

# User Manual



## IMPORTANT SAFETY INSTRUCTIONS

To reduce the risk of fire, electrical shock, and injury to person, follow these basic safety precautions when installing the EIT200 SIP Phone:



- ❑ Read and follow all instructions.
- ❑ Do not use the EIT200 SIP Phone near water.
- ❑ Do not install the EIT200 SIP Phone near any heat sources such as radiators, stoves, or other apparatus that produce heat.
- ❑ Protect the power cord from being worked on or pinched particularly at plugs and the point where they exit from the EIT200 SIP Phone.
- ❑ Only use attachments/accessories specified by the manufacturer. Do not use an attachment not recommended, this could result in a risk of fire, electric shock, or injury to persons.
- ❑ The product is to be connected only to the type of main power source indicated on the marking label. The main power source wall outlet must be installed near the EIT200 SIP Phone and be readily accessible.
- ❑ Do not overload power outlets or extension cords. An overload can result in fire or electric shock.
- ❑ Do not disassemble the EIT200 SIP Phone; take it to a qualified service technician when service or repair is required. Improper reassembly may result in a risk of electric shock or fire.
- ❑ Do not operate the power supply if it has been dropped or damaged in any way. Take it to a qualified service technician for repair.
- ❑ Unplug the power supply during lightning storms or when unused for long periods of time.
- ❑ Unplug the power supply from the outlet before attempting any maintenance or cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning and then wipe it dry immediately.

**KEEP THESE INSTRUCTIONS**

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## WELCOME

Thank you for purchasing the EIT200 SIP Phone, an affordable, high-quality IP phone designed for the small to large business enterprise.

EIT200 is a next-generation enterprise SIP telephone that is feature rich, easy to use. The EIT200 is ideal for the small and medium size business seriously looking to leverage their broadband network. Leading industry experts consistently recognize the EIT200 as best in class.

The EIT200 features intuitive user interfaces, dual 10/100mbps Ethernet ports, graphical LCD display and a secure central configuration. This SIP phone combines feature functionality with the latest technology to offer excellent audio quality, ease of use, expandability, and broad interoperability with 3<sup>rd</sup> party SIP platforms. It is ideal for any business communication environment.

## INSTALLATION

### EQUIPMENT PACKAGING

The GXP-2000 phone package contains:

- one EIT200 Main Case
- one Ethernet cable
- one Handset
- one phone cord
- one 12V universal power adapter

### CONNECT YOUR PHONE

**TABLE1: Feature List**

Item	Feature Definition
<b>A:LCD Display</b>	
Language	Five Languages: English, German, French, Dutch, Italian
LCD Size	VA=63x22mm, TN Glass;
LCD Icons	10 Icons, 10x7 segments on the icon line.
Number	One line 7segments-13 digits

<b>Name</b>	One Line - 5x7 dots matrix, 13 characters
<b>B: Keys List</b>	
<b>Key Assemble</b>	Hard keys.
<b>Dialing Keys</b>	12 keys: 1-9, *, 0, #
<b>Feature Keys</b>	18 keys: OK, Up(+), Down(-), ESC, Clear/Delete, Menu, Phone Book, Volume, Speaker phone, Microphone Mute, Redial/Send, In Call, Out Call(redial send), Flash, Hold, IP, Conference, Transfer
<b>C: LED List</b>	
<b>Log-in</b>	LED (color: Green)
<b>Net</b>	LED (color: Green)
<b>Speaker</b>	LED (color: Green)
<b>D: Telephone Feature</b>	
<b>Talking Mode</b>	Handset/ Speakerphone mode
<b>Phone book</b>	24Digits number+ 16 characters
<b>Mute</b>	Yes
<b>Time Of Talking</b>	Time of talking counter.

