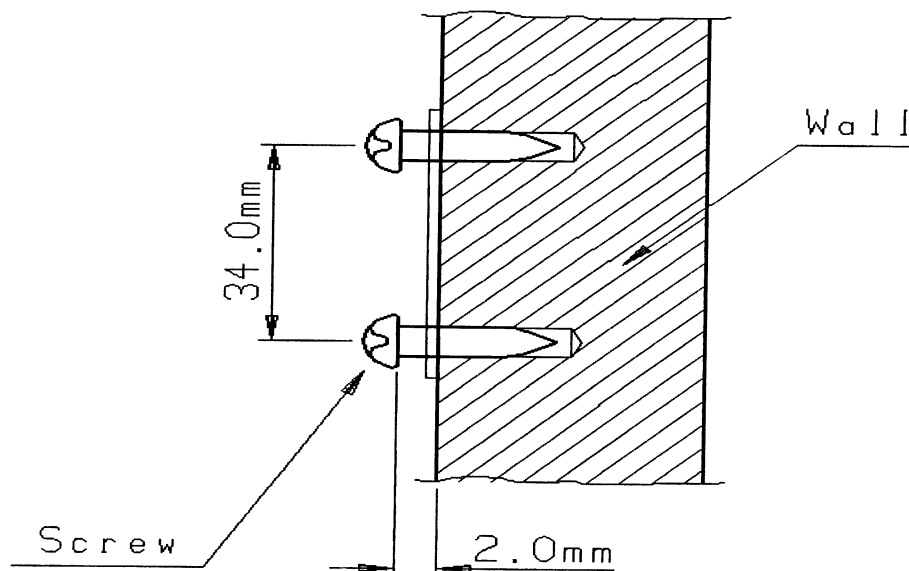


**(Installing Wall Bracket)**

1) In case of concrete wall make holes with drill on Installation Sheet with the appropriate wall position on which the Installation Sheet would be attached.



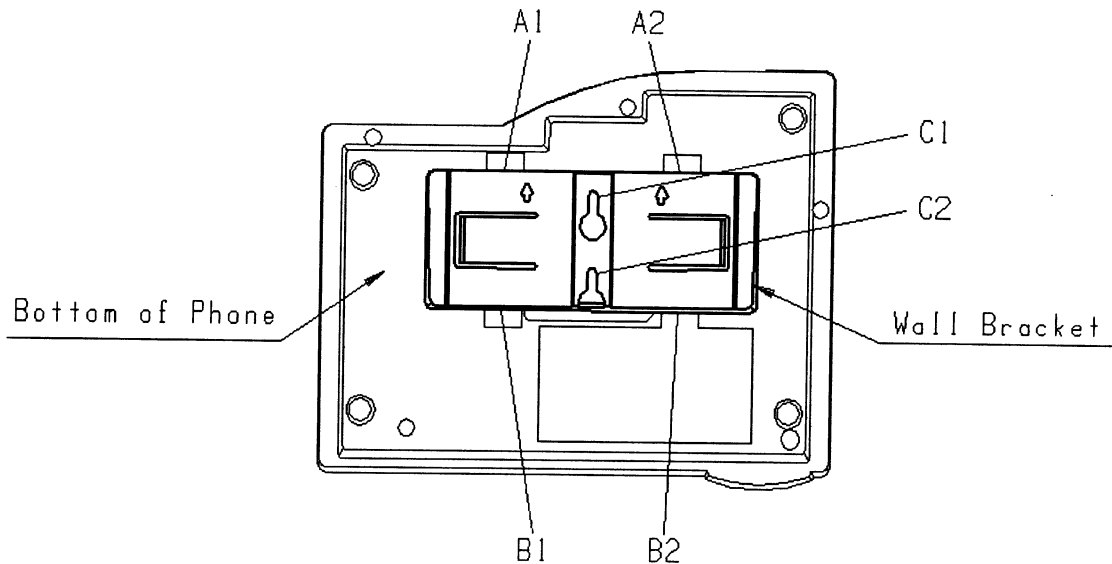
2) Tighten up the screw on the holes like following figure



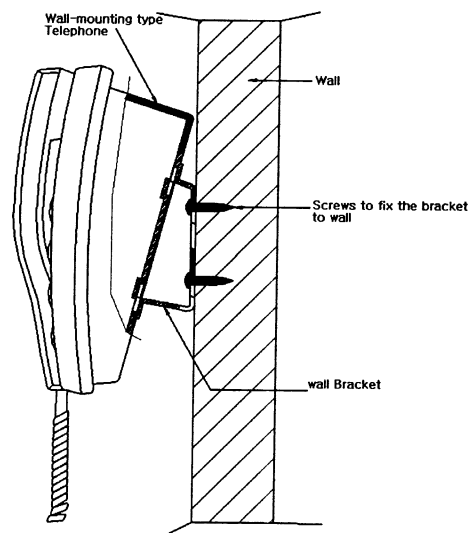
- In case of wooden wall, omit making holes and tighten up the screws directly on the Installation Sheet.

The distance (2.0mm) between the head of the screw and the wall is the same as above second figure.

3) Insert the parts A1,A2 of the Wall Bracket into the body and push the parts B1, B2 with fingers.



4) Insert the fixed screws into the holes C1, C2 and pull the body downward. At that time the distance (2.0mm) between the head of the screw and the wall should be kept up surely not to be one-sided or not to swing.



☞ Note : If you want a clearer speech quality, you can install and use an external panel antenna.  
(For inquiry about the panel antenna, contact the agency where you bought the product.)

Note : WLL terminal is equipped with a backup battery which allows terminal operation without external power supply.

If the commercial power, which is used as input to power supply unit(SMPS) for WLL terminal fails, the WLL terminal operates with this backup battery for about 70 hours in standby state and 2 hours in call state.

RSSI : 5 BATT : 5  
10:00am

Standby State in Battery Power Supply

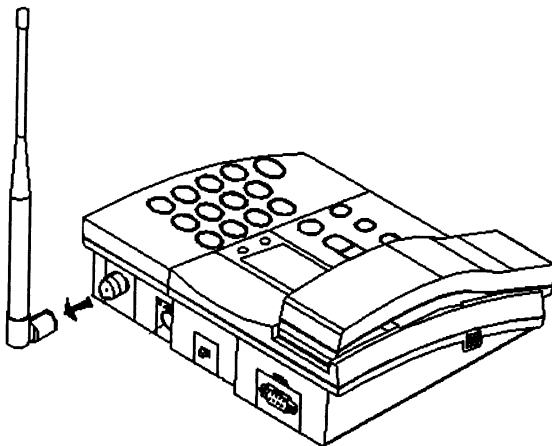
RSSI : 5 BATT : 1  
10:00am

Standby State in Low Battery State  
(Number 1 is blinking in BATT.)

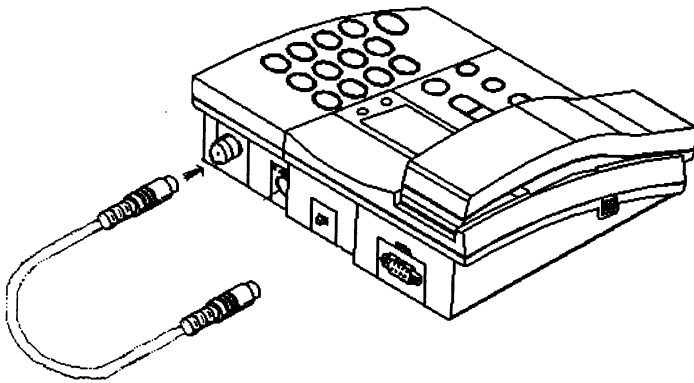
'BATT'(Battery) indicates the current capacity of the battery. (1 is the minimum value, and 5 is the maximum.)

### ( Installing optional external Antenna )

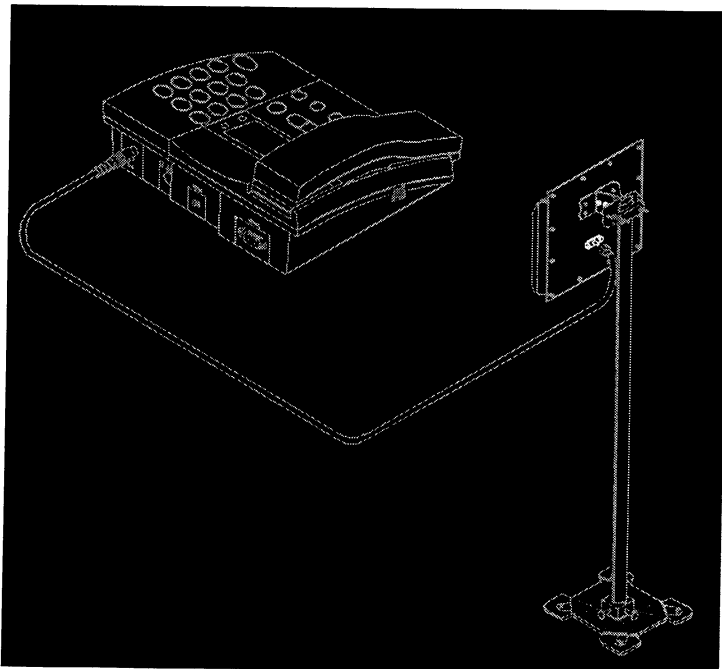
1) Separate antenna from phone



- 2) Connect external antenna cable to the same place as shown below.



