

VoIP Phone
User Guide

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1. Introduction

This is User's Guide for IP Phone P103 series. Before using P103, some setup processes are required to make the phone work properly. You should at least setup the IP address of P103 and router when DHCP is disabled. When DHCP server is available, you can skip the process of setting up P103 IP address. (please refer to **3. Setup Menu** for further information.)

2. Make a phone call

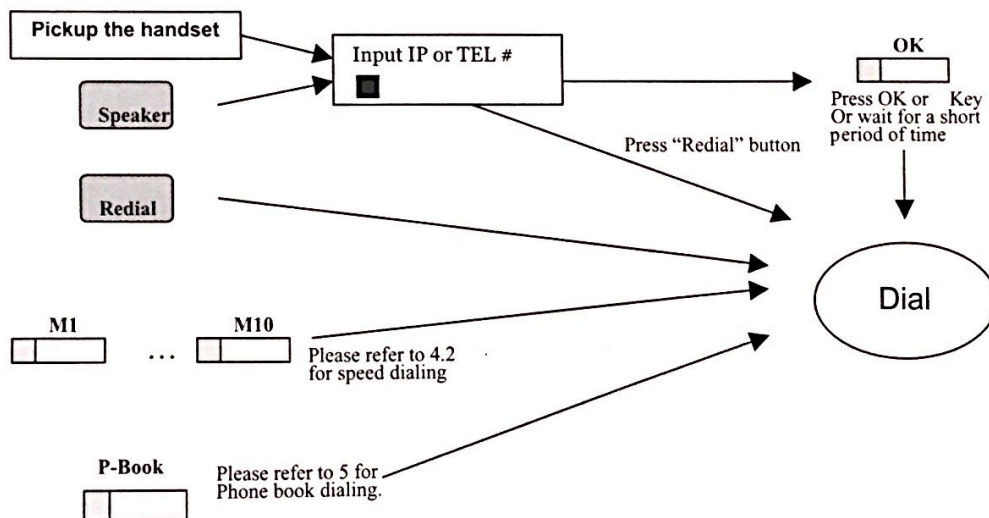
There are 3 different ways to make a phone call by P103.

- Dial IP address directly (e.g. 210.244.26.111)
- Dial extension number when Gatekeeper is available (e.g. 207)
- Dial through VoIP Gateway to PSTN when VoIP Gateway is available (e.g. *165077499)

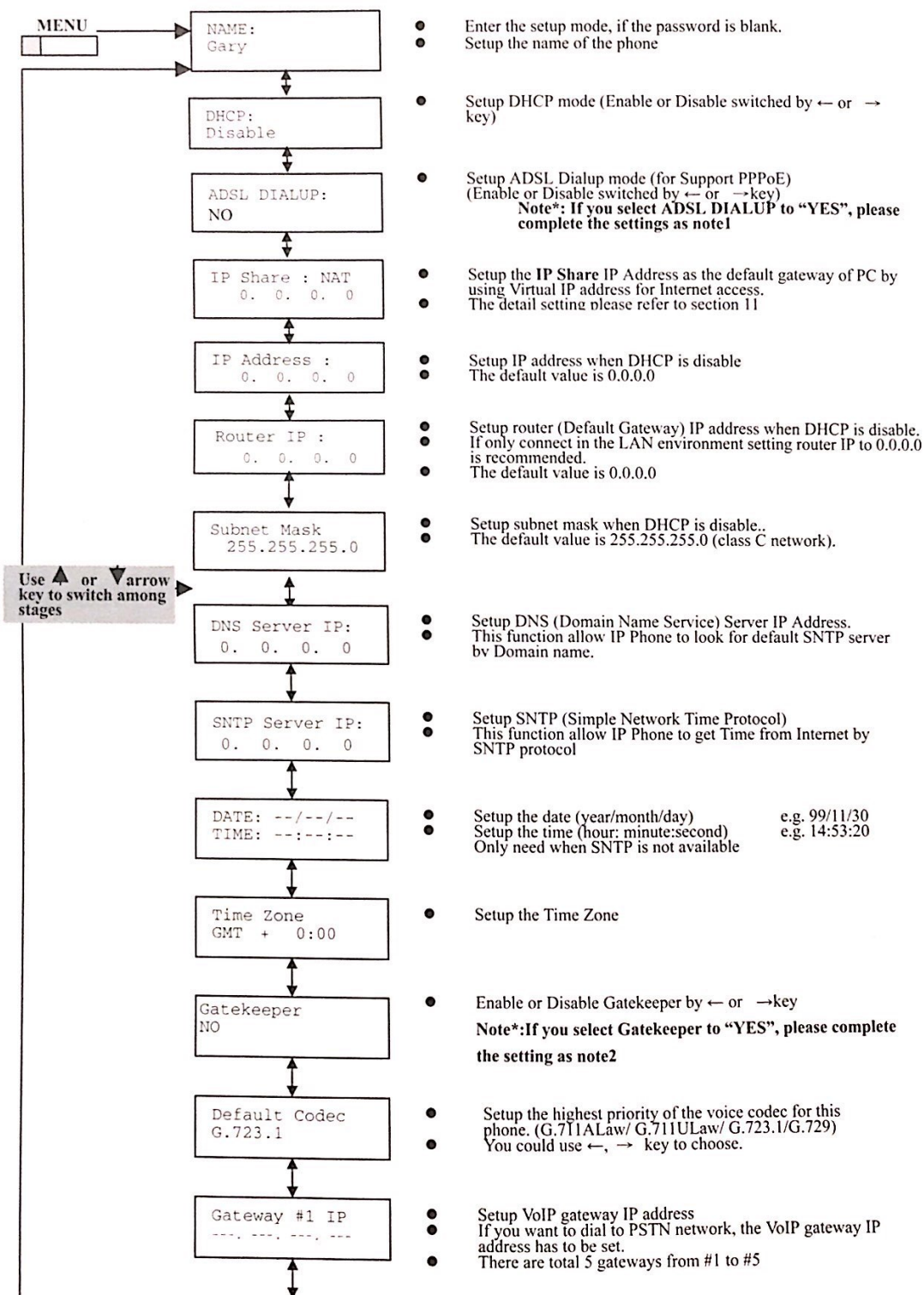
The difference of "Dial extension number" and "Dial through VoIP Gateway" is that dialing number starts with '*1' to '*5' will go through Gateway and thus make it a call to PSTN. (Please refer to **3. Setup Menu** for detail description regarding how to setup Gateway)

