YWH100 A/B/C/D IP Phone User Manual

Catalogue

Brief Introduction

IP is abbreviation of Internet Protocol. An IP phone is a telephone transporting voice using grouping data package of IP protocol. It can be used widely for audio communication in the broad band IP Network environment which accord with TCP/IP protocol, such as in the LAN or WAN of Enterprises and Institutions Telecom IP phone services provider's network and broad band INTERENT user, who log on internet through LAN Cable Modem or XDSL and so on.

The mostly significant features of IP phone is transporting voice message over data communication network at an extremely low price with excellent sound quality. Using IP phone, you will save dramatically on international calls and long distance calls.

YWH100 series IP net phone uses unique generalized outline and inner line modes. It functions much like an ordinary telephone switching between inner line and out line, so it supplies great conveniences to the users. When YWH100 series IP net phone is in generalized inner line mode, it can call another YWH100 series IP net phone worldwide for free. When YWH100 series IP net phone is in generalized out line mode, it can places calls to ordinary telephones worldwide at a dramatically low price, because YWH100 series IP net phone supports using prepaid card supplied by ISP such as Net2phone or eTalk. And it possesses excellent sound quality just like ordinary phones.

YWH100 series IP Net Phone includes 4 types which called A B C and D. The mostly difference is :

YWH100A mode: single RJ45 port, LCD without backlit;

YWH100B mode: single RJ45 port, LCD with backlit;

YWH100C mode: double RJ45 port, LCD without backlit;

YWH100D mode: double RJ45 port, LCD with backlit;
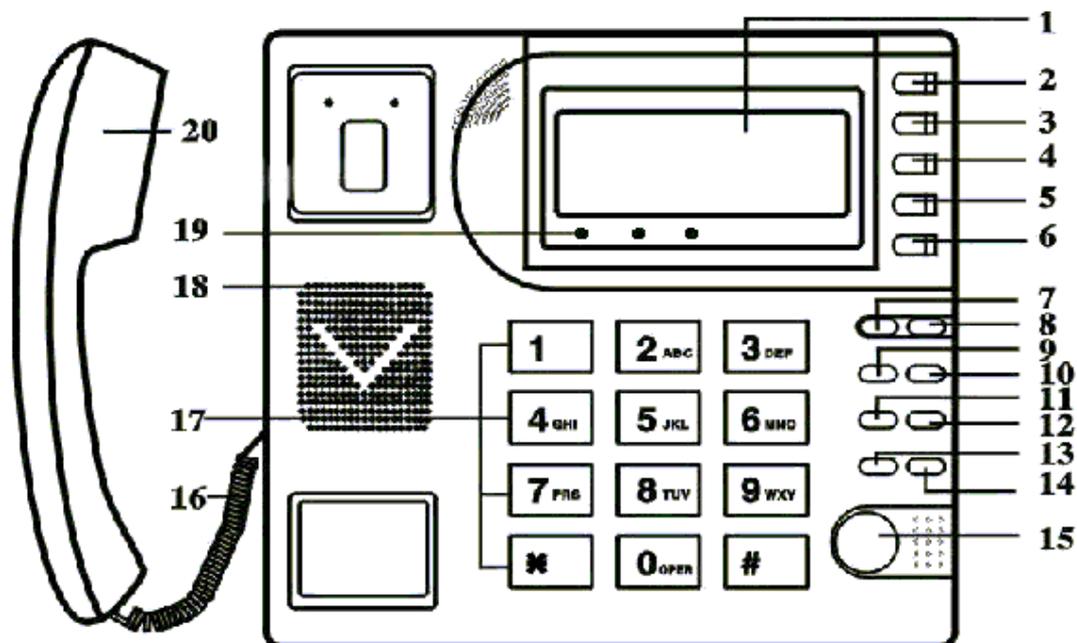
Appearance

1.Front Panel (See Figure 1)

Figure 1   Front Panel

1. LCD	2. Speed Dial	3. Save number
4. Backspace	5. Volume +	6. Volume -
7. Service IP	8. Phone number	9. Proxy IP
10. Subnet mask	11. Router IP	12. Call
13. Local IP	14. Redial	15. Spk/Hand free
16 Cord	17. Number	18. Speaker
19. LED	20. Handset	

/*Notice :With H.323 protocol Server IP refers to Gatekeeper IP.*/

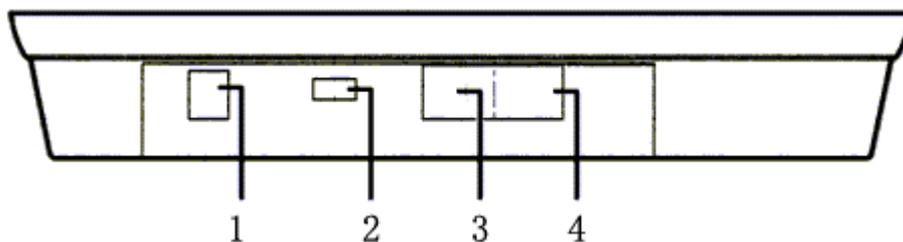## 2.Backside view (see Figure 2)

Figure 2   Backside view

1. Power adapter port	2. Power switch	3.PC(RJ-45) port	4. RJ-45 port

Performance and features

- Support H.323 v4,compatible with most H.323 v1-v4 system and devices;
- Built in H.323 proxy support to pass NAT;
- Fast start and H.245 tunneling;
- Outband DTMF transmit by H.245 user input or Q.931 keypad;
- Caller ID send and receive by Q.931;
- Provide direct IP address to IP address call mode, direct PSTN call by a voice gateway ,E.164 phone number call under the mode of GK;
- Automatically gatekeeper discovery in LAN;
- Call PSTN by ITSP's prepaid card (eTalk,Net2phone,etc);
- DHCP support for automatically assign IP address and others relevant parameters;
- PPPoE support for ADSL or Cable modem;
- Setting IP Net Phone parameters by standard web browser (such as IE6.0), phone keypad or standard telnet;
- Upgrade program by FTP mode;
- Support G.723.1 5.3k/6.3k G.729 G.711 A-Law U-Law audio codec algorithm ;
- Dynamic voice detection; Echo cancellation; Comfort noise generation;
- Dynamic voice jitter buffer which minimize effect to the voice caused by the audio delay and jitter and as a result the quality of voice is high;
- Tone generation and Local DTMF generation and detection according with ITU-T;
- E.164 dial plan and customized dial rules;
- 40 entries each for missed call, answered call and dialed call;
- 112 entries for quick dial;
- 16 entries for voice message;
- LCD display dial data caller name   caller number and so on ;
- Working status indicating Lamps(red yellow and green) and keypad jacklight;
- Independently digit adjust the volume of handset   hand free;
- 14 function keys for operating and setting phone besides standard keys 0-9,#;
- Speed dialing;
- Adjustable volume for both handset and speaker;
- 16 function keys, background LED and states indicating lights;
- Setting by special tool--palmtool;
- Settings by HTTP web browser (IE6.0);
- Advanced settings by Telnet;
- Voice prompt;
- Upgrade by TFTP.

Main technical index

- Main chip: PA1688 50Mhz;
- Data storage:2MB SDRAM;
- Program memory: 1MB Flash memory;
- Application Network environment: 10Base-T/100Base-T;
- Echo cancellation:G165 16ms;

- Store quick dial number: 112;
- Record phone number of missed call:40;
- Record phone number of answered call:40;
- Record phone number of dialed call:40;
- Power loss:2.7W(max);
- Power adapter: input AC 220V,output DC 9V 500mA;
- Employing condition: Ambience temperature   0-40   32-104°F
  - Relative humidity   10-95%
  - Atmosphere pressure   86-106Kpa;
- Overall size:215×190×70mm(L×W×H).

Standard and Protocol

- IEEE 802.3 10Base-T/100Base-T RJ-45 port;
- Audio codec algorithm include G.711A,G.711u,G.723.1(5.3k/6.3k) and G.729;
- H.323 V4 calling signal protocol;
- Quick dial setting and user-defined dial plan setting;
- TCP/IP: Internet Transport and Control Protocol;
- RTP: Real-time transport Protocol;
- RTCP: Real-time Transport Control Protocol;
- G.723.1 G729 VAD/CNG economical bandwidth;
- G165 16ms Echo cancellation;
- DTMF: Tone Detection and Generation;
- DHCP: Dynamic Host Configuration Protocol;
- PPPoE: Point to Point Protocol Over Ethernet;
- DNS: Domain Name Service;
- NTS: Network Time service;
- Telnet: Remote Host log on Protocol;
- FTP: File Transfer Protocol;
- HTTP: Hyper Text transfer Protocol;
- Build in H.323 proxy support;
- Auto search proxy.

Electric requirements

- Voltage: 9V DC
- Power: 0.5W (max.)
- Power adapter: AD/DC input 100-220V, 400Ma
- Network interface: RJ-45 Ethernet Connect

Operating requirements

- Operation temperature: 0 to 50°C (32° to 122°F)
- Storage temperature: -30° to 65°C (-22° to 149°F)
- Humidity: 10 to 90% no dew

Installation

1, Contect Handset and Phone

Insert Hanset cord into handset cord jack of the base.Please see Figure 3.
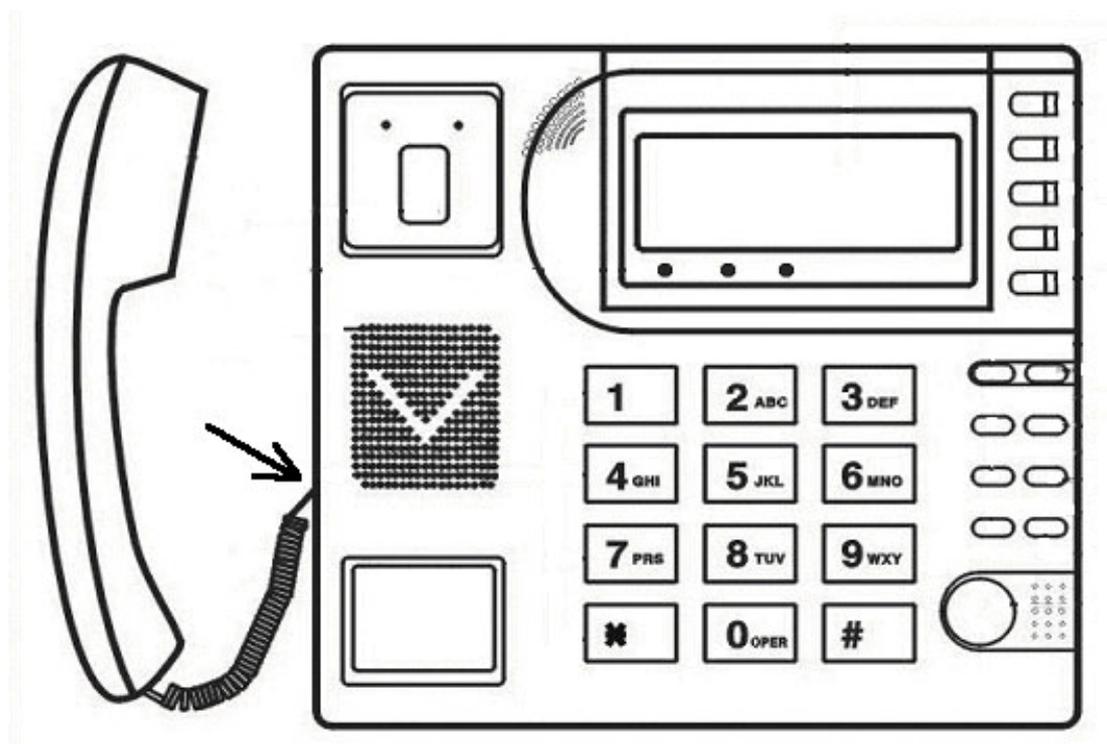
Figure 3   Handset and base of Phone connection