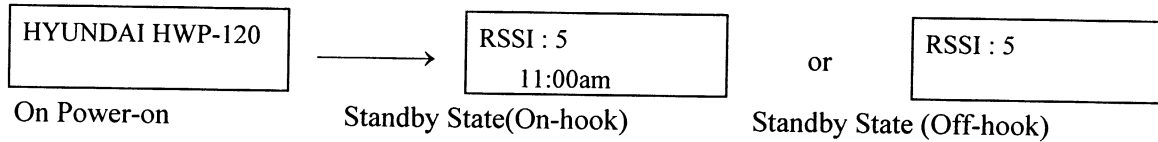
- 3) Connect opposite of the cable to panel antenna as described below



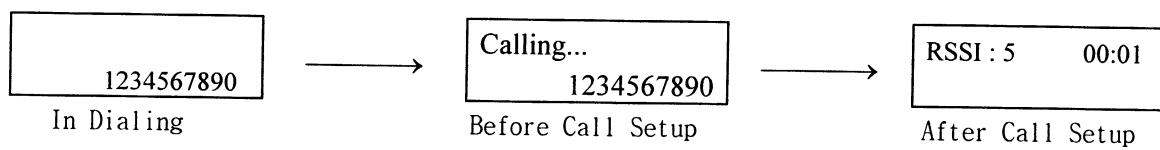
## 1.5 LCD Display

(LCD displays the status of Phone type terminal for RSSI(Received Signal Strength Indicator), Battery state and telephone number in 2 line by 16 column )

### 1.5.1 Display for Power On

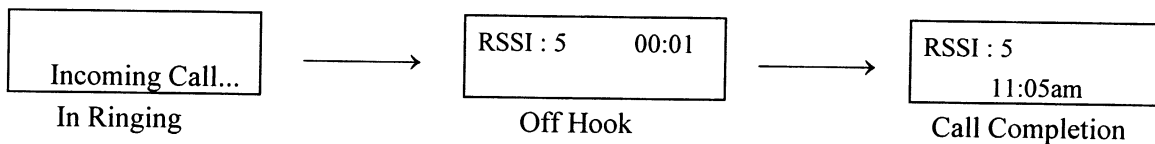


### 1.5.2 Display for Call Attempt



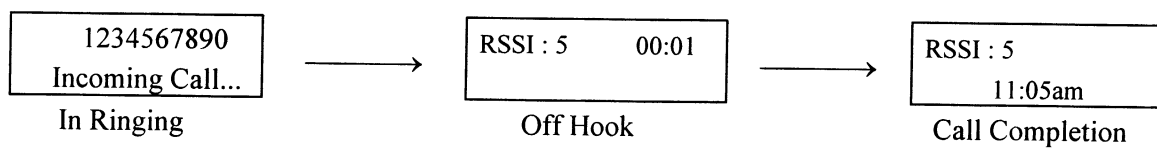
### 1.5.3 Display for Incoming Call

#### 1.5.3.1 Incoming Call From Land

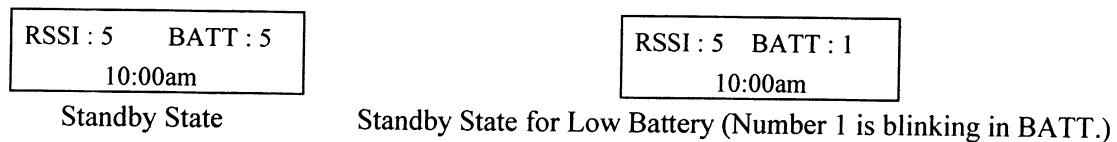


#### 1.5.3.2 Incoming Call From Mobile

(If the call is coming from mobile then originator phone number will be displayed (It is displayed only if infrastructure support caller ID))



### 1.5.4 Display for Battery Capacity (when the failure of main power supply occurs)



### 1.5.5 Display for Weak RSSI(Received Signal Strength Indicator)





## 2. Using Basic Functions

### 2.1 To Make a Phone Call

#### 2.1.1 In on-hook state

- Press [RECALL] Button to search the desired telephone number and hook off the handset to make a phone call.
- Press the telephone number in on-hook state and then hook off the handset to make a phone call. (But, in on-hook state, [SEND/REDIAL] Button is not recognized.)
- Speak over the telephone.
- Hook on the handset to finish the call.

#### 2.1.2 In off-hook state

- Hook off the handset and dial tone is supplied. (In No Service state, however, warning tone is supplied at the interval of 0.5 second.)
- In No Service state, no call can be allowed.
- Hold the handset and press [SEND/REDIAL] Button before pressing any other button, and a call is made to the number that was dialed lastly.
- Press the telephone number and press [SEND/REDIAL] Button and a call is made.
- If [SEND/REDIAL] Button is not pressed after dialing telephone number, the call is made automatically after 6 seconds later.
- Speak over the telephone.
- Hook on the handset to finish the call.

☞ Note : You can adjust the handset volume using [UP]/[DOWN] Button during a call.

☞ Note : In off-hook state, all Buttons except [MENU] Button are available.

LCD Display for Standby State

RSSI : 5  
10:14am

(On-hook State)

RSSI : 5

(Off-hook State)

LCD Display before a call is connected

Calling...  
0336396980

0336396980

LCD Display for Dialing

RSSI : 5      00:01

LCD Display after a call is connected

☞ Note : If you make a phone call in Outgoing Lock state, the following message is displayed on LCD screen and the LCD enters into standby state.

Phone restricted

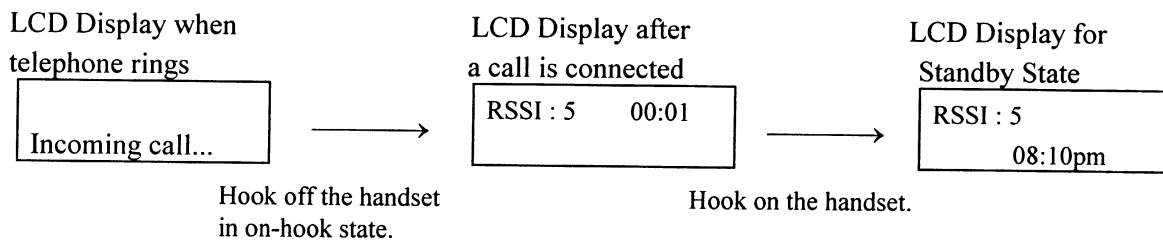
## 2.2 To Receive an Incoming Call

### 2.2.1 In on-hook state

- Telephone rings with CALL LED blinking  
(If the ringer is set as SILENT, the LED blinks and “Ringer off is displayed on LCD).
- Hook off the handset.
- Speak over the telephone.
- Hook on the handset to finish the call.

### 2.2.2 In off-hook state

- If telephone rings before you press [SEND/REDIAL] Button during dialing, the ringer works and the LCD screen displays an “incoming call...”.
- Press [SEND/REDIAL] Button to speak over the telephone.
- Speak over the telephone.
- Hook on the handset to finish the call.



Press [SEND/REDIAL] Button in off-hook state.

#### Note

- 1) If the ringer works during [MENU] or [RECALL] operation in on-hook state, the ringer operation has priority over the others.
- 2) If the ringer works in off-hook state, you can speak over the telephone by pressing [SEND/REDIAL] Button.
- 3) During a call, you can adjust the handset volume using [UP]/[DOWN] Button.

## 2.3 To Last Number Redial (Redial Function )

- Redial function is used to make a phone call to the telephone number dialed last.
  - 1) Hook off the handset and press [SEND/REDIAL] Button.
  - 2) When a call is connected to the opposite party, you can speak over the telephone.
  - 3) When the call is finished, hook on the handset.

### 3. Using Memory Functions

#### 3.1 To Store Telephone Numbers

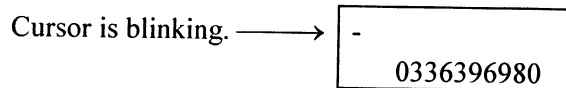
- You can store up to 99 telephone numbers which you frequently use to 2-digit addresses(01~99).

The stored telephone numbers allow you to make a phone call simply by calling those addresses.

- 1) Press the telephone number you want to store and then press [STORE] Button in standby state.

☞ Note : To return to the initial state while inputting telephone number, press and hold [CLEAR] Button, or click Hook Switch.

- 2) When '-' is displayed on the LCD screen, type the name with Dial Button and then press [STORE] Button.



☞ How to type a character (to type 'H')

- 1) Select H by pressing Dial Button [GHI4] on which characters GHI are marked.  
Each time you press the Button, the display changes from G → H → I → 4.
- 2) After selecting H, press [DOWN] Button to type next character. Or, the cursor moves automatically to the next cell 2 seconds after a character is selected.

☞ How to modify characters

- 1) Clear character by character, by pressing [CLEAR] Button (Characters are cleared from the one lastly typed).
- 2) Clear the entire characters, by pressing and holding [CLEAR] Button.
- 3) To move the cursor on the LCD screen, press [DOWN] Button to move to the right and [UP] Button to move to the left.
- 4) Use Dial Button to continue typing other characters.

☞ Note : If you do not want to store the name, press [STORE] Button twice immediately after typing the telephone number.

☞ Note : To move to standby state in the middle of typing any character, press and hold [CLEAR] Button twice, or click Hook Switch.

- To store the telephone number to the address displayed on the LCD screen (e.g, Address 01), press [STORE] Button directly.

LOCATION ??  
auto = 01

- If you want to store it to any other address, press the address by two digits (01~99). (e.g.: 11)

LOCATION 11  
auto = 10

- If "OVERWRITE" is displayed on the LCD screen when you type the desired address, it means that another telephone number is already stored to the address.

