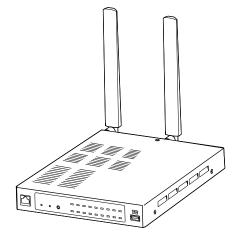
# o ICOM

# **OPERATING GUIDE**





<u>Icom Inc.</u>

### INTRODUCTION

- 1 TOP
- 2 INFORMAITON
- **3 NETWORK SETTINGS**
- 4 ROUTER SETTINGS
- **5 BRIDGE CONNECTION SETTINGS**
- 6 TRANSCEIVER CONTROLLER
- 7 CONNECTION PORT SETTINGS
- 8 DESTINATION SETTINGS
- 9 EXPERT SETTINGS
- 10 IP LINE SETTINGS
- 11 PBX
- 12 PBX TRANSCEIVER CALL SETTINGS
- 13 PBX EXTENSION
- 14 PBX ADVANCED SETTINGS
- 15 MANAGEMENT

#### INTRODUCTION

Thank you for choosing this Icom product. The VE-PG4 RoIP GATEWAY is designed and built with Icom's IP network technology.

With proper care, this product should provide you with years of trouble-free operation.

① This document is described based on the VE-PG4 firmware version 1.11.

Icom is not responsible for the destruction, damage to, or performance of any Icom or non-Icom equipment, if the malfunction is because of:

 Force majeure, including, but not limited to, fires, earthquakes, storms, floods, lightning, other natural disasters, disturbances, riots, war, or radioactive contamination.

• The use of Icom transceivers with any equipment that is not manufactured or approved by Icom.

ALL RIGHTS RESERVED. This document contains material protected under International and Domestic Copyright Laws and Treaties. Any unauthorized reprint or use of this material is prohibited. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system without express written permission from Icom Incorporated.

All stated specifications and design are subject to change without notice or obligation.

Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia, Australia, New Zealand, and/or other countries.

AMBE+2 is a trademark of Digital Voice Systems, Inc.

Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.

All other products or brands are registered trademarks or trademarks of their respective holders.

## ■ Voice coding technology

The AMBE+2<sup>™</sup> voice coding Technology embodied in this product is protected by intellectual property rights including patent rights, copyrights and trade secrets of Digital Voice Systems, Inc. This voice coding Technology is licensed solely for use within this Communications Equipment.

The user of this Technology is explicitly prohibited from attempting to extract, remove, decompile, reverse engineer, or disassemble the Object Code, or in any other way convert the Object Code into a human-readable form. U.S. Patent Nos.

#8,595,002, #8,359,197, #8,315,860, #8,200,497, #7,970,606, and #6,912,495 B2.

# ABOUT THE CONSTRUCTION OF THE MANUAL

You can use the following manuals to understand and operate this RoIP Gateway.

#### Precations (Comes with the RolP Gateway)

Instructions for the connections, initialization, and precautions.

#### Installation guide (PDF type)

Instructions for the system requirements, the system setup basics, maintenance, and the specifications. It can be downloaded from the Icom website.

#### **Operating guide (This manual, PDF type)**

The detailed references for the settings in the RoIP Gateway setting screen. It can be downloaded from the Icom website.

Also refer to the manual for each device, that is connected to your system.

# TOP screen 1-2 System Status 1-2 MAC Address 1-2 WAN Status 1-3 LTE Status 1-3

**TOP** screen

TOP

## System Status

Displays the firmware version, Date and Time, uptime, and memory usage.

stem Status	
Host Name	VE-PG4
Version	1.00
IP100H Firmware Version	19
Current Time	8:35:04
Uptime	0 day 00:05:40
Memory Usage	434416 kB / 993568 kB (43% used)

③ See "Transceiver Management" screen in this manual for details on the firmware version of each IP100H that is registered to the RoIP server. (Transceiver Controller > Transceiver Settings > Transceiver Management)

```
TOP
```

## MAC Address

Displays the MAC Address (LAN/WAN.)

LAN 00-90-C7-	MA	AC Address		
		LAN	00-90-C7-	
WAN 00-90-C7-		WAN	00-90-C7-	

- ① The MAC address is the peculiar number that is assigned to a networking device. It is displayed in 12 hexadecimal (00-90-C7-XX-XX-XX).
- ① The MAC address is also printed on the label on the bottom of the RoIP gateway.

**TOP** screen

TOP

## WAN Status

Displays the WAN connection status that is set on the "WAN" screen setting in the Router Settings menu. (Router Settings > WAN)

N Status		
Connection Type	DHCP Client	
Nickname	eth0	
Connection Status	(manager)	
IP Address		
Default Gateway		
DNS Server		

TOP

## ■ LTE Status

Displays the LTE information, such as RSSI Level, if a nanoSIM card is installed.

LT	E Status		
1	Network Status	4G	
2	RSSI Level	High	
3	Connection Status	Connected	
4	Last Access time to the Server	9:25:26	
6	Check the Server Connection	Check	

Network Status	Displays the type of the connected telephone line, "4G" or "3G."
2 RSSI Level	Displays the approximate RSSI (Received Signal Strength Indicator) level, "High," "Middle," "Low," or "Out of range."
3 Connection Status	Displays the status of the 4G/3G line connection, "Initializing," "Initialization failure," "Connecting," "Connected," or "Disconnected."
4 Last Access time to the Server	<ul> <li>Displays the last accessed date and time to the transceiver controller.</li> <li>The date and time in the list shows the received log from the transceiver module.</li> </ul>
<b>5</b> Check the Server Connection	Click <check> to check the connection to the IP Transceiver controller.</check>

# **INFORMATION**

Network Status screen	. 2-2
Interface List	. 2-2
Ethernet Port Connection Status	. 2-2
DHCP Lease Status	. 2-2
SYSLOG screen	. 2-3
SYSLOG	. 2-3
Bridge Status screen	. 2-4
Bridge Status	. 2-4
Port Connection Status	. 2-5
PBX Status screen	. 2-6
Extension Group List	. 2-6
List of Extensions	. 2-7
Call Log screen	. 2-8
Call Log	. 2-8
Extension Status screen	. 2-9
Extension Status	. 2-9
LTE Status screen	2-10
LTE Module Status	2-10
SIM Status	2-10
LTE Status	2-11

## **Network Status screen**

Information > Network Status

## Interface List

Displays the details of the Interface Setting.

(Network Settings > Static Routing > Routing Table > Interface)

terface List			
Interface	IP Address	Subnet Mask	
br-lan	192.168.0.1	255.255.255.0	

Information > Network Status

## Ethernet Port Connection Status

Displays the transfer speed and the transfer type for the Ethernet Port. This is an example setting the WAN connection type as [LAN Port].

thernet Port Connection Status							
Interface	MAC Address	Link Status					
LAN	AA AA AZ	100BASE-TX full-duplex					
WAN / LAN	00-90-C7-	Link down					

TIP:

- The RoIP Gateway's [LAN] ports are auto-negotiation enabled, and can automatically select the optimal speed and duplex mode if the peer devices are auto-negotiation enabled as well.
- We recommend that you always enable auto-negotiation on the peer devices.
   If a peer device is fixed to full-duplex mode, auto-negotiation enabled devices (including the RoIP Gateway) may generally take it for half-duplex mode, and cannot communicate properly.

Information > Network Status

## DHCP Lease Status

Displays the IP Address and Lease Time assigned to the connected devices.

CP Lease Status			
Host Name	MAC Address	IP Address	Lease Time
1011001110-000446-11	181701-011-00107-001	192.168.0.30	101000000000000000000000000000000000000

# SYSLOG screen

Information > SYSLOG

# SYSLOG

Displays the log of the RoIP Gateway.

SY	(SLOG		
		rent Time : Severity : 1 play Filter : 2	(Uptime: 0 day 02:14:18) ☑ DEBUG ☑ INFO ☑ NOTICE Include ☑ 3 4 5 Refresh Save Clear
	Date (Month-Day) and Time	Severity	Description
	11-26 10:00:03	INFO	telephoned: unable to snd pcm writei err : Broken pipe
1 Seve 2 Displ	rity		<ul> <li>Select one or more log types that you want to list.</li> <li>① Remove the check mark to hide the entries.</li> <li>① The selection is not stored, and will reset when you leave this screen.</li> <li>Enter a keyword (for example: dhcp) and select "Include" or "Exclude" to narrow down the list.</li> </ul>
<mark>3</mark> <ref< th=""><th>resh&gt;</th><th></th><th>Click to reload the list. Up to the last 1000 logs are listed.</th></ref<>	resh>		Click to reload the list. Up to the last 1000 logs are listed.
4 <sav< th=""><th>/e&gt;</th><th></th><th>Click to save a log to a text (.txt) file.</th></sav<>	/e>		Click to save a log to a text (.txt) file.
5 <clea< th=""><th>ar&gt;</th><th></th><th>Click to clear all the logs.</th></clea<>	ar>		Click to clear all the logs.

## **Bridge Status screen**

Information > Bridge Status

# Bridge Status

Displays the bridge connection status list, if a bridge destination network address is set. (See also section 5 in this manual for the Bridge Connection.) ① The Transceiver Controller is set to each port by default.

Port Name	Bridge Destination	Transmission Mode	Destination Address	Port Numbe	r	Voice Protocol	AMBE+2 Vocoder Assignment	Connection Status
				Destination	My Station			
Digital Transceiver1 (D-TRX1)	Digital Transceiver4 (D-TRX4)	-	-	-	-	-	Not Assigned	-
Digital Transceiver2 (D-TRX2)	Custom Bridge Connection	Unicast	192.168.1.200	23002	23002	Bridge Protocol	Internal	Inactive
Digital Transceiver3 (D-TRX3)	Transceiver Controller	-	-	-	-	-	Internal	-
Digital Transceiver4 (D-TRX4)	Digital Transceiver1 (D-TRX1)	-	-	-	-	-	Not Assigned	-
EXT I/O1 (EXT1)	Transceiver Controller	-	-	-	-	-	Not Assigned	-
EXT I/O2 (EXT2)	Transceiver Controller	-	-	-	-	-	Not Assigned	-
EXT I/O3 (EXT3)	Transceiver Controller	-	-	-	-	-	Not Assigned	-
EXT Input4 (EXT4)	Transceiver Controller	-	-	-	-	-	Not Assigned	-
EXT Output4 (EXT4)	Transceiver Controller	-	-	-	-	-	Not Assigned	-
Emergency Notification	Transceiver Controller	-	-	-	-	-	Not Assigned	-
Microphone (MIC)	Custom Bridge Connection	Multicast	239.255.255.1	22510	22510	G.711u	Not Assigned	Inactive
RoIP Gateway1	Transceiver Controller	-	-	-	-	-	-	-
RoIP Gateway2	Transceiver Controller	-	-	-	-	-	-	-
RoIP Gateway3	Transceiver Controller	-	-	-	-	-	-	-
RoIP Gateway4	Transceiver Controller	-	-	-	-	-	-	-
RoIP Gateway5	Transceiver Controller	-	-	-	-	-	-	-
RoIP Gateway6	Transceiver Controller	-	-	-	-	-	-	-
RoIP Gateway7	Transceiver Controller	-	-	-	-	-	-	-
RoIP Gateway8	Transceiver Controller	-	-	-	-	-	-	-

(This is only an example.)

Bridge Status screen

#### Information > Bridge Status

## Port Connection Status

Displays the connection status of each port.

Port Name	Transmission Mode	Destination Address	Port Number		Voice Protocol	AMBE+2 Vocoder Assignment	Connection Status
			Destination	My Station			
RoIP Gateway1	-	-	-	-	-	Not Assigned	-
RoIP Gateway2	-	-	-	-	-	Not Assigned	-
RoIP Gateway3	-	-	-	-	-	Not Assigned	-
RoIP Gateway4	-	-	-	-	-	Not Assigned	-
RoIP Gateway5	-	-	-	-	-	Not Assigned	-
RoIP Gateway6	-	-	-	-	-	Not Assigned	-
RoIP Gateway7	-	-	-	-	-	Not Assigned	-
RoIP Gateway8	-	-	-	-	-	Not Assigned	-
Converter Bridge1	-	-	-	-	-	Not Assigned	-
Converter Bridge2	-	-	-	-	-	Not Assigned	-
Converter Bridge3	-	-	-	-	-	Not Assigned	-
Converter Bridge4	-	-	-	-	-	Not Assigned	-
Converter Bridge5	· _	·		÷		Not Assigned	
Conner Oridge18		-				TNOT Assigned	
Converter Bridge19		-	-	-	-	Not Assigned	-
Converter Bridge20		-	-	-	-	Not Assigned	

(This is only an example.)

- RoIP Gateway 1 ~ 8 displays the status of the RoIP Gateway Connection settings. (Connection Port Settings > RoIP Gateway > RoIP Gateway Connection)
- Converter Bridge 1 ~ 20 displays the status of the Connection settings. (PBX Extension > Converter Bridge > Connection)
- Voice Protocol and the AMBE+2 Vocoder Assignment display the status of the AMBE+2 Vocoder Assignment settings.

(Bridge Connection Setting > Bridge Connection > AMBE+2 Vocoder Assignment)

# **PBX Status screen**

Information > PBX Status

# Extension Group List

Displays the Extension Group List status.

Extensions not Bel	onging to a Group 🗻	41 42 43 44 45 3000	
200 2	Extensions 3	31 32	
(Sales)	First call	31	
	Second call -4	32	
	Third call	None	
210 (Planning) 99	Extensions	33 34	
	Sequentially call	33 34	
	Extensions		

Extensions not Belonging to a Group	Displays the Extension Numbers that do not belong to any Extension Group.
Extension Group Number	Displays the Extension Group Number and its Group Name.
<b>3</b> Extensions	Displays the Extension Numbers that belongs to the Extension Group.
<b>4</b> Setting for Extension Prioritization	Displays the prior extensions to receive a call from the Extension Group Number (2).

## PBX Status screen

Information > PBX Status

## List of Extensions

Displays the Extension settings.

31	Extension Group Number 2	200	
(Sales 01)	Port Type 3	SIP Phone (Automatic Detection)	
1	Dial-in number 4	None	
	Automatic Acquisition Line Number	IP Line	No use
	5	Peer to Peer	No use
	Connection from WAN 6	Deny	
	MAC Address 7	EC-64444	
	IP Address 8	100 100 1 77	

(This is only an example.)

Extension Number	Displays the Extension number and the name. (PBX > Extension > Extension)
Extension Group Number	<ul><li>Displays the Extension Group number.</li><li>① Displays "No Extension Representative" when the Extension Numbers that do not belong to any Extension Group make a call.</li></ul>
<b>3</b> Port Type	Displays the port type of the extension.
Dial-in number	Displays the dial-in number, if entered.
SAutomatic Acquisition Line Number	Displays whether or not to automatically acquire a specific telephone line.
<b>6</b> Connection from WAN	Displays whether or not to allow connecting the Extension number from the WAN.
MAC Address	Displays the MAC address of the extension.
8 IP Address	<ul> <li>Displays IP Address used by the extension.</li> <li>Displays "Disconnected" when the extension does not connect to the RoIP Gateway.</li> <li>Displays "-" when you connect to the Transceiver Controller Telephone Connection or the Converter Bridge.</li> </ul>

# Call Log screen

Information > Call Log

# ■ Call Log

Lists the log of the Bridge connection to the RoIP gateway and the telephone communication.

	Call Log	1 2 3 Refresh Save Clear	
	Date (Month-Day) and Time	Description	
	12-20 11:20:05	Answering a call: [Transceiver Connect] (ID=2)	
	12-20 11:19:52	Sequential incoming: [Transceiver Connect] (ID=2)	
	12-20 11:19:50	Extension Outbound call: 31 [31] -> 5000*3 (ID=2)	
1<	Refresh>	Click to reload the list. Up to the last 1000 logs are listed	
2<	Save>	Click to save a log to a text (.txt) file.	
3<	Clear>	Click to delete all the logs.	

# **Extension Status screen**

Information > Extension Status

## Extension Status

Displays the status of the Extension. (PBX > Extension > Extension)

1	2	3	4	5	6
Name	Extension Number	Port Type	Version	IP Address	Presence
Sales 01	31	SIP Phone (Automatic Detection KX-HDV Series)	-	192.168.0.	Online
Sales 02	32	SIP Phone (Automatic Detection KX-UT Series)	an 276	192.168.0.	Online
Sales 03	33	SIP Phone (Automatic Detection)			Offline
Sales 04	34	SIP Phone (Automatic Detection)			Offline
	3000	Transceiver Controller Telephone Connection			
	4001	Converter Bridge			

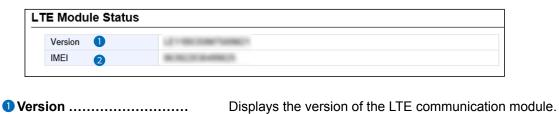
<b>1</b> Name	Displays the Extension number and the name assigned to Extension settings. (PBX > Extension > Extension)
2 Extension Number	Displays the extension number assigned to Extension. (PBX > Extension > Extension)
<b>3</b> Port Type	Displays the port type of the extension assigned to Extension settings. (PBX > Extension > Extension).
<b>4</b> Version	<ul> <li>Displays the Firmware information for VoIP Expansion.</li> <li>① Displayed when a SIP phone is displayed to only the Port Type Setting(3).</li> </ul>
IP Address	<ul> <li>Displays the IP Address used by VoIP Expansion.</li> <li>① Displayed when a SIP phone is displayed to only the Port Type Setting(3).</li> </ul>
6 Presence	<ul> <li>Displays the status of the VoIP Expansion.</li> <li>Offline: Not registered.</li> <li>Online*: Registered.</li> <li>On the phone*: Calling or holding.</li> <li>Step out*: Call forwarding except for the transceivers.</li> <li>*Online, On the phone, and Step out is displayed when successfully registered</li> <li>Displayed when a SIP phone is displayed to only the Port Type Setting(<sup>3</sup>).</li> </ul>

# LTE Status screen

Information > LTE Status

# LTE Module Status

Displays the information of the LTE communication module.



IMEI ...... Displays the communication module's IMEI (International Mobile Equipment Identifier.)

Information > LTE Status

## SIM Status

Displays the information of the SIM.

SIN	/I Status		
0	Active SIM Slot	SIM1	
2	ICCID	-	
3	Phone Number	-	
	Active SIM Slot		Displays the SIM slot number in use. Displays the ICCID (IC Card IDentifier) of the installed SIM card. ① Displayed when information of Active SIM Slot Setting (1) can be acquired.
Phor	Phone Number		Displays the telephone number of the SIM card. ① Displayed when information of Active SIM Slot Setting (①) can be acquired.

## LTE Status screen

Information > LTE Status

## ■ LTE Status

Displays the information of the LTE line if installed and valid.

LTE Status	
1 Network Status	4G
2 RSSI Level	High
3 Connection Status	Connected
4 Last Access time to the Server	18:25
Network Status RSSI Level Connection Status	Displays the approximate RSSI level, "High," "Middle," "Low," or "Out of range."
_ast Access time to he Server	
	The date and time in the list displayed here are acquired from the transceiver module.

# **NETWORK SETTINGS**

IP Address screen	
Host Name	
IP Address	
DHCP Server screen	
DHCP Server	
Static DHCP	
List of Static DHCP Settings	
Static Routing Screen	
Routing Table	
Static Routing	
List of Static Routing Entries	
Policy Routing screen	
Source Address Routing	
List of Source Address Routing Entries	

## **IP Address screen**

Network Settings > IP Address

## Host Name

Enter the host name.

Г

	Host Name		
	Host Name	VE-PG4	
Host	Name	Enter a host name of up to 31 characters.	(Default: \

Enter a host name of up to 31 characters. (Default: VE-PG4) When the RoIP Gateway connects to Telnet/SSH, this host name is displayed.

The usable characters are: "a" ~ "z", "A" ~ "Z", "0" ~ "9", and "-."

The name must start with an alphanumeric character, and must NOT start or end with a "-."

## IP Address screen

Network Settings > IP Address

## ■ IP Address

Enter the VE-PG4's IP Address.

IP Address	
IP Address : 1 _192.1 Subnet Mask : 2 _255.2 Default Gateway : 3	
Primary DNS Server : 4	6 7 Apply Reset
1 IP Address	<ul> <li>Enter the LAN IP address according to your network environment. (Default: 192.168.0.1)</li> <li>When using the DHCP Server function, the network part of the IP address must be the same as that set in the "IP Pool Start Address" item in the [DHCP Server] menu.</li> </ul>
<b>2</b> Subnet Mask	Enter the subnet mask according to your network environment. (Default: 255.255.255.0)
3 Default Gateway	If a default gateway device, such as a router, is connected to the LAN port, enter the device's IP address.
Primary DNS Server	Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary address.
Secondary DNS Server	If you have two DNS server addresses, enter the secondary DNS server address.
ⓒ <apply></apply>	Click to apply the entries.
⑦ <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Network Settings > DHCP Server

## ■ DHCP Server

Configure the DHCP Server function.

DHCP Server	
IP Pool Start Address : Pool Size :	
Lease Time : Domain Name : Default Gateway :	5 72 hours

1 DHCP Server	Select "Enable" to use the DHCP Server function The DHCP Sever is activated, depending on the (2) and Pool Size (3) items.	
IP Pool Start Address	Enter the IP Pool Start address. An IP address is automatically assigned to a tra Gateway connects to, from this IP Pool Start ad	
3 Pool Size	Entry the number of an IP address that can be	automatically assigned. (Default: 30)
	Up to 128 addresses can be automatically assi server function. Another 32 addresses can be r	igned by the DHCP
<b>4</b> Subnet Mask	Enter the subnet mask for the IP Pool Start add Start Address" (2).	dress set in the "IP Pool (Default: 255.255.255.0)
<b>5</b> Lease Time	Enter the lease time period. Range: 1 ~ 9999 (hours)	(Default: 72)
6 Domain Name	Enter a network address domain name of up to	253 characters.
7 Default Gateway	Enter the default gateway IP address. When the DHCP Server function is used, this II client. ① When this item is blank, the RoIP Gateway's IP a	

### Network Settings > DHCP Server

#### DHCP Server

DHCP Server	
Donuan Outorray	
	8 Disable 🔿 Enable
Primary DNS Server :	9
Secondary DNS Server :	
Primary WINS Server :	
Secondary WINS Server	
	3 Disable  Enable
TFTP Server Address :	<u> </u>
	Apply Reset

The screen above shows when "DNS Proxy" (8) is set to "Disable."

8 DNS Proxy	Selects whether or not to use a DNS proxy. (Default: Enable) When this option is set to "Enable," the terminals can assign the RoIP Gateway as the DNS server.
9 Primary DNS Server	(Displayed only when the DNS Proxy (⑧) is disabled) Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary address.
Secondary DNS Server	(Displayed only when the DNS Proxy (⑧) is disabled) If you have two DNS server addresses, enter the secondary DNS server address.
Primary WINS Server	Enter the WINS server's address. If you have two WINS server addresses, enter the primary address.
Secondary WINS Server …	If you have two WINS server addresses, enter the WINS server's secondary address.

### Network Settings > DHCP Server

#### DHCP Server

DHCP Server		
DNS Proxy :	: 🚯 🖲 Disable 🔿 Enable	
Primary DNS Server :	: 9	
Secondary DNS Server :	: 🔟	
Primary WINS Server :	: 0	
Secondary WINS Server :	: 0	
TFTP Server Distribution :	: 🔞 Disable 💿 Enable	
TFTP Server Address :	Apply Reset	

The screen above shows when "DNS Proxy" (8) is set to "Disable."

<b>B</b> TFTP Server Distribution	Set to "Enable" to use a provisioning KX Series telephone. (Default: Enable)
	<ul> <li>When this option is enabled, the telephone automatically reads the setting from the RoIP Gateway and sets up by itself.</li> <li>The telephone's MAC address must be entered on the "Extension" screen.</li> <li>When using this system with static IP addresses, see also Section 4 in the Installation guide.</li> </ul>
IFTP Server Address	Enter the IP address of the TFTP server for the KX series telephone. If this item is blank, the RoIP Gateway works as theTFTP server. (Default: Blank)
⑮ <apply></apply>	Click to apply the entries.
<pre>6</pre>	Click to reset the settings. () You cannot reset after clicking <apply>.</apply>

Network Settings > DHCP Server

## Static DHCP

Enter the MAC and static IP addresses of the DHCP server. ① You can enter up to 32 entries.

Static DHCP			
MAC Address	IP Address		
		Add	

Static DHCP .....

Enter the MAC and IP addresses, and then click <Add>.

- ① This setting is useful when the DHCP Server function is used. See page 3-4 for details of the DHCP Server function.
- ③ Sets a different IP address from the IP address that the DHCP Server function automatically assigns.
- ① Make sure that the addresses of the devices on the network do not overlap or conflict.

If a DHCP server is already connected to the network, and there is an address conflict, a network problem will occur.

## List of Static DHCP Settings

Displays the static DHCP entries.

t of Static DHCP Se	ettings		
MAC Address	IP Address		
00-90-C7-	192.168.0.150	Delete	

<Delete> .....

Click to delete the entry. (1) You cannot restore after clicking <Delete>.

# **Static Routing Screen**

Network Settings > Static Routing

# Routing Table

Displays the valid routing information for packet transmission.

R	outing Table				
	Destination 1	Subnet Mask 2	Gateway 3	Interface 4	
	192.168.0.0	255.255.255.0		br-lan	
	192.168.10.0	255.255.255.0	192.168.0.254	br-lan	
2 Sul	stination onet Mask teway			ress of the route's d of the route's destine way address.	
4 Inte	erface		The routing inter • br-lan: • eth0: • ppp0 ~ ppp7: • vti0 ~ vti 31:	LAN WAN PPPoE (WAN)	

#### Static Routing Screen

Network Settings > Static Routing

## Static Routing

Enter the static routing destinations. ① You can enter up to 32 entries.

Static Routing				
Destination 1	Subnet Mask 2	Gateway 3	Interface 4 5	
192.168.10.0	255.255.255.0	192.168.0.254	Set the gateway V Add	
Destination		The network a	address of the route's destination network.	
Subnet Mask		The subnet ma	ask of the route's destination network.	
Gateway			e Interface (④) is set to "Set the gateway") s gateway address.	
Interface		The routing inf • Set the gatew • ppp0 (WAN01 • vti0 ~ vti 31		
Second		Click to add th The entry that displayed.	ne entry. is registered in the [List of Static Routing Er	trie

# List of Static Routing Entries

Displays the static routing destinations. ① You can enter up to 32 entries.

Lis	st of Static R	outing Entries			
	Destination	Subnet Mask	Gateway	Interface	0 2
	192.168.10.0	255.255.255.0	192.168.0.254		Edit Delete
<ed< th=""><td>it&gt;</td><td></td><td>Click</td><td>to edit the er</td><th>ntry.</th></ed<>	it>		Click	to edit the er	ntry.
<delete></delete>		Click	to delete the	entry.	

You cannot restore after clicking <Delete>.

## **Policy Routing screen**

Network Settings > Policy Routing

# Source Address Routing

Enter the packet source routing from the specified network address of the source terminal (such as a PC.) ① You can enter up to 32 entries.

ource Address Routing			
Source Address 1	Subnet Mask 2	Gateway 3	Interface 4
192.168.0.20	255.255.255.255		ppp1 (WAN02) V Add

Source Address	Set the network address of the source terminal.
<b>2</b> Subnet Mask	Set the subnet mask of the source network address.
<b>3</b> Gateway	(Only when the Interface (④) is set to "Set the gateway") Set the route's gateway address.
4 Interface	The routing target interface from: • Set the gateway • ppp0 (WAN01) ~ ppp7 (WAN08) • vti0 ~ vti31
⑤ <add></add>	Click to add the entry. The entry that is registered in the [List of Source Address Routing Entries] is displayed.

## ■ List of Source Address Routing Entries

Displays the entered packet source routing settings.

Source Address Subnet Mask Gateway Interface 1 2					
	Source Address	Subnet Mask	Gateway	Interface	0 2

**1**<Edit> .....

Click to edit the entry.

2 <Delete> .....

Click to delete the entry. ① You cannot restore after clicking <Delete>.

WAN screen	. 4-2
Connection Status	. 4-2
Connection Type	. 4-6
Connection Settings	. 4-7
List of Connection Settings	4-12
NAT screen	4-13
NAT	4-13
DMZ Host	4-13
Port Forwarding	4-14
List of Port Forwarding Entries	4-15
IP Filter screen	4-16
General Settings	4-16
IP Filter	4-17
List of IP Filter Entries	4-22
Simple DNS screen	4-23
Simple DNS Server Setting	4-23
List of Simple DNS Server Settings	4-23
VPN screen	4-24
■ IPsec Settings	4-24
■ IPsec Tunnel Settings	4-25
List of IPsec Tunnel Settings	4-27

# WAN screen

Router Settings > WAN

## Connection Status

(When "Connection Type" is set to "LAN port") The WAN connection status is displayed.

Co	nnection Status		
Co	nnection Type	LAN Port	
IP.	Address		
Pe	er IP Address		
DN	IS Server		

Connection Status	Nothing is displayed.
<b>2</b> Connection Type	The WAN connection type is displayed.
3 IP Address	Nothing is displayed.
Peer IP Address	Nothing is displayed.
5 DNS Server	Nothing is displayed.

## WAN screen

#### Router Settings > WAN

#### Connection Status

(When "Connection Type" is set to "DHCP Client") The WAN connection status is displayed.

Connection Status	Connected	
Connection Type	DHCP Client	
IP Address	1962 1968 188 1933	
Peer IP Address	1962-1968-188-11	
DNS Server	1772-1813-1816	

Connection Status	The connection status to the Internet line is displayed as "Unplugged," "Connecting," or "Connected."
<b>2</b> Connection Type	The WAN connection type is displayed.
<b>3</b> IP Address	The RoIP Gateway's IP address is displayed.
Peer IP Address	The default Gateway IP address specified by your service provider is displayed.
5 DNS Server	The DNS server's IP address is displayed.

## WAN screen

#### Router Settings > WAN

#### Connection Status

(When "Connection Type" is set to "Static IP") The WAN connection status is displayed.

Connection Status	Connected	
Connection Type	Static IP	
IP Address	1962 (Ref) (Ref) (Fig.)	
Peer IP Address	1967-1968-186-1	
DNS Server	1712-0018-000	

Connection Status	The connection status to the Internet line is displayed as "Unplugged," or "Connected."
<b>2</b> Connection Type	The WAN connection type is displayed.
<b>3</b> IP Address	The RoIP Gateway's IP address is displayed.
Peer IP Address	The default Gateway IP address specified by your service provider is displayed.
5 DNS Server	The DNS server's IP address is displayed.

## WAN screen

#### Router Settings > WAN

#### Connection Status

(When "Connection Type" is set to "PPPoE")

The WAN connection status is displayed.

① Up to 2 PPPoE sessions can be connected from the registered PPPoE destination.

① The first session is set to the default gateway.

To use a second session, set the Static Routing and the Policy Routing.

PPPoE Session	Session 1	Session 2
Destination	WAN01 (ppp0)   Disconnect	None   Connect
Connection Status	Connected	
Connection Type	PPPoE	PPPoE
IP Address	40.4775.100	
Peer IP Address	NE 191,298,158	
DNS Server	201 201 248 5 201 200 248 1	
Uptime	8-Mar 10-00-0	

PPPoE Session	The first session and the second session are displayed respectively.
2 Destination	<ul> <li>Select the destination from the WAN connection set in the [Connection Settings" setting (Router Settings &gt; WAN &gt; Connection Settings).</li> <li>① You cannot select while connecting the line.</li> <li><connect>/<disconnect></disconnect></connect></li> <li>Click to manually connect or disconnect the selected WAN.</li> <li>① <disconnect> is displayed when the line is connected.</disconnect></li> <li>① If "Connecting" is not displayed in [Connection Status] when the line is connected, check the cable connection and network configuration.</li> </ul>
<b>S</b> Connection Status	The connection status to the Internet line is displayed as "Unplugged," "Disconnect," "Connecting," or "Connected."
Connection Type	The WAN connection type is displayed.
5 IP Address	The RoIP Gateway's IP address is displayed.
6 Peer IP Address	The default Gateway IP address specified by your service provider is displayed.
ONS Server	The DNS server's IP address is displayed.
8 Uptime	The elapsed time the RoIP Gateway has been connected to the network is displayed.

## WAN screen

Router Settings > WAN

# ■ Connection Type

WAN/LAN port settings.

onnection Type		
Connection Type :	LAN Port	~
		Apply Reset

Connection Type	Select the WAN connection type as specified by your service provider. (Default: LAN Port)	
	LAN Port:	Switching the [LAN] port to connect to other devices.
	DHCP Client:	The WAN IP address is automatically obtained by a DHCP server.
	Static IP:	The WAN IP address is specified by your service provider.
	• PPPoE:	The WAN IP address is specified by your service provider using the PPPoE method.

## WAN screen

Router Settings > WAN

# Connection Settings

(When "Connection Type" is set to "DHCP Client") Set the WAN.

onnection Settings	
Nickname : 1	
Primary DNS Server : 2	
Secondary DNS Server : 3	

Nickname	Enter your service provider's name of up to 31 characters.
<b>2</b> Primary DNS Server	Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary address.
<b>3</b> Secondary DNS Server	If you have two DNS server addresses, enter the secondary DNS server address.
<pre>4<apply></apply></pre>	Click to apply the entries.
<b>5</b> <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

## WAN screen

#### Router Settings > WAN

#### Connection Settings

(When "Connection Type" is set to "Static IP") Set the WAN.

Nickname : 1	
IP Address : 2	
Subnet Mask : 3	
Default Gateway : 4	
Primary DNS Server : 5	
Secondary DNS Server : 6	<b>— () (8)</b>

1 Nickname	Enter your service provider's name of up to 31 characters.		
<b>2</b> IP Address	Enter the WAN IP address.		
Subnet Mask	Enter the WAN Subnet Mask		
Default Gateway	Enter the WAN Default Gateway.		
Server	Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary address.		
Secondary DNS Server	If you have two DNS server addresses, enter the secondary DNS server address.		
⑦ <apply></apply>	Click to apply the entries.		
8 <reset></reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>		

## WAN screen

Г

#### Router Settings > WAN

#### ■ Connection Settings

(When "Connection Type" is set to "PPPoE") Set the WAN.

Select Connection : 1	WAN01 (ppp0)	~
Nickname : 2		
Username : 3		
Password : 4		
Reconnect Mode : 5	Always-ON	~
IP Address : 6		
Primary DNS Server : 7		
Secondary DNS Server : 8		
Authentication Protocol : 9	Automatic	~
MSS Limit : 10		00

Select Connection	Select the W/	AN connection. (Up to 8 setting	s can be set.) (Default: WAN01(ppp0))
2 Nickname	Enter or edit your service provider's name of up to 31 characters. ① The nickname set in [Select Connection] is displayed.		
<b>3</b> User Name	Enter the login user name or the account name.		
4 Password	Enter a login password. The entered characters are displayed as * (asterisk) or ● (black circle.)		
S Reconnect Mode	Select the PF	PoE connection method.	(Default: Always-ON)
	• Manual: <ol> <li>The network</li> </ol>	The PPPoE line can be man <connect>/<disconnect> ( is disconnected, when the RoIP (</disconnect></connect>	
	<ul> <li>Always-ON: The PPPoE line is always connected to the destination set in the [Select Connection].</li> <li>The network is already connected when the RoIP Gateway is booted.</li> <li>You can manually connect or disconnect by clicking <connect> or <disconnect> in the "Connection Status" setting (Router Settings &gt; WAN &gt; Connection Status).</disconnect></connect></li> </ul>		

## WAN screen

Router Settings > WAN

## Connection Settings

(When "Connection Type" is set to "PPPoE")

Select Connection : 1	WAN01 (ppp0)	~
Nickname : 2	WAN01	
Username : 3		
Password : 4		
Reconnect Mode : 5	Always-ON	~
IP Address : 6		
Primary DNS Server : 7		
Secondary DNS Server : 8		
Authentication Protocol : 9	Automatic	~
MSS Limit : 🔟		1 12
		Apply Reset

6 IP Address	Enter the WAN IP address only if it is specified by your service provider.			
Primary DNS Server	Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary address.			
8 Secondary DNS Server	If you have t server addre	wo DNS server addresses, enter the s ess.	econdary DNS	
9 Authentication Protocol	Enter the authentication protocol specified by your service provid Select "Automatic" if not specified. (Default: Automatic			
	Automatic:	Change PAP/CHAP automatically accordi request.	ng to the destination's	
	• <b>PAP:</b> Use a password for the authentication Note that the password is not encryption of the password is not encryption.			
	• CHAP:	The authentication information is encr	ypted. It is more	

secure than PAP.

