GSM FIXED WIRELESS TERMINAL
G8504
USER MANUAL

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1. Introduction:

1. 1 GSM FIXED WIRELESS TERMINAL, when linked with a telephone set, allows you to connect and communicate flexibly within GSM cellular network coverage.

1.2 Thank you for your use of this GSM FIXED WIRELESS TERMINAL. Please kindly follow this user manual to unpack, set up and operate your new GSM FIXED WIRELESS TERMINAL product.

2.Safety Information:

Using any wireless device will interfere with nearby electronic equipment，So please read the following information carefully and deal with the packing in proper way to avoid any pollution.

2.1Aircraft:

Do not use this GSM FIXED WIRELESS TERMINAL in the air. Use it on the ground only with crew permission.

2.2 Blasting Area:

Construction crews often use remote control RF devices to set off explosives. To avoid interfering with blasting operations, turn off GSM FIXED WIRELESS TERMINAL when in a blasting area or in areas posted 'Turn off two-way radio'.

2.3 Potentially Explosive Areas;

Do not install GSM FIXED WIRELESS TERMINAL in fueling areas, on fuel or chemical transfer or storage facilities or in areas where there is chemicals or particles, such as grain, dust or metal powders.

2.4 Hospitals:

Do not install GSM FIXED WIRELESS TERMINAL in hospitals as the terminals can interfere with electronic medical devices.

2.5 Children:

Do not allow children to play with GSM FIXED WIRELESS TERMINAL as the equipment or the packing material may hurt your children or your children may damage the equipment without

2.6 USER:

Only professional maintenance man can install or maintain this GSM FIXED WIRELESS TERMINAL. User can't take this product into parts without any authorization to avoid abnormal damage.

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3.Product Composition:

With standard and open design, engineers developed this GSM FIXED WIRELESS TERMINAL: multi-level shielding of the circuit board to reduce GSM-network-inhered negative effect on the circuit; high-gain antenna making it more sensitive in signal receiving and more capable in delivering clear voice communication.

Product Composition is as follows:

a. GSM FIXED WIRELESS TERMINAL:

GSM FIXED WIRELESS TERMINAL serves as a mobile converter. With GSM FIXED WIRELESS TERMINAL, a normal telephone set can access GSM network.

b. Antenna: To receive and transmit radio signals.

c. Power Supply Adaptor: AC/DC adaptor, with charging circuit inside for the charging of batteries.

4.Features:

4.1 Outgoing Calls:

When GSM FIXED WIRELESS TERMINAL has been arranged for working, pick up the handset of a normal DTMF/DIAL PULSE telephone set linked to the terminal and dial your number after hearing the dialing tone. Several seconds later you may hear ringing tone from the called phone or busy tone if the called phone is busy, when in the former situation and the communication begins, when your call is answered.

4.2 Incoming Calls:

When someone is calling your number, the normal DTMF/DIAL PULSE telephone set linked to the terminal rings. To answer, pick up the handset; to finish, hang up the handset.

4.3 Caller ID:

If your telephone set supports DTMF CID function and LCD display, you may see the telephone number and relative telephone information.

4.4 Reverse Function

With Reverse signal to charge fee, so **GSM FIXED WIRELESS TERMINAL** can work as payphone. The function is optional.

4.5 SIM Card Locking:

When the FIXED WIRELESS TERMINAL is programmed with this feature on, it can only function with the installed SIM card; SIM card other than the locked one cannot work with the terminal while the locked SIM card also cannot work with other FIXED WIRELESS TERMINALS.

4.6 Speed Dial:

4.6.1 Programming of Speed Dial:

Get the FIXED WIRELESS TERMINAL ready for working (connected with a normal telephone set);
Pick up the telephone handset;
Press **50*speed dial code*telephone number#;
Programming completed after confirmation tone.
Speed dial code: 0, 1, 2…9

4.6.2 Cancellation of Speed Dial programming:

Get the FIXED WIRELESS TERMINAL ready for working (connected with a normal telephone set);

Pick up the telephone handset;

Press **51*speed dial code#;

Programming completed after confirmation tone.

