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Before use

Thank you for choosing WP520C Fixed Wireless Terminal (FWT) of ZTE Corporation.

To keep your FWT in the best condition, please read this manual carefully before use and keep it well for further use.

The pictures in this user manual are only used to demonstrate your FWT's functions, so they are maybe different from what you see on your FWT. Please refer to your FWT if there are any differences.

Safety Precautions

During Operation

- The FWT may interfere with heart pacemaker, hearing aid and other electronic medical devices. Therefore please follow the instructions given by your equipment suppliers or consult your doctor.
- Do not attempt to disassemble the FWT and battery by yourself. Non-expert handling of the devices may cause damages.
- If you want to clean your FWT, use only a dry, soft cloth with cleanser containing no alcohol, benzene or acetone.
- Don't drop the FWT or have it hit with great force.
- Please make sure that your FWT is powered off and the battery is taken out before installing the antenna.
- Use only the original antenna. Do not use the antenna for any other purpose.
- Please turn off your FWT by holding ⏻ key, instead of pulling out the plug / socket directly.
- Please turn off your FWT and unplug the power adaptor when installing or uninstalling R-UIM card.

Work Environment

- The product can only be installed indoors.
- The working temperature is -10℃~ +55℃, so don't operate it outside the range. Operation under too high or too low temperature might cause problems.

- Keep the product from dust, furnace or gas stove.
- Don't put it under humid environment to avoid dampness, otherwise the
- circuit board may be eroded and you may lose the data.
- Keep the product away from magnetic field and static electricity.
- Place the FWT out of the reach of small children. The FWT may cause body injury if used as a toy.
- Do NOT use the terminal in stormy days.

Battery & Power Adaptor

- Generally, your FWT is supplied by power adaptor, and the backup battery is used only on special occasions such as blackout or other circumstances. The battery's standby time depends on the network status.
- Follow the procedures below in order to prolong the battery life. If the battery is used for the first time, please pull out the power adaptor, supply your FWT with the battery alone until the battery capacity is exhausted and your FWT is automatically powered off, then charge the battery until it is fully charged, and then supply your FWT with the battery alone until the battery capacity is exhausted and your FWT is automatically powered off. Circulate the procedure for three times.
- During daily use, do not pull out the power adaptor.
- The battery could be normally charged under the temperature range of 10℃~40℃. If the battery is charged under the temperature outside this range, the battery performance might be compromised or even the battery might be damaged.
- Before replacing the battery, please hold ⏻ key to power off the terminal and then unplug the power adaptor.
- Use the original power adaptor and battery only. Using non-original power adaptor to supply would cause damage or power-off to the terminal. Please do not use the power adaptor for other purposes.
- The power adaptor must be used within the specified AC voltage range.
- Please promptly charge the battery if the battery power is low as the terminal is being supplied by the battery alone. Otherwise, it may affect the normal use of the battery or cause battery over-discharge.
- Take out the battery if you won't use your FWT for a long period of time and keep the battery well.

- Don't use the power adaptor if the power cable is damaged. Contact the maintenance center immediately and replace the adaptor.
- Dispose the useless battery as required rather than throw it into the general domestic dustbin.

Note:

If the battery is damaged, you should avoid the contact of the substances in the battery. If your skin has contacted these substances, wash with a lot of clear water, and seek for help from your doctors if necessary.

Installing Antenna

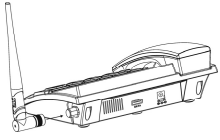
You can choose to install indoor or outdoor antenna, this chapter will tell you how to install an antenna.

Note:

Make sure to switch off your FWT, disconnect the power adaptor and take out the battery before installing the antenna. Please do not dismantle the antenna after it is installed. Do not frequently revolve the antenna or circumrotate it by 360 degrees because it may affect signal reception capability and lifespan of the FWT.

Installing Indoor Antenna

When your FWT is close to the BTS and the signals are strong, indoor installation will be enough for you to get a good conversation quality. Please insert the indoor antenna to the antenna port on your FWT and screw it to make sure it's well connected.



Installing Outdoor Antenna

Outdoor antenna has a better signal receiving ability than indoor antenna. When your FWT is far away from the BTS and the signals are weak, outdoor antenna could be installed to get a better conversation quality. If you are already using an outdoor antenna, we will not provide extra indoor antennas.

The following is the instructions for outdoor antenna installation.