## WAN screen

Router Settings > WAN

## ■ Connection Settings

(When "Connection Type" is set to "PPPoE")

Select Connection : 1	WAN01 (ppp0)	~
Nickname : 2	WAN01	
Username : 3		
Password : 4		
Reconnect Mode : 5	Always-ON	~
IP Address : 6		
Primary DNS Server : 7		
Secondary DNS Server : 8		
Authentication Protocol : 9	Automatic	~
MSS Limit : 10		1 12
-		Apply Reset

10 MSS Limit	Enter the MSS Limit, if specified by your service provider. (Default: 1322) • Range: 536 ~ 1452 (byte)
❶ <apply></apply>	Click to apply the entries.
₽ <reset></reset>	Click to reset the settings. (1) You cannot reset after clicking <apply>.</apply>

## WAN screen

Router Settings > WAN

# List of Connection Settings

(When "Connection Type" is set to "PPPoE")

Lists the connection destinations registered in "Connecting Settings". (Router Settings > WAN > Connection Settings)

Nickname	Username	Reconnect Mode	
WAN01(ppp0)		Always-ON	Delete

<Delete> .....

Click to delete an entry. ① You cannot restore after clicking <Delete>.

## **NAT** screen

Router Settings > NAT

## ■ NAT

Set the NAT.

① This function cannot be used when "LAN port" is selected in "Connection Type."

NAT		
NAT :	⊖ Disable (● Enable	

NAT.....

Select "Enable" to use the NAT function. (Default: Enable) The NAT function converts the WAN global address into a private address.

Router Settings > NAT

## DMZ Host

Set the DMZ Host function.

① This function cannot be used when "LAN port" is selected in "Connection Type."

DMZ Host	
DMZ Host IP Address : 1	2 3
	Apply Reset

DMZ Host IP Address	<ul> <li>Enter the DMZ Host IP address.</li> <li>The DMZ Host function (DeMilitarized Zone) transfers an unknown IP frame from the WAN (Internet) to the specified IP address on the LAN. But you need to pay attention because it also decreases the security of the IP address, which is specified as the transfer destination.</li> <li>When the DMZ Host function and Port Forwarding are used at the same time, Port Forwarding is prioritized.</li> <li>Icom is not responsible for any results caused by a decline in security.</li> </ul>
2 <apply></apply>	Click to apply the entries.
<b>3</b> <reset></reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>

## NAT screen

Router Settings > NAT

## Port Forwarding

The Port Forwarding function forwards the packets from a masquerade IP (Router Global IP) address to a private IP address.

rt Forwarding				
WAN Port 1	LAN IP Address 2	LAN Port 3	Protocol 4	5
Custom 🗸		Custom 🗸	TCP 🗸	Add

1 WAN Port	Select "Custom" if you select the WAN port by its number. If you don't select the port by number, select the port by the mnemonic (DNS, Finger, FTP, Gopher, NEWS, POP3, SMTP, Telnet, Web, or Whois).
<b>2</b> LAN IP Address	Enter the private IP address.
SLAN Port	Select "Custom" if you select the LAN port by its number. If you don't select the port by number, select the port by the mnemonic (DNS, Finger, FTP, Gopher, NEWS, POP3, SMTP, Telnet, Web, or Whois).
Protocol	Select the protocol from "TCP," "UDP," "TCP/UDP," "GRE," and "ESP."
<b>⑤</b> <add></add>	Click to add the entry. ① Up to 32 masquerade IP addresses can be registered.

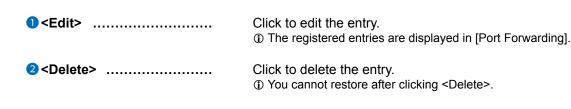
NAT screen

Router Settings > NAT

# List of Port Forwarding Entries

Lists the Port Forwarding Entries.

t of Port Forv	warding Entries				
WAN Port	LAN IP Address	LAN Port	Protocol	0	2
Web	192.168.0.100	Web	TCP/UDP	Edit	Delete
FTP	192.168.0.200	FTP	TCP/UDP	Edit	Delete



4-15

# **IP Filter screen**

Router Settings > IP Filter

# General Settings

The settings to pass or block the packets that match the registered filtering settings.
When [LAN Port] is set in Connection type, this setting cannot be changed.
Icom is not responsible for any results caused by a decline in security due to changing the IP filter.

General Settings		
Block Action : 1 ● Drop ○ R Syslogging Unmatched Packets : 2 ● Disable ○		
Block Action	Select the operation when blocking the packet.  • Drop: Dropping the packet without any response.	(Default: Drop)
	• <b>Reject</b> : Sending the denied packet.	
<b>2</b> Syslogging Unmatched Packets	Select whether or not to log the packets started from th blocked due to not matching any IP filter. ( ① Processing a large number of logs may decrease the proce	Default: Disable)
S <apply></apply>	Click to apply the settings.	
4 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>	

IP Filter screen

Router Settings > IP Filter

## IP Filter

The settings to pass or block the packets that match the registered filtering settings.
When [LAN Port] is set in Connection type, this setting cannot be changed.
Icom is not responsible for any results caused by a decline in security due to changing the IP filter.

No. : 1	1						•
-	O Disable	Enable					
	Block						
	In Out						
Source IP Address : 5					Mask :	32	•
Destination IP Address : 6					Mask :	32	
Protocol : 7				•	Custom Value :		
Source Port : 8			Custom Value :		-		
Destination Port : 9	Any	•	Custom Value :				
TCP Flags : 10	URG ACK	PSH RST	r 🗆 syn 🔍 fin				
	Disable						12 13

① This is an example of setting "TCP" as the protocol.

<b>1</b> No	The filter f	~ 64 nber registe function cl	ered in [List on necks the p	of IP Filter Entrie ackets in the se er Entries].	-	(Default: 1 be selected. der according to	,
2 Entry	Select "Di If the filter IP Filter En ① This is a	sable" in t is registe atries]. an example	when numb	filter entry. able," (OFF) is o er "1" is disabled	displayed I.	(Default: Enable in [No.] of [List o	
	No.	Action	Protocol (TCP Flags)	Source IP Address (Source Port) Destination IP Address	SYSLOG		
				(Destination Port)			
	1 (off)	Pass	Any	* (*)	Disable	Edit Delete	
		In		* (*)			
<b>3</b> Action	Select the • Block:	Ū.		match the filterir	ng settings	(Default: Pass	)

• **Pass:** Passes all packets that match the filtering settings.

## IP Filter screen

## Router Settings > IP Filter

#### IP Filter

No. : 1	1						
Entry : 2	Disable  Enable	le					
Action : 3	Block  Pass						
	In Out						
Source IP Address : 5					Mask :	32	
stination IP Address : 6					Mask :	32	
Protocol : 7	ТСР			•	Custom Value :		
Source Port : 8		•	Custom Value :				
Destination Port : 9	Any	•	Custom Value :		-		
TCP Flags	URG ACK PS	H RST	SYN FIN				

① This is an example of setting "TCP" as the protocol.

<b>4</b> Direction	Set the filtering direction.	(Default: In)
	• In: Filters the incoming packets from the WAN interfaces.	
	• Out: Filters the outgoing packets to the WAN interfaces.	
Source IP Address	Enter the source IP address (and mask) to filter. All the packets sent from the entered IP address are filtered passed.) • Mask range: 1 ~ 32	ed (blocked or
Destination IP Address	Enter the destination IP address (and mask) to filter. All the packets sent to the entered IP address are filtered ( passed). • Mask range: 1 ~ 32	(blocked or
Protocol	Select the transport layer protocol of the packet targeted to	o be filtered. (Default: Any)
	• Any: All protocols.	
	• TCP: Only TCP. Enter [Source Port], [Destination Port], and [TCP Flags]	
	UDP: Only UDP. Enter [Source Port] and [Destination Port].	

### **IP** Filter screen

#### Router Settings > IP Filter

#### IP Filter

No. : 1 _1							
Entry : 2 🔍 Disa	ole 🖲 Enable						
Action : 3 Bloc	(  Pass						
Direction : 4   In	Out 🔍						
Source IP Address : 5					Mask :	32	
stination IP Address : 6					Mask :	32	
Protocol : 7 TCP				•	Custom Value :		
Source Port : 8 Any		•	Custom Value :		-		
Destination Port : 9 Any		•	Custom Value :				
TCP Flags : 10 URG	ACK PSH	RST	SYN FIN				

① This is an example of setting "TCP" as the protocol.

**7** Protocol (Continued) .....

#### • **TCP/UDP:** TCP and UDP. Enter [Source Port] and [Destination Port].

#### • ICMP: Only ICMP. Enter [Type] and [Code].

Protocol :	ICMP	~	Custom Value :	
Type : Code :				

#### [Type]

Enter the type of ICMP header to filter between 0 and 255. ① When the type is not specified, all header types are filtered.

#### [Code]

Enter the type of ICMP code to filter between 0 and 255. ① When the type is not specified, all code types are filtered.

- IGMP: Only IGMP.
- Custom: Specified by the potocol number. Enter the upper IP layer protocol number into the [Cunstom Value]. Range: 0 ~255

## IP Filter screen

## Router Settings > IP Filter

#### IP Filter

No. : (	1					
Entry :	🔍 Disable 💿 Enal	ble				
Action :	Block  Pass					
	🖲 In 🔘 Out					
Source IP Address :				Mask :	32	
stination IP Address :				Mask :	32	
Protocol :	ТСР		•	Custom Value :		
Source Port :		<ul> <li>Custo</li> </ul>	m Value :	-		
Destination Port :	Any	<ul> <li>Custo</li> </ul>	m Value :	-		
TCP Flags :	URG ACK	SH 🔤 RST 🔤 SYN	FIN			
	🖲 🔍 Disable 🔍 Enal					12 13

① This is an example of setting "TCP" as the protocol.

8 Source Port	Specify the source port, or enter the TCP/UDP source port number. (Default: Any)
	<ul> <li>There are 2 ways to specify the port number.</li> <li>Specifying by number</li> <li>Select "Custom."</li> <li>Enter the custom port number in "Custom Value:[(Start)] - [(End)]." When you use a specific port, enter only the "[(Start)]", or enter the same number in both the "[(Start)]" and the "[(End)]." Port number range: 1 ~ 65535</li> </ul>
	<ul> <li>Specifying by mnemonic Select a source port other than "Any" or "Custom."</li> <li>"DNS," "Finger," "FTP," "Gopher," "NEWS," "POP3," "SMTP," "Telnet,"</li> <li>"Web," "Whois" are selectable.</li> <li>When "Any" is selected, all of the port number types are filtered.</li> </ul>
Destination Port	Select the destination port, or enter the TCP/UDP destination port number. (Default: Any)
	<ul> <li>There are 2 ways to specify the port number.</li> <li>Specifying by number</li> <li>Select "Custom."</li> <li>Enter the custom port number in "Custom Value:[(Start)] - [(End)]." When you use a specific port, enter only the "[(Start)]", or enter the same number in both the "[(Start)]" and the "[(End)]." Port number range: 1 ~ 65535</li> </ul>
	<ul> <li>Specifying by mnemonic Select a source port other than "Any" or "Custom."</li> <li>"DNS," "Finger," "FTP," "Gopher," "NEWS," "POP3," "SMTP," "Telnet,"</li> <li>"Web," "Whois" are selectable.</li> <li>When "Any" is selected, all of the port number types are filtered.</li> </ul>

## IP Filter screen

#### Router Settings > IP Filter

#### IP Filter

No. :	1					
Entry :	🛛 🔘 Disable 💿 Enable					
Action :	Block  Pass					
	🖲 In 🔘 Out					
Source IP Address :				Mask :	32	
stination IP Address :				Mask :	32	
Protocol :	ТСР		•	Custom Value :		
Source Port :	-	Custom Value :				
Destination Port :	Any 🔻	Custom Value :				
TCP Flags :	URG CACK PSH RS	SYN FIN				
	🖲 🖲 Disable 🔘 Enable					12 B

10 TCP Flags.....

Select the TCP flags. (Default: None) You can select the TCP flags from "URG," "ACK," "PSH," "RST," "SYN,"

and "FIN."
The selected flag's first character is displayed in [List of IP Filter Entries]. (Example: RST is selected)

2	Pass In	TCP (R)	* (*) *	Disable	Edit Delete
			(*)		

① When "None" is selected, the packet is filtered regardless of the TCP flags.

SYSLOG	<ul> <li>Select "Enable" to output the SYSLOG.</li> <li>The log information is displayed on the SYSLOG screen (Information &gt; SYSLOG)</li> <li>Processing a large number of logs may decrease the pro Do not use this function except for the operation check a operation to ensure the call quality.</li> </ul>	ocessing speed.
<pre> <b>                                    </b></pre>	Click to apply the entries.	
<pre>B<reset></reset></pre>	Click to reset the settings. () You cannot reset after clicking <apply>.</apply>	

## **IP** Filter screen

#### Router Settings > IP Filter

## List of IP Filter Entries

Lists the IP filter entries registered in [IP filter] setting.

No.	Action	Protocol (TCP Flags)	Source IP Address (Source Port)	SYSLOG		
	Direction		Destination IP Address (Destination Port)		0	2
59	Block	TCP/UDP * (135)		Disable	Edit	Delete
	Out		* (*)			
60	Block	TCP/UDP	* (*)	Disable	Edit	Delete
	Out		* (135)			
51 Block	61	TCP/UDP	* (445)	Disable	Edit	Delete
	Out		* (*)			
62	Block	TCP/UDP	* (*)	Disable	Edit	Delete
	Out		* (445)			
63	Block	TCP (Any Flag)	* (*)	Disable	Edit	Delete
	Out		* (137-139)			
64	Block	UDP	* (137-139)	Disable	Edit	Delete
	Out		* (137-139)			

❶ <edit></edit>	Click to edit the entry. ① The entry contents are loaded to the IP Filter Setting.			
2 <delete></delete>	Click to delete the (1) You cannot resto	e entry. pre after clicking <delete>.</delete>		
	About the defau • No. 59-64:	It IP filter packets These filtering conditions prevent the Windows applications from the remote access and leaking information caused by		

the File Sharing.

① The \* mark matches all values.

## Simple DNS screen

Router Settings > Simple DNS

# Simple DNS Server Setting

The settings to use the RoIP Gateway as a simple DNS server.

NS Proxy must be enabled	d in the DHCP Server settings to use this f	Inction.	
IP Address	DNS Host Name		
		Add	

Enter the combination of the terminal host name and the IP address corresponding to the host and click <Add>. When the combination is registered, the RoIP Gateway can respond to both DNS forward lookup and DNS reverse lookup.

- $\textcircled{\sc 0}$  Up to 32 combinations can be registered.
- ① This setting is effective when using the DNS proxy response function of the RoIP Gateway.
- We recommend that you use a static DHCP server to fix the combination of the MAC address and the IP address when registering the local IP address and its host name.
- ① If you register "Host Name.Domain Name" as the host name, the RoIP Gateway can respond to the request, even if only the host name matches.

#### Router Settings > Simple DNS

## ■ List of Simple DNS Server Settings

Lists the simple DNS Server entries. Click <Delete> to delete the entry.

P Address	DNS Host Name	
-----------	---------------	--

# **VPN** screen

Router Settings > VPN

# IPsec Settings

Set the virtual private network (VPN) connection using the IPsec protocol.

IPs	sec : 🛈 💿 Disable 🛛 Enable	2 3
		Apply Reset

<b>1</b> IPsec	Set the IPsec function. When "Enable" is set, a VPN connection using the IPs used.	(Default: Disable) sec tunnel can be
2 <apply></apply>	Click to apply the entries.	
S≤Reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>	

## **VPN** screen

Router Settings > VPN

# ■ IPsec Tunnel Settings

Set the virtual private network (VPN) connection using the IPsec tunnel.

Tunnel Interface : 1	vti1		~
Tunnel : 2	○ Disable ● E	nable	
Tunnel Name : 3			
Interface : 4	eth0		~
Authentication Key (Pre-Shared Key) : 5			
Remote Address : 6			
Remote ID : 7	IP Address	<u> </u>	
Local ID : 8	IP Address	×	
			Apply Reset

<b>1</b> Tunnel Interface	Specifying the interface to register the IPsec tunnel. Range: vti0 ~ vti31
2 Tunnel	Select "Enable" to use the IPsec tunnel to register. (Default: Enable) Select "Disable" when it is registered but not used.
<b>3</b> Tunnel Name	Enter the name to identify the IPsec tunnel of up to 31 characters.
Interface	Select the interface to connect with Remote Address. (Default: eth0)
	<ul> <li>eth0 Select this interface when "Static IP" or "DHCP client" is set in the "Connection Type" setting (Router Settings &gt; WAN &gt; Connection Type).</li> </ul>
	<ul> <li>ppp0(WAN01) ~ ppp7(WAN08) Select this interface when "PPPoE(WAN01 ~ WAN08)" is set in the "Connection Type" setting (Router Settings &gt; WAN &gt; Connection Type).</li> <li>"WAN01 ~ WAN08" are the nicknames.</li> </ul>
<b>5</b> Authentication Key	
(Pre-Shared Key)	To authenticate the VPN Remote peer, enter the same character strings as the connected device of up to 128 alphanumeric characters.
6 Remote Address	<ul><li>Enter the IP address or the host name of the VPN connection destination.</li><li>When the IP address or the host name is entered, the RoIP Gateway initiates a VPN connection to the connected device.</li><li>① If this item is not set, the RoIP Gateway only works as a responder that waits for a connection from other devices.</li></ul>

## VPN screen

#### Router Settings > VPN

#### ■ IPsec Tunnel Settings

Psec Tunnel Settings		
Tunnel Interface : 1	vti1	~
	O Disable	
Tunnel Name : 3		
Interface : 4	eth0	~
Authentication Key (Pre-Shared Key): 5		
Remote Address : 6		
Remote ID :	IP Address V	
Local ID : 8	IP Address V	
		Apply Reset

Image: Remote ID         Image: Additional content of the second content of	Set the ID to identify the connected device. Select the IP type from "IP Address," "KEYID," "FQDN," or "USER-FQDN." (Default: IP Address) IP Address: IP address format KEYID: Up to 256 alphanumeric characters FQDN: Domain name up to 253 characters USER-FQDN: Mail address format up to 254 characters Example: user@xxxx.yyyy.zzzz 1. Up to 64 characters 2. Up to 63 characters for each part Set the ID to identify the local device. Select the IP type from "IP Address," "KEYID," "FQDN," or "USER-FQDN." (Default: IP Address) • IP Address: IP address format • KEYID: Up to 256 alphanumeric characters • FQDN: Domain name up to 253 characters • USER-FQDN: Mail address format • KEYID: Up to 256 alphanumeric characters • JUSER-FQDN: Mail address format up to 254 characters • USER-FQDN: Mail address format up to 254 characters • Lypto 64 characters • USER-FQDN: Mail address format up to 254 characters • Lypto 64 characters • USER-FQDN: Mail address format up to 254 characters • Lypto 64 characters • USER-FQDN: Mail address format up to 254 characters • Lypto 64 characters • Lypto 64 characters • Lypto 64 characters • Lypto 63 characters for each part
9 <apply></apply>	Click to apply the entries.
<pre> @<reset> </reset></pre>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

## VPN screen

Router Settings > VPN

# ■ List of IPsec Tunnel Settings

Lists the connections settings.

0	2	3	4	6	6		
Tunnel Interface	Interface	Status	Remote Address	Remote ID	Local ID	7	8
vti0 (Sales)	ppp0 (WAN01)	IPsec is Disabled	100 100 10 10	IP Address	IP Address	Edit	Delet

<b>1</b> Tunnel Interface	The interface nam	e (tunnel name) is displayed.		
<b>2</b> Interface	The interface nam	e of the tunnel source is displayed.		
<b>3</b> Status	The IPsec tunnel s	status is displayed.		
	Connected:	Connected.		
	Waiting:	Connection ready.		
	Connecting:	Connection in progress.		
	Disable:	IPsec is enable but Tunnel Setting is disable.		
	• IPsec is Disabled: The RoIP Gateway's IPsec function is disable			
Remote Address	<ul> <li>The IP address set as the connection destination or the host name is displayed.</li> <li>"-" is displayed when this item is not set in a Responder.</li> <li>The destination IP address is displayed while connecting.</li> <li>When a VPN connection is made while the Responder function is ON, the Remote Address is displayed in parentheses, as in (172.16.***.***).</li> </ul>			
Semote ID	The peer ID is disp	blayed.		
6 Local ID	The local ID is dis	played.		
<pre> <b>                                    </b></pre>	Click to edit the er	itry.		
8 <delete></delete>	Click to delete the (i) You cannot rest	entry. pre after clicking <delete>.</delete>		

# **BRIDGE CONNECTION SETTINGS**

Bridge Connection screen	5-2
Bridge Connection	
Bridge Connection Entry List (For Combination)	
Bridge Connection Entry List (For Custom Bridge Connection)	. 5-12
AMBE+2 Vocoder Assignment	5-13
SelCall in Bridge Connection screen	5-15
Save or Write the Rule Settings for SelCall in Bridge Connection	5-15
Rule Settings for SelCall in Bridge Connection	5-16
List of Rule Settings for SelCall in Bridge Connection	5-17

Bridge Connection Settings > Bridge Connection

# Bridge Connection

Sets the transceiver port bridge connection combination.

- ① The transceiver port assigned as a bridge connection source or a destination is no longer usable as a call destination.
- The EXT 1 and MIC ports are not usable at the same time. The EXT 1 port is disabled while a microphone is connected to the MIC port on the front panel.

Bridge Connection		
Combination Bridge Connection Source :	Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination : 2	Custom Bridge Connection	~
Transmission Mode : 3	Unicast	~
SelCall in Bridge Connection : 4 Destination Address : 5		
Destination Port Number : 6		
Source Port Number : 🤇		Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

(Multicast mode)	
Transmission Mode : 3 Multicast	~
Source on Number	
Multicast TTL : <sup>1</sup>	
	Apply Reset

Bridge Co	onnection			
Combination	Bridge Connection Source : 1	Digital Transceiver1 (D-TRX1)		~
	Bridge Connection Destination : 2		9	10 🗸
	-		Apply	Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Digital Transceiver 2 (D-TRX2)."

Bridge Connection Source...

Select the port for the bridge connection.

2 Bridge connection Destination
 Select the destination port for the bridge connection.
 ① Only the ports that can be connected to the source port (1) are listed in this setting.

**NOTE:** When you set a combination of a Digital Transceiver and an analog transceiver (EXT(I/O) Port,) enter [AMBE+2 Vocoder Assignment] settings below on the same screen.

Bridge Connection Settings > Bridge Connection

٦

Bridge Connection

r								10		
		n	10	-	-	•	r	2	~	^
	LJ		н.	. –						e

Bridge Connection	
Combination	
Bridge Connection Source : 1 Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination : 2 Custom Bridge Connection	~
Transmission Mode : 3 Unicast	~
SelCall in Bridge Connection : 🕘 💿 Disable 🛛 Enable	
Destination Address : 6	
Destination Port Number : 6 23000	
Source Port Number : 7 _23000	9 10
	Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

Multicast mode		
Bridge Connection		
Combination		
Bridge Connection Source : 1	Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination : 👩		~
Transmission Mode : 3	Multicast	~
Solution	00	
Multicast TTL : 8	1	9 10
		Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Digital Transceiver 2 (D-TRX2)."

<b>3</b> Transmission Mode	Set the transmission mode for Bridge Connection with the RoIP Gateway by either Unicast or Multicast.
SelCall in Bridge Connection	Set whether or not you can make an Individual call to a device that is connected to the same network as this RoIP Gateway. (Default: Disable)
	<ul> <li>If this setting is enabled, The RoIP Gateway connects to the destination device according to the List of Rule Settings for SelCall in Bridge Connection.</li> <li>(Bridge Connection Setttings &gt; SelCall in Bridge Connection &gt; List of Rule Settings for SelCall in Bridge Connection)</li> </ul>
	<ul> <li>This setting is displayed when the combination of Digital Transceiver (D-TRX1 ~ 4) and the Custom Bridge Connection are set.</li> </ul>

Bridge Connection Settings > Bridge Connection

Bridge Connection

(Unicast mode)

Bridge Connection		
Combination Bridge Connection Source	Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination :	2 Custom Bridge Connection	~
Transmission Mode :	3 Unicast	~
SelCall in Bridge Connection :	④ ● Disable ○ Enable	
Destination Address :	٥	
Destination Port Number :	<u> 23000</u>	
Source Port Number :	23000	9 10
		Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

(Multicast mode)		
Bridge Connection		
Combination		
Bridge Connection Source : 1	Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination : 2	Digital Transceiver2 (D-TRX2)	~
Transmission Mode : 3	Multicast	~
Sobre		
Multicast TTL : (8)	1 9	10
•	Apply	y Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Digital Transceiver 2 (D-TRX2)."

**5** Destination Address .....

Set the IP address as follows.

When "Enable" is selected in the SelCall in Bridge Connection (4), this item is not displayed.

- When the Transmission mode is "Unicast": Enter a Destination Address, or its domain name of up to 63 characters.
- When the Transmission mode is "Multicast": Enter the same multicast address as the setting in the Bridge Connection Destination.

The settable range: 244.0.0.0 ~ 239.255.255.255

(Default: 239.255.255.1)

#### Bridge Connection Settings > Bridge Connection

Bridge Connection

#### (Unicast mode)

Bridge Connection	
Combination Bridge Connection Source : Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination : 2 Custom Bridge Connection	~
Transmission Mode : <sup>3</sup> Unicast	~
SelCall in Bridge Connection : 🍳 💿 Disable 🛛 Enable	
Destination Address : <sup>5</sup>	
Destination Port Number : 6 _23000	
Source Port Number : 🕜 _23000	9 10
	Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

# Bridge Connection Combination Bridge Connection Source : Digital Transceiver1 (D-TRX1) Bridge Connection Destination : Outcome Connection Destination : Transmission Mode : Source - overnumber Multicast TTL : 8 Apply

#### 6 Destination Port Number...

Set the same port number as the Source Port Number (7).

- Range: An even number from 1024 to 65534.
- ① Do not duplicate other connection port settings.
- When "Enable" is selected in the SelCall in Bridge Connection (4), this item is not displayed.

#### **O** The Default port settings in the Unicast mode

Options	Default	Options	Default
Digital Transceiver 1 (D-TRX1)	23000	EXT Output 4(EXT4)	23114
Digital Transceiver 2 (D-TRX2)	23002	Emergency Notification	23116
Digital Transceiver 3 (D-TRX3)	23004	Microphone (MIC)	23150
Digital Transceiver 4 (D-TRX4)	23006	RoIP Gateway1	24300
EXT Input 1 (EXT1) / EXT I/O 1 (EXT1)	23100	RoIP Gateway2	24302
EXT Output 1 (EXT1)	23102	RoIP Gateway3	24304
EXT Input 2 (EXT2) / EXT I/O 2 (EXT2)	23104	RoIP Gateway4	24306
EXT Output 2 (EXT2)	23106	RoIP Gateway5	24308
EXT Input 3 (EXT3) / EXT I/O 3 (EXT3)	23108	RoIP Gateway6	24310
EXT Output 3 (EXT3)	23110	RoIP Gateway7	24312
EXT Input 4 (EXT4) / EXT I/O 4 (EXT4)	23112	RoIP Gateway8	24314

Bridge Connection Settings > Bridge Connection

Bridge Connection

(Unicast mode)

Bridge Connection	
Combination	
Bridge Connection Source : Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination : 2 Custom Bridge Connection	~
Transmission Mode : <sup>3</sup> Unicast	~
SelCall in Bridge Connection : 🍳 💿 Disable 🔿 Enable	
Destination Address : <sup>5</sup>	
Destination Port Number : 6 _23000	
Source Port Number : 7 _23000	9 0
	Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

Multicast mode		
Bridge Connection		
Combination Bridge Connection Source	Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination :	Custom Bridge Connection	~
Transmission Mode :	Multicast	~
Source, are number.	TU	
Multicast TTL : 🤇	1	9 0
		Apply Reset

# **6** Destination Port Number (Continued) **O** The Default port settings in the Multicast mode

Options	Default	Options	Default
Digital Transceiver 1 (D-TRX1)	22510	EXT Output 4(EXT4)	22510
Digital Transceiver 2 (D-TRX2)	22510	Emergency Notification	23116
Digital Transceiver 3 (D-TRX3)	22510	Microphone (MIC)	22510
Digital Transceiver 4 (D-TRX4)	22510	RoIP Gateway1	22530
EXT Input 1 (EXT1) / EXT I/O 1 (EXT1)	22510	RoIP Gateway2	22530
EXT Output 1 (EXT1)	22510	RoIP Gateway3	22530
EXT Input 2 (EXT2) / EXT I/O 2 (EXT2)	22510	RoIP Gateway4	22530
EXT Output 2 (EXT2)	22510	RoIP Gateway5	22530
EXT Input 3 (EXT3) / EXT I/O 3 (EXT3)	22510	RoIP Gateway6	22530
EXT Output 3 (EXT3)	22510	RoIP Gateway7	22530
EXT Input 4 (EXT4) / EXT I/O 4 (EXT4)	22510	RoIP Gateway8	22530

#### Bridge Connection Settings > Bridge Connection

Bridge Connection

#### (Unicast mode)

Bridge Connection	
Combination Bridge Connection Source : Digital Transceiver1 (D-1	IRX1)
Bridge Connection Destination : 2 Custom Bridge Connecti	ion 💊
Transmission Mode : <sup>3</sup> Unicast	~
SelCall in Bridge Connection : 4      O Disable O Enable	
Destination Address : 5	
Destination Port Number : 6 23000	
Source Port Number : 7 _23000	90
	Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

# Multicast mode Bridge Connection Combination Bridge Connection Source : Bridge Connection Destination : Ocustom Bridge Connection Destination : Transmission Mode : Source - wrrtrumber : Multicast TTL : Image: Source : Bridge Connection Destination : Bridge Connection Destination : Image: Source - wrrtrumber : Image: Source - wrrtrumber : Multicast TTL : Image: Source - wrrtrumber : Image: Source -

#### **7** Source Port Number .....

Set the port number to receive the audio signal.

- Range: An even number from 1024 to 65534.
- ① This setting is also used to the source port number to transmit the audio signal.
- ① For communication, the set port number (RTP) and the set port number +1 (RTCP) are used.
- ① Do not duplicate other connection port settings, when using in the Unicast mode.
- ① The default settings differ, depending on the EXT I/O Port Mode setting. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode)

#### **O** The Default port settings in the Unicast mode

Options	Default	Options	Default
Digital Transceiver 1 (D-TRX1)	23000	EXT Output 4(EXT4)	23114
Digital Transceiver 2 (D-TRX2)	23002	Emergency Notification	23116
Digital Transceiver 3 (D-TRX3)	23004	Microphone (MIC)	23150
Digital Transceiver 4 (D-TRX4)	23006	RoIP Gateway1	24300
EXT Input 1 (EXT1) / EXT I/O 1 (EXT1)	23100	RoIP Gateway2	24302
EXT Output 1 (EXT1)	23102	RoIP Gateway3	24304
EXT Input 2 (EXT2) / EXT I/O 2 (EXT2)	23104	RoIP Gateway4	24306
EXT Output 2 (EXT2)	23106	RoIP Gateway5	24308
EXT Input 3 (EXT3) / EXT I/O 3 (EXT3)	23108	RoIP Gateway6	24310
EXT Output 3 (EXT3)	23110	RoIP Gateway7	24312
EXT Input 4 (EXT4) / EXT I/O 4 (EXT4)	23112	RoIP Gateway8	24314

Bridge Connection Settings > Bridge Connection

Bridge Connection

(Unicast mode)

Bridge Connection	
Combination	
Bridge Connection Source : 1 Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination : 2 Custom Bridge Connection	~
Transmission Mode : 3 Unicast	~
SelCall in Bridge Connection : 🕘 💿 Disable 🛛 Enable	
Destination Address : 5	
Destination Port Number : 6 _23000	
Source Port Number : 🧿 _23000	9 10
	Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

Multicast mode		
Bridge Connection		
Combination	-	
Bridge Connection Source :	Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination :	Custom Bridge Connection	~
Transmission Mode :	3 Multicast	~
Source - ore number :		
Multicast TTL :	8 <u>1</u>	<b></b>
		Apply Reset

#### **O Source Port Number** (Continued)

#### **O** The Default port settings in the Multicast mode

Options	Default	Options	Default
Digital Transceiver 1 (D-TRX1)	22510	EXT Output 4(EXT4)	22510
Digital Transceiver 2 (D-TRX2)	22510	Emergency Notification	22510
Digital Transceiver 3 (D-TRX3)	22510	Microphone (MIC)	22510
Digital Transceiver 4 (D-TRX4)	22510	RoIP Gateway1	22530
EXT Input 1 (EXT1) / EXT I/O 1 (EXT1)	22510	RoIP Gateway2	22530
EXT Output 1 (EXT1)	22510	RoIP Gateway3	22530
EXT Input 2 (EXT2) / EXT I/O 2 (EXT2)	22510	RoIP Gateway4	22530
EXT Output 2 (EXT2)	22510	RoIP Gateway5	22530
EXT Input 3 (EXT3) / EXT I/O 3 (EXT3)	22510	RoIP Gateway6	22530
EXT Output 3 (EXT3)	22510	RoIP Gateway7	22530
EXT Input 4 (EXT4) / EXT I/O 4 (EXT4)	22510	RoIP Gateway8	22530

Bridge Connection Settings > Bridge Connection

Bridge Connection

(Unicast mode)

Bridge Connection			
Combination			
Bridge Connection Source :	Digital Transceiver1 (D-TRX1)		~
Bridge Connection Destination : 2	Custom Bridge Connection		~
Transmission Mode : <sup>3</sup>	Unicast		~
SelCall in Bridge Connection : 4	Disable 🔿 Enable		
Destination Address : <sup>5</sup>			
Destination Port Number : 🌀 🕹	23000		
Source Port Number : 🔽 💈	23000	9	10
		Apply	Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

(Multicast mode)		
Bridge Connection		
Combination		
Bridge Connection Source :	Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination :	Custom Bridge Connection	~
Transmission Mode :	3 Multicast	~
Source - or number :		
Multicast TTL :	8 <u>1</u>	00
		Apply Reset

**Bulticast TTL** ...... Displayed only when the Transmission Mode (3) is set to "Multicast." As the expiration date of the voice packet, set the TTL (Time To Live) until the voice packet reaches the communication destination. The TTL value decreases every time it passes through a router, the voice packets transmission expires when the TTL value reaches zero. Therefore you can prevent a packet transmission loop. (Default: 1)

• Range: 1 ~255

Bridge Connection Settings > Bridge Connection

Bridge Connection

(Unicast mode)

Bridge Connection	
Combination	
Bridge Connection Source : Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination : 2 Custom Bridge Connection	~
Transmission Mode : <sup>3</sup> Unicast	~
SelCall in Bridge Connection : 🔮 💿 Disable 🔿 Enable	
Destination Address : <sup>5</sup>	
Destination Port Number : 6 _23000	
Source Port Number : 🧭 _23000	9 0
	Apply Reset

① The above example shows when the Bridge Connection Destination (2) is set to "Custom Bridge Connection."

(Multicast mode)		
Bridge Connection		
Combination	_	
Bridge Connection Source :	Digital Transceiver1 (D-TRX1)	~
Bridge Connection Destination :	Custom Bridge Connection	~
Transmission Mode :	Multicast	~
South		
Multicast TTL :	<u>1</u>	9 10
		Apply Reset

<b>9</b> <apply></apply>	<ul> <li>Click to apply the entries.</li> <li>When you select other than Custom Bridge Connection for a combination, the connection is activated as soon as you click <apply>. The entries are displayed in [Bridge Connection Entry List (For Combination)] screen.</apply></li> <li>When "Custom Bridge Connection" is selected in the Bridge Connection Destination, the entries are displayed in [Bridge Connection Entry List (For Custom Bridge Connection)] screen.</li> <li>Click <activate> in the list to activate the bridge connection.</activate></li> </ul>
<b>(0</b> < Reset >	Click to reset the settings. (i) You cannot restore after clicking <apply>.</apply>

Bridge Connection Settings > Bridge Connection

## Bridge Connection Entry List (For Combination)

Lists the combination entries of the bridge connection. See the "Bridge Connection Entry List (For Custom Bridge Connection)" below when the Bridge Connection Destination is set to "Custom Bridge Connection."

