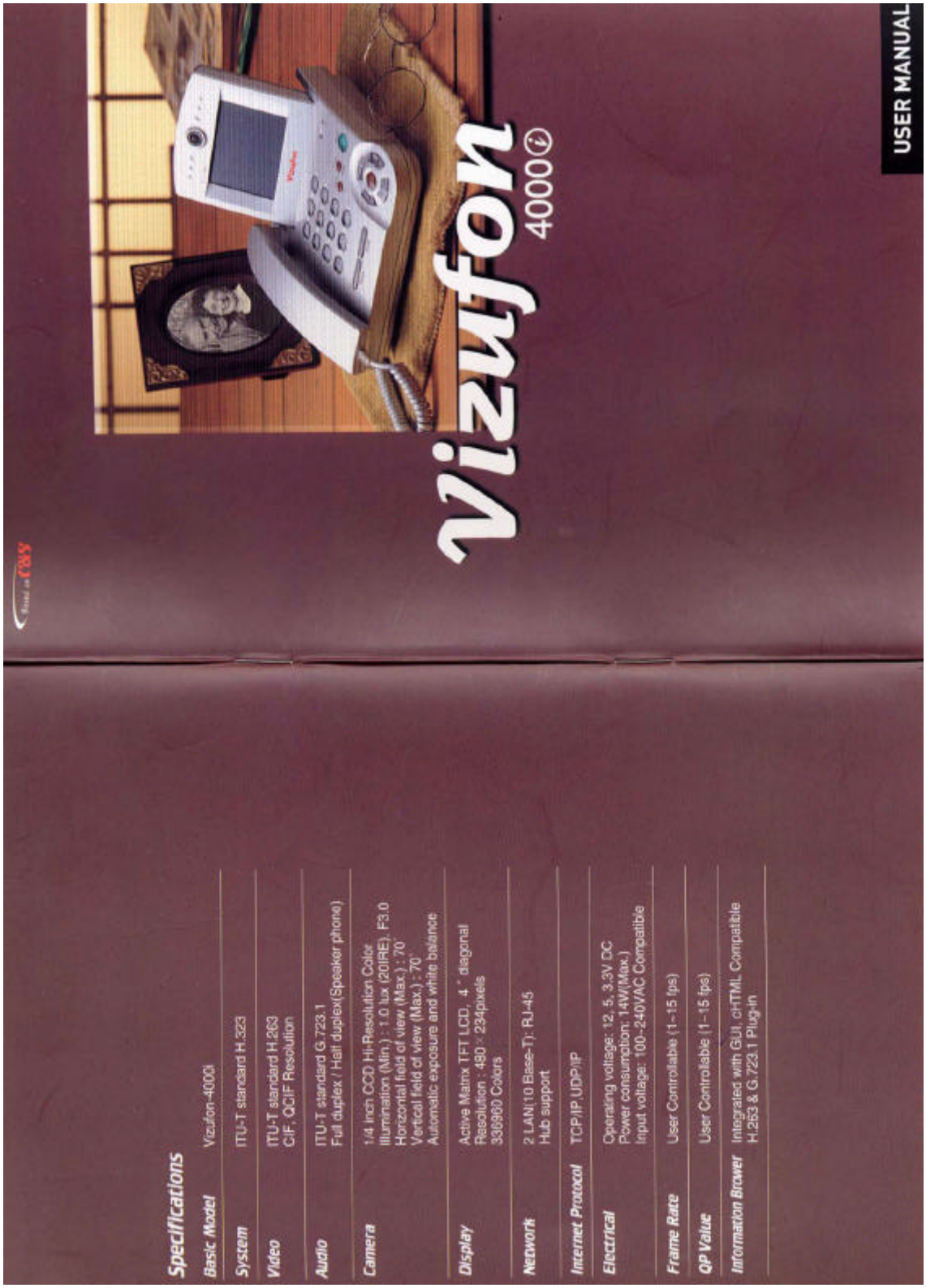
Appendix F. Users Manual



Specifications

Basic Model	Vizufon-4000i
System	ITU-T standard H.323
Video	ITU-T standard H.263 CIF, QCIF Resolution
Audio	ITU-T standard G.723.1 Full duplex / Half duplex(Speaker phone)
Camera	1/4 inch CCD Hi-Resolution Color Illumination (Min.) : 1.0 lux (20IRE), F3.0 Horizontal field of view (Max.) : 70° Vertical field of view (Max.) : 70° Automatic exposure and white balance
Display	Active Matrix TFT LCD, 4 " diagonal Resolution : 480 × 234pixels 336960 Colors
Network	2 LAN(10 Base-T): RJ-45 Hub support
Internet Protocol	TCP/IP,UDP/IP
Electrical	Operating voltage: 12, 5, 3.3V DC Power consumption: 14W(Max.) Input voltage: 100~240VAC Compatible
Frame Rate	User Controllable (1~15 fps)
QP Value	User Controllable (1~15 fps)
Information Browser	Integrated with GUI, cHTML Compatible H.263 & G.723.1 Plug-in

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Safety Instructions

It is important to read and understand these instructions before using videophone. Following this will reduce the risk of fire, electric shock, and injury.

Do not disassemble this unit.
Opening this unit will void the product warranty.

Please plug this videophone correctly with proper electric power supply.
(Power supply is 100 ~ 240 V compatible)

Do not expose this product to rain or humid environment
to avoid the risk of fire or electric shock

Place this unit securely on a stable surface or flat table to refrain
from slide or vibration. Serious damage may occur if it falls.