1) Installing omni outdoor antenna

You should install the omni outdoor antenna perpendicular to the ground. Please follow the instructions given in the manual contained in the box. The antenna must be fixed with a non-metal pole.

2) Installing directional outdoor antenna

- Choosing a good location for the directional outdoor antenna.

Directional outdoor antenna should be installed perpendicular to the ground in a higher place, e.g., roof, building top, hilltop, etc. In general, the higher the installation position is, the stronger the signal receiving ability is. If there are very high buildings or hill-like barriers between the directional outdoor antenna and BTS, you'd better install the antenna at least 50 meters away from the building or barrier. If possible, you should install the antenna directly over the barrier. At the same time, you'd better install the outdoor antenna as far as possible from the TV antenna to avoid interference.

- The installation of the outdoor directional antenna.

Please perform this operation according to the instruction manual contained in the box. The antenna must be fixed with a non-metal pole.

- The direction of the directional outdoor antenna.

If a directional antenna is already installed then its direction is critical to its signal receiving ability. If you live in a flat zone, please direct your antenna towards the BTS. If you live in a hilly area or a place with lots of buildings, please rotate your antenna until it receives the strongest signal.

Connecting Outdoor Antenna to FWT

After the outdoor antenna is well installed, please connect the feeder line to the outdoor antenna, tie it to a backstop and then place it down. After going through a lightning arrester, connect the feeder line to your FWT, screw it tight and make sure the connection is reliable. At the same time do not try to hang heavy things on the cable line or drag / distort the cable. Please don't make any changes on the outdoor antenna provided by us.

Lightning Arrest Measures

Because the outdoor antenna is normally installed at very high places, you should consider the lightning protection. We will provide you with detailed advice on lightning protection. Please choose and buy the lightning rod and arrester as recommended. Our company will not be responsible for the contingency caused by improper operation.

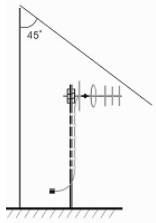
These lightning measures are only for your reference. For details, please consult the experts.

Note:

Please do not use the FWT on a lightning day if you have installed an outdoor antenna, at the same time do not touch the feeder line and the metal portion of the outdoor antenna.

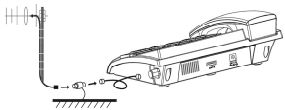
1) Lightning rod

Please install the lightning rod near your outdoor antenna. The lightning rod should be higher than your outdoor antenna and well grounded, and the grounding resistance should be less than 10ohm. Furthermore, the angle between the top of the rod and the outmost point of the antenna shall not exceed 45 degree, and the horizontal distance between the rod and the antenna shall not be shorter than 3 meters. See right figure:



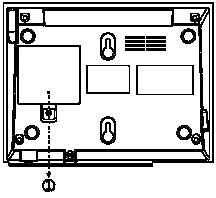
2) Lightning arrester

Please connect feeder cable to the antenna port on your FWT before installing the lightning arrester. Connect the arrester to the outdoor antenna through feeder cable. In the middle of the lightning arrester is a ground point, which is used to connect the ground line. Please select the ground line according to the advice on lightning protection and make sure the line is well grounded.



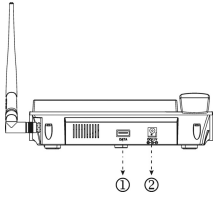
Installing the FWT

Bottom View



①Battery Cover

Rear View



① DATA Interface
② Power Interface

Installing R-UIM Card

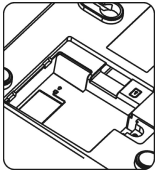
(If your FWT doesn't need R-UIM card, please skip this step.)

Note:

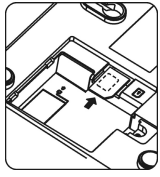
If your FWT needs R-UIM card, you should install R-UIM card before use. When installing R-UIM card, make sure your FWT is switched off and the power adaptor is disconnected.

Please install the R-UIM card before installing the battery.