Bridge Connection Source	Bridge Connection Destination	1	
Digital Transceiver1 (D-TRX1)	EXT I/O1 (EXT1)	Delete	
			Dele

<pre> • <delete> • </delete></pre>	Click to delete the entry. Tou cannot restore after clicking <delete>.</delete>
2 <delete all=""></delete>	Click to delete all the entries. (i) You cannot restore after clicking <delete all="">.</delete>

Bridge Connection Settings > Bridge Connection

# Bridge Connection Entry List (For Custom Bridge Connection)

Lists the combination entries of the bridge connection when the Bridge Connection Destination is set to "Custom Bridge Connection."

	y List (For Cus	tom Bridge Co	nnection	)		0
Bridge Connection Source	Transmission Mode	Destination Address	Port Numbe	r	Connection Status	Refresn
			Destination	Source		<u> </u>
Digital Transceiver2 (D-TRX2)	Unicast	192.168.0.200	23002	23002	Inactive	Activate Edit Delete

<pre>1<refresh></refresh></pre>	Click to reload the list.
2 <activate></activate>	<ul> <li>Click to connect the set devices.</li> <li>After they are successfully connected, the button changes to "Deactivate."</li> <li>When this button is grayed out, you also need to enter the "AMBE+2 Vocoder Assignment" settings.</li> </ul>
<b>③</b> <edit></edit>	Click to edit the entry. ① You can edit the settings in "Bridge Connection" on the above screen. ① Disconnect the connection before editing an entry.
<pre>4 <delete></delete></pre>	Click to delete the entry. You cannot restore after clicking <delete>.</delete>
S <delete all=""></delete>	Click to delete all the settings in the list. (i) You cannot restore after clicking <delete all="">.</delete>

Bridge Connection Settings > Bridge Connection

## AMBE+2 Vocoder Assignment

Assigns the Voice Protocol and the AMBE+2 Vocoder to each port.

Dart Nama	2 Route Setting Screen	3 Voice Protocol	4 Voice Protocol	AMBE+2 Vocoder A	
Port Name 1	Route Setting Screen	(For Custom Bridge Connection)		AMBE+2 Vocoder A	ssignment
Digital Transceiver1 (D-TRX1)	Bridge Connection	, <u> </u>	-	Not Assigned	~
Digital Transceiver2 (D-TRX2)	Bridge Connection	G.711u 🗸	-	Not Assigned	~
Digital Transceiver3 (D-TRX3)	Destination Settings		-	Internal	~
Digital Transceiver4 (D-TRX4)	Destination Settings		-	Not Assigned	~
EXT I/O1 (EXT1)	Bridge Connection		-		
EXT I/O2 (EXT2)	Destination Settings		-		
EXT I/O3 (EXT3)	Destination Settings		-		
EXT Input4 (EXT4)	Destination Settings		-		
EXT Output4 (EXT4)	Destination Settings		-		
Emergency Notification	Destination Settings		-		
Microphone (MIC)	Destination Settings		-		
RoIP Gateway1	Destination Settings		G.711u 🗸		
RoIP Gateway2	Destination Settings		G.711u 🗸		
RoIP Gateway3	Destination Settings		G.711u 🗸		
RoIP Gateway4	Destination Settings		G.711u 🗸		
RoIP Gateway5	Destination Settings		G.711u 🗸		
RoIP Gateway6	Destination Settings		G.711u 🗸		
RoIP Gateway7	Destination Settings		G.711u 🗸		
RoIP Gateway8	Destination Settings		G.711u 🗸		
Converter Bridge1	-	-	G.711u 🗸		
Converter Bridge2	-	-	G.711u 🗸		

Port Name	<ul> <li>Lists the transceiver port of the RoIP gateway. Click to open to the Connection Port Settings screen of the port.</li> <li>The Converter Bridge setting screen (PBX extension &gt; Converter Bridge) is displayed when a converter bridge's port name is clicked.</li> </ul>
Route Setting Screen	The screen setting the route of the destination is displayed. When the entry is set as a combination by the bridge connection, "Bridge Connection" is displayed. Otherwise, "Destination Settings" is displayed.
<b>3</b> Voice Protocol (For Custom	① Click the "Destination Settings" link to open the Destination Settings screen.
Bridge Connection)	Displayed only when the Bridge Connection Destination (see above on this setting screen) is set to "Custom Bridge Connection." Set the voice protocol for the custom bridge connection to "G.711u," "Bridge Protocol," or "AMBE+2."

Bridge Connection Settings > Bridge Connection

AMBE+2 Vocoder Assignment

Port Name 1	Route Setting Screen	Voice Protocol	Voice Protocol	AMBE+2 Vocoder Assign
_		(For Custom Bridge Connection)	(For Port Connection	)
Digital Transceiver1 (D-TRX	1) Bridge Connection			Not Assigned
Bridge To			0.1110	
Converter Bridge19	-	-	G.711u 🗸	
Converter Bridge20	-	-	G.711u 🗸	

4 Voice Protocol	
(For Port Connection)	Set the voice protocol for the port connection to "G.711u," "Protocol
	for Transceiver and SIP Phone Connection," "Bridge Protocol," or "AMBE+2."
	(Default for RoIP Gateway 1 ~ 8: G.711u,
	for Converter Bridge 1 ~ 20: G.711u)
	"Protocol for Transceiver and SIP Phone Connection" can be selected only with the Converter Bridge 1 ~ 20.
	If you connect to the IP1000C, set this item to "Protocol for Transceiver and SIP Phone Connection."
	① If you connect to the VE-PG4, set this item to "Bridge Protocol."
5 AMBE+2 Vocoder	
Assignment	Settable only when the Voice Protocol (4) is set to AMBE+2.
	Select an AMBE+2 Vocoder from "Not Assigned," "Internal," or "CT-24." (Default for Digital Transceiver 1 ~ 4 (D-TRX1 ~ 4) : Internal)
	Internal: Assignable up to 4 ports.
	• CT-24: Assignable up to 2 ports. (The optional CT-24 is required.)
	The AMBE+2 Vocoder for the Digital Transceiver 1 ~ 4 (D-TRX1 ~ 4) is fixed to the internal vocoder.
	<ul> <li>When the settings of Bridge Connection Source and Bridge Connection</li> </ul>
	Destination are set as the digital transceiver in [Bridge Connection] setting (Bridge Connection Settings > Bridge Connection > Bridge Connection), this item is not displayed.
<b>⑥</b> ≺Apply>	Click to apply the entries.
<pre>⑦<reset></reset></pre>	Click to reset the settings. ① You cannot restore after clicking <apply>.</apply>

# SelCall in Bridge Connection screen

Bridge Connection Settings > SelCall in Bridge Connection

## Save or Write the Rule Settings for SelCall in Bridge Connection

You can save or load the settings in "Rule Settings for SelCall in Bridge Connection" to or from a CSV format file.

Write A CSV format file can be written to this product.		Browse
When the file is written, the surrent actings will be supported	Write A CSV format file can be written to this product.	
when the life is whiten, the current settings will be overwhiten.	When the file is written, the current settings will be overwritten.	

Load Setting from File	You can load the saved SelCall rule settings from a CSV format file. Click <browse> and select the setting file (bridge_route.csv) from the displayed list, and then click <open>. Confirm the correct file is selected, and then click <write> to load the settings from the selected file. ① Note that the previous settings are deleted when the setting file is loaded.</write></open></browse>
<b>2</b> Save to File	Saves the settings in the "Rule Settings for SelCall in Bridge Connection settings" to a CSV format file. Click <save> and select a folder to save the file into. You can edit the saved file on a spreadsheet.</save>

#### SelCall in Bridge Connection screen

Bridge Connection Settings > SelCall in Bridge Connection

## Rule Settings for SelCall in Bridge Connection

Sets the rules to make a individual call from a Digital transceiver that is connected to the RoIP Gateway, through a Bridge Connection.

Index	Name	Call Type			Destination Sel0	Call in Bridge Connection	
1	2	3	4	5	Address 6	Port Number 7	0

1 Index	The index assigned for entry. Setting range: 1 ~ 1000					
<b>2</b> Name	Enter a name of up to 31 characters.					
3 Call Type	Select the type of call.• Individual : Call only a specified radio.• Group :Call all transceivers that belong to the specified group.• All :Call all transceivers.					
Prefix ID	Enter the prefix ID of the SelCall destination. ID range: (Depending on the system mode)					
S Destination ID	Enter the ID of the SelCall destination. ID range: (Depending on the system mode)					
Destination SelCall in Bridge Conn 6 Address	ection Enter the RoIP Gateway's IP address which is connected to the transceiver that will communicate with the SelCall destination.					
Port Number	Enter the RoIP Gateway's port number which is connected to the transceiver that will communicate with the SelCall destination.					
8 <add></add>	Click to add a SelCall rule to the List of Rule Settings for SelCall in Bridge Connection.					

SelCall in Bridge Connection screen

Bridge Connection Settings > SelCall in Bridge Connection

## ■ List of Rule Settings for SelCall in Bridge Connection

Index	Name	Call Type	Prefix ID	Destination ID	Destination Sel0	Call in Bridge Connection		
					Address	Port Number	1	2
1	Sales	Individual	11	101	192.168.1.1	12122	Edit	Delete
2	Planning	Individual	21	201	192.168.2.1	12122	Edit	Delete

<b>1</b> <edit></edit>	<ul> <li>Click to edit the entry.</li> <li>The registered contents are displayed on the Rule Settings for SelCall in Bridge Connection screen.</li> </ul>
<b>2</b> <delete></delete>	Click to delete the entry. ① You cannot restore after clicking <delete>.</delete>
3 <delete all=""></delete>	Click to delete all the settings. ① You cannot restore after clicking <delete all="">.</delete>

# TRANSCEIVER CONTROLLER

RoIP Settings screen	
Additional Controller Settings	
Advanced Settings	
Tenant (Fleet) Settings screen	
Tenant (Fleet)	
RoIP Server screen	
Call Type Priority	6-8
Additional Controller Link screen	6-9
Link Setting	6-9
Linked Controller List	6-10
Area Call screen	6-11
Area Setting	6-11
Access Point Search	6-12
Area Entry List	6-14
Transceiver Management screen	6-15
Transceiver Management	6-15
Transceiver Registration screen	6-17
Transceiver Settings	6-17
Transceiver Setting Entry List	6-19
TRX Batch Setting	6-20
Transceiver Settings screen	6-21
Transceiver Settings	6-21
Copy Transceiver Settings	6-53
Transceiver Setting List	6-53
Wireless LAN screen	6-54
Wireless LAN	6-54
List of Wireless LAN Entries	6-61
ID List screen	6-62
■ ID List Common Settings	6-62
■ ID List Advanced Settings	
Save or Write the ID List Setting	
■ ID List	
■ ID List Entries	6-67

# 6 TRANSCEIVER CONTROLLER

Messages screen	6-68
Message Group	6-68
Message Group Detail	6-68
Save or Write the Message Setting	6-69
Message List	6-71
Status screen	6-72
Status Settings	6-72
Profile screen	6-73
Profile List	6-73
Profile	6-74
Profile Batch Setting	6-83

Transceiver Controller > RoIP Settings

## Additional Controller Settings

Configure the Additional Controller Settings.

You can communicate with the IP100Hs and the IP100FS that are registered to additional controllers.

Additional Controller Settings	
Controller Mode : 1 💿 Sub	⊖ Master
Service Port Number : 2 32000	
1 Controller Mode	Select "Master" for one Master Controller. Select "Sub" for the other Controllers (up to 10 Sub Controllers can be set up). (Default: Sub) When several Controllers are linked, and use All call or Group call between the controllers, set a controller as shown below.
	<ul><li>Sub: One Master Controller can be set up.</li><li>Master: Up to 10 Sub Controllers can be set up.</li></ul>
<b>2</b> Service Port Number	Enter the port number for receiving audio signals. (Default: 32000) • Range: "1024" ~ "65534" (only even numbers)
	The port number (RTP) and the port number +1 (RTCP) are used for communication.
	① This number is also used for the caller port number.
	① Do not set a port number that has already been used by another connection setting.

Transceiver Controller > RoIP Settings

## Advanced Settings

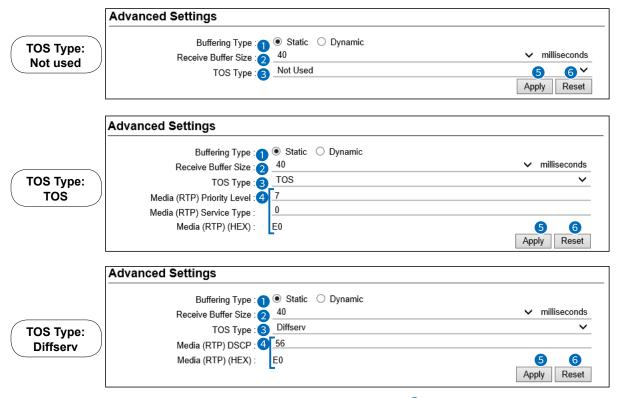
Set the V/RoIP details.

The items on the RoIP Settings screen differ, depending on the TOS type setting.

Advance	I Settings	
TOS Type: Not used	Buffering Type 1 © Static O Dynamic Receive Buffer Size 2 40 TOS Type 3 Not Used	<ul> <li>✓ milliseconds</li> <li>⑤ ○</li> <li>Apply Reset</li> </ul>
Advance	Settings	
	Buffering Type 1 Static O Dynamic Receive Buffer Size 2 40 TOS Type 3 TOS dia (RTP) Priority Level 4 7 dia (RTP) Service Type : Media (RTP) (HEX) : E0	<ul> <li>✓ milliseconds</li> <li>✓</li> <li>✓</li> <li><b>5</b></li> <li><b>6</b></li> <li>Apply</li> <li>Reset</li> </ul>
TOS Type: Diffserv	Buffering Type 1 © Static O Dynamic Receive Buffer Size 2 40 TOS Type 3 Diffserv Media (RTP) DSCP 4 56 Media (RTP) (HEX) : E0	<ul> <li>milliseconds</li> <li></li> <li></li> <li>(6)</li> <li>(Apply)</li> <li>Reset</li> </ul>
(These an <b>Buffering Type</b>	51	ny interrupted sound. (Default: Dynamic
Receive Buffer Size	<ul> <li>Static: The buffer time is set in [I</li> <li>Dynamic: The buffer time changes,</li> <li>Select the buffer time to keep the</li> <li>Range: "20" ~ "1000" (milliseconds)</li> <li>A shorter value improves the delay audio signal.</li> <li>This item is displayed when [Buffer</li> </ul>	depending on the audio fluctuation. audio from breaking up. (Default: 40 y, but it may frequently break the

### Transceiver Controller > RoIP Settings

Advanced Settings



(These are examples of when the [Buffering Type] (1) is set to "Static.")

3 TOS type .....

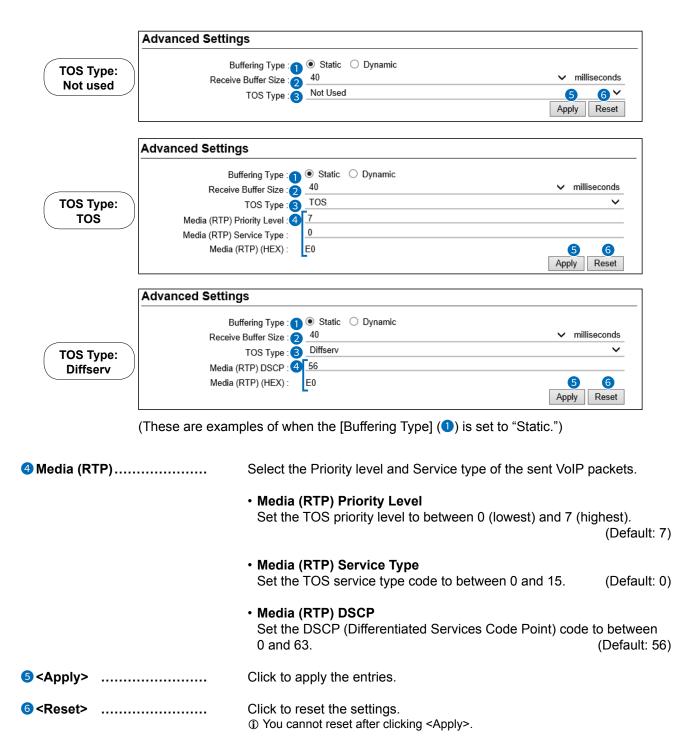
Select the TOS (Type-Of Service) format.

(Default: Not used)

- Not used: Does not use the TOS function.
- TOS: Sends the VoIP packets to the TOS field (8 bits) in the IP header using the TOS format. Sets to between 1 (lowest) and 3 bits (Priority level) or 4 and 7 (highest) bits (Type of Service) based on the RFC1349. The 1 bit remaining is not used and is fixed as 0.
- Diffserv: Sends the VoIP packets to the TOS field (8 bits) in the IP header using the Diffserv (Differentiated Service) format. Sets to between 1 and 6 bits (DSCP). The 2 bits remaining are not used and are fixed as 0.

### Transceiver Controller > RoIP Settings

Advanced Settings



# **Tenant (Fleet) Settings screen**

Transceiver Controller > Tenant (Fleet) Settings

## ■ Tenant (Fleet)

The tenant (fleet) divides the IP100Hs or IP100FSs that belong to the RoIP Gateway, for system management purposes. (Example: Security company/Management company)

① The terminals cannot communicate among different tenants (fleets).

Select the tenant (fleet) number between 1 to 10.

① All IP100Hs and IP100FSs that belong to the RoIP Gateway are activated in one tenant (fleet).

Tenant (Fleet)	
Tenant (Fleet) Number : 1	2 3⊻
	Apply Reset

1 Tenant (Fleet) Number	Select the tenant (fleet) number that is used. (Default: 1)
	The tenant (fleet) number is displayed in the following menus. - RoIP Server Settings - Transceiver Settings - Common Settings (Except Wireless LAN menu) - Destination Settings
	RoIP Server (Tenant1) (This is an example when [Tenant (Fleet) Number] (1) is set to "1.")
<pre>2<apply></apply></pre>	Click to apply the entries.
3 <reset></reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>

# **RoIP Server screen**

Transceiver Controller > RoIP Server Settings > RoIP Server

## ■ Call Type Priority

Select the priority level of the call types.

Call Type Priority		
Call type Priority (High to low) : 1	Telephone - All - Individual - Group	Apply Reset

Call type Priority (High to low)	Select the priority level of the call types. (Default: Telephone – All – Individual – Group) ① The setting value are shown below. Call Type Priority
	Call type Priority (High to low) : Telephone - All - Individual - Group Telephone - All - Group - Individual Telephone - Individual - All - Group Telephone - Individual - Group - All Telephone - Group - All - Individual Telephone - Group - Individual - All
2 <apply></apply>	Click to apply the entries.
<pre>3<reset></reset></pre>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

# **Additional Controller Link screen**

Transceiver Controller > RoIP Server Settings > Additional Controller Link

# Link Setting

This is a setting to link with IP1000Cs, VE-PG3s (Bridge mode), or VE-PG4s.

Link Setting		
No. : 1	1	~
Name : 2		
Destination Address : 3		
Destination Port Number : 4	32000	<b>. . . .</b>
		Apply Reset

<b>1</b> No	Select a number between 1 and 100 to register the other transceiver controllers. (Default: 1)
<b>2</b> Name	Enter the group name of up to 31 characters.
3 Destination Address	Enter the destination device's IP address or domain name of up to 63 characters.
Destination Port Number	Enter the destination controller's service port number in [Additional Controller Link]. (Default: 32000) Range: "2" ~ "65534" (only even numbers) () The set port number (RTP) and the port number +1 (RTCP) are used for communication.
S <apply></apply>	Click to apply the entries. ① The entries are displayed in [Linked Controller List].
6 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

## Additional Controller Link screen

Transceiver Controller > RoIP Server Settings > Additional Controller Link

## Linked Controller List

Display a list of the destination addresses and destination port numbers registered to the RoIP Gateway.

No.	Name	Destination Address	Destination Port Number	1	2
1	Sales1	192.168.0.100	32000	Edit	Delete

● <edit></edit>	Click to edit the entry in [Link Setting].
<b>2</b> <delete></delete>	Click to delete the selected entry. ① After clicking <delete>, the entry cannot be recalled.</delete>
S <delete all=""></delete>	Click to delete all the entries. ① After clicking <delete all="">, the entries cannot be recalled.</delete>

Transceiver Controller > RoIP Server Settings > Area Call

## Area Setting

The Area call function limits communication with the devices in the specified area.

When an IP100H makes an All call or Group call using the Area call function, it calls other IP100Hs or IP100FSs in the same area.

① If you want to use the Area call from an IP100FS, specify the area by selecting the desired access points.

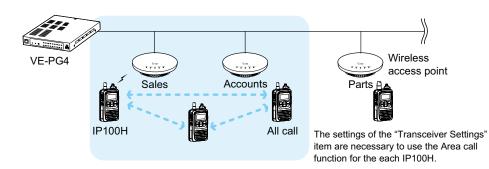
Area Setting		
	No. : 1	~
N	ame : 2	
3 BSSID	•	
00-90-C7-	00-90-C7-	
		Apply Reset

1 No	Select the number that is registered to the Area call. (Default: 1) (Default: 1)
<b>2</b> Name	Enter the area name of up to 31 characters.
3 BSSID	Enter the 12 digit BSSID of the wireless access point in the area. When several access points are added, they are recognized as one area. ① Up to 20 access points can be registered to the area.
	Click to add the entries. ① The entries are displayed in [Area Entry List].
5 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

#### The IP100H makes All calls in the area

Example: The wireless access points "Sales" and "Accounts" are registered in the same area. The access point "Parts" is registered in a different area.

In that case, two IP100Hs in the same area receive the call, but the IP100H in the different area will not receive it.



Transceiver Controller > RoIP Server Settings > Area Call

## Access Point Search

**1** IP Address Range .....

The RoIP Gateway can search for access points the network, and register access points for Area Calls. ① Icom guarantees this function only for the AP-90M and AP-95M. (As of May, 2019)

Sea	rches ar	•	nts that support this	function.			
		IP Address	Range : 1			4	Search
2	🗆 Ali	Host Name	IP Address	BSSID	Name 3	No.	6
		AP-95M	192.168.0.10	00-90-C7-	Sales1	1 🗸	Add
		AP-95M	192.168.0.11	00-90-C7-	Sales2	2 🗸	Add

Click the <Search> button after entering the IP address range of the access points.

When starting a search, the button changes to both <Refresh> and <Cancel>.

The discovered access point information will be displayed in a list. ① When only IP start address is entered, a search starts.

- ① If BSSID is already registered in the Area Entry List, it is not displayed.
- ① When the [IP Advanced Radio System] setting of an access point that is set to "Enable" in [Notification] that is same Tenant (Fleet) Number with the RoIP Gateway, and a name is registered, you can search for the BSSID and name. When it is set to "Disable," you cannot search with the RoIP Gateway.

	Interface :	ath0	~	
	BSSID :	00-9		
Tenant Number	Notification		Name	
1	O Disable 💿 Er	nable Sales1		
2	O Disable 🖲 Er	nable		

(AP-95M Wireless LAN1 IP Advanced Radio System screen)

2 Check Box	Click a Check Box to add a check mark for registering a discovered access point. (1) By clicking [All], you can select or cancel all access points in the list.
<b>3</b> Name	The name that is set in [IP Advanced Radio System] of an access point is displayed. ① An area name is registered on [Number] in [Area Setting].

Transceiver Controller > RoIP Server Settings > Area Call

### Access Point Search

Se	arches a		nts that support this Range : 1	s function.			Search
2		Host Name	IP Address	BSSID	Name 3	<b>4</b> No.	6
		AP-95M	192.168.0.10	00-90-C7-	Sales1	1 🗸	Add
		AP-95M	192.168.0.11	00-90-C7-	Sales2	2 🗸	Add

4 No	<ul> <li>Select an area to register from a "Number" in [Area Setting].</li> <li>When an area number that is already registered is selected, BSSID is added to the area number.</li> <li>If the area number is already registered in [Area Call], it cannot be selected.</li> <li>An area number is selected, depending on the name that is registered with the same Tenant (Fleet) Number in [IP Advanced Radio System] of an access point, as shown below.</li> <li>When the area number's name is already registered in [Area Setting], the area number is selected (A blank is also recognized as a part of the name).</li> <li>When the area number's name is not registered in [Area Setting], an unused and initial area number is selected.</li> </ul>
<b>5</b> <add></add>	Click to register a discovered access point in [Access Point Search].
6 <apply selection=""></apply>	Click to register a selected access point in [Check Box] (2).

```
Transceiver Controller > RoIP Server Settings > Area Call
```

# Area Entry List

Display the list of the registered [Area Setting] or [Access Point Search].

No.	Name	BSSID	1 2
I	Sales1	00-90-C7-	Edit Delete
2	Sales2	00-90-C7-	Edit Delete

● <edit></edit>	Click to edit the setting in [Area Setting].
<b>2</b> <delete></delete>	Click to delete the selected entry. ① After clicking <delete>, the entry cannot be recalled.</delete>
3 <delete all=""></delete>	Click to delete all the entries. ① After clicking <delete all="">, the entries cannot be recalled.</delete>

# Transceiver Management screen

Transceiver Controller > Transceiver Settings > Transceiver Management

## Transceiver Management

The RoIP Gateway can monitor the registered IP100Hs and IP100FSs. And if necessary, the RoIP Gateway can reboot the registered all IP100Hs.

0					2	3	4	6		Refresh
🗌 All	TRX No.	Transceiver Model	Name	Unit ID	Registration Status	IP Address	Current Status	Talkgroup	Location 6	Version
	1	IP100H	Sales1	0101	Disconnected	-	-	-	-	-
	2	IP100H	Sales2	0102	Connected	192.168.0.11	Meeting	1	00-90-C7-	Ver.
	3	IP100H	Sales3	0103	Connected	192.168.0.12	Under a break	1	00-90-C7-	Ver.
	50	IP100FS	IP100FS	0050	Disconnected	-	-	-	-	-

① An IP100H is displayed in bold when a setting is changed and a reboot is required.

Check Box	<ul> <li>Click a Check Box to add a check mark to the IP100H that you want to reboot.</li> <li>① You cannot select an IP100FS, or an IP100H that has "Disconnected" displayed in [Registration Status].</li> <li>① By clicking the [All] box, you can select or cancel all IP100Hs in the list.</li> </ul>
Registration Status	<ul> <li>Displays the IP100Hs' or IP100FSs' Registration Status as either "Connected" or "Disconnected."</li> <li>Displays "Disconnected" if the IP100H is turned OFF or the IP100FS's application is not running.</li> <li>When the RoIP Gateway sends the reboot command to an IP100H from the [Transceiver Management] menu, the following status are displayed: "Receiving reboot command," "Reboot command reception success," "Reboot command reception failed," "Ready to reboot" "Rebooting," "Updating," "Update failed," "Downloading," "Status notification failed," and "Low battery."</li> </ul>
<b>IP Address</b>	Displays the IP Addresses of the IP100Hs or IP100FSs. ① When [Registration Status] displays "Disconnected," "–" is displayed.
Current Status	Displays the Current Status of the IP100Hs. (Example: In a meeting)
	<ul> <li>() Information</li> <li>If the Status function is set to OFF, "−" is displayed.</li> <li>If you click the <refresh> (?) button, the latest status will be displayed.</refresh></li> <li>When the IP100H is remotely locked by the IP100FS, and it cannot communicate with others or cannot transmit, "Transmit and receive disabled" or "Transmit disabled" is displayed.</li> <li>If the IP100H is sending an emergency call "Emergency" is displayed.</li> </ul>

## Transceiver Management screen

Transceiver Controller > Transceiver Settings > Transceiver Management

### Transceiver Management

0					2	3	4	6	[	7 Refresh
	TRX No.	Transceiver Model	Name	Unit ID		IP Address	Current Status		Location 6	Version (8
	1	IP100H	Sales1	0101	Disconnected	-	-	-	-	-
	2	IP100H	Sales2	0102	Connected	192.168.0.11	Meeting	1	00-90-C7-	Ver.
	3	IP100H	Sales3	0103	Connected	192.168.0.12	Under a break	1	00-90-C7-	Ver.
	50	IP100FS	IP100FS	0050	Disconnected	-	-	-	-	-

 $\textcircled$  An IP100H is displayed in bold when a setting has been changed and a reboot is required.

<b>⑤</b> Talkgroup	<ul> <li>Displays the Talkgroup IDs that are selected by the IP100Hs or IP100FSs.</li> <li>When a Talkgroup name is registered, a Talkgroup number (name) is displayed.</li> <li>While a IP100H or IP100FS does not select a Talkgroup, or [Registration]</li> </ul>
	Status] displays "Disconnected," "-" is displayed.
6 Location	Displays the BSSIDs of the wireless access points that the IP100Hs are connected to. ① When [Registration Status] displays "Disconnected," "–" is displayed.
⑦ <refresh></refresh>	Click to reload the Registration Status. (1) The connection status of the IP100H or IP100FS, or the activation status check of when the IP100H or IP100FS reboots are renewed.
8 Version	Displays the version of the IP100Hs or IP100FSs that are registered to the RoIP Gateway. ① When [Registration Status] displays "Disconnected," "–" is displayed.
Manual Update	Enable to manually update the IP100H firmware when the RoIP Gateway sends Manual Reboot (10) to the IP100H. When the IP100H is ready to update the firmware, "F" blinks on the
	Blinks
	<ul> <li>display, and then the IP100H automatically reboots and starts the firmware update.</li> <li>When the IP100H has failed to prepare a firmware update, the IP100H does not automatically reboot. If necessary, send a reboot command to the IP100H.</li> </ul>

10 Manual Reboot

Click <Execute> to reboot all of the IP100Hs that are selected in [Check Box] (1).

Transceiver Controller > Transceiver Settings > Transceiver Registration

## ■ Transceiver Settings

Register the IP100H or IP100FS settings.

① After the registration is completed, you must reboot the IP100H.

Transceiver Settings		
TRX No. : 1	1	~
Transceiver Model : 2	IP100H	~
Name : 3		
Unit ID : 4		
Security		
Password : 5	iptrx	
Connection Port		
Transceiver Port Number : 6	30000	
Server Port Number : 7	30000	
Profile		
Profile : 8	1 (Sales group)	~
	Add Rese 9 10	:t

1 TRX No	Selects the number that the IP100H or IP100FS is registered to. (Default: 1)				
	① Up to 50 terminals can be registered.				
<b>2</b> Transceiver Model	Select either the IP100H or IP100FS.	(Default: IP100H)			
3 Name	Enter a transceiver name of up to 31 characters.				
④ Unit ID	Enter the 4 digit individual number between 0001 and 9999. (Default: 0001)				
S Password	Enter a password to access to the RoIP Gateway. ① Up to 12 characters, lower or upper letters, numbers, and used.	(Default: iptrx) d symbols can be			
<b>6</b> Transceiver Port Number	Enter the port number (UDP port) that the IP100H will use to communicate with the RoIP Gateway.				
	<ul> <li>Information</li> <li>The set port number (RTP) and the port number +1 (RTCP) are used for communication.</li> <li>We basically recommend that you use the default port number.</li> <li>The default number differs, depending on [TRX No.], as shown below. Default: TRX No. 1 (30000), TRX No. 2 (30002), TRX No. 3 (30004), TRX No. 4 (30006),, TRX No. 50 (30098)</li> <li>Setting range: Even numbers between 2 and 59998. Some numbers may not be usable.</li> <li>Do not set the port number that has already been used by another connection setting.</li> <li>When [Transceiver Model] (2) is set to "IP100FS," the port number is not displayed.</li> </ul>				

Transceiver Controller > Transceiver Settings > Transceiver Registration

### Transceiver Settings

Transceiver Settings		
TRX No. : 1	1	~
Transceiver Model : 2	IP100H	~
Name : 3	Sales1	
Unit ID : 4		
Security		
Password : 5	iptrx	
Connection Port		
Transceiver Port Number : 6	30000	
Server Port Number : 7	30000	
Profile		
Profile : 8	1 (Sales group)	~
	Add	Reset

<b>7</b> Server Port Number	Enter a port number (UDP port) that the RoIP Gateway will use to communicate with the IP100H or IP100FS.		
	<ul> <li>(i) Information</li> <li>The set port number (RTP) and the port number +1 (RTCP) are used for communication.</li> <li>We basically recommend that you use the default port numbers.</li> <li>The default number differs, depending on the [TRX No.] as shown below. Default: TRX No. 1 (30000), TRX No. 2 (30002), TRX No. 3 (30004), TRX No. 4 (30006),, TRX No. 50 (30098)</li> <li>Setting range: Even numbers between 2 and 65534. Some numbers may not be usable.</li> <li>Do not set a port number that has already been used by another connection setting.</li> </ul>		
8 Profile	<ul> <li>Select the Profile number that the IP100H or IP100FS belongs to. (Default: 1)</li> <li>The numbers 1 to 50 are selectable.</li> <li>Set the Profile setting in the [Common Settings] menu, such as ID list, message, or Receive notification tone settings.</li> </ul>		
<b>9</b> <add></add>	Click to add the entries. ① The entries are displayed in [Transceiver Setting Entry List].		
<pre>0<reset></reset></pre>	Click to reset the settings. ① You cannot reset after clicking <add>.</add>		

Transceiver Controller > Transceiver Settings > Transceiver Registration

## ■ Transceiver Setting Entry List

The list of the registered IP100Hs or IP100FSs.

All	TRX	Transceiver	Name	Unit ID	Password	Connection I	Port	Profile	ID	Message	
	No.	Model				Transceiver	Server		List	List	2
	1	IP100H 🗸	Sales1	0101	iptrx	30000	3000	1 🗸	1	1	Delete
	2	IP100H 🗸	Sales2	0102	iptrx	30002	3000:	1 🗸	1	1	Delete
	3	IP100H 🗸	Sales3	0103	iptrx	30004	3000.	1 🗸	1	1	Delete
	50	IP100FS 🗸	IP100FS	0050	iptrx	-	3009;	1 🗸	1	1	Delete

1 Check Box	Click a Check Box to add a check mark to delete an entry. (1) By clicking the [All] box, you can select or cancel all entries in the list.
2 <delete></delete>	Click to delete the selected entry. (i) After clicking <delete>, the entry cannot be recalled.</delete>
S <apply></apply>	Click to apply the entries. (1) The entries that are edited in [Transceiver Setting Entry List] are registered.
4 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>
<b>5</b> <delete selected=""></delete>	Click to delete an entry that you select in the Check Box (1). ① After clicking <delete selected="">, the entry cannot be recalled.</delete>
6 <delete all=""></delete>	Click to delete all the entries. ① After clicking <delete all="">, the entries cannot be recalled.</delete>

Transceiver Controller > Transceiver Settings > Transceiver Registration

## TRX Batch Setting

You can register consecutive Destination IDs collectively. Or you can copy the Destination ID contents to another ID.

TRX Batch Setting		
Range : 🕤	· ·	Add
	* Enter Unit ID range.	
Refer to :	Default *[Transceiver Settings] applies the initial value.	~
	* [Transceiver Settings] applies the initial value.	
Profile : 🧲	1 (Sales group)	~

1 Range	Enter a range of collective Destination IDs.			
	<ul> <li>Click <add> to register consecutive Destination IDs collectively in the box.</add></li> <li>① If a Destination ID is already registered, "Overwrite the following entry" is displayed.</li> </ul>			
2 Refer to	Select the default settings or the programmed settings to refer to. (Default: Default)			
3 Profile	Select the profile number that IP100Hs or IP100FSs belong to. (Default: 1)			
	① The numbers 1 to 50 are selectable.			
	① You can set an ID List, Message List, or Notification beep setting for each profile in the [Common Settings] menu.			

Transceiver Controller > Transceiver Settings > Transceiver Settings

## ■ Transceiver Settings

Individually assign the functions, or set the receive notification tone to a registered IP100H. ① After the setting is completed, you must reboot the IP100H.

Transceiver Settings		
Unit ID : 🕦	0101 (Sales1)	~
Display		
Display Item : 2	Date and Time O Name	
BackLight : 3	Auto	~
Transmission		
Tx Inhibit : 👍	Isable O Enable	
	Disable      Enable     E	
Destination ID		
	○ Disable ● Enable * The last-used ID display is hidden, if disabled.	
Use ID List : 🕜	🔿 Disable 💿 Enable	
Default Destination ID :	All	~
Add All Call to ID List : 8	🔿 Disable 💿 Enable	
Default Talkgroup : 9	🖲 Disable i Enable	

<b>1</b> Unit ID	<ul> <li>Select the IP100H's Individual number (Name) that you want to edit.</li> <li>Only the individual numbers of the IP100H are selectable.</li> <li>The individual number that the [Transceiver Model] on the [Transceiver Registration] screen is set to "IP100FS," cannot be selected.</li> </ul>					
<b>2</b> Display Item		whether or not the IP100H displays the Date and Time or its in the standby mode. (Default: Date and Time				
		(Date and Time)	Sales 1 Sales 8 (Name)			
	① If the [Name] on the [Transceiver Registration] screen has not been entered and this setting is set to [Name], the IP100H displays the individual number					
BackLight	Select the	e IP100H backlight function.	(Default: Auto)			
	• OFF:	The backlight does not light.				
	• ON:	The backlight lights continuous	ly.			
	• Auto:	The backlight lights when an o after 5 seconds.	peration is performed, and goes out			
4 Tx Inhibit	<ol> <li>When t</li> </ol>		transmission. (Default: Disable) IP100H also cannot transmit with an function.			