2, Connect Phone and Power

Palce the phone nearby of Power socket. Plug the power cord adapter into the Power Jack. Then plug the other end of the power cord adapter into the appropriate power socket. Refer to Figure 4.
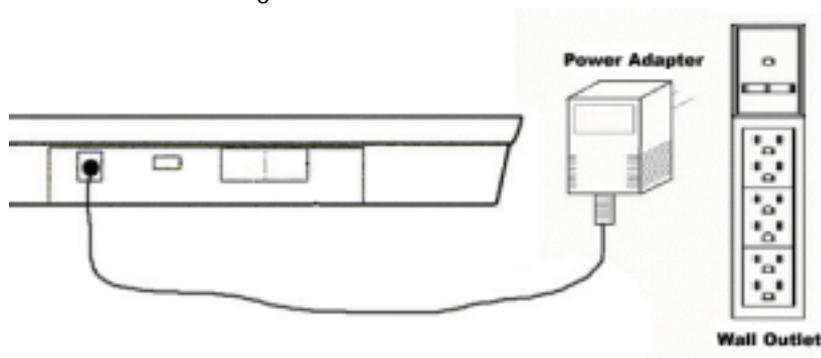
Figure 4   Connect Power

3, Connect the phone into the net

LAN users: Plug one end of the direct-connecting cable into RJ-45 jack which

is located in the back of phone, and connect the other end of calbe to hub.
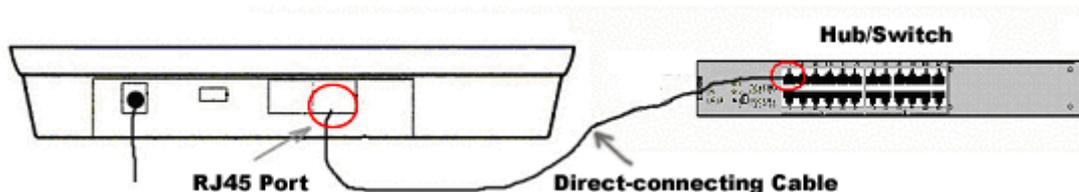
Please see Figure5.

Figure 5   LAN Phone connected into net

ADSL/Cable Modem users Plug the RJ-45 Ethernet corssing-over cable into the
RJ-45 Ethernet Jack. Plug the other end of the cable into an ADSL/Cable modem router
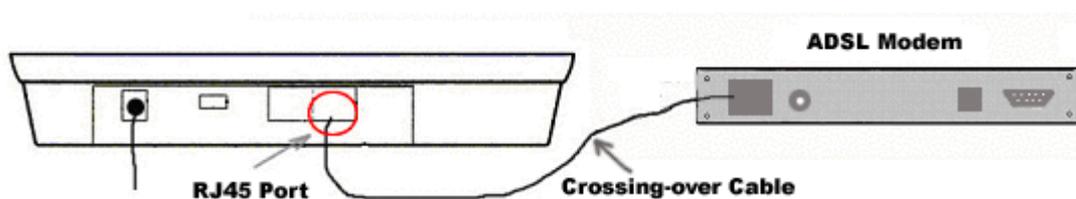port.see Figure 6.

Figure 6   Phone connected to ADSL/Cable Modem

4, Start Phone

Turn on the phone by pulling the switch to ON. Verify that yellow ,green and red
lights are on together, and then red light is off; green light blinks or is off ;
yellow light blinks or is on.which behalf the success of starting phone and phone
enter into normal standby.

5, Talk

Pick up the handset or press " SPK" key , the dialed tone indicates that the phone
starts successfully and is ready for call.

Setting Phone

Before you set the phone, please pick up handset or press " SPK" key ,
and then input the password of the phone. Verify that yellow light blinks
once a second. It indicates that the phone access " Setting mode" .
/*Note Default password of YWH100A/B/C/D phone is 1234.*/
Three different ways can be used to configure YWH100 A/B/C/D IP
phone: phone keypad set; web browser set on PC and Telnet commands
set on PC.

1, Phone Keypad set

(1)Entering into setting mode

When phone is powered and normal , `Ready For Calls IP PHONE V1.1X` will appear in the LCD. According to steps below to enter into setting mode: Input phone password in the keypad(the original password is 1234),press " #" until `Passward ■` appear in the LCD. Input password again , press " Spk/Hand free" to acknowledge. At this time ,phone enter into setting mode.
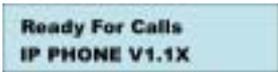
(2)Introduce of the function of keypad in the setting mode

Press key	Function
Spk /Hand free	Enter into submenu of the current menu ;Acknowledge to modification
Volume/+	Scroll menu forward
Volume/-	Scroll menu backward
Local IP	Enter into modification status
Redial	Cancel current setting ; restore to its father catalogue
Back Space	Backspace during the setting
Number keypad	Input updating content according to require. Please see appendix for character represented by each key

(3)Introduce setting menu

For the convenience during setting ,we partition the necessary parameters into eight class as the first-level menu. Each first-level menu includes several submenu called second-menu. The following chart lists the setting range and function of every first-level menu.

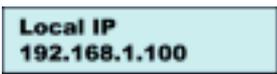| First-level menu	Function
TCPIP Settings	Set net protocol and parameters. For example whether use PPPoE DHCP or not and so on.
H323 Settings	Set each H323 parameters ,for instance Gateway(Service) Proxy and port mapping etc.
Phone Settings	Set various phone parameters, for example: phone number dial plan prepaid card and so on.
Speed Dial Settings	Set speed dial.
Adanced Settings	Set each high grade parameters ,for instance: phone password using protocol Mac address etc.
Default Settings	Restore original default setting.
Save Settings	Save modification and exit setting mode.
Exit Settings	Exit setting mode without save.

(4)Setting examples

Example 1　Modify phone IP address 192.168.1.100 to　192.168.1.145.

Make phone entering into setting mode

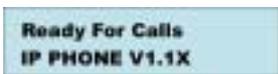When `TCPIP Settings` appear in the phone LCD, press Spk key to enter into TCP/IP setting submenu

Press Volume + key twice continuously to scroll menu backwards till `Local IP 192.168.1.100` appear in the phone LCD. Press Local IP key to enter into modification status, then a flash cursor `Local IP ■` will appear in the second line of phone LCD.
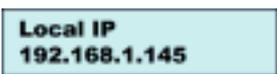
Press 192*168*1*145 in turn in the keypad and input new phone IP address. Press Spk key to acknowledge input and then the cursor disappear in the phone LCD.

Press Redial key three times continuously till `Save Settings` appear in the phone LCD and press Spk key .Phone will restart automatically, `Updating... Please Waite` will appear in the phone LCD. When `Ready For Calls IP PHONE V1.1X` appear again in the phone LCD, it means success of phone restart .

Look-over if the setting have make effect: Press Local IP ,if `Local IP 192.168.1.145` appear in the phone LCD and at the same time there are relevant volume promption, it amounts to success of setting.

Take reference on the operation steps above to modify phone Subnet Mask RouteIP　DNS IP　 Upgrade IP 　Service IP and Proxy IP and so on.

Example 2　PPPoE Setting of phone

Make phone entering into setting mode.

When `TCPIP Settings` appear in the phone LCD, press Spk key to enter into TCP/IP setting submenu.
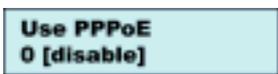
When `Use PPPoE 0 [disable]` appear in the phone LCD ,press Local IP key to enter into modification status.

Press " 1" key and Spk key in the keypad , The **Use PPPoE / 1 [enable]** will appear in phone LCD.

Press Volume+ key for setting PPP ID .When **PPP ID** appear in phone LCD, press Local IP key. Input ADSL user name in the keypad after cursor appear. Take test1 for example : First press " #" key and then press " 8" key twice continuously," 3" key three times," 7" key five times," 8" key twice and " 1" key once. Finally press Spk to acknowledge.

Press Volume+ key for setting PPP ID .When **PPP PIN** appear in phone LCD, press Local IP key. Input ADSL user name in the keypad after cursor appear. Take test1 for example : First press " #" key and then press " 8" key twice continuously," 3" key three times," 7" key five times," 8" key twice and " 1" key once. Finally press Spk to acknowledge.

Press Redial key three times continuously till **Save Settings** appear in the phone LCD and press Spk key .Phone will restart automatically, **Updating... Please Waite** will appear in the phone LCD. When **Ready For Calls IP PHONE V1.1X** appear again in the phone LCD, it means success of phone restart .

Take reference on step 3 4 above and enable/disable other phone relevant paramentspf. Take reference on step 5 6 7 8 above and modify other phone relevant paraments.

Example 3 Set using prepaid card of phone

Make phone entering into setting mode.

Press Volume+ key twice continuously, when **Phone Settings** appear in the phone LCD, press Spk key to enter into this setting.

Press Volume+ key five times continuously, when **Calling Card 0 [disable]** appear in the phone LCD, press Local IP key to enter into modification status.

Press " 3" key and Spk key in the keypad , **Calling Card 3 [Freecall]** appear in the

phone LCD and enter into the following step.

   Press Volume+ key twice to enter into Pin setting page. When

PIN

   appear in the phone LCD, press Local IP key and input eTalk
card password .For instance : 427113794357 press Spk to acknowledge .

   Press Redial key five times continuously till Save Settings appear in
   the phone LCD and press Spk key .Phone will restart automatically,

Updating...
Please Waite   will appear in the phone LCD. When Ready For Calls IP PHONE V1.1X

   appear again in the phone LCD, it means success of phone restart.

   Take reference on step 3 4 above and set other phone relevant parameters which
have many selections. For example CDR Protocol Language Remote Type and so on.

(5)Hide menu

   Some selection items of YWH 100 have hidden menu. Namely when it be set to enable
or disable, it's hidden menu will appear. More details see below:

   When setting " Use PPPoE" item to disable, the PPP ID and PPP PIN submenu will
be hidden .On the contrary, they will appear When setting " Use PPPoE" item to
enable.

   When setting " Use DHCP" item to enable , Local IP Subnet Mask Router IP
and Dns IP submenu will be hidden. Otherwise, they will appear.

   When setting " Use Service" item to enable, Voice Gateway IP submenu will be
hidden, but Service IP submenu will appear. While Voice Gateway IP submenu will
appear and Service IP submenu will be hidden when setting " User Service" to
disable.

   When setting " Use Proxy" to disable search2 search3 or search4 the Proxy
submenu will be hidden .But when it is set to enable or connect, Proxy submenu will
appear

   When setting " Dial Plan" to disable , Country Code IDD Prefix Area Code and
   DDD Prefix submenu will be hidden. Otherwise they will appear.

   When Setting " Use CDR" to disable, CDR IP submenu will be hidden. While the CDR
   IP submenu will appear when you set " Use CDR" to enable

(6)Appendix

   The following chart indicate the digital   letter and mark according to the times
the corresponding character key is pressed in the setting mode.

Press key	Press once	Press twice continuously	Press three times continuously	Press four times continuously	Press five times continuously
1	1	.	,	?	
2	2	A/a	B/b	C/c	
3	3	D/d	E/e	F/f	
4	4	G/g	H/h	I/I	
5	5	J/j	K/k	L/l	
6	6	M/m	N/n	O/o	
7	7	P/p	Q/q	R/r	S/s
8	8	T/t	U/u	V/v	
9	9	W/w	X/x	Y/y	Z/z
0	0	space	:	;	'
*					
#	Switch between Uppercase and Lowercase				

　　To make the phone work well, we advice you to restart the phone manually after the configuration.

