

Payphone user guide

TB-1000



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1. Product introduction

Function introduction

1. Computer control system
2. Identify different countries coins by weight
3. Setting traffic rate
4. Setting free call number
5. Setting forbid number
6. Phone number length restrict
7. Built-in IP dialer
8. Select receive the coins automatically/manually
9. Select TONE/PLUSE dial mode
10. Select direct line / extension mode
11. 16 * 2 with backlight LCD display

Support protocol

- ◆ Support SIP (RFC3261, RFC2543)
- ◆ Support IAX2
- ◆ Voice code: G711A/u, G729 , G726, Ilbc
- ◆ G.168 echo cancellation standard, compliant 96ms echo cancellation with speaker mode
 - ◆ Jitter Buffer, VAD, CNG, SIP/IAX2 domain name register, point to point call
 - ◆ RTP and RTCP
 - ◆ Support the Inbound/Outbound transmission; SIP info, DTMF Relay, RFC2833
 - ◆ Support multiple country's ring
 - ◆ NAT transversal: Support STUN, CITRON, AVS mode
 - ◆ Support SIP domain, SIP Authentication (none, basic, MD5), Domain name parse
 - ◆ Support two SIP servers (Public server / Private server) synchronously, make a call by either proxy
 - ◆ Support SIP application, including SIP Call forward/transfer/holding/waiting
 - ◆ Support VPN
 - ◆ Support Reverse polarity

Network Features

- ◆ Support two models: Bridge and Router, integrate two ports router function
- ◆ Support basic NAT and NAPT
- ◆ Support PPPoE for xDSL, and support to redial automatically when it is offline
- ◆ Support DHCP client for WAN
- ◆ Support DHCP server for LAN
- ◆ Support DNS relay for LAN, can provide DNS service for LAN network equipment
- ◆ Use the advanced technology DSP to ensure high quality voice
- ◆ Use the advanced Jitter buffer technology in order to delay too big and losing while preventing the information package
- ◆ Support Network Tools, including Ping, race route, telnet client
- ◆ Support 3 ways WAN port: Static, DHCP, PPPoE
- ◆ Provide firewall control for small size of LAN port
- ◆ LAN port provide the communication PRI available for the small LAN
- ◆ Support Qos (802.1p) for the second Layer

2. Using Environment

1. Operating Temperature: -10°C~+40°C
Relative Humidity: 45%~95%
Air pressure: 86~106Kpa
2. Input: 100-240V AC
Output: 12V DC 1A
3. Signal

| DTMF mode | Rhythm (Second) | Frequency (Hz) |
|-----------|-------------------------------|----------------|
| Dial | Busy | 300-650 |
| Ring | Ring 0.6-1.0, Silence 2.0-4.5 | 300-650 |
| Busy tone | Ring 0.3-0.5, Silence 0.3-0.5 | 300-650 |

2. Technical parameter

1. DTMF parameter:
Low frequency: -9dBm±2dBm
High frequency: -7dBm±2dBm
1. Acoustic parameters (CCITT standard), the phone need around five kilometers
SLR: less than 12dB RLR: less than -1dB STMR: More than 10dB
4. Exchange resistance: 600 Ω

3. The basic setting of the phone

1. The basic setting of the phone

1. Operating guideline

1. The phone line connects with the PPT phone line.
2. Pick up the phone and heard Beep sound, LCD display “INSERT COIN”
3. LCD displays the total amount of coins.
4. LCD display recipient number when you make a call. (If the coins are not enough to make a call, in the right side it will be display last 8 numbers which you dialed).
5. After recipient side receive the phone, user press “Talk” key collect the coins or automatically collect the coin in the phone, the LCD right side display the account balance, and the left side display the need to continue to call in the amount of coins after the count down.
6. 20 seconds before finish the call, there is a warning sound in the phone, LCD display “Insert coin”. It means if your want continue to talk will insert coins, otherwise will stop automatically.
7. Pick up the phone press “*” “#” with 8 numbers of passwords, can be checking the total amount in the phone.
8. Pick up the phone press “*” “#” with 8 numbers of passwords, LCD displays “FREE DIAL”, can be making a free call.
9. Press "REDIAL" key to redial while line is busy or cannot be connected.
10. Press "FLASH" key to dial new number directly while line is busy or cannot be connected.
11. In manually dial mode, pick up the phone and insert enough coins, press “Redial” key, the phone automatically dialed the default IP number, then dial long-distance numbers
12. In IP dial mode, pick up the phone and insert enough coins, dial long distance number. Telephone detected the pre-set number prefix of long-distance with the same prefix, will be automatically dial the default IP number with the numbers. IP number can be set three groups, if unsuccessful call by the First Group, will automatically Skip to the second group.