Transceiver Controller > Transceiver Settings > Transceiver Settings

### Transceiver Settings

Transceiver Settings	
Unit ID : 10_0101 (Sales1)	~
Display	
Display Item : 2 💿 Date and Time 🛛 Name	
BackLight: 3 Auto	~
Transmission	
Tx Inhibit : 👍 💿 Disable 🛛 Enable	
PTT Lock : 👩 💿 Disable 🔿 Enable	
Destination ID	
PTT Call at Stand-by : 6 O Disable 💿 Enable * The last-used ID display is hidden, if disabled.	
Use ID List : 🕜 🔿 Disable 💿 Enable	
Default Destination ID :All	~
Add All Call to ID List: (8) 🔿 Disable 💿 Enable	
Default Talkgroup : 🥑 💿 Disable 🛛 Enable	

S PTT Lock	When th down its	able" to lock the IP100H's PTT switch. is setting is set to "Enable," the IP100H cannot PTT switch, but it can transmit with an optiona function as well.	, ,
<b>6</b> PTT Call at Stand-by		ether or not the IP100H displays the Destind by mode.	nation ID (Call type) (Default: Enable)
	• Disable:	<ul> <li>The Destination ID (Call type) is not disp standby mode.</li> <li>The Destination ID (Call type) is displayed ID using the function keys.</li> </ul>	
	• Enable:	<ul> <li>The Destination ID (Call type) is displayed mode.</li> <li>① When the PTT on the IP100H is pushed, the displayed ID (Call type).</li> </ul>	

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	
Unit ID : 1 0101 (Sales1)	~
Display	
Display Item : 2 💿 Date and Time 🛛 Name	
BackLight: 3 Auto	~
Transmission	
Tx Inhibit : 🕘 💿 Disable 🛛 Enable	
PTT Lock : 5 💿 Disable 🔿 Enable	
Destination ID	
PTT Call at Stand-by : 6 O Disable . Enable * The last-used ID display is hidden, if disabled.	
Use ID List : 🕜 🔿 Disable 💿 Enable	
Default Destination ID :All	~
Add All Call to ID List : 8 Disable 💿 Enable	
Default Talkgroup : ᠑ 💿 Disable 💿 Enable	

**7** Use ID List .....

 $\square$ 

(Address) key

Select whether or not the IP100H uses the ID list. (Default: Disable)

#### • Disable:

- The call type is fixed to that which is selected in the [Call Type], as shown below, even if you push the [□□] key on the IP100H. ① If you set the Call Type to "Individual" or "Group," enter the 4 digit
- destination ID in the [Destination ID]. (Default: All) ① Even if "Disable" is selected, the IP100H displays a received ID in the ID list.

Use ID List :	Disable      Enable	
Call Type :	All	~

### Enable:

The call type is changed by pushing the [<sup>[III]</sup>] key on the IP100H. Select First Call ID from All, or an ID number (1 to 50) that is displayed when the IP100H is turned ON, in [Call type]. ① The ID list is selected on the [Common Setting] screen.

Transceiver Controller > Transceiver Settings > Transceiver Settings

### Transceiver Settings

Transceiver Settings	
Unit ID : 1	~
Display	
Display Item : 2 🖲 Date and Time 🛛 Name	
BackLight : 3 _Auto	~
Transmission	
Tx Inhibit : 🕢 💿 Disable 🛛 Enable	
PTT Lock : 5   Disable   Enable	
Destination ID	
PTT Call at Stand-by : 6 O Disable 💿 Enable * The last-used ID display is hidden, if dis	abled.
Use ID List : 🕜 🔿 Disable 💿 Enable	
Default Destination ID :All	~
Add All Call to ID List: 8 O Disable 💿 Enable	
Default Talkgroup : 🧿 🖲 Disable 🛛 Enable	

Add All Call to ID List	Select whether or not to display All Call in the ID list of the IP100H. (Default: Enable)
	<ul> <li>Disable Does not display "All" in the ID list. ① When "Disable" is selected in [Add All Call to ID List], you cannot select an All call using the [<sup>[]]</sup>] key. </li> </ul>
	<ul> <li>Enable</li> <li>When [User ID List] (?) is set to "Enable," set [Add All Call to ID List] and [Startup Talkgroup].</li> </ul>
Oefault Talkgroup	Select a Talkgroup if you want to set the IP100H to join a Talkgroup when you turn ON the power. (Default: Disable)
	• <b>Disable</b> The IP100 starts up without joining any Talkgroup. The ID that is set in the "First Call ID" in [User ID List] (?) is displayed when the IP100H is turned ON.
	<ul> <li>Enable The IP100 joins the selected Talkgroup when it is turned ON. ① When [User ID List] (?) is set to "Disable," this item is not displayed. </li> </ul>
	Default Talkgroup :     O Disable

Transceiver Controller > Transceiver Settings > Transceiver Settings

### Transceiver Settings

Transceiver Settings	
De group re	
Ringer Settings	
Volume : 0 10	<b>·</b>
Ringer and Vibration : 🕕 Notification Beep	~
Notice Tone(Except Reception Notice)	
Volume : 12 10	~
Function Settings	
Communication Method : 📵 🔿 Simplex 💿 Full-Duplex	
Priority Call : 🚺 💿 Disable 🛛 Enable	
Area Call : 🚺 💿 Disable 🛛 Enable	
Message : 16 🔿 Disable 💿 Enable	
Default Message : 1 (Gather immediately.)	~
Status : 🚺 💿 Disable ု Enable	
Mixing of Low Priority Call : 🔞 💿 Disable 🛛 Enable	

① The screen shows when the Message (6) is set to "enable."

lolume	<ul> <li>Set the beep level when the IP100H receives a Call or message to between 0 and 32. (Default: 10)</li> <li>① When this setting set to "0," the notification beep is turned OFF.</li> <li>① The notification beep is individually set for the Call type or message in [Notification Tone] on the [Common Settings] screen.</li> </ul>
Ringer and Vibration	Set the action when the IP100H receives a Call or message to "Notification Beep," "Vibration" or "Notification Beep + Vibration." (Default: Notification Beep)
	• Notification Beep When the IP100H receives a Call or message, the specified Notification beep sounds, depending on the Call or message. The notification beep is set in [Notification Tone] on the [Profile] screen in the [Common Settings] menu.
	<ul> <li>Vibration When the IP100H receives a Call or message, it vibrates for notification.</li> </ul>
	<ul> <li>Notification Beep + Vibration</li> <li>When the IP100H receives a Call or message, it vibrates and the Notification beep sounds for notification.</li> </ul>

Transceiver Controller > Transceiver Settings > Transceiver Settings

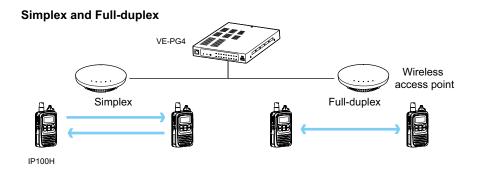
### Transceiver Settings

Transceiver Settings	
	$\sim$
Ringer Settings	
Volume : 10 10	~
Ringer and Vibration : 10 Notification Beep	~
Notice Tone(Except Reception Notice)	
Volume : 10_10	~
Function Settings	
Communication Method : 🔞 🔿 Simplex 💿 Full-Duplex	
Priority Call : 🚺 💿 Disable 🕓 Enable	
Area Call : 15 💿 Disable 🕓 Enable	
Message : 16 O Disable 💿 Enable	
Default Message : 1 (Gather immediately.)	~
Status : 🚺 💿 Disable < Enable	
Mixing of Low Priority Call : 📵 💿 Disable i 🔿 Enable	

① The screen shows when the Message (16) is set to "enable."

### Volume

🕐 Volume			
(Except Reception Notice)	<ul> <li>Set the beep level when the IP100H is transmitting a Call or connecting to the RoIP Gateway, to between 0 and 32. (Default: 10)</li> <li>When this setting is set to "0," the notification beep is turned OFF.</li> <li>Depending on the [Common Settings], the IP100H sounds a beep when the IP100H is transmitting or connecting to the RoIP Gateway.</li> </ul>		
Communication Method	Select the c	communication method that the IP100H uses. (Default: Full-Duplex)	
	<ul> <li>Simplex:</li> </ul>	Toggles the transmission (Talker) and reception (Listener) for communication.	
	① When co	<b>x:</b> Simultaneously transmits and receives, like a telephone. onnecting the optional microphone to the IP100H, you can operate 0H like a telephone.	



Transceiver Controller > Transceiver Settings > Transceiver Settings

#### ■ Transceiver Settings

Transceiver Settings	
Ringer Settings Volume : 0 10	~
	~
Ringer and Vibration : 10 Notification Beep	•
Notice Tone(Except Reception Notice)	
Volume : 10	~
Function Settings	
Communication Method : 🚺 🔾 Simplex 💿 Full-Duplex	
Priority Call : 🚺 💿 Disable 🛛 🔿 Enable	
Area Call : 🚺 💿 Disable 🛛 Enable	
Message : 🌀 🔿 Disable 💿 Enable	
Default Message : 1 (Gather immediately.)	~
Status : 🕧 💿 Disable 🛛 Enable	
Mixing of Low Priority Call : 🔞 💿 Disable 🛛 Enable	

① The screen shows when the Message (6) is set to "enable."

### Priority Call .....

Select whether or not the IP100H uses Priority Call.

(Default: Disable)

The priority levels of the Call types are in the following order.					
	ority vel	Priority	Call type	Priority Call	Remarks
Hi	gh N		Telephone	—	For telephone communication
	Fixed		Emergency (High)	Enable	
			Emergency (Normal)	Disable	_
			All Call (High)	Enable	Includes the Area Call or using an IP100FS
			Individual Call (High)	Enable	Includes using an IP100FS
		Selectable *	Group Call (High)	Enable	Includes the Area Call or using an IP100FS
			All Call (Normal)	Disable	Includes the Area Call
	$\mathbf{b}$		Individual Call (Normal)	Disable	—
L	w		Group Call (Normal)	Disable	Includes the Area Call

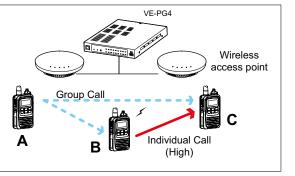
\* Selectable in the Call Type Priority in the [RoIP Server] screen in the [RoIP Server settings] menu.

① Priority is given to the first call between calls with the same priority level.

① When a call is taken, priority is given to the setting of the caller.

### Example:

Even while B and C are talking on a Group Call from A, B can make an Individual Call (High) to C. In this case, the Group Call is canceled.



Transceiver Controller > Transceiver Settings > Transceiver Settings

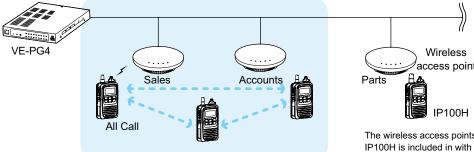
#### ■ Transceiver Settings

Transceiver Settings	
De group re	
Ringer Settings	
Volume : 10 10	<b>~</b>
Ringer and Vibration : 🕕 Notification Beep	~
Notice Tone(Except Reception Notice)	
Volume : 10 10	~
Function Settings	
Communication Method : 🚯 🔿 Simplex 💿 Full-Duplex	
Priority Call : 🚺 💿 Disable 🛛 Enable	
Area Call : 🚺 💿 Disable 🛛 Enable	
Message : 🚺 🔿 Disable 💿 Enable	
Default Message : 1 (Gather immediately.)	~
Status : 🚺 💿 Disable  🔘 Enable	
Mixing of Low Priority Call : 🔞 💿 Disable  🔘 Enable	

① The screen shows when the Message (16) is set to "enable."

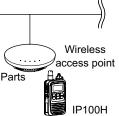
 Area Call ..... Select whether or not the IP100H uses Area Call. (Default: Disable) When the IP100H calls All Call or Group Call using the Area Call function, it calls only other IP100Hs or IP100FSs in the area that is connected to the same wireless access point. When the BSSID that IP100H is connecting is registered in [Area Setting] (Transceiver Controller > RoIP Server Settings > Area Call), this function is activated.

#### IP100H makes an All Call with the Area Call function



#### IP100FS calls the All Call with the Area Call function

Location	🗢 🕂 🗙	Operation	
	<u>^</u>	Display	Mess
	=	Sending All Area For Sales Call	
For Sales			



The wireless access points that the IP100H is included in with the Area Call function are set on the [Area Call] screen in the [RoIP Server Settings] menu. (Example: For Sales and For Accounts)

When the IP100FS uses Area Call function, the IP100FS can call IP100Hs that are in the communication range of the access points assigned to the Area Call. When the access point is selected in the

[Location], the Call type (Individual, Group, All, Area, or Telephone) and names are displayed.

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	
Do group	
Ringer Settings	
Volume : 0 10	~
Ringer and Vibration : 10 Notification Beep	~
Notice Tone(Except Reception Notice)	
Volume : 10	~
Function Settings	
Communication Method : 🔞 🔾 Simplex 💿 Full-Duplex	
Priority Call : 1 🖲 Disable 🛛 Enable	
Area Call : 15 💿 Disable 🛛 Enable	
Message : 🚺 🔿 Disable 💿 Enable	
Default Message : 1 (Gather immediately.)	~
Status : 🚺 💿 Disable 🛛 Enable	
Mixing of Low Priority Call : 🔞 💿 Disable  🔘 Enable	

① The screen shows when the Message (16) is set to "enable."

## 6 Message

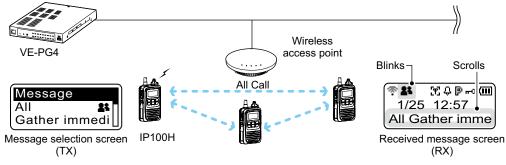
Select whether or not the IP100H can send messages.

(Default: Disable)

When "Enable" is selected, push the [FUNC] key on the IP100H once to enter the Message selection screen.

- ① Up to 10 messages of 32 characters or less can be programmed on the [Messages] screen in the [Common Settings] menu.
- ③ Select the message number 1 to 10 in [Default Message] that is registered on the [Message] screen.

#### IP100H transmits a message



#### IP100FS transmits a message

	Operation			
I.	Display	Message		
	All	▼ Gather immediate	Remote Lock	The IP100FS can store up to 100 messages in each site.
			Remote Unlock	You can edit the stored messages.
ľ	Selected Call type	Selected or edited message	Remote Monitor	
-	Selected Call type	Selected of edited message		

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

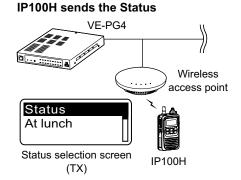
Transceiver Settings	
Ringer Settings	
Volume : 0 10	~
Ringer and Vibration : 🕕 Notification Beep	~
Notice Tone(Except Reception Notice)	
Volume : 10 10	~
Function Settings	
Communication Method : 📵 🔿 Simplex 💿 Full-Duplex	
Priority Call : 🚺 💿 Disable 🛛 Enable	
Area Call : 🚺 💿 Disable 🛛 Enable	
Message : 🚺 🔿 Disable 💿 Enable	
Default Message : 1 (Gather immediately.)	~
Status : 🚺 💿 Disable ု Enable	
Mixing of Low Priority Call : 🔞 💿 Disable i 🔘 Enable	

① The screen shows when the Message (16) is set to "enable."

17 Status

Select whether or not the IP100H can send Status information. (Example: At lunch, Meeting, Waiting) (Default: Disable) When "Enable" is selected, push the [FUNC] key on the IP100H twice to enter the Status selection screen.

- ① Up to 10 statuses of 32 characters or less can be entered on the [Status] screen in the [Common Settings] menu.
- ① The status that the IP100H sends can be displayed on the [Transceiver Management] screen in the [Transceiver Settings] menu or the one-Touch button of the IP100FS.



**IP100FS One-Touch button** 

All Call	Sales group 1 11	Sa
Sales 1 1 [2] At lunch	Sales 2 2 [5] At the desk	

Name, Destination ID, Status number and Status information

#### **VE-PG4** Transceiver Management screen

#### Transceiver Management

🗆 Ali	TRX No.	Transceiver Model	Name	Unit ID	Registration Status	IP Address	Current Statu	ıs Talkgroup
	1	IP100H	Sales1	0001	Connected	192.168.0.201	At lunch	1
	2	IP100H	Sales2	0002	Connected	192.168.0.202	At the desk	1
	3	IP100H	Sales3	0003	Disconnected	-	-	-
	50	IP100FS	IP100FS	0050	Disconnected	-	-	-

Status

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	
De group re	
Ringer Settings Volume : 10 10	
	<b>v</b>
Ringer and Vibration : 🕕 Notification Beep	~
Notice Tone(Except Reception Notice)	
Volume : 12 10	~
Function Settings	
Communication Method : 📵 🔿 Simplex 💿 Full-Duplex	
Priority Call : 1 🖲 Disable 🕓 Enable	
Area Call : 15 💿 Disable 🛛 Enable	
Message : 🚺 🔿 Disable 💿 Enable	
Default Message : 1 (Gather immediately.)	~
Status : 🚺 💿 Disable < Enable	
Mixing of Low Priority Call : 🔞 💿 Disable  🔘 Enable	

① The screen shows when the Message (16) is set to "enable."

### 18 Mixing of Low Priority Call

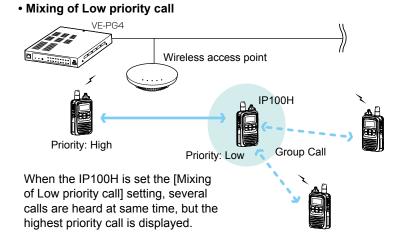
Select whether or not the IP100H receives Mixed audio.

(Default: Disable)

When this setting is set to "Enable," the RoIP Gateway sends the mixed audio of all calls that call the IP100H.

① The IP100H displays the called station that has the highest priority in the mixed audio.

See page 6-26 for details of the Priority level.



#### Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	
	$\leq$
Fix Call Destination : 19 Disable	~
Key Assignment	
Option Key : 🙍 No Function	~
Clear Down during Telephone Call : () O Disable	
Target Availability Check : 2 🔘 Disable 💿 Enable	

#### Fix Call Destination ......



( 🗟 🛔	<b>_</b>	
All 🗕		- 2nd line
Sales8 -		- 3rd line

Call type is set to All

(? <b>1</b>	)
Seles group1 +-	2nd line
Sales8	- 3rd line

Call type is set to Group

Select whether or not the IP100H uses the Fix Call Destination function. (Default: Disable)

When this setting is set to other than "Disable," the IP100H calls the preset destination instead of the selected destination that is displayed on the third line. The Fix Call Destination function separates the fixed call from the general calls by the specified method to start transmission.

#### • Disable

The Fix Call Destination is not specified, and the IP100H calls the selected destination.

#### • PTT

The Fix Call Destination is specified as PTT transmission. When [PTT] is held down, the IP100H calls the preset destination.

ix Call Destination	
Fix Call Destination :	PTT
Call Type :	All

(Example: All call is specified to the PTT)

#### Earphone Mic or Headset

The Fix Call Destination is specified as the external Mic transmission. When the external microphone's PTT switch is held down, or its VOX function is active, the IP100H calls the preset destination.

Fix Call Destination	
Fix Call Destin	ation : Earphone Mic or Headset
Call	Type : Group
Destinati	on ID :0001

(Example: Group call is specified to the Earphone Mic or Headset)

#### (i) Information

- Set the Call type to "Individual," "Group," or "All."
- When the "Call Type" is set to "Individual" or "Group," enter the 4 digit number of the Individual ID or Group ID in the [Destination ID].
- The Destination ID, Name (if [Name] is selected in the [Display Item] (2)) or Call type of the Fix Call Destination is displayed on the 2nd line.
   (Usually Date and Time or Own Name is displayed on the 2nd line.)
- When the IP100H receives a call with this setting, it does not display the Caller's ID or Call type on the 3rd line.
- When both of the IP100H's [PTT] and external microphone's PTT switch are held down, the external PTT has priority and the internal microphone will be muted.

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	
Fix Call Destination : 19 Disable	~
Key Assignment	
Option Key : 20 No Function	~
Clear Down during Telephone Call : 21 〇 Disable	
Target Availability Check : 2 🔘 Disable 💿 Enable	

20 Option Key

Assign "Message," "One Touch," "Clear Down," "Mute," "Emergency," or "No Function" to the IP100H's [Option] key. (Default: No Function)

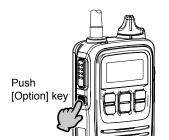
### • Message

Pushing the [Option] key on the IP100H displays the Message selection screen.

③ Select the message number 1 to 10 in the [Message No.] that is displayed on the [Message] screen.

#### Key Assignment

, , , , , , , , , , , , , , , , , , , ,	Option Key :	Message
	Message No. :	1 (Gather immediately.)





### Transceiver Controller > Transceiver Settings > Transceiver Settings

### Transceiver Settings

Transceiver Settings	
	$\underline{\neg} \underline{\neg} \underline{\neg} \underline{\neg} \underline{\neg} \underline{\neg} \underline{\neg} \underline{\neg} $
Fix Call Destination : 19 Disable	×
Key Assignment	
Option Key : 20 No Function	×
Clear Down during Telephone Call : 20 O Disable Target Availability Check	Enable
Target Availability Check : 2 🔘 Disable	Enable

20 Option key .....

#### One Touch

Pushing the [Option] key on the IP100H selects a specified Call type and destination ID or phone number.

Select the "Individual," "Group," "All," or "Telephone" Call type.

- ① When "Individual" or "Group" is selected, enter the 4 digit Individual ID or Group ID in the [Destination ID].
- ③ When "Telephone" is selected, enter up to 31 numbers and symbols (#, \*) in the [Destination Phone Number].

Key Assignment	
Option Key :	One Touch
Call Type :	Individual
Destination ID :	Group All
Clear Down during Telephone Call :	Telephone



Transceiver Controller > Transceiver Settings > Transceiver Settings

### ■ Transceiver Settings

Transceiver Settings	
	$\underline{}$
Fix Call Destination : 19 Disable	×
Key Assignment	
Option Key : 20 No Function	✓
Clear Down during Telephone Call : 20 O Disable Target Availability Check	Enable
Target Availability Check : 2 🔘 Disable	Enable

20 Option key .....

#### Clear Down

Pushing the [Option] key on the IP100H terminates the phone call with an IP phone.

① You can assign another function if you select "Enable" on [Clear Down during Telephone Call] (2).

#### Key Assignment

Option Key : Clear Down



When the [Option] key is pushed before a phone call is received, or during telephone call, the phone call is terminated.
The phone call is terminated from the IP100H, only when the

from the IP100H, only when the IP100H is individually called from a telephone, or when the IP100H calls a telephone.

#### Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

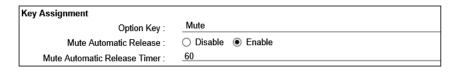
Transceiver Settings		~
The other		$\sim$
Fix Call Destination : 19 Disable	×	
Key Assignment		
Option Key : 20 No Function	n 🗸	
Clear Down during Telephone Call : 2 O Disable Target Availability Check		
Target Availability Check : 2 🔘 Disable	Enable	

20 Option key.....

#### • Mute

Hold down the [Option] key for 1 second on the IP100H when you want to mute the received audio. (The Notification beep cannot be muted.) Hold down the [Option] key for 1 second to turn the Mute function ON or OFF.

- ① You can turn OFF the Mute function by pushing [PTT]. However, selecting "Enable" in the [Clear Down during Telephone Call] (2), terminates the phone call.
- If you select "Enable" in [Mute Automatic Release], turn OFF the Mute function after a specified period of time has passed. (Default: Disable) If you select "Enable," set the period of time to release the Mute function to between 10 to 600 (seconds). (Default: 60 (seconds))





#### Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	
Fix Call Destination : 19 Disable	×
Key Assignment	
Option Key : 20 No Function	ı 🗸
Clear Down during Telephone Call : 20 O Disable Target Availability Check	Enable
Target Availability Check : 2 🔘 Disable	Enable

20 Option key .....

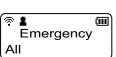
#### Emergency

Hold down the [Option] key until "Emergency" is displayed to send an Emergency call.

When the Emergency call is sent, an alarm sounds. The Emergency call is canceled and the alarm stops when the transceiver receives a response, or the [Option] key of the transceiver is held down.

- ① You can set the period of time to send the Emergency call, and sound the alarm, in [Emer SW ON Timer] (<sup>6</sup>).
- ① When "Enable" is selected in [Emer SW OFF] (3), you can set the period of time to cancel the Emergency call and stop the alarm.





### NOTE:

The RoIP Gateway should not be used when high reliability is necessary.

The communication cannot be made, depending on the environment around the RoIP Gateway, such as the consumption of a battery, the signal environment, or the access point or network status.

Transceiver Controller > Transceiver Settings > Transceiver Settings

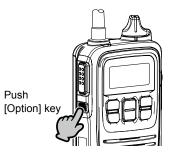
#### Transceiver Settings

Transceiver Settings	
	$\leq$
Fix Call Destination : 19 Disable	~
Key Assignment	
Option Key : 20 No Function	~
Clear Down during Telephone Call : (2) O Disable   Enable Target Availability Check	
Target Availability Check : 2 🔘 Disable 💿 Enable	

#### **2)** Clear Down during Telephone Call

Select "Enable," if you want to terminate a phone call by pushing the IP100H's [Option] key. (Default: Enable)

When "Clear Down" is selected on the [Option Key] (2), this item is not displayed.



Before the target telephone is picked up, or during a phone call, pushing the [Option] key terminates the phone call.

The IP100H can terminate the phone call, when a telephone calls the IP100H individually, or when the IP100H calls a telephone.

**22** Target Availability Check ...

Select whether or not the IP100H displays a confirmation after it makes an Individual Call. (Default: Enable) When "Enable" is selected, the IP100H displays the "Connected," "Busy" or "No response" connection status.



① When the target station is out of range, "No response" is displayed.

① If the [Connection Notice Tone] is set to "Enable," the Success Tone or Failure Tone sounds to notify its connection status.

(Transceiver Controller > Common Settings > Profile > Profile > Connection Notice Tone)

### Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings Key-Touch Beep		
Key-Touch Beep : 23 Key-Touch Beep Level :	🔿 Disable 💿 Enable	
Key-Touch Beep Level :	10	~
Microphone		
Gain :24	0 🗸	dB
Earphone Mic		
Monitor 25	🖲 Disable 🔘 Enable	

8 Key-Touch Beep	Select whether or not the IP100H sounds the Key-Touch beep. (Default: Enable)		
	When "Disable" is selected, the IP100H does not sound the confirmation beep when a key is pushed.		
	<ul> <li>Key-Touch Beep Level Set the volume level of the notification beeps when the IP100H's key is pushed. (Default: 10) The selectable range is between 0 and 32.</li> <li>When "0" is selected in this setting, the IP100H does not sound any beep, even if the volume level is set.</li> <li>When "Disable" is selected, this setting is grayed out and the volume level cannot be changed.</li> </ul>		
❷ Gain	<ul> <li>Adjust the microphone sensitivity. (Default: 0 (dB))</li> <li>Range: -12 (low) ~ 12 (high) dB, in 3 dB steps.</li> <li>When the noise level around the IP100H is high, set to low sensitivity and speak in a slightly louder voice that makes listening easier. Or when the noise level around the IP100H is quiet, set to high sensitivity and speak in smaller voice that makes listening easier.</li> </ul>		
29 Monitor	Select whether or not the IP100H with an earphone microphone uses the Monitor function. (Default: Disable) When this setting is set to "Enable," you can hear your transmit audio from the earphone. Set the monitor level to between 0 and 32. (Default: 10) (1) When "0" is set, your voice is not heard from an earphone microphone, regardless of the audio setting in the IP100H. (2) To prevent howling, set this setting to "Disable" when using a speaker microphone, such as the HM-186LS.		

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	$\frown$	$\frown$ $\frown$ $\frown$ $\frown$	/
Headset	abic		$\sim$
vox :26	🔿 Disable 💿 E	nable	
Attack Time :	50	milliseconds	
Release Time : 28	200	milliseconds	
Voice Delay :	200	milliseconds	
VOX Threshold :		%	
Sidetone :	Disable O E	nable	
Sidetone Volume : 32	10	<b>~</b>	

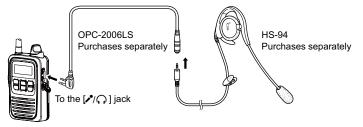
(This is an example of when the [VOX] (26) is set to "Enable.")

26 VOX .....

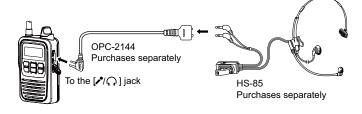
Select whether or not the IP100H can use the VOX (voice operated transmission) function. (Default: Disable) The transceiver has a VOX function, which allows hands-free operation.

#### (i) Information

- The VOX function requires an optional headset and connection cable, such as the HS-94, HS-95, or HS-97 headset and OPC-2006LS cable, or the HS-102 headset and OPC-2359 cable.
- The VOX function starts transmission when you speak into the microphone, without needing to push [PTT]; then, automatically returns to reception when you stop speaking.
- Be sure to turn OFF the IP100H's power, before connecting or disconnecting optional equipment to or from the [/] jack.
- When "Enable" is selected, the [Attack Time] (2) through [Sidetone Volume] (3) is displayed.



• The HS-85 has the VOX function, so if you connect the HS-85 to the IP100H through the OPC-2144, set the [VOX] (2) to "Disable."



Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings		
Headset		$\neg$
VOX : 26 O Disable	Enable	
Attack Time : 27 50	milliseconds	
Release Time : 28 200	milliseconds	
Voice Delay : 20	milliseconds	
VOX Threshold : 30 40	%	
Sidetone : 3) 💿 Disable	○ Enable	
Sidetone Volume : 32 10	×	

(This is an example of when the [VOX] (26) is set to "Enable.")

Attack Time     VOX: Enable	Adjust the Attack time • Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps When audio from a headset microphone is input for this s the IP100H starts transmitting.	(Default: 50)
<b>8 Release Time</b> VOX: Enable	Adjust the Release time. • Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps The release time is amount of time the transmitter stays ( stop speaking.	(Default: 200) ON after you
Voice Delay VOX: Enable	Adjust the Voice Delay time to prevent clipping of the first after you begin speaking. • Range: 0 ~ 500 (milliseconds) in 5 millisecond steps	t few syllables (Default: 200)
Voice Threshold VOX: Enable	Adjust the VOX Threshold level. • Range: 0 ~ 100 (%) ① The higher values make the VOX function more sensitive to	(Default: 40) your voice.
Sidetone     VOX: Enable	Select whether or not to use the Sidetone function. (D When "Enable" is selected, you can hear your voice from	efault: Disable) the headset.
Sidetone Volume     VOX: Enable	Adjust the Sidetone level. • Range: 0 (minimum) ~ 32 (maximum)	(Default: 10)

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	$\frown$
Emergency Settings	
Emergency :🕄 🔿 Disable 💿 Enable	
Assign Emergency to Log Key (long 3 〇 Disable	
Emer SW ON Timer : 35 .5	seconds
Emer SW OFF : 36 O Disable 💿 Enable	
Emer SW OFF Timer : 2	seconds
Emergency Alert Tone : 37 O Disable 💿 Enable	
Emergency Alert Tone Volume : 32	~
Call Type : 🚳 🔠	~
Cancel on Reply 🧐 🔿 Disable 💿 Enable	
Cancel by Time : 🐠 🔿 Disable 💿 Enable	
Time : 60	seconds

① (This is an example of when the Emergency (③), Emer SW OFF (⑥), and Cancel by Time (⑩) are set to "Enable.")

Bemergency	<ul> <li>Select whether or not to use the Emergency function. (Default: Disable) Holding down the [Option Key] (20) or [Assign Emergency to Log Key (long press)] (39) until "Emergency" is displayed turns ON the Emergency function, and sends an Emergency call to the previously set User ID.</li> <li>The Emergency call is canceled when an RX code is received, or holding down the [Option] key or [Log] key for a set period of time in the [Emer SW OFF Timer] (39).</li> <li>The period of time that the key must be held down to turn the Emergency function ON or OFF is set in the [Emer SW ON Timer] (39) or in the [Emer SW OFF Timer] (39).</li> </ul>
Assign Emergency to Log Key (long press) Emergency: Enable	Select whether or not to use the [া key to send an Emergency call. (Default: Enable)
Emer SW ON Timer     Emergency: Enable	Enter the period of time for which the [Option] key or [Log] key must be held down to turn the Emergency function ON. (Default: 5 seconds)
Emer SW OFF     Emergency: Enable	Select whether or not to cancel the Emergency call by pushing the [Option] key or [Log] key. (Default: Disable) When "Enable" is selected, enter the period of time for which the [Option] or [Log] key must be held down to turn OFF the Emergency function, between 1 and 10 seconds. (Default: 2 seconds)

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	
Emergency Settings	
Emergency : 33 O Disable	e 💿 Enable
Assign Emergency to Log Key (long ) Oisable press):	e 🖲 Enable
Emer SW ON Timer : 35 5	seconds
Emer SW OFF : 36 O Disable	e 💿 Enable
Emer SW OFF Timer : 2	seconds
Emergency Alert Tone : 😗 🔿 Disable	e 💿 Enable
Emergency Alert Tone Volume : 32	×
Call Type : 38 _All	×
Cancel on Reply : 3 O Disable	e 💿 Enable
Cancel by Time : 🐠 🔿 Disable	e 💿 Enable
Time : 60	seconds

<b>3 Emergency Alert Tone</b> Emergency: Enable	Select whether or not to sound an alarm when an Emergency call is sent. When this item is set to "Disable," "Emergency" is not displayed on the screen, and IP100H sends the Emergency call. (Default: Enable)	
	When "Enable" is selected, set the [Emergency Alert Tone Volume](audio level) of the alarm to between 0 and 32.(Default: 32)	
Call type     Emergency: Enable	Select the call type of Emergency call from Individual, Group, All, or Telephone. (Default: All) If you select "Individual" or "Group," enter the 4 digit Destination ID. If you select "Telephone," enter a Destination Phone Number of up to 31 characters (0–9, #, and *).	
Cancel on Reply     Emergency: Enable	Select whether or not to cancel the Emergency call when any RX code is received. (Default: Enable)	
Cancel by Time	Select whether or not to cancel the Emergency call after the set period of time has passed. (Default: Disable) If you select "Enable," enter a period of time to between 1 and 255 seconds. (Default: 60 (seconds))	

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings	
RX Envergency Setting	
Alert Tone : 🌗 🔿 Disable 💿 Enable	
Alert Tone Volume : 32	~
Alert Tone Action : Notification Beep + Vibration	~
Lone Worker Settings	
Lone Worker: 42 O Disable      Enable	
Lone Worker ON Timer : 43 _60	minutes
Lone Worker Reminder Timer : 44 _60	seconds
PTT Delay : 45 🔿 Disable 💿 Enable	
PTT Delay Timer : 10	x100 milliseconds

(This is an example of when the [Lone Worker] (42) is set to "Enable.")

Alert Tone     Emergency: Enable	Select whether or not to cancel an Emergency call after the set period of time has passed. (Default: Enable) If you select "Enable," set the Volume (audio level) to between 0 and 32, and select the action. (Default: 32, Notification Beep+Vibration) ① In the [Alert Tone Action], select "Notification Beep," "Vibration," or "Notification Beep + Vibration" to activate when an Emergency call is received.
Lone Worker     Emergency: Enable	If the Lone Worker function is activated, the Emergency function is automatically turned ON after the set period of time has passed with no operation. (Default: Disable)
Lone Worker ON Timer     Lone Worker: Enable	<ul> <li>Enter the period of time for starting the Lone Worker function. (Default: 60 (minutes))</li> <li>Range: 1 ~ 255 (minutes) in 1 second steps</li> <li>When the IP100H is operated within the period of time in this item, the times for [Lone Worker ON Timer] (<sup>(3)</sup>) and [Lone Worker Reminder Timer] (<sup>(4)</sup>) are reset.</li> </ul>

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings		
RX Envergency Settling		
Alert Tone : (4)	🔿 Disable 💿 Enable	
Alert Tone Volume :	32	~
Alert Tone Action :	Notification Beep + Vibration	~
Lone Worker Settings	-	
	🔿 Disable 💿 Enable	
Lone Worker ON Timer : 43	60	minutes
Lone Worker Reminder Timer : 4	60	seconds
PTT Delay : 45	🔿 Disable 💿 Enable	
PTT Delay Timer :	10	x100 milliseconds

(This is an example of when the [Lone Worker] (2) is set to "Enable.")