(7)Initialized configuration of YWH100A/B/C/D IP phone

　　　Use the keypad to enter password of the phone and then press "　　"key . Until yellow light is on and green light blinks once a second, it indicates that the phone accesses "Safe mode". With the phone in safe mode, press"#" "5" "*" "5" orderly on the keypad. Once the phone restarts successfully, the configuration will recover to the default.

　/*Note　The default IP address of YWH100A/B/C/D is 192.168.1.100 while the default password is 1234*/

　　　If the password is lost, please turn on the phone twice with the "　　"key pressed. After the second successful restart, the entire configuration will recover to the default set, including the MAC address will recover to 00 09 45 00 00 00. Then please set the MAC address as follows:
a) On the phone keypad, press "local IP" to get the IP address. We take 192.168.1.100 as an example.
b) Use keypad to enter default password of the phone, then press "　　"key until yellow light begins blinking.
c) On a PC which is at the same segment with the phone, set the phone by Telnet commands:
1. Turn on the PC, choose "Start>Run"
2. In pop uping Run dialog, type "Telnet 192.168.1.100" into Run field.
3. In following DOS command window, input default password (1234)

of the phone.

4. Type following commands to reset the phone

p:\> set mac XX-XX-XX-XX-XX-XX (Please change the 18-bit
algorism digital printed on the back of the base into 12-bit hex
digital.) Return

p:\> set dhcp 0 (disable DHCP)

p:\> set ip 192.168.1.223 (To avoid one IP address corresponds

p:\>write Return

Once the phone restarts successfully, the set is effective.

2, IE Browser Configure

Get through the power by connecting the accessory power adapter with the power jack and insert the output of the adapter into the power adapter port of YWH 100. When there is Hub or Switch ,you can connect PC for setting phone and " Net RJ-45 port" on the phone into Hub or Switch through direct-connecting cable respective. Otherwise you can connect PC for setting with " PC RJ-45" in the phone by the crossing-over cable.

Ensure PC and phone in the same net address segment, otherwise change phone local IP address or PC IP address to make sure they are in the same segment.

Press   Local IP to know your local IP address, for example 192.168.0.100,then input it into the address bar of IE web browser. Press " Enter" key, Figure 7 will appear(Note: YWH100 can be applicable to 10M/100M Net Switch):

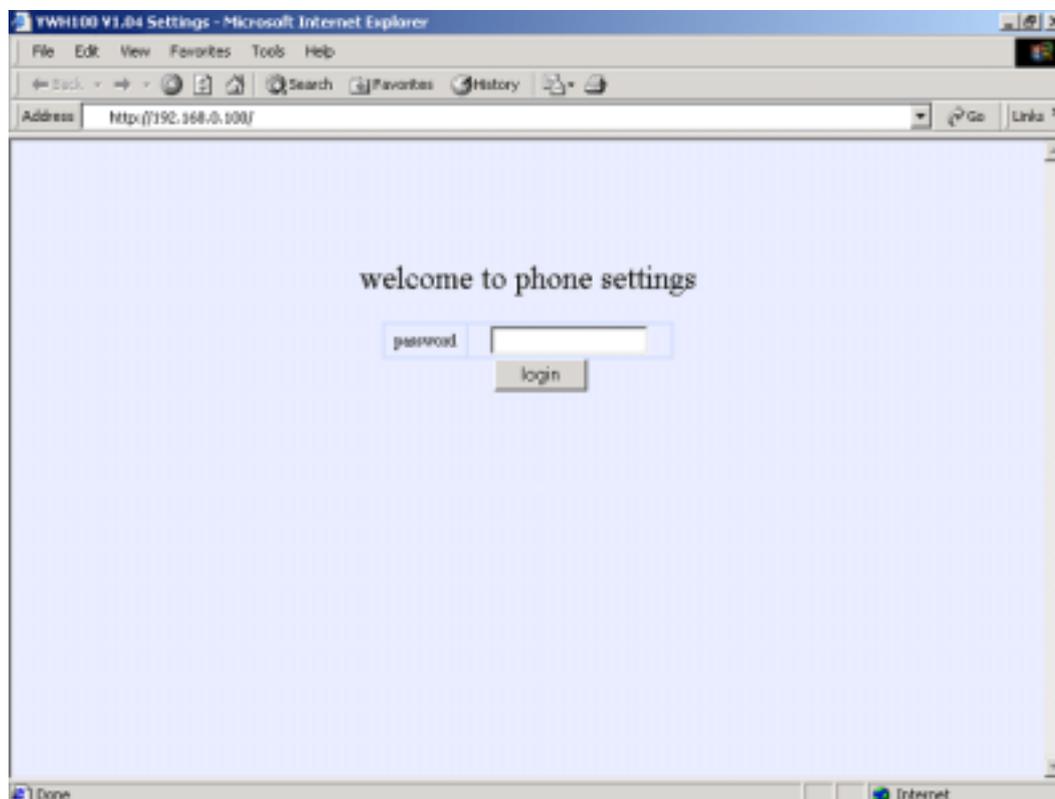Figure 7 Page of log on phone

Input " 1234" in the " password" column, then click login, it will

appear figure 8.

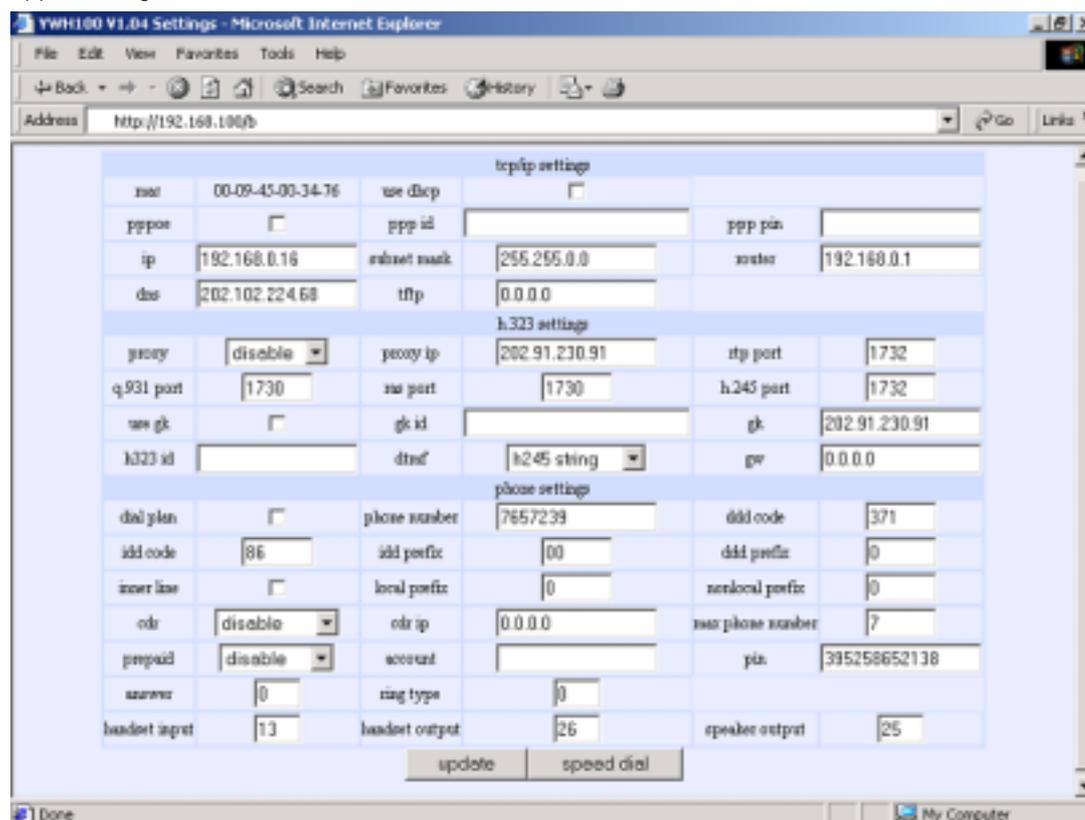Figure 8 http setting page of phone

the setting of this interface including 4 parts: TCP/IP setting H323 setting phone setting and speed dial setting.

(1)TCP/IP setting

If network support DCHP mode, the only thing you can do is selecting " use dhcp" and the other settings are no need doing;

Otherwise you will have to set local IP address subnet mask route IP address in the relevant " ip address" " subnet mask" " Route IP address" column ,it is enough for TCP/IP setting.

MAC: MAC address is the physical address supplied by the Ethernet NIC. YWH100A/B/C/D phone is shipped from the factory with a unique algorism MAC address printed on the back of the base.

Use DHCP: With this system, your LAN or router automatically assigns all the required IP parameters to any device connected to it when the device log on. YWH100A/B/C/D IP phone is shipped from the factory with DHCP on. So, if your LAN or router is configured to use DHCP addressing, the IP phone' s LAN parameters will automatically be configured as soon as it is connected to the LAN or router and powered up. Select the check box of DHCP to enable DHCP; deselect the check box of DHCP to disable DHCP.

Use PPPoE: PPPoE is a protocol especially designed for those ADSL and Cable Modem users. With this system, ADSL ISP automatically assigns all the required IP parameters to any device connected to it

when the device log on. Select the check box of PPPoE to enable
PPPOE dial-up; deselect the check box of PPPoE to disable PPPOE
dial-up. For those Modem dialing users, please check the box here to
active the PPP id and PPP pin to set the username and password of
dialing up. Then please uncheck the box, or the phone will log in to the
PPPoE server after restart.

Local IP: Enter IP address of the phone. With PPPOE or DHCP
selected, this parameter is assigned auto and need not to be set manually.

Subnet Mask: Enter subnet mask of the phone. With PPPOE or DHCP selected,
this parameter is assigned auto and need not to be set manually.

Router IP: Enter router address of the phone. With PPPOE or DHCP
selected, this parameter is assigned auto and need not to be set manually.

PPP ID (first 24B): For ADSL and Cable Modem users enter the ADSL
user name; for Modem dialing users, enter corresponding user name here. The word
input here is no more than 23 characters.

PPP ID (last 24B): If the username in above field is more than 23
characters, please input last 24 characters here.

PPP pin: For ADSL and Cable Modem users, enter the ADSL password;
for Modem dialing users, enter corresponding password.

Dns: Enter DNS address of the phone. If you do not know dns IP
address, just leave it be blank.

Tftp: Enter IP address of TFTP server supplying updated program. Ask
ISP to get the IP address.

(2)H323 setting

If you want to log on Gatekeeper, please select " use gatekeeper" and set
Gatekeeper IP address in the " Gatekeeper IP address" column. when you need ID
to log on Gatekeeper, please set gatekeeper ID in the " Gatekeeper ID " column,
otherwise these selections can be cancelled;

When you log on Gatekeeper with proxy server ,you should select " Enable"
in the " proxy" column and set proxy sever IP address in the " proxy sever IP
address" column, at the same time set relevant port value in the " Q.931 port"
" RAS port"   " RTP port"   " H.245 port" columns and so on. (Note: these port
value mustn' t be the same with one proxy server).But when you log on GK without
proxy server ,these value will be fault ,you needn' t to make change;

If call PSTN telephone by voice gateway, it is enough to set voice gateway
IP address in the " voice IP address" column .otherwise ,leave it alone;

You can select different mode in the " DTMF sending mode" column
H.323 settings

Proxy: If those who using private IP address in LAN want to use the
phone over Internet, please set the build-in proxy.

Disable: Disable build in proxy

Enable: Enable build in proxy and designate the static proxy IP

address manually.