Overwrite ? 11  
[1]YES [2]NO

- If you want to clear the previous number and store the newly typed telephone number, press Button [1].
- If you leave the previous number as it is, press Button [2] or [CLEAR] Button to return to the previous step, store the telephone number to the other address, and then press [STORE] Button. The LCD screen displays the following and the telephone number is stored.

NAME  
STORED IN #01

10 USED  
89 EMPTY

 Note : In Case All Memories are Used

If the LCD screen displays "No additional memory available", it is impossible to store any additional telephone number because 99 memories are all used.

(You can store additional telephone numbers after clearing unnecessary telephone numbers.)

No additional  
memory available

## 3.2 To Make A Phone Call To The Stored Telephone Number

### 3.2.1 Speed Dial

(User must set speed dial to enabled in order to use speed dial function. Refer to 4.5 to enable speed dial)

#### 1) 1 digit address

This function allows you to directly make a phone call to 9 telephone numbers stored in Addresses 01 through 09.

This function will be performed by selecting one of following 3 ways.

- Hook off handset after pressing 1 digit among stored addresses(1~9).
- Hook off handset and press 1 digit among stored addresses(1~9) then press [SEND/REDIAL] Button.
- Hook off handset and press 1 digit among stored addresses(1~9) for long.
- The telephone number is displayed on the LCD screen and automatically dialed.

Speed dialing  
Memory 1

Calling...  
1234567

## 2) 2 digit address

This function allows you to directly make a phone call to the telephone numbers stored in Addresses 10 through 99.

This function will be performed by selecting one of following 3 ways.

- Hook off handset after pressing 2 digit among stored addresses(10~99).
- Hook off handset and press 2 digit among stored addresses(10~99) then press [SEND/REDIAL] Button.
- Hook off handset and press the first digit shortly time and successively press the second digit for long time among stored addresses(10~99)
  - As an example, in case of "16" address press [1] button shortly time and successively press [6] button for long time.
- The telephone number is displayed on the LCD screen and the telephone number is automatically dialed.

Speed dialing  
Memory 11

Calling...  
1234567

Note : If no telephone number is stored in the specified address, "Empty Location" is displayed on the LCD screen.

Empty Location

### 3.2.2 Emergency Dial

- This function allows you to directly make a call to emergency numbers if they're stored in addresses 01 // 02 / 03 and if emergency dial function enabled. Once the call originated, it remains connected unless the received party hang up the phone. Look up the chapter 4.6 for setting up this function.
- In OFF-HOOK state, you can make a call just by either holding the last digit of the address, or pressing the two digits and [SEND/REDIAL] button shortly.
- In ON-HOOK state, just lift up the handset(Off-Hook) after pressing the address, and then call will be connected.

Emergency Call No. 1
-------------------------

Calling... 1234567
-----------------------

Note :

- 1) If you attempt speed dialing when emergency dial and speed dial functions are set at the same time, 01~03 addresses operate in the emergency dial mode.
- 2) And if you disable the emergency dial function in above state, the addresses 01~03 operate in the speed dial mode.
- 3) If the emergency dial function is set on, the addresses 01~03 operate in the emergency dial mode normally even when the outgoing lock function is set on.

### 3.2.3 HotLine Dial

With this Hotline function, you can make a call automatically to address 99 only with hooking-off action. (Address 99 is supposed to be used for most frequently calling number)

Hotline function supports two mode of waiting time. If you set the hotline function as "Immediate", hooking-off action makes a call without any delay. But if you set the hotline function as "Timed", call will be connected after automatic dial time passed(04~08 sec).

Hotline dialing
-----------------

Calling... 1234567
-----------------------

The default mode of hotline is "Off" and the default value of automatic dial time is 6 sec. Look up the chapter 4.7 for setting up this function.

### 3.3 To Search the Stored Telephone Number

If the stored telephone number is confirmed, that is, if you specify any telephone number, address or name, retrieve the content registered at the corresponding memory, and confirm that the specified telephone is stored in the designated address, you can make a phone call to the telephone number.

### 3.3.1 Calling by Memory Address

(Retrieval Method 1)

- Press [RECALL] Button.
- Following Recall Menu is displayed on the LCD screen.

[1] LOCATION  
[2]NAME [3]CALLS

☞ Note : Press [UP]/[DOWN] Button in Recall Menu state and you can see the contents stored in the memory in due order. If you press [RECALL] Button and if there is no key-in for the prescribed time (about 2 minutes), the LCD screen returns to standby state.

- Press Button [1] to select Location and the LCD screen displays the following:

LOCATION ??

- Press any expected address(01~99) by two digits (e.g., press 01).

01 : ABC  
0336396980

← Stored address and name  
← Stored telephone number

☞ Note : If the selected address is empty, the LCD screen displays "Empty Location" and then returns to Recall Menu.

Empty Location

☞ Note : Press [CLEAR] Button in the above state where the telephone number is displayed, the LCD screen returns to Recall Menu state.

- Press [UP]/[DOWN] Button while the telephone number is displayed, and you can take a view of the contents of memory in due sequence.

>01 : ABC  
02 : ABD

- Hook off the handset to make a phone call to the telephone number you sought. The telephone number displayed on the LCD screen is dialed.

Calling...  
0336396980

- LCD Display for Number Engaged

RSSI : 05    00:01

(Retrieval Method 2)

- Press one digit or two digit number in the memory address (e.g., press 01).
- Press [RECALL] Button.

01 : ABC  
0336396980

☞ Note : If the specified address is empty, "Empty Location" is displayed on the LCD screen.

Empty Location

- Press [UP]/[DOWN] Button while the telephone number is displayed, and you can take a view of the contents of memory in due sequence.

>01 : ABC  
02 : ABD

- Hook off the handset to make a phone call to the sought telephone number.  
The telephone number displayed on the LCD screen is dialed.

Calling...  
0336396980

- LCD Display when the selected number is engaged

RSSI : 05    00:01

### 3.3.2 To Retrieve by Name or Telephone Number

(Retrieval by Name)

- Press [RECALL] Button.



- Following Recall Menu is displayed on the LCD screen:

[1]LOCATION
[2]NAME[3]CALLS

- ☞ Note : Press [UP]/[DOWN] Button in Recall Menu state and you can take a view of the contents of memory in due sequence. If you press [RECALL] Button again or if there is no key-in for the prescribed time (about 2 minutes), the LCD screen returns to standby state.

- Press Button [2].

Cursor is blinking. → 

RECALL NAME?
--------------

- Type more than one character of the expected name and press [STORE] Button (e.g., type AB).

>01:ABC
02:ABD

- Names including the typed characters (i.e., AB) are displayed in due sequence.
- Search the desired name using [UP]/[DOWN] Button.

01:ABC
>02:ABD

- ☞ Note : Move to the desired location using [UP]/[DOWN] Button and press [STORE] Button on that location, and you can check the telephone number.

- Hook off the handset to make a phone call to the telephone number you sought.
- The telephone number displayed on the LCD screen is dialed.

Calling...
0336396980

(Retrieval by Telephone Number)

- Press a part of consecutive telephone number by more than 3 digits (e.g., 033XXXXXXXX).
- Press [RECALL] Button.
- Telephone numbers or names starting with 033 are displayed on the LCD screen.

>01:ABC  
09:0336398075

If there are similar telephone numbers starting with 033.

No numver  
matches

If there is no telephone number starting with 033

- You can search the next telephone number using [UP]/[DOWN] Button.

>01:ABC  
09:0336398075

Note : Move to the desired location using [UP]/[DOWN] Button and press [STORE] Button on that location, and you can check the telephone number.

- Hook off the handset to make a phone call to the telephone number you sought.
- The telephone number displayed on the LCD screen is dialed.

Calling...  
0336396980

### 3.3.3 List of Recent Calls

Up to 10 telephone numbers recently dialed are stored, and you can make a phone call using any of these.

- Press [RECALL] Button.  
Following Recall Menu is displayed on the LCD screen.

[1]LOCATION  
[2]NAME [3]CALLS

- Press Button [3].

>01:033639680  
02:0336396970

- Stored telephone numbers are listed.
- Move the cursor marked with ">" to the desired telephone number in the list and hook off the handset to make a phone call to that telephone number.
- The telephone number displayed on the LCD screen is dialed.

Calling...  
0336396980

note : Recent call list is maintained as long as terminal power(external or internal battery) is on  
(Recent call list is cleared when terminal power (external or internal battery)is off)

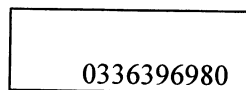
### 3.3.4 To Edit the Stored Telephone Number

3.3.4.1 To edit the stored telephone number when you select it directly with [1]LOCATION,

- 1) Press [MENU] Button and EDIT/ERASE Select No. is displayed.

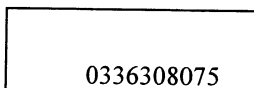


- 2) Press Button [1]. (EDIT Mode is selected.)



- 3) Telephone Number Edit Mode

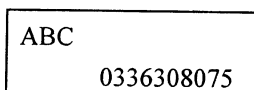
Edit the telephone number by using [CLEAR] Button and Buttons [0] ~ [9] and then press [STORE] Button.



- Note - Press [CLEAR] Button to clear the telephone number from the last digit.
- Press and hold [CLEAR] Button (for more than 1 second) and the entire number is cleared.
  - Edit the telephone number using Dial Buttons [0] ~ [9].
  - When you finish editing, press [STORE] Button.