二. Programming introduction

A. Programming setting

00. Setting password
01. Choose PPT/PBX Mode
- 02 Choose TONE / PLUSE dialer mode
03. Setting the charge mode
04. Setting incoming call
05. Setting traffic rate
06. Setting Telephone Number Prefix and Corresponding Tariff Rate
07. On Reservation
08. Setting “0-” Manual IP Dialer
09. Setting “0+” Auto IP Dialer
10. Restore the default setting
11. Identify different countries coins
12. On Reservation

B. Setting content of programming

Pick up the phone, input "*" and "#" and eight functional programming Password (default password is 88888888), the LCD display PROGRAM (00-24), the phone into the program state, according to the following code, input the information content to set:

Note: Under programming mode, press button "1" to choose the items, "#" to confirm and save the settings, "*" to cancel present settings and return to "PROGRAM (00-24)".

Input: 00. Set password

Press 00, LCD display "OWNER p:"

"OWNER p:" that the owner Password (Owner Password, user can make free calls via this password), input eight numbers of password and then click # confirmed, LCD then displays "FUNC p:" ("Function Programming Password"), input 8-digit numbers and press "#" to save the number, LCD displays "CASHB p:" ("Coin Box Value Checking Password"), input 8-digit numbers and press "#" to save the number (or press "*", the phone then returns to "PROGRAM (00-24)" status.

Note: Please remember the Function Programming Password. If you lose this password you could never re-programming the phone.

Input: 01. Select PPT/PBX Mode

Press 01, LCD display "LINE: PTT"

"LINE: PTT" that the direct line operation mode, click # confirmed, the phone automatically return to the "PROGRAM (00-24) press 1 choose extension mode click # confirmed

"LINE: PBX" that then extension mode

Choose extension Model, press "#" confirmed, press 1 choose automatically dial /manually dial out going code, confirmed by #. LCD display, "CO.DIAL: AUTO" that automatically dial code by "#" after confirmation, LCD display "PBX CO CODE:", input out going code (maximum 4 numbers), "CO.DIAL: MANUAL" that manually out code by "#" confirmation, LCD display "PBX CO CODE:" input out code (maximum 4), by "#" to save the settings, phone automatically return to the "PROGRAM (00-24)"

Input: 02. Choose DTMF/PLUSE mode

Input 02, LCD display "DIALING: TONE"

"DIALING: TONE" that the DTMF mode

"DIALING: PULSE" that the PULSE mode

Press "#" to confirm Tone Dialing Mode or press "1" to switch to Pulse Dialing Mode or Tone Dialing mode. Press "#" to save or press "*" to return to "PROGRAM(00-24)".

Input: 03. Setting the charge mode

Press 03, LCD display, "METERING: RESPOND"

"REVERSE" that phone detected reverse polarity signal auto collects the coins against line reversal signal "RESPOND," that phone detected respond signal auto collects the coins against respond back tone

"BOTTON" that telephone connected, press "TALK" button to collect the coins.

Press "1" to choose in the above mode, and click the "#" save settings (or press "*" to cancel), the phone will return to the "PROGRAM (00-24)."

Input: 04. Setting incoming call

Input 04, LCD display "INCOMING CALL:" displays "999 s, 0020c/55s"

999s said that free of charge while receiving call, to answer LCD display FREE DIAL (such as the number 0 means forbid all the incoming call, for other numbers it means can receive free of seconds), 0020 c/55s means after free time every 55 seconds charges \$ 00.20, direct press "0-9" set, and click the "#" save settings (or press "*" cancel), the phone return to the "PROGRAM (00-24)".

Input: 05. Setting traffic rate

Press 05, LCD displays "R00: 0100/060s12"

"R00-R07" stands for the tariff rate group, there are totally 10 groups (R00-R09), press "1" and "4" to select

"\$0100/060s" stands for the tariff rate (\$1.00 per 60 seconds)

"12" stands for the maximum number digits of telephone number subjected to this tariff rate could maximum reach 12 digits. Change this number after you set the tariff rate.