Citron: Use Gun GK without port mapping.

Auvtech: Use Auvtech GK without port mapping.

Search: Enable build in proxy and use dynamic proxy by searching level 4 route auto.

Connect: If you are ADSL user or can not find the dynamic proxy by selecting Search please select this option, then assistant server will help you to search a dynamic proxy.

Proxy IP address: With Enable selected in proxy dropdown list, please type a known static proxy IP address in this field.

With Citron, Auvtech, Search and Connect selected in proxy dropdown list, please type 0.0.0.0 in this field.

With Connect selected in proxy dropdown list, please type 67.120.192.137 in this field.

Use H.235: Enable/disable H235 encryption. If the GK does not support it, please deselect it.

use gk: The gatekeeper used to translate the IP address/E.164 number into E.164 number/IP address is the focal point of the H.323 multimedia network.

gk id: Enter the gatekeeper id. (Required by some system)

gk IP: Enter the IP address of Gatekeeper.

/*Note :Now we supplying following test GK:

With **Connect** selected in proxy and correct port mapping, please use 67.120.192.138 here; with **Citron** selected in proxy, please use 203.93.9.57 here. */

Rtp port: Enter an even number between 1024 and 65535 into this field to designate the RTP port of H.323 protocol.

q.931port: Enter an even number between 1024 and 65535 into this field to designate the Q.931 port of H.323 protocol.

ras port: Enter an even number between 1024 and 65535 into this field to designate the RAS port of H.323 protocol.

h.245 port: Enter an even number between 1024 and 65535 into this field to designate the H.245 port of H.323 protocol.

/*Note:When more than YWH100A/B/C/D phones are used in the same LAN, each phone should get a unique port number.*/

service port: Set the monitor port of service. With GK selected, this item refers to the monitor port of GK (purpose port of RAS message sent by IP phone), and usually it is set as 1719; with GK deselected, this item refers to the monitor port of IP phone terminal or Gateway (purpose port of H.255 message sent by IP phone), and it is usually set as 1720; With Net2phone selected, please set it as 6801.

service dns: Set domain name of service provider. Some providers only supply a domain name as service address, and this item is used to set the supplied domain name. With GK selected, this item refers to the

corresponding domain name of GK IP; with GK deselected, this item refers to the corresponding domain name of GW IP. It is no more than 48 characters.

local alias: Refers to how the caller login the GK.

Phone number   Use phone number as E.164 and H323 ID to login the GK.

Full number   Use phone number with dial rule as E.164 and H323 ID to login the GK.

H323 ID   Use phone number as E.164 and designated H323 ID as H323 ID to login GK.

Mac: Use phone number as E.164 and designated MAC address as H323 ID to login GK.

Remote alias: It refers to by which way the caller query the GK the callee's information. At beginning of each call, the caller sends ARQ information to GK to query the callee's information, such as IP. Due to the callee login the GK in different way: H323 ID or E.164, so the ARQ information sent by caller should designate by which way (H323 ID or E.164) the callee login the GK.

H323 ID   Regard called number as H323 ID to query GK.

E.164   Regard called number as E.164 number to query GK.

Fast start: Set fast start of the phone during the call. The available options are Not use, Use and Tunneling. The default one is Tunneling.

h323 id: Set H323 ID of YWH100A/B/C/D phone. The phone number will be regarded as default H323 ID if this field remains blank.

dtmf: Set DTMF signal sending way by selecting H245 String; H245 Signal; Q931 Keypad or RFC2833 from dropdown list. Usually the default set -- H245 String works well and need not choose other ways.

GW IP: Type Gateway IP address of YWH100A/B/C/D IP phone without setting Gatekeeper. With Gatekeeper set, fill 0.0.0.0 into this field.

(3)Call settings

dial plan: Set dial rule to simplified the dial operation.

Disable: Not use dial plan.

Enable CAL: Use country code, area code and long distance prefix.

Enable AL: Use area code and long distance prefix.

Enable L: Use long distance prefix.

Use Dial Num: Enable dial number.

Dial number: With Modem dialing used, set the service number of ISP (such as 163,169); with Gateway used, set the prefix of dialed number such as 179XX. It is no more than 16 characters.

phone number: Enter an Arabic numerals no longer than 16 bits to set number of the phone.

ddd code: Input the area code according to E.164 rules. For example, area code of Beijing is 10; area code of Shanghai is 21.

idd code: Input the country code according to E.164 rules. For example,

country code of China is 86; country code of USA is 1.

idd prefix: Input the prefix of international call according to E.164 rules. For example, prefix in China is 00.

ddd prefix: Input the prefix of national long distance according to E.164 rules. For example, prefix in China is 0.

inner line: Enable/disable multi-settings function. 5 sets of parameters named current settings, backup settings 1, backup settings 2, backup settings 3 and backup settings 4 can be saved in an IP phone. Usually the phone uses current settings to call out. With inner line selected, the user can use backup settings 1 and backup settings 2 by dialing the number designated in local prefix and nonlocal prefix. Then the phone switches between multi-settings without changing the settings. To enable multi-settings, please check the box following inner line, then local prefix and nonlocal prefix are effective; to disable multi-settings, please uncheck inner line, then local prefix and nonlocal prefix are ineffective. To change and save setting, please use PalmTool or Telnet. Refer to the relevant chapters and documents to get detail operation.

local prefix: Enter a 1 or 2 bit Arabic numeral to set the prefix switching to backup settings 1. For example, you set 0 here, and then when you dial 0 after taking up the speaker, the phone will call out using backup settings 1.

nonlocal prefix: Enter a 1 or 2 bit Arabic numeral to set the prefix switching to backup settings 2. For example, you set 1 here, and then when you dial 1 after taking up the speaker, the phone will call out using backup settings 2.

/*Note: With prepaid card set, the prefix switching to long distance call is used to switch to ITSP prepaid card for ITSP can not distinguish local call and long distance call.*/

Phone number: Enter Arabic numerals to set the phone number.

cdr: Enable/disable output Call Detail Record.

No CDR: Disable output CDR.

Output: Output the CDR record to designated PC.

DDA: Output CDR by DDA (It is a system designed for a special customer and not a current one)

cdr ip: Enter the IP address of CDR server

calling card: Enable/ disable call ordinary phone:

Not use: Disable using prepaid card.

Mediaring: Use Mediaring to call ordinary worldwide.

eTalk: Use etalk card to call ordinary phone worldwide.

Polylink: Use Polylink service.

Net2phone: Use Net2phone card to call ordinary phone worldwide.

iTalk: Use iTalk card to call ordinary phone worldwide. Especially used in China.

Card account: While the prepaid card being set, please type the

account of chosen card into this field. With Use H235 selected, enter ID here.

Card pin: While the prepaid card being set, please type the password of chosen card into this field. With Use H235 selected, enter password.

answer: Enter a number between 0 and 9 to set the entries of the rings before the phone answer the call auto. To disable auto answer function, please set the parameter as 0. Default set is 2.

Ring type: Set the type of rings.

DTMF　Use default ring type (standard rings).

PCM　Use the music saved in phone as ring.

Use digitmap: Enable/disable digitmap by checking/unchecking the box.

Predial time: Set time limit from picking up the speaker to dialing the first the number. If the first number is not dialed within the predial time limit, then you will hear the busy tone. It does not allow you to continue dialing, please put down and pick up the speaker again to redial.

Interdial time: Set time limit between dialing two numbers. If the next number is not dialed within the inter dial time limit, then the phone will call the dialed number auto.

Postdial time: Set time limit from dialing the last number to placing a call. If the next number is not dialed within the post dial time limit, then the phone will call the dialed number auto.

(4)Audio settings

Audio frames: Set audio frames in RTP package.

Audio type: Set audio type of the phone. The default options are G.711U　G.711A　G.723.1　G.729　G.729A,G.729B and G.729AB

G.7231.1 high rate: Enable/disable G.723.1 high rate.

VAD: Enable/disable VAD (voice activity detection).

AGC: Enable/disable AGC.

AEC: Enable/disable VEC.

Handset in: Enter a number between 0 and 15 to set handset input volume.

Handset out: Enter a number ranged from 0 to 15 to set handset output volume.

Handset tone: Enter a number between 0 and 15 to set handset tone volume.

Speaker in: Enter a number between 0 and 15 to set speaker input volume.

Speaker out: Enter a number ranged from 0 to 31 to set speaker output volume.

Speaker tone: Enter a number between 0 and 15 to set speaker tone volume.

(5)Phone setting

The range of "ring times" is from 0 to 9 . 0 means the phone won't stop ringing to answer automatically, while 1-9 mean the phone will answer automatically after phone ring relevant times according to the value you set in the "ring times" item;

The range of " headset volume " is 1-15, the transmitter is 1-31 and the speaker is 1-31;

You must set local number in the "local number" column when you use Gatekeeper mode;

Select o in " the volume of ring" . " cdr" and " use prepaid card" should be set " disable" , it is no need to set others.

(6)Speed dial setting

Click " speed quick dial" with mouse, the following interface will appear
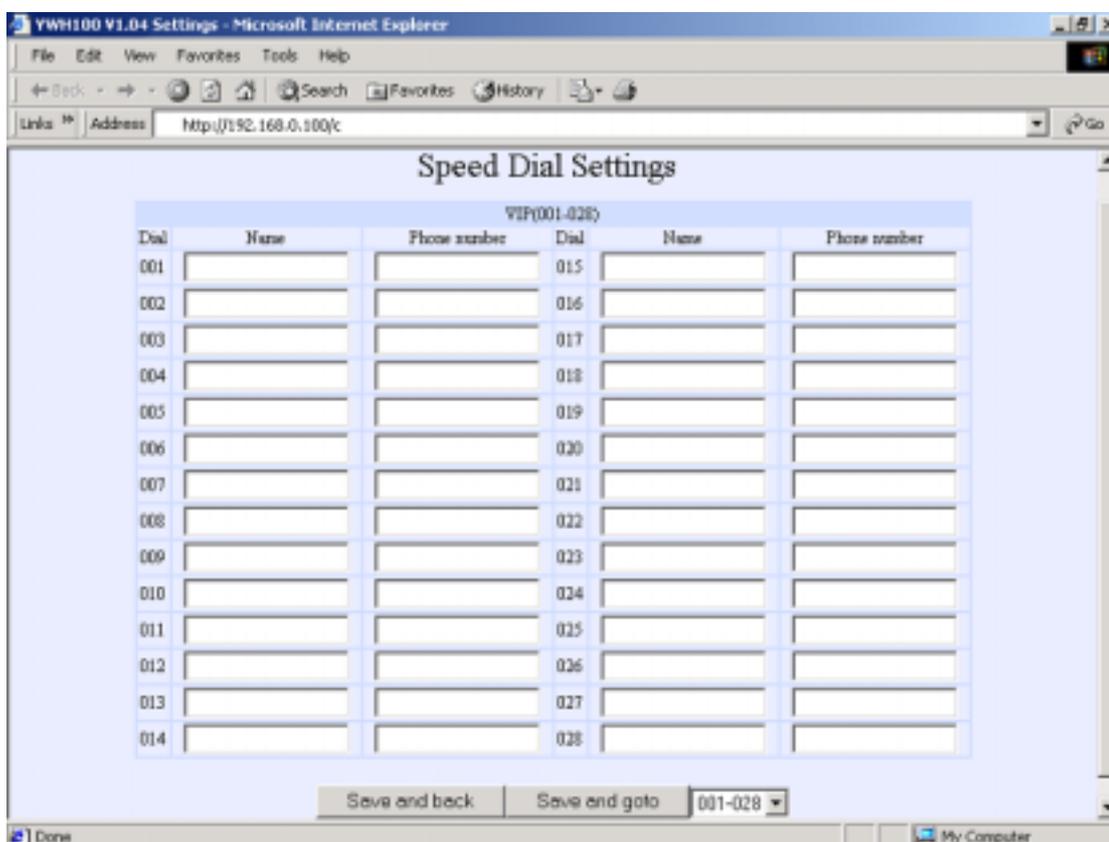

Figure 9 Speed dial setting

You can input and store 28 phone numbers in this page. Input name in the " name" column (note: The YWH100 doesn't support Chinese display, so the " name" column must be input in English or Chinese pinyin or Arab number). Input phone number or IP address in the phone number bar(using " *" replace " ."). Click " 001-028" bar to input more phone numbers after having input 28 phone numbers. YWH100 can support 112 phone number .It will restore to figure 8 when you click " save/return" item after you finish this setting.