- 4) Name Edit Mode

Edit the name by using [UP]/[DOWN] Button and Buttons [0] ~ [9] and then press [STORE] Button.



- Note - In the initial LCD screen for Name Edit Mode, the first character of the name is blinking.
- Press [CLEAR] Button before Name Edit Mode and the LCD screen returns to Telephone Number Edit Mode.

- Move the blinking cursor on to the location to be edited, using [UP]/[DOWN] Button, and edit the name using Buttons [0] ~ [9].
- To insert space in the middle of the name. press [CLEAR] Button on a character, or press [DOWN] Button at the end of the name,
- When you finish editing the name, press [STORE] Button.

- Store the edited telephone number in the same way as mentioned in "To Store the Telephone Number".

3.3.4.2 To edit the stored telephone number when you select it using [2] Name of [UP]/[DOWN] Button,

1) Move the cursor marked with ">" to the address to be edited using [UP]/[DOWN] Button.

01:ABC
>02:ABD

2) Press [STORE] Button to check the stored telephone number.

02:ABD
0336308075

3) Press [MENU] Button and the following is displayed.

02:ABD
[1]EDIT [2]ERASE

4) Press Button [1]. (EDIT Mode is selected.)

0336308075
------------

5) Telephone Number Edit Mode

Edit the telephone number using [CLEAR] Button and Buttons [0] ~ [9] and then press [STORE] Button.

0336308752
------------

 Note

- Press [CLEAR] Button to clear the telephone number from the last digit.
- Press and hold [CLEAR] Button (for more than 1 second) and the entire number is cleared.
- Edit the telephone number using Dial Buttons [0] ~ [9].
- When you finish editing, press [STORE] Button.

6) Name Edit Mode

Edit the name using [UP]/[DOWN] Button and Buttons [0] ~ [9] and then press [STORE] Button.

ABC
0336308752

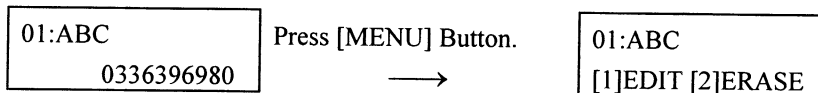
 Note

- In the initial LCD screen for Name Edit Mode, the first character of the name is blinking.
- Press [CLEAR] Button before Name Edit Mode and the LCD screen returns to Telephone Number Edit Mode.
- Move the blinking cursor to the location to be edited, using [UP]/[DOWN] Button, and edit the name using Buttons [0] ~ [9].
- To insert space in the middle of the name, press [CLEAR] Button on a character, or press [DOWN] Button at the end of the name.
- When you finish editing the name, press [STORE] Button.
- Store the edited telephone number in the same way as mentioned in "To Store the Telephone Number".

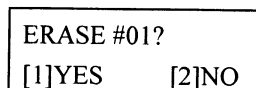
### 3.3.5 To Erase the Stored Telephone Number

3.3.5.1 To erase the telephone number when you select it directly with [1]LOCATION,

1) Press [MENU] Button and the following is displayed.

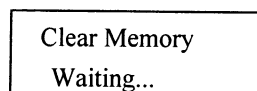


2) Press Button [2]. (ERASE Mode is selected.)



- Press Button [1] and the telephone number on the designated location is cleared.
- Press Button [2], and the LCD screen moves to Step 1) and the selected telephone number is displayed.

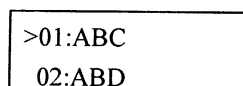
3) Press Button [1].



- The telephone number on the designated location is cleared.

3.3.5.2 To erase the telephone number when you select it with its name or [UP]/[DOWN] Button,

1) Move the cursor marked with ">" to the address to be erased, using [UP]/[DOWN] Button.



2) Press [STORE] Button to check the stored telephone number.

01:ABC 0336306980
----------------------

3) Press [MENU] Button and selectable EDIT/ERASE No. is displayed.

01:ABC [1]EDIT [2]ERASE
----------------------------

4) Press Button [2]. (ERASE Mode is selected.)

ERASE #01? [1]YES [2]NO
----------------------------

- Press Button [1] and the telephone number on the designated location is cleared

Clear Memory Waiting...
----------------------------

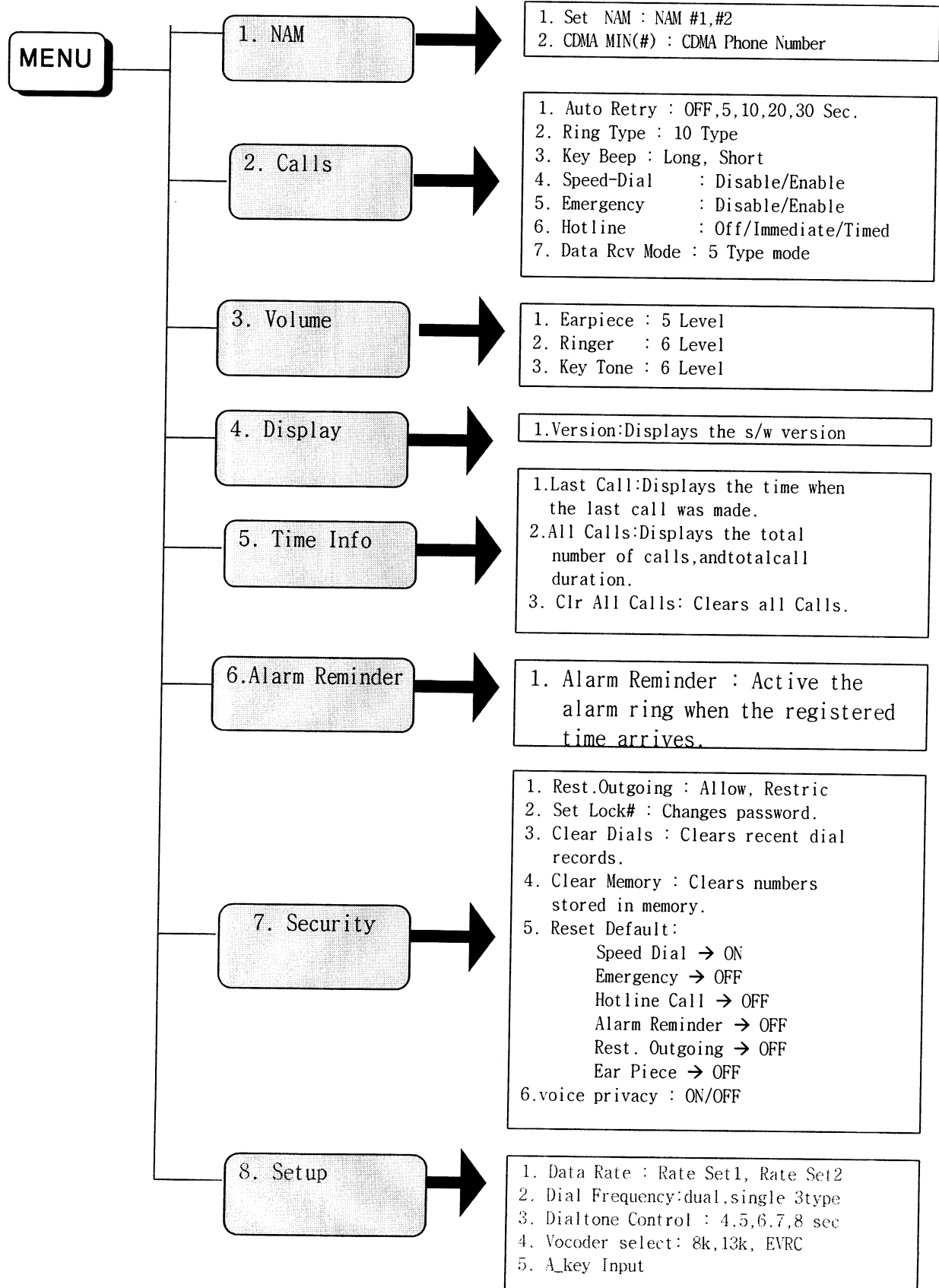
- Press Button [2], and the LCD screen moves to Step 1) and the selected telephone number is displayed.

Note : To check the stored telephone number.

- Telephone numbers can be stored to each address up to 32 digits, and names up to 16 characters.
- Press [RECALL] Button first, and press [1]LOCATION or [2]NAME to select the telephone number you want to check.
- When you check the telephone number by selecting [1]LOCATION, the corresponding address, name and telephone number are displayed.  
But, if the telephone number is stored in excess of 16 digits, you can check it by pressing [MENU] Button and selecting [1]EDIT.
- When you check the telephone number by selecting [2]NAME, only the corresponding address and name are displayed.  
At this time, you can check the telephone number by pressing [STORE] Button.  
But, if the telephone number is stored in excess of 16 digits, you can check it by pressing [MENU] Button and selecting [1]EDIT.
- If you only check the telephone number by selecting [1]EDIT, click Hook Switch or press [SEND/REDIAL] Button to exit to standby state.
- When you want to check the name additionally, you can specify it up to 16 characters but can check only 13 characters.  
But, when you check the telephone number by selecting [1]EDIT and then press [STORE] Button, the LCD screen changes to Name Edit Mode. Then, you can check up to 16 characters of the name.  
If you exit the Edit Mode without editing, click Hook Switch or press [SEND/REDIAL] Button.