Lone Worker Reminder Timer     Lone Worker: Enable	<ul> <li>Enter the period of time to start the Emergency call transmission after the period of time that is set in [Lone Worker ON Timer] (④) has passed. (Default: 60 (seconds))</li> <li>When the transceiver is not operated after the period of time has passed, the Emergency call automatically starts.</li> <li>Range: 1 ~ 255 (seconds) in 1 second steps</li> <li>① When the transceiver is operated by the [Emergency] function activation, [Lone Worker ON Timer] and [Lone Worker Reminder Timer] are reset.</li> <li>① When the [Lone Worker Reminder Timer] is activated, beeps sound every 2 seconds until the timer is reset.</li> </ul>
PTT Delay     Lone Worker: Enable	<ul> <li>Enter the period of time for the delay time to transmit by pushing [PTT] while [Lone Worker On Timer] and [Lone Worker Reminder Timer] are activated. (Default: Enable, 10)</li> <li>Range: 1 ~ 255 (×100 milliseconds)</li> <li>If this item is set to a longer period of time, you can reset [Lone Worker On Timer] and [Lone Worker Reminder Timer] by momentary pushing [PTT] without transmitting.</li> </ul>

① Hold down [PTT] for more than the set period of time in this item to transmit.

#### NOTE:

The RoIP Gateway should not be used when high reliability is necessary.

The communication cannot be made, depending on the environment around the RoIP Gateway, such as the consumption of a battery, the signal environment, or the access point or network status.

Use the [Emergency] and [Lone Worker] functions as a supplementary function.

#### ■ Transceiver Settings

Transceiver Settings		
V/RoIP Settings		
Buffering Type : 46	🔾 Static 💿 Dynamic	
TOS Type : 47.	⊖ Static	~
Media (RTP) Priority Level : 48	7	
Media (RTP) Service Type :	0	
Media (RTP) (HEX) :	E0	
Antenna		
Antenna Type : 49	Transceiver's Setting	~
IP Address		
IP Address Settings : 50	Transceiver's Setting	~

46 Buffer Type .....

Select the buffer type to control any interrupted sound.

(Default: Dynamic)

#### Static

The buffer time is set [Receive Buffer Size]. Set the buffer time to between 20 and 500 milliseconds to keep the audio from breaking up. A shorter value improves the delay, but it may frequently break the audio signal.

V/RolP Settings		
Buffering Type :	Static O Dynamic	
Receive Buffer Size :	40	~
TOS Type :	TOS	

#### • Dynamic

The buffer time changes according to the audio fluctuation.

#### ■ Transceiver Settings

Transceiver Settings	$\sim$ $\sim$ $\sim$ $\sim$	
V/RoIP Settings		
Buffering Type : 46	🔿 Static 💿 Dynamic	
TOS Type : 47	⊖ Static	~
Media (RTP) Priority Level : 48		
Media (RTP) Service Type :	0	
Media (RTP) (HEX) :	E0	
Antenna		
Antenna Type : 49	Transceiver's Setting	~
IP Address		
IP Address Settings : 50	Transceiver's Setting	~

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### Transceiver Settings

Transceiver Settings		$\sim$
V/RoIP Settings		
Buffering Type : 46	🔾 Static 💿 Dynamic	
TOS Type : 47	TOS	~
Media (RTP) Priority Level : 48	7	
Media (RTP) Service Type :	0	
Media (RTP) (HEX) :	E0	
Antenna		
Antenna Type : 49	Transceiver's Setting	~
IP Address		
IP Address Settings : 50	Transceiver's Setting	~

48 Media (RTP).....

Select the Priority level and Service type of the sent VoIP packets. ① The item is not displayed when [TOS Type] (④) is set to "Not used."

- Media (RTP) Priority Level Set the TOS priority level to between 0 (lowest) and 7 (highest). (Default: 7)
- Media (RTP) Service Type Set the TOS service type code to between 0 and 15. (Default: 0)

#### Media (RTP) DSCP

Set the DSCP (Differentiated Services Code Point) code to between 0 and 63. (Default: 56)

- This item is displayed when the [TOS Type] (4) is set to "Diffserv."

V/RoIP Settings	
Buffering Type :	<ul> <li>Static          <ul> <li>Dynamic</li> </ul> </li> </ul>
TOS Type :	Diffserv
Media (RTP) DSCP :	56
Media (RTP) (HEX) :	E0

#### Transceiver Settings

Transceiver Settings		
V/RoIP Settings		
Buffering Type : 46	🔾 Static 💿 Dynamic	
TOS Type : 47	TOS	~
Media (RTP) Priority Level : 48	7	
Media (RTP) Service Type :	0	
Media (RTP) (HEX) :	E0	
Antenna		
Antenna Type : 49	Transceiver's Setting	~
IP Address		
IP Address Settings : 50	Transceiver's Setting	~

 Antenna Type ..... Select the antenna that the IP100H will use. (Default: Transceiver's Setting) Transceiver's Setting Uses the last antenna set by the CS-IP100H or the RoIP Gateway. Internal Antenna Uses the internal antenna when you want to: • Reduce the communication range. · Limit the communication area and improve security. Reduce electrical interference among Wireless LAN transceivers. · Control the communication speed in an environment where some access points are installed in a comparatively small area. External Antenna Uses the external antenna. The external antenna extends the communication range. **50 IP Address Settings** ..... Select the IP100H's IP settings. (Default: Transceiver's Setting) Transceiver's Setting Uses the last IP setting set by the CS-IP100H or the RoIP Gateway. DHCP Client Selects the DHCP Client when the IP address is automatically obtained by a DHCP server. IP Address DHCP Client IP Address Settings : Primary DNS Server : Secondary DNS Server :

① If necessary, enter the [Primary DNS Server] or [Secondary DNS Server] settings.

Transceiver Controller > Transceiver Settings > Transceiver Settings

#### ■ Transceiver Settings

Transceiver Settings	
	$\leq$
V/RoIP Settings	
Buffering Type : 46 🔿 Static 💿 Dynamic	
TOS Type : 47_TOS	~
Media (RTP) Priority Level : 48.7	
Media (RTP) Service Type : _0	
Media (RTP) (HEX) : E0	
Antenna	
Antenna Type : 49 Transceiver's Setting	~
IP Address	
IP Address Settings : 5 Transceiver's Setting	<u> </u>

IP Address Settings .....

#### Static IP

Selects the Static IP address, if it is specified according to your network environment.

IP Address	
IP Address Settings :	Static IP
IP Address :	
Subnet Mask	
Default Gateway :	
,	
Primary DNS Server :	
Secondary DNS Server :	

- ① Enter the default gateway address, if your network connects to a different network.
- ① If necessary, enter the [Primary DNS Server] or [Secondary DNS Server] settings.

■ Transceiver Settings

Transceiver Settings		
Maintenance		$\geq$
Provisioning Server :	<b>5</b>	
Accept Reboot Command from Other than the Master Controller :	52  ● Disable  ○ Enable	
SNTP Server :		
Automatic Firmware Updating at Power ON :	Enable (with Automatic Reboot)	
Firmware Server :		
SYSLOG Host IP Address :	56	
,	57 🗌 debug 🗌 Info 🗌 Notice	
Security Read/Write Password :	58 69 60 Apply Reset	

<b>⑤</b> Provisioning Server	<ul> <li>Enter an IP address or Host name of the Provisioning Server for the IP100H, of up to 63 characters.</li> <li>When the RoIP Gateway is used as its Provisioning Server, this entry is not necessary.</li> </ul>
Solution State	Select whether or not the IP100Hs can be rebooted by the other than the specified Provisioning server (④). (Default: Disable) ① The RoIP Gateway and IP1000C are compatible with this function. (As of May, 2019)
SNTP Server	<ul><li>Enter the IP address of the device that is specified as the SNTP server for the IP100H.</li><li>When the RoIP Gateway is used as its SNTP Server, this entry is not necessary.</li></ul>
Automatic Firmware Updating at Power ON	Select whether or not the IP100H will use the Automatic Update function. (Default: Enable (with Automatic Reboot))
	• <b>Disable</b> Disables the automatic firmware updating when the IP100H is turned ON.
	<ul> <li>Enable (without Automatic Reboot) When this setting is set to "Enable (without Automatic Reboot)," the IP100H works as follows.</li> <li>1. The IP100H confirms the latest firmware in the RoIP Gateway when it is turned ON.</li> <li>2. The IP100H automatically downloads the firmware if it needs to be updated.</li> <li>3. The IP100H will be updated when it is turned ON again.</li> </ul>
	<ul> <li>Enable (with Automatic Reboot) When this setting is set to "Enable (with Automatic Reboot)," the IP100H works as follows. <ol> <li>The IP100H confirms the latest firmware in the RoIP Gateway when it is turned ON.</li> <li>The IP100H automatically downloads the firmware if it needs to be updated.</li> <li>The IP100H is updated automatically, and then it is rebooted.</li> <li>You can check the firmware version of the IP100H on the [TOP] menu.</li> </ol></li></ul>

### ■ Transceiver Settings

Transceiv	rer Settings	
Maintenance Accept Rebo	Provisioning Server : bot Command from Other (2)  Disable  Enable	
	than the Master Controller : SNTP Server : 53	
Automa	tic Firmware Updating at  Power ON :  S	
SY	Firmware Server : SLOG Host IP Address : SYSLOG Severity : DEBUG INFO NOTICE	
Security	ReadWrite Password : 58 69 Apply Reset	

5 Firmware Server	<ul> <li>Enter an IP Address or Host name of the Firmware Server for the IP100H, of up to 63 characters.</li> <li>① When the RoIP Gateway is used as its Firmware Server, this entry is not necessary.</li> </ul>
SYSLOG Host IP Address	Enter the SYSLOG host's address. ① The host device must have the SYSLOG server function.
SYSLOG Severity	Select the log information to send to the SYSLOG host. The SYSLOG host is sent to another host that is set in the [SYSLOG Host IP Address] ( (). (Default: DEBUG INFO NOTICE) () Enter a check mark to send the log entries.
Sead/Write Password	<ul> <li>Enter a password of up to 16 characters. The password is used when reading from, or writing to the IP100H, or updating the firmware using the CS-IP100H*.</li> <li>* CS-IP100H is the cloning software for the IP100H, and can be downloaded from the Icom website.</li> </ul>
Set Apply >     Set Apply	<ul> <li>Click to apply the entries.</li> <li>① Some parts of the entries are displayed in [Transceiver Setting List], such as the Transceiver Model, Name, Unit ID, Use ID List, Area Call, Message, Status, and Option Key.</li> </ul>
íol <reset></reset>	Click to reset the settings. (1) You cannot reset after clicking <apply>.</apply>

Transceiver Controller > Transceiver Settings > Transceiver Settings

## ■ Copy Transceiver Settings

The individual settings in the [Transceiver Settings] screen can be copied to another IP100H. ① IP address settings are not copied.

Copy Tra	ansceiver Settings	
	Source Transceiver : 0101	(Sales1) * Select in the Unit ID of the Transceiver Settings above.
Copy th	e Transceiver Settings to	
	□ 0102(Sales2) □ 0103(Sal	es3)
		Apply Res

Check Box	Enter a check mark to [All] or the [Unit ID] that you want to copy the settings to.
⊘ <apply></apply>	<ul> <li>Click to apply the entries.</li> <li>The entries in the [Transceiver Settings] of the Source Transceiver are copied to the transceiver settings that have a check mark in [Check Box] (1).</li> </ul>
3 <reset></reset>	Click to reset the settings. (i) You cannot reset, after clicking <apply></apply>

Transceiver Controller > Transceiver Settings > Transceiver Settings

## Transceiver Setting List

Display the list of the registered IP100Hs.

① When verifying the contents, or editing the settings, select the individual number in the Unit ID.

nsceiver	Setting List						
Transceiver Model	Name	Unit ID	Use ID List	Area Call	Message	Status	Option Key
IP100H	Sales1	0101	Enable	Enable	Enable	Enable	No Function
IP100H	Sales2	0102	Enable	Enable	Enable	Enable	No Function
IP100H	Sales3	0103	Enable	Enable	Enable	Enable	No Function

Transceiver Controller > Common Settings > Wireless LAN

# Wireless LAN

Register wireless LAN settings that are commonly used by the IP100Hs.

You can individually set the common settings to each registered group in [Profile] on the [Common Settings] screen. If any setting in this screen has been changed, you must reboot the IP100Hs.

* Domotoli ob opportunit				
Remotely changes trans	ceiver's Wireless LAN settings.			
	No. : 1			~
	Name : 2			
		✔ W53 ✔ W56)		
	Channel : 4 Automatic (1-13)			~
F	Power Level : 5 High			~
	g Threshold : 6 -75			✓ dBm
SSID 7	Authentication 8	Encryption 9		WEP Encryption Key or 10 PSK(Pre-Shared Key)
	Open System/Shared I V	None	$\mathbf{\mathbf{v}}$	WEP:
$\sim$	on Jyst rear	NITE	$\overline{}$	
	Open System/Shared I V	None	$\sim$	WEP:
				Apply Reset

1 No	Select a group number between 1 and 20 to assign to the IP100Hs. Up to 20 groups can be registered. (Default			
2 Name	Enter a Group name of up to 31 characters.	(Default: Blank)		
Scan Mode	<ul> <li>Select the frequency band that the IP100H uses. (Default: ✓ 11g, ✓11a (✓ W52, ✓ W53, ✓ W53, ✓ W53)</li> <li>Selecting "11g" includes "11b."</li> <li>Access points that comply with the wireless LAN standards can be used the IP100H.</li> </ul>			

Transceiver Controller > Common Settings > Wireless LAN

#### Wireless LAN

Wireless LAN			
* Remotely changes transceiver	s Wireless LAN settings.		
	No. : 1		~
1	Name : 2		
	Mode: 3 ✓ 11g ✓ 11a ( ✓ W52	✔ W53 ✔ W56)	
Ch	annel : 4 Automatic (1-13)		~
Power	Level : 5 High		~
	shold : 6 -75		✓ dBm
* Clearing SSID will also clear ot			
SSID 7	Authentication 8	Encryption 9	WEP Encryption Key or 10 PSK(Pre-Shared Key)
	Open System/Shared I 🗸	None 🗸	WEP:
$\sim$	Children Lord	N	TP:
	Open System/Shared I V	None 🗸	WEP:
			Apply Reset

4 Channel .....

Select the channel that you want to scan when the IP100H uses 2.4GHz (11g).(Default: Automatic (1-13))

① When you specify a channel, select "Static" in the [Channel], and specify a channel that you use in [Static Channel].



5 Power Level.....

Set the IP100H transmit power level to High, Middle or Low.

(Default: High)

- ① When "High" is set, the transmission distance of the IP100H is maximum. Or when setting to a lower level, the distance will be reduced.
- ③ Power Level is set to a lower level when you want to:
  - Reduce the communication range.
  - Limit the communication area and improve security.
  - Reduce electrical interference among Wireless LAN transceivers.
  - Control the communication speed in an environment where some access points are installed in a comparatively small area.

#### Wireless LAN

Wireless LAN				
* Remotely changes transceiver				
	No. : 1			~
	Name : 2			
		✔ W53 ✔ W56	)	
Cł	nannel : 4 Automatic (1-13)			~
Power	Level : 5 High			~
	eshold : 6 -75			✓ dBm
* Clearing SSID will also clear o				
SSID 7	Authentication 8	Encryption 9		WEP Encryption Key or 10 PSK(Pre-Shared Key)
	Open System/Shared I V	None	~	WEP:
$\sim$	off Jysh rear	NI THE	$\sim$	TP:
	Open System/Shared I V	None	~	WEP:
				Apply Reset

**6** Roaming Threshold ......

Set the received signal strength level when the IP100H starts roaming. The settable level is between -1 and -100 dBm. (Default: -75 (dBm))

① When setting to a high level (example: -50 dBm), it becomes easy to start roaming. Or when setting to a low level (example: -90 dBm), it becomes difficult to start roaming.

Enter an SSID that is the same as that of the wireless access point. Enter up to 32 characters, using numbers, symbols and letters (both lower and upper case).

Be careful of the difference between lower and upper case letters.

#### (i) Information

- Up to 10 SSIDs can be registered.
- The SSID is used to separate the wireless network groups. You cannot connect to different SSID groups.
- If two or more wireless access points exist in the same area, each wireless network group is identified by the SSID (wireless network name).
- If you register two or more SSIDs, the IP100H connects to the SSID which has the strongest radio signal.
- For any other wireless device, this may be called ESSID.
- The setting data before version 2.04 automatically moves to the top of the SSID setting.

#### NOTE:

You cannot apply the Wireless LAN settings when:

- The setting for the same "SSID"(<sup>6</sup>) and "Encryption" (<sup>7</sup>) as that you entered already exists.
- The top of the SSID setting overlaps with other Wireless LAN (a different value is set in "No." (1)) settings.

Transceiver Controller > Common Settings > Wireless LAN

#### Wireless LAN

Wireless LAN			
* Remotely changes transce	iver's Wireless LAN settings.		
	No. : 1		~
	Name : 2		
S	can Mode : 3 🗹 11g		
	🗹 11a ( 🗹 W52	🗹 W53 🗹 W56)	
	Channel : Automatic (1-13)		~
Po	wer Level : 5 High		~
Roaming	Threshold : 6 -75		✓ dBm
* Clearing SSID will also cle			
SSID 7	Authentication 8	Encryption 9	WEP Encryption Key or 10 PSK(Pre-Shared Key)
	Open System/Shared I 🗸	None 🗸	WEP:
$\sim$	on ayon reur	M. Contraction of the second s	
	Open System/Shared I 🗸	None 🗸	WEP:
			Apply Reset

8 Authentication .....

Select the authentication method that is the same as that of the wireless access point. (Default: Open System/Shared Key) ① Be sure to verify the Access point setting, because the terminals and access

points cannot communicate using different authentication methods.

#### About authentication methods

#### Open System/Shared Key

When accessing a wireless access point, "Open System" and "Shared Key" are automatically recognized. If the Encryption key matches the key in the Access point, they can communicate.

#### Open System

When accessing a wireless access point, confirming the encryption is not necessary.

#### • WPA-PSK/WPA2-PSK

The "WPA-PSK" and "WPA2-PSK" authentications are automatically recognized.

#### The combination of the Authentication and Encryption

	Open System	Open System/ Shared Key	WPA-PSK WPA2-PSK
None	<b>v</b>	<ul> <li>✓</li> </ul>	_
WEP RC4	<b>v</b>	<b>v</b>	_
TKIP/AES	_	_	<b>v</b>

Transceiver Controller > Common Settings > Wireless LAN

#### Wireless LAN

w	ireless LAN					
* R	emotely changes transceiver's	Wireless LAN settings.				
		No. : 1			~	
	N	ame : 2				
	Scan N	1ode : 🕄 🗹 11g				
I		🗹 11a ( 🗹 W52	🖌 W53 🖌 W56)			
	Cha	Innel : 4 Automatic (1-13)			~	
	Power L	evel : 5 High			~	
	Roaming Thres	shold : 6 -75			🗸 dBm	
* C	learing SSID will also clear oth	er related settings.				
	SSID 🕜	Authentication 8	Encryption 9		WEP Encryption Key or 10 PSK(Pre-Shared Key)	
		Open System/Shared I 🗸	None	$\sim$	WEP:	
$\sim$	$\displaystyle $	Charles I and the second secon	NI			$\sim$
		Open System/Shared I 🗸	None	~	WEP:	
					Apply Reset	]

9 Encryption .....

Select the encryption type that is the same as that of the wireless access point. (Default: None)

① Be sure to verify the access point setting, because the terminals and access points cannot communicate using different encryption.

#### About the encryption types

- None
  - No data is encrypted.
  - This option can be selected when [Authentication] (8) is set to "Open System" or "Open System/Shared Key."

#### • WEP RC4

It is an encryption type that can communicate when the encryption keys match.

① You can set the encryption key length to between 64 (40) and 128 (104) bits.

① You can select this option when [Authentication] (8) is set to "Open System" or "Open System/Shared Key."

#### TKIP/AES

Either the "TKIP" or "AES" encryptions are automatically recognized when connecting to a wireless access point.

① You can select this option when [Authentication] (8) is set to "WPA-PSK/WPA2-PSK."

Transceiver Controller > Common Settings > Wireless LAN

#### Wireless LAN

Wireless LAN			
* Remotely changes transce	iver's Wireless LAN settings.		
	No. : 1		~
	Name : 2		
S	can Mode : 3 🗹 11g		
	🗹 11a ( 🗹 W52	🗹 W53 🗹 W56)	
	Channel : Automatic (1-13)		~
Po	wer Level : 5 High		~
Roaming	Threshold : 6 -75		✓ dBm
* Clearing SSID will also cle			
SSID 7	Authentication 8	Encryption 9	WEP Encryption Key or 10 PSK(Pre-Shared Key)
	Open System/Shared I 🗸	None 🗸	WEP:
$\sim$	on ayon reur	M. Contraction of the second s	
	Open System/Shared I 🗸	None 🗸	WEP:
			Apply Reset

WEP Encryption Key or PSK (Pre-Shared Key) .....

#### WEP Encryption Key

Enter the encryption key that is the same as that of the wireless access point.

Authentication	Encryption	WEP Encryption Key or PSK(Pre-Shared Key)
Open System/Shared I V	WEP RC4 64 (40) 🗸	WEP: 000000000

- ① This option can be selected when [Authentication] (8) is set to "Open System" or "Open System/Shared Key."
- ① Enter hexadecimal numbers with numbers (0 to 9) and letters (A to F). Or enter ASCII characters. The key length is same as the displayed digits, 10 or 26 using hexadecimal numbers, or half of the displayed digits, 5 or 13 characters using ASCII characters.

#### PSK (Pre-Shared Key)

Enter the pre-shared key that is the same as that of the wireless access point.

Authentication	Encryption	WEP Encryption Key or PSK(Pre-Shared Key)
WPA-PSK/WPA2-PSK 🗸	TKIP/AES 🗸	PSK: 00000000

- ① This option can be selected when [Authentication] (⑧) is set to "WPA-PSK/ WPA2-PSK."
- ① Enter hexadecimal numbers with numbers (0 to 9) and letters (A to F). Or enter ASCII characters. The key length is 64 digits using hexadecimal number, or 8 to 63 characters using ASCII characters.

Transceiver Controller > Common Settings > Wireless LAN

#### Wireless LAN

Wireless LAN				
* Remotely changes transceiver	's Wireless LAN settings.			
	No. : 1			~
	Name : 2			
Scan	Mode: 3 ☑ 11g ☑ 11a ( ☑ W52	🗹 W53 🗹 W56 )		
Ch	annel : 4 Automatic (1-13)			~
	Level : 5 High			~
Roaming Thre * Clearing SSID will also clear o	eshold : 6 -75 ther related settings.			✓ dBm
SSID 7	Authentication 8	Encryption 9		WEP Encryption Key or 10 PSK(Pre-Shared Key)
	Open System/Shared I 🗸	None	$\checkmark$	WEP:
$\sim$	Charles and the state of the st	NI	$\geq$	
	Open System/Shared I 🗸	None	$\mathbf{v}$	WEP:
				Apply Reset

Apply>	 Click to apply the entries. $①$ The entries are displayed in [List of Wireless LAN Entries].
<mark>1</mark> 2 <reset></reset>	 Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Transceiver Controller > Common Settings > Wireless LAN

## ■ List of Wireless LAN Entries

Display the list of the wireless LAN settings.

	/ireless LAN Entries		
No.	Name	SSID	1 2
1	Sales	100.00	Edit Delete
			3
			Delete

● <edit></edit>	Click to edit the entries in [Wireless LAN].
2 <delete></delete>	Click to delete the selected entry. ① After clicking <delete>, the entry cannot be recalled.</delete>
S <delete all=""></delete>	Click to delete all the entries. ① After clicking <delete all="">, the entries cannot be recalled.</delete>

Transceiver Controller > Common Settings > ID List

## ■ ID List Common Settings

Select an ID list that the IP100Hs will use.

- ① You can individually specify an ID list to the groups that the IP100Hs belong to in [Profile] on the [Common Settings] screen.
- ① If any entries on this screen have been changed, you must reboot the IP100H.

#### ID List Common Settings

ID List Common Setting Number :	1 (0 Entries)	~
g	* If you change this item, the screen automatically updates to the selected list.	

#### **ID List Common Setting Number**

Select the group number between 1 and 50, and then enter IDs that the IP100Hs will use.

① When the group name or IDs are registered in the group, they are displayed as shown below.

ID List Common Setting Number :	1 (Sales / 5 Entries)
5	* If you change this item,
	the screen automatically updates to the selected list.

Transceiver Controller > Common Settings > ID List

# ID List Advanced Settings

Enter the group name that is selected in [ID List Common Settings].

ID List Advanced Settings	
Name : 1	Apply Reset

<b>1</b> Name	Enter a group name of up to 31 characters. The group is selected in [ID List Common Setting] on the [ID List] screen. When the group is selected on the [ID List] and [Profile] screens, the group name is displayed.
2 <apply></apply>	Click to apply the entries.
3 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Transceiver Controller > Common Settings > ID List

# Save or Write the ID List Setting

You can save an ID list file on your PC, or load an ID list file to the RoIP Gateway. ① If any IP100H settings have been changed, you must reboot it.

Save or Write the ID List Setting		
Load Settings from File :		Browse
	Write A CSV format file can be written to this product. When the file is written, the current settings will be overwritten.	
Save to File (2)	Save Save to tn01_id_list001.csv file.	

This is an example of when Group 1 is selected in [ID List Common Setting].
 When a name is registered in a group, the name is also displayed.

Load Settings from File	<ul> <li>Load an ID list file, which is saved on [Save to File] (2), to the RoIP Gateway.</li> <li>Click <browse> to select the file to load.</browse></li> <li>Select the target file on screen, and click <open>. The selected file is displayed in [Load Settings from File].</open></li> <li>Click <write> after selecting the target file. Then, the selected file is loaded to [ID List Entries].</write></li> <li>When the file is loaded, the previous data in [ID List Entries] is deleted.</li> <li>If you select the file that is saved on the [Settings Restore] screen in the [Management] menu, the setting is overwritten.</li> </ul>
<b>2</b> Save to File	<ul> <li>Save an ID list file, which is listed in [ID List Entries], to your PC.</li> <li>Click <save>, and then <save> on the box to save an ID list file (a CSV file) to your PC.</save></save></li> <li>① A file name varies, depending on the group number in [ID List Common Settings]. For example, the file name becomes "tn01_id_list001.csv" when Group 1 of Tenant 1 is selected.</li> </ul>

Transceiver Controller > Common Settings > ID List

#### ■ Save or Write the ID List Setting

#### O About the rules of a CSV file for the ID list

Icom is not responsible for writing another ID list file except a saved ID list file or an ID list file that is edited, as shown below.

#### Format of a CSV file for the ID list file

	Α	В	С	D	E	F
1	#	VE-PG4	ID List Setting	config file		
2	#	Firm Ver.				
3	#	File Ver.				
4	#Group	Sales				
5	#No.	Name	Call Type (indi=Individual/group=Group/tel=Telephone)	Destination ID (Individual/Group)	Destination ID (Telephone)	Talkgroup
6	1	Sales 1	indi	1		0
7	2	Sales 2	indi	2		0
8	3	Sales 3	indi	3		0
9						

Column	Title Description	
А	Index	Group name: Up to 31 characters, No.: 1 ~ 50
A	lindex	Do not duplicate the number
В	Name	Up to 32 characters
С	Call Type	indi: Individual, group: Group, tel: Telephone
D	Destination ID (Individual/Group)	Up to 4 characters
E	Destination ID (Telephone)	Up to 31 digits using numbers and symbols (#, $\star$ )
F	Talkgroup	0: Disable, 1: Enable

Transceiver Controller > Common Settings > ID List

## ID List

ID List	
Add Type : 🚺 💿 Enter Individually 🔿 Select Fr	om List
No. : 2 1	~
Name : 3	
Call Type : 4 Individual	~
Destination ID : 5 0001	6 7
•	Apply Reset

This is an example of when "Enter individually" is selected in the "Add Type" (1).
 When a name is registered in a group, the name is also displayed.

1 Add Type	<ul> <li>Select [Enter Individually] or [Select From List] in the [Add Type].</li> <li>When [Select From List] is selected, the Destination IDs that are registered on the [Transceiver Registration] screen or [Destination Settings] screen, are displayed.</li> <li>① By selecting [All], you can select or cancel all entries in the list.</li> <li>① When [Select From List] is selected, you can enter a name of up to 32 characters.</li> </ul>			
		Name	Call Type	Destination ID/Phone Number
		Sales1	Individual	0101
		Sales2	Individual	0102
		Sales3	Individual	0103
		IP100FS	Individual	0050
		Group0001	Group	0001
<b>2</b> No		a number to register the destir 0 destinations can be register		oup.
3 Name	Enter a	destination name of up to 32	character	S.

Transceiver Controller > Common Settings > ID List

#### ID List

ID List	
Add Type : 🌒 🖲 Enter Individually 🔿 Select From List	
No. : 2 1	~
Name : 3	
Call Type : 4 Individual	~
Destination ID : 5 0001	6 7
-	Apply Reset

This is an example of when "Enter individually" is selected in the "Add Type" (1).
 When a name is registered in a group, the name is also displayed.

④ Call Type	Select the Call type. Options: Individual, Group, Talkgroup, or Telephone
<b>5</b> Destination ID	Enter a 4 digit target individual ID, group ID or talkgroup ID. When "Telephone" is selected as [Call Type] (④), enter a target phone number of up to 31 digits using numbers and symbols (#, *).
<mark>6</mark> <apply></apply>	Click to apply the entries. ① The entries are displayed in [ID List Entries].
✓ <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Transceiver Controller > Common Settings > ID List

## ID List Entries

Displays the list of entered Group Calls.

) List Entries(Sales)					
No.	Name	Call Type	Destination ID/Phone Number	1	2
1	Individual 1	Individual	0101	Edit	Delete
2	Individual 2	Individual	0102	Edit	Delete
$\sum$	UT136-5-	Telep	52	Ear	erete
					3 Delete All

① This is an example of when Group 1 is selected in [ID List Common Settings]. When a name is registered in a group, the name is also displayed.

<b>1</b> <edit></edit>	Click to edit the entries in [ID List].
2 <delete></delete>	Click to delete the selected entry. ① After clicking <delete>, the entry cannot be recalled.</delete>
S <delete all=""></delete>	Click to delete all the entries. ① After clicking <delete all="">, the entries cannot be recalled.</delete>

Transceiver Controller > Common Settings > Messages

## Message Group

Select to register a message that the IP100Hs will use.

- ① You can individually specify the message group that the IP100Hs belong to in "Message List" in [Profile] on the Profile screen.
- (Transceiver Controller > Common Settings > Profile > Profile > Message List)

① If any entries on this screen have been changed, you must reboot the IP100H.

Message Group		
Message Group Number :	1 (0 Messages)	~
message oroup number .	* If you change this item, the screen automatically updates to the selected list.	

Message Group Number .....

Select a group number between 1 and 50, and then enter the messages that the IP100Hs will use.

① When the group name or messages are registered in the group, they are displayed as shown below.

#### Message Group

Message Group Number :	1 (Sales / 10 Messages)	
<b>.</b> .	* If you change this item, the screen automatically updates to the selected list.	

Transceiver Controller > Common Settings > Messages

## Message Group Detail

Enter the group name that is selected in [Message Group].

Message Group Detail	
Name : 1	Apply Reset
<b>1</b> Name	Enter a group name of up to 31 characters. The group is selected in [Message Group] on the [Message] screen. ① When the group is selected on the [Messages] screen and [Profile] screen, the group name is displayed.
2 <apply></apply>	Click to apply the entries.
<b>③</b> <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Transceiver Controller > Common Settings > Messages

## Save or Write the Message Setting

You can save a message file on your PC, or load a message file to the RoIP Gateway. ① If any IP100H settings have been changed, you must reboot it.

Save or Write the Message Setting				
Load Settings from File :	Write         A CSV format file can be written to this product.           When the file is written, the current settings will be overwritten.           Save         Save to tn01_msg_list001.csv file.	Browse		

This is an example of when Group 1 is selected in [Message Group]. When a name is registered in a group, the name is also displayed.

Load Settings from File	<ul> <li>Load a message file, which is saved on "Save to File" (2), to the RoIP Gateway.</li> <li>Click <browse> to select the file to load.</browse></li> <li>Select the target file on screen, and click <open>. The selected file is displayed in "Load Settings from File". Click <write> after selecting the target file. Then, the selected file is loaded to [Messages].</write></open></li> <li>① The previous data in [Messages] is overwritten the loaded data.</li> <li>① If you select the file that is saved on the Settings Restore screen in the [Management] menu, the setting is overwritten.</li> </ul>
<b>2</b> Save to File	<ul> <li>Save a message file, which is listed in the [Message], to your PC.</li> <li>Click <save>, and then <save> on the box to save a message file (a CSV file) to your PC.</save></save></li> <li>The file name varies, depending on the group number in [Message Group].</li> <li>For example, the file name becomes "tn01_msg_list001.csv" when Group 1 of Tenant 1 is selected.</li> </ul>

Transceiver Controller > Common Settings > Messages

■ Save or Write the Message Setting

#### O About the rules of a CSV file for the message file

Icom is not responsible for writing another message file except a saved message file or a message file that is edited as shown below.

#### Format of a CSV file for the message file

	A	В	С	D
1	#	VE-PG4	Message Settings	Message file
2	#	Firm Ver.		
3	#	File Ver.		
4	#Group Name	Sales		
5	#Index	Message		
6	1	Gather immediately.		
7	2	A message was sent.		
8	3	Check the message.		
9	4	Is it no problem?		
10	5	Give me a reply.		
11	6	Give me a reply immediately.		
12	7	Please disperse there.		
13	8	Back to the office ASAP.		
14	9	The parcel arrived.		
15	10	The work finished.		

Column	Title	Description
A		Group name: Up to 31 characters, No.: 1 ~ 10 Do not duplicate the number
В	Message	Up to 32 characters

Transceiver Controller > Common Settings > Messages

## Message List

Enter messages in the group that is selected in [Message Group]. You can transmit fixed message of up to 32 characters. ① You can enter up to 10 messages in each message group.

No.	Fixed Message	
1	_Gather immediately.	
2	A message was sent.	
3	Check the message.	
4	Is it no problem?	
5	Give me a reply.	
6	Give me a reply immediately.	
7	Please disperse there.	
8	Back to the office ASAP.	
9	The parcel arrived.	
10	The work finished.	

When a name is registered in a group, the name is also displayed.

Apply>	 Click to apply the entries.
2 <reset></reset>	 Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

## Status screen

Transceiver Controller > Common Settings > Status

## Status Settings

Select to register a status that the IP100Hs use.

① You can program statuses of up to 32 characters. You can enter up to 10 statuses.

① If any entries on this screen have been changed, you must reboot the IP100H.

Status Settings								
1	✓All	Status No.	Status Name					
	✓	1	Meeting					
	$\checkmark$	2	Away from the desk					
	✓	3	At lunch					
	✓	4	Under a round					
	✓	5	At the desk					
	✓	6	Working					
	✓	7	Waiting					
	✓	8	Under preparation					
	✓	9	In progress					
	✓	10	Under a break					
			Apply Reset					

Check Box	<ul> <li>Click a Check Box to display a status name on the IP100H.</li> <li>When the box is not checked, the status name is not displayed on the IP100H, even if you entered it.</li> <li>When the status name is not entered, the status number is displayed on the IP100H only if the box is checked.</li> <li>You can check or uncheck them all at once by clicking [All].</li> </ul>
2 <apply></apply>	Click to apply the entries.
3 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

# **Profile screen**

Transceiver Controller > Common Settings > Profile

# Profile List

Display the entries that are entered in [Common Settings].