(7)Other settings

Debug: Set the debug level of the phone.

No Trace: Disable output the bug message.

Trace Information: Output the operation information to the window, such as register, input.

Trace All Data: Output the bug information and data in test window.

Remote Debug: Save the bug information as txt files.

Disable Product ID: Disable checks the mark.

Enable PalmTool: It will protect connect updating of PalmTool when defining " #define PROTECT_PALMTOOL". If Users want to connect PalmTool to update program, they must check the item of " Enable PalmTool". About the protecting of PalmTool, to refer to PA1688 IPPhone Develop guide chapter 3.5.

Firmware: Enter an Arabic numeral ranged from 0 to 99 to set the sub version of the phone of the same style.

Network retry: Set time to reconnect to the server (accounted at seconds). With PPPoE or DHCP is enabled, once the phone detect the disconnection to the server (such as caused by loosen of cable), it will give a disconnection message. If 0 is input here, the phone will not connect to the server until the user deals with the problem; if a number between 1to 255 is input here, the phone will connect to the DHCP or PPPoE server after the designated time.

Update: Click this button to save the configuration and restart the phone. Once the phone restarts successfully, the new configuration is effective.

/* be careful : when it shows " Updating…" in the phone, please keep supplying power. otherwise it will lead to the matter of phone ,as a result it can't work*/

3, Configured by PalmTool

PalmTool is a tool designed especially to configure and upgrade the YWH100 IP phone. You can visit http://www.yntx.com to download the latest version of PalmTool. Then please unzip the downloaded file and save them.

a) On a PC connecting with the phone or at the same segment of the phone, double click icon to open the PalmTool. The index page of PalmTool will pop-up, please refer Figure 10.
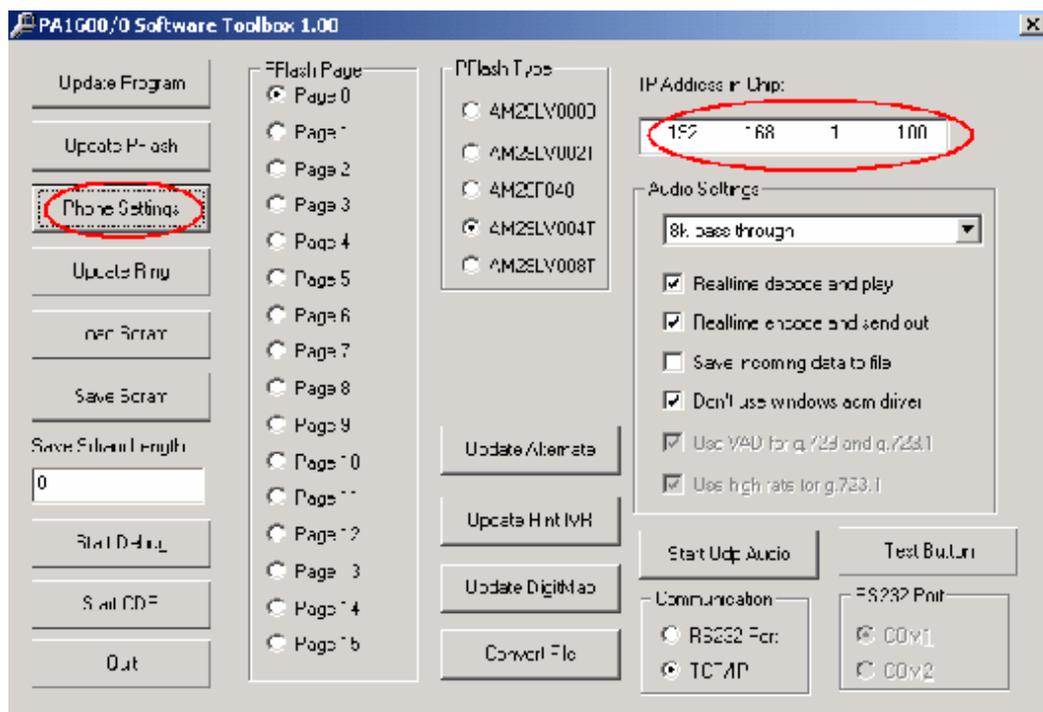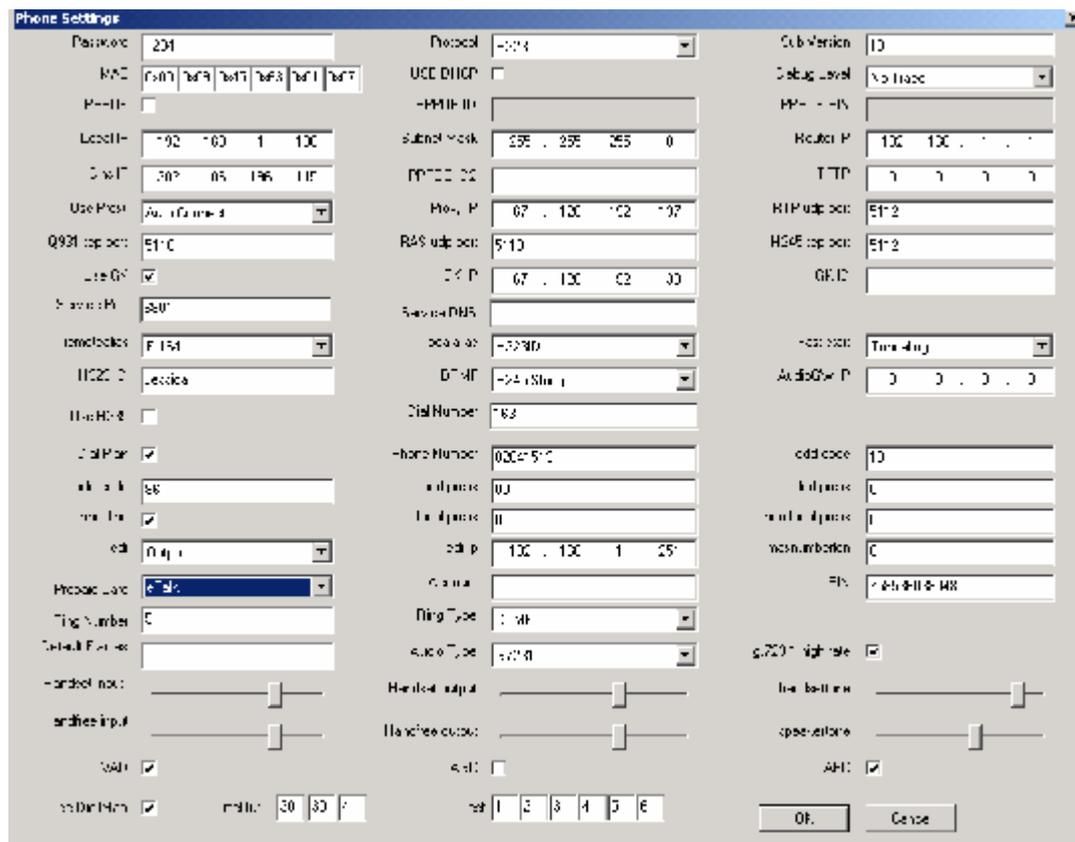
Figure 10   PalmTool Page

Figure 11   Phone Settings Page

b) Input the IP address of the phone into Local IP field (such as
192.168.1.100), and then click "Phone Settings" button. The phone

settings page will be displayed. Refer to Figure 11 please.

Password: Set the password of the phone. (Default password is 1234)

Protocol: Select the communication protocol of the phone. The default protocol is H323.

Sub Version: Enter an Arabic numeral ranged from 0 to 99 to set the sub version of the phone of the same style.

MAC: MAC address is the physical address supplied by the Ethernet NIC. YWH100A/B/C/D phone is shipped from the factory with a unique algorism MAC address printed on the back of the base.

USE DHCP: With this system, your LAN or router automatically assigns all the required IP parameters to any device connected to it when the device log on. YWH100A/B/C/D IP phone is shipped from the factory with DHCP on. So, if the LAN or router is configured to use DHCP addressing, the IP phone's LAN parameters will automatically be configured as soon as it is connected to the LAN or router and powered up. Select the check box of DHCP to enable DHCP; deselect the check box of DHCP to disable DHCP.

Debug Level: Set the debug level of the phone.

No Trace: Disable output the bug message.

Trace Information: Output the operation information to the window, such as register, input.

Trace All Data: Output the bug information and data in test window.

Remote Debug: Save the bug information as txt files.

No Check: Disable checks the mark.

Enable PalmTool: It will protect connect updating of PalmTool when defining " #define PROTECT_PALMTOOL" . If Users want to connect PalmTool to update program, they must check the item of " Enable PalmTool" . About the protecting of PalmTool, to refer to PA1688 IPPhone Develop guide chapter 3.5.

PPPOE: PPPoE is a protocol especially designed for those ADSL and Cable Modem users. With this system, ADSL ISP automatically assigns all the required IP parameters to any device connected to it when the device log on. Select the check box of PPPoE to enable PPPOE dial-up; deselect the check box of PPPoE to disable PPPOE dial-up. For Modem dialing users, please check box to active PPPOE ID and PPPOE PIN to set the corresponding username and password. Then please uncheck it, or the phone will login the PPPOE server auto after restart.

PPPOE ID: For ADSL and Cable Modem users, enter the ADSL user name; for Modem dialing users, enter corresponding username here.

PPPOE ID 2: If the user name filled into PPPOE ID is more than 23 characters, please input the rest characters into this field.

PPPOE PIN: For ADSL and Cable Modem users, enter the ADSL password; for Modem dialing users, enter corresponding password here.

Local IP: Enter IP address of the phone. With PPPOE or DHCP selected,

this parameter is assigned auto and need not to be set manually.

Subnet Mask: Enter subnet mask of the phone. With PPPOE or DHCP selected, this parameter is assigned auto and need not to be set manually.

Router IP: Enter router address of the phone. With PPPOE or DHCP selected, this parameter is assigned auto and need not to be set manually.

Dns IP: Enter DNS address of the phone. If you do not know dns IP address, just leave it be blank.

TFTP: Enter IP address of TFTP server supplying updated program. Ask ISP to get the IP address.

Use Proxy: If those who using private IP address in LAN want to use the phone over Internet, please set the build-in proxy.

Disable: Disable build in proxy

Enable: Enable build in proxy and designate the static proxy IP address manually.

Citron: Use Gun GK without port mapping.

Auvtech: Use Auvtech GK without port mapping.

Search: Enable build in proxy and use dynamic proxy by searching level 4 route auto.

Connect: If you are ADSL user or can not find the dynamic proxy by selecting Search please select this option, then assistant server will help you to search a dynamic proxy.

Proxy IP address: With Enable selected in proxy dropdown list, please type a known static proxy IP address in this field.

