GSM Fixed Wireless Terminal

Operation Manual

Catalogue

1 Brief introduction

Welcome to use GSM Fixed Wireless Terminal that will take you into a new communication world with its perfect function & easy operation. It can be used in any time & any place. Its convenience and flexibility has improved service quality and shortened service reflection time.

It can be installed to any available place to provide voice communication. The Fixed Wireless Terminal is running with various functions, for example, auto switch call from PSTN or GSM, CID signal, 12/16KHZ or polarity reverse fee calculation signal, forbidden number setting, rapid number setting, phone-lock setting, etc.

1.1 Notice

- When you clean Fixed Wireless Terminal, switch off the machine. And use appreciably watery and anti-static duster cloth. Don't use dry or static duster cloth, detergent and so on.
- Don't expose your Fixed Wireless Terminal under strong sunlight to avoid being heated.
- Prevent liquid flow into Fixed Wireless Terminal inside to avoid being damaged.
- Don't throw and knock Fixed Wireless Terminal, otherwise will damage the PCBA.
- Don't connect with unsuitable equipment.
- Please use appointed adapter (DC12V /1500mA) and use other power facility will cause danger.
- This phone is an indoor phone, don't use it outdoors, and pause using it when lightning storm.
- This cordless phone maybe affects the state of other electronic equipment, for example, the TV, radio, and so on. Please keep away from these equipments when using it. To make the quality best, place this phone away from metal goods and don't use the same electrical outlet with these electrical appliances that have the electromagnet interference.

1.2 Packing list

After you open the over pack, please check all accessories as below picture presents. If anything miss or damage, please contact with your dealer or shopkeeper.

Picture ①:fixed wireless
terminal mainframe

Picture ②: antenna and battery
(optional)

Picture ③ adapter

Picture ④: user manual

1.3 Installation

Picture ①: Assemble antenna

Picture ②: Put the plug of adapter into Fixed Wireless Terminal

Notice: when assemble the antenna, take out the antenna firstly and tweak the leptospira antenna on the antenna cupula, then tweak the SMA of antenna on the antenna port of Fixed Wireless Terminal.
**Important Warning:** If you use the antenna three or six meters long, forbid taking it to the outdoors lest the lightning strike. Do Use the lightning arrester equipment between the antenna shelves with the down-lead if you use the antenna ten meters long.

Picture ③: Put the computer into USB jack

NOTES: Please close the DATA transmission program if you don't need it currently, because the DATA transmission function and common GSM function can't work normally at the same time.

Picture ④：Installing outdoor antenna and lightning arrester, the follow figure just as a reference way.
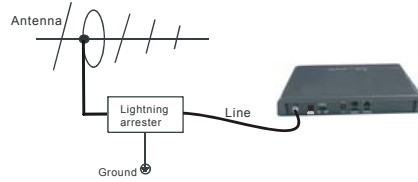
Picture ⑤: SIM Card Installation

Open the SIM slot in the base bottom and put SIM card into the slot on correct direction, then lock the card according to the LOCK direction indication and close the slot door. (Show as below pictures)

Caution: you must switch off Fixed Wireless Terminal before taking out the SIM card. Prohibit inserting or taking out SIM card when the outside power was on, otherwise SIM card will possibly be damaged. To prevent loss or damage the information in SIM card must avoid touching the metal surface and put the card away from electromagnetism. You cannot launch into GSM network once SIM card was damaged.

2 Image &Specification

antenna connecting port
power adapter connecting port
Signal power indicator
In use indicator
power indicator
network indicator
USB connecting port
power switch
Telephone connecting port
PSTN connecting port
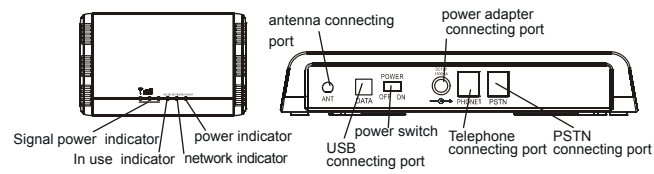
3 Application

3.1 General telephone connection

Receiver Platform
PSTN
Beeline
Telephone
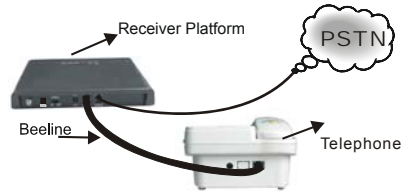
3.2 Public telephone connection

Receiver Platform
Fee calculator
Beeline
Beeline
Telephone

4 Instruction

Ensure power of Fixed Wireless Terminal and effective SIM card was operated correctly before using.