<b>Redial</b>	At least 10x 24 Digits (in the Out-Call memory)
<b>Ringer Volume</b>	5steps:Off, 1-4
<b>Speakerphone Volume</b>	5 steps: 1 to 5
<b>Receiver Volume</b>	5 steps: 1 to 5
<b>E: Phone Book</b>	
<b>Phone Book Log</b>	50 Memories
<b>Number</b>	24 digits
<b>Name</b>	16 Characters

**FIGURE 1: EIT200 view**



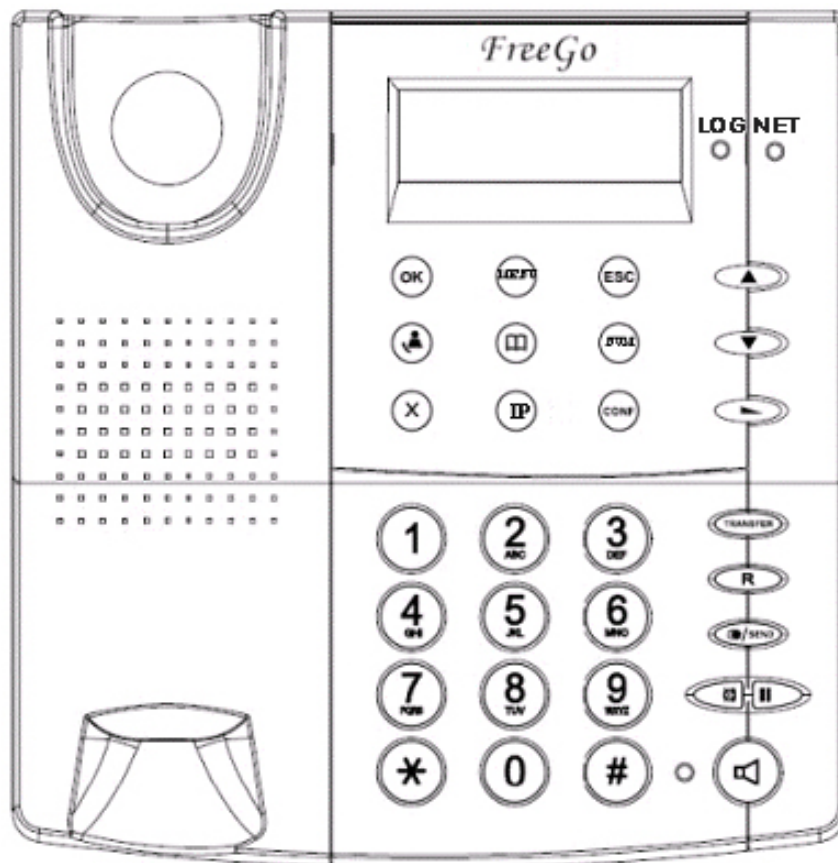
**FIGURE 2: EIT200 Back View**



**TABLE 2: DEFINITIONS OF THE EIT200 CONNECTORS**






<b>Power Cable</b>	Power adapter connection
<b>WAN Port (RJ-45)</b>	Connect to the internal LAN network or router.
<b>LAN Port (RJ-45)</b>	Connect the LAN port with an Ethernet cable to your PC.














**FIGURE 3: Key layout in base station**



Remark: key layout may not be exactly the same as in your sample. It may vary from model to model.

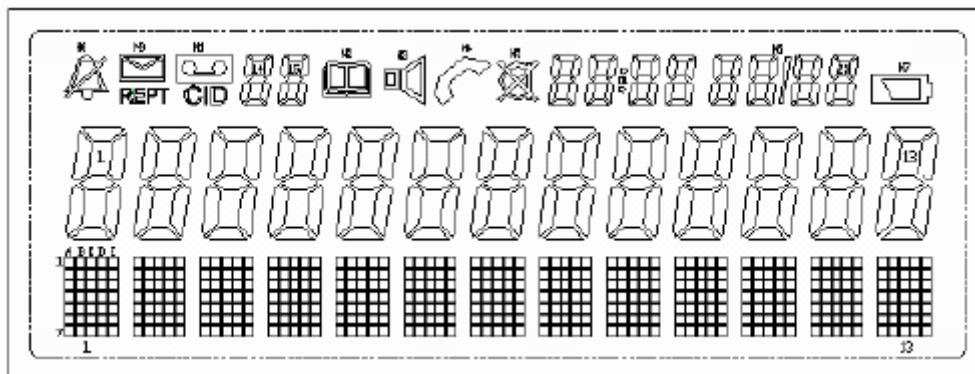
**TABLE 3: key layout List**

	<b>OK Key:</b> Use as enter and save key when in keypad configuration.
	<b>MENU Key:</b> Enter keypad configuration “menu” mode when phone is in idle mode.
	<b>ESC Key:</b> Use as exit key when in keypad configuration.
	<b>In Call Key:</b> press in call key to end in caller record.
	<b>Phone Book Key:</b> press phone book key to enter phone book.