With Citron, Auvtech, Search and Connect selected in proxy dropdown list, please type 0.0.0.0 in this field.

With Connect selected in proxy dropdown list, please type 67.120.192.137 in this field.

RTP udp port: Enter an even number between 1024 and 65535 into this field to designate the PTP port of H.323 protocol.

Q931 tcp port: Enter an even number between 1024 and 65535 into this field to designate the Q.931 port of H.323 protocol.

RAS udp port: Enter an even number between 1024 and 65535 into this field to designate the RAS port of H.323 protocol.

H245 tcp port: Enter an even number between 1024 and 65535 into this field to designate the H.245 port of H.323 protocol.

/*Note When more than YWH100A/B/C/D phones are used in the same LAN, each phone should get a unique port number.*/

Use GK: The gatekeeper used to translate the IP address/E.164 number into E.164 number/IP address is the focal point of the H.323 multimedia network.

GK IP: Enter the IP address of Gatekeeper.

/*Note Now we supplying following test GK:

With Connect selected in proxy and correct port mapping, please use 67.120.192.138 here; with Citron selected in proxy, please use 203.93.9.57

here.*/

   GK ID: Enter the gatekeeper id. (Required by some system)

   Service Port: Set the monitor port of service. With GK selected, this item refers to the monitor port of GK (purpose port of RAS message sent by IP phone), and usually it is set as 1719; with GK deselected, this item refers to the monitor port of IP phone terminal or Gateway (purpose port of H.255 message sent by IP phone), and it is usually set as 1720; With Net2phone selected, please set it as 6801.

   Service DNS: Set domain name of service provider. Some providers only supply a domain name as service address, and this item is used to set the supplied domain name. With GK selected, this item refers to the corresponding domain name of GK IP; with GK deselected, this item refers to the corresponding domain name of GW IP. It is no more than 48 characters.

   Netretry: Set time to reconnect to the server (accounted at seconds). With PPPoE or DHCP is enabled, once the phone detect the disconnection to the server (such as caused by loosen of cable), it will give a disconnection message. If 0 is input here, the phone will not connect to the server until the user deals with the problem; if a number between 1to 255 is input here, the phone will connect to the DHCP or PPPoE server after the designated time.

   Remotealias: It refers to by which way the caller query the GK the callee's information. At beginning of each call, the caller sends ARQ information to GK to query the callee's information, such as IP. Due to the callee login the GK in different way: H323 ID or E.164, so the ARQ information sent by caller should designate by which way (H323 ID or E.164) the callee login the GK.

  H323 ID Regard called number as H323 ID to query GK.

  E.164 Regard called number as E.164 number to query GK.

   Localalias: Refers to how the caller login the GK.

  Phone number Use phone number as E.164 and H323 ID to login the GK.

  Full number Use phone number with dial rule as E.164 and H323 ID to login the GK.

  H323 ID Use phone number as E.164 and designated H323 ID as H323 ID to login GK.

  Mac: Use phone number as E.164 and designated MAC address as H323 ID to login GK.

   Fast start: Set fast start of the phone during the call. The available options are Not use, Use and Tunneling. The default one is Tunneling.

   H323 ID: It is a mode for H323 terminal to register. Every terminal gets its own ID besides phone number, so the GK identifies the login terminal by H323 ID as well as phone number. Gungk and opengk supplies by us allow login without H323 ID. With the requirement by some GK system need H323 ID, please input an ID no more than 16 characters to set H323 ID.

DTMF: Set DTMF signal sending way by selecting H245 String; H245 Signal; Q931 Keypad or RFC2833 from dropdown list. Usually the default set -- H245 String works well and need not choose other ways.

AudioGW IP: Type Gateway IP address of YWH100 IP phone without setting Gatekeeper. With Gatekeeper set, fill 0.0.0.0 into this field.

Use H235: Enable/disable H235 encryption. If the GK does not support it, please deselect it.

Dial Number: With Modem dialing used, set the service number of ISP (such as 163,169); with Gateway used, set the prefix of dialed number such as 179XX. It is no more than 16 characters.

Dial Plan: Set dial rule to simplify the dial operation.

Disable: Not use dial plan.

Enable CAL: Use country code, area code and long distance prefix.

Enable AL: Use area code and long distance prefix.

Enable L: Use long distance prefix.

Use Dial Num: Enable dial number.

Phone Number: Enter an Arabic numerals no longer than 16 bits to set number of the phone.

ddd code: Input the area code according to E.164 rules. For example, area code of Beijing is 10; area code of Shanghai is 21.

idd code: Input the country code according to E.164 rules. For example, country code of China is 86; country code of USA is 1.

idd prefix: Input the prefix of international call according to E.164 rules. For example, prefix in China is 00.

ddd prefix: Input the prefix of national long distance according to E.164 rules. For example, prefix in China is 0.

inner line: Enable/disable multi-settings function. 5 sets of parameters named current settings, backup settings 1, backup settings 2, backup settings 3 and backup settings 4 are allowed to be saved in an IP phone. Usually the phone uses current settings to call out. With inner line selected, the user can use backup settings 1 and backup settings 2 by dialing the number designated in local prefix and nonlocal prefix. Then the phone switches between multi-settings without changing the settings. To enable multi-settings, please check the box following inner line, then local prefix and nonlocal prefix are effective; to disable multi-settings, please uncheck inner line, then local prefix and nonlocal prefix are ineffective. To change and save setting, please use PalmTool or Telnet. Refer to the relevant chapters and documents to get detail operation.

local prefix: Enter a 1 or 2 bit Arabic numeral to set the prefix switching to backup settings 1. For example, you set 0 here, and then when you dial 0 after taking up the speaker, the phone will call out using backup settings 1.

nonlocal prefix: Enter a 1 or 2 bit Arabic numeral to set the prefix switching to backup settings 2. For example, you set 1 here, and then when you dial 1 after taking up the speaker, the phone will call out using backup settings

2.

/*Note With prepaid card set, the prefix switching to long distance call is used to switch to ITSP prepaid card for ITSP can not distinguish local call and long distance call.*/

cdr: Enable/disable output Call Detail Record.

No CDR: Disable output CDR.

Output: Output the CDR record to designated PC.

DDA: Output CDR by DDA (It is a system designed for a special customer and not a current one)

cdr ip: Enter the IP address of CDR server

max phone number: Enter an Arabic numeral to set the length of phone number according to E.164 rules.

prepaid: Enable/ disable call ordinary phone:

Not use: Disable using prepaid card.

Mediaring: Use Mediaring to call ordinary worldwide.

eTalk: Use etalk card to call ordinary phone worldwide.

Polylink: Use Polylink service.

Net2phone: Use Net2phone card to call ordinary phone worldwide.

iTalk: Use iTalk card to call ordinary phone worldwide. Especially used in China.

Account: While the prepaid card being set, please type the account of chosen card into this field. With Use H235 selected, set the ID here.

PIN: While the prepaid card being set, please type the password of chosen card into this field. With Use H235 selected, set the password here.

Ring Number: Enter a number between 0 and 9 to set the entries of the rings before the phone answer the call auto. To disable auto answer function, please set the parameter as 0. Default set is 5.

Ring Type: Set the type of rings.

DTMF Use default ring type (standard rings).

PCM Use the music saved in phone as ring.

Default Frames: Set audio frames in RTP package.

Audio Type: Set audio type of the phone. The default options are G.711U G.711A G.723.1 G.729 G.729A ,G.729B and G.729AB

G.723.1 high rate: Enable/disable G.723.1 high rate.

Handset input: Drag the slider to adjust the volume of handset input. Drag it to the left to reduce the volume; while drag it to the right to increase the volume.

Handset output: Drag the slider to adjust the volume of handset output. Drag it to the left to reduce the volume; while drag it to the right to increase the volume.

Handsettone: Drag the slider to adjust the volume of handset tone. Drag it to the left to reduce the volume; while drag it to the right to increase the volume.

Handfree input: Drag the slider to adjust the volume of handfree input.

Drag it to the left to reduce the volume; while drag it to the right to increase the volume.

Handfree output: Drag the slider to adjust the volume of handfree output. Drag it to the left to reduce the volume; while drag it to the right to increase the volume.

Speakertone: Drag the slider to adjust the volume of speakertone. Drag it to the left to reduce the volume; while drag it to the right to increase the volume.

VAD: Enable/disable VAD (voice activity detection).

AGC: Enable/disable AGC.

AEC: Enable/disable VEC.

Use Digitmap: Enable/disable digitmap by checking/unchecking the box.

Time Out: This parameter includes following three parts:

Predialtime: Set time limit from picking up the speaker to dialing the first the number. If the first number is not dialed within the predial time limit, then you will hear the busy tone. It does not allow you to continue dialing, please put down and pick up the speaker again to redial.

Interdialtime: Set time limit between dialing two numbers. If the next number is not dialed within the inter dial time limit, then the phone will call the dialed number auto.

Postdialtime: Set time limit from dialing the last number to placing a call. If the next number is not dialed within the post dial time limit, then the phone will call the dialed number auto.

OK: Click this button to save the configuration and restart the phone. Once the phone restarts successfully, the new configuration is effective.

Cancel: Click this button to exit the configuration without saving the settings.

4, Telnet Configuration

On the PC connecting with the phone or on the same segment with the phone, choose " Start>Run" , and then type " Telnet 192.168.1.100 " into Run field in pop-uping Run dialog. Or input " Telnet 192.168.1.100" in the DOS window. Then the following information will be displayed.

YWH100A/B/C/D 1.x settings

Password :

Then type the password of YWH100A/B/C/D phone. The prompt indicating the phone is under the setting mode is as follows:

Password : ****

P:\>

Then you can set the YWH100A/B/C/D phone by using the telnet commands.

/*Note The default IP address of YWH100B/C/E is 192.168.1.100 and the default password is 1234 Thrice error password inputting will disconnect the YWH100A/B/C/D.*/

Telnet Commands

YWH100A/B/C/D Telnet Command

Command	Function
?	Supply command name and parameters
get	get Display basic parameters of the YWH100A/B/C/D
set	Set parameters of the YWH100A/B/C/D
store	Save current settings to designated position
load	Load designated settings to current position
exit	Exit from the setting mode without saving the configuration
write	Exit with saving all configurations and restart YWH100A/B/C/D

Telnet Commands Explanation

1, Command ?

Syntax description: No optional parameter

Usage: Type command name and parameters following P:\> . Be used as the keyword to supply keyword and parameters of the relevant commands.