To prevent this unit from overheating, always make a room for ventilation.
Slots in this unit are intended for this purpose.

Before cleaning, first unplug this unit from its power outlet.
Do not use liquid or aerosol cleaners.
A soft and wet cloth is recommended for cleaning exposed surfaces

To reduce the risk of fire and electric shock,
do not overload wall circuits and extension cords

Do not locate power and telephone cord where a person can step or trip on.

Be careful for choosing an appropriate location for the videophone to capture better images of you. The things captured by the videophone should never be lighted back. It would be better that you should not sit between the videophone and a strong light source such as a direct sunlight or light of the lamp. Otherwise, the video quality would be whiter than normal

1. Installation

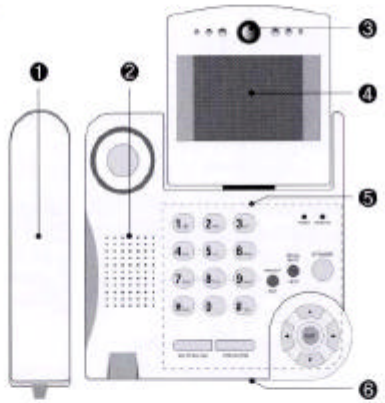
Components

Following components need to be packed in a set. Before installing the videophone, be sure that there is no missing stuffs.

- Videophone main equipment
- Handset
- Power Adapter
- Power Cable
- User Manual

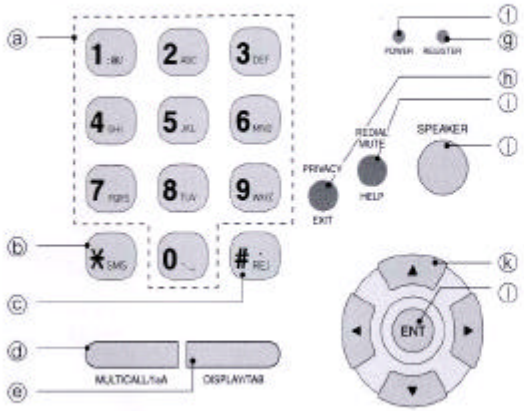
Description

[Front view]



❶ Handset
❷ Speaker : play bell sounds or the voice of the other party on Speakerphone mode.
❸ Camera : capture your image
❹ LCD Screen : display the other party and your image during a call and PIMS menus not in a call
❺ Keypad : the buttons operating the functions of the videophone
❻ Microphone : record your voice during a call