## 4. Using Menu Mode

### ● Flow-Chart of Menu Mode Operation



## 4.1 NAM

### 4.1 .1 NAM Selection

(This function allows that the user who subscribes to 2 or more systems can select any one from the telephone number list he subscribes to.)

- Press [MENU] Button. Then, the LCD screen displays the following:

1 : NAM	↓
2 : Calls	

- Press Button [1] to choose NAM Item. Then, the LCD screen displays the following:

1 : Set NAM	↓
2 : CDMA MIN( # )	

- Press Button [1] to choose SET NAM Item. Then, the LCD screen displays the following:

→ SET NAM # 1
---------------

- Search an item to select using [UP]/[DOWN] Button, and press [STORE] Button to store the item.

### 4.1.2 Self Phone Number Check Function

(This function allows the user to check telephone number of the WLL terminal being used.)

- Press [MENU] Button. Then, the LCD screen displays the following:

1 : NAM	↓
2 : Calls	

- Press Button [1] to choose NAM Item. Then, the LCD screen displays the following:

1 : Set NAM	↓
2 : CDMA MIN( # )	


- Press Button [2] to choose CDMA MIN( # ) Item. Then, the LCD screen displays the following:

CDMA PHONE #
300-300-3000

- If you press [MENU] Button or when about 10 seconds pass after you checked the content, the LCD



screen returns to standby state.

 Note : Telephone number of the WLL terminal being used is displayed on the LCD screen.

## 4.2 CALLS

### 4.2.1 Auto Retry Function (AUTO RETRY)

(This function automatically retries a call at the interval of the time specified by the user, if the call is not connected due to traffic congestion of the service system.)

- Press [MENU] Button. Then, the LCD screen displays the following:

1 : NAM	↓
2 : Calls	


- Press Button [2] to choose CALLS Item. Then, the LCD screen displays the following:

1 : Auto Retry	↓
2 : Ring Type	

- Press Button [1] to choose AUTO RETRY Item. Then, the LCD screen displays the following:

AUTO RETRY every
→ 5 seconds

- Search an item for selecting by using [UP]/[DOWN] Button, and press [STORE] Button to store the item.
- Press [CLEAR] Button to return to the previous step and press [MENU] Button to return to standby state.

 Note : SET 5 SEC : Retries a call automatically after 5 seconds later if the call is not connected.  
 SET 10 SEC : Retries a call automatically after 10 seconds later if the call is not connected.  
 SET 20 SEC : Retries a call automatically after 20 seconds later if the call is not connected.  
 SET 30 SEC : Retries a call automatically after 30 seconds later if the call is not connected.  
 SET OFF : Does not retry a call even if the call is not connected.

### 4.2.2 Ring Type Function

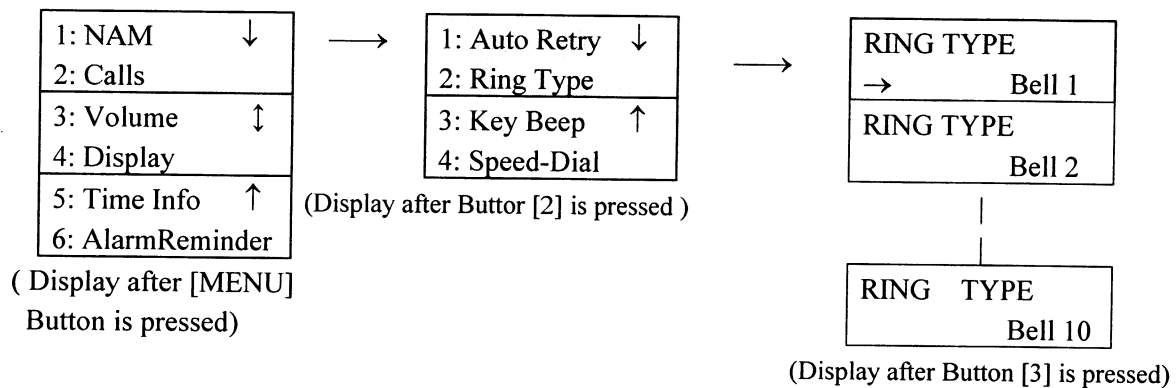
You can select any of following 10 ring types to inform incoming calls.

- 1) Press the following buttons in turn in standby state : [MENU] Button --> Button [2] --> Button [2].
- 2) Select a ring type using [UP]/[DOWN] Button, listening to the ring sound. Then, press

[STORE] Button to store the selected ring type.

3) Press [MENU] Button to return to standby state without store.

☞ There are 10 types of rings. (Ring Type 1 ~ Ring Type 10)  
The initial value is “ Bell Type 1”



#### 4.2.3 Key Beep Length Adjust Function (KEY BEEP)

(This function allows you to change the duration of dial to keep beeping in WLL terminal.)

• Press [MENU] Button. Then, the LCD screen displays the following:

1 : NAM	↓
2 : Calls	

• Press Button [2] to select CALLS Item. Then, the LCD screen displays the following:

1 : Auto Retry	↓
2 : Ring Type	
3 : Key Beep	↑
4 : Speed -Dial	

• Press Button [3] to select KEY BEEP Item. Then, the LCD screen displays the following:

KEY BEEP	
→	Long

• Search an item for selection using [UP]/[DOWN] Button, and press [STORE] Button to store the item.

• If you do not want to select any item or want to return to standby state, press [MENU] Button.

☞ Note : SHORT : KEY TONE sound is transmitted for a short time.

LONG : KEY TONE sound is transmitted while the key is pressed.

The initial value is “Short”.

#### 4.2.4 Speed Dialing Function

(This function is used for turning on/off the function to make a call to the stored telephone number by Speed dial. For example, if the telephone number 0123456789 is stored in Address 2, you can make a call by pressing Button [2] for 1 second or more in off-hook state.)

- Press [MENU] Button. Then, the LCD screen displays the following:

1 : NAM	↓
2 : Calls	


- Press Button [2] to select CALLS Item. Then, the LCD screen displays the following:

1 : Auto Retry	↓
2 : Ring Type	
3 : Key Beep	↑
4 : Speed-Dial	

- Press Button [4] to select SPEED DIAL Item. Then, the LCD screen displays the following:

Speed Dial	
→	Enable

- Search an item for selection by using [UP]/[DOWN] Button, and press [STORE] Button to store the item.
- If you do not want to select any item or want to return to standby state, press [MENU] Button.

 Note : SPEED DIAL “ENABLE” : Speed dial function is used.  
SPEED DIAL “DISABLE” : Speed dial function is not used.  
The initial value is “Enable”.

#### 4.2.5 Emergency Call Hold Function

(Emergency call hold function enables you to store up to three phone numbers(01~03 addresses) in preparation for urgent situations and to make calls fast with the abbreviated dialing. Calls remain connected unless the called party hangs up the phone, and the initial state is set as off.)

- Press [MENU] Button. Then, the LCD screen displays the following:

1 : NAM	↓
2 : Calls	

- Press Button [2] to select CALLS Item. Then, the LCD screen displays the following:

3 : Key Beep	↓
4 : Speed-Dial	
5 : Emergency	↑
6 : Hotline	

- Press Button [5] to select EMERGENCY Item. Then, the LCD screen displays the following:

EMERGENCY DIAL
→ Disable

- Search an item for selection by using [UP]/[DOWN] Button, and press [STORE] Button to store the item.
- If you do not want to select any item or want to return to standby state, press [MENU] Button.

☞ Note : EMERGENCY DIAL “ENABLE” : Emergency call hold function is used.  
EMERGENCY DIAL “DISABLE” : Emergency call hold function is not used.

☞ Note : If a phone number is stored in 01~03 address and emergency call function is set(on), you can make a call just by holding the last digit of the address, or press the two digits hortly and then press the hook swich. Calls remain connected unless the received party hangs up the phone.  
If you attempt abbreviated dialing when emergency call hold and speed dial are set at the same time(on), 01~03 address operate in the emergency call hold mode.

#### 4.2.6 Hot Line Function

(With the hot line function, you cajn make a call automaticall without entering any phone number. In other words, if you stored one frequently used number(99 address) in advance and hot line function is on(timed or immediate), a call will be connected to the registered number automatically by two methods. For immediate hot line, you have only to pick up the phone and the call will be connected. And for timed hot line, you should pick up the phone and wait for a few seconds(4~8 secs), then the call will be connected.)

- Press [MENU] Button. Then, the LCD screen displays the following:

1 : NAM	↓
2 : Calls	


- Press Button [2] to select CALLS Item. Then, the LCD screen displays the following:

3 : Key Beep	↓
4 : Speed-Dial	
5 : Emergency	↑
6 : Hotline	

- Press Button [6] to select EMERGENCY Item. Then, the LCD screen displays the following:

Hotline	Dial
→	Off

- Search an item for selection by using [UP]/[DOWN] Button, and press [STORE] Button to store the item.
- If you do not want to select any item or want to return to standby state, press [MENU] Button.

 Note : HOT LINE DIAL “OFF” : Releasing hot line function (off)

HOT LINE DIAL “IMMEDIATE” : Setup hot line function (immediate hot line on)

HOT LINE DIAL “TIMED” : Setup hot line function (timed hot line on)

## 4.2.7 Data Receive Mode

- This service enables you to access the Internet and PC communication and to receive/transmit the fax message by connecting the PC to WLL terminal.  
The wireless data communication service may not be available from a service provider. Please check whether or not the service provider provides this service.
- Purchase the data communication cable(RS-232 cable) from the service provider for this service.
- For more detailed information on computer environment setup and others, refer to data service data service user’s manual.