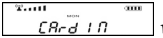
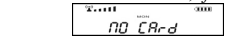
1. Remove the battery cover



2. Install R-UIM card (pay attention to card's cut corner position)



Note:

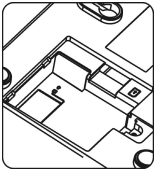
If R-UIM card is installed correctly,  *will be firstly displayed on the LCD when FWT is powered on, and then the FWT will enter idle mode; if R-UIM card is not inserted or incorrectly installed,*  *will be displayed on the LCD with sound alert when FWT is powered on. In this case, you should power your FWT off and insert R-UIM card again or check the installation of the card.*

Installing Battery

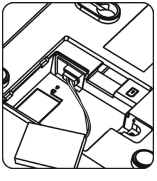
Note:

When installing the battery, make sure your FWT is switched off and the power adaptor is disconnected.

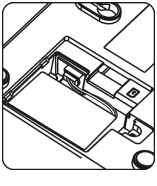
1. Remove the battery cover



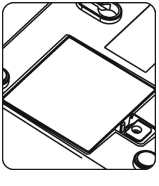
2. Install battery (pay attention to battery polarity)



3. After battery installation



4. Install the battery cover

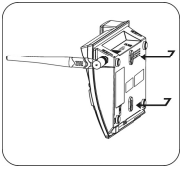


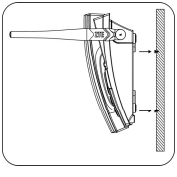
Installing the Handset

Installing the Power Adaptor

Please firstly connect the power adaptor with FWT's power interface before connecting to external AC power supply.

Wall-Mount Installation





During wall-mount installation, pull out the handset retaining clip as shown in Fig. 1, and then push it back in the reverse direction as shown in Fig. 2 to avoid the slip of handset during the use.

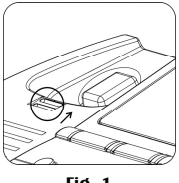


Fig. 1

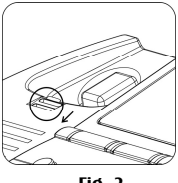


Fig. 2

Switching on / off the FWT

Switch on the FWT

Hold the power key ⏻ to switch on your FWT.

Display when the service is available:

When the FWT is switched on and properly connected, all the segments of the LCD display will turn on for a while and then the FWT enters idle mode as shown in the right figure. Now you can make or receive a call.

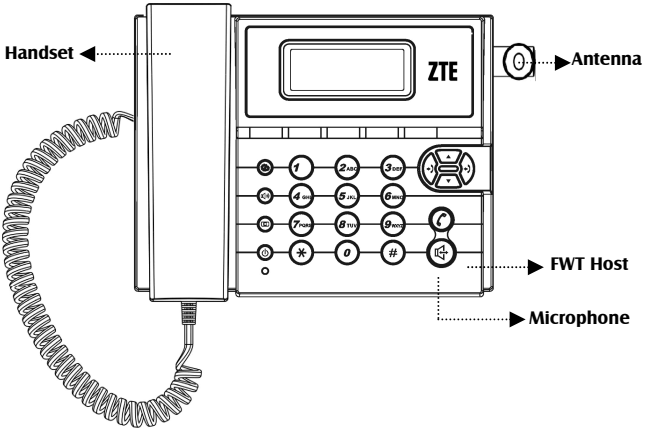
Display when the service is unavailable:

When the service is unavailable, the receiving signal strength indicator (RSSI) and the corresponding icon won't appear on the LCD, as shown in the right figure. In this case, you need contact the local customer service.

Switch off your FWT

Hold the power key ⏻ to switch off your FWT.

Getting to Know Your FWT



Display Icons

	Current signal strength		Current battery power.
	No-disturbing function activated		Alarm function activated
IN	Incoming call history inquiry.	**OUT**	Outgoing call history inquiry.
NEW	Incoming call missed		

Function Keys

	Press this key to set each function.
	Press this key to make a call or redial. During the conversation, press this key to set up a Three-Way Calling.
	Press and hold this key to turn on / off FWT. In idle mode, press key and this key to set No-disturbing function. During the conversation, press this key to enter mute state. When the FWT rings upon an incoming call, press this key to mute the ring tone.
	Press key and this key to adjust the volume. In dialing, press this key to automatically add the IP access number before the outgoing call number. Upon the call history inquiry, press this key to switch among phone number, conversation time and conversation duration.
	Hands-free key.
	Press this key to clear the information on the LCD. When there is an incoming call, press this key to reject the call. Press key and this key to delete all call history.
	In idle mode, press this key to display incoming call history. Press key and this key to select ringtone.
	In idle mode, press this key to display outgoing call history. Press key and this key to add, change or delete speed dial number.
▲	When viewing call history, press this key to return to previous record. Support viewing call history circularly. During the adjustment of volume, press this key to increase the volume. During the talk, press this key to increase the volume.