	<b>Register ID key:</b> Inner call number.
	<b>Delete Key:</b> use button to delete record” phone book item” when phone is in phone book item; or delete a key enter when phone is in keypad configure mode.
	<b>IP Address Key:</b> display device IP address.
	<b>Conference Key:</b> press CONF button to connect calling/called party into conference.
	<b>Up Key:</b> use button to select previous “Menu item” when phone is in keypad configure mode; or increase handset/speakerphone volume when phone is ACTIVE; or increase ring volume when is in IDLE mode.
	<b>Down Key:</b> use button to select previous “Menu item” when phone is in keypad configure mode; or decrease handset/speakerphone volume when phone is ACTIVE; or decrease ring volume when is in IDLE mode.
	<b>Volume Key:</b> adjust the handset volume.
	<b>Transfer Key:</b> transfer an ACTIVE call to another number.
	<b>Flash Key:</b> press flash to send a flash-hook event.
	<b>Redial/Send Key:</b> Press send to dial a new number or redial the number dialed before.
	<b>Microphone Mute Key:</b> enable/disable microphone mute.
	<b>Hold Key:</b> place ACTIVE call to hold.
	<b>Speakerphone Mode Key:</b> enable/disable hands-free speaker mode.
<b>0~9 * #</b>	<b>0~9 * # Key:</b> device phone keypad, press # key to send call.






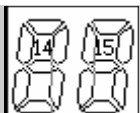
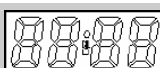

## LCD DISPLAY & ICONS

FIGURE 4: LCD Display



Remark: The graphic of icon on above diagram is just for illustration purpose. The shape of icon on actual LCD may be different.

TABLE 4: key layout List

Ethernet Ports	Icon Feature Definition			
	Function	Switch On Trigger	Flashing Trigger	Switch Off Trigger
	Ringer Off	Ringer Off	Not Used	Ringer is on
	Mute	Microphone muted	Not Used	Microphone on
	Speaker on	Speakerphone on	TBD	Speakerphone off
	Handset on	Handset Talking	Not Used	Handset off
	Phone Book	Operation in Phone Book mode	Not Used	Exit the Phone Book
<b>CLIP</b>	caller list	Review CID	New Call	No CID
	Number Counter	Call List, Phone Book	Not Used	Closing Editor closing call list
	Hour/ Minute	Fixed On	Date/Time Setting	Not used
	Date/ Month	Fixed On	Date/Time Setting	Not used

Remark: The graphic of icon on above table is just for illustration purpose. The shape of icon on actual LCD may be different.

TABLE 5: Default setting

<b>Language</b>	English
<b>Date and time</b>	01-Jan-07 12:00am
<b>Number of Ringer</b>	4 different ringer tones selectable by user
<b>Phonebook Memory</b>	Empty
<b>Redial Memory</b>	Empty
<b>Ringer Tone</b>	4
<b>Handset Volume</b>	1

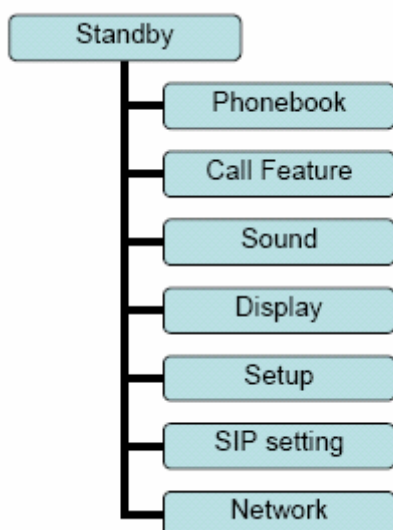
<b>Ringer Volume</b>	1
<b>Speaker Volume</b>	1