4.6.3 Using of speed dial:

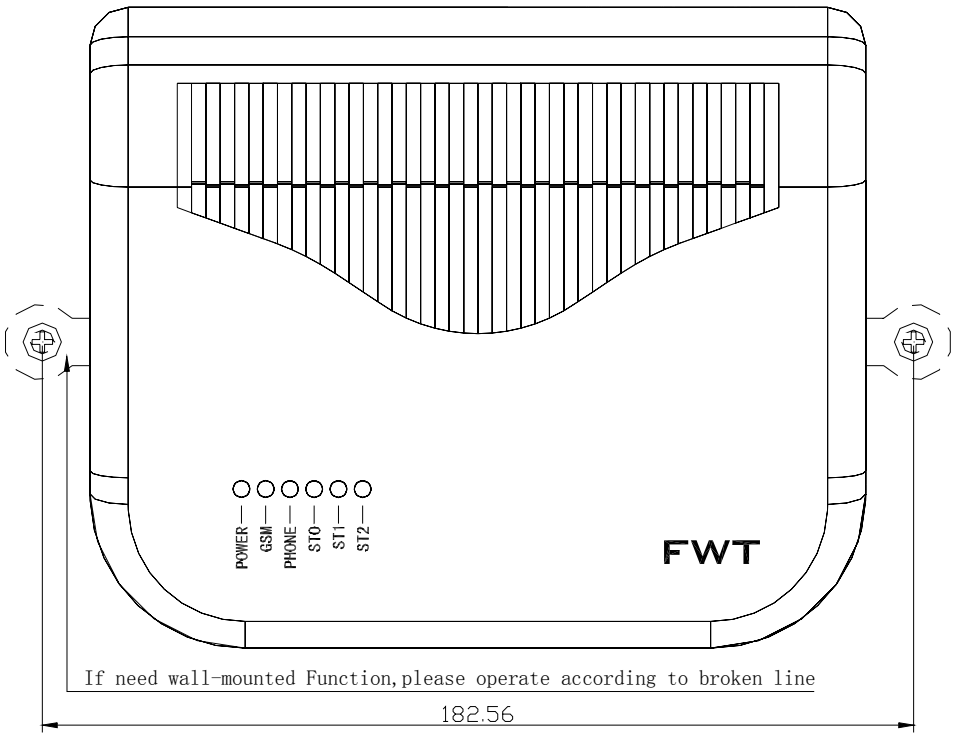
Get the FIXED WIRELESS TERMINAL ready for working (connected with a normal telephone set);

Pick up the telephone handset;

Dial the speed dial code, that is, 0,1… or 9, a whole telephone number represented by that speed dial code gets dialed out.

4.7 Working Status Indicator:

GSM FIXED WIRELESS TERMINAL has six indicator lights; Designations for all lights as follows:



4.7.1 PWR: Indicator light for power; with power supply, this indicator light is steadily on and blinks while the FIXED WIRELESS TERMINAL is in normal working conditions.

4.7.2 GSM: Indicator light for GSM network registration. If this light is on, the FIXED WIRELESS TERMINAL has successfully been registered with GSM network; if this light is

off, the FIXED WIRELESS TERMINAL fails to get registered.

4.7.3 Phone; Indicator light for “In Use”, When the telephone set is picked up, this light is on; when the telephone set is hung up, this light is off; when there is an incoming phone, this light blinks every 100ms; when the FIXED WIRELESS TERMINAL is used for Internet connection, this light blinks every 1 second.

4.7.4 GSM signal strength indicator (ST0-ST2): Indicator light for GSM signal strength; when the PWR indicator light is blinking, these indicator lights stand for signal strength; ST0, ST1, ST2 are all on, the strongest signal; ST0, ST1 are on, normal signal strength; only ST0 on, weak signal strength. When PWR indicator light is steadily on, ST0, ST1, ST2 stand for error, Refer to the error code in troubleshooting part.

5.User Instructions:

5.1Unpacking and checking list:

Each pack includes:

One set of GSM FIXED WIRELESS TERMINAL;

One piece of antenna;

One piece of power supply adaptor;

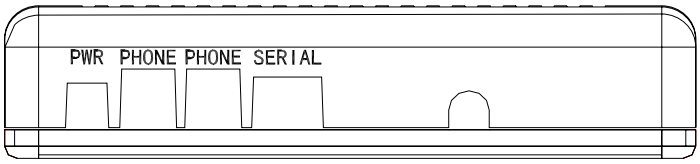
Four pieces of rechargeable batteries;

One copy of user manual;

One telephone line for the connection between GSM FIXED WIRELESS TERMINAL and the telephone set;

If you find any of the aforesaid unavailable or damaged, contact the distributor or the operator immediately.

