

# PA168X SIP Phone Telnet Setup Guide

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When PA168X SIP phone is properly installed, you can set each parameter through PC and Telnet commands.

Details please refer to 《PA168X SIP phone Spec and Install》

### ➤ Telnet Configuration

- On the PC choose **Start>Run**, and then type **telnet 192.168.1.100** into **Run** field in popping Run dialog. Or input **telnet 192.168.1.100** in the DOS window. Then the following information will be displayed.

---

```
PA168X V1.60 settings
Password :
```

---

Then please type password. With debug is set as 0[disable], if type ordinary password (default one is 1234), after Return, you will see:

---

```
Password : ****
P:\>
```

---

If you type super password, then you will see:

---

```
Password : *****
P:\>
```

---

Above information indicates that IP phone is under setting mode, and then you can set the PA168X IP phone by using the telnet commands.

### ➤ PA168X Telnet Commands Explanation

Command	Function
?	Supply command name and parameters
get	Display basic parameters of the PA168X IP phone

<b>set</b>	Set parameters of the PA168X IP phone
<b>store</b>	Save current settings to designated position
<b>load</b>	Load designated settings to current position
<hr/>	
<b>default</b>	Restore to manufactory defaults parameters
<b>exit</b>	Exit from the setting mode without saving the configuration
<b>write</b>	Exit with saving all configurations and restart PA168X

➤ **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
default
exit
write        save settings
    
```

---

➤ **Command get**

**Syntax description:** No optional parameter of keywords

**Usage:** Display basic parameters of the PA168X IP phone

**Relevant usage:** None

**Detailed description:**

**get** Display basic running parameters of the PA168X IP phone.

Input ordinary password without debug being set as 0[disable], or input super password with debug set as 0[disable], then following parameters of IP phone will be displayed:

---

```

PA168X V1.60 settings
Password: *****
P:\>get
*****Network Settings*****
iptype 0[static]
ip 192.168.1.100      subnetmask 255.255.255.0  router 192.168.1.254
dns 202.106.196.152  dns 2202.106.196.115    mac 00-09-45-65-a3-e6
*****Audio Settings*****
codec1 0[g729]      codec2 1[g7231]          codec3 2[g711u]
codec4 3[g711a]     codec5 6[null]          codec6 6[null]
vad 1[enable]      agc 0[disable]          aec 1[enable]
audioframes 2      6.3k 1[enable]         ilbcpayload 98
jittersize 0       handsetin 7             handsetout 20
ringtype 0[dtmf]   speakerout 20           speakerin 0
*****Dial Plan Settings*****
dialplan 1[enable]  dddcode 10
iddcode 86         iddprefix 00            dddprefix 0
innerline 1[enable] innerlineprefix 0       callwaiting 1[disable]
fwdnumber 82378009  fwdpoweroff 1[enable]
fwdalways 1[enable]  fwdbusy 1[enable]     fwdnoanswer 1[enable]
answer 30  digitmap 1[enable]
*****Protocol Settings*****
service 1[enable]   registerttl 60
servicetype 0[common] sipproxy 203.93.9.57   domain 203.93.9.57
natTraversal 0[disable]
nataddr [empty]    natttl 30
phonenum 82378808  account [empty]       pin [empty]
registerport 1720  rtpport 1722          tos 0
dtmfpayload 101   dtmf 1[rfc2833]

```

```
prack 0[disable]          outboundproxy 0[disable]
*****Other Settings*****
superpassword 12345678  debug 1[output]
password 1234             upgradetype 0[disable]
upgradeaddr [empty]
sntpip 0.0.0.0           daylight 0[disable]
timezone 55[(GMT+08:00)Beijing,Hong Kong,Urumqi]
```

---

Input ordinary password with debug set as 0[disable], following information will be seen:

---