## GENERAL REQUIREMENT

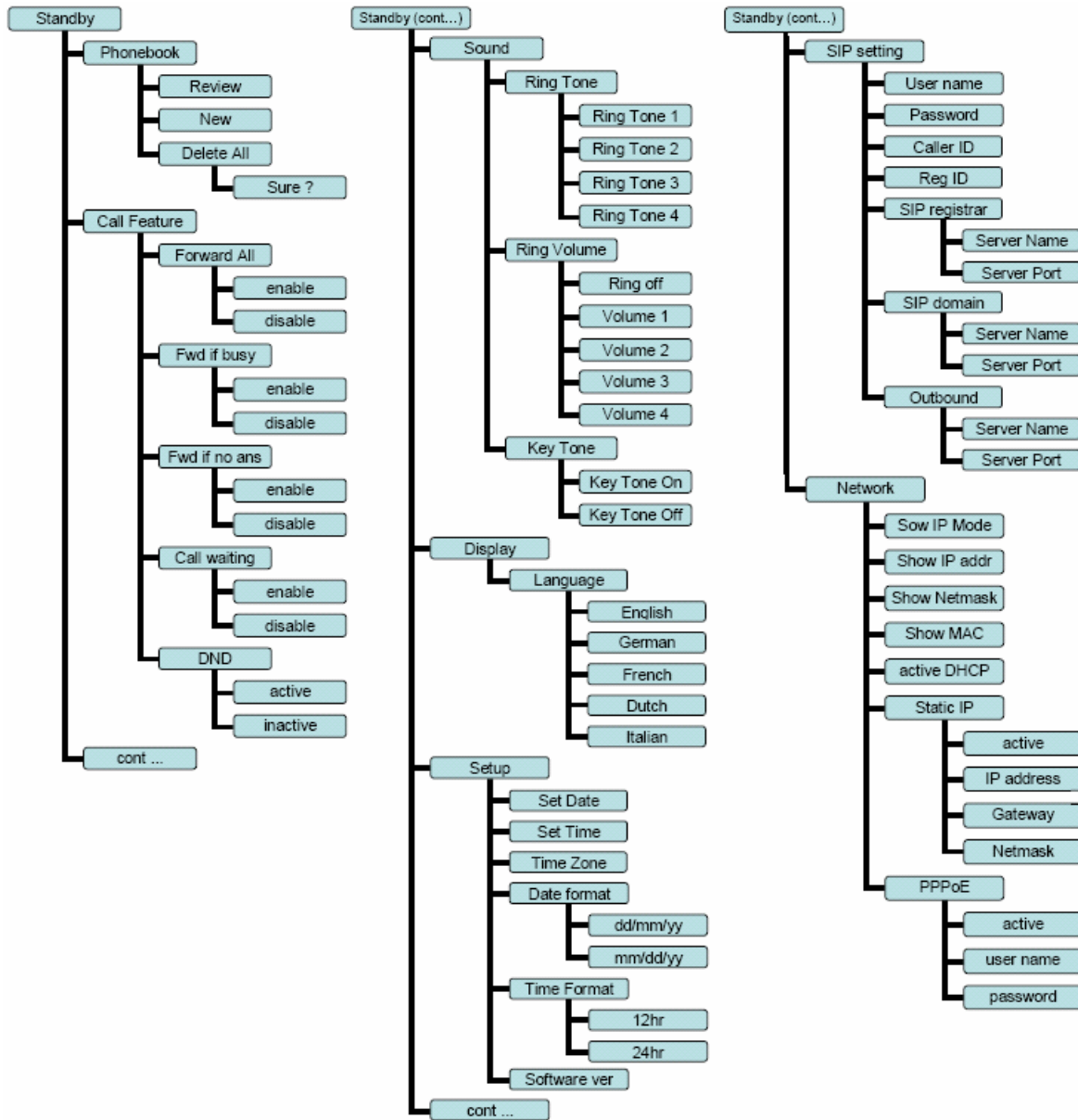
1. This unit implements auto timeout in menu setting mode, phonebook and CID mode. The unit will return to idle mode if key is not pressed within 20 seconds.
2. Idle mode is equivalent to on-hook standby mode.
3. External AC power adaptor is required for normal operation.
4. In menu mode, phonebook mode, and CID mode, the unit will exit one menu level without saving if ESC key is pressed once.