5.2 GSM FIXED WIRELESS TERMINAL: OUTER APPEARNCE:

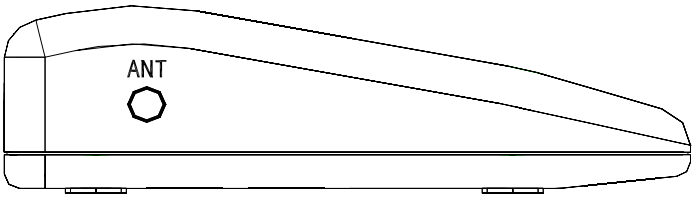


(Back View)

PWR: power supply receptacle

Phone: telephone interface

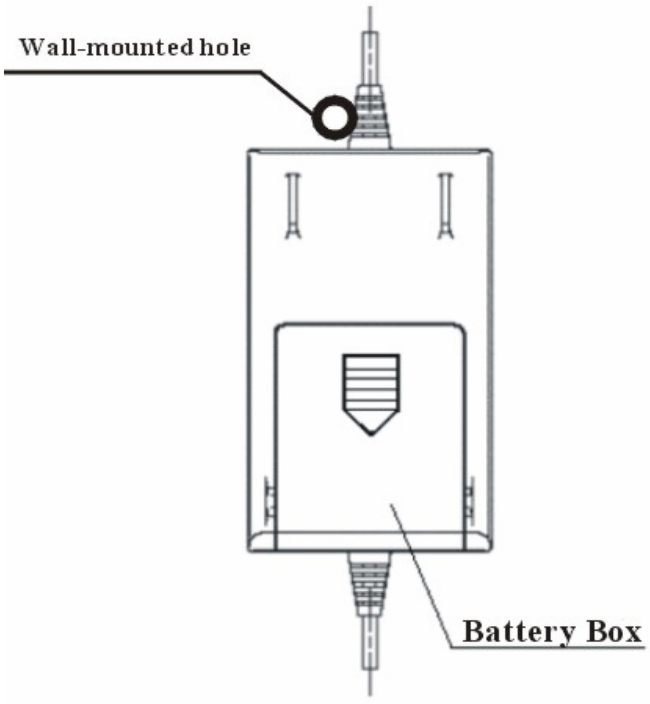
Serial: serial port; for the connection with computer



(Side Elevation)

ANT: external antenna

5.3 AC/DC adaptor:



Notices: 1. please use only the rechargeable batteries designated by supplier or measured up to the standard of Radio Communication Industry.
2. No using regular batteries without rechargeable function

5.4 Installation Procedures:

PLEASE FOLLOW STEP BY STEP.

5.4.1 SIM Card Installation:

GSM network operators will provide one SIM card for each terminal. Remove the SIM card compartment cover, open the card holder, gently insert the SIM card in the slot of the card holder and reattach the compartment cover after making sure the card is in full touch with the terminal.

5.4.2 Antenna Installation:

Connect the antenna to the antenna interface. Make sure the antenna placed above the terminal and in a position as far away from the terminal as possible.

5.4.3 Phone Connection:

Use the telephone line in the package to connect the terminal and the telephone set through RJ 11 interface.

5.4.4Power Supply Adaptor:

Plug the power supply adaptor coaxial jack to adaptor receptacle on the terminal.

Plug the power supply adaptor 220V jack to main power.

5.4.5Indicator Light Checking:

The power indicator light should blink; GSM signal strength indicator lights may glint first and will stabilize 20 to 30 seconds later indicating the present signal strength. To achieve best voice quality, please use mobile tray antenna.

5.4.6 Completion of Installation:

Till now the installation process is completed, you may try dialing.

5.4.7Notes for Installation:

Do not insert SIM card when the terminal is powered on.

Spin the antenna tight and ensure the full contact with the terminal.

Dial when the indicator light for POWER blinks only.

Press the hash key # for faster completion of call forwarding.

Please ensure the working environment is dry and ventilated. Do not use the terminal in high humidity and high temperature conditions as those unfavorable surroundings may downgrade the performance and even damage the equipment.