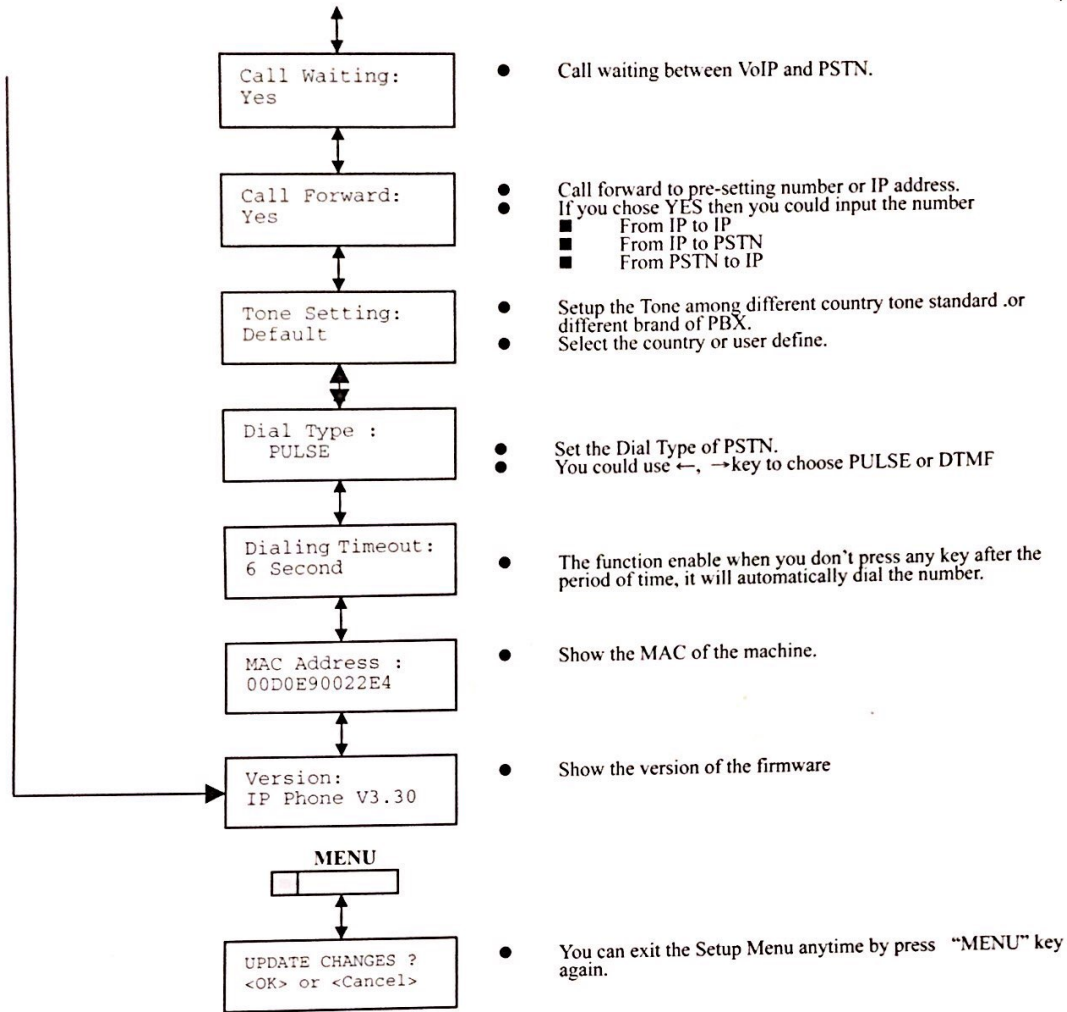
- Dialing through PSTN line which connect this phone directly (e.g. *087681878)

Note : Number starting with '*0' will go PSTN.

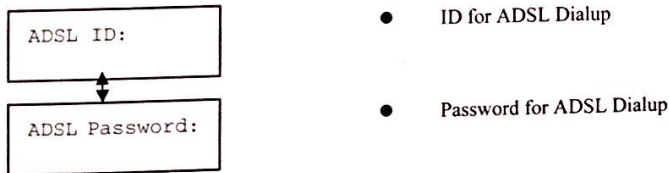


3. Setup Menu

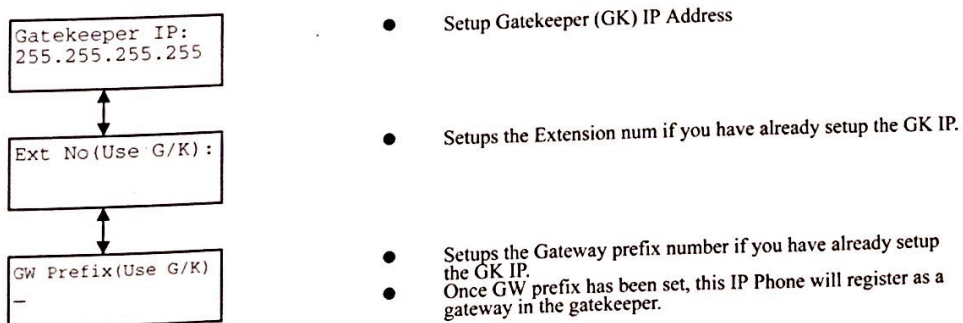




Note 1 : When setup "ADSL Dialup" function set to "YES"