▼	When viewing call history, press this key to go to next record. Support viewing call history circularly. During the adjustment of volume, press this key to decrease the volume. During the talk, press this key to decrease the volume.
*	In idle mode, press key and this key to set Alarm function.
0~9 Numeric keys	Input digits. In idle mode, Press key and "0" key to set call restriction. press key and "1" key to turn off the function of auto dial after several seconds. press key and "6" key to change the date format. press key and "8" key to reset to factory default.

Basic Operations

Making a Call

If you have applied to the local telecom operator for relevant voice services, you can use the FWT to make local, distance, international and IP calls.

1) Make sure your FWT is turned on and enters idle mode.

2) Using the handset

- Pick up the handset in idle mode, dial the desired number after hearing the dialing tone;
- Press key or wait for several seconds to make the call automatically;
- Hang up the handset after the conversation is over.

3) Preset dial

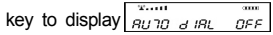
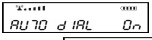
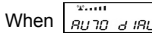
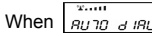
- Dial the desired number directly in idle mode, press key to make the call;
- Pick up the handset to talk.

4) IP call

You can make IP call conveniently. This function needs support from your local telecom operator.

- Pick up the handset in idle mode, press key, and then dial the desired number, the IP access number will automatically be added before the outgoing call number;
- Press key or wait for several seconds to make the call automatically.

5) Turn ON or turn OFF the function of auto dial after several seconds

- In idle mode, press key and "1" key to display  on the screen;
- Press ▲ and ▼ to circularly display and  on the screen;
- When  is displayed, press key to turn off the function;
- When  is displayed, press key to turn on the function.

Note:

In preset dial, you can't make the call until key is pressed. Press key to delete one digit, and hold key for one second to delete all the digits.

Redialing

This function allows you to redial the recent outgoing call number.

1) Pick up the handset in idle mode, and you will hear the dialing tone;
2) Press key to redial the recent outgoing call number;
3) Hang up the handset after the conversation is over.

Receiving a Call

When there is an incoming call, your FWT will ring and the incoming number will be displayed (Network support required).

1) The terminal rings or LCD backlight flashes;
2) Pick up the handset, talk time appears on the LCD;
3) Hang up the handset after the conversation is over.

Rejecting a Call

When there is an incoming call, you can choose to reject a call when you don't want to.

The terminal rings or LCD backlight flashes, press key to reject the incoming call.

Adjusting the Volume

Adjust the handset volume (voice and key tone) and the hand-free volume (voice, key tone and ringtone).

1) Adjust the Voice Volume of the Handset
   - In idle mode, pick up the handset and then press key, and then press key, appears on the LCD;
   - Adjust the volume through ▲ and ▼ key, and then press key to confirm;

- During the conversation, you can also adjust the volume through ▲ and ▼ key.

2) Adjust the Key Tone Volume of the Handset
   - In idle mode, pick up the handset and press key, and the press key twice, appears on the LCD;
   - Adjust the volume through ▲ and ▼ key, and then press to confirm.
3) Adjust Speaker Volume
   - In hang-up mode or after entering hands-free mode by pressing key, press key and then key, appears on the LCD;
   - Adjust the volume through ▲ and ▼ key, and then press to confirm;
   - During the conversation, you can also adjust the volume through ▲ and ▼ key.
4) Adjust hands-free Key Tone Volume
   - In hang-up mode or after entering hands-free mode by pressing key, press key and then press key twice, appears on the LCD;
   - Adjust the volume through ▲ and ▼ key, and then press to confirm.
5) Adjust Ringtone Volume
   - In hang-up mode or after entering hands-free mode by pressing key, press key and then press key three times, appears on the LCD;
   - Adjust the volume through ▲ and ▼ key, and press to confirm.

Emergency Call

As long as your FWT can detect CDMA digital network signal, you could dial the emergency call numbers preset in your FWT to seek for help in case of emergencies.

Note:

Different countries have different emergency call numbers. Please consult your local telecom operator for details.
Do not take your FWT as the only tool to seek help.

Restricting Incoming Call Display

If incoming call display restriction is enabled, different letters will be displayed according to the type of incoming call number. This function requires network support, so please consult your local telecom operator.