When noises due to electronic-magnetic interference are arising during talking, move the antenna position to improve the electronic-magnetic environment for signal receiving. Antennas are to be placed right above the terminal or as far away as possible.

Please use storage battery if the power level is not stable or the power often fails.

5.5 Dialing Regulations:

If your SIM card is entitled to International Subscriber Dialing, you may dial an international number.

If your SIM card is entitled to National Subscriber Dialing, you may dial a national number.

You may direct dial a local landline network number.

You may direct dial a local GSM network number.

You may dial available special service number or SOS number.

6.Technical Specifications:

6.1General:

GSM Frequency: 850/900/1800

GSM 850	Transmission:824-849MHz
	Reception: 869-894MHz
GSM 900	Transmission:880-915MHz
	Reception: 925-960MHz

GSM1800 Transmission:1710-1785MHz
Reception: 1805-1880MHz

Carrier Spacing: >200 KHz
Transmitting power: ⩽ 30/33dBm+2dB
Maximum Frequency Deviation: ±0.1 ppm
Receiving Sensitivity: <-102 dBm
Modulation type: GMSk
SIM Card: Mini-SIM Card
Dimensions: 182.56*135*42.29 MM
Weight: 1Kgs
Work Voltage：AC220V±15% DC 6.5V ±0.5V
Working Temperature Range: 0℃～+40℃
Humidity Range: ≤5%--95%

6.2 Antenna:

Frequency Bandwidth: 890-960MHZ 70MHZ; 1710-1880MHZ 170MHZ
Voltage Standing Wave Ratio: ⩽1.5
Gain: 5 dB
Input Resistance: 50Ω
Polarization Mode: Vertical Polarization

6.3 RJ11 Telephone Interface:

Dialing Tone Frequency: 450 Hz±15Hz
Ring Current Frequency: 25 Hz ±3Hz
Ring Current Voltage: 60v ± 20V
Feeding Voltage: 26V ±2V

6.4Power Supply:

Power Supply: AC220V±15%
DC Voltage: 6.5V/DC
Current Rating: 700MA
Standby Current: 50MA
Working current：350MA
Battery back-up: standby time: 24 hours; talk time: 4 hours (Concrete time depends on local GSM network)

7. Troubleshooting:

Please refer to the following table for possible trouble if the indicator light for PWR is steadily on or you cannot dial any number after the power supply is on.

Number	Binary Code	ST0 ST1 ST2	Designation
0	000	○○○	No signal
1	001	○○●	Network registration failed
2	010	○●○	PIN needed
3	011	○●●	PUK needed
4	100	●○○	No valid SIM card
5	101	●○●	Operator locking failed
6	110	●●○	Terminal locking failed

If you may find and deal with the error according to the above table, do it by yourself. You may restart the terminal for checking of any improvement. If you cannot deal with the error, please turn to the distributor or the operator.

7.1 Troubleshooting telephone set:

The telephone set linked to the terminal should be DTMF (dual-tone multi-frequency) phone. If both T (for DTMF) Mode and P (for DC Pulse) Mode are available, make sure your phone set is always switched to T Mode when connected with the terminal. After connecting the phone to the terminal, pick up the handset and see if the PHONE indicator light glows or not. If it glows, the connection is all right. If it blinks, check the connection. After checking if the PHONE indicator light still blinks, there is error in the telephone set. Use a new phone set and see if it works. If still no working, turn to the distributor or the operator.

7.2 Troubleshooting power supply:

The POWER indicator light shows the working conditions of the power supply. If POWER light is off, the AC power is not available or the voltage is lower than the working level.

7.3 Troubleshooting antenna:

If the voice is not clear or intermittent and no error found in the telephone set, turn to the antenna for possible cause.

See if POWER indicator light is blinking.

If no GSM signal strength indicator lights are on, check the antenna:

See if the antenna is damaged or not;

See if the connection between the antenna and the terminal is tight or not;

See if the antenna is placed in a vertically upright position and if the antenna is far away from any barrier.

※The antenna should be as far away from the telephone line and power supply line. Do not wind the antenna line with the telephone line as this may cause GSM electronic-magnetic wave interference in power supply and telephone line.

8.Important notices:

8.1. Supplier reserves the ultimate explanation right of the user manual

8.2. The user manual is just for your information; Concrete standard depends on Physical product.

8.3. If the above specification changed, other more notice will not be given.