No.	Name	Wireless LAN	ID List Number	Common Message Group	2	3
1	Sales group	Transceiver's Setting	1 (Sales)	1 (Sales)	Edit	Delete
2						~
Add	1					

<b>1</b> <add></add>	Click to add an new profile.
<b>2</b> <edit></edit>	Click to edit the entries in [Profile].
3 <delete></delete>	Click to delete the selected entry. ① After clicking <delete>, the entry cannot be recalled.</delete>
4 <delete all=""></delete>	Click to delete all the entries. ① After clicking <delete all="">, the entries cannot be recalled.</delete>

### Profile screen

Transceiver Controller > Common Settings > Profile

## Profile

Individually assign an ID list, message list or receive notification tone to the group that the IP100H belongs to. ① After the setting is completed, you must reboot the IP100H.

Profile		
	No. : 1 (Sales group) * If you change this item,	~
	the screen automatically updates to the selected profile.	
	Name : 2 Sales group	
Wireless LAN	Transceiver's Setting	~
Common Settings	Wireless LAN : 3 Transceiver's Setting	<b>v</b>
	ID List : 4 1 (Sales)	~
	Message List : 5 1 (Sales)	~

<b>1</b> No	Select a profile between 1 and 50, to assign to the group that IP100H belongs to.
2 Name	Enter a profile name of up to 31 characters. The profile name is displayed in [Profile List] on the [Profile] screen.
<b>3</b> Wireless LAN	Select the wireless LAN setting that is commonly used by the IP100Hs in the group. (Default: Transceiver's Setting)
	<ul> <li>Transceiver's Setting         Uses the last wireless LAN setting that was set by the CS-IP100H or         the RoIP Gateway.     </li> </ul>
	<ul> <li>1 (Name) to 20 (Name)</li> <li>Select a number that was entered on the [Wireless LAN] screen.</li> </ul>
4 ID List	Select an ID list that is commonly used by the IP100Hs in the group.
	(Default: 1) ① Select an ID number that is registered on the [ID list] screen.
<b>5</b> Message List	Select a Message list that is commonly used by the IP100Hs in the group. (Default: 1)
	① Select a message number that is registered in [Messages].

### Profile screen

Transceiver Controller > Common Settings > Profile

#### Profile

Profile
---------

Profile		
The List		
Registration		
Controller IP Address Notify :		
Registration Interval : 7	60	seconds
Registration Retry Interval (If failed) : 8		seconds
Number of Registration Retries (If 9	2	
failed) :		
LAPITE TITLE .	180	seconds
Calling Notice Tone		
Individual Call : 🕕	Tone 1	~
Group Call :	Tone 1	~
All Call :	Tone 1	~
Telephone :	Tone 1	<u> </u>

٦

Controller IP Address Notify	Enter the IP address or host name of the controller that the server of IP100H. Enter an IP address or host name of up to 63 characte ① If you use the RoIP Gateway as a server, you must not se	rs.
Registration Interval	<ul> <li>Enter the transmit interval for the registration information IP100Hs will use.</li> <li>Range: 30 ~ 300 (seconds) in 1 second steps</li> <li>Generally use the default setting.</li> <li>When the interval period is short, and an IP100H goes our communication area, the IP100H registration on the RoIP updated earlier. Therefore, if the IP100H receives an Indix Gateway can quickly reply "No response" as a Target available.</li> </ul>	(Default: 60) t of the Gateway can be ridual call, the RoIP
8 Registration Retry Interval (If failed)	Enter a retry interval when the IP100H fails to register Gateway. • Range: 1 ~ 30 (seconds)	to the RoIP (Default: 10)
9 Number of Registration Retries (If failed)	Enter a number of registration retries if the IP100H fails the RoIP Gateway. • Range: 1 ~ 10	s to register to (Default: 2)
Expire Time	<ul> <li>The RoIP Gateway check the IP100Hs connection state</li> <li>Range: [Registration Interval] (?) setting +1 ~ 900 (second ① Generally use the default setting.</li> <li>① You cannot set this setting to shorter than the [Registration I</li> </ul>	(Default: 180) is)
Calling Notice Tone	<ul> <li>Select a notice tone for calling.</li> <li>Options: Not Use, or Tone 1 ~ Tone 8</li> <li>This tone can be individually assigned to each call type, "I "Group Call," "All Call," and "Telephone."</li> </ul>	(Default: Tone 1) ndividual Call,"

Transceiver Controller > Common Settings > Profile

#### Profile screen

Profile		
	$\sim$	
Connection Notice Tone		
Success : 12 🔾 Disa	ble <ul> <li>Enable</li> </ul>	
Failure : (3) Disa Ringer Settings (Individual Call)	ble 💿 Enable	
Notification Tone : 14 Tone 1	<u> </u>	
Ringer Setting : 15 P-Bell	✓	
Number of Notifications : 16 3 Ringer Settings (Group Call)	×	
Courtesy Beep		
Individual Call : Tone 1	~	
Group Call : 17 Tone 1	✓	
All Call : Tone 1		
Telephone : Tone 1	~	
Out of Service Area Notice		
Out of Service Area Notice Tone : 18 🖲 Disa		
Sidetone Mute : 📵 💿 Disa	ble 🔿 Enable	
uccess	<ul> <li>Select a notice tone for a successful connection.</li> <li>When an Individual call, Message call, Status call or connection is successful, the Notice Tone sounds.</li> <li>When [Target Availability Check] on the [Transceiver to "Disable," the Notice Tone will not sound.</li> </ul>	
ailure	<ul> <li>Select a notice tone for connection failure.</li> <li>When an Individual call, Message call, Status call or connection fails, the Notice Tone sounds.</li> <li>When [Target Availability Check] on the [Transceiver to "Disable," the Notice Tone will not sound.</li> </ul>	
otification Tone	Select a notice tone when a call is received.	(Default: Not Use)

• Options: Not Use, or Tone 1 ~ Tone 8

This tone can be individually assigned to each call type, "Individual Call," "Group Call," "All Call," "Telephone," and "Message."

#### Profile screen

Transceiver Controller > Common Settings > Profile

#### Profile

Profile	
Connection Notice Tone	
Success : 🔃 🔿 Disable 💿 Enable	
Failure : 13 O Disable	
Notification Tone : 1	~
Ringer Setting : 15 P-Bell	~
Number of Notifications : 16 3 Ringer Settings (Group Call)	<b>~</b>
Courtesy Beep	
Individual Call : Tone 1	~
Group Call : 17 Tone 1	~
All Call : Tone 1	~
Telephone : Tone 1	~
Out of Service Area Notice	
Out of Service Area Notice Tone : 🔞 🖲 Disable 🛛 Enable	
Sidetone Mute : 📵 💿 Disable  🔘 Enable	

Ringer Setting.....

Select a notice type between "Pocket Beep" and "P-Bell."

(Default: P-Bell)

(Default: 3)

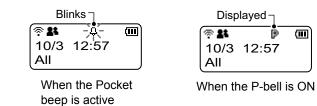
- ① This item can be selected when [Notification Tone] (<sup>1</sup>/<sub>4</sub>) is set to "Tone 1" to "Tone 8."
- ① You cannot select this item for a Message call.
- Pocket Beep

When a specified call is received, the IP100H sounds the Notification Tone, and the notification icon blinks.

• P-Bell

When a specified call is received, the IP100H sounds the Notification Tone. The received audio is muted until you reply to the call.

① After pushing [PTT] on the IP100H, the mute will be released.



<sup>16</sup> Number of Notifications ...

- Options: 1, 3, 10, or 20
- ① You can select this item when [Notification Tone] (19) is set to "Tone 1" to "Tone 8."
- ① You cannot select this item for a Message call.

Select a notification number of "Continuous."

### Profile screen

Transceiver Controller > Common Settings > Profile

#### Profile

Profile
---------

Profile		
phone:	$\sim$	
Connection Notice Tone		
Success : 🚺	O Disable   Enable	
Failure : 🚺	🔿 Disable 💿 Enable	
Ringer Settings (Individual Call)		
Notification Tone : 14	Tone 1	~
Ringer Setting : 15	P-Bell	~
Number of Notifications : 16	3	~
Ringer Settings (Group Call)	$\frown$ $\frown$ $\frown$ $\frown$	$\frown$
Norman Tone :		
Courtesy Beep	-	
Individual Call :	Tone 1	~
Group Call : 🚺	Tone 1	~
All Call :	Tone 1	~
Telephone :	Tone 1	~
Out of Service Area Notice	-	
Out of Service Area Notice Tone : 18	Disable	
Sidetone Mute : 🚺	Disable	

❶ Courtesy Beep	<ul> <li>Select a Notice Tone when a received call is finished. (Default: Tone 1)</li> <li>This tone can be individually assigned to each call type, "Individual Call," "Group Call," "All Call," and "Telephone."</li> <li>You can select "Not Use" or "Tone 1" to "Tone 8."</li> <li>After each received call is completed, the IP100H will sound the specified tone.</li> </ul>
Out of Service Area Notice Tone	Select whether or not the IP100H sounds the Out of service area Notice Tone. (Default: Disable) When "Enable" is selected, the IP100H sounds the Notice Tone when it goes out the service area or returns to the service area.
Sidetone Mute	Select whether or not the IP100H uses the Side Tone Mute function. (Default: Disable) When "Enable" is selected, the IP100H mutes the sidetone or monitor audio when it goes out the service area. At that time, you cannot hear your voice from a head set or earphone speaker. ① When "Monitor" or "Sidetone" is set to "Disable" in the Transceiver Settings menu, this function is not activated.

#### Profile screen

Transceiver Controller > Common Settings > Profile

#### Profile

#### Profile

Profile		
		$\sim$
Display		
Destination ID : 20 Disable	~	-
Caller ID Display (for All and Group 🕘 💿 Disable 🔿 Enable Calls) :		
Date Format : 22 _MM/DD	~	
History Display : 2 〇 Disable 💿 Enable		
Talkgroup Selection : 2 💿 FUNC Key 🛛 ID LIST Key		
TalkBack		
TalkBack : 🔼 🖸 Disable 💿 Enable		-
TalkBack Timer : 5	✓ seconds	-
TalkBack Timer (Telephone) : 20_15	seconds	
TalkBack Lock : 🤨 🔿 Disable 💿 Enable		

#### 2 Destination ID ..... Select a destination ID that will be displayed after returning to the standby mode. (Default: Disable) ÷ (IIII) • Disable: Displays the destination ID 10/8 16:57 or call type that is specified All in [Destination ID] on the Destination ID [Transceiver Settings] (Call type) screen. Transmit: Displays the IDs that the IP100H recently called. · Transmit and Receive: Displays either IDs that the IP100H recently called or was called by. · All Operations: Displays either IDs that the IP100H recently called, was called by or displays the ID list/History. Caller ID Display (for All and Group Calls) ... Select whether or not the IP100H displays the Caller ID in the All call or Group call. (Default: Disable) • Disable: When the IP100H or IP100FS receives an All call or Group call, only the Call type is displayed. • Enable: When the IP100H or IP100FS receives an All call or Group call, both Call type and Caller ID are displayed. • When receiving an All Call **†** (IIII) Alternately ÷ യി 10/8 16:57 10/8 16:57 displayed All Sales 1 • When receiving an All Call Message ÷. (111) 10/8 16:57 All[Sales 1]Gather i ] Received message 2 Date Format..... Select a date format to display on the IP100H's standby screen. (Default: MM/DD)

You can select "MM/DD," "DD/MM," "MM-DD," "DD-MM," "MM.DD," or "DD. MM." (MM: Month, DD: Day)

Talkgroup Selection : DD-MM MM.DD DD.MM
---

### Profile screen

Transceiver Controller > Common Settings > Profile

#### Profile

#### Profile

FIOIIIe		
$\sim$	$\sim$	
Display		
Destination ID : 20	Disable	~
Caller ID Display (for All and Group 2) Calls) :	Disable      Enable	
Date Format : 22	MM/DD	~
	🔿 Disable 💿 Enable	
Talkgroup Selection : 2	FUNC Key O ID LIST Key	
TalkBack		
TalkBack : 😕	🔿 Disable 💿 Enable	
TalkBack Timer :	5	<ul> <li>seconds</li> </ul>
TalkBack Timer (Telephone) : 2	15	seconds
	🔿 Disable 💿 Enable	

٦

History Display	<ul> <li>Set the call history display.</li> <li>Disable: Call histories are not displayed on th push the [r] key.</li> <li>Enable: Call histories are displayed on the IP the [r] key.</li> </ul>	
Palkgroup Selection	<ul> <li>Set the key to select the Talkgroup.</li> <li>FUNC Key: Select the Talkgroup by pushing</li> <li>ID LIST Key: Select the Talkgroup by pushing</li> </ul>	
TalkBack Timer	Enter a time between 1 and 30 seconds that the the standby mode after a received signal disapp When "Disable" is selected, the IP100H returns to (standby screen) as soon as the status indicator get	ears. (Default: 5 (seconds)) the standby mode
TalkBack Timer (Telephone)	Enter a time between 0 and 600 seconds that the the standby mode after a received signal from a ① When "0" is selected, the TalkBack timer (Telephor case, the connection does not terminate until the terminates the call by pushing the [Option]	telephone disappears. (Default: 15 (seconds)) ne) is disabled. In that elephone hangs up, or the
TalkBack Lock	<ul> <li>Select whether or not the TalkBack Lock function</li> <li>Enable: When another call is received in the Tafter a call is finished and the IP100H mode, accepts to receive it if higher preceived, or refuses if the same or low received than the finished call. After the TalkBack timer has passed, a received.</li> <li>Disable: Accepts to receive a new call after you finished.</li> </ul>	(Default: Enable) TalkBack timer time returns to the standby riority level call is ver priority level call is a new call can be

### Profile screen

Transceiver Controller > Common Settings > Profile

#### Profile

Profile	
TOT : 2 O Disable 💿 Enable	
TOT Timer : 29_180	seconds
Penalty Time : 30.30	seconds
TOT Beep : 31 🔿 Disable 💿 Enable	
TOT on Telephone Call : 32 O Disable 💿 Enable PBX Connection	
Use PBX Connection : 3	33 35 ℃ Apply Reset

28 TOT	Select whether or not the IP100H uses the Time-out timer. (Default: Disable)
	<ul> <li>When "Enable" is selected, the [TOT Timer] (29), [Penalty Timer] (30), [TOT Beep] (30), [TOT on Telephone Call] (32) are displayed.</li> <li>This function is useful when the IP100H's PTT switch has accidentally been</li> </ul>
	held down.
29 TOT Timer	Set the Time-out timer. The timer limits the IP100H's continuous transmission. (Default: 180) • Range: 11 and 600 (seconds)
	① When the period of time has passed, transmitting automatically stops.
Penalty Time	Set the TOT Penalty time. After the [TOT timer] ( <sup>(2)</sup> ) period ends, the TOT Penalty timer starts and inhibits the user from transmitting during the penalty period. (Default: 30) • Range: 1 ~ 600 (seconds)
③ TOT Beep	Select whether or not the IP100H uses the TOT beep function. (Default: Enable)
	<ol> <li>When "Enable" is selected, a beep sounds 10 seconds before the period of time that is set in the [TOT Timer] (29) ends.</li> </ol>

### Profile screen

Transceiver Controller > Common Settings > Profile

#### Profile

Profile	
IOI	$\sim$
TOT : 2 O Disable 💿 Enable	
TOT Timer : 29 180	seconds
Penalty Time : 30 30	seconds
TOT Beep : 3 O Disable 💿 Enable	
TOT on Telephone Call : 32 O Disable  Enable PBX Connection	
Use PBX Connection : 33 None	3435ApplyReset

TOT on Telephone Call	<ul> <li>Select whether or not the IP100H uses the Time-out timer on Telephone Call. (Default: Enable)</li> <li>When "Disable" is set, transmitting does not stop, even if the period of time that is set in the [TOT Timer] (2) has passed during a telephone call.</li> </ul>	
Use PBX Connection	When a phone number from the IP100H is not registered in the [Destination Settings], select "Transceiver Controller Telephone Connection." (Default: None)	
❹ <apply></apply>	Click to apply the entries.	
€∋ <reset></reset>	Click to reset the settings. Tou cannot reset after clicking <apply>.</apply>	

### Profile screen

Transceiver Controller > Common Settings > Profile

## Profile Batch Setting

	Profile Batch Setting			
	Range 1	✓ -	✓ Add	
		lect Profile No. range. ault	~	
1 F	Range	Sets a range of collective Prof	iles.	
		Click <add> to register consec ① If a Profile is already registered</add>		
<b>2</b> F	Refer to	Selects the default settings or	the programmed setting	gs to refer to. (Default: Default)

## **CONNECTION PORT SETTINGS**

Digital Transceiver (D-TRX) screen	7-3
Digital Transceiver Connection	7-3
Digital Transceiver System	7-4
Digital Transceiver Connection (System: NXDN-Trunking)	7-5
Communication Settings (System: NXDN-Trunking)	7-7
Bridge Communication System: NXDN-Trunking	7-8
Digital Transceiver Connection (System: NXDN-Conventional)	
Communication Settings (System: NXDN-Conventional)	7-11
Digital Transceiver Connection System: dPMR Mode 2	
Communication Settings (System: dPMR Mode 2)	7-15
DTMF Dialing	7-16
EXT I/O (EXT) screen	7-17
EXT I/O Port Mode	7-17
EXT I/O	7-18
Transceiver Model	7-19
Transceiver Connection (Transceiver Model: General Setting)	7-20
Bridge Communication	7-27
Transceiver Control	7-28
DTMF Dialing	7-30
PTT Control Setting	7-31
Receive Detection Setting	7-32
EXT I/O Device Connection	7-33
Bridge Communication	7-34
EXT I/O Control	7-35
EXT Input Settings	7-36
EXT Output Settings	7-43
Emergency Notification screen	7-51
Bridge Communication	7-51
Microphone (MIC) screen	7-52
■ Bridge Communication	
Microphone Control.	
Microphone Input Control	
Voice Output Control	

## 7 CONNECTION PORT SETTINGS

RolP Gateway screen	7-56
RoIP Gateway	7-56
RoIP Gateway Connection	7-57
RoIP Gateway Communication	7-59
RoIP Gateway Control	7-60
Bridge Communication	7-61

Connection Port Settings > Digital Transceiver (D-TRX)

## Digital Transceiver Connection

Select a digital transceiver to connect to the RoIP Gateway.

Digital Transceiver		
Port Selection :	Digital Transceiver1 (D-TRX1)	~

Port Selection .....

Select a Digital Transceiver port to edit the settings. (Default: Digital Transceiver 1 (D-TRX1))

Connection Port Settings > Digital Transceiver (D-TRX)

### ■ Digital Transceiver System

Select a digital transceiver system that you want to connect the RoIP Gateway to.

NXDN Trunking	~
*Each setting is initialized after changing.	
	Apply Reset
	NXDN Trunking *Each setting is initialized after changing.

 System
 Select a digital transceiver system, and then click <Apply> to apply.

 (Default: NXDN Trunking)

 ① The settings on this screen will be initialized after clicking <Apply>.

Connection Port Settings > Digital Transceiver (D-TRX)

### ■ Digital Transceiver Connection (System: NXDN-Trunking)

Edit the settings of the Digital transceiver to connect to the RoIP Gateway. You can connect a maximum of 4 digital transceivers to the network.

Connected Repeater's Address	.0
Connected Repeater's Port Number	
Source Port Number	
Connection Key Code	.4 ucfr5000
Area Bit	:5 • OFF ON
Integrator Code	:6 1
System Code	<b>1</b>
Prefix ID	8 1
Unit ID Talkgroup	<u>9</u> <u>1</u>
Prefix ID	
Talkgroup ID Encryption	<b>(1)</b> <u>1</u>
Encryption	Disable 💿 Enable
Encryption Key	: _1
Connection Status	3 Disconnected Connect Refresh

① The above screen shows an example for connecting the IC-FR5000 (with UC-FR5000 installed) to the Digital Transceiver 1 (D-TRX1).

① The above screen shows when the Encryption is set to "Enable."

**Oconnected Repeater's Address** Enter the UC-FR5000's IP address.

Connected Repeater's Port Number	Enter the Connection Receive Port number that is set in the UC-FR5000. Do not duplicate the other port number. (Default: Digital Transceiver 1 (D-TRX1): 41220 Default: Digital Transceiver 2 (D-TRX2): 41221 Default: Digital Transceiver 3 (D-TRX3): 41222 Default: Digital Transceiver 4 (D-TRX4): 41223) • Range: 1 ~ 65535
<b>3</b> Source Port Number	Enter the Local Port number that is set in the UC-FR5000. Do not duplicate the other port number. (Default: Default: Digital Transceiver 1 (D-TRX1): 43000 Default: Digital Transceiver 2 (D-TRX2): 43001 Default: Digital Transceiver 3 (D-TRX3): 43002 Default: Digital Transceiver 4 (D-TRX4): 43003) • Range: 1 ~ 65535
Connection Key Code	Enter the Key Code that is set in the UC-FR5000. (Default: ucfr5000)
S Area Bit	Turn the Area Bit function ON or OFF, according to the UC-FR5000 setting. (Default: OFF)
6 Integrator Code	Displays the Integrator Code that is set in the UC-FR5000.

Connection Port Settings > Digital Transceiver (D-TRX)

■ Digital Transceiver Connection (System: NXDN-Trunking)

Connected Repeate	r's Address : 1
Connected Repeater's P	ort Number : 2 _41220
Source P	ort Number : 3 _43000
Connectio	n Key Code : 4 _ucfr5000
	Area Bit : 5 💿 OFF 🔿 ON
Inte	grator Code : 6 1
Sy	rstem Code : 7 1
	Prefix ID 8 1
Talkgroup	Unit ID : 9 _1
	Prefix ID : 10 _1
T Encryption	alkgroup ID : 1
	Encryption : 12 O Disable   Enable
Enc	ryption Key : _1
	tion Status : 13 Disconnected Connect Refresh

The above screen shows an example for connecting the IC-FR5000 (with UC-FR5000 installed) to the Digital Transceiver 1 (D-TRX1).

① The above screen shows when the Encryption is set to "Enable."

<b>7</b> System Code	Displays the System Code that is set in the UC-FR5000.		
8 Prefix ID	Enter the Prefix ID (for NXDN Trunking) that is set in the UC • Range: 1 ~ 30	-FR5000. (Default: 1)	
᠑ Unit ID	Enter the Unit ID that are set in the UC-FR5000. • Range: 1 ~ 2000	(Default: 1)	
Prefix ID	Enter the Prefix ID (for NXDN Trunking) that is set in the UC		
	• Range: 1 ~ 30	(Default: 1)	
Talkgroup ID	Enter a Talkgroup ID. • Range: 1 ~ 2000	(Default: 1)	
Dencryption	Select whether or not to enable the Encryption function. (Defa When you enable the function, enter an encryption key betw 32767.	,	
Connection Status	Click to connect or disconnect the transceiver, or to refresh connection status.	the	
	<ul> <li>The buttons are grayed out when Connected Repeater's Addres</li> <li>The settings cannot be changed while connection is established</li> <li>Connect&gt; before changing the settings on this screen.</li> </ul>		

Connection Port Settings > Digital Transceiver (D-TRX)

## Communication Settings (System: NXDN-Trunking)

Edit the settings required for calling transceivers from the digital transceiver connected to the RoIP Gateway.

Communication Settings			
TalkBack : Disable  Enable TalkBack Time :			
TalkBack Time : 5	✓ seconds		
RX All Call : 2			
Call Type : 3 Group	~		
Destination Prefix ID : 4			
Destination ID : 5 _1			

1 TalkBack	Select whether or not to enable to talkback from a client transceiver, when a digital transceiver that is connected to the RoIP Gateway has called to the client transceiver. (Default: Enable) When the function is enabled, select the TalkBack time. (Default: 5) • Range: 1 ~ 10 (seconds)
2 RX All Call	Select whether or not to permit all Talkgroups to receive a call. (Default: Disable)
3 Call Type	Select a call type to call from the transceiver, that is connected to the RoIP Gateway, to its client transceiver(s). (Default: Group) • Options: Individual, Group, or All
Destination Prefix ID	Enter a destination prefix ID of a client transceiver. (Default: 1) • Range: 1 ~ 30
<b>5</b> Destination ID	Displayed only when the Call Type (③) is set to "Individual" or "Group." Enter an Individual or Group ID of the client transceiver. (Default: 1) • Range: 1 ~ 2000.

Connection Port Settings > Digital Transceiver (D-TRX)

### ■ Bridge Communication (System: NXDN-Trunking)

Set Talkback Time for calling digital transceivers from the digital transceiver connected to the RoIP Gateway.

#### Bridge Communication

```
TalkBack Time : 5
```

TalkBack Time

Select the TalkBack time. • Range: 1 ~ 10 (seconds) (Default: 5)

seconds

Connection Port Settings > Digital Transceiver (D-TRX)

### Digital Transceiver Connection (System: NXDN-Conventional)

Edit the settings of the digital transceiver to connect to the RoIP Gateway. You can connect a maximum of 4 digital transceivers to the network.

Digital Tr	ansceiver Connection	
Connect	ed Repeater's Address :	_
TCP Port Nu	nber (Connection Port) 2 .41200	_
UDP F	ort Number (Data Port) 3 41220	_
	Connection Key Code 4 ucfr5000	_
Packet Encry		
	Digital Frame Packet 5 🖸 Disable 💿 Enable	
	Common Key : 00000000	_
Unit		
Talkgroup		-
rungroup	Talkgroup ID 🤨 1	
RAN	rangioup in the	
	RX RAN 8 1	_
	Specify TX RAN 🧐 🗌 Specify	
Encryption		
	Encryption 🔟 🔿 Disable 💿 Enable	
-	Encryption Key : 1	_
Status		
	Connection Status Disconnected Connect Refresh	

- ① The above screen shows an example for connecting the IC-FR5000 (with UC-FR5000 installed) to the Digital transceiver 1 (D-TRX1).
- ① The above screen shows when the Digital Frame Packet (5) and Scrambler (1) are set to "enabled," and Specify TX CC (10) is checked.

**Ocumented Repeater's Address** Enter the UC-FR5000's IP address.

2 TCP Port Number			
(Connection Port)	Enter the Connection Receive Port number that is set in the UC-		
	FR5000. Do not duplicate the other port number.		
	(Default: Digital Transceiver 1 (D-TRX1): 41200		
	Digital Transceiver 2 (D-TRX2): 41201		
	Digital Transceiver 3 (D-TRX3): 41202		
	Digital Transceiver 4 (D-TRX4): 41203)		
	<ul> <li>Range: 1024 ~ 65535</li> </ul>		
ODP Port Number			
(Data Port)	Enter the Data Receive Port number that is set in the UC-FR5000.		
	Do not duplicate the other port number.		
	(Default: Digital Transceiver 1 (D-TRX1): 41220		
	Digital Transceiver 2 (D-TRX2): 41221		
	Digital Transceiver 3 (D-TRX3): 41222		
	Digital Transceiver 4 (D-TRX4): 41223)		
	• Range: 1024 ~ 65535		
Connection Key Code	Enter the Key Code that is set in the UC-FR5000. (Default: ucfr5000)		
C Divital Frame Deskat	Coloct whether or not to enable the Decket Enerytics function		
<b>5</b> Digital Frame Packet	Select whether or not to enable the Packet Encryption function,		
	according to the UC-FR5000 setting. (Default: Disable)		
	When you enable the function, enter an 8 digit Common key.		
	(Default: 0000000)		

## 7 CONNECTION PORT SETTINGS

#### Digital Transceiver (D-TRX) screen

Connection Port Settings > Digital Transceiver (D-TRX)

■ Digital Transceiver Connection (System: NXDN-Conventional)

	ed Repeater's Address : 1	
TCP Port Nur	mber (Connection Port) : 2 _41200	
UDP P	ort Number (Data Port) 3 41220	
	Connection Key Code : 4 ucfr5000	
Packet Encry		
	Digital Frame Packet 👝 🔿 Disable 💿 Enable	
Unit	Common Key :00000000	
	Unit ID :6 _1	
Talkgroup		
RAN	Talkgroup ID : 7	
	RX RAN :8 _1	
Encryption	Specify TX RAN 🧐 🗌 Specify	
	Encryption 📶 🔿 Disable 💿 Enable	
Status	Encryption Key : _1	

The above screen shows an example for connecting the IC-FR5000 (with UC-FR5000 installed) to the Digital transceiver 1 (D-TRX1).

① The above screen shows when the Digital Frame Packet (5) and Scrambler (1) are set to "enabled," and Specify TX CC (10) is checked.

ⓒ Unit ID	Enter a unit ID. • Range: 1 ~ 65519	(Default: 1)
⑦ Talkgroup ID	Enter a Talkgroup ID. • Range: 1 ~ 65519	(Default: 1)
8 RX RAN	Enter an RX RAN code. • Range: 0 ~ 63	(Default: 1)
Specify TX RAN	Check to separately enter the TX RAN. When checked, enter a TX RAN code betweer	
<pre> • Encryption</pre>	Select whether or not to enable the Encryption	l function. (Default: Disable)
	When you enable the function, enter an Encry 32767.	( ,
Connection Status	Click to connect or disconnect the transceiver, or to refree connection status.	
	<ul> <li>① The buttons are grayed out when Connected Re</li> <li>① The settings cannot be changed while connectio</li> <li>&lt; Disconnect&gt; before changing the settings on th</li> </ul>	n is established. Click

Connection Port Settings > Digital Transceiver (D-TRX)

### Communication Settings (System: NXDN-Conventional)

Edit the settings required for calling transceivers from the digital transceiver connected to the RoIP Gateway.

Communication Settings			
	TalkBack : ● ○ Disable ● Enable TalkBack Time : 5	✓ seconds	
	——————————————————————————————————————	• 3600103	
	Digital SQL : 2 💿 Disable 🛛 Enable		
	RX All Call : 3 💿 Disable  🔿 Enable		
Default Callee ID			
	Call Type : 4 Group	~	
	Destination ID : 5 1		

1 TalkBack	Select whether or not to enable the TalkBack function When the TalkBack function is ON, Select the TalkBa • Range: 1 ~ 10 seconds	· · · · · · · · · · · · · · · · · · ·
2 Digital SQL	Select whether or not to enable the Digital Squelch fu	inction. (Default: Disable)
3 RX All Call	Select whether or not to permit all Talkgroups to rece	ive a call. (Default: Disable)
Call Type	Select a call type. • Options: Individual, Group, or All	(Default: Group)
S Destination ID	Enter a destination ID. • Range: 1 ~ 65519.	(Default: 1)

Connection Port Settings > Digital Transceiver (D-TRX)

### ■ Digital Transceiver Connection (System: dPMR Mode 2)

Configure the digital transceiver to connect to the RoIP Gateway. You can connect maximum of 4 digital transceivers through the network.

Digital Transceiver Connection		
Connected Repeater's Address : 1		
· · · · · · · · · · · · · · · · · · ·	1200	
	1220	
Connection Key Code : 4 4	icfr5000	
Packet Encryption		
Digital Frame Packet : 5 C	) Disable 💿 Enable	
Common Rey .	0000000	
Unit Unit ID : 6 _2	101	
RX ID Range		
Talkgroup ID (Start): 7 1	00000	
Talkgroup		
Talkgroup ID : ৪ 🔟	00000	
СС		
Specify TX CC :10	2 Specify	
Scrambler TX CC :		
	) Disable 💿 Enable	
Key : 1		
Status		
Connection Status : 🔞 Di	isconnected Connect Refresh	

① The above screen shows an example for connecting the IC-FR5000 (with UC-FR5000 installed) to Digital Transceiver 1 (D-TRX1).

① The above screen shows when the Digital Frame Packet (⑤) and Scrambler (①) are set to "Enable," and Specify TX CC (①) is checked.

**Oconnected Repeater's Address** Enter the UC-FR5000's IP address.

2 TCP Port Number	
(Connection Port)	Enter the Connection Receive Port number that is set in the UC-FR5000. Do not duplicate the other port number. (Default: Digital Transceiver 1 (D-TRX1): 41200 Digital Transceiver 2 (D-TRX2): 41201 Digital Transceiver 3 (D-TRX3): 41202 Digital Transceiver 4 (D-TRX4): 41203)
	• Range: 1 ~ 65535
<b>③</b> UDP Port Number (Data Port)	Enter the Data Receive Port number that is set in the UC-FR5000.
	Do not duplicate the other port number.
	(Default: Digital Transceiver 1 (D-TRX1): 41220 Digital Transceiver 2 (D-TRX2): 41221 Digital Transceiver 3 (D-TRX3): 41222 Digital Transceiver 4 (D-TRX4): 41223)
	• Range: 1 ~ 65535
<b>4</b> Connection Key Code	Enter the Key Code that is set in the UC-FR5000. (Default: ucfr5000)

Connection Port Settings > Digital Transceiver (D-TRX)

■ Digital Transceiver Connection (System: dPMR Mode 2)

Digital Transceiver Connec	tion
Connected Repeater's Address :	
TCP Port Number (Connection Port):2	41200
UDP Port Number (Data Port) :	41220
Connection Key Code :	_ucfr5000
	🖸 Disable 💿 Enable
Common Key :	
Unit Unit ID :	201
RX ID Range	100000
Talkgroup ID (Start):	100000
Talkgroup ID :	
RX CC :	0
Specify TX CC :	
TX CC :	-
Scrambler : 1	Disable 🖲 Enable
Key :	
Connection Status :	Disconnected Connect Refresh

The above screen shows an example for connecting the IC-FR5000 (with UC-FR5000 installed) to Digital Transceiver 1 (D-TRX1).

① The above screen shows when the Digital Frame Packet (⑤) and Scrambler (①) are set to "Enable," and Specify TX CC (①) is checked.

S Digital Frame Packet	according to the UC-FR5000	ble the Packet Encryption function, ) setting. (Default: Disable) on, enter an 8 digit Common key.
		(Default: 0000000)
6 Unit ID	Enter a unit ID.	(Default: Digital Transceiver (D-TRX1): 201 Digital Transceiver (D-TRX2): 202 Digital Transceiver (D-TRX3): 203 Digital Transceiver (D-TRX4): 204)
	• Range: 1 ~ 9999999	
Talkgroup ID (Start)	Enter a Talkgroup start ID. • Range: 1 ~ 9999999	(Default: 100000)
8 Talkgroup ID	Enter a Talkgroup ID. • Range: 1 ~ 9999999	(Default: 100000)
9 RX CC	Enter a CC for receiving. • Range: 0 ~ 63	(Default: 0)
Specify TX CC	Check to separately enter the When checked, enter a TX ( ① Do not duplicate the RX CC)	CC code between 0 and 63. (Default: 0)

Connection Port Settings > Digital Transceiver (D-TRX)

■ Digital Transceiver Connection (System: dPMR Mode 2)

Digital Transceiver Conn	
Connected Repeater's Address	
TCP Port Number (Connection Port)	. 2 41200
UDP Port Number (Data Port)	41220
Connection Key Code Packet Encryption	
Digital Frame Packet	: 5 Oisable 💿 Enable
Common Key	0000000
Unit ID	<u>6</u> 201
RX ID Range	
Talkgroup ID (Start)	100000
Talkgroup ID CC	8 100000
RX CC	9 0
Specify TX CC	: 10 🔽 Specify
TX CC	. 0
Scrambler	Disable 💿 Enable
Key	: <b>L</b>
Connection Status	Disconnected Connect Refresh

① The above screen shows an example for connecting the IC-FR5000 (with UC-FR5000 installed) to the Digital transceiver 1 (D-TRX1).

① The above screen shows when the Digital Frame Packet (⑤) and Scrambler (①) are set to "enabled," and Specify TX CC (10) is checked.

1 Scrambler Check to enable the Scrambler function . (Default: Disable) When checked, enter a scrambler key between 1 and 32767. (Default: 1) Connection Status ...... Click to connect or disconnect the transceiver, or to refresh the connection status.

① The buttons are grayed out when Connected Repeater's Address is blank.

① The settings cannot be changed while connection is established. Click <Disconnect> before changing the settings on this screen.

Connection Port Settings > Digital Transceiver (D-TRX)

### Communication Settings (System: dPMR Mode 2)

Edit the settings required for calling transceivers from the digital transceiver connected to the RoIP Gateway.

	TalkBack : 1 O Disable 💿 Enable	
	TalkBack Time : _5	✓ seconds
	Digital SQL : 🥑 💿 Disable  🔿 Enable	
	RX All Call : 3      O Disable O Enable	
efault Callee ID	Call Type : 4 Group	~
	Destination ID : 5 100000	

1 TalkBack	Select whether or not to enable the TalkBack function When the TalkBack function is ON, Select the TalkBack • Range: 1 ~ 10 seconds	· ,
2 Digital SQL	Select whether or not to enable the Digital Squelch fu	nction. (Default: Disable)
3 RX All Call	Select whether or not to permit all Talkgroups to recei	ve a call. (Default: Disable)
Call Type	Select a call type. <ul> <li>Options: Individual, Group, or All</li> </ul>	(Default: Group)
<b>5</b> Destination ID	Enter a destination ID. • Range: 1 ~ 9999999	(Default: 100000)

Connection Port Settings > Digital Transceiver (D-TRX)

## ■ DTMF Dialing

Г

Edit the details on DTMF Dialing.