[Keypad]



ⓐ Numeric key	Input a phone number at dialing display mode.	
	Input a character to make a sentence on PIMS menu.	26p
ⓑ ✱	Input '✱'	26p
SMS	Send a short message during a call.	23p
ⓒ #	Input '#'	26p
REJ	Reject the incoming call.	17p
	Hang up the current call when you are participated in multi calls.	19p
ⓓ MUTICALL	Accept the incoming call when you are already in a call.	
	Switch between the multi calls .	18p
1aA	Select the sort of fonts when input characters. (numeric/ lowercase/capital)	24p
ⓔ DISPLAY	Change the display mode during a call.	19p
TAB	Move among the URL links and URL input window on the browser screen.	38p

	Move to the submenus when using mail functions.	40p
ⓕ POWER	Indicates whether videophone is turned on or off.	6p
ⓖ REGISTER	Indicates whether videophone is registered to the VoIP Server (Gatekeeper) or not.	
ⓗ PRIVACY	Stop to transmitting the video data during a call.	19p
EXIT	Move to the previous menu of Personal Information Management System (PIMS) menu or Control Menu.	26p
ⓘ REDIAL	Dial again to the destination you've called just before.	16p
MUTE	Pause the voice exchange and play music sound.	
HELP	Show the tips for handling the PIMS menus.	26p
ⓙ SPEAKER	Initiate the dial out screen as speakerphone mode. Set or cancel the speakerphone mode during a call. Hang up the call at the speakerphone mode.	
ⓚ Arrow Key	Move between the PIMS menus while not in a call or Control Menus during a call. Select the setting value in each item in PIMS menu. Enter into the edit mode of each item within Phone Book and Call Log of PIMS menu.	
ⓛ ENT	Make a call actually after finishing input of the destination address.	16p
	Enter to the PIMS menu while not in a call. Save the control values after modifying the setting in PIMS menu.	

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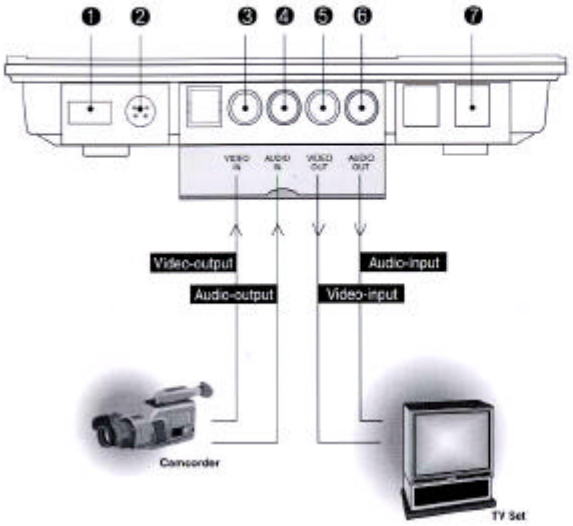
VIDEO PHONE
Model : GVP-4000i

[Rear view]



❶ Power Switch: Turn on and off the video phone
❷ POWER Connector: Plug the exclusive power supply
❸ VIDEO IN: Connect to the external video camera
❹ AUDIO IN: Connect to the external microphone
❺ VIDEO OUT: Connect to the external display
❻ AUDIO OUT: Connect to the external speaker
❼ Network port (INT): Plug the network cable (RJ45) directly

Installation

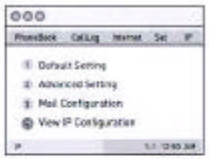
For the best result, carefully follow the installation procedure.

❶ Plug the handset into the jack on the left side of the videophone.

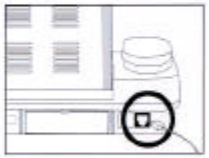
❷ Connect the power cable to the power adapter and plug the other end of the cable into a wall outlet.

❸ Plug the exclusive power supply to POWER connector on the Videophone

❹ Set the network configuration in PIMS menu according to your environment to access the Internet. To get an instruction for network setting, refer to 'IP Configuration (7p)'.