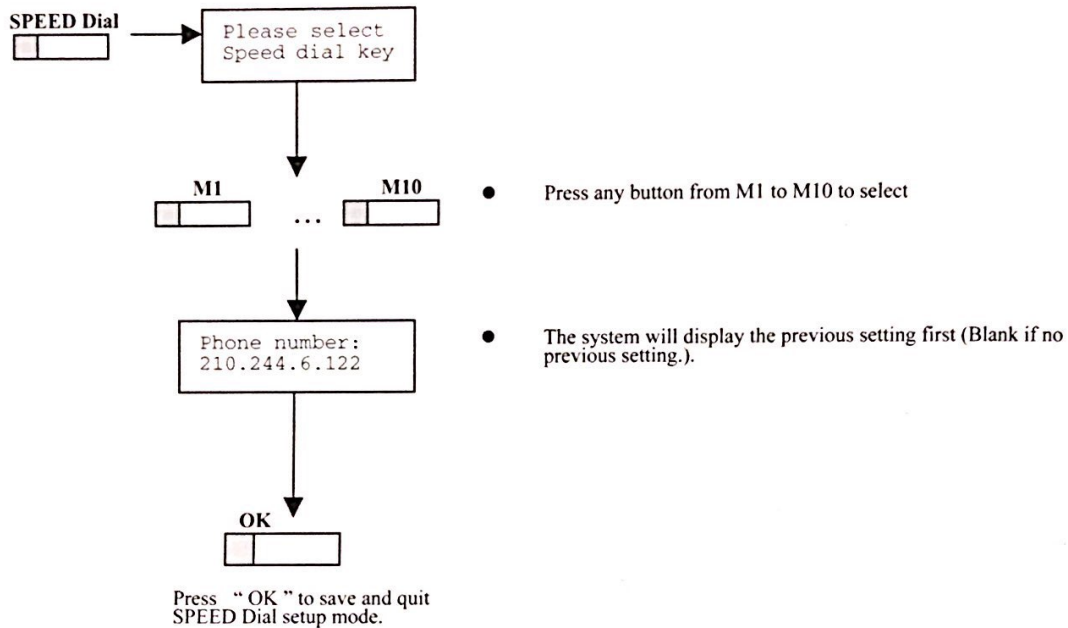


Note 2 : When setup "Gatekeeper" function set to "YES"

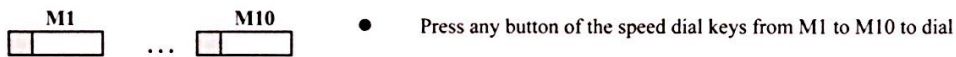


4. Speed Dial

4-1 Setup The Speed Dial Keys

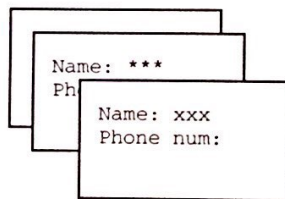


4-2 Using the Speed Dial Keys

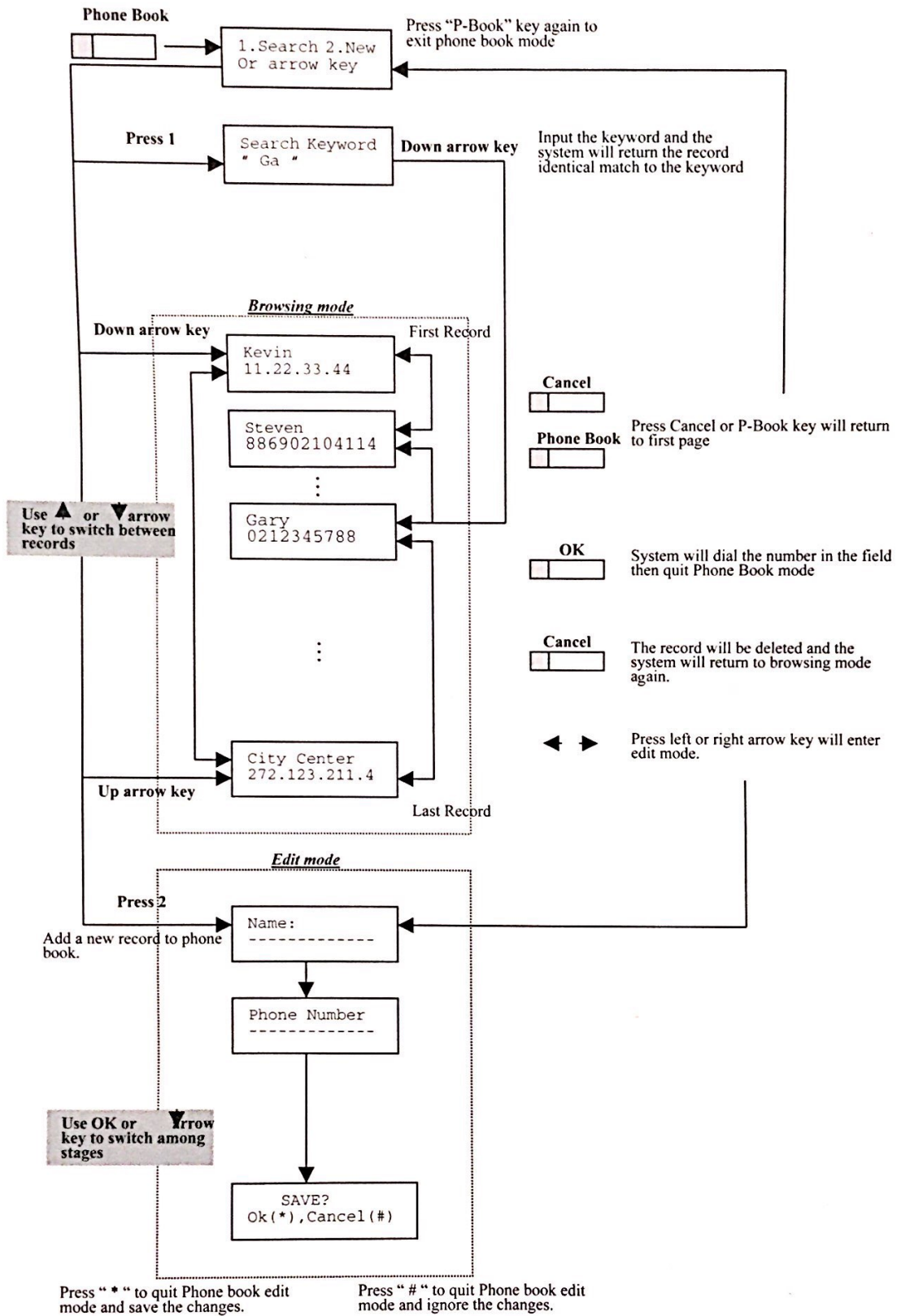


5. Phone Book

Every record inside the phone book includes 2 fields: *Name*, *Phone number*.