Switch on the power, the power indicator will light and the network indicator will flash quickly. You can use it when the network indicator flashes slowly.

If the power of Fixed Wireless Terminal was connected correctly but did not insert SIM card or the SIM card was not match with Fixed Wireless Terminal, the signal indicator on the base front and network indicator will flash quickly and there will be busy sound which can not make any call.

4.1 Make call

When the terminal has a live PSTN line connected, the terminal shouldn't interfere with anything. It should just act as a "pass through". When the phone is picked up, we would like to hear a normal dial tone (from the PSTN), and not the one generated by the terminal.

PSTN and GSM line obey the follow flow.

a. When the PSTN line is connected, calls are made normally using the PSTN. When the phone is picked up, the terminal should immediately connect the phone to the PSTN line; the terminal should not generate the "dial tone" and/or attempt to dial the digits that are entered.

b. The prefix key is not a feature that we would use, so this option can be completely removed.

c. When there is no PSTN line active, then the terminal should generate the "dial tone". At this time the user knows that the PSTN line is down and they are using GSM now (because of the change in tone).

d. Optional: When the PSTN line is connected, when the phone is picked up (the normal PSTN dial tone is heard) and the first digit entered by the user is "*", the terminal would then connect and generate the "dial tone". Then the user will enter the digits necessary to make a call using GSM.

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When you take the handset or use handfree function, you can dial the phone number once you heard the dialing tone. If the telephone has pre-dial function, you also can pre dial the telephone number, then take the handset up or use handfree function to dial the phone number you need. If you press "#" key after you have dial telephone number, Fixed Wireless Terminal will transmit the signal immediately; otherwise will be postponed 10 seconds before the number was dial out.

If the terminal is power off, but the local PSTN line was connected, the dialed number will call out through the PSTN.

If the terminal is working normally, but the local PSTN line was not connected, the dialed number will call out through the GSM network.

If the terminal is working normally, and the local PSTN line has been connected, the dialed number will call out through the GSM or PSTN network basing on the pre-configure parameter.

4.2 Make fixed phone extension call

Some fixed phone extension cannot be connected directly and must connect with the host then operate according to voice indication.

Notice: if the number you dial was not been setting as prohibited number, you will hear the connecting sound when Fixed Wireless Terminal transmit the signal. You will get the call successfully when the caller hang the phone number and fail when hear busy tone. If you dial the prohibited number, you will hear the busy tone.

4.3 Receive call

Take the handset up or press handfree key to get the call when there is a call come in.

4.4 End call

If you receive the call via taking the handset up, just hang it up directly. If you use the handfree function, press the handfree key, one more time to end the call.

5　Technology parameter

5.1　Applicable condition

Temperature: -10℃~+40℃

Noises: not exceed 60dB (A)

Humidity: 45%-95%

Atmosphere pressure: 86~106KPa

Alternating power voltage: 100~240V

Fixed Wireless Terminal: DC 12V 1500mA

5.2　Technology parameter

Work frequency: GSM/GPRS 850/ 900/1800/1900MHz

Power output:

    --Class 4 (2W @ 850/900MHz)

    --Class 2 (1W @1800/1900MHz)

Channel interval: 200 KHz

Receive sensitivity: ∠-100dBm

Frequency error: ≤0.1ppm

6　Malfunction analysis & exclusion

Malfunction	Reason & solution
Can not switch Fixed Wireless Terminal on	■ Power off ■ The power switch has not been put on proper location
Always hear busy sound when hang on the phone	Has not insert SIM card or SIM card connected with card slot improperly or Fixed Wireless Terminal has not been connected with network.

Can not connect with network	Signal too weak in location
Signal indication weakness	■ Signal too weak and can adjust antenna direction or change other place to improve it. ■ Antenna was connected improperly and can tweak the screw cap on the bottom of antenna.
No dialing sound	Telephone line plugs improperly and please re-plugs it.
Has noises during talking	Signal too weak
Accidentally death	Switch off the power and wait a moment then restart it.
Has echo during talking	■ To change place location ■ Network problem and please consult with network agency.

7   Maintenance

■ Keep it dry. If water in it neglectfully, please dry it up immediately. Other wise will damage internal circuit.

