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**IPX FWT 301 GSM Wireless Terminal  
User Manual  
(Version 4.0)**

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## Package Contents

Name	Quantity	Unit
IPX FWT 301 Terminal	1	Set
Power Adapter	1	Set
Antenna	1	Set
Telephone cable	1	Set
Screws	1	Bag
User Manual	1	Book

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## Important notices

1. This terminal shall not be used at area near inflammable or explosive substance such as storage, gas stations and chemical plant
2. This terminal shall not be used at area where cell phone may be prohibited such as hospital.
3. Only use the power adapter that comes with the package. Using uncertified power adapter might cause damage to this terminal. User is responsible for replacement cost due to misuse the power adapter.
4. If the terminal registers with carrier failed, check SIM installation first
5. Install SIM card and ensure that any active PIN lock feature is disabled. (Check with your PIN card provider for more details on PIN lock/unlocking)
6. The terminal might not recognize old SIM cards such as those of 5V and 1.8V.
7. If this terminal is upgraded, we will not notice the user. The real appearance and function of this terminal are based on the real substance.

## Product Description



Figure 1 Front View of the Device

LED	Function	Color	Description
LED1	GSM Network	Green	Blinking: registration successful
LED2	Power	Green	On: power OK
LED3	Warning	Red	On: warning
LED4	Working	Green	On: Working OK
LED5	Signal Strength	Green	Blinking every 4(good),2(OK),1(poor) second

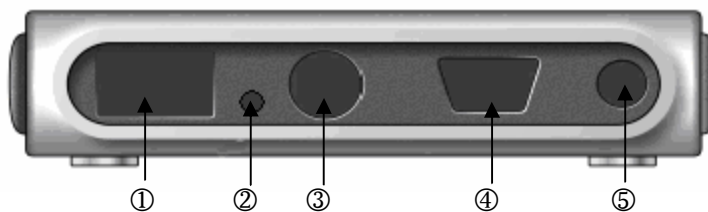
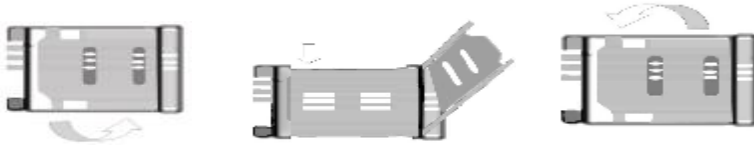


Figure 2 Rear view of the device

Port No	Name	Function
①	Phone	Connect to up to two phone set
②	Standby I	Reserved (Router function)
③	Power	Connect to power cord
④	Standby II	Reserved (Data function for GPRS)
⑤	Antenna	Plug into the antenna

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## SIM card installation



1. Remove the SIM compartment cover by removing the screws
2. Open the SIM compartment holder.
3. Insert the SIM card and make sure it line up with the holder correctly
4. Close the SIM card holder
5. Cover the SIM compartment with the screw

## Terminal Installation

### 1. Location

Choose a location where an AC power outlet can be found and the GSM signal is strong enough. Weak signal might cause undesired voice quality.

### 2. Connect to a phone set

- Install the SIM card
- Connect the device with a phone set using a standard phone cable.
- Connect the device with the antenna
- Connect the device with the power adapter
- Connect one end of the power adapter to "Power port" and another end to a 220V/110V AC power outlet. Wait 10-45 seconds, the terminal should be ready to use after the telephone ringed "too".

Attention: Different phone sets have different specifications. Interference between the phone set and terminal can reduce voice quality .You should keep at least 2 meter between the phone set and the terminal

### 3. Connect to a billing device

The terminal can connect a phone set via a billing device. The billing device should support standard phone interface. Refer the device manual for details.

### 4. Information from carrier

When the device registers with the GSM network successfully, it will send eight-digit number to the device. If the phone set that connects to the device is able to display the incoming message, it will display the eight-digit code that indicates the signal quality and software information

Digit Position	Range	Function	Meaning
DDXXXXXXXX	00-31	Signal quality	bigger number = stronger signal
XXDDXXXXXX	00-99	Malfunction	00: good 11: registration failed

XXXXDDDD	0000-9999	Software version	22: PIN error
			33: PIN is not disabled
			44: card lock error
			55: terminal lock error
			77: network lock error
			99: SIM card reading error
			4060 means 4.06

**Attention:** Another way to inquire the signal quality and software version is to dial \*\*\*9#. Hang up when you hear the busy tone. The phone set will ring and an eight-digit number will be displayed. Refer the above table to find signal quality and software version information.

User can find out the signal quality by monitoring the LED1.