Below is the relationship between incoming call number type and letter:

Public Telephone

Restricted presentation of identification

Number no available

Operator

National Long Distance

Programmed reminder

Advanced Functions

No-disturbing

1) Press ⚙ and then press ⏻ key continuously, and will be displayed on the LCD circularly;

2) Enable No-disturbing function

When appears, press ⚙ key to activate and no-disturbing icon will appear on the LCD. When there is an incoming call, the FWT will simply alert with LCD backlight instead of ringing.

3) Disable No-disturbing function

When is appears, press ⚙ key to activate and No-disturbing icon will disappear.

Mute

1) When the terminal rings, you can mute the ring tone by pressing ⏻ key;

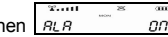
2) During the conversation, just press ⏻ key to mute your voice, namely the other party can't hear your voice. At this point, a flashing icon is displayed on the LCD. Press ⏻ key again to cancel the mute setting.

Alarm

Set alarm for a specified time.

1) To enable Alarm function, press ⚙ and then press "*"key continuously, and will be displayed circularly;

2) Set an alarm

- When  is appears, press ⚙ key to display the date and time set previously such as ;

- Press "＊" or "#" key to change current position, and then use digit keys to input your desired date and time;
- After correct setting, press key again to confirm;
- The alarm icon will be displayed when ALARM function is enabled.

3) Clear an alarm

When appears, press key to clear the alarm.

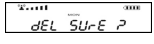
Call History

View the recent incoming calls and outgoing calls.

1) View call history

- Press key to display incoming call history, and press key to display outgoing call history;
- Press ▲ or ▼ key to search the number; if the number exceeds 11 digits, press "＊" and "#" to move to the left and right;
- Press key to check the date and time of a call record;
- Press key again to display the talk duration;
- Press key repeatedly to switch among phone number, talk time and talk duration.

2) Delete call history

- Press key to delete the currently displayed call history;
- Press key firstly and press key continuously to delete all call history;
- and will be displayed in turn when you press key;
- Now press key to display  ;
- Press key again to delete all incoming or outgoing calls.

3) You can make a call by pressing key when the desired number is being displayed.

Speed Dial

You can store 99 frequently used phone numbers from 01 to 99 in the FWT. During speed dial, you can get the corresponding phone number and make a call simply by inputting the correct address number.

1) Press ⚙ key firstly and press ↩ key continuously to display

,

and

circularly on the LCD;

2) View speed dial address

When

is displayed, you can view dial addresses from 01 to 99.

- Input the desired address,

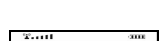
and then press ⚙ key, the corresponding phone number saved

will be displayed;
- If you press ⚙ key but not input the address, the first valid address will be selected;
- Press ✆ key to dial this number or press C key to delete it;
- Press ▲ or ▼ key to view the previous or next valid address. (vacant address will not be displayed.)

3) Add a new speed dial address

When

is displayed, you can add a new speed dial address.

- Input the desired address 

, and then press ⚙ key,

will be displayed on the LCD;
- After inputting the phone number

, press ⚙ key to save;
- If you press ⚙ key but not input the address, the first vacant address will be selected.

4) Delete all speed dial addresses

Press key to delete all speed dial addresses when

is displayed.

5) Make speed dial in idle mode

In idle mode, you can make speed dial using one-key or double-keys.

- "One-key" means pressing one numeric key and holding for about 1 second;
- "Double-keys" means inputting the first digit, and then the second digit and holding for about 1 second.

Select Ringtone

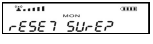
You can select from multiple ringtones.

1) Press then key,

will be displayed and you will hear the ringtone that "0" corresponds to;

2) Press ▲ or ▼ key to select and press key to confirm.

Reset the FWT

1) In idle mode, press key and then "8" key to display 

on the LCD.

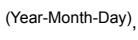
2) Press key again to reset the FWT to factory default settings.

Modify Date Format

1) In idle mode, press key and then "6" key to display

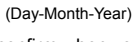
(Day-Month-Year);

2) Press ▲ or ▼ key to circularly display as below:



(Year-Month-Day),

, (Month-Day-Year)



(Day-Month-Year)

3) Press key to confirm when your desired date format is displayed.

Set PIN Code

Please skip this section if your FWT doesn't need R-UIM card.