■ Please use and keep in room temperature, don't expose in strong sunlight. Unwanted temperature will shorten the life of components and damage battery & plastic parts.

■ Place carefully during using and transportation. Badly drop will damage PCBA and cause the machine out of whack.

■ Keep the circumstance clean, otherwise will make the machine aging prematurely.

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- When clean the telephone, please use the dry duster cloth and don't use chemic solution.

8 Function setting

To set each function by using telephone, which connects to GSM wireless receiver platform, we use the signal power LED to prompt whether the setting is right. If the setting is right, three signals power LED flashing slowly (light on 500ms, light off 500ms), and accompany with the dial tone. And if the setting is wrong, the signal power LED flashing quickly (light on 100ms, then light off 100ms), and accompany with the busy tone. If the setting is wrong, you must hang up one time then continue setting or reset.

If the machine just be power on, it will detect the SIM card, if the card did not exist, the signal led will flash one times and cycled.

If the SIM card need PIN, but the machine's SIM CARD LOCK did not enable, the signal led will flash two times and cycled.

If the SIM card's PIN code and the machine stored pin code did not matching, the signal led will flash three times and cycled.

If the SIM card need PUK code, the signal led will flash four times and cycled.

If the GSM operator did not matching the setting, the signal led will flash five times and cycled.

If the Phone-lock had be setting, and the SIM card did not matching the setting, the signal led will flash six times and cycled.

8.1 Rapid-dial number digit & CID setting

Format: 0*#1234*11*X *MM *NN *Y *#

X-- Rapid-dial matching number (1~5 digit)

MM-- Rapid-dial digit 1, it's the same with the matching number.

The dial number digit: range from 06~19

NN-- Rapid-dial digit 2, it's not the same with the matching number.

The dial number digit: range from 06~19

Y-- The switch of CID, 1 means on, 0 means off.

Example: 0*#1234*11*13*11*07*1*#

It means the number prefix with 13will dial-out immediately after dialing 11digit number finish, but if the number begins with other digit, it will dial-out after dialing 7 digit number finish, and the **CID** function keep effective.

8.2 Phone-lock Setting

Format: 0*#1234*12*1*#

Cancel The Phone-lock Setting

Format: 0*#1234*12*#

(Phone-lock: the phone must use currently SIM card)

8.3 Dial Forbidden Setting

Format: 0*#1234*13*X *Y *#

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X-- Group setting (it can set 0~9 totaled 10 groups)

Y-- The forbidden number (1~5 digit)

Example: 0*#1234*13*1*138*#

It means the first group of forbidden number is 138.

Cancel Single Group Of Forbidden Number Setting

Format: 0*#1234*13*X*#.

Example: 0*#1234*13*1*#, it means the first group of forbidden number be cancelled.

Cancel All Forbidden Number Setting

Format: 0*#1234*13*#.

8.4 Resume to Factory State Setting

Format: 0*#1234*3*#

Factory state system parameter as follow:

(Other setting is in the resume state)

Rapid-dial matching number: 000000(mean no matching number)

Rapid-dial digit 1:19

Rapid-dial digit 2:19

CID state: 1(CID enable)

Phone-lock setting: 0 (no phone-lock number)

GSM operator lock: 991(disable)

SIM card lock: the machine stored PIN code just be changed to the 1234,the PIN protection did not be changed, it only be changed by manual setting.

Forbidden number: no forbidden

Operation Band：9001800(900M/1800M)

Send My Caller Identity：0(Set by network)

Note: Be careful to use this order! This operation would clean all the current setting, and resume to the **factory state**.

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8.5 Check The Rapid-dial And CID Setting

Format:0*#09#

Display: MMNNYX

MM-- Rapid-dial digit 1

NN-- Rapid-dial digit 2

Y-- CID state

X-- Rapid-dial matching number (5 digit at most, 000000 means no setting)

Example: Display 1107113

It means the number begin with 13will dial-out immediately after dialing 11digit number, but if the front digit is not 13,it would dial-out after dialing 7 digit number, and the CID function keep effective.

8.6 Check The Phone-lock Setting

Format:0*#07#

Display: 007XY

X--0 means haven't locked

1 means it have locked

Y-- means the last four digit of the SIM card's IMSI

Example: 00713649

It means this phone has been locked, you could only use the SIM card current use, and the last four-digit number of this card's IMSI is 3649.