❺ Plug a network cable into the jack labeled INT on the back of the Videophone.



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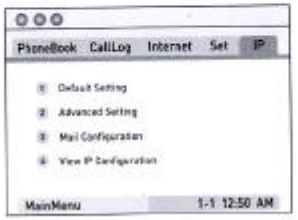
IP Configuration

Videophone provides the video communication through Internet. Before connecting to the Internet, the way of accessing to Internet must be configured.

Press 'ENT' to bring up the Personal Information Management System (PIMS) menu. Move to 'IP' menu by using ◀ ▶. Select 'Default Setting' by using ▲▼ and press 'ENT'.



Videophone supports various ways to access to the Internet. The connection method is classified into 4 categories – LAN, ADSL, Cable Network, Private Network. Please, refer to the corresponding category to configure your network environment appropriately.

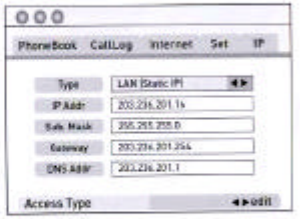
NOTE *At first time to turn on the videophone, set the default network configuration in PIMS menu and turn off the videophone. After plug the Internet cable into the jack labeled as INT, turn on the power switch.*

Connecting to LAN

When connecting the videophone to LAN, the network cable coming from a router should be plugged into the network jack of the videophone directly. IP address of the videophone can be assigned statically, or can be assigned dynamically whenever the videophone turns on. In each case, do as following step. The character input method is described in [Chapter Input a sentence (24p)].

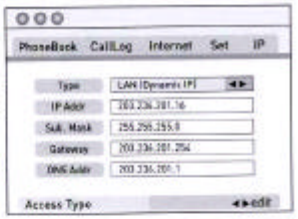
❶ Setting the static IP address

- Select 'LAN(Static IP)' using ◀ ▶ in 'Type' menu.
- Input the static IP address in 'IP Addr'.
- Fill out other information such as 'Sub. Mask', 'Gateway', 'DNS Addr'. These information will be given by the network administrator.
- When exiting this menu by press 'EXIT', the following dialog box is appeared. Press 'YES' to apply the new network configuration.



❷ Setting the dynamic IP address

- Select 'LAN(Dynamic IP)' using ◀ ▶ in 'Type' menu.
- When exiting this menu by press 'EXIT', then the following dialog box is appeared.
- Press 'YES' to apply the new network configuration.



When the 'Type' is set as 'LAN(Dynamic IP)', the following items become read-only mode that you cannot modify these fields arbitrarily. After applying this configuration, those fields shows the given values from DHCP server.

NOTE *These days, the intranet such as an enterprise environment tends to be with the firewall system because of the security. In the LAN within the firewall system, Vizufon-4000i could have difficulties. That is, the videophones within the firewall have no problem to communicate each other but calling from outer videophone to inner videophone of the firewall could not be established. The reason is that the network packets between videophone will be blocked by the firewall. For more detail information, visit our homepage (www.vizufon.com).*

Connecting to ADSL

When the videophone is to be connected to ADSL, the external ADSL modem is needed. Connect the ADSL modem and the network jack on the back of the the videophone with the network cable (RJ45 UTP cable) as shown.

After doing this, you have to input the user identifier and password to get an admission when using ADSL. The character input method is described in [How to input a character(24p)].

- Select 'ADSL' by using ◄► in 'Type' menu.
- Press ▼ to move down by using and fill out the authentication information in 'USER' and 'Password' field.
- When going out of this menu by press 'EXIT', the following dialog box is appeared.
- Press 'YES' to apply the new network configuration.

NOTE *In case of issuing the static IP address from ADSL server, you have to set the LAN (Static IP) as network type.*

NOTE *Since reregistering to ADSL network takes time while processing the sudden cancellation before, it would be like to reboot the system after 5 or more minutes.*

Connecting to Cable Network

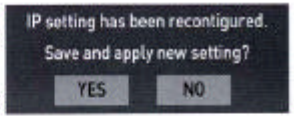
Connect the Cable modem and the network jack on the back of the the videophone with the network cable (RJ45 UTP cable) as shown.