```
PA168X V1.60 settings
Password:****
P:\>get
*****Network Settings*****
iptype 0[static]
ip 192.168.1.100      subnetmask 255.255.255.0      router 192.168.1.254
dns 202.106.46.151  dns2 202.96.128.68           mac 00-0d-ea-00-00-03
*****Audio Settings*****
codec1 0[g729]        codec2 1[g7231]              codec3 2[g711u]
codec4 3[g711a]       codec5 6[null]              codec6 6[null]
vad 1[enable]         agc 0[disable]              aec 1[enable]
audioframes 2         6.3k 1[enable]             ilbcpayload 98
jittersize 0          handsetin 7                  handsetout 20
ringtype 0[dtmf]      speakerout 20                speakerin 0
*****Dial Plan Settings*****
dialplan 1[enable]    dddcode 10
iddcode 86            iddprefix 00                 dddprefix 0
innerline 1[enable]  innerlineprefix 0           callwaiting 1[disable]
fwdnumber 82378009    fwdpoweroff 1[enable]
fwdalways 1[enable]  fwdbusy 1[enable]          fwdnoanswer 1[enable]
answer 30             digitmap 1[enable]
*****Other Settings*****
password 1234         upgradetype 0[disable]
upgradeaddr [empty]
sntpip 0.0.0.0       daylight 0[disable]
timezone 55[(GMT+08:00)Beijing,Hong Kong,Urumqi]
```

---

➤ **Command set**

**Syntax description: set keywords value**

**Usage:** Used to configure password and other running parameters of PA168X IP phone.

**Detailed description:**

**set iptype X**

Set how IP phone gets relevant network parameters. X ranged from 0 through 3: 0: authorize users set IP address, subnet mask and router IP address of IP phone manually; 1: use DHCP mode. With this system, your LAN or router automatically assigns all the required network parameters to any device connected to it when the device log on. PA168X 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; 2: use PPPoE mode. Those ADSL and Cable Modem users please select this item for it is a protocol especially designed for them. With this system, ADSL ISP automatically assigns all the required IP parameters to any device connected to it when the device log on; 3: use modem mode. Those who use IP phone with modem, please set the value as 3.

**set pppid XXX**

With **iptype** set as **2**, use this command to set ADSL ID; with

**iptype** set as **3**, use this command to set Modem ID.

**set ppppin XXX**

With **iptype** set as **2**, use this command to set ADSL pin; with

**iptype** set as **3**, use this command to set Modem pin.

**set ip XXX.XXX.XXX.XXX**

With **iptype** set as **0**, use this command to set IP address of

PA168X IP phone.

**set subnetmask XXX.XXX.XXX.XXX**

With **iptype** set as **0**, use this command to set subnet mask of

PA168X IP phone.

**set router XXX.XXX.XXX.XXX**

With **iptype** set as **0**, use this command to set router IP of network

with PA168X IP phone.

**set dns XXX.XXX.XXX.XXX**

With **iptype** set as **0**, use this command to set IP address of DNS

server.

**set dns2 XXX.XXX.XXX.XXX**

With **iptype** set as **0**, use this command to set IP of backup DNS

server.

**set mac XX-XX-XX-XX-XX-XX**

Set MAC address of the PA168X IP phone. Parameter

xx-xx-xx-xx-xx-xx must be an HEX number.

---

**set codec1 X**

Set the priority 1 of the audio compression algorithm. X is range from 0 through 4: 0: g729; 1:g7231; 2: g711u; 3: g711a; 4: gsm; 5: ilbc; 6: null.

**set codec2 X**

Set the priority 2 of the audio compression algorithm. X is range from 0 through 4: 0: g729; 1:g7231; 2: g711u; 3: g711a; 4: gsm; 5: ilbc; 6: null.

**set codec3 X**

Set the priority 3 of the audio compression algorithm. X is range from 0 through 4: 0: g729; 1:g7231; 2: g711u; 3: g711a; 4: gsm; 5: ilbc; 6: null.

**set codec4 X**

Set the priority 4 of the audio compression algorithm. X is range from 0 through 4: 0: g729; 1:g7231; 2: g711u; 3: g711a; 4: gsm; 5: ilbc; 6: null.

**set codec5 X**

Set the priority 5 of the audio compression algorithm. X is range from 0 through 4: 0: g729; 1:g7231; 2: g711u; 3: g711a; 4: gsm; 5: ilbc; 6: null.

**set codec6 X**

Set the priority 6 of the audio compression algorithm. X is range from 0 through 4: 0: g729; 1:g7231; 2: g711u; 3: g711a; 4: gsm; 5: ilbc; 6: null.

**set vad X**

Enable/disable VAD. X is ranged from 0 through 1: 0: disable VAD; 1: enable VAD.

**set agc X**

Enable/disable AGC. X is ranged from 0 through 1: 0: disable AGC; 1: enable AGC.

**set aec X**

Enable/disable AEC. X is ranged from 0 through 1: 0: disable AEC; 1: disable AEC.

**set audioframes X**

Set audio frames in RTP package. X is Arabic numerals between 0 and 7.

**set 6.3k X**

With G.7231, set PA168X IP phone to use 6.3K rate or not. X is ranged from 0 through 1: 0: use 6.3K rate; 1: use 5.3K rate.