### 4.2.7.1 Setup function for data service-receiving mode

#### Method 1) Setup using the telephone

This function set up the receiving mode according to the data service type by using the telephone, which is connected to the WLL terminal.

- Press [MENU] Button. Then, the LCD screen displays the following:

1 : NAM	↓
2 : Calls	

- Press Button [2] to select CALLS Item. Then, the LCD screen displays the following:

5 : Emergency	↓
6 : Hotline	
7:Data Rcv mode	↑

- Press Button [7] to select Data Rcv mode Item. Then, the LCD screen displays the following:

Fax/Modem Mode	
→	Off

- Search an item for selection by using [UP]/[DOWN] Button, and press [STORE] Button to store the item.

- If you do not want to select any item or want to return to standby state, press [MENU] Button.

☞ Note : Fax/Modem Mode “OFF” : This will release the data service receiving mode.

Modem Mode “FOREVER” : This will set the PC fax receiving mode (It will operate in the PC fax receiving mode for one time).

If ten minutes elapsed after the setup, the fax receiving mode is automatically released.

Modem Mode “ONCE” : This will set the PC fax receiving mode (It will operate in the PC fax receiving mode until power off).

Fax Mode “FOREVER” : This will set the modem receiving mode (It will operate in modem receiving mode for one time).

If ten minutes elapsed after the setup, the modem receiving mode is automatically released.

Fax Mode “ONCE” : This will set the modem receiving mode.

(It will operate in modem receiving mode until power off).

The initial value is Fax/Modem Mode “OFF” at power up.

#### Method 2) Setup using AT command

This function set up the receiving mode according to the data service type by using the communication emulator program of PC which is connected to the WLL terminal.

- Enter [AT+HDVAD=0] in the communication emulator program and then press Enter key.

After the setup is completed, OK is displayed. This will release the data service receiving mode. ‘

- Enter [AT+HDVAD=1] in the communication emulator program and then press Enter key.

After the setup is completed, OK is displayed. This will set the PC fax receiving mode. (It will operated in the PC fax receiving mode only once.) If ten minutes elapsed after the setup, the fax receiving mode is automatically released.

- Enter [AT+HDVAD=2] in the communication emulator program and then press Enter key.

After the setup is completed, OK is displayed. This will set the PC fax receiving mode. (It will operate in the PC fax receiving mode until power off.)

- Enter [AT+HDVAD=3] in the communication emulator program and then press Enter key.

After the setup is completed, OK is displayed. This will set the modem receiving mode. (It will operate in modem receiving mode only once.) If ten minutes elapsed after the setup, the modem receiving mode is automatically released.

- Enter [AT+HDVAD=4] in the communication emulator program and then press Enter key.

After the setup is completed, OK is displayed. This will set the modem receiving mode.

(It will operate in modem receiving mode to the power off)

- Default is [AT+HDVAD=0].

## 4.3 To Adjust Volume

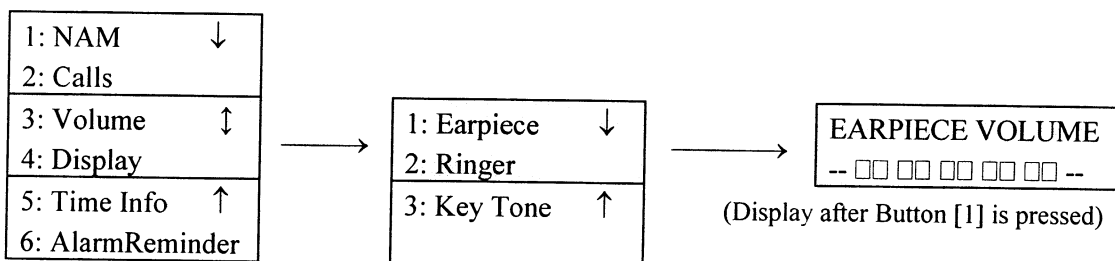
### 4.3.1 To adjust the handset volume

You can adjust the receiver speech volume in two ways.

Method 1) . Press the following buttons in turn in on-hook standby state : [MENU] Button → Button [3] → Button [1].

. Set the volume using [UP]/[DOWN] Button and press [STORE] Button to store the setting.

. Press [MENU] Button to return to standby state.



Display after Buttor [3] is pressed )

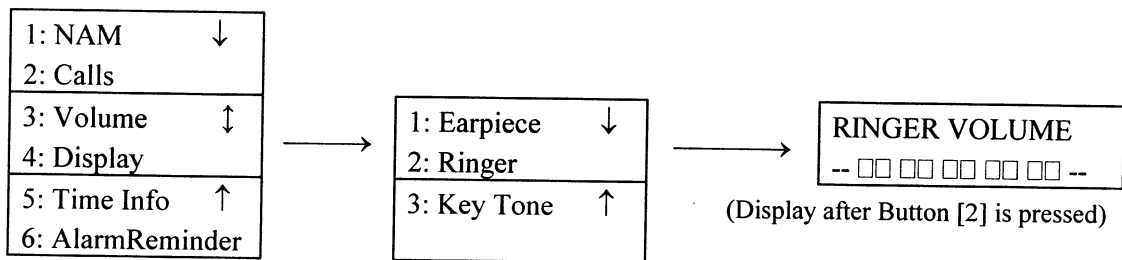
( Display after [MENU] Button is pressed)

Method 2) . Adjust the volume using [UP]/[DOWN] Button during a call.

### 4.3.2 To adjust the ringer volume

You can adjust the ringer volume in two ways.

- Method 1) . Press the following buttons in turn in on-hook standby state : [MENU] Button --> Button [3] --> Button [2].
- . Set the volume using [UP]/[DOWN] Button and press [STORE] Button to store the setting.
  - . Press [MENU] Button to return to standby state.



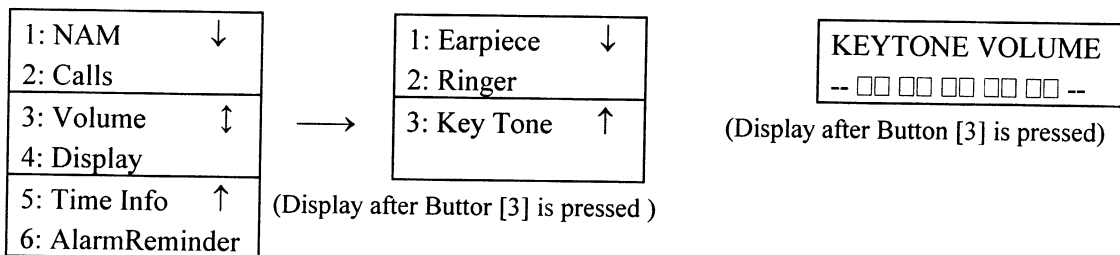
( Display after [MENU] Button is pressed )  
 ( Display after Button [3] is pressed )

( Display after [MENU] Button is pressed )

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

### 4.3.3 To adjust the key beep volume

- Method 1) . Press the following buttons in turn in on-hook standby state : [MENU] Button --> Button [3] --> Button [3].
- . Set the volume using [UP]/[DOWN] Button and press [STORE] Button to store the setting.
  - . Press [MENU] Button to return to standby state.



( Display after [MENU] Button is pressed )

Method 2) Adjust the volume using [UP]/[DOWN] Button in on-hook standby state.

### 4.4 Display Version

(This function allows you to check software version of the WLL terminal being used.)



- Press [MENU] Button.
- Press Button [4] to select DISPLAY Item.
- Press Button [1] to select VERSION Item. Then, the LCD screen displays the following:

VERSION HWP-120.001
------------------------

- If you press [MENU] or [STORE] Button, or when about 10 seconds pass, after you checked the software version, the LCD screen returns to standby state.

## 4.5 Time Information

### 4.5.1 Last Call Time Check Function (LAST CALL)

(This function displays the duration time of the last call.)

- Press [MENU] Button.
- Press Button [5] to select TIME INFO Item.
- Press Button [1] to select LAST CALL Item. Then, the LCD screen displays the following:

LAST CALL TIME 00 : 00 : 00
--------------------------------

- After checking the last call, If you press [MENU] or [STORE] Button, or when it passed about 10 seconds, the LCD screen returns to standby state.

☞ Reference: When the power is off, it become 00:00:00.

### 4.5.2 Total Call Time Check Function (ALL CALLS)

This function allows you to check the total call duration and total number of outgoing calls.)

- Press [MENU] Button.
- Press Button [5] to select TIME INFO Item.
- Press Button [2] to select ALL CALLS Item. Then, the LCD screen displays the following:

0 Calls TIME 00 : 00 : 00
------------------------------

- After checking all calls, If you press [MENU] or [STORE] Button, or when it passed about 10 seconds , the LCD screen returns to standby state.

☞ Note : ALL CALLS : Displays the total call duration and total number of outgoing calls.  
The call duration and the number of calls for ALL CALLS are counted from the last CLR ALL CALLS operation.

note : Recent call time is maintained as long as terminal power(external or internal battery) is on  
(Recent call time is cleared when terminal power (external or internal battery)is off)

### 4.5.3 Clear All Calls Function (CLR ALL CALLS)

(This function allows you to clear the total call duration and total number of outgoing calls, to start counting anew.)

- Press [MENU] Button.
- Press Button [5] to select TIME INFO Item.
- Press Button [3] to select CLR ALL CALLS Item. Then, the LCD screen displays the following:

Clear All Calls ?
[1] YES [2] NO

- Press Button [1] to clear the total call duration and total number of calls, or press Button [2] not to clear them.