8.7 Check The Forbidden Number Setting

Format:0*#00*X*#

Display: 01XY

X-- means which group (0~9)

Y-- means forbidden number (1~5 digit)

If no Y display, it means this group no forbidden number.

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Example: 017123 means the seventh group forbidden number is 123.

8.8 Set The Operation Band

Format: 0*#1234*14*M*#

M--1 means setting the equipment working in 900M/1800M.

2 means setting the equipment working in 850M/1900M.

8.9 Check The Operation Band

Format:0*#05#

Display: 005X

X-- 9001800 means the equipment's working band be set in 900M/1800M.

8501900 means the equipment's working band be set in 850M/1900M.

8.10 Send My Caller Identity

Format:0*#1234*15*M*#

M-- 0 means Set by network

1 means Disable

2 means Enable

8.11 Check The Setting Of Send My Caller Identity

Format:0*#04#

Display:004X

X-- 0 means Set by network

1 means Disable

2 means Enable

8.12 Set Dial Rule About The Prefix Number Of Call Out Through GSM

Format:0*#1234*16*XX*Y*#

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XX-- Group setting (it can set 00~99 totaled 100 groups)

Y--The prefix number (1~6 digit)

Example: 0*#1234*16*01*138*#

It means the 01 group number is 138.

Cancel Single Group Setting

Format: 0*#1234*16*XX*#.

Example: 0*#1234*16*01*#, it means the 01 group of prefix number be cancelled.

Cancel All Setting

Format: 0*#1234*16*#.

8.13 Check The Setting Of Dial Rule About The Pre Number Of Call Out Through GSM

Format:0*#03*XX*#

Display: 03XXY

XX-- means which group (00~99)

Y-- means pre-number (1~6 digit)

If no Y display, its means this group did not set number.

Example: 0307123 mean the 07 group prefix number is 123.

8.14 Set The Fee Calculation Signal And Distance Seconds

Format:0*#1234*17*XX*Y*#

XX-- 00~99(second), if the setting is 00,the 12K/16K signal auto close, default 00s.

Y-- 1~3,1 represent 12KHZ, 2 represent 16KHZ, 3 represent polarity signal, default 3.

Example:0*#1234*17*20*2*#

Its means the fee calculation signal is 16KHZ,and the distance time is 20 seconds.

8.15 Check The Setting Of The Fee Calculation Signal And Distance Seconds

Format:0*#02#

Display: 002XY

Example: 002202

Its means the fee calculation signal is 16KHZ,and the distance time is 20 seconds.

8.16 Open The SIM Card Lock

Its means you need enter the PIN code before you use it.

Format: 0*#1234*1*1*# means open the PIN lock

0*#1234*1*# means close the PIN lock

If you want to use the SIM card lock, the PIN lock must be opened at first, and then change the PIN code of the SIM card.

If the function had enable, and the machine has be power on, it will detect the SIM card's PIN status, if the card's PIN disable, the machine will try to open the card's PIN code just use the default PIN code (1234), then change the card's PIN using the stored PIN code of the machine.

8.17 Change The PIN Code

Format:0*#1234*2*XXXX*YYYY*YYYY*#

XXXX--means the old PIN code

YYYY--means the new PIN code

8.18 Set The GSM Operator Lock

Enable The GSM Operator Lock

Format: 0*#1234*4*XX*#

XX-- means the MNC of the GSM Operator (00~99)

Disable The GSM Operator Lock

Format: 0*#1234*4*#

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8.19 Check The Setting Of The SIM Card Lock And The GSM Operator Lock

Format: 0*#01#

Display: 001XYY

X: 0 means the PIN lock had disable

1 means the PIN lock had enable

YY: the GSM operator's MNC

Example: 001102

X equal to 1 means the SIM Card Lock had be setting enable, And YY equal to 02 means lock the GSM operator's MNC to be 02. If the GSM operator had disable, the YY just be 991.

FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation
exposure limits set forth for an uncontrolled
environment .This equipment should be
installed and operated with minimum distance
50 cm between the radiator & your body.

This transmitter must not be co-located or operating in
conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to
comply with the limits for a Class B digital device,
pursuant to   part 15 of the FCC Rules. These limits
are designed to provide reasonable protection against
harmful interference in   a residential installation. This
equipment generates, uses and can radiate radio
frequency energy and, if not installed   and used in
accordance with the instructions, may cause harmful
interference to radio communications. However,

there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.