After selecting R00, press "#", LCD displays "R00: 100/060s", input the setting (maximum could be 9999/999s) and press "#" to save, the phone automatically enters into next group of tariff rate setting(R01), follow above instructions until finishing the tariff rate programming. Press "*" to return to "PROGRAM (00-24)"

** R00-R07: 8 types of local call or STD call tariff rate

R08: Manual IP Dialer tariff rate

R09: Auto IP Dialer tariff rate

Press 06, LCD displays "PREFIX:"

Set the telephone number prefix (maximum 9 digits) and press "#" to save,

Or directly press "#" without entering the number prefix, which means any number prefix

LCD displays "TARIFF 00", use button "1" and "4" to select the tariff rate you want to apply to these prefixes then press "#" to confirm, the phone automatically enters into next group of setting, LCD displays "PREFIX:", repeat the above operations. Press "*" return to "PROGRAM (00-24)".

** "TARIFF 00---TARIFF 09" corresponds with "R00-R09".

"TARIFF 10" is for free call.

"TARIFF 11" is for barred call.

NOTE: When programming the number prefixes, if a group of prefixes is included in another which correspond a different charge rate, the group included should be input prior to the group that includes. For example, if there are two groups started with "3" and "33", each with a different tariff rate, the prefix "33" and its relevant tariff should be input prior to that of prefix "3"; "333" prior to "33", etc. Totally there are 160 groups of prefixes available.

07. On Reservation

Input: “0-” Manual IP Dialer Programming

Press 08, LCD displays “0-calls DISABLE”

Press “1” to choose “0-calls ENABLE” and then “#” to confirm, LCD displays “CARRIER”, input the IP number and press “FLASH” key to save, the phone returns to “PROGRAM (00-24)”.

09. “0+” Auto IP Dialer Programming

Press 09, LCD displays “0+calls DISABLE”

Press “1” to choose “0+calls ENABLE” and press “#” to confirm, LCD displays “ROUTE 1”

Input the first group of IP number (maximum 32 digits including pause), then press “FLASH” to save

LCD displays “ROUTE2”, input and save the second group of IP number or directly press “FLASH” to overlap this setting.

LCD displays “ROUTE3”, input and save the second group of IP number or directly press “FLASH” to overlap this setting. The phone returns to “PROGRAM (00-24)”.

** Press “REDIAL” to input pause in wherever you need (LCD displays “P”), each pause lasts 2 seconds.

Note: User could only choose either Manual IP Dialer or Auto IP Dialer function.

10. Resume to Default Setting

Press 10, LCD displays “SET CLEAR”

Press “#” to confirm, LCD displays “WAITING” and then return back to “PROGRAM (00-24)”.

The phone resumes defaulting setting.

Input 11, press the "Talk" key, to clear the validator; LCD display "COIN (0) = \$ XXXX" press "#" key, input the value of coins, then insert 10pcs of such coins into the phone and press "#" key to save the coin parameters, LCD display “COIN (1) = \$ XXXX”, repeat the above operation to program the next coin(maximum 8 types of coins programmable). After finish the programming, Press "*" key automatically return to the "PROGRAM (00-24)".

Note: If the phone doesn't work normally with one of the coins, enter the above programming mode, press 1 to choose its corresponding programming and reset the parameter.

2. VoIP Configuration

1. 1 Getting IP of phone

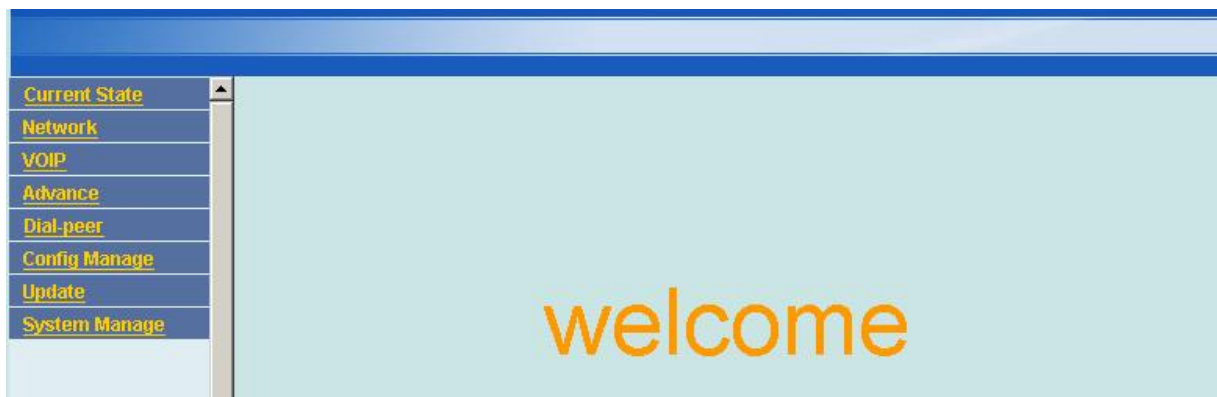
There are two ports of WAN and LAN port in the phone, the default DHCP mode. User can select the WAN port IP or LAN port IP to configure the phone according to your network.