1) Set PIN code Verification

- In idle mode, press "*#357159*0#*" to display

on the screen, and then press "#" key to display

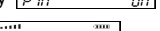
;
- As

appears on the screen, press key to display

on the screen;
- Input PIN code correctly to return to idle mode;
- Re-power on and then input the correct PIN code to enter the idle mode.

2) Cancel PIN Code Verification

- In idle mode, press "*#357159*0#*" to display

on the screen, and then press "#" key to display 

;
- As

appears on the screen, press key to display

on the screen;
- Input correct PIN code to return to idle mode; there is no need to verify PIN code when the FWT is powered on again.

3) Change PIN Code (The PIN can be changed only after it's activated)

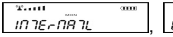
- In idle mode, press "*#357159*1#*" to display

on the screen;
- Input the original PIN code, and then input the new PIN code twice. PIN code is changed successfully.

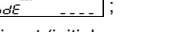
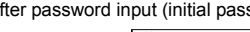
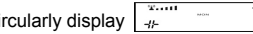
Note:

Only those models with R-UIM card support PIN setting.
The R-UIM card will be locked if you enter wrong PIN three times. In this case you need PUK code to unlock the R-UIM card. The PIN and PUK code may be provided together with the R-UIM card. If not, contact your network service provider. The default PIN is normally 1234.

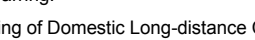
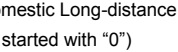
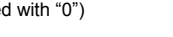
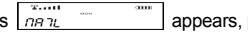
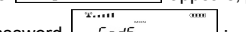
Call Barring

1) Firstly press key and then press "0" key continuously to display ,  , and circularly on the screen;

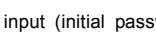
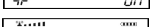
2) Barring of International Long-distance Call (Barring of outgoing call started with "00")

- As appears, press "#" key to prompt to input password ;
- After password input (initial password is 0000), press "#" key to circularly display  and ;
- As  appears, press key to activate call barring;
- As  appears, press key to deactivate call barring.

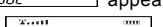
3) Barring of Domestic Long-distance Call and Mobile Phone Call (Barring of outgoing call started with "0")

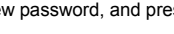
- As  appears, press "#" key to prompt to input password  ;
- After password input (initial password is 0000), press "#" key to circularly display  and ;
- As  appears, press key to activate call barring;
- As  appears, press key to deactivate call barring.

4) Barring of All Outgoing Calls (not including emergency number and service number)

- As appears, press "#" key to prompt to input password ;
- After password input (initial password is 0000), press "#" key to circularly display  and ;
- As appears, press key to activate call barring;
- As  appears, press key to deactivate call barring.

5) Change Call Barring Password

- As appears, press "#" key to prompt to input password  ;
- After password input (initial password is 0000), will appear on the screen;
- Input new password, and press key to confirm and return to idle mode.

6) If call barring is activated, the FWT will prompt you to input password  after you input a number and press key . Only after the correct password is entered could you make the call.

Optional Features

Three-Way Calling

Three-Way Calling allows you to have a three-way conference call by adding the third party to an existing call.

Please contact your local telecom operator to apply for the service. For detailed operation methods, please consult your local telecom operator.

Call Forwarding

Call Forwarding allows you to forward an incoming call to any other number no matter the FWT is switched off or not. You can still receive calls through the specified phone when Call Forwarding is activated.

Please contact your local telecom operator to apply for the service and consult them for the operations.

Call Waiting

Call Waiting provides an audible tone when you are on an existing call to alert you of another incoming call. You may select to receive or reject the second call. If you receive the second call, you could answer by switching between two calls.

Please contact your local telecom operator to apply for the service. For detailed operation methods, please consult your local telecom operator.

Troubleshooting

Problems	Solutions
No display on LCD after the FWT is powered on	Check if the external voltage is normal or not; Check the quality of the adaptor and battery, and check if the connection is reliable.
No display on the LCD after the FWT is switched on and supplied by battery	Check if the battery is charged and correctly installed; Check if the battery socket and plug are well connected, and if the battery's connection cable is broken or has welding problem; Switch on the FWT after everything is OK.
No signal strength indication	Change the antenna's position; Change the FWT's position as the signal is weak; Switch off the FWT and switch it on to check if the FWT starts normally.
No dialing tone after the handset is picked up	Hang up and pick up the handset again; Check the connection between the FWT and handset.