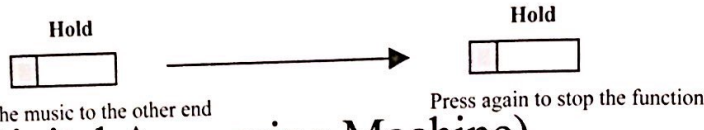


The Name field is the primary key of the record and Phone number is the field you can use to store extension number, PSTN number or IP address. Phone book records are sorted by Name automatically. The functions like search, add, delete records can be helpful to update your personal phone book.

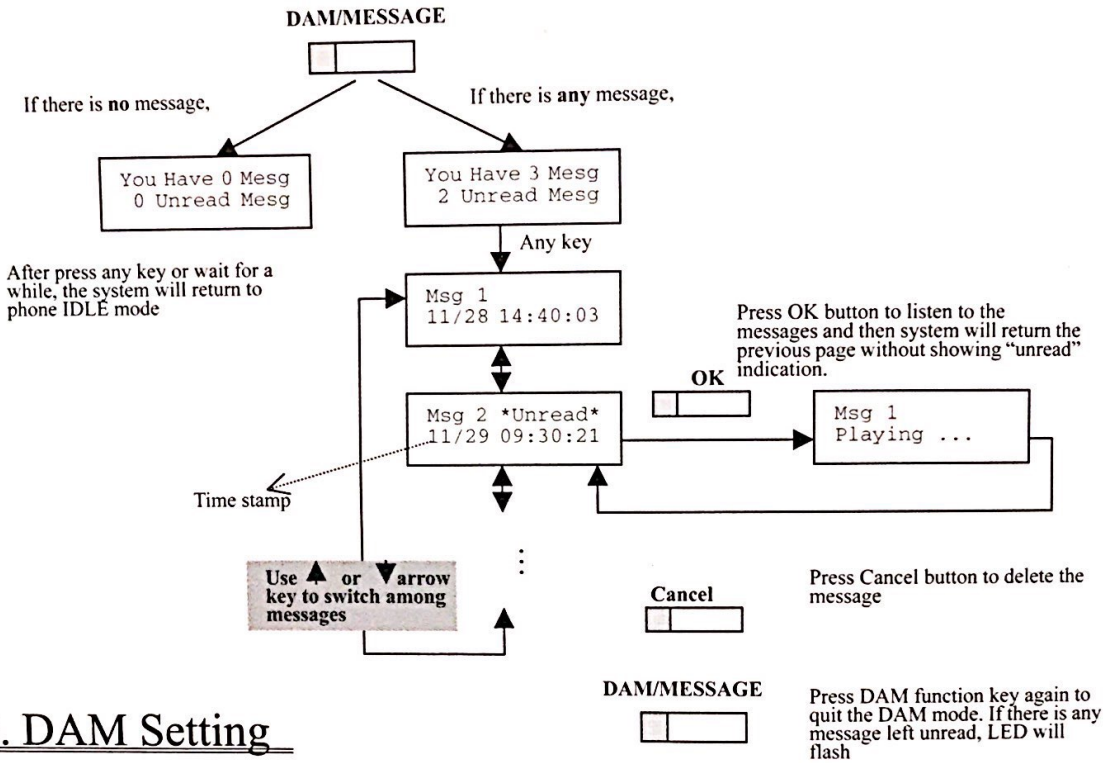


6. Hold (Mute)

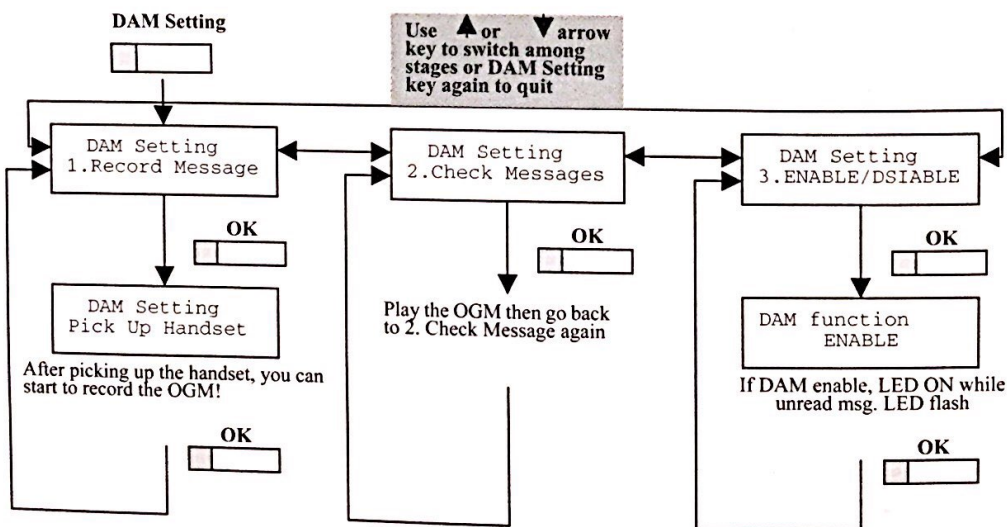
After pressing the "HOLD" key, both local & remote side of the communication line will only hear the music playing. (This function only available when codec set as G.723.1 or G.729)



7. DAM (Digital Answering Machine)

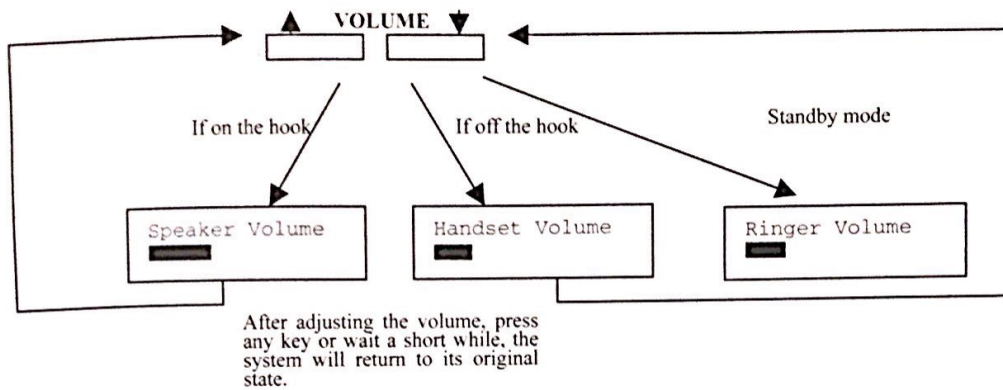


8. DAM Setting



Note:** Only "OK" key will save the OGM m
When you reboot the IP Phone the OGM will restore to default message.