**set jittersize X**

Set buffer size of RTP package. X is range from 0-32.

**set ilbcpayload X**

Set the payload type of RTP package when ILBC codec selected to DTMF delay. X is range from 96-255.

**set handsetin X**

Set initial volume of handset. X is ranged from 0 through 15.

**set handsetout X**

Set initial volume of handout. X is ranged from 0 through 31.

**set ringtype X**

Set types of ring. X is ranged from 0 through 3: 0: ring as ordinary rings in different frequency; 1: do not ring; 2: ring as music saved by user; 3: Set ring used the individualized tone provided by system (need system support).

**set speakerin X**

Set initial volume of microphone of the base. X is ranged from 0 through 15.

**set speakerout X**

Set initial volume of speaker out. X is ranged from 0 through 31.

---

**set dialplan X**

Enable/disable dial plan and dial number. Parameter X ranged from 0 through 4: 0: disable dial plan; 1: enable dial plan; 2: use dial number; 3: use 179XX service.;4: use hotline function.

**set dialnumber XX**

When **set dialplan** value set as 2, please use this command to set **dial number**. For example, with eTalk card used, please set it as 00. When **set dialplan** value set as 4, please use this command to set **hotline number**.

#### **set dddcode XX**

Set the area code when set **dialplan** value set as **1** or **2**. 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 XXX**

Set the country code when set **dialplan** value set as **1** or **2**. 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 XX**

Set IDD service prefix number when set **dialplan** value set as **1** or **2**. 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 when set **dialplan** value set as **1** or **2**. 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 use innerline call or not. X ranged from 0 through 1: 0: disable; 1: enable innerline call.

**set innerlineprefix X**

With **innerline** set as **1[enable]** , please set the prefix to pick up inner line, such as 0.

**set callwait X**

Set whether to use call wait. X ranged from 0 to 1: 0: do not use call wait; 1: use call wait.

**set fwdnumber XXXXXXXX**

Set receiving forwarded calls phone number. XXXX must be an Arabic numeral and no longer than 16 characters

**set fwdalways X**

Enable/disable forward all calls. X is ranged from 0 through 1. 0: do not forward all calls; 1: forward all calls.

**set fwdbusy X**

Enable/disable forward calls if busy. X is ranged from 0 through 1. 0: do not forward calls if busy; 1: forward call if busy.

**set fwdnoanswer X**

Enable/disable forward calls without replying. X is ranged from 0 through 1. 0: do not forward calls without replying; 1: forward call without replying.

**set answer X**

Set the ring seconds before the phone answers the call auto or forward the calls. X is ranged from 0 through 60.

**set digitmap X**

Set whether to use digitmap. X ranged from 0 to 1: 0: do not use digitmap; 1: use digitmap.

---

**set service X**

Set register the SIP proxy server or not. X ranged from 0 through 1.  
0: do not register; 1: register.

**set registerttl X**

Set register TTL. X is range from 10 through 65535 Sec. default value is 60 Sec.

**set service type X**

Enable/disable the prepaid and service system .choose the repaid server provider. Parameter x ranged from 0 through 15:

0: common: disable repaid card or specially system ;

1: use huawei's system;

2: use ZTE's system;

- 3: use harbour's system;
- 4: use utstarcom's system;
- 5:use uptech system;
- 6: use keimen's system;
- 7: use meidaring's service;
- 8: use italkBB service;
- 9: use nortel system;
- 10: use net2phone SIP service;
- 11: use fwd(freeworlddialup) service;
- 12: use inphonex system;
- 13: use sipphone system;
- 14: use ngstel system ;
- 15: use aycstel system
- 16: use callserve system
- 17: use qmaster system
- 18: use ringchat system
- 19: use t-online system

**set sipproxy XXXX**

Set IP address or domain name of SIP Proxy Server.

**set domain XXXXX**

Set the domain name of SIP proxy server.

**set nattraversal X**

X ranged from 0 through 2: 0: do not use NAT traversal. When the log in server and IP phone in the same LAN, or the log in system supports the IP phone working behind the LAN; 1: Use NAT traversal. When the login system does not support IP phone working behind the LAN, With this item selected, please make port mapping on NAT device; 2: stun.

### **set nataddr XXXXX**

When “**nattraversal**” is set to “**1**”;set IP address of NAT device wan port or URI of free assistant service (Such as [www.showmyip.com](http://www.showmyip.com) etc.) in Internet.