Relevant usage: None

Detailed description:

　　　　List help of all commands

For example:

```
P:\>?
set
get           list settings
store x       store current to xth settings
load x        load xth settings to current
exit
write         save settings
```

2, Command get

Syntax description: No optional parameter of keywords

Usage: Display basic parameter s of the YWH100A/B/C/D

Relevant usage: None

Detailed description:

get   Display basic running parameters of the YWH100A/B/C/D

For example, refer to Fig 12 please

Figure 12   Get commands window of Telnet configuration

3, Command set

Syntax description: Optional keywords are **protocol   password firmware mac dhcp debug   pppoe pppid ppppin ip subnetmask router   dns tftp proxy proxyip rtpport q931port rasport h245port gk gkid gkip servoceport dialnumber h235 servicedns remotealias localalias faststart h323id dtmf gwip dialplan phonenumber dddcode   iddcode   iddprefix   dddprefix   innerline   localprefix nonlocalprefix cdr cdrip maxnumberlen prepaid account pin digitmap predialtime interdialtime postdialtime answer ringtyp audioframes audiotype 6.3k handsetin handsetout handsetton speakerin speakerout speakertone vad agc aec netretry. Except command, parameters should be used following other keywords.**

Usage: Used to configure password and other running parameters of YWH100A/B/C/D by following commands:

set protocol   set password set firmware set mac set dhcp set debug set pppoe set pppid set ppppin set ip set subnetmask set router set dns set tftp set proxy set proxyip set rtpport set q931port

set rasport   set h245port   set gk set gkid set gkip set servoceport
set dialnumber   set h235   set servicedns   set remotealias   set
localalias set faststart set h323id set dtmf set gwip set dialplan
set phonenumber   set dddcode   set iddcode   set iddprefix   set
dddprefix set innerline set localprefix set nonlocalprefix set cdr
set cdrip set maxnumberlen set prepaid set account set pin set
digitmap set predialtime set interdialtime set postdialtime set answer
set ringtype set audioframes set audiotype set 6.3k set handsetin
set handsetout set handsettone set speakerin set speakerout set
speakertone set vad set agc set aec set netretry
Detailed description:
  set password XXXX
  Set password of the YWH100A/B/C/D. Parameter xxxxxxx
must be ASCII characters and no longer than 7 characters.
  set protocol X
  Set protocol of the YWH100B/C/E. Parameter X ranged
from 0 to 2:
  0 — H323 protocol;
  1 -- Sip protocol;
  2 -- Mgcp protocol
/*Note Currently, only H.323 protocol is supported, so please set the X as 0.*/
  set firmware X
  Set the sub version of the phone of the same style. X ranged
from 0-99.
  set mac XX-XX-XX-XX-XX-XX
  Set MAC address of the YWH100A/B/C/D. Parameter
xx-xx-xx-xx-xx-xx must be an HEX number.
/*Note The MAC address of shipped YWH100B/C/E is assigned by IETF.
Any change may cause the conflict with other equipment.*/
  set dhcp X
With this system, your LAN or router automatically assigns all the
required IP parameters to any device connected to it when the
device log on. YWH100A/B/C/D IP phone is shipped from
the factory with DHCP on. So, if your LAN or router is configured
to use DHCP addressing, the IP phone's LAN parameters will
automatically be configured as soon as it is connected to the
LAN or router and powered up. Parameter X ranged from 0 to 1:
    1 -- Enable DHCP
    0 — Disable DHCP
  set debug X
  Set open debugging message output grade for special tool. X
ranged from 0 to 4:
    0 -- Close debugging output;
    1-- Output the operation information to the window, such as

register,input;

    2 -- Output the bug information and data in test window;

    3 -- Save the bug information as txt files;

    4 -- Disable checks the mark.

set pppoe X

Enable / disable pppoe dial-up. Parameter X ranged from 0 to 1:

    1 – Enable PPPoE dial-up

    0 – Disable PPPoE dial-up.

set pppid

With PPPoE dial-up used, set ADSL account as PPPoE ID. If you are Modem user, please set the account name here (Now it is invisible, but you can set and change it).

set ppppin

With PPPoE dial-up used, set ADSL password as PPPoE pin. If you are Modem user, please set the password here(Now it is invisible, but you can set and change it).

set ip XXX.XXX.XXX.XXX

Set IP address of YWH100A/B/C/D phone. With DHCP or PPPoE set, this parameter needn' t be set manually.

set subnetmask XXX.XXX.XXX.XXX

Set subnetmask of YWH100A/B/C/D phone. With DHCP or PPPoE set, this parameter needn' t be set manually.

set router XXX.XXX.XXX.XXX

Set router IP address of YWH100A/B/C/D phone. With DHCP or PPPoE set, this parameter needn' t be set manually.

set dns XXX.XXX.XXX.XXX

Set DNS IP address of YWH100B/C/E phone.

set tftp XXX.XXX.XXX.XXX

Set IP address of TFTP server supplying upgraded program of YWH100A/B/C/D phone.

set proxy X

Set build in proxy parameters. X ranged from 0 to 5:

    0 -- Disable build in proxy

    1 -- Enable build in proxy and set static proxy manually.

    2 -- Enable Citron

    3 -- Enable Auvtech

    4 -- Enable build in proxy and search dynamic level 4 router auto

    5 -- Enable build in proxy and use assistant service to seek proxy
      auto

set proxyip XXX.XXX.XXX.XXX

With proxy parameter set as 1, you can designate the static proxy IP address manually by using this command.

With proxy parameter set as 2.3 or 4, please set proxyip as 0.0.0.0, so that the phone will search the dynamic proxy auto.

With proxy parameter set as 5, you can designate the assistant
proxy IP address: 67.120.192.138.
   set rtpport xxxxx
   Set the RTP port number. Parameter xxxxx ranged from 1024 to
65535.
   set q931port xxxxx
   Set the q931port number. Parameter xxxxx ranged from 1024 to
65535.
   set rasport xxxxx
   Set the ras port number. Parameter xxxxx ranged from 1024 to
65535.
   set h245port xxxxx
   Set the h245 port number. Parameter xxxxx ranged from 1024 to
65535.
   /*Note When you set the port, please avoid using the famous port, and RTP port
should be set as an even number.*/
   set gk X
   Enable/disable Gatekeeper. X ranged from 0 to 1:
     0 – Disable gatekeeper
     1-- Enable gatekeeper
   set gkid XX
   Set Gatekeeper ID (required by some system)
   set gkip XXX.XXX.XXX.XXX
   Set IP address of Gatekeeper.
   With gk parameter set as 1, please set gkip as 0.0.0.0, so that
the phone will search the gatekeeper auto.
   set serviceport XXXX
   Set the monitor port of service. With GK selected, this item refers
to the monitor port of GK (purpose port of RAS message sent by
IP phone), and usually it is set as 1719; with GK deselected, this
item refers to the monitor port of IP phone terminal or Gateway
(purpose port of H.255 message sent by IP phone), and it is
usually set as 1720; With Net2phone selected, please set it as
6801.
   set servicedns XXX
   Set domain name of service provider. Some providers only
supply a domain name as service address, and this item is used
to set the supplied domain name. With GK selected, this item
refers to the corresponding domain name of GK IP; with GK
deselected, this item refers to the corresponding domain name of
GW IP. XXX is no more than 48 characters.
   set dialnumber XXX
This item is designed for the narrowband dialup users to set the
service number of ISP (such as 163,169).XXX is no more than

16 characters.
　　set h235 X
According to GK system requirement to set use H235 encryption
or not. X ranged from 0 to 1:
　　　　0 – Do not use H235 encryption;
　　　　1 – Use H235 encryption.
　　set remotealias X
　　Set YWH100A/B/C/D call parameter after logon on. X
ranged form 0 to 1:
　　　　0 – Regard called number as H323ID to log in gatekeeper
　　　　1 – Regard called number as E.164 to log in gatekeeper
　　set localalias X
　　Set how the caller login the GK. X arranged from 0 to 3:
　　　　0 – Use phone number as E.164 and H323 ID to login the GK;
　　　　1 – Use phone number with dial rule as E.164 and H323 ID to
　　　　login the GK;
　　　　2 – Use phone number as E.164 and designated H323 ID as
　　　　　　H323 ID to login GK;
　　　　3 – Use phone number as E.164 and designated MAC address
　　　　as H323 ID to login GK.
/*Note If the X set as 0, 1, 3 and the H323 ID has been set, the designated ID will
be used as the second H323 ID to login.*/
　　set faststart X
　　Enable/disable fast start during the call. Parameter X ranged
from 0 to 2:
　　　　0 – - Disable fast start
　　　　1 -- Enable fast start during the call.
　　　　2 – Enable fast start and use H245 tunneling.
　　We advice you to set X as 2 and do not try to set X as 0 or 1,
unless errors occurs during the call.
　　set h323id XXXXXX
　　Set YWH100A/B/C/D H.323 ID. Parameter xxxxxxx must
be 0-9, ASCII characters and no longer than 16 characters and
case sensitive
　　set dtmf X
Set YWH100A/B/C/D DTMF relay type. Parameter x
ranged form 0 to 3:
　　　　0 -- H245 String;
　　　　1 -- H245 signal;
　　　　2 -- Q931-keypad;
　　　　3 -- RFC2833.
Default set is 0.
　　set gwip XXX.XXX.XXX.XXX
　　Set audio gateway IP address of the YWH100A/B/C/D

which is used for direct call.

   If the IP address has been designated, the phone will use the designated audio gateway to make a call. If the IP is set as 0.0.0.0, the phone will not use audio gateway.

   set digitmap X

Set whether to use digitmap. X ranged from 0 to 1:

   0 - Do not use digitmap;

   1- Use digitmap.

   set predialtime X

   Set time limit from picking up the speaker to dialing the first the number. If the first number is not dialed within the predial time limit, then you will hear the busy tone. It does not allow you to continue dialing, please put down and pick up the speaker again to redial. X ranged from 0-255.

   set interdialtime X

   Set time limit between dialing two numbers. If the next number is not dialed within the inter dial time limit, then the phone will call the dialed number auto. X ranged from 0-255.

   set postdialtime X

   Set time limit from dialing the last number to placing a call. If the next number is not dialed within the post dial time limit, then the phone will call the dialed number auto. X ranged from 0-255.

   set dialplan X

   Enable/disable dial plan. Parameter X ranged from 0 to 4.

   0 - Disable dial plan.

   1 - Enable country code, area code and long distance prefix;

   2 - Enable area code and long distance prefix;

   3 - Enable long distance prefix;

   4 - Use dial number.

   set phonenumber XXXXXXXX

   Set E.164 number of YWH100A/B/C/D phone. Parameter xxxxx must be an Arabic numeral and no longer than 16 characters.

   set dddcode XX

   Set the area code according to E.164 rule. For example, the area code of Beijing is 10; the area code of Shanghai is 21, and the area code of Chengdu is 28, etc. Parameter xxx must be an Arabic numeral and no longer than 3 characters.

   set iddcode XX

   Set the country code according to E.164 rule. For example, the country code of China is 86; the country code of USA is 1, etc. Parameter xxxx must be an Arabic numeral and no longer than 4 characters.

   set iddprefix XXX

Set IDD service prefix number according to E.164 rule. For example, IDD service prefix number of china is 00; IDD service prefix number of USA is 1, etc. Parameter xxx must be an Arabic numeral and no longer than 3 characters.

set dddprefix XX

Set DDD service prefix number according to E.164 rule. For example, DDD service prefix number of china is 0; DDD service prefix number of USA is 1, etc. Parameter xxx must be an Arabic numeral and no longer than 3 characters.

set innerline X

Set whether to use multi-settings function. 5 sets of parameters named current settings, backup settings 1, backup settings 2, backup settings 3 and backup settings 4 can be saved in an IP phone. Usually the phone uses current settings to call out. With inner line selected, the user can use backup settings 1 and backup settings 2 by dialing the number designated in local prefix and nonlocal prefix. Then the phone switches between multi-settings without changing the settings. To enable multi-settings, please check the box following inner line, then local prefix and nonlocal prefix are effective; to disable multi-settings, please uncheck inner line, then local prefix and nonlocal prefix are ineffective. X ranged from 0 to 1:

　　　0 — Do not use inner line;

　　　1 — Use inner line.

set localprefix X

Set the prefix switching to backup settings 1. For example, you set 0 here, and then when you dial 0 after taking up the speaker, the phone will call out using backup settings 1. X is a 1 or 2 bit Arabic numeral.

set nonlocalprefix X

Set the prefix switchin g to backup settings 2. For example, you set 1 here, and then when you dial 1 after taking up the speaker, the phone will call out using backup settings 2. X is a 1 or 2 bit Arabic numeral.

set cdr X

Enable/disable CDR (Call detail record). Parameter x ranged from 0 to 2:

　　0 — Disable CDR;