9. Volume Adjustment

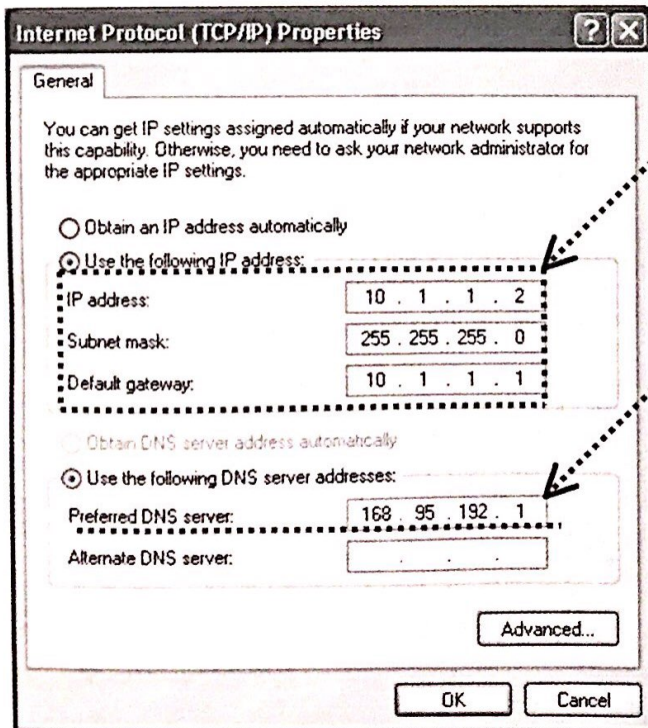


10. Call Transfer

This function is available only when both phone support H.450 call transfer. Upon placing a phone call, you can use “call transfer” function to transfer the call to other person. For example: when A is talking to B, A could press “FLASH” key and the display will show “Transfer to”. A can enter the IP address of C and A is talking to C. After A hanging up the phone, C can talk with B.

11. IP Share / NAT

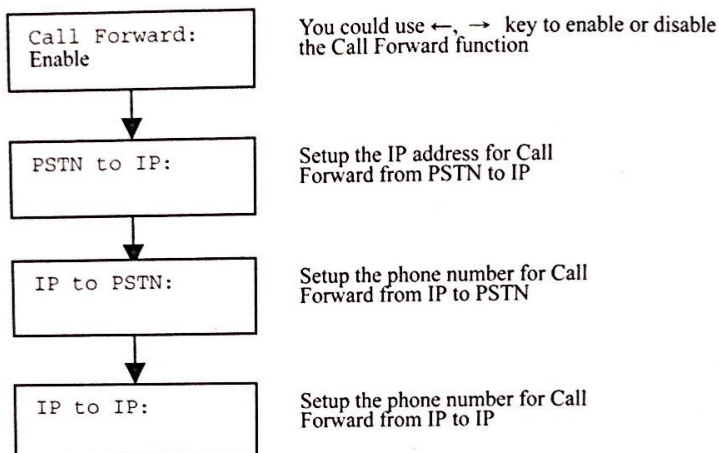
This function allows IP phone and PC to share the one global real IP address. You may only have one real IP address assigned by ISP. With this function we could share the more masquerade IP address for several PC.



- When “NAT/IP Share” in the IP Phone set as “10.1.1.1”.
- The IP address setting for PC is
IP Address : 10.1.1.2~10.1.1.254
Subnet mask: 255.255.255.0
Default Gateway: 10.1.1.1 (same as IP share address)
- DNS server IP address should be set.(DNS server IP address please refer to ISP)

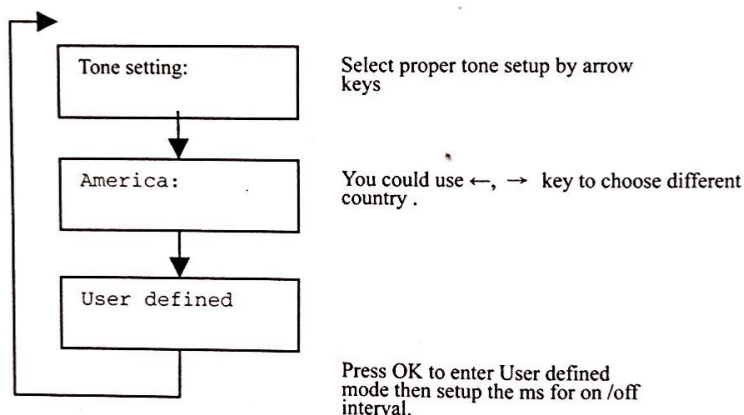
12. Call Forward (only for Model P103)

The setting for the Gateway function



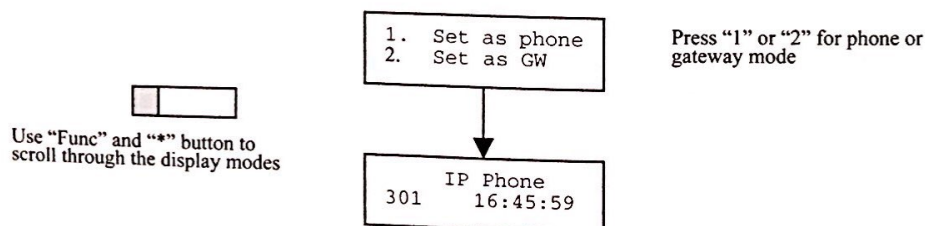
13. Busy Tone setting (only for Model P103)

Since the busy tone might be different from country to country, make sure to setup your IP Phone's busy tone for different PSTN environments.