- Select 'Cable Modem' using ◄► in 'Type' menu.
- Let the 'MAC change' items be 'NO' unless the cable network recommends to register with a predetermined information.
- When going out of this menu by press 'EXIT', the following dialog box is appeared.
- Press 'YES' to apply the new network configuration.

For some cable networks, you might need to be authenticated. For example, the network device can filter out the network packets based on the hardware address (MAC address) attached to the packets. In this case, the MAC address of the videophone has to be changed into the registered MAC address for you before. The character input method is described in [How to input a character(24p)].

- Select 'Cable Modem' by using ◄► in 'Type' menu.
- In 'MAC change' item, select 'YES' by using ►.
- Press ▼ to move down and fill out the admissible MAC address as the hexadecimal format.

- When going out of this menu by press 'EXIT', then the following dialog box is appeared.
- Press 'YES' to apply the new network configuration.



NOTE *If you change the MAC address of videophone into the MAC address, PC and the videophone cannot access to the Internet at the same time. Therefore, you have to turn off videophone while using PC.*

NOTE *It could take time to discover the DHCP server of the cable network. In that case, please wait for finishing the procedure to get an admission for the network.*

Connecting to the private network

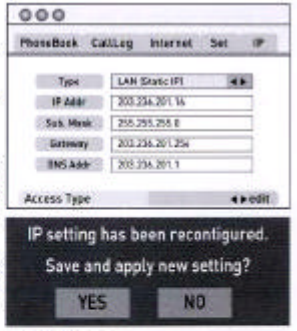
Nowadays, the rapid increase of the Internet access devices cause the lack of IP address.

In order to overcome this problem, the private network has become widely popular. The private network is established with an IP sharing device that allows several devices can share one static IP address.

When installing the videophone in a private network, do the same way as configuring LAN environment.

❶ Setting the static IP address

- Select 'LAN (Static IP)' using ◀ ▶ in 'Type' menu.
- Input the static IP address in 'IP Addr'.
- Fill out the information such as 'Sub. Mask', 'Gateway', 'DNS Addr'. These information will be given by the network administrator.
- When going out of this menu by press 'EXIT', the following dialog box is appeared.
- Press 'YES' to apply the new network configuration.



❷ Setting the dynamic IP address

- Select 'LAN (Dynamic IP)' using ◀ ▶ in 'Type' menu.
- When going out of this menu by press 'EXIT', then the following dialog box is appeared.

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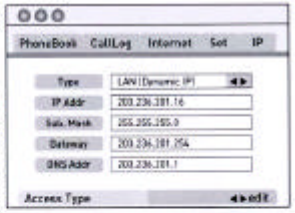
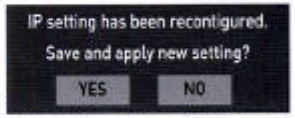
- Press 'YES' to apply the new network configuration.



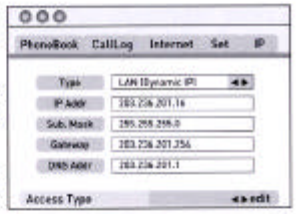
When the 'Type' is set as 'LAN (Dynamic IP)', the lower items become read-only state that you cannot modify these fields arbitrarily, after applying this configuration, those fields shows the given values from DHCP server.

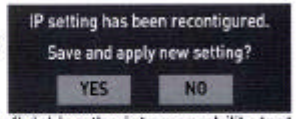


❸ Setting Proxy Server

Videophone can support VoIP service under the private network consisted with the IP sharing device (NAT router) that completes the interoperability testing with the videophone. Even in this case, the configuration of the IP sharing device shall be set as our recommendation.