◆ If your network supports the DHCP to distribute IP address automatically, after connecting the phone, you will see the indicator light of the WAN port is on and stop glittering, it means you get the IP address already, you can be set up quickly according to the following operation: after connecting Ethernet cable to WAN port, connect PSTN phone to FXS port, press **#*111#**, in WAN port you could hear IP address, input the WAN IP address on the browser, you can configure in the internal phone.

◆ If your network does not support the DHCP to distribute IP address automatically, you should configure the static IP in WAN port, the default IP address is 192.168.10.1, please visit: <http://192.168.10.1>

1.2 Configuration with Web

The web configuration interface mainly consists of the configuration menu on the left and configuration interface on the right, enter the corresponding configuration interface to configure by selecting the menu, please see as below:



Before using, the main menu consists Network part (configure IP address, default route, DNS, etc.), VoIP part (SIP server and Phone Number).

If the menu has submenu, press it to see all the parts. Press once to open the menu, and press twice to close the menu.

1.2.1 Login and user Verification

In WAN port users inputs the IP address (dial **#*111#** to get the IP by dialogue machine) or the LAN port (default IP is 192.168.10.1) in the IE browser to login the system by WEB, user can select the login mode according to the real situation.

Administrator account: the default user name and password both are “admin”, this user can configure the system.

Note: after inputting username and password, user press “Enter” directly to enter the page.

1.2.2 Network Configuration

Note: after configuring the IP of WAN port correctly, the phone can connect Internet

If your LAN router opens DHCP server function, the phone WAN port can get IP address without needing make network configuration (the default configuration for WAN is DHCP client mode, the default LAN IP is 192.168.10.1); If your LAN router does not have open DHCP server function. You need configure the WAN port to the static IP address.

| Active IP | Current Netmask | MAC Address | Current Gateway |
|---------------|-----------------|-------------------|-----------------|
| 192.168.1.118 | 255.255.255.0 | 00:0e:e9:02:2d:1c | 192.168.1.100 |

Mac Authenticating Code Valid MAC

Static
 DHCP
 PPPOE

| | | | | |
|--------|-------------|----------------|------------|---------------|
| Static | IP Address | 192.168.1.179 | Netmask | 255.255.255.0 |
| | Gateway | 192.168.1.1 | DNS Domain | |
| | Primary DNS | 202.96.134.133 | Alter DNS | 202.96.128.68 |

PPPOE Server

Username

Password

When configuring static IP, the static IP must be in the same IP segment with the IP of LAN router. After configuring, you should check if the network is working: open “Running” mode, and input “cmd”, press “Enter” button, and then input the IP of phone, press “enter”:

```

C:\WINDOWS\system32\cmd.exe
G:\Documents and Settings\weiwei>ping 192.168.1.112

Pinging 192.168.1.112 with 32 bytes of data:

Reply from 192.168.1.112: bytes=32 time<1ms TTL=128
Reply from 192.168.1.112: bytes=32 time<1ms TTL=128
Reply from 192.168.1.112: bytes=32 time<1ms TTL=128
Reply from 192.168.1.112: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.112:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\weiwei>

```

If “Ping” showed it is ok, it means the network is connected. And then only need configure SIP account.

1.2.3 SIP Server configuration

User can configure SIP protocol specific parameter on this page;

| SIP[Registered] Configuration | | | |
|--|--------------|---|----------------|
| Register Server Addr | 0101hk.com | Proxy Server Addr | |
| Register Server Port | 6058 | Proxy Server Port | |
| Register Username | 90601748 | Proxy Username | |
| Register Password | ***** | Proxy Password | |
| Domain Realm | | Local SIP Port | 5060 |
| Phone Number | 90601748 | Register Expire Time | 60 seconds |
| Detect Interval Time | 60 seconds | RFC Protocol Edition | RFC3261 |
| DTMF Mode | DTMF_RFC2833 | Server Type | common |
| Encrypt Key | | User Agent | Voip Phone 1.0 |
| <input checked="" type="checkbox"/> Enable PRACK | | <input type="checkbox"/> Signal Encrypt | |
| <input type="checkbox"/> Auto Detct Server | | <input type="checkbox"/> RTP Encrypt | |
| <input checked="" type="checkbox"/> Enable Keep Authentication | | <input type="checkbox"/> Enable Session Timer | |
| <input checked="" type="checkbox"/> Enable Register | | <input checked="" type="checkbox"/> SIP(Default Protocol) | |