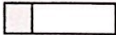
14. Gateway/Phone Mode (only for Model P103)

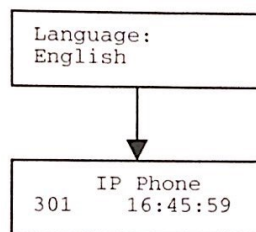
This IP phone supports Gateway mode or Phone mode. Set this IP Phone to Gateway mode if you want to forward the incoming PSTN call to another IP phone. Otherwise, setup your IP Phone to Phone mode.



15. Language Selection

This IP Phone support both English and Japanese, the setup process is as below,


Use "Func" and "1" button to enter to the Language selection mode.



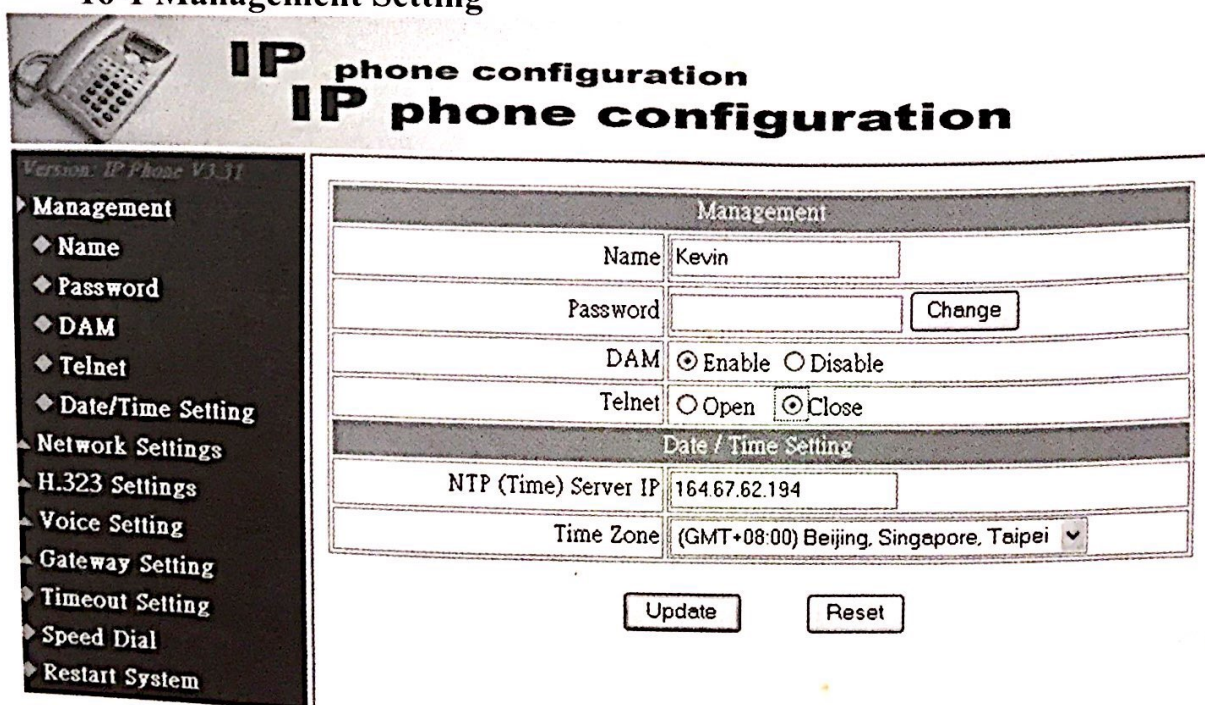
Press <UP>and <Down> to toggle between English and Japanese.

Press <OK> to set the selected language and return to stand-by mode.

16. Web Browser Configuration

Your IP phone can also be setup by using a web browser, such as 'Microsoft IE', 'Netscape'. Key-in `http://ip_address:9999` (ip_address is the IP address of the IP Phone) in URL field to get into web page of IP Phone. If the password is not BLANK it will popup a windows for entering the password. You could change to different web-page by click the Hyper-Text in left side of the windows. Once complete, press "Update" to save the settings or press "Reset" to restore the parameter to original setting. You have to click **UPDATE** before change to other page, otherwise the setting will lost. If you change the IP address then **Restart system** is necessary to activate the new setting value.

16-1 Management Setting




The screenshot displays the 'IP phone configuration' web interface. At the top left, there is an icon of an IP phone. The main title is 'IP phone configuration'. Below the title, there is a navigation menu on the left side with the following items: Management (selected), Name, Password, DAM, Telnet, Date/Time Setting, Network Settings, H.323 Settings, Voice Setting, Gateway Setting, Timeout Setting, Speed Dial, and Restart System. The main content area is titled 'Management' and contains the following settings:

Management	
Name	Kevin
Password	<input type="text"/> <input type="button" value="Change"/>
DAM	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Telnet	<input type="radio"/> Open <input checked="" type="radio"/> Close
Date / Time Setting	
NTP (Time) Server IP	164.67.62.194
Time Zone	(GMT+08:00) Beijing, Singapore, Taipei ▼

At the bottom of the form, there are two buttons: 'Update' and 'Reset'.

16-2 Network Setting – DHCP



IP phone configuration

IP phone configuration

Version: IP Phone V3.31

Management

Network Settings

- ◆ MAC Address
- ◆ DHCP/PPPoE
- ◆ NAT/IP Sharing
- ◆ DNS Server IP
- ◆ Gateway IP

H.323 Settings

Voice Setting

Gateway Setting


Timeout Setting

Speed Dial

Restart System

Network Setting	
MAC Address	00.D0.E9.00.28.05
Get IP From DHCP / PPPoE / Static IP	
<input checked="" type="radio"/> DHCP <input type="radio"/> PPPoE <input type="radio"/> Static IP	
DNS , NAT Configuration	
DNS Server IP	168.95.192.1
NAT IP	10.1.1.1
Gateway	
Gateway #1 IP	61.61.0.100
Gateway #2 IP	61.61.1.102
Gateway #3 IP	0.0.0.0
Gateway #4 IP	
Gateway #5 IP	

16-3 Network setting – PPPoE



IP phone configuration

IP phone configuration

Version: IP Phone V3.31

Management

Network Settings

- ◆ MAC Address
- ◆ DHCP/PPPoE
- ◆ NAT/IP Sharing
- ◆ DNS Server IP
- ◆ Gateway IP