## MAIN MENU

Please press the MENU key when the phone is in the idle mode to enter the main menu page, and then press Up or Down key to explore main menu items. There are 7 main menu items as below.



The detail of the menu structure is listed below.



## PRODUCT OVERVIEW

The EIT200 is a full feature voice that offers a high-level of integration including dual 10M/100Mbps network ports with integrated router, NAT, DHCP server telephone gateway, market-leading sound quality, rich functionalities, and a compact and lightweight design. The EIT200 fully compatible with SIP industry standard and can interoperate with many other SIP compliant devices and software on the market. Moreover, it supports comprehensive voice codecs including G.711 (a/μ-law), G.723.1 and G.729AB.

TABLE 6: Feature List

<b>Telephone Interfaces</b>	None
<b>Network Interface</b>	Two (4) 10M/100 Mbps, RJ-45
<b>LED Indicators</b>	LAN, Run, Speakerphone
<b>Voice over Packet Capabilities</b>	Voice Activity Detection (VAD) with CNG (comfort noise generation) and PLC (packet loss concealment), Dynamic Jitter Buffer, Modem detection & auto-switch to G.711, Packetized Voice Protocol Unit (supports RTP/RTCP and AAL2 protocol), G.168 compliant Echo Cancellation, LEC (line echo cancellation) with NLP
<b>DHCP Server/Client</b>	Yes, NAT Router or Switched Mode
<b>Telnet Server</b>	Yes One line 7segments-13 digits
<b>QoS</b>	Diffserve, TOS, 802.1 P/Q VLAN tagging
<b>IP Transport</b>	RTP/RTCP
<b>DTMF Method</b>	Flexible DTMF transmission method, user interface of In-audio, RFC2833, or SIP Info
<b>IP Signaling</b>	SIP (RFC 3261)
<b>Provisioning</b>	TFTP, HTTP
<b>Management</b>	Syslog support, HTTP and telnet, remote management using Web browser, Support Layer 2 (802.1Q, VLAN, 802.1p) and Layer 3 QoS (Tos, DiffSery, MPLS), Auto/manual provisioning system
<b>Power</b>	220VAC/50Hz/0.2A
<b>Environmental</b>	Operational: 32 <sup>o</sup> -104 <sup>o</sup> F or 0 <sup>o</sup> -40 <sup>o</sup> C Storage: -20~70 <sup>o</sup> C / Humidity: 10-90% Non-condensing
<b>Short and long haul</b>	REN3: Up to150 ft on 24 AWG line
<b>Call Handling Features</b>	Caller ID display or block, Call waiting caller ID, Call waiting/flash, Call transfer, hold, forward, mute, Do-Not-Disturb(DND)
<b>Caller ID</b>	Bellcore Type 1 & 2, ETSI, BT, NTT, and DTMF-based CID
<b>Polarity Reversal / Wink</b>	Yes
<b>EMC</b>	EN55022/EN55024 and FCC part15 Class B
<b>Safety</b>	UL

**TABLE 7: EIT200 HARDWARE SPECIFICATIONS**

<b>LAN Interface</b>	2 x RJ45 10/100Mbps (integrated router)
<b>LED</b>	3 LEDs
<b>Universal Switching Power Adaptor</b>	100-240V AC, 50Hz, 0.2A
<b>Dimension</b>	205mm (L) x 190 mm (W) x 70 mm (H)
<b>Weight</b>	1100g
<b>Operation Temperature</b>	32o–104oF / 0~40°C
<b>Storage Temperature</b>	-20~70°C
<b>Humidity</b>	10% - 90% (non-condensing)
<b>Compliance</b>	FCC, CE
<b>Protection of telephone interface against lightning strike</b>	10/700,4000V
<b>Power</b>	4W

## BASIC OPERATIONS

### PLACING A PHONE CALL

#### PHONE OR EXTENSION NUMBERS

1. Dial the number directly and wait for 3 seconds (Default “No dial timeout”);
2. Dial the number directly and press #.

#### Examples:

1. Dial an extension directly on the same proxy, (e.g. 8080), and then press the # or wait for 3 seconds.
2. Dial an outside number (e.g. 008613910018888), first enter the prefix number (usually 1+ or international code) followed by the phone number. Press # or wait for 3 seconds. Check with your VoIP service provider for further details on prefix numbers.