DTMF	Dialing		
Timer	DTMF Dialing :	❶⊖ Disable	
	Permissible Tone Gap :	2 5	✓ seconds
	OFF-hook Detect Timer :	*Applied only if the OFF-hook settings in [Special Number] are set t	milliseconds o values with
	ON-hook Detect Timer :	<ul> <li>one digit.</li> <li>400</li> <li>*Applied only if the ON-hook setting in [Special Number] is set to a digit.</li> </ul>	milliseconds value with one

① The screen above shows when "DTMF Dialing" (1) is set to "Enable."

<b>1</b> DTMF Dialing	Select "Enable" to use DTMF signaling. If enabled, set the details in the Timer.	(Default: Disable)
Permissible Tone Gap	Select the period of time to detect that the last digit ha • Range: 1~10 (seconds)	s been input. (Default: 5)
<b>③OFF-hook Detect Timer</b>	<ul><li>Select the period of time to detect the OFF-hook contr</li><li>Range: 0~2000 (milliseconds) in 100 millisecond steps</li></ul>	ol signal. (Default: 400)
ON-hook Detect Timer	Select the period of time to detect the ON-hook contro	l signal. (Default: 400)
	<ul> <li>Range: 0~2000 (milliseconds) in 100 millisecond steps</li> </ul>	

() 3 and 4 are the timers for the Transceiver Special Number. (PBX > Special Number > Transceiver Special Number)

Connection Port Settings > EXT I/O (EXT)

## EXT I/O Port Mode

Select the type of device, and then select its input/output mode of te EXT1 ~ EXT4 ports.

NOTE: If you change an EXT I/O Port Mode, the settings on this screen will be initialized.

EXT I/O Po	ort Mode		
EXT I/O1 (EXT1)			
	Connected Unit :	Transceiver	~
EXT I/O2 (EXT2)			
	Connected Unit :	Transceiver	<b>`</b>
EXT I/O3 (EXT3)			
	Connected Unit : 1	EXT I/O Unit	×
	EXT I/O Port Mode : 2	Separate	~
EXT I/O4 (EXT4)			
	Connected Unit :	EXT I/O Unit	~
	EXT I/O Port Mode :	Separate	~
			Apply Reset

Connected Unit	Select the type of device to connect to the EXT ports. (Default for EXT I/O 1 (EXT1): Transceiver Default for EXT I/O 2 (EXT2): Transceiver Default for EXT I/O 3 (EXT3): EXT I/O Unit Default for EXT I/O 4 (EXT4): EXT I/O Unit)
2 EXT I/O Port Mode	<ul> <li>When "EXT I/O Unit" is selected, select the EXT input/output mode. (Default: Separate)</li> <li>Separate: Separately controls the external audio input/output.</li> <li>Combined: Simultaneously controls the external audio input/output to and from an external device. Select this option to connect an external device to A1/A2 (Audio output) and A3/A4 (Audio input) terminals.</li> </ul>

Connection Port Settings > EXT I/O (EXT)

## EXT I/O

Select an External I/O port on the RoIP Gateway to edit the settings.

EXT I/O			
	EXT I/O Port :	EXT I/O1 (EXT1)	~

EXT I/O Port

Select an External I/O Port to edit the settings.

(Default: EXT I/O (EXT1))

Connection Port Settings > EXT I/O (EXT)

### Transceiver Model

This item is displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Transceiver Model		
Transceiver Model :	IC-F5060/F6060	~
	*Remove the transceiver from the main unit before changing this setting. All the settings on this page will be initialized if you change this setting.	

Transceiver Model .....

Select a transceiver to connect the port selected in "EXT I/O Port." (Default: IC-F5060/F6060)

- ① Select "General Setting," if the transceiver requires detailed settings.
- ① Follow the local laws and regulations when using transceivers other than the options.
- ① Remove the transceiver from the RoIP Gateway to change the Transceiver Model. All settings will be reset to the defaults.

```
Connection Port Settings > EXT I/O (EXT)
```

### Transceiver Connection (Transceiver Model: General Setting)

• This item is displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Transceiver Connection			
TX Volume Offset to the Transceiver :	<b>1</b> 15	~	dB
RX Volume Offset from the Transceiver :	2 -24	~	dB
PTT Type :	3      Separate PTT      Combined with Microphone Line		
PTT Logic :	④ ○ Active High		
SQL Type :	5      Separate SQL      Combined with Speaker Line		
SQL Logic :	6 ● High 🔿 Low		
Power ON/OFF Detection :	⑦ ○ Disable ● Enable		
Power ON/OFF Detection Signal :	8 Use PTT Type		$\sim$
Power ON/OFF Detection Signal Logic :			
Detection Invalidity Timer (OFF ⇒ ON) :	0 *Setting value is set in five milliseconds steps.	milliseco	onds
Ues Pin A3 Bidirectional :	🕕 💿 Disable 🔘 Enable		
Serial Communication :	12		

(1) (3)  $\sim$  (10) are displayed only when Power ON/OFF Detection (12) is set to "Enable."

TX Volume Offset		
to the Transceiver	connected transceiver. • Range: -43 ~ +20 (dB)	
2 RX Volume Offset from the Transceiver	Adjust the RoIP Gateway's audio le • Range: –74 ~ +21 (dB)	evel from the transceiver.(Default: –24)
③ PTT Type	Select the PTT circuit type. <ul> <li>Separate PTT:</li> </ul> Combined with Microphone Line:	(Default: Separate PTT) The microphone line and PTT input line are separated. The PTT input line is superimposed on the MIC input (A1 terminal).
PTT Logic	Select the PTT logic.  • Active High:  • Active Low:	(Default: Active Low) PTT line becomes "High" when [PTT] is pushed. (Active High) PTT line becomes "Low" when [PTT] is pushed. (Active Low)

Connection Port Settings > EXT I/O (EXT)

■ Transceiver Connection (Transceiver Model: General Setting)

These items are displayed when "Transceiver" is selected as a connected unit.

(Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Transceiver Connection			
TX Volume Offset to the Transceiver :	<b>1</b> 15	~	dB
RX Volume Offset from the Transceiver :		~	dB
PTT Type :	3      Separate PTT      Combined with Microphone Line		
PTT Logic :	④ ○ Active High ● Active Low		
SQL Type :	5 ● Separate SQL ○ Combined with Speaker Line		
SQL Logic :	6 ● High ◯ Low		
Power ON/OFF Detection :	⑦ ○ Disable ● Enable		
Power ON/OFF Detection Signal :	8 Use PTT Type		~
Power ON/OFF Detection Signal Logic :	9 ● High ○ Low		
Detection Invalidity Timer (OFF ⇒ ON) :		milliseco	onds
Ues Pin A3 Bidirectional :	1)		
Serial Communication :	12		

(1) (3)  $\sim$  (10) are displayed only when Power ON/OFF Detection (17) is set to "Enable."

SQL Type	Select the squelch signal type. <ul> <li>Separate SQL:</li> <li>Combined with Speaker Line:</li> </ul>	(Default: Separate SQL) The squelch signal is separately input. The squelch signal is superimposed on the speaker input line (A3 terminal).	
6 SQL Logic	(Active High)	e. (Default: High) es "High" while receiving a signal. es "Low" while receiving a signal.	
Power ON/OFF Detection	Select "Enable" to detect the tra	nsceiver's power status (ON/OFF). (Default: Disable)	
8 Power ON/OFF			
Detection Signal	Select the PTT type to detect the	e transceiver's power status (ON/OFF). (Default: Use PTT Type)	
	Separate PTT:	The microphone line and PTT input line are separated.	
	Combined with Microphone Lin	e: The PTT input line is superimposed on the MIC input (A1 terminal).	
	• Use PTT Type:	The PTT type selected in PTT type (3) is used.	
Power ON/OFF Detection			
Signal Logic	Select the logic to detect the transceiver's power status (ON/OFF). (Default: High		
		e transceiver's power is ON. (Active high) transceiver's power is ON. (Active low)	

Connection Port Settings > EXT I/O (EXT)

■ Transceiver Connection (Transceiver Model: General Setting)

These items are displayed when "Transceiver" is selected as a connected unit.

(Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Transceiver Connection			
TX Volume Offset to the Transceiver :	<b>1</b> -15	~	dB
RX Volume Offset from the Transceiver :	<b>2</b> 24	~	dB
PTT Type :	3 • Separate PTT O Combined with Microphone Line		
PTT Logic :	④ Active High ● Active Low		
SQL Type :	Separate SQL ○ Combined with Speaker Line		
SQL Logic :	6 ● High ◯ Low		
Power ON/OFF Detection :	⑦ ○ Disable ● Enable		
Power ON/OFF Detection Signal :	8 Use PTT Type		$\sim$
Power ON/OFF Detection Signal Logic :	● High ○ Low		
Detection Invalidity Timer (OFF ⇒ ON) :		milliseco	nds
Ues Pin A3 Bidirectional :	1)		
Serial Communication :	<ul> <li>Disable</li></ul>		

(1) (3)  $\sim$  (10) are displayed only when Power ON/OFF Detection (17) is set to "Enable."

#### **10** Detection Invalidity Timer

(OFF → ON)	Set the power ON/OFF detection delay time between 0 and 10000 milliseconds. (Defaul When power ON is detected, the RoIP Gateway mutes the audio inp from the transceiver. The detection delay is the amount of time that the RoIP Gateway detects the power status before the RoIP Gateway recognizes the power status. ① If "0" is set, the audio input from the transceiver is not muted, even if the	
Use Pin A3 Bidirectional	power ON status is detected. Select "Enable" to use one common line (A3 terminal and AF output. If your transceiver commonly uses 1 line as the MIC input and AF output, select "Enable.	
Serial Communication	Select "Enable" to use serial communication. *Items $(3) \sim (3)$ are displayed when "Enable" is selected.	(Default: Disable)

Connection Port Settings > EXT I/O (EXT)

■ Transceiver Connection (Transceiver Model: General Setting)

These items are displayed when "Transceiver" is selected as a connected unit.

(Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

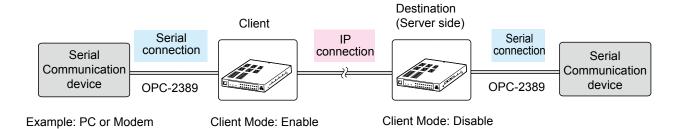
Serial Communication : 1	O Disable . @ Esable	
	Disable      Enable	
TCP Port Number : 🚺		
	Full-Duplex O Half-Duplex	
Signal Level : 槌	±5V (RS-232C)	~
	🔿 Auto 💿 Manual	
Baud Rate: 27	9600	~
Data Bits : 28		~
Parity : 29	None	~
Stop Bits : 30	1	~
Flow Control : 3	None	~
Session Timer : 3	30	
Transceiver Control : 18	🔿 Disable 🔘 Enable	
Transceiver Mode : 19	NXDN Conventional	~
Default Callee ID		
Call Type : 2		~
Destination Prefix ID : 2		
Destination ID : 22	1	
Source Prefix ID : 23		
Source ID : 🥰	1	

() (1) (1) = 0 are displayed only when Serial Communication (12) is set to "Enable"

① ② ~ ③ and 18 are displayed only when Data Mode (①) is set to "Manual."
 ① ③ ~ ④ are displayed only when Transceiver control (⑧) is set to "Enable."

<sup>(B)</sup> Client Mode .....

Select "Enable" to set the RoIP Gateway as the client in serial communications. (Default: Disable)



### 7 CONNECTION PORT SETTINGS

### EXT I/O (EXT) screen

Connection Port Settings > EXT I/O (EXT)

■ Transceiver Connection (Transceiver Model: General Setting)

These items are displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Serial Communication : 🔱	◯ Disable	
Client Mode : 📵	Disable      Enable	
TCP Port Number : 🛂	50000	
	Full-Duplex      Half-Duplex	
Signal Level : 16	±5V (RS-232C)	~
Data Mode : 💔	🔿 Auto 💿 Manual	
Baud Rate: 27	9600	~
Data Bits : 28	8	~
Parity : 2	None	~
Stop Bits : 30		~
Flow Control : 3	None	~
Session Timer : 3		
Transceiver Control : 📵	O Disable 💿 Enable	
Transceiver Mode : 19	NXDN Conventional	~
Default Callee ID		
Call Type : 🥹	Group	~
Destination Prefix ID : 2		
Destination ID : 22	1	
Source Prefix ID : 23		
Source ID : 24	1	

① ③ ~ ⑦ are displayed only when Serial Communication (②) is set to "Enable"

① 2 ~ 3 and 18 are displayed only when Data Mode (1) is set to "Manual."

(1) (1)  $\sim 2$  are displayed only when Transceiver control ((18)) is set to "Enable."

① The screen below shows when :

- Serial Communication (12) is set to "Enable."
- Client Mode (13) is set to "Enable."

Serial Communication : 1 🔿 Disable 💿 Enable	
Client Mode : 🕄 🔿 Disable 💿 Enable	
Server Address : 25	
Server Port Number : 26 50000	
Communication Control : 😉 💿 Full-Duplex 🛛 Half-Duplex	
Signal Level : 16 ±5V (RS-232C)	~
Baud Rate: 27_ <sup>9600</sup>	~
Data Bits : 28_8	~
Parity : 29 None	~
Stop Bits : 30 1	~
Flow Control : 3 None	~
Connection Status : 32 Disconnected Connect Refre	sh

Connection Port Settings > EXT I/O (EXT)

■ Transceiver Connection (Transceiver Model: General Setting)

These items are displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

TCP Port Number	Enter a port number between 1024 and 65535. (Default: EXT1=50000, EXT2=50001, EXT3=50002, EXT4=50003)
Communication Control	Select the communication type, Full-Duplex or Half Duplex. (Default: Full-Duplex)
Signal Level	Select the serial communication line logic voltage level. (Default: ±5V(RS-232C)) • Options: ±5V(RS-232C), 0V/3V (Logic), or 0V/5V (Logic)
17 Data Mode	<ul> <li>Select the communication method for serial communication between a device and the RoIP Gateway. (Default: Auto)</li> <li>Auto: Automatically starts serial communication from a Virtual Serial Port installed on your PC.</li> <li>Manual: Manually set serial communication method for a device.</li> <li>*Items ? ~ ③, and ③ are displayed when "Manual" is selected.</li> </ul>
Transceiver Control	Select "Enable" to control the transceiver using serial communication. (Default: Disable) *Items <sup>(1</sup> ) ~ <sup>(2</sup> ) are displayed when "Enable" is selected.
Transceiver Mode	<ul> <li>Select an operating mode. (Default: NXDN Conventional)</li> <li>Options: NXDN Conventional, NXDN Trunking, dPMR, or SAT.</li> </ul>
Ocall Type	Select a call type.(Default: Group)• Options: Individual, Group, or All
② Destination Prefix ID	Enter a destination prefix ID. The ID may differ, depending on the system. (Default: Blank) • Range: 0 ~ 30
② Destination ID	Enter the default ID for the EXT port between 00001 and 9999999. (Default: 1) (1) Enter an ID between 00001 and 99999 when the Destination Prefix ID (2) is entered.
Source Prefix ID	Enter a station's source prefix ID. The ID may differ, depending on the system. (Default: Blank) • Range: 0 ~ 30
Source ID	Enter a station's source ID between 00001 and 9999999. The ID is sent to the destination. (Default: 1) (1) Enter an ID between 00001 and 99999 when the Source Prefix ID (29) is entered.

Connection Port Settings > EXT I/O (EXT)

■ Transceiver Connection (Transceiver Model: General Setting)

These items are displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Server Address	Enter a destination RoIP Gateway's IP address.	
Server Port Number	Enter a destination RoIP Gateway's port number between 1024 and 65535. (Default: EXT1=50000, EXT2=50001, EXT3=50002, EXT4=50003	
Ø Baud Rate	Select the serial communication baud rate between a devi RoIP Gateway. (I	ce and the Default: 9600)
B Data Bits	Select the number of bits for serial communication.	(Default: 8)
Parity	Select the parity bit. (I	Default: none)
Stop Bits	Select the stop bit length.	(Default: 1)
Flow Control	Select the Flow control option. (E	Default: None)
Connection Status	<ul> <li>Click to connect or disconnect the transceiver, or to refresh the connection status.</li> <li>① The buttons are grayed out when Connected Repeater's Address is blank.</li> <li>① The settings cannot be changed while connection is established. Click <disconnect> before changing the settings on this screen.</disconnect></li> </ul>	
Bession Timer	Set the time to cut the TCP session when there is no comr from the host.	nunication (Default: 30)

Connection Port Settings > EXT I/O (EXT)

## Bridge Communication

These items are displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Edit the Bridge Communication settings for transceivers connected to the EXT1 ~ EXT4 ports. These items are Displayed only when "Connection Unit" is set to "Transceiver."

Bridge Communication	
Encryption : 1 Disable  Encryption Key : 1	
Encryption Key : 1	
TalkBack : 2 Disable 💿 Enable	
TalkBack Time : 5	✓ seconds
Default Callee ID	
Call Type : 3 Group	~
Destination Prefix ID : 4	
Destination ID : 5 1	
Source ID · 6 .301	

① 2~5 are not displayed when the Transceiver Model is set to "IC-SAT100."

Encryption	Select whether or not to enable the Encryption function.	) of a ultre Diagoble )
	When you enable the function, enter an encryption key to 32767.	Default: Disable) Detween 1 and (Default: 1)
2 TalkBack	Select whether or not to enable the TalkBack function. (I When the function is enabled, Select the TalkBack time.	,
	• Range: 1 ~ 10 (seconds)	(Default: 5)
S Call Type	Select a call type. ( • Options: Individual, Group, or All	(Default: Group)
Destination Prefix ID	Enter a destination prefix ID. The ID may differ, dependir system. • Range: 0 ~ 30	ng on the (Default: Blank)
<b>5</b> Destination ID	Enter the default ID for the EXT port between 00001 and	
	① Enter an ID between 00001 and 99999 when the Destinatio entered.	(Default: 1) n Prefix ID (④) is
6 Source ID	Enter a station's source ID between 1 and 9999999. The the destinations. (Default: EXT1=301, EXT2=302, EXT3=3	
	(Delauli, EATT-301, EATZ-302, EAT3-3)	DUD, EA14-304)

The above screen shows when Encryption (1) is set to "Enable."

Connection Port Settings > EXT I/O (EXT)

## Transceiver Control

These items are displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Edit the control settings for transceivers connected to the EXT1 ~ EXT4 ports. These items are displayed only when "Connection Unit" is set to "Transceiver."

Prioritized Receive : 0 O Disable 💿 Enable	
PTT Control : 2 RTP	×
Receive Detection : 3 VOX	~
Insert RX Audio to TX Audio : 🕘 💿 Disable 🛛 Enable	
TX Volume : 5 _0	∨ dE
RX Volume : 6 _0	✓ dE
Additional Attack Time for Beep 7 400 Sound Elimination : *Setting value is set in five milliseconds steps.	milliseconds
Echo Canceller : 🔕 💿 Disable 🛛 Enable	
Noise Canceller : 🥑 💿 Disable 🛛 🔿 Enable	

(1) (2), (8) and (9) are displayed only when the Transceiver Model is set to "General Setting."
 (1) Only (5) and (6) are displayed when the Transceiver Model is set to "IC-SAT100."

Prioritized Receive		o keep receiving and inhibit the transmis receiving. The default value differs, dep e.	
<b>2</b> PTT Control	• VOX:     • RTP:     • PTT Always-ON:	transmission method. According to the input audio signal level. The RoIP Gateway sends the PTT control s transceiver during receiving an applicable R The RoIP Gateway always sends the PTT c the transceiver to transmit. The RoIP Gateway does not send the PTT c the transceiver.	TP packet. ontrol signal to
<b>3</b> Receive Detection	depending on the • VOX: • SQL:	ed audio detection method. The default of Transceiver Mode. According to the input audio signal level. According to the squelch status (Open/Clos When setting to "SQL," set also Pull-up Con Always in the receive mode. According to the PC command. (Displayed of Transceiver Model is set to "General Setting	e) trol ON or OFF. only when the
Insert RX Audio to TX Audio	the telephone.	o mix the audio from the repeater with th (D is selected, select "Disable" in Prioritized Rec	efault: Disable)
5 TX Volume	Adjust the RoIP of connected transc • Range: –12 ~ +6		s sent to the (Default: 0)

Connection Port Settings > EXT I/O (EXT)

Transceiver Control

These items are displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Edit the control settings for transceivers connected to the EXT1 ~ EXT4 ports. These items are displayed only when "Connection Unit" is set to "Transceiver."

ransceiver Control	
Prioritized Receive : 1 〇 Disable 💿 Enable	
PTT Control : 2 RTP	~
Receive Detection : 3 VOX	~
Insert RX Audio to TX Audio : 4 💿 Disable 🛛 Enable	
TX Volume : 5 0	✓ dE
RX Volume : 6 0	∨ dE
Additional Attack Time for Beep 7 400 Sound Elimination : *Setting value is set in five milliseconds steps.	milliseconds
Echo Canceller : 8 💿 Disable \mid 🔿 Enable	
Noise Canceller : 🧕 💿 Disable 🔿 Enable	

① 2, ⑧ and ⑨ are displayed only when the Transceiver Model is set to "General Setting."

RX Volume	Adjust the RoIP Gateway's audio output level of the audio signal that is received from the connected transceiver (Default: 0) • Range: -12 ~ +6 (dB)
Additional Attack Time for Beep Sound Elimination	Enter the period of time to mute the audio (including beep signals) from the connected transceiver. (Default: 400) • Range: 0 ~ 1000 (seconds) in 5 millisecond steps
8 Echo Canceller	Select whether or not to enable the Echo Canceller function. The function reduces echo caused during duplex communication. (Default: Disable)
Noise Canceller	Select whether or not to enable the Noise Canceller function. (Default: Disable)

Connection Port Settings > EXT I/O (EXT)

## ■ DTMF Dialing

These items are displayed when "Transceiver" is selected as a connected unit (except for the Transceiver Model is set to "IC-SAT100.")

(Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Edit the DTMF Dialing settings.

DTMF	Dialing		
Timer	DTMF Dialing :	O Disable	
	Permissible Tone Gap : 2	5	✓ seconds
	OFF-hook Detect Timer :	400 *Applied only if the OFF-hook settings in [Special Number] are set one digit.	<ul> <li>milliseconds t to values with</li> </ul>
	ON-hook Detect Timer :		<ul> <li>milliseconds a value with one</li> </ul>

(1) (2)  $\sim$  (4) are displayed only when the DTMF Dialing (1) is set to "Enable."

DTMF Dialing	Select whether or not to use the DTMF Dialing function. (Default: Disable)
Permissible Tone Gap	Select the period of time to detect that the last digit has been input. (Default: 5) • Range: 1 ~ 10 (seconds)
<b>3</b> OFF-hook Detect Timer	Select the period of time to detect the OFF-hook control signal. (Default: 400)
	<ul> <li>Range: 0 ~ 2000 (milliseconds) in 100 millisecond steps</li> </ul>
ON-hook Detect Timer	Select the period of time to detect the ON-hook control signal. (Default: 400)
	Range: 0 ~ 2000 (milliseconds) in 100 millisecond steps

① 3 and 4 are the timers for the Transceiver Special Number. (PBX > Special Number > Transceiver Special Number)

Connection Port Settings > EXT I/O (EXT)

## PTT Control Setting

These items are displayed when "Transceiver" is selected as a connected unit (except for the Transceiver Model is set to "IC-SAT100.")

(Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Edit the PTT control settings.

PTT Control Setting		
*Setting values of Attack Time, Release Time	e and Voice Delay are set in five milliseconds steps.	_
Attack Time : 1 _5	0 milliseconds	
Release Time : 2 5	00 milliseconds	
Voice Delay : 3 2	00 milliseconds	
VOX Threshold : 4 4	0%_	
Setting," and PTT Control is set to	n Connection Unit is set to "Transceiver," Transceiver Model is s "VOX." n Connection Unit is set to "Transceiver."	set to "General
Attack Time	Set the TX Attack time to between 5 and 500 millisecor delay time before the VOX switch turns ON after an aut received through the network.	
<b>2</b> Release Time	Set the RX Delay time. It is the delay time for the VOX OFF after no audio signal is received through the netwo	
	<ul> <li>When the PTT Control in [Transceiver Control] is set to "R' value is "200."</li> <li>Range: 5 ~ 2000 (milliseconds)</li> </ul>	
<b>3</b> Voice Delay	Enter the amount of time to store the audio, in 5 millise	cond steps. (Default: 200)
	<ul> <li>When the PTT Control in [Transceiver Control] is set to "R' value is "300."</li> <li>Range: 0 ~ 1500 (milliseconds)</li> </ul>	· /
<b>4</b> VOX Threshold	Enter the voice threshold level. • Range: 0 ~ 100 (%)	(Default: 40)

```
Connection Port Settings > EXT I/O (EXT)
```

## Receive Detection Setting

These items are displayed when "Transceiver" is selected as a connected unit. (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode > EXT I/O 1 ~ 4 > Connected Unit) (Connection Port Settings > EXT I/O (EXT) > EXT I/O > EXT I/O Port)

Edit the DTMF Dialing settings.

	ne and Voice Delay are set in five milliseconds steps.	
Attack Time : 👥		
Release Time : 2		
Voice Delay : 3		
VOX Threshold : 4		
Ignore Time : 🧐.	300 milliseconds Apply Reset	
<ul> <li>"VOX."</li> <li>② is displayed only when "Conne "SQL."</li> <li>③ is displayed only when "Conne</li> </ul>	en "Connection Unit" is set to "Transceiver," and the "Receive Deter ection Unit" is set to "Transceiver," and the "Receive Detection" is s ection Unit" is set to "Transceiver." ection Unit" is set to "Transceiver," and the "Receive Detection" is s	set to "VOX" or
Attack Time	Set the TX Attack time. It is the delay time before the VOX ON after an audio signal is received through the network. • Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps	
Release Time	Set the RX Delay time. It is the delay time for the VOX sw OFF after no audio signal is received through the network • Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps	
Voice Delay	<ul> <li>Enter the period of time to store the audio.</li> <li>① When the Receive Detection is set to "VOX," the default valu</li> <li>Range: 0 ~ 1500 (milliseconds) in 5 millisecond steps</li> </ul>	(Default: 5) le is "50."
Voice Delay	① When the Receive Detection is set to "VOX," the default value	

```
Connection Port Settings > EXT I/O (EXT)
```

# EXT I/O Device Connection

This item is displayed only when "Connected Unit" is set to "EXT I/O Unit, and "EXT I/O Port Mode" is set to "Combined." (Connection Port Settings > EXT I/O (EXT))

O Device Connection		
Connected EXT I/O Unit :	General Setting	~
	*Remove the transceiver from the main unit before changing this setting. All the settings on this page will be initialized if you change this setting.	

Connected EXT I/O Unit .....

Select the connected external input/output unit.

Connection Port Settings > EXT I/O (EXT)

# Bridge Communication

Edit the Bridge Communication settings for external input/output devices connected to the EXT1 ~ EXT4 ports. These items are displayed only when "Connected Unit" is set to "EXT I/O Unit, and "EXT I/O Port Mode" is set to "Combined." (Connection Port Settings > EXT I/O (EXT))

Bridge Communication	
Encryption : 1 Disable  Encryption Key :	
Encryption Key :	
TalkBack : 2 Disable    Enable	
TalkBack Time : 5	✓ seconds
Default Callee ID	
Call Type : 3 Group	~
Destination Prefix ID : 4	
Destination ID : 5 1	
Source ID : 6 .303	

Encryption	Select whether or not to enable the Encryption function.	
	(Default: Disable) When you enable the function, enter an encryption key between 1 and 32767. (Default: 1)	
2 TalkBack	Select whether or not to enable the TalkBack function. (Default: Enable) When the function is enabled, Select the TalkBack time. (Default: 5) • Range: 1 ~ 10 (seconds)	
❸ Call Type	Select a call type.(Default: Group)• Options: Individual, Group, or All	
<b>4</b> Destination Prefix ID	Enter a destination prefix ID. The ID may differ, depending on the system. (Default: Blank) • Range: 0 ~ 30	
<b>5</b> Destination ID	Enter the default ID for the EXT port between 1 and 9999999.	
	(Default: 1) ③ Enter an ID between 00001 and 99999 when the Destination Prefix ID (④) is entered.	
<b>6</b> Source ID	Enter a station's source ID between 1 and 9999999. The ID is sent to the destinations.	
	(Default: EXT1=301, EXT2=302, EXT3=303, EXT4=304)	

Connection Port Settings > EXT I/O (EXT)

# EXT I/O Control

Edit the input/output settings of the RoIP Gateway's EXT1 ~ EXT4 ports.

These items are displayed only when "Connected Unit" is set to "EXT I/O Unit, and "EXT I/O Port Mode" is set to "Combined." (Connection Port Settings > EXT I/O (EXT))

ntrol
Echo Canceller : 1 💿 Disable 🔿 Enable
Noise Canceller : 2 🖲 Disable 🔿 Enable

<ol> <li>Echo Canceller .</li> </ol>	 Select whether or not to enable the Echo Canceller function. The function reduces echo caused by receiving more than 2 calls at the	
2 Noise Canceller	 same time. Select whether or not to enable the Noise Canceller fu	(Default: Disable)
•		(Default: Disable)

```
Connection Port Settings > EXT I/O (EXT)
```

# EXT Input Settings

Edit the input settings of the RoIP Gateway's EXT1 ~ EXT4 ports.

EXT Input Settings		
Bridge Communication		
Encryption : 1	🔿 Disable 💿 Enable	
Encryption Key : Default Callee ID	1	
Call Type : 2		~
Destination Prefix ID : 3		
Destination ID : 4	1	
Source ID : 5	353	
Input Port Settings Input Connection Port : 6	IP Network	~
Input Control : 7	Control Signal	~
Power for the Microphone : 8		
Reference Level : 9		~
Input Gain (Analog) : 🔟	-	✓ dB
Input Gain (Digital) : 🕕		✓ dB
Input Control Signal Settings		
Control Signal Type : 🔱		<b>~</b>
ON Timer : 📵		✓ seconds
OFF Timer : 🛂		✓ seconds
	Short Circuit (LOW)	~
Control Input Pull-up Setting :	○ Disable	
Voice Delay : 🛈	5 *Setting value is set in five milliseconds steps.	milliseconds

① 1 ~ 5 are displayed only when "Connected Unit" is set to "EXT I/O Unit, and "EXT I/O Port Mode" is set to "Separate." (Connection Port Settings > EXT I/O (EXT))

Encryption	Select whether or not to enable the Encryption function. (Default: Disable) When you enable the function, enter an encryption key between 1 and 32767. (Default: 1)
<b>2</b> Call Type	Select a call type. (Default: Group)
<b>3</b> Destination Prefix ID	Enter a destination prefix ID. The ID may differ, depending on the system. (Default: Blank) • Range: 0 ~30
Destination ID	Enter the default ID for the EXT port between 1 and 9999999. (Default: 1) (1) Enter an ID between 00001 and 99999 when the Destination Prefix ID (3) is entered.
Source ID	Enter a station's source ID between 1 and 99999999. The ID is sent to the destinations. (Default: EXT1=301, EXT2=302, EXT3=303, EXT4=304) (1) When EXT I/O Port Mode is set to "Separate," the default values are EXT1=351, EXT2=352, EXT3=353, and EXT4=354.

#### Connection Port Settings > EXT I/O (EXT)

#### EXT Input Settings

7

Input Port Settings				
Input Connection Port : 6	IP Network			$\sim$
Input Control : 7	Control Signal			$\sim$
Power for the Microphone : 8	Disable			
Reference Level : 9	-10dBs			$\sim$
Input Gain (Analog) : 🕕	0		$\sim$	dB
Input Gain (Digital) : Input Control Signal Settings	0		~	dB
Control Signal Type : 🗘	Momentary			$\sim$
ON Timer : 🔒		~	seco	nds
OFF Timer : 🚺	1	~	seco	nds
Control Logic : 😈	Short Circuit (LOW)			$\sim$
Control Input Pull-up Setting :	◯ Disable			
Voice Delay	5 *Setting value is set in five milliseconds steps.	mil	lliseco	nds

#### 6 Input Connection Port .....

Select the port which outputs the received audio signal.

(Default: IP Network)

- EXT Output: Sends the audio signal to the devices that are connected to
- IP Network:
- Emergency:

EXT1 ~ EXT4 ports. Sends the audio signal to the devices that are connected to the RoIP Gateway through the IP network.

Sends the audio signal to the device that is specified as the emergency call destination in the

"Emergency Notification."

- (Expert Settings > Emergency Notification)
- ① Emergency communication has priority over normal communication.
- The RoIP Gateway enters the Emergency mode when the option selected in the Input Control (<sup>(3)</sup>) of the EXT1 ~ EXT4 ports are satisfied.
- ① In the Emergency mode, all ongoing communication routes, other than that for the Emergency Notice, are disconnected.
- ① To transmit the call as the Emergency Notice:
  - Confirm the "Bridge Communication Source" is set to "Emergency Notification."
     (Bridge Connection Settings > Bridge Connection > Bridge Connection > Bridge Connection Source)
  - Confirm the "Bridge Communication Destination" is set to "Custom Bridge Connection."

(Bridge Connection Settings > Bridge Connection > Bridge Connection > Bridge Communication Destination)

- Confirm the "Emergency Notification Equipment" is set to "Enable."
- (Expert Settings > Emergency Notification >
- Emergency Notification >
- Emergency Notification Equipment)

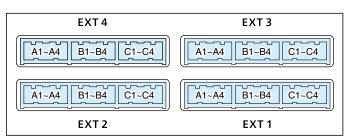
### Connection Port Settings > EXT I/O (EXT)

#### EXT Input Settings

7

Input Port Settings		
Input Connection Port : 6	IP Network	~
Input Control : 7	Control Signal	~
Power for the Microphone : 8	● Disable ◯ Enable	
Reference Level : 9	-10dBs	~
Input Gain (Analog) : 🕕	0	✓ dB
Input Gain (Digital) : 1 Input Control Signal Settings		✓ dB
Control Signal Type : 12	Momentary	~
ON Timer : 🚺	1	✓ seconds
OFF Timer : 14	1	✓ seconds
Control Logic :	Short Circuit (LOW)	~
Control Input Pull-up Setting :	🔿 Disable 💿 Enable	
Voice Delay :	5 *Setting value is set in five milliseconds steps.	milliseconds

Input Control	Select the contro • Always-ON:	<ul> <li>control type to send the audio signal. (Default: Control Sig</li> <li>Always sends the audio signal to the destination selected in the Input Connection Port (?).</li> <li>() When "Emergency" is selected in Input Connection F</li> <li>(?), this option cannot be selected.</li> <li>When an audio signal is input, sends the audio signal to the destination selected in the Input Connection Port (?).</li> </ul>	
	• VOX:		
	Control Signal:	When the control signal is input, sends the destination selected in the Input Connection Port (?).	the audio signal to
8 Power for the Microphone		o supply the voltage to the micropho Audio input) microphone.	ne connected to (Default: Disable)
Reference Level	Select the input line A3/A4 terminal (Audio input) sensitivity. (Default: –10dB		sitivity. (Default: –10dBs)
	<ul> <li>Options: –10 dBs or –40dBs</li> </ul>		



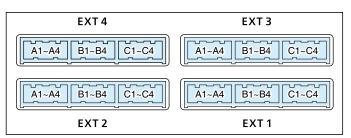
### Connection Port Settings > EXT I/O (EXT)

#### EXT Input Settings

7

Input Port Settings				
Input Connection Port : 6	IP Network			$\mathbf{\mathbf{v}}$
Input Control : 7	Control Signal			$\sim$
Power for the Microphone : 8	Disable      Enable			
Reference Level : 9	-10dBs			$\sim$
Input Gain (Analog) : 🕕	0		$\sim$	dB
Input Gain (Digital) : Input Control Signal Settings			~	dB
	Managetan			$\sim$
Control Signal Type : 😢	Momentary			<b>v</b>
ON Timer : 🔒		~	seco	onds
OFF Timer : 14	1	$\sim$	seco	onds
Control Logic :	Short Circuit (LOW)			$\sim$
Control Input Pull-up Setting :	○ Disable			
Voice Delay :	5 *Setting value is set in five milliseconds steps.	mil	liseco	onds

🔞 Input Gain (Analog)	Set the analog signal input gain (A3/A4 terminal (Audio input)).			
	• Range: –74 ~ +21 (dB) (Default: 0)			
Input Gain (Digital)	Set the digital signal input gain (A3/A4 terminal (Audio input)). (Default: 0) • Range: –12 ~ +6 (dB)			



Refer to the INSTALLATION GUIDE Section 6 for the port details.

