GSM Fixed Wireless

Terminal

User Manual

V3. 0

Contents

Welcome to use the GSM Fixed Wireless Terminal. Please read this simple guidance. Further detailed information is given in this manual.

1. Summary

GSM Fixed Wireless Terminal is a mobile terminal for telecommunication operators to develop fixed telephone services. It takes the advantages of the wide coverage of mobile communication network and convenient installation to meet the fast increasing requirement of users.

The product is particularly suitable for telecommunication operators to entry the common fixed telephone market. With easy installation and high efficiency, it can be widely applied in

1. Various enterprises
2. Institutes
3. Movable carriers
4. Places of interest/ scenic spots
5. Large exhibitions
6. Consulting meetings
7. Others

It is used where telephone lines are unavailable or very limited. The installation is easy and rapid and can be put into use as soon as within mobile network, while can solve problems of line deficiency and temporary telecommunication. It can be connected to common phones via GSM network, providing a service compared favorably to fixed phones, and producing a

communication effect similar to that of fixed phones.

This Wireless Terminal is mainly applied within the coverage of GSM cellular network.

2. Main function

◆ GSM cellular network outgoing.

◆ GSM cellular network incoming.

◆ DTMF Caller ID.

◆ Support secondary dial.

◆ Send polarity reversal signal for billing meter while connection.

◆ Sending 12/16KHz pulse for billing meter while connection is also compatible.

◆ Data Interface, perform wireless GPRS cooperate with PC. (Optional)

◆ Rechargeable battery, keep conversation for at least 3 hour when out of mains supply. (Optional)

3. Interference

All wireless devices may get interference which could affect performance.

Please make sure that your device is in service, and pay attention to conditions as follows.

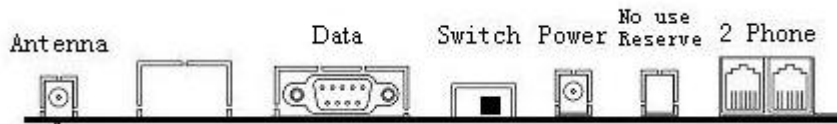| Topic	Description
Hospital	Follow any regulations or rules. Switch the device off near medical equipment.
Aircraft	Wireless devices can cause interference. Using them on aircraft is illegal.
Fuel	Don't use the device at a refueling point. Don't use near fuel or chemicals
Blasting	Don't use the device where blasting is in progress. Observe restrictions, and follow any regulations or rules.
Children	Keep your device in a safe place and keep it in out of small children's reach. Children could hurt themselves or others and they may damage the device.

4.Notice List

	Description
1	Don't attempt to repair the device by yourself. Only qualified service personnel could install or repair the device.
2	Do not tie the antenna with the telephone line during use. Otherwise it could cause interference and affect connection quality.
3	Please install the antenna 1 meter faraway from the device or other sensitive electron device. If the antenna is damaged, do not use it any more. You can contact the franchiser to repair it.
4	Do not use unqualified antenna or try to modify any part of the device.
5	To avoid noise interference, use an anti-EMI phone if possible.
6	If the device installed rechargeable battery, please recharge for at least 24 hours before the first use. If the device is in "Turn Off" state, it do not recharge to the battery.
7	Please use the device stand to the manual.
8	Use the provided USB data cable for connecting internet. (Optional)

5. Installation

5.1.Interface

The back of the device as below:

5.2. Indicator lights

There are 7 indicator lights in the terminal device. From left to right in turn, it is:

1. Power indicator lights (Adapters)

2. Power indicator lights (Battery)

3. Status indicator lights

4. No use (reserve)

5. Signal Strength 1

6. Signal Strength 2

7. Signal Strength 3

5.3. Signification of Indicator lights

	Indicator Light	Description
1	Signal Strength 1 flash one times Signal Strength 2 flash one times Signal Strength 3 flash one times	Startup
2	Power Light constantly on	Power normal
3	Power Light constantly off	Power un-normal
4	Power indicator lights (Adapters) Off Power indicator lights (Battery) On	Power supply by battery
5	**When not in conversation:** Signal Strength 1 flash Signal Strength 2 flash Signal Strength 3 flash	No SIM card or SIM card installed incorrectly
6	**When not in conversation:** Signal Strength 1 flash slowly Signal Strength 2 flash slowly Signal Strength 3 flash slowly	Need input PUK code of the SIM card.
7	Signal Strength 1 flash	Searching for network
8	Status indicator light On	1. Off-Hook (Not connection) 2. Talking
9	Status light constantly off	Telephone On-Hook
10	Status light flash slowly	Incoming
11	Signal Strength 1 constantly on Signal Strength 2 constantly off Signal Strength 3 constantly off	Signal Strength very lower
12	Signal Strength 1 constantly on Signal Strength 2 constantly on Signal Strength 3 constantly off	Signal Strength Medium
13	Signal Strength 1 constantly on Signal Strength 2 constantly on Signal Strength 3 constantly on	Signal Strength High
14	Signal Strength 2 flash	SIM card locked. Please input PIN

	Signal Strength 3 flash	code.
15	Signal Strength 3 flash	This SIM card is not the locked network SIM card.
16	Signal Strength 1 flash Signal Strength 2 flash	When you lock the SIM card, if the PIN code of the card is not "1234", it can not lock this SIM card, and Signal Strength 1, 2 flash.
17	Signal Strength 1 flash Signal Strength 3 flash	After locked SIM card (it locked the card with a default PIN code), if you insert another SIM card (it's PIN code is not the default PIN code), the Signal Strength 1, 3 flash.
18	Signal Strength 2 flash	This SIM card is not the locked card

5.4. Installation

A. Set the device in a place with well ventilation, dryness, few dust, no electromagnetic interference. And make sure that your device is in GSM network's service area.

B. **Install GSM SIM card**

Loosen the nut in the rear of the equipment, remove the cover from behind and insert the SIM card in the module inside. Notice, there are 2 covers in the rear of the equipment. The small is for SIM card. The bigger is for rechargeable battery.

To use your device, you must insert a valid card. Normally it is supplied by your service -provider. Keep the SIM card well. Any scratches or bending could damage its contacts. Before installing the SIM card, always make sure that the device is switched off.

Open the cardholder in the way as the "Open" arrow shows, and slide the micro-SIM card in. Make sure that the golden interface is facing downwards with the cut corner of the card in a correct way.

Close the cardholder and lock it in the way as the "lock" arrow shows. Close the cover, and tighten the screws.

C. Install antenna

Screw the head from the antenna on the device (antenna connector). Do not put the two too close.

D. Connect the telephone and the device (any one phone jack). Place the phone set away from the antenna to avoid interference.

E. If you want to use a billing meter, connect it with the telephone and the device. For connection to a user PBX, connect it with the device by trunks.

F. Attach the lead from the adapter carefully to any one of the power-socket on the back of the device. Connect the power adapter to an AC 120V outlet.

G. Switching on, and then the device startup, it will enter into work state after searching for network.

H. Make sure that the device is currently in service. If the signal strength is very lower, maybe the network is currently not available. You may be in a bad reception area. If possible, move the machine to a different location.

6. How to use

6.1. Making Calls

1. Take up the handset and a dialing tone will be heard. Dial phone number.

2. In order to shorten the network access time, you can dial the [#] key as a speed dial key. If no more number is dialed within 4 seconds, the numbers just inputted will be dialed out automatically.

3. Talk after connected. (If the billing meter is connected, it will display the phone number you have dialed, and start to bill once the number is connected.)

4. On-Hook, after finished the conversation.

6.2. Answering a call

When there is an incoming call, the phone set will ring. Take up the handset to speak.

7. Command Table

All commands are listed as below. Connect a telephone set to the device. Take up the handset and dial the command number, then, hang up to finish the operation. After finished setting a command, hang up, and then Pickup the handset to set another command.

NO.	Command	Function	Description
1、	#0123456789*	Testing DTMF receive or send	If it receives DTMF successfully, the telephone displays "*#0123456789"
2、	**0802*	Check version number	The telephone will display version number, such as 85012080301 or 90012080301. Among the version number, 850 is GSM 850MHZ, 900 is GSM 800MHZ,
3、	**0803*	Check value of CSQ	The telephone will display the value of CSQ.
4、	##0801*MMMM*	Unlock, if locked.	On Startup, input PIN code of the SIM card, MMMM is PIN code.