#### DIRECT IP CALLS

Direct IP calling allows two parties, that is, a FXS Port with an analog phone and another VoIP Device, to talk to each other in an ad hoc fashion without a SIP proxy.

#### Elements necessary to completing a Direct IP Call:

1. Both **EIT200** and other VoIP Device, have public IP addresses,
2. Both **EIT200** and other VoIP Device are on the same LAN using private IP addresses,
3. Both **EIT200** and other VoIP Device can be connected through a router using public or private IP addresses (with necessary port forwarding or DMZ).

1. Pick up the analog phone then dial “\*47”
2. Enter the target IP address.

**Note:** No dial tone will be played between step 1 and 2.

#### Examples:

If the target IP address is 192.168.0.160, the dialing convention is

**\*47, then 192\*168\*0\*160.**

Followed by pressing the “#” key or wait 3 seconds. Destination port is 5060.

**NOTE:** You cannot make direct IP calls between FXS0 to FXS1 since they are using same IP.

It only supports the default destination port 5060.

“Disable direct IP-IP calling” must be set to “No” in web configuration page.

“Call features enable” must be set to “Yes” in web configuration page.

## Call Features

The EIT200 supports all the traditional and advanced telephony features.

**TABLE 8: EIT200 CALL FEATURE DEFINITIONS**

*47	<b>Direct IP Calling.</b> Dial “*47” + “IP address”. No dial tone is played in the middle. Detail see Direct IP Calling section on page 9.
*50	<b>Disable Call Waiting</b> (for all subsequent calls)
*51	<b>Enable Call Waiting</b> (for all subsequent calls)
*72	<b>Unconditional Call Forward:</b> Dial “*72” and then the forwarding number followed by “#”. Wait for dial tone and hang up. (dial tone indicates successful forward)
*73	<b>Cancel Unconditional Call Forward.</b> To cancel “Unconditional Call Forward”, dial “*73”, wait for dial tone, and then hang up.
*78	<b>Enable Do Not Disturb (DND):</b> When enabled all incoming calls are rejected.
*79	<b>Disable Do Not Disturb (DND):</b> When disabled, incoming calls are accepted.
*87	<b>Blind Transfer</b>
*90	<b>Busy Call Forward:</b> Dial “*90” and then the forwarding number followed by “#”. Wait for dial tone then hang up.
*91	<b>Cancel Busy Call Forward.</b> To cancel “Busy Call Forward”, dial “*91”, wait for dial tone, and then hang up.
*92	<b>No Answer Call Forward.</b> Dial “*92” and then the forwarding number followed by “#”. Wait for dial tone then hang up.
*93	<b>Cancel no Answer Call Forward.</b> To cancel no Answer Call Forward, dial “*93”, wait for dial tone, and then hang up.
*99	<b>Cancel All Call Forward</b>
*114#	<b>Report Phone No.</b>

*158#	Report IP Address
*111#	Reset

## CONFIGURATION GUIDE

### CONFIGURE LAN PORT'S IP ADDRESS

Telephone set must connect to the FXS port:

#### 1. Dynamic IP address by DHCP:

Offhook;

Input "\*\*150\*2#";

Onhook;

If hint success, after 10 seconds, restart the **EIT200**. (Power-off then power-on)

#### 2. Static IP address:

Offhook; input "\*\*150\*1#"; onhook; then

(1) Config IP address:

Offhook; input "\*\*152\*172\*16\*0\*100# "; onhook.

(2) Config netmask:

Offhook; input "\*\*153\*255\*255\*0\*0# "; onhook.

(3) Config gateway IP address (next hop):

Offhook; input "\*\*156\*172\*16\*0\*1# "; onhook.

(4) if success, After 10 seconds, restart the **EIT200** ; (Power-off then power-on)

#### 3. Query the IP address of **EIT200**: Offhook, input "\*\*158#"

**NOTE:** the telephone will play voice hint "Setting successfully" if the setting step is correct.