H.323 Settings

Voice Setting

Gateway Setting


Timeout Setting

Speed Dial

Restart System

Network Setting	
MAC Address	00.D0.E9.00.28.05
Get IP From DHCP / PPPoE / Static IP	
<input type="radio"/> DHCP <input checked="" type="radio"/> PPPoE <input type="radio"/> Static IP	
PPPoE ID	IPPhone
PPPoE Password	●●●●●●
DNS , NAT Configuration	
DNS Server IP	168.95.192.1
NAT IP	10.1.1.1
Gateway	
Gateway #1 IP	61.61.0.100
Gateway #2 IP	61.61.1.102
Gateway #3 IP	0.0.0.0
Gateway #4 IP	
Gateway #5 IP	

16-4 Network Setting – Static IP



IP phone configuration


IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- ◆ MAC Address
- ◆ DHCP/PPPoE
- ◆ NAT/IP Sharing
- ◆ DNS Server IP
- ◆ Gateway IP
- H.323 Settings
- Voice Setting
- Gateway Setting
- Timeout Setting
- Speed Dial
- Restart System

Network Setting	
MAC Address	00.D0.E9.00.28.05
Get IP From DHCP / PPPoE / Static IP	
<input type="radio"/> DHCP <input type="radio"/> PPPoE <input checked="" type="radio"/> Static IP	
IP Address	61.61.0.38
Router IP	61.61.0.1
Subnet Mask	255.255.255.0
DNS , NAT Configuration	
DNS Server IP	168.95.192.1
NAT IP	10.1.1.1
Gateway	
Gateway #1 IP	61.61.0.100
Gateway #2 IP	61.61.1.102
Gateway #3 IP	0.0.0.0
Gateway #4 IP	
Gateway #5 IP	

16-5 H.323 Setting – Auto search GK



IP phone configuration


IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
- ◆ Gatekeeper
- ◆ Message
- Voice Setting
- Gateway Setting
- Timeout Setting
- Speed Dial
- Restart System

H.323 Setting	
Gatekeeper	<input checked="" type="radio"/> Auto <input type="radio"/> Yes <input type="radio"/> No
Extension No.	1100
Gatekeeper Password	●●●●
H.323 Message	
Fast Start	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 Early Connect	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 Tunneling	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 User Input Indication	<input checked="" type="radio"/> Alphanumeric <input type="radio"/> Signal

16-6 H.323 Setting – Manual Assign GK



IP phone configuration


IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
 - ◆ Gatekeeper
 - ◆ Message
- Voice Setting
- Gateway Setting
- Timeout Setting
- Speed Dial
- Restart System

H.323 Setting	
Gatekeeper	<input type="radio"/> Auto <input checked="" type="radio"/> Yes <input type="radio"/> No
Gatekeeper IP	61 61 0.110
Extension No.	1100
Gatekeeper Password	••••
H.323 Message	
Fast Start	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 Early Connect	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 Tunneling	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 User Input Indication	<input checked="" type="radio"/> Alphanumeric <input type="radio"/> Signal

16-7 H.323 Setting – No GK



IP phone configuration


IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
 - ◆ Gatekeeper
 - ◆ Message
- Voice Setting
- Gateway Setting
- Timeout Setting
- Speed Dial
- Restart System

H.323 Setting	
Gatekeeper	<input type="radio"/> Auto <input type="radio"/> Yes <input checked="" type="radio"/> No
H.323 Message	
Fast Start	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 Early Connect	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 Tunneling	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
H.245 User Input Indication	<input checked="" type="radio"/> Alphanumeric <input type="radio"/> Signal

16-8 Voice Setting



IP phone configuration


IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
- Voice Setting
 - ◆ Default Codec
 - ◆ VAD/CNG
- Gateway Setting
- Timeout Setting
- Speed Dial
- Restart System

Voice Setting	
Default Codec	G.723.1 ▾
VAD/CNG	<input checked="" type="radio"/> Enable (send CNG packet) <input type="radio"/> Enable (no CNG packet) <input type="radio"/> Disable
G.711 Packet Size	30 ms ▾
G.723.1 Packet Size	30 ms ▾
G.729A/B Packet Size	20 ms ▾
PSTN Setting	
Dial Mode	<input type="radio"/> Tone <input checked="" type="radio"/> Pulse
Dial Pulse Type	<input checked="" type="radio"/> 10 PPS <input type="radio"/> 20 PPS
Make/Break Rate	<input checked="" type="radio"/> 33/66 <input type="radio"/> 40/60

16-9 Gateway Setting



IP phone configuration


IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
- Voice Setting
- Gateway Setting
 - ◆ Phone Mode
 - ◆ Prefix
 - ◆ Tone Setting
 - ◆ Call Forward
 - ◆ Call Waiting
- Timeout Setting
- Speed Dial
- Restart System

Gateway Setting	
Phone Mode	<input checked="" type="radio"/> Phone <input type="radio"/> Gateway
Tone Setting	
Tone Setting	User Defined ▾
On Time (ms):	<input type="text"/>
Off Time (ms):	<input type="text"/>
Call Waiting	
Call Waiting	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Call Forward	
Call Forward	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Gateway Prefix	
Gateway Prefix No. (for GK)	<input type="text"/>

16-8 Voice Setting




IP phone configuration IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
- Voice Setting
- ◆ Default Codec
- ◆ VAD/CNG
- Gateway Setting
- Timeout Setting
- Speed Dial
- Restart System

Voice Setting	
Default Codec	G 723 1 ▾
VAD/CNG	<input checked="" type="radio"/> Enable (send CNG packet) <input type="radio"/> Enable (no CNG packet) <input type="radio"/> Disable
G.711 Packet Size	30 ms ▾
G.723.1 Packet Size	30 ms ▾
G.729A/B Packet Size	20 ms ▾
PSTN Setting	
Dial Mode	<input type="radio"/> Tone <input checked="" type="radio"/> Pulse
Dial Pulse Type	<input checked="" type="radio"/> 10 PPS <input type="radio"/> 20 PPS
Make/Break Rate	<input checked="" type="radio"/> 33/66 <input type="radio"/> 40/60