5、	##0802*MMMM*	Enable the function of "Lock SIM Card"	MMMM is PIN code. If setting success, the telephone displays "111111".
6、	##0208*MMMM*	Disable the function of "Lock SIM Card"	MMMM is PIN code. If setting success, the telephone displays "222222".
7、	##0108*MMMM*NNNN*NNNN*	Change PIN code of the SIM card	MMMM is old PIN code. NNNN is new PIN code. If setting success, the telephone displays "333333". Notice: This command is valid only after enabling the function of "Lock SIM Card".
8、	**0800*N*	Adjust volume	"N"is the level of volume, the value range is 1 ～ 8. Only version 12080610(and above) supports this function.
9、	**0804*	Set polarity reversal	Send polarity reversal signal for billing meter while connection. Only version 12080610(and above) supports this function.
10、	**0805*	Cancel polarity reversal	Only version 12080610(and above) supports this function.
11、	**0806*	Set 12KHz Pulse	Only version 12080610(and above) supports this function.
12、	**0807*	Cancel 12KHz Pulse	Only version 12080610(and above) supports this function.
13、	**0808*	Set 16KHz Pulse	Only version 12080610(and above) supports this function.
14、	**0809*	Cancel 16KHz Pulse	Only version 12080610(and above) supports this function.
15、	**0900*	Polarity reversal or 12/1612KHz Pulse is valid for incoming call	Only version 12080610(and above) supports this function.
16、	**0901*	Polarity reversal or 12/1612KHz Pulse is invalid for incoming call	Only version 12080610(and above) supports this function.
17、	##09*N**	Lock/Unlock Card	N=0: Unlock SIM card N=1: Lock SIM card
18、	##08*N**	Lock/Unlock Device	N=0: Unlock Device N=1: Lock Device
19、	##10*N**	Lock/Unlock Network	N=0: Unlock Network N=1: Lock Network

20、	##0757**	Unlock Card/ Device/ Network	Equal to making three commands: ##09*0** ##08*0** ##10*0**

8. Technical Specifications

No	Item	Value	Remarks
1	Work frequency	GSM 900/1800MHZ or 850/1900MHZ or GSM 850/900/1800/1900MHZ	International Standardization of GSM Digital Mobile Network
2	Power	≤2 W	
3	Sensitivity	-104dB	
4	Power Consumption	Static ≤25mA, Transmit≤600mA	
5	Ambient noise	≤60dB	
6	Interface standard	RJ11phone jack; SMA antenna interface.	
7	SLIC parameter	Return loss: >24dB Weighted Noise：Representative value -75dB	
8	Ringing current voltage	Representative value 90VP-P	
9	Feed Current	23mA-35mA	
10	On-hook voltage	48V	
11	Max Loop resistance	1000 Ω	
12	Dial tone frequency	450Hz continuous	
13	Busy tone frequency	450Hz 0.35s/0.35s	
14	Power Supply	DC 9V（adapter AC 120 V input）	
15	DTMF Receive	> -23dB insure receiving	
16	DTMF Receive sensitivity	＞99.99%	
17	Insertion loss	≤0.5dB	

9. Environment standard

Environment: Away from rain, sunshine, dirt, stronger electromagnetic.

Atmosphere: 86kPa～106kPa

Temperature: -30℃～55℃

Relative Humidity: 10%～90%

10. Problem and Solution

Problem	Possible cause and solution
Can not startup	Check Power: 1. Whether the adapter installed and connected correctly. 2. If the terminal installed battery, check whether the electrical voltage is enough.
No Dial Tone	1. It will keep for about 1 minute for startup. After searching network, it enters into work state. 2. Check whether the phone line is connected correctly. 3．Whether the SIM card is valid.
Dialed, but can not outgoing.	1. Whether the SIM card is valid. 2. If you connected a billing meter, check whether it is the billing meter forbid the outgoing.
If you cannot remove the problem by this solution, Please contact with franchiser or manufacturer.	

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Reproduction, transfer, distribution or storage of part or all of the contents in this manual in any form without the prior written permission of technical owner is prohibited.

Warning:

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.

MPORTANT 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 20cm between the radiator& your body