When “**nattraversal**” is set to “**2**”, set IP address or URI of the stun server, in the format as “domain name/IP address : service port”.

The default service port for stun is 3478.

---

**NOTE** The free service list of Internet: [www.ip-calculator.com](http://www.ip-calculator.com); [www.ipchicken.com](http://www.ipchicken.com); [www.ipchicken.com](http://www.ipchicken.com); [www.showmyip.com](http://www.showmyip.com); [www.whatismyip.com](http://www.whatismyip.com); [www.myipaddress.com](http://www.myipaddress.com); [www.whatismyipaddress.com](http://www.whatismyipaddress.com); [ip.sbbs.net](http://ip.sbbs.net); [www.whatismyipaddress.net](http://www.whatismyipaddress.net); [checkip.dyndns.org](http://checkip.dyndns.org)

---

### **set natttl XX**

Set NAT TTL XX is an integer between 10 and 65535 sec. default value is 20 sec.

### **set phonenumber XXXXXXXX**

Set a local ID of PA168X IP phone. Value xxxxx must be an Arabic

numeral and no longer than 16 characters.

**set account XXXXXX**

Set the account; Value xxxxxx must be an Arabic numeral and no longer than 32 characters.

**set pin XXXXXXXXXXX**

Set the account; Value xxxxxx must be an Arabic numeral and no longer than 32 characters.

**set registerport XXXX**

Set register port. Value XXXX default is 5060.

**set rtpport XXXX**

RTP port is the port transferring and receiving voice flow using UDP protocol. XXXX is an even number between 1024 and 65535.

**set tos X**

Set TOS segment of IP head package in RTP digital follow. X is range from 0 through 224.

**set dtmf X**

Set DTMF relay type. X is ranged form 0 through 2: 0: inband audio; 1: rfc 2833; 2: sip info.

**set dtmf payload X**

When **dtmf X** select 1(**rfc 2833**).This parameter can be used indicating type of RTP payload type. The value can be use integer 96-101.

### **set prack X**

Set enable/disable support pre-ack(RFC3262) . X is ranged form 0 through 1: 0: disable; 1: enable.

### **set outboudproxy X**

Set enable/disable Outbound proxy support. X is ranged form 0 through 1: 0: disable; 1: enable.

When X is 1(enable), please set the URI of the Outbound proxy into “**sip proxy**” and set the domain name of SIP proxy server into “**domain**” . The default service port is 5060.

---

### **set superpassword XXXX**

Set super password of the PA168X IP phone. XXX must be ASCII characters.

### **set debug X**

Set open debugging message output grade for special tool. X is ranged from 0 through 5: 0: close debugging output; 1: output the operation information to the window; 2: output all the bug information and data in test window; 3: save the bug information into SDRAM; 4: disable checks the mark.

### **set password XXXX**

Set password of the PA168X IP phone. XXX must be ASCII characters.

**set upgradetype X**

Set auto-upgrade matching type, X is range from 0 through 5,  
0-----disable; 1-----all ; 2----- mac; 3-----ppp id; 4----- account;  
5----- phone number。

**set upgradeaddr HTTP://XXX.XXX.XXX.XXX:PORT**  
**FTP://XXX.XXX.XXX.XXX: PORT**  
**TFTP://XXX.XXX.XXX.XXX: PORT**

Set IP address or domain name of upgrade server supplying upgraded program and configurations of PA168X IP phone.

**set sntpip XXX.XXX.XXX.XXX**

Set IP address of time server.

**set daylight X**

Set use daylight or not. X ranged from 0 through 1: 0: do not use daylight; 1: use daylight.

**set timezone XX**

Set time zone.

➤ **Command store**

**Syntax description:** no keyword. Parameter ranged from 0 through 4.

**Usage:** Save the current settings to the designated position.

**Relevant Usage:** store 1

➤ **Command load**

**Syntax description:** no keyword. Parameter ranged from 0 through 4.

**Usage:** Load the designated settings to the current position.

**Relevant Usage:** load 1

➤ **Command default**

**Syntax description:** no keyword and parameter

**Usage:** Restore to manufactory defaults parameters.

**Relevant usage:** None

➤ **Command exit**

**Syntax description:** no keyword and parameter

**Usage:** Exit from Telnet command window without saving the configuration.

**Relevant usage:** None

➤ **Command write**

**Syntax description:** No keyword and parameter

**Usage:** Save the configuration and restart the PA168X IP phone.

---

 **Note** All the Telnet commands of PA168X IP phone should be written in low case and the password is case sensitive.

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*Reserves the right to make changes in technical and product specification  
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*PA168X SIP Phone Telnet Setup Guide (V1.60)*

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