### 4.6 ALARM REMINDER FUNCTION

(Alarm reminder function activates the alarm ring when the registered time arrives, and stops the ring when you pick up the phone, The initial state is set to off.)

- Press [MENU] Button. Then, the LCD screen displays the following:

3 : Volume	↓
4 : Display	
5 : Time Info	↑
6 : AlarmReminder	

- Press Button [6] to select ALARM REMINDER Item. Then, the LCD screen displays the following:

Time: Minute ?
00:00

- Enter the desired time as 4 digits(24 hour system) and then Press [STORE] Button. Then, the LCD screen displays the following:

Alarm mode
→ Off

- Search an item for selection by using [UP]/[DOWN] Button, and press [STORE] Button to store the

item.

- If you do not want to select any item or want to return to standby state, press [MENU] Button.

- ☞ Note : ALARM MODE “OFF” : Releasing alarm reminder.  
 ALARM MODE “ALWAYS” : Setup alarm reminder(always).  
 ALARM MODE “ONCE” : Setup alarm reminder(one time).

## 4.7 SECURITY

### 4.7.1 Outgoing Call Restrict Function (RESTRICT. OUTGOING)

(This function allows you to restrict or not to restrict outgoing calls.)

- Press [MENU] Button.
- Press Button [7] to select SECURITY Item. Then, the LCD screen displays the following:

ENTER LOCK CODE ?  
 \_ \_ \_ \_

- Enter 4 digits of LOCK CODE. Then, the LCD screen displays the following:

1 : Rest. Outgoing ↓  
 2 : Set Lock #

- Press Button [1] to select REST. OUTGOING Item. Then the LCD screen displays the following:

Outgoing Call ?  
 → Allow

- Choose Allow/Restrict for "Outgoing Calls?" using [UP]/[DOWN] Button, and then store it using [STORE] Button.

☞ Reference : The initial value of Lock Code is “0000 “.

### 4.7.2 Lock Number Setting Function (SET LOCK#)

(This function is used to change the password.)

- Press [MENU] Button.
- Press Button [7] to choose SECURITY Item. Then, the LCD screen displays the following:

ENTER LOCK CODE ?  
- - - -

- Enter 4 digits of LOCK CODE. Then, the LCD screen displays the following:

1 : Rest. Outgoing ↓  
2 : Set Lock #

- Press Button [2] to select SET LOCK# Item. Then, the LCD screen displays the following:

ENTER NEW CODE

- Enter a new LOCK CODE.
- Press [STORE] Button to store the new LOCK CODE. Then, the LCD screen displays the following:

REENTER NEW CODE

- After checking the LINE CODE, press [STORE] Button to exit.

☞ Reference : The initial value is “Allow”.

### 4.7.3 Dial List Clear Function (CLEAR DIALS)

(This function is used for clearing the list of dials which have been made up to now.)

- Press [MENU] Button.
- Press Button [7] to choose SECURITY Item. Then, the LCD screen displays the following:

ENTER LOCK CODE ?  
- - - -

- Enter 4 digits of LOCK CODE.

1 : Rest. Outgoing ↓  
2 : Set Lock #  
3 : Clear Dials ↑  
4 : Clear Memory

- Press Button [3] to select CLEAR DIALS Item. Then, the LCD screen displays the following:

CLEAR DIALS # ?  
No

- Select YES or NO using [UP]/[DOWN] Button, and store it using [STORE] Button.

☞ Note : CLEAR DIALS YES : Clears the list of dials.  
CLEAR DIALS NO : Does not clear the list of dials.

#### 4.7.4 Memory Clear Function (CLEAR MEMORY)

(This function is used for clearing the information stored in memory.)

- Press [MENU] Button.
- Press Button [7] to choose SECURITY Item. Then, the LCD screen displays the following:

ENTER LOCK CODE ? - - - -
------------------------------

- Enter 4 digits of LOCK CODE.

1 : Rest. Outgoing ↓
2 : Set Lock #
3 : Clear Dials ↑
4 : Clear Memory

- Press Button [4] to select CLEAR MEMORY Item. Then, the LCD screen displays the following:

CLEAR MEMORY ? No
----------------------

- Select YES or NO using [UP]/[DOWN] Button, and store it using [STORE] Button.

☞ Note : CLEAR MEMORY YES : Clears all the information stored in memory.  
CLEAR MEMORY NO : Does not clear the information stored in memory.

#### 4.7.5 Reset Default Function

(This function is for the terminal to be initialized. The current values will be returned to the original values as speed dial(on), emergency call hold(off), hot line call(off), alarm mode(off), lock mode(off), earpiece volume(3). It is not desirable that users operate reset menu frequently.)

Reset menus	Default values
Speed dial	on
Emergency call hold	off
Hot line call	off
Alarm	off
Lock	off
Earpiece volume	Level 3

- Press [MENU] Button.
- Press Button [7] to select SECURITY Item. Then, the LCD screen displays the following:

ENTER LOCK CODE ?  
- - - -

- Enter 4 digits of LOCK CODE. Then, the LCD screen displays the following:

5 : Reset Default ↑

- Press Button [5] to select RESET DEFAULT Item. Then the LCD screen displays the following:

RESET DEFAULT ?  
→ No

- Select YES or NO using [UP]/[DOWN] Button, and then store it using [STORE] Button.

#### 4.7.6 Voice Privacy

(This function is Voice Privacy On/Off)

Press [MENU] Button.

- Press Button [7] to select SECURITY Item. Then, the LCD screen displays the following:

ENTER LOCK CODE ?  
- - - -

- Enter 4 digits of LOCK CODE. Then, the LCD screen displays the following:

6 : Voice Privay ↑

- Press Button [6] to select VOICE PRIVACY Item. Then the LCD screen displays the following:

VOICE PRIVACY ?  
→ No

Select YES or NO using [UP]/[DOWN] Button, and then store it using [STORE] Button.

## 4.8 Setup

### 4.8.1 Data Rate

(This function is for setting the terminal for the default speed of data transmission. The terminal supports 2 mode of transmission, one is 8K(rate set 1) and the other is 13K(rate set 2).

- Press [MENU] Button.
- Press Button [8] to choose Set Up Item. Then, the LCD screen displays the following:

MAINTENANCE CODE
- - - -

- Enter 4 digits of MAINTENANCE CODE.

1 : Data Rate	↓
2 : Dial Tone	
3 : Dial Time	↑
4 : Vocodersselect	

- Press Button [1] to select DATA RATE Item. Then, the LCD screen displays the following:

Rate Set 2
→                      Yes

- Select Rate Set 1 or 2 using [UP]/[DOWN] Button, and store it using [STORE] Button.

### 4.8.2 Dial Frequency

(This function is used to select the dial tone . The dial tone which could be heard from handset has 4 types of tone. they're 350+440 Hz dual , 400 Hz single, 425 Hz single and 450 Hz single tone.)

- Press [MENU] Button.
- Press Button [8] to choose Set Up Item. Then, the LCD screen displays the following:

MAINTENANCE CODE
- - - -

- Enter 4 digits of MAINTENANCE CODE.

1 : Data Rate	↓
2 : Dial Tone	
3 : Dial Time	↑
4 : Vocodersselect	

- Press Button [2] to select DIAL TONE Item. Then, the LCD screen displays the following:

350 + 440Hz
→ Yes

- Select Dial Tone that you want using [UP]/[DOWN] Button, and store it using [STORE] Button.

### 4.8.3 Dial Time Control

(This function is used when you want to adjust the automatic calling time. If you adjust the dial time for 4 sec., then the terminal will always try to make a call in 4 sec. after you press the last calling number. It could be adjusted from 4 to 8 sec. and the default value is 6 sec..)

- Press [MENU] Button.
- Press Button [8] to choose Set Up Item. Then, the LCD screen displays the following:

MAINTENANCE CODE
— — — —

- Enter 4 digits of MAINTENANCE CODE.

1 : Data Rate	↓
2 : Dial Tone	
3 : Dial Time	↑
4 : Vocodersselect	

- Press Button [3] to select DIAL TIME Item. Then, the LCD screen displays the following:

Dialtime 6sec
→ Yes

- Select Dial Time that you want using [UP]/[DOWN] Button, and store it using [STORE] Button.



#### 4.8.4 Vocoder Select

(You can speak by phone with 3 types of Vocoder and this function is used for setting the default type of them. The types are 8K QCELP, 13K QCELP and 8K EVRC.)

- Press [MENU] Button.
- Press Button [8] to choose Set Up Item. Then, the LCD screen displays the following:

MAINTENANCE CODE -- -- --
------------------------------

- Enter 4 digits of MAINTENANCE CODE.

1 : Data Rate	↓
2 : Dial Tone	
3 : Dial Time	↑
4 : Vocoderselect	

- Press Button [4] to select Vocoder Select Item. Then, the LCD screen displays the following:

Vocoder Select → 8K
------------------------

- Select the Vocoder that you want using [UP]/[DOWN] Button, and store it using [STORE] Button.

#### 4.8.5 A\_key Input

(This feature is for Authentication key value input )

Press [MENU] Button.

- Press Button [8] to select SETUP Item. Then, the LCD screen displays the following:

MAINTENANCECODE -- -- --
-----------------------------

- Enter 4 digits of MAINTENANCE CODE. Then, the LCD screen displays the following:

5 : A_key Input	↑
-----------------	---

- Press Button [5] to select A\_Key Item. Then the LCD screen displays the following:

A Key Input

Input the A key, and then store it using [STORE] Button.