16-9 Gateway Setting




IP phone configuration IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
- Voice Setting
- ◆ Gateway Setting
- ◆ Phone Mode
- ◆ Prefix
- ◆ Tone Setting
- ◆ Call Forward
- ◆ Call Waiting
- Timeout Setting
- Speed Dial
- Restart System

Gateway Setting	
Phone Mode	<input checked="" type="radio"/> Phone <input type="radio"/> Gateway
Tone Setting	
Tone Setting	User Defined ▾
On Time (ms):	<input type="text"/>
Off Time (ms):	<input type="text"/>
Call Waiting	
Call Waiting	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Call Forward	
Call Forward	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Gateway Prefix	
Gateway Prefix No. (for GK)	<input type="text"/>

16-10 Speed Dial



IP phone configuration


IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
- Voice Setting
- Gateway Setting
- Timeout Setting
- Speed Dial**
- Restart System

Speed Dial Key Definition			
M1	61 61 0 20	M2	61 61 0 21
M3	61 61 0 22	M4	*1117
M5	*087681878	M6	
M7		M8	
M9		M10	

16-11 Dial Timeout



IP phone configuration

IP phone configuration

Version: IP Phone V3.31

- Management
- Network Settings
- H.323 Settings
- Voice Setting
- Gateway Setting
- Timeout Setting**
- Speed Dial
- Restart System

Timeout Setting	
Inter-digit Dialing Timeout (1 ~ 9)	6 seconds

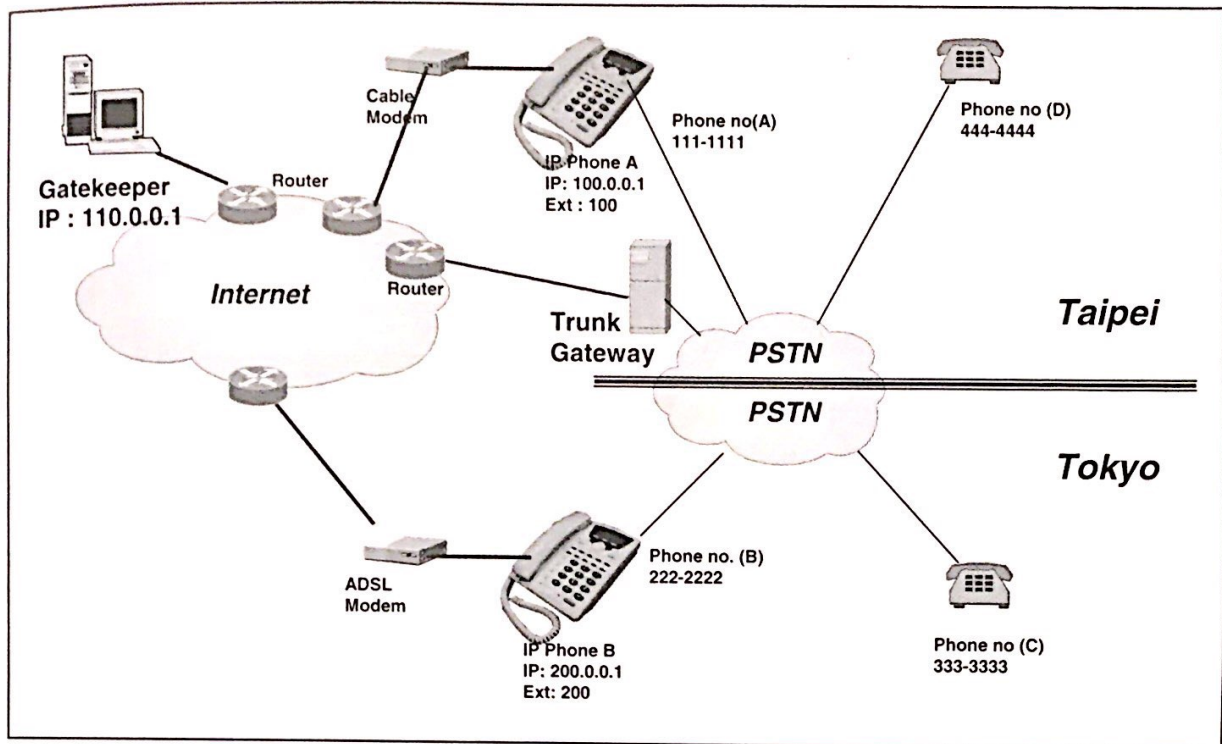


IP phone configuration IP phone configuration

- Management
- Network Settings
- H.323 Settings
- Voice Setting
- Gateway Setting
- Timeout Setting
- Speed Dial
- Restart System

Restart Phone ?

17. Application Example



Setup:

	IP	GK IP	Ext	GW #1 IP	PSTN no.	Mode
IP Phone A	100.0.0.1	110.0.0.1	100	200.0.0.1	111-1111	GW mode (ref. Item 14)
IP Phone B	200.0.0.1	110.0.0.1	200	100.0.0.1	222-2222	

Call scenario:

- Call from IP Phone A → IP Phone B
Pick up Phone A dial "200"
Phone B rings and answer the phone.
Phone A and Phone B connect.
- Call from IP Phone A → via IP Phone B → PSTN "333-3333"
Pick up Phone A and dial "*13333333"
Phone C rings and answer the phone.
Phone A and phone C connects.
- Call from PSTN D → via IP Phone A → via IP Phone B → PSTN "333-3333"
Pick up the Phone D and dial "1111111" from PSTN
Phone A will automatically answer and play "please press phone number after the tone... Du..."
Dial "*13333333" from phone D.
Phone C rings and answer the phone.
Phone D and Phone C connect.

18. Abbreviations

ADSL : Asymmetric Digital Subscribe Line
CNG : Comfortable Noise Generation
DAM : Digital Answering Machine
DHCP : Dynamic Host Configuration Protocol
DTMF : Dual Tone Multi-Frequency
IP : Internet Protocol
NAT : Network Address Translation
PPPoE : Point-to-Point Protocol Over Ethernet
PSTN : Public Switch Telephony Network
SNTP : Simple Network Time Protocol
VAD : Voice Activate Detection
VoIP : Voice over Internet Protocol