- Flash once in four seconds: signal is good
- Flash once in two seconds: signal is weaker
- Flash once in one second: signal is very weak

## Call Functions

### Making Calls

1. Lift the handset or press "hand-free" key, you will hear a dialling tone, dial the destination number.
2. Press "#" to transmit after completion of dialling. Otherwise the terminal will wait 6 seconds and transmits automatically.
3. If the terminal connects a billing device, the terminal sends out anti-polarity signal (the signal is a standard signal for billing device). During a call, dial digital key or "\*" or "#" to output DTMF.
4. If the calling party or called party hang up, the terminal stops sending out anti-polarity signal.
5. If a user dials a restricted numbers, the phone set will beep three times (with a sound of "too") and the user should hang up.

### Answering Calls

Incoming phone call will ring the phone and the phone number will be displayed on the phone set. The user simply pickup the phone or press "speaker" to answer the call

### Adjusting Voice Volume

Dial "\*\*33XY#" and hang up when hearing the sound of "too" for three times.

X and Y can be a numeric value from 1-5 (1 is the lowest and 5 is the highest). X represents the microphone volume and Y represents the speaker volume.

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## Technical Specification

Setting name	Recommended setting
Frequency	GSM 800/GSM1800/GSM1900
Antenna power	<2 w
Power supply	110v±10% or 220v±15%
Frequency stability	>2.5 ppm
Humidity	10%-95%
Temperature	0-50 °C
Barometer	60-106 kpa
Noise level	<60 db
Distance with handset	<100 M
Dimensions(W*D*H)	165mm*160mm*35mm
Weight	500g

## Initializing and monitoring the device

1. Terminal initialization
2. During device initialization, LED2 will blink. If LED1 and LED4 are blinking simultaneously, the terminal is searching for GSM network. About 15~45 seconds later, the telephone rings which indicates that the process of initializing terminal finishes. If the LED3 stays on, the initialization is unsuccessful. The user might be able to configure the terminal but the terminal can't be used to make any calls. If a user dials a numbers, the LED3 will blink and the user will hear the sounds of "too" three times and the user should hang up the phone.
3. While a user tries to dial a restricted number or a wrong number, the user will hear the sound of "too" three times. The user needs to hang up and redial again.
4. While a user picks up the phone set without dialling for 15 seconds or no one answers the call 90 seconds after the dialling, the user will hear the sound of "too" three times. The user needs to hang up and redial again.
5. LED4 will blink to indicate incoming calls. During the phone call, it will stay on.
6. LED5 will stay on when the handset is lift until user hang up
7. When the terminal is receiving a SMS message, both LED4 and LED5 are on. If the LED3 keeps blinking and the user hears the sounds of "too" for three times, the device might not function correctly. The user should hang up and redial

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## Troubleshooting

Problem	Likely cause	Solution
<b>Warning LED stay on</b>	Registration failed	<ol style="list-style-type: none"><li>1. Check signal strength.</li><li>2. Check whether antenna is connected well.</li><li>3. SIM card is locked. Please contact the service provider.</li></ol>
<b>Signal LED blink fast</b>	Weak signals	<ol style="list-style-type: none"><li>1. Check whether antenna is connected well.</li><li>2. The signal is too weak Move the terminal or antenna to the place where signal is strong.</li></ol>
<b>Power LED is off</b>	Power supply	<ol style="list-style-type: none"><li>1. Check power cord connection to outlet</li><li>2. Replace power supply</li></ol>
<b>Only toll-free call works</b>	Zero account balance	Recharge to the account
<b>No Dial tone</b>	Malfunctioned phone set	Replace a phone set
<b>Poor voice quality</b>	Weak or disrupted signals	<ol style="list-style-type: none"><li>1. Lower the voice volume</li><li>2. Move the terminal to a location with stronger signal</li><li>3. Adjust antenna</li><li>4. Replace phone set if necessary</li></ol>
<b>No ringing sound</b>	Malfunctioned phone set	<ol style="list-style-type: none"><li>1. Replace phone set</li><li>2. Replace terminal if necessary</li></ol>
<b>Incoming calls can't be answered</b>	Malfunctioned phone set; Restricted call feature is turn on	<ol style="list-style-type: none"><li>1. Replace phone set</li><li>2. Turn off the restricted incoming call setting</li></ol>

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## Maintenance

1. The phone should be saved in the desiccant place.
2. Don't knock the terminal.
3. Do not use chemical to clean the terminal surface
4. Do not try to open the box without contacting vendor. User is responsible for the damage caused by inappropriate disassemble. Keep the terminal in an environment specified in our product specification (Temperature: -10 to +45°C and Relative humidity: ≤95%). The packed terminal should be put in dry and ventilated place.

**For any questions, please send email to [support@simton.com](mailto:support@simton.com) or contact your local reseller.**

**Thank you for choosing Simton IPX systems.**