## 5. How to use Terminated SMS

### 5.1 Receive Voice Mail

① Notification of the received Voice Mail Message

When MS(Mobile Station) receives Voice Mail from MC(Message Center) or BS(Base Station),

VOICE MAIL 6/14 9:07am
5 New Messages [QUIT]

Notify the received SMS is Voice Mail, reception time, and the number of the stored messages in MC on the display screen.

Display is scrolled with 2 seconds interval.

Call LED blinks until MS escape from Notification State.

② View the scrolled message

Scroll the display with [UP]/[DOWN] or [ \* ], [ # ] keys.

③ Escape from Notification State to Normal State

Press [STORE] or [CLEAR] key.

RSSI:5 9:26am
------------------

### 5.2 Receive Text Mail

① Notification of the received Text Mail Message (Page or Message Service)

When MS receives Text Mail SMS from MC(Message Center) or BS(Base Station),

PAGE! 6/14 9:32am
From 03366302730 [QUIT]

Notify the received SMS is Text Mail ( Page or Message ), reception time, call-back number, and

messages on the display screen.

Display is scrolled with 2 seconds interval.

Call LED blinks until MS escape from Notification State.

② View the scrolled message

Scroll the display with [UP]/[DOWN] or [ \* ], [ # ] keys.

③ Escape from Notification State to Normal State

Press [STORE] or [CLEAR] key.

RSSI:5 9:26am
------------------

### 5.3 SMS MENU

#### 5.3.1 Entering SMS Menu

RSSI:5 9:26am
------------------

To enter the SMS Menu, Press [CLEAR] key in Normal State.

6 voice 3 text [voice] [text]
----------------------------------

On initial SMS Menu Screen, display the numbers of new Voice Mails and Text Mails.

#### 5.3.2 Voice Message

① Entering Voice Mail Menu

6 voice 3 text [voice] [text]
----------------------------------

To enter the Voice Mail Menu, Press [RECALL] key in the initial SMS Menu State.

6/14 9:07am VOICE MAIL
---------------------------

03366302730
6 New Messages
6 New Messages
[ERASE] [QUIT]

Display the last received Voice Mail Information ( reception data/time, call-back phone number, the number of the stored messages in MC ).

Display is scrolled with 2 seconds interval.

② View the scrolled message

Scroll the display with [UP]/[DOWN] or [ \* ], [ # ] keys.

③ Escape from Voice Menu to SMS menu screen

Press [STORE] or [CLEAR] key.

6 voice 3 text
[voice] [text]

③ Erase the received Voice Mail Information.

6 New Messages
[ERASE] [QUIT]

Press [RECALL] key in Voice Mail Menu.

ERASE this?
[YES ] [ NO ]

The Erase Confirmation Menu is displayed. And then,

To execute this erase, press [RECALL] key.

0 voice 3 text
[voice] [text]

The Voice Mail Information is erased, then the initial SMS Menu is displayed.

To cancel this erase, press [STORE] or [CLEAR] key.

④ Notification of No new Voice Mail

```
0 voice 3 text
[voice] [text]
```

When New Voice Mail not exist, Press [RECALL] key to enter the Voice Mail Menu, then

```
No Rxed VM Info.
[QUIT]
```

Message that Received Voice Mail Information not exist is displayed.

To return the initial SMS Menu, wait for 3 second or press [STORE] or [CLEAR] key.

⑤ Calling to the received callback phone number

```
6 New Messages
[ERASE] [QUIT]
```

Press [SEND] key in Voice Mail Menu Voice.

```
03366302730
```

Call Back phone number is displayed. Then, hook-off the phone.

```
Calling...
03366302730
```

Call to the received callback phone number.

### 5.3.3 Text Message

① Entering Text Mail Menu

```
0 voice 3 text
[voice] [text]
```

To enter the Text Mail Menu, Press [RECALL] key in the initial SMS Menu State.

6/14 12:01pm
03366302730
03366302730
[ERASE] [NEXT]

Display the first new received Text Mail Information ( reception data/time, call-back phone number, the received messages ).

Display is scrolled with 2 seconds interval.

② Erase the received Text Mail Information.

03366302730
[ERASE] [NEXT]

Press [RECALL] key in Text Mail Menu.

ERASE this?
[YES ] [ NO ]

The Erase Confirmation Menu is displayed. And then,  
To execute this erase, press [RECALL] key.

6/14 1:00pm
03366306976
03366306976
[ERASE] [NEXT]

The Text Mail Information is erased, then the next Text Mail Information is displayed.  
To cancel this erase, press [STORE] or [CLEAR] key.

03366302730
[ERASE] [NEXT]

Return the Text Menu.

③ View the next new Text Mail Information

03366302730
[ERASE] [NEXT]

When the Text Mail Information is displayed, Press [STORE] key.

6/14 1:00pm
03366306976
03366306976
[ERASE] [NEXT]

The next new Text Mail Information is displayed, and the previous Text Mail Information is inserted into the old Text Mail list.

④ View the old Text Mail List

03366306976
[ERASE] [NEXT]

Press of [STORE] key to view the next new Text Mail is continued, and then,  
When the display of new Text Mail Information is ended, the old Text Mail list is displayed.

>03366302730
[ERASE] [VIEW]

⑤ Scroll the old Text Mail List information  
Scroll the display with [UP]/[DOWN].

⑥ View old Text Mail Information

>03366302730
[ERASE] [VIEW]

Press [STORE] key.

6/14 12:01pm
03366302730
03366302730
[ERASE] [QUIT]

The selected old Text Mail Information is displayed.



Display is scrolled with 2 seconds interval.

⑦ Erase the old Text Mail Information

03366302730
[ERASE] [QUIT]

Press [RECALL] key when the Text Mail List or Information is displayed.

⑧ Registering the received callback number on speed-dial list

03366302730
[ERASE] [QUIT]

Press [SEND] key when the Text Mail List or Information is displayed.

CB#:03366302730
[SAVE] [QUIT]

Call Back phone number is displayed. Then, Press [RECALL] key to select the [SAVE].

03366302730
-------------

Input the number of the speed-dial address. (4.5 Speed Dialing Function)

⑨ Calling to the received callback phone number

CB#:03366302730
[SAVE] [QUIT]

Call Back phone number is displayed. Then, Press [SEND] key again.

03366302730
-------------

Call Back phone number is displayed. Then, hook-off the phone.

Calling...  
03366302730

Call to the received callback phone number.

#### 5.3.4 SMS Menu Control Key Definition

#####  
[LEFT] [RIGHT]

- [RECALL] key : Execute the displayed function on [LEFT].
- [STORE] key : Execute the displayed function on [RIGHT].
- [CLEAR] key : Cancel or Return.
- [UP] ,[DOWN] key : Scroll the display.

## <Appendix>

### 1. Troubleshooting

- When you think the terminal is out of order.

<b>Problems</b>	<b>Action</b>
<ul style="list-style-type: none"> <li>• In case of no indication at LCD</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure you turn on the terminal. If the switch is on, turn off it and turn on again.</li> </ul>
<ul style="list-style-type: none"> <li>• In case that LCD displays “No Service”.</li> </ul>	<ul style="list-style-type: none"> <li>• Move the terminal to service area because the place where the terminal is located is out of service coverage.</li> </ul>
<ul style="list-style-type: none"> <li>• In case that you hear terminal is beeping from ringer or you don't hear any sound from earpiece.</li> </ul>	<ul style="list-style-type: none"> <li>• Put a handset on adequate position because it's misplaced.</li> </ul>
<ul style="list-style-type: none"> <li>• In case that Battery indication is blinking “1”, and a terminal is beeping from ringer periodically.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply external power because battery discharged.</li> </ul>
<ul style="list-style-type: none"> <li>• In case that ringer is not ringing when a call is in coming.</li> </ul>	<ul style="list-style-type: none"> <li>• Press up key a couple of times to adjust ringer volume, because ringer is in silent step.</li> </ul>

In case that the simple remedy does not work with Terminal, contact to the local agency where you purchase or service center and technician will solve the trouble.

## 2. FWT Technical Specification

Classification		HWP-120	HWP-220
Air interface	Common air interface standard	IS-95B(IS-95A, TSB-74)	IS-95B(IS-95A, J-STD-008)
	Frequency	TX: 824 ~ 849MHz RX: 869 ~ 894MHz	TX: 1850 ~ 1910MHz RX: 1930 ~ 1990MHz
	Frequency accuracy	$F_o \pm 300\text{Hz}$	$F_o \pm 150\text{Hz}$
	TX output power	200mW	
	RX sensitivity	- 104dBm	
	Vocoder	8K/13K QCELP 8K EVRC	
	Channel bandwidth	CDMA 1.25Mhz	
	MOD/DEMODO	O QPSK/QPSK	
Battery back-up	Type	Ni-Cd	
	Capacity	8.4V @ 2A	
	Talk time	2 hours	
	Standby time	70 hours	
	Serial port	<ul style="list-style-type: none"> <li>· Maintenance purpose</li> <li>· Data service purpose (Internet, PC fax)</li> </ul>	
Physical	Dimension (D×W×H)	181×232×66(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 @ 2A	
Etc	Accessories	<ul style="list-style-type: none"> <li>· Internal antenna: Di-Pole antenna</li> <li>· Power supply (SMPS)</li> <li>· External antenna (optional): 10dbi gain directional panel antenna</li> <li>· External Battery(optional): 9.6V @ 7A</li> </ul>	