　　1-- Output the CDR record to designated PC;

　　2 -- Output CDR by DDA (It is a system designed for a special customer and not a current one).

set cdrip XXX.XX.XXX.X

Set IP address of CDR server.

set maxnumberlen X

Set length of local number according to E.164 rule. For example, the length of Beijing number is 8, the length of Shanghai number is 7. Parameter X must be an Arabic numeral between 0 and 9.

set prepaid X

Enable/disable the repaid and choose the repaid server provider. Parameter x ranged from 0 to 5:

   0 – Disable repaid card;

   1—Enable repaid card and use Mediaring;

   2 – Enable repaid card and use eTalk card;

   3 – Use Polylink service;

   4 – Enable repaid card and use Net2phone card (Need download supporting program)

   5 – Enable iTalk card to call ordinary phone worldwide. Especially used in China.

set account XXXXXXXX

Set the ID of chosen repaid card as account. With H235 is enabled, you can set username by this command. Parameter xxxx should be an Arabic numeral and ASCII characters and no longer than 16 characters and case sensitive.

set pin XXXXXXXXX

Set the password of chosen repaid card as pin. With H235 is enabled, you can set password by this command. Parameter xxxx should be an Arabic numeral and ASCII characters and no longer than 16 characters and case sensitive.

set answer X

Set the ring entries before the phone answers the call auto. Parameter X should be an Arabic numeral between 0 and 9.

set ringtype X

Set types of ring. Parameter x ranged from 0 to 3:

   0 – Use default type of ring;

   1 – Choose one of available types of ring;

   2 – Choose one of available types of ring;

   3 – Choose one of available types of ring

set audioframes X

Set audio frames in RTP package. Parameter x ranged from 0 to 7.

set audiotype X

Set audio type. Parameter range 0 to 5:

   0 – G.711U;

   1 – G.711A;

   2 – G.723.1

   3 – G.729 4

   4 – G.729A

```
    5 –  G.729AB
set 6.3K X
  With G.7231, set YWH100B/C/E to use 6.3K rate or not.
Parameter x ranged from 0-1.
    0 –  Use 6.3K rate
    1 –  Use 5.3K rate
set handsetin X
  Set initial volume of handset. Parameter x ranged from 0 to 15.
set handsetout X
  Set initial volume of handout. Parameter x ranged from 0 to 31.
set handsettone X
  Set initial volume of handset tone. Parameter x ranged from 0 to
15. x=0 equal to x=15
set speakerin X
  Set initial volume of microphone of the base. Parameter x ranged
from 0 to 15.
set speakerout X
  Set initial volume of speaker of the base. Parameter ranged from
0 to 31.
set speakertone X
  Set initial volume of dial tone. Parameter ranged from 0 to 15.
x=0 equal to x=15
set vad X
  Enable/disable VAD. Parameter x ranged from 0 to 1:
    0 –  Disable VAD
    1 –  Enable VAD
set agc X
  Enable/disable AGC. Parameter x ranged from 0 to 1:
    0 –  Disable AGC;
    1 –  Enable AGC.
set aec X
  Enable/disable AEC. Parameter x ranged from 0 to 1:
    0 –  Enable AEC;
    1 –  Disable AEC.
set nettretry
  Set time to reconnect to the server (accounted at seconds). With
PPPoE or DHCP is enabled, once the phone detect the disconnection to the server (such
as caused by loosen of cable),it will give a disconnection message. X ranged from
0 to 255.When is set as 0, the phone will not connect to the server until
the user deals with the problem; when it set not as 0, the phone
will connect to the DHCP or PPPoE server after the designated
time.
```

/*Note When the audio type is transferred between G723 and G729, YWH100A/B/C/D phone need update different firmware.*/

4, Command store

Syntax description: no keyword. Parameter ranged from 0 to 4.
Usage: Save the current settings to the designated position.
Relevant Usage: store 1

5, Command load

Syntax description: no keyword. Parameter ranged from 0 to 4.
Usage: Load the designated settings to the current position.
Relevant Usage: load 1

6, Command exit

Syntax description: no keyword and parameter
Usage: Exit from Telnet command window without saving the
configuration.
Relevant usage: None

7, Command write

Syntax description: No keyword and parameter
Usage: Save the configuration and restart the YWH100A/B/C/D
phone.
Relevant usage: None
/*Note All the Telnet commands of YWH100A/B/C/D phone should be written in
low case and the password is case sensitive.*/

Update phone

1, Set TFTP server

TFTP server can be supplied by the server provider as well as setup by the
users in LAN. Please set the IP address of TFTP server.

2, Prepare Updated program

You can ask the server provider for the latest version of program or visit
www.yntx.com to download the latest version.

3, Operation

If you have got the IP address of the TFTP server from ISP, please do as
follows:
a) Use keypad to enter setting mode
b) Use keypad to input the IP address of TFTP server

c) Press [8 Local IP]   then green light will blink twice a second. Once

the phone restarts successfully, the new program is effective.
/*Note Please do not change the name of the upgraded program, or the operation will be fail.*/

Usage of phone

1, Receiving calls:

YWH100A/B/C/D IP phone can receive incoming calls from other YWH100A/B/C/D IP phone and devices that support the H.323 protocol. It works just like an ordinary phone for incoming calls. When it rings, you can receive the call by following methods:

(1) Use handset: Lift the handset and begin speaking. When the call is over, put the handset back.

(2) Handset to hand free: While receiving call with handset, press

on the keypad and then put down the handset. When the

call is over, press   again.

(3) Hand free: Press   to speak to the other party. When the

call is over, press   again.

(4) Hand free to handset: While receiving the call with the

pressed, pick up the handset to continue the call. When the call is over, put back the handset.

/*Note When you communicate with the other party without lifting the handset, please do not exceed 40 CM from speaker.*/

2, Place a call

(1) Call another YWH100 IP phone under the same Gatekeeper

   Handset: Pick up the handset and listen for the Internet dial tone. Then

dial the phone number you wish to call and press   or   to

end the dialing. Once the call connection has been established and the

ring tone has sounded, wait for the other party to answer. When the
other party answers, you can begin speaking. When the call is over, put
back the handset. The dialed number has been saved into the buffer.

Hand free: Press [Speaker] and listen for the Internet dial tone. Then
input the phone number you wish to call and press [Call] or [#] to
end the dialing. Once the call connection has been established and the
ring tone has sounded, wait for the other party to answer. When the
other party answers, you can begin speaking. When the call is over,

Press [Speaker] again. The dialed number has been saved into the
buffer.

Blind dialing: Use the keypad to enter the phone number you wish to
call and then press or to make the call. Once the call
connection has been established and the ring tone has sounded, wait
for the other party to answer. When the other party answers, you can
begin speaking. When the call is over, Press again. The
dialed number has been saved into the buffer.

(2) Place a call without login the Gatekeeper

If YWH100A/B/C/D IP phone does not login the Gatekeeper, you
can place a call by lifting the handset or pressing and then
inputting the IP address of the other party, and then pressing
or .

(3)Place a call through Gateway

If YWH100A/B/C/D IP phone does not login the Gatekeeper, you
can place a call through Gateway directly by lifting the handset or
pressing and then inputting the IP address of the other
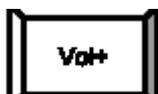party, and then pressing or .

/*Note When you place a call without Gatekeeper or with Gateway, please log off
Gatekeeper. To get the detailed operation please refer to Configuration chapter.
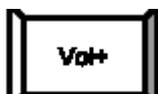View unanswered calls*/

3, View unanswered calls

(1)View missed calls

Click [Record] then you will hear the record of missed call. Click

[Vol+] to turn the numbers orderly; click [Vol −] to turn the

numbers reservedly. If there is no record, you will hear nothing.

(2)View received call

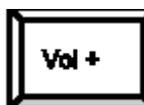Click [Play] then you will hear the record of the received call. Click

[Vol+] to turn the number orderly; click [Vol-] to turn the numbers

reservedly. If there is no record, you will hear nothing.

(3)View dialed number

Click [Play] then you will hear the record of the dialed call. Click

[Vol +] to turn the number orderly; click [Vol -] to turn the numbers

reservedly. If there is no record, you will hear nothing.

(4)When you hear the number you want to dial, please press to place a call directly.

/*Note YWH100A/B/C/D IP phone supports saving 127 entries unanswered

call, dialed call and received call ranged from 0-126 at best. When the entries

arrives 127, the latest record will cover the first one. The record will be lost

when the phone restarts or turned on.*/

4, Communication time account

Open PalmTool on a PC with IP 192.168.1.10 connecting with the phone, and

then enter the setting page. Select Output from cdr dropdown list and then

input the IP address of the PC outputting the record, such as 192.168.1.10.

Figure 13   Set CDR

After configuration, back to PalmTool index page on the PC with IP

192.168.1.10, and then click " Start CDR" , then you will see a blank window

popup. Then call other phones as usual, the record of communication will

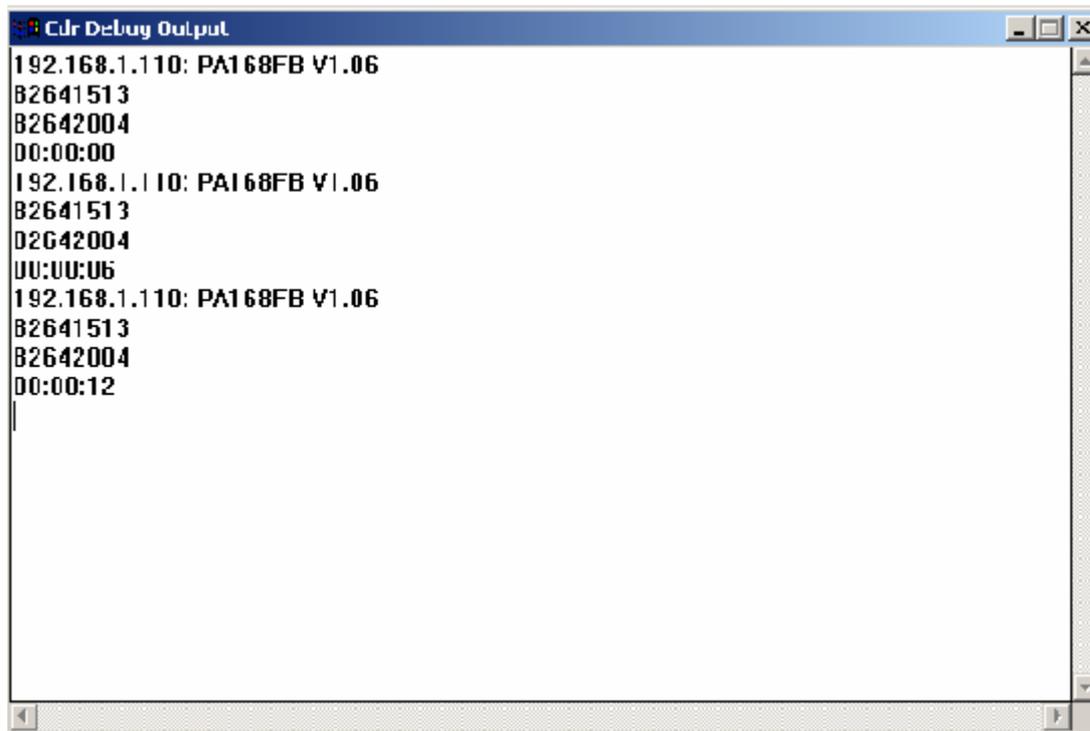popup every 6 seconds to account time.

Figure 14　　CDR Output Window

　　Zheng zhou Yuneng Communication CO., Ltd reserves the right to make changes in technical and product specification without prior notice!