Configuration Explanation:

SIP[Registered] Configuration It shows SIP register state; If register successfully, it will show Registered, otherwise show Unregistered.

Register Server Addr: 0101hk.com It shows the configured IP address for SIP register server (Domain Name or IP address)

Register Server Port: 6058 The configured signal port for SIP register server;

Register Username: 90601748 The configured SIP register account name

(usually it is the same with the phone number that configured, when some special SIP servers have different phone number and account name, here need configure the account name).

Register Password Configured password of SIP register account;

Domain Realm The configured SIP register domain realm. It must be accordant with the register server address. If the SIP terminal port is not default 5060, the back should be adding the detail port number e.g.:0101hk.com:6058.

Register Expire Time seconds The configured expire time is 60 seconds. If the expire time that server requires is more or less than the configured by the phone, the phone can automatically modify it to the limit time and register.

Detect Interval Time seconds The server configured detection interval time, if the phone enables SIP detection server function, the phone will detect once for whether the server has response every detection internal time.

RFC Protocol Edition Using protocol version to configured the phone. When the phone needs to communicate with the gateway using SIP1.0 such as CISCO5300, the RFC2543 configuration is necessary, and then the communication will be normal. The default is using RFC3261

Enable Register Configured enable/disable register. Successfully register when you select “Enable”.

Note: After the aforesaid Network and VoIP configuration, if the register is successfully, the REG light will be on(if the light is flittering continuously, it means the registration unsuccessfully), the user can be able to make VoIP calls through the register and proxy, with # after finish dialing number. If you need to advanced configuration, please see the details in advanced configuration manual for you reference.

1.2.4 IAX2 Configuration

➤ IAX2[Unregistered] Configuration

| | |
|---|---------------------------------------|
| IAX2 Server Addr | <input type="text"/> |
| IAX2 Server Port | <input type="text" value="4569"/> |
| Account Name | <input type="text"/> |
| Account Password | <input type="text"/> |
| Phone Number | <input type="text"/> |
| Local Port | <input type="text" value="4569"/> |
| voice Mail Number | <input type="text" value="0"/> |
| Voice mail text | <input type="text" value="mail"/> |
| Echo Test number | <input type="text" value="1"/> |
| Echo Test text | <input type="text" value="echo"/> |
| Refresh Time | <input type="text" value="60"/> |
| <input type="checkbox"/> Enable Register | <input type="checkbox"/> Enable G.729 |
| <input type="checkbox"/> IAX2(Default Protocol) | |

Account Name Account name (user name of your SIP account)

Account Password Account password (password of your IAX2account)

Phone Number

Register phone number (phone number of your IAX account)

Local Port

IAX local port (signal port of local)

Voice Mail Number

If the IAX support voice mail number, but your username of the voice mail is letters which you can not input with phone, then use the number to replace your username.

Voice mail text

If IAX support voice mail text, configure the domain name of your voice mail here.

Echo Test number

If Echo test number support test form, configure the test number to replace the next

format. This can be tested by platform or terminal to see if the call is normal or not from terminal system.

Echo Test text

Echo test number in text format

Refresh Time

IAX register refresh time

Enable Register

Enable or disable register to the server

IAX2(Default Protocol)

IAX2 call protocol is the default protocol. That means if choose this option, user

picks up the phone and dial number, it will be communicated through IAX2 protocol. The phone default is SIP protocol; this configuration it means when you make a phone call, the receiver wouldn't be affected. If user configures this item, it won't be used SIP, but IAX, if user wants to give a call by SIP simultaneously, then can configure the function of prefix substitution in the item of Dial peer and achieve the SIP call.

Enable G.729

Enable / disable to G729 (using G729 speech coding mandatory consultations)

3.3 Save and clear the configuration

Enter into WEB page, "Config Manage->Save Config to save the configuration

Enter into WEB page, Config Manage->Clear Confi to clear the configuration, come back to default configuration