- Enter into the 'Advanced Setting' of 'IP' menu by using the arrow keys. (◀▶▲▼)
- Move down to the 'Proxy' menu and input the public IP address of the IP sharing device (NAT Router).
- When exiting this menu by press 'EXIT', the following dialog box is appeared.
- Press 'YES' to apply the new network configuration.





The information of the IP sharing devices finishing the interoperability test with the videophone will be provided at *www.vizufon.com*.

NOTE *It is so difficult to support the VoIP service under the private network. At first, since the IP address of VoIP phone in the private network is not exposed on the external network, it is impossible calling from outer VoIP phone to inner VoIP phone. Also, even in case of the outgoing call from the inner VoIP phone, the incoming media streams could be lost. In addition, when preparing the VoIP service in private network, the configuration of the Internet device such as Router might be adapted*

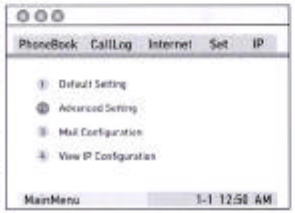
correspondently. You can get more detail information at http://www.vizufon.com.

NOTE *The videophones within a private network are strongly recommended to be served by Gatekeeper. Gatekeeper can resolve the* unique identifier of the VoIP phone into the IP address of it. Refer to the following chapter to get detail information on Gatekeeper.

Setting Gatekeeper Service

Gatekeeper is one of the components defined in H.323 protocol. It controls and manages the H.323 endpoints such as IP Phone, Gateway, etc. Since Gatekeeper resolves the IP address of each endpoint through the registration and admission control procedure, the H.323 terminals with a dynamic IP address can call each other with their unique identifiers as long as they are under the same Gatekeeper zone. Besides, Gatekeeper can provide the call information useful for billing system. The Gatekeeper is an essential component for VoIP service solution.

As a H.323 endpoint, the videophone can be controlled by Gatekeeper. When registering to Gatekeeper, the H.323 ID and Phone Number have to be specified. Therefore, keep these information in mind when subscribing for a VoIP Service System.



- Press 'ENT' to bring up the Personal Information Management System (PIMS) menu. Move to 'IP' menu by using ◀ ▶.
- Select 'Advanced Setting' by using ▼ and press 'ENT'
- Input the H.323 ID for 'Account' field and the phone number for 'Phone No.'
- For 'G.K Addr', input the IP address or domain name of the Gatekeeper.
- Press 'EXIT' to go out of this menu, the following dialog box is appeared.

- If you want to apply the new setting, press 'YES'.
- Check if the REGISTER lamp gets to turn on.

NOTE *If the REGISTER lamp of the videophone doesn's turn on, it means that the videophone cannot register to the Gatekeeper. In this case, check if the all information of 'Advanced Setting' and 'Default Setting' are correct. If it doesn't work after confirming it, please contact to your VoIP service provider.*

NOTE *When you are not to get a VoIP service, the 'G.K addr' field in 'Advanced Setting' must be '0.0.0.0'. Otherwise, the videophone keeps trying to register to the Gatekeeper and it might cause to degrade the performance of system.*

2. Using videophone

Making a Call

There are five ways to make a call in the videophone.

Input the Address of destination directly

- Pick up your handset or press the 'SPEAKER'.
- Dial the IP address or phone number that you want to call. The character input method is described in [How to input a character(24p)].
- After you finish dialing, press the 'ENT' key. You would hear the ring back tone via your handset and see the dialing animation as shown.

Using REDIAL

- Pick up your handset or press the 'SPEAKER'.
- Press REDIAL

Speed Dialing

- Pick up your handset or press the 'SPEAKER'.
- Input the hot key for the destination assigned in your Phonebook and press the 'ENT'.

One Click Call from the Phonebook

- While browsing your Phonebook, select to the destination you want to call and press 'ENT'.

NOTE *Detail operation is described in [Phonebook(26p)]*

One Click Call from the CallLog

- While browsing your Call Log, select to the destination you want to call and press 'ENT'.

NOTE *Detail operation is described in [Call Log(27p)]*