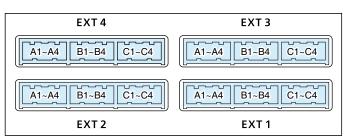
### Connection Port Settings > EXT I/O (EXT)

#### EXT Input Settings

7

Input Port Settings				
Input Connection Port : 6	IP Network			$\sim$
Input Control : 7	Control Signal			$\sim$
Power for the Microphone : 8	Isable O Enable			
Reference Level : 9	-10dBs			$\sim$
Input Gain (Analog) : 🕕	0		$\sim$	dB
Input Gain (Digital) : 🕕			$\sim$	dB
Input Control Signal Settings				
Control Signal Type : 🔨	Momentary			$\sim$
ON Timer : 🚺	1	$\sim$	seco	nds
OFF Timer : 🛂		$\sim$	seco	nds
Control Logic :	Short Circuit (LOW)			$\sim$
Control Input Pull-up Setting :	O Disable   Enable			
Voice Delay : 🖤	5 *Setting value is set in five milliseconds steps.	mil	liseco	nds

⑫ Control Signal Type	Select the control • Momentary: • One-shot:	signal input type. (E While the control signal is input from to (General control I/O), activates the po When the control signal is input from (General control I/O), continuously ac And deactivates with no input. The inp detected for the period of time, that is (1). The RoIP Gateway recognizes the retains the type for the period of time, OFF Timer (1).	ort. the B3/B4 terminal ctivates the port. put signal has been s set in the ON Timer he signal input and
<pre>BON Timer</pre>	Select the delay t • Range: 0.1 ~ 3 (s	ime until the input is detected. econds)	(Default: 1)
<pre> ④ OFF Timer </pre>	Select the delay t input)) is deactiva • Range: 0.1 ~ 3 (s		General control (Default: 1)



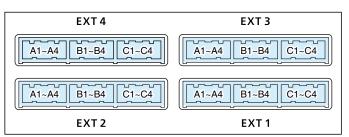
#### Connection Port Settings > EXT I/O (EXT)

#### EXT Input Settings

7

Input Port Settings		
Input Connection Port : 6	IP Network	~
Input Control : 7	Control Signal	~
Power for the Microphone : 8	O Disable O Enable	
Reference Level : 9	-10dBs	~
Input Gain (Analog) : 🕕	0	✓ dB
Input Gain (Digital) : 🕕	0	✓ dB
Input Control Signal Settings		
Control Signal Type : 🔱	Momentary	~
ON Timer : 🚺	1	✓ seconds
OFF Timer : 🚺		✓ seconds
	Short Circuit (LOW)	~
Control Input Pull-up Setting :	◯ Disable ● Enable	
Input Control Setting Voice Delay : 10	5 *Setting value is set in five milliseconds steps.	milliseconds

(5) Control Logic ..... Select the port input state of the B3/B4 terminals (General control input). (Default: Short Circuit (LOW)) The control signal input is detected as follows: When the "Control Input Pull-up Setting" (16) is enabled: • Short Circuit (LOW): Detects when the B3/B4 terminals are Shortened • Open Circuit (HIGH): Detects when the B3/B4 terminals are Open When the "Control Input Pull-up Setting" (16) is disabled: · Short Circuit (LOW): Detects when no volatge is applied between the B3 and B4 terminals. · Open Circuit (HIGH): Detects when any volatge is applied between the B3 and B4 terminals. 6 Control Input Pull-up Setting Select whether or not to internally pull up the B3/B4 terminal (General control input). (Default: Enable)



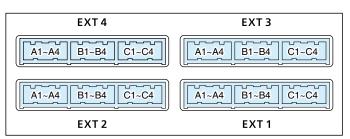
#### EXT Input Settings

7

Input Connection Port : 6 IP Network		~
Input Control : 7 VOX		~
Power for the Microphone : 🔕 💿 Disable 🛛 Enable		
Reference Level : 910dBs		~
Input Gain (Analog) : 0	~	dB
Input Gain (Digital) : 0	~	dB
Input Control Setting *Setting values of Attack Time, Release Time and Voice Delay are set in five milliseconds steps.		
Attack Time : 18_50	milliseco	onds
Release Time : 19 200	milliseco	onds
Voice Delay : 🔟 50	milliseco	onds
VOX Threshold : 20_40		%

(1) (18, 19, and 20 are displayed when Input Control (7) is set to "VOX."

🕡 Voice Delay	Set the audio signal buffer time. (Default: when Input Control is "VOX": • Range: 0 ~ 500 (milliseconds) in 5 millisecond steps	=50, others=5)
Attack Time     (Input Control: VOX)	Set the TX Attack time. It is the delay time before the VOX ON after an audio signal is received through the network. • Range: 5 ~ 2000 (milliseconds)	
Release Time     (Input Control: VOX)	Set the RX Delay time. It is the delay time for the VOX sw OFF after no audio signal is received through the network • Range: 5 ~ 2000 (milliseconds)	
<b>2</b> VOX Threshold	Enter the voice threshold level. • Range: 0 ~ 100 (%)	(Default: 40)



```
Connection Port Settings > EXT I/O (EXT)
```

# EXT Output Settings

Edit the output settings of the RoIP Gateway's EXT1 ~ EXT4 ports.

EXT Output Settings
Bridge Communication
Encryption : 1 O Disable 💿 Enable
Encryption Key : _1 Source ID : 2 0303
Source ID 2 0303

① 1 and ② are displayed only when "Connected Unit" is set to "EXT I/O Unit, and "EXT I/O Port Mode" is set to "Separate." (Connection Port Settings > EXT I/O (EXT))

Encryption	Select whether or not to enable the Encryption function. (Default: Disable) When you enable the function, enter an encryption key between 1 and 32767. (Default: 1)
<b>2</b> Source ID	Enter a station's source ID between 0001 and 9999. (Default: EXT1=301, EXT2=302, EXT=303, EXT4=304)

Connection Port Settings > EXT I/O (EXT)

■ EXT Output Settings

EXT Output Settings	
Control Circuit	
Switching Control : 1) 💿 Control Output Circuit 🛛 Relay Circuit	
Control Output Logic : 2 🔿 Active High 💿 Active Low	
8V Electric Supply (B2) : 3 💿 Disable  🔿 Enable	
Switching Control: Relay Circuit	
Control Circuit	
Switching Control : 🚺 🔿 Control Output Circuit 💿 Relay Circuit	
Control Output Logic : 2 Valid Event Detection Short	~

<b>3</b> Switching Control	<ul> <li>Select the control circuit type.</li> <li>If "Relay Circuit" is selected, the "Commuset to "Full-Duplex."</li> <li>(Communication Port Settings &gt; EXT I/C &gt; Communication Control)</li> </ul>	
Control Output Logic Switching Control: Control Output Circuit	Select the activate state. When the Switching Control (③) is set is state. Relay output terminal (B1/B2 terr When the audio signal is output, the co	minal) is short or open circuit.
<b>5</b> 8V Electric Supply (B2) Switching Control: Relay Circuit	Select whether or not to supply the 8 V connected to the external output termin ① Specification: Less than 30 mA ① If "Enable" is selected, the "Communicati "Full Duplex." (Communication Port Settings > EXT I/C	ion Control" is automatically set to

> Communication Control)

Connection Port Settings > EXT I/O (EXT)

#### EXT Output Settings

#### (Client Mode: Disable)

Serial Communication		
Serial Communication : 6	○ Disable	
Client Mode : 7	Disable      Enable	
TCP Port Number : 8	50003	
	Full-Duplex O Half-Duplex	
Signal Level : 10	±5V (RS-232C)	~
	◯ Auto ● Manual	
Baud Rate: 12	9600	~
Data Bits : 🚺		~
Parity : 🚺		~
Stop Bits : 15		~
Flow Control : 16	None	~
Session Timer : 🚺		

The screen shows Serial Communication (6) is set to "Enable," and Client Mode (7) is set to "Disable."
2 ~17 are displayed only when the Data Mode (1) is set to "Manual."

Client Mode: Enable		
Serial Communication :	6 Disable   Enable	
Client Mode :	O Disable I Enable	
Server Address :	18	
Server Port Number :	19 <u>50002</u>	
	● Full-Duplex	
	10 ±5V (RS-232C)	~
Baud Rate:	9600	~
Data Bits :	<b>13</b> 8	~
Parity :	14 None	~
Stop Bits :	<b>1</b>	~
Flow Control :	16 None	~
Connection Status :	20 Disconnected Connect Refresh	

() The screen shows Serial Communication (6) and Client Mode (7) is set to "Enable."

<b>6</b> Serial Communication	Select "Enable" to use serial communications. *Items $\bigcirc \sim \bigcirc$ are displayed when "Enable" is selected.	(Default: Disable)
⑦ Client Mode	<ul> <li>Select "Enable" to set the RoIP Gateway as the clier communications.</li> <li>① When Enabling this the Client Mode, enter the Server A Server Port number (19).</li> </ul>	(Default: Disable)
8 TCP Port Number	Enter a port number between 1024 and 65535. (Default: EXT1=50000, EXT2=50001, EXT3=50002, EXT4=50003)	
<b>9</b> Communication Control	Select the communication type. ([ ① Automatically set to "Full-Duplex" when Switching Cont "Relay Circuit."	Default: Full-Duplex) trol (③) is set to

Connection Port Settings > EXT I/O (EXT)

#### ■ EXT Output Settings

(Client Mode: Disable)

Serial Communication		
Serial Communication : 6	) Disable 💿 Enable	
Client Mode : 🕜 🦲	) Disable 🔘 Enable	
TCP Port Number : (8) 5	50003	
Communication Control : 9	Full-Duplex 🔿 Half-Duplex	
Signal Level : 🚺 📑	±5V (RS-232C)	~
	) Auto 💿 Manual	
Baud Rate: 🔞 🦉	9600	~
Data Bits : 🚺 _ <sup>£</sup>		~
Parity : 🚺 📩		~
Stop Bits : 15 _1		~
Flow Control : 16	None	~
Session Timer : 🚺 🗳		

① The screen shows Serial Communication (6) is set to "Enable," and Client Mode (7) is set to "Disable."
 ① 2 ~ 1 are displayed only when the Data Mode (1) is set to "Manual."

10 Signal Level	Select the serial communication line logic voltage level. (Default: ±5V(RS-232C	
1) Data Mode	<ul> <li>Select the communication method for serial communications between a device and the RoIP Gateway. (Default: Auto</li> <li>Auto: Automatically starts serial communications from a Virtual Serial Port installed on your PC.</li> <li>Manual: Manually set serial communication method for a device.</li> <li>Items <sup>1</sup>/<sub>2</sub> ~ <sup>1</sup>/<sub>1</sub> are displayed when "Manual" is selected.</li> </ul>	
Baud Rate	Select the serial communication baud rate between a device and the RoIP Gateway. (Default: 9600	
B Data Bits	Select the number of bits for serial communications. (Default: 8	
14 Parity	Select the parity bit. (Default: none	
Stop Bits	Select the stop bit length. (Default: 1	
6 Flow Control	Select the Flow control option. (Default: None	
Session Timer	Set the time to cut the TCP session when there is no communication (Default: 30)	

Connection Port Settings > EXT I/O (EXT)

■ EXT Output Settings

### Client Mode: Enable

Serial Communication :	6 Disable   Enable	
Client Mode :	⑦ ○ Disable ● Enable	
Server Address :	18	
Server Port Number :	19 <u>50002</u>	
	<ul> <li>● Full-Duplex</li> <li>○ Half-Duplex</li> </ul>	
	10 ±5V (RS-232C)	~
Baud Rate:	9600	~
Data Bits :	<b>1</b> 3 8	~
Parity :	14 None	~
Stop Bits :	<b>(5</b> 1	~
Flow Control :	16 None	~
Connection Status :	20 Disconnected Connect Refresh	

① The screen shows Serial Communication (6) and Client Mode (7) is set to "Enable."

Berver Address	Enter the destination RoIP Gateway's IP address.
Server Port Number	Enter the destination RoIP Gateway's port number between 1024 and 65535. (Default: EXT1=50000, EXT2=50001, EXT3=50002, EXT4=50003)
②Connection Status	<ul> <li>Click to connect or disconnect a transceiver, or to refresh the connection status.</li> <li>① The buttons are grayed out when Connected Repeater's Address is blank.</li> <li>① The settings cannot be changed while connection is established. Click <disconnect> before changing the settings on this screen.</disconnect></li> </ul>

Connection Port Settings >	EXT I/O	(EXT)	
EXT Output Settings			
Audio Output Settings			1
	evel : 212	20dBs 🗸 🗸	
Output Gain (Ana		✓ dB	
Output Gain (Dig		✓ dB	
Announce Tone D		5 seconds 🗸 🗸	
Fade	e-out: 25_1.	5 seconds 🗸 🗸	
Fac	le-in : 26_1.	5 seconds 🗸 🗸	
Control Output Setting	-		
-		elay are set in five milliseconds steps. v RTP V	
	ntrol : 27 _B		
	Fime : 28_10	milliseconds	
Announce Tone	elay : 29 <u>5</u>		
*Not available with direct output	from EXT Inp	out or always-on connections.	
	one : 🗿 S		
	one : 3 N		
Announce Tone Vol	ume : 32_0	→ dB	
		Apply Reset 3 (4)	
2) Reference Level		Select the output level of A1/A2 terminal (Audio output).	-
		[]	Default: –20dBs)
		<ul> <li>Options: Speaker, 0dBs, or –20dBs</li> </ul>	
Output Gain (Analog)		Set the analog signal input gain (A1/A2 terminal (Audio outp • Range: –43 ~ +20 (dB)	out)). (Default: 0)
Output Gain (Digital)		Set the digital signal input gain (A1/A2 terminal (Audio out • Range: –12 ~ +6 (dB)	put)).(Default: 0)
Announce Tone Delay		Select the delay time before the received audio is outpu This delay time is set according to your sound device's s The default value differs, depending on the EXT I/O Por (Default: Separa Combine	specifications. t Mode setting.
		• Range: 0.5 ~ 3 (seconds)	,
		① Select "Disable" to output the audio right after the signal is it	eceived.
29 Fade-out		Set the period of time that the audio signal is muted. • Range: Disable, or 0.5 ~ 3 (seconds)	(Default: 1.5)
		<ul> <li>The Auto Fader function is usable on the following settin</li> <li>When the "Connected Unit" is set to "EXT I/O Unit, and "EXT is set to "Separate."</li> <li>(Connection Port Settings &gt; EXT I/O (EXT) &gt; EXT I/O Port M</li> <li>The "Input connection port" is set to "EXT Output."</li> <li>(External input and output ports are directly connected.)</li> <li>(Connection Port Settings &gt; EXT I/O (EXT) &gt; EXT Input S</li> </ul>	「I/O Port Mode" 1ode)
		Connection Port)	input
		The "Priority Level" is set to "Priority" or "High Priority."	
		(PBX Advanced Settings > Prioritization > EXT Output Port F From Other Ports)	<pre>rioritization &gt;</pre>

### Connection Port Settings > EXT I/O (EXT)

### ■ EXT Output Settings

Audio Output Settings	
Reference Level : 20 -200	iBs 🗸 🗸
Output Gain (Analog) : 👥 0	✓ dB
Output Gain (Digital) : 23 0	✓ dB
Announce Tone Delay : 24 0.5	seconds V
Fade-out : 25 1.5	
Fade-in : 26 1.5	
Control Output Setting *Setting values of Release Time and Voice Dela	
Relay Control : 27 By F	RTP 🗸 🗸
Release Time : 28 100	
Voice Delay : 29_5	milliseconds
Announce Tone *Not available with direct output from EXT Input Start Tone : 30 Sing	
End Tone : 3 Not	
Announce Tone Volume : 32 0	✓ dB Apply Reset
	<b>3 3</b>

🕫 Fade-in	Set the period of time that the audio signal mute is canceled. (Default: 1.5 seconds)
	• Range: Disable, or 0.5 ~ 3 (seconds)
	<ul> <li>The Auto Fader function is usable on the following settings.</li> <li>When the "Connected Unit" is set to "EXT I/O Unit, and "EXT I/O Port Mode" is set to "Separate." (Connection Port Settings &gt; EXT I/O (EXT) &gt; EXT I/O Port Mode)</li> <li>The "Input connection port" is set to "EXT Output." <ul> <li>(External input and output ports are directly connected.)</li> <li>(Connection Port Settings &gt; EXT I/O (EXT) &gt; EXT Input Settings &gt; Input Connection Port)</li> </ul> </li> <li>The "From Other Ports" is set to "Priority" or "High Priority." <ul> <li>(PBX Advanced Settings &gt; Prioritization &gt; EXT Output Port Prioritization &gt; From Other Ports)</li> </ul> </li> </ul>
Relay Control	Displayed when Switching Control (3) is set to "Relay Circuit." Set the type of relay control. (Default: By RTP) Options: By Port Connection or By RTP
Release Time	Set the RX delay time. It is the delay time for the VOX switch to turn OFF after no audio signal is received through the network. (Default: For the Control Output Circuit: 200 For the Relay Circuit: 100) • Range: For the control output circuit: 5 ~ 2000 (milliseconds) For the relay circuit: 5 ~ 15000 (milliseconds)
Voice Delay	Enter the period of time to store the audio. (Default: 5) • Range: 0 ~ 1500 (milliseconds) in 5 millisecond steps.

Connection Port Settings > EXT I/O (E	XT)
---------------------------------------	-----

### ■ EXT Output Settings

Audio Output Settings		
Reference Level :	20 -20dBs	~
Output Gain (Analog) :	22_0	∨ dB
Output Gain (Digital)		✓ dB
Announce Tone Delay	0.5 seconds	~
Fade-out:	1.5 seconds	~
	1.5 seconds	~
Control Output Setting	Voice Delay are set in five milliseconds steps.	
Relay Control :	By RTP	~
Release Time :	28 100	milliseconds
Voice Delay :		milliseconds
Announce Tone *Not available with direct output from I		
Start Tone :	30 Single Tone 1	~
End Tone :	Not used	~
Announce Tone Volume :		✓ dB
		Apply Reset
		33 34

Start Tone	Select the tone which sounds before the announcement starts. (Default: Single Tone1)
	Options: Not used, 4 Tone Notice (Up), Single Tone 1, or Single Tone 2
③ End Tone	Select the tone which sounds after the announcement. (Default: Not used) <ul> <li>Options: Not used, 4 Tone Notice (Down), Single Tone 1, or Single Tone 2</li> </ul>
Announce Tone Volume	Select the volume level for the announce tones.(Default: 0)• Range: -12 ~ +6 (dB)
<pre></pre>	Click to apply the settings.
34 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

# **Emergency Notification screen**

Connection Port Settings > Emergency Notification

# Bridge Communication

Edit the Emergency Notification settings for the transceivers connected by Bridge Mode.

Bridge Communication	
Encryption	
Encryption : 1 O Disable Encryption Key : 1	e 💿 Enable
Encryption Key : 1	
Default Callee ID	
Default Callee ID : 2 🔘 Disable	e 💿 Enable
Call Type : 3 Group	×
Destination Prefix ID : 4	
Destination ID : 5 _1	
Source ID : 6 _1	
	Apply Reset
Source ID : 6 _1	

① 3 ~6 Displayed only when the Default Callee ID (2) is set to "Enable."

Encryption	Select whether or not to enable the Encryption function. (Default: Disable) When you enable the function, enter an encryption key between 1 and 32767. (Default: 1)
<b>2</b> Default Callee ID	Select "Enable" to add the destination ID to the transmitted signal. (Default: Disable)
Call Type	Select a call type.(Default: Group)• Options: Individual, Group, or All
<b>4</b> Destination Prefix ID	Enter a destination prefix ID. The ID may differ, depending on the system. (Default: Blank) • Range: 0 ~30
<b>5</b> Destination ID	Enter an Individual or Group ID of the destination transceiver between 1 and 9999999. (Default: 1) ① Enter an ID between 00001 and 99999 when the Destination Prefix ID (④) is entered.
6 Source ID	Enter a station's source ID between 1 and 9999999. The ID is sent to the destinations. (Default: 1)
<pre>⑦<apply></apply></pre>	Click to apply the settings.
8 <reset></reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>

Connection Port Settings > Microphone (MIC)

# Bridge Communication

Edit the settings of the microphone connected to the RoIP Gateway.

Bridge Communication
Encryption : Disable  Encryption Key :
TalkBack : 2 O Disable
TalkBack Time : 5 v seconds
Default Callee ID
Call Type : 3 Group
Destination Prefix ID : 4
Destination ID : 5 1
Source ID : 6 _311

Encryption	Select whether or not to enable the Encryption function. (I When you enable the function, enter an encryption key b 32767.	Default: Disable)
2 TalkBack	Select whether or not to enable the TalkBack function.(E When the function is enabled, Select the TalkBack time. • Range: 1 ~10 (seconds)	,
Call Type	Select a call type. • Options: Individual, Group, or All	(Default: Group)
<b>4</b> Destination Prefix ID	Enter a destination prefix ID. The ID may differ, dependi system. • Range: 0 ~30	ng on the (Default: Blank)
S Destination ID	<ul> <li>Enter an Individual or Group ID of the destination transc and 99999999.</li> <li>① Enter an ID between 00001 and 99999 when the Destination entered.</li> </ul>	(Default: 1)
6 Source ID	Enter a station's source ID between 1 and 9999999. The destinations.	e ID is sent to (Default: 311)

Connection Port Settings > Microphone (MIC)

## Microphone Control

Edit the input/output settings of the microphone connected to the RoIP Gateway.

Microphone Control		
Communication Method : 1	◯ Simplex ● Full-Duplex	
Echo Canceller : 2	🔿 Disable 💿 Enable	
Noise Canceller : 3	🔾 Disable 💿 Enable	
Communication Method	Select the communication method for the microphone (De	e. efault: Full-Duplex)
2 Echo Canceller	Select whether or not to enable the Echo Canceller fu function reduces echo caused while duplex communic	
3 Noise Canceller	Select whether or not to enable the Noise Canceller.	(Default: Enable)

Connection Port Settings > Microphone (MIC)

## Microphone Input Control

Edit the input setting of the microphone connected to the RoIP Gateway.

licrophone Voice		
Input C	Sain : _ 0	✓ dB

Input Gain .....

Select the input gain for the microphone. • Range:  $-12 \sim +6$  (dB) (Default: 0)

Connection Port Settings > Microphone (MIC)

# Voice Output Control

Edit the voice output control settings of the microphone connected to the RoIP Gateway.

Voice Output Control		
Voice Volume		
Output Gain : 1	+40	✓ dB
Notice Tone Volume : 2	+30	3 4dB
		Apply Reset

<b>1</b> Output Gain	Select the output gain for the microphone. • Range: 0 ~ +63 (dB)	(Default: +40)
<b>2</b> Notice Tone Volume	Adjust the Notice Tone volume. • Range: 0 ~ +63 (dB)	(Default: +30)
<b>③</b> ≺Apply>	Click to apply the settings.	
<pre>4<reset></reset></pre>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>	

Connection Port Settings > RoIP Gateway

## RolP Gateway

Set the Destination for the RoIP gateway connection.

RoIP Gateway		
RoIP Gateway Port :	RoIP Gateway1	~

RoIP Gateway Port .....

Select a RoIP gateway port to edit the settings.

(Default: RoIP Gateway1)

```
Connection Port Settings > RoIP Gateway
```

## RolP Gateway Connection

The settings for a destinations that are connected to the RoIP Gateway through the RoIP gateway connection.

Transmission Mode :	Multicast	~
Destination Address :		
Destination Port Number :		
Source Port Number :	-	
Voice Protocol :	-	
	*Voice Protocol can be set on the Bridge Connection.	
Multicast TTL :	1	
Connection Status :	Inactive Activate Refresh	

(1) (5) is displayed only when the Transmission Mode (1) is set to "Multicast."

<b>1</b> Transmission Mode	Select the transmission mode used on the network, for devices connected to the RoIP Gateway.
Destination Address	Enter the IP address or domain of the RoIP Gateway that going to be connected. When the Transmission Mode (1) is set to "Multicast," automatically set to "239.255.255.1."
Destination Port Number	Enter the same port number that entered to the Source Port Number (④) of the RoIP Gateway that going to be connected. (Default for RoIP Gateway1: 24400) (Default for RoIP Gateway2: 24402) (Default for RoIP Gateway3: 24404) (Default for RoIP Gateway3: 24406) (Default for RoIP Gateway4: 24406) (Default for RoIP Gateway5: 24408) (Default for RoIP Gateway5: 24408) (Default for RoIP Gateway6: 24410) (Default for RoIP Gateway7: 24412)
	(Default for RoIP Gateway8: 24414) ① Enter the port number between 2 and 65534, in even number. ① Do not conflict with the other port settings.

① In the Multicast mode, all the default setting are fixed to "25210."

Connection Port Settings > RoIP Gateway

■ RoIP Gateway Connection

Transmission Mode :	1 Multicast	~
Destination Address :	2 239.255.255.1	
Destination Port Number :	3 22510	
Source Port Number :	4 22510	
Voice Protocol :	5 AMBE+2	
	*Voice Protocol can be set on the Bridge Connection.	
Multicast TTL :	<u>6</u> 1	
Connection Status :	7 Inactive Activate Refresh	

(1) (5) is displayed only when the Transmission Mode (1) is set to "Multicast."

Source Port Number	<ul> <li>Enter a port number to receive an audio signal.</li> <li>① Used as a source port number for an audio signal.</li> <li>① Enter a port number between 1024 and 65534, in even number.</li> <li>③ Do not conflict with the other port settings. <ul> <li>(Default for RoIP Gateway1: 24400)</li> <li>(Default for RoIP Gateway2: 24402)</li> <li>(Default for RoIP Gateway3: 24404)</li> <li>(Default for RoIP Gateway4: 24406)</li> <li>(Default for RoIP Gateway5: 24408)</li> <li>(Default for RoIP Gateway5: 24410)</li> <li>(Default for RoIP Gateway5: 24412)</li> <li>(Default for RoIP Gateway7: 24412)</li> <li>(Default for RoIP Gateway8: 24414)</li> </ul> </li> <li>① Enter the port number between 2 and 65534, in even number.</li> <li>④ Do not conflict with the other port settings.</li> <li>④ In the Multicast mode, all the default setting are "25210."</li> </ul>
S Voice Protocol	Displays the Voice Protocol Selected in the "Voice Protocol (For Custom Bridge Connection)" (Bridge Connection Settings > Bridge Connection > AMBE+2 Vocoder Assignment > Voice Protocol (For Custom Bridge Connection))
6 Multicast TTL	Enter the Time to Live value (TTL). TTL is used to control the Multicast packet delivery scope. Every time the packets pass through the router, this value subtracted. When the value is "0," the packets are discarded. (Default: 1) • Range: 1 ~ 255
Connection Status	<ul> <li>Click to connect or disconnect the RoIP Gateway, or to refresh the connection status.</li> <li>① The buttons are grayed out when Connected Repeater's Address is blank.</li> <li>① The settings cannot be changed while connection is established. Click <deactivate> before changing the settings on this screen.</deactivate></li> </ul>

```
Connection Port Settings > RoIP Gateway
```

## RolP Gateway Communication

Edit settings for the connected RoIP Gateway to communicate.

RoIP Gateway Communication	
· · · · · · · · · · · · · · · · · · ·	
Encryption : 1 O Disable	
Encryption Key : 1	
TalkBack : 2 🔿 Disable 💿 Enable	
TalkBack Time : 5	✓ seconds
Default Callee ID	
Call Type : 3 Group	~
Destination Prefix ID : 4	
Destination ID : 5 1	
Source ID : 6 801	

1 Encryption	Select whether or not to enable the Encryption function	(Default: Disable)
	When you enable the function, enter an encryption key 32767.	
2 TalkBack	Select whether or not to enable the TalkBack function connected to the RoIP Gateway. When the function is enabled, Select the TalkBack time • Range: 1 ~10 (seconds)	(Default: Enable)
S Call Type	Select a call type. <ul> <li>Options: Individual, Group, or All</li> </ul>	(Default: Group)
<b>4</b> Destination Prefix ID	Enter a destination prefix ID. The ID may differ, depensystem. • Range: 0 ~30	ding on the (Default: Blank)
<b>5</b> Destination ID	Enter the default ID for the EXT port between 1 and 9999999.	
	① Enter an ID between 00001 and 99999 when the Destinate entered.	(Default: 1) tion Prefix ID (④) is
6 Source ID	Enter a station's source ID between 1 and 9999999. The ID is sent to the destinations.	
	(Default for Roll	P Gateway1: 801)
	· ·	P Gateway2: 802) P Gateway3: 803)
	· ·	P Gateway4: 804)
	•	P Gateway5: 805)
	· ·	P Gateway6: 806)
	· ·	P Gateway7: 807)
	(Default for Rol	P Gateway8: 808)

Connection Port Settings > RoIP Gateway

# RoIP Gateway Control

Edit settings for the connected RoIP Gateway to communicate.

RoIP Gateway Control				
	Release Time :	200 *Setting value is set in five milliseconds steps.	milliseconds	

Release Time

Enter the period of time to detect the audio output stoppage to the RoIP Gateway. (Default: 200)

• Range: 5 ~ 2000 (milliseconds) in 5 second steps

Connection Port Settings > RoIP Gateway

# Bridge Communication

The settings for the Bridge Communication when a Bridge Connection Destination is set to "Custom Bridge Connection." (Bridge Connection Settings > Bridge Connection > Bridge Connection > Bridge Connection)

Bridge Communication	
Encryption 1 Disable  Encryption Key :	
TalkBack : 2 🔼 Disable 💿 Enable	
TalkBack :2 O Disable	<ul> <li>seconds</li> </ul>
Default Callee ID	
Call Type : 3 Group	~
Destination Prefix ID : 4	
Destination ID : 5 1	
Source ID : 6 1	78
	Apply Reset

Encryption	Select whether or not to enable the Encryption function, depending on the connected transceiver's setting. (Default: Disable) When you enable the function, enter an encryption key between 1 and 32767. (Default: 1)	
2 TalkBack	Select whether or not to enable the TalkBack function with devices connected to the RoIP Gateway. (Default: Enable) When the function is enabled, Select the TalkBack time. (Default: 5) • Range: 1 ~ 10 (seconds)	
Solution 3 Call Type	Select a call type.(Default: Group)• Options: Individual, Group, or All	
<b>4</b> Destination Prefix ID	Enter a destination prefix ID. The ID may differ, depending on the system. • Range: 0 ~30	
<b>5</b> Destination ID	Enter an Individual or Group ID for the destination transceiver between 1 and 9999999. (Default: 1) ① Enter an ID between 00001 and 99999 when the Destination Prefix ID (④) is entered.	
6 Source ID	Enter the station's source ID between 1 and 9999999. Used for calling transceivers connected to the serial port. (Default: 1)	
♂ <apply></apply>	Click to apply the settings.	
8 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>	

# **DESTINATION SETTINGS**

SelCall Number Converting screen	. 8-2
Save or Write the SelCall Number Converting Setting	. 8-2
About the SelCall Number Converting	. 8-3
SelCall Number Converting	. 8-4
List of SelCall Number Converting Entries	. 8-5
Destination Settings screen	. 8-6
Destination Settings (All)	. 8-6
Destination Settings (Group)	. 8-9
Destination Settings (Talkgroup)	8-13
Destination Settings (Individual)	8-19
Destination Settings (Telephone)	8-21
List of Destination Setting Entries (All Call)	8-22
List of Destination Setting Entries (Group Call)	8-22
■List of Destination Setting Entries (Talkgroup Call)	8-23
■List of Destination Setting Entries (Multiplex Talkgroup Call)	8-24
List of Destination Setting Entries (Individual Call)	8-25
List of Destination Setting Entries (Telephone)	8-26
Destination Batch Setting	8-27

# SelCall Number Converting screen

Destination Settings > SelCall Number Converting

# Save or Write the SelCall Number Converting Setting

You can load or save the converting settings.

Load Settings from File		Browse
	Write A CSV format file can be written to this product.	
	When the file is written, the current settings will be overwritten.	

Load Settings from File	<ul> <li>You can load the saved [SelCall Number Converting file] (Extension: csv) file, and write it to the RoIP Gateway.</li> <li>Click <browse>, and select the SelCall Number Converting file (Example: idtbl_brg.csv) to load.</browse></li> <li>Verify that the selected file is displayed, and then click <write>.</write></li> <li>① The content of the file is loaded to [List of SelCall Number Converting Entries].</li> <li>① When the setting file (Extension: sav) is used to restore the settings, the settings of the RoIP Gateway will be overwritten.</li> </ul>
<b>2</b> Save to File	Click to save the [List of SelCall Number Converting Entries] contents in the PC, as the "SelCall Number Converting file (Extension: csv)."

#### SelCall Number Converting screen

Destination Settings > SelCall Number Converting

### About the SelCall Number Converting

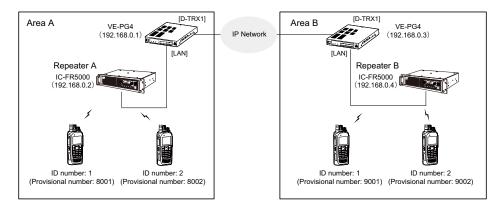
When a SelCall number is shared beyond the site, you can't call transceivers across the site due to "SelCall number duplication." The SelCall Number Convert function solves this problem by automatically converting the SelCall number.

Here is an example to show how the function works.

The transceiver (ID number: 1) in Area A is calling the transceiver (ID number: 2) in Area B using a provisionally assigned SelCall number (9002).

The provisionally assigned SelCall number is converted into the actual one (9002 to 2), according to the number conversion table. Therefore, they can talk to each other across the sites.

At the same time, the ID number of the transceiver in Area A is also converted, based on the list of SelCall Number Converting entries registered in Area A's RoIP Gateway (1 to 8001). The converted number (8001) is displayed on the transceiver in Area B.



• The conversion table for the above example. (Area A)

Index	Name	Destination			Convert D	estination			
		Call Type	Prefix ID	ID	Call Type	Prefix ID	ID		
1	Destination (Area B Sales Dept)	Individual		9001	Individual		1	Edit	Delete
2	Destination (Area B Sales Dept)	Individual		9002	Individual		2	Edit	Delete
3	Destination (Area A Sales Dept)	Individual		1	Individual		8001	Edit	Delete
4	Destination (Area A Sales Dept)	Individual		2	Individual		8002	Edit	Delete

#### • The conversion table for the above example. (Area B)

Index	Name	Destination			Convert D	estination			
		Call Type	Prefix ID	ID	Call Type	Prefix ID	ID		
1	Destination (Area A Sales Dept)	Individual		8001	Individual		1	Edit	Delete
2	Destination (Area A Sales Dept)	Individual		8002	Individual		2	Edit	Delete
3	Destination (Area B Sales Dept)	Individual		1	Individual		9001	Edit	Delete
4	Destination (Area B Sales Dept)	Individual		2	Individual		9002	Edit	Delete

① We do not recommend using duplicate individual numbers between bases.

① You need to register both entries of the destination information and the source information.

#### SelCall Number Converting screen

Destination Settings > SelCall Number Converting

## SelCall Number Converting

Even when a SelCall number is shared in several sites, you can call a radio in a different site by using the provisionally assigned SellCall destination ID.

Index በ	Name 🥥	Destination			Convert Destina	ation		
	•	Call Type 3	Prefix ID 4	ID 5	Call Type 6	Prefix ID 7	ID 8	9
1 🗸		Individual 🗸			Individual 🗸			Add

1 Index	The Index assigned for the entry. Index range: 1 ~ 1000	(Default: 1)
2 Name	Enter a name of up to 31 charact	ers.
Call Type (Destination)	Select the type of call. • Individual: Virtually call a specified • Group: Virtually call all transc • All: Call all transceivers.	(Default: Individual) I transceiver. eivers that belong to the specified group.
<b>4</b> Prefix ID (Destination)	Enter the SelCall prefix ID. • Range: 0 ~ 30	
<b>5</b> ID (Destination)	Enter a provisionally assigned Se ID range differs, Depending on th	
	When "All" is selected in [Call Typ changes to gray, and you cannot end the selected in the	e (Destination)] (3), This item's color change the setting.
<b>6</b> Call Type (Convert Destination)	Select the call type. • Individual: Call only one transceiv • Group: Call all transceivers th • All: Call all transceivers.	(Default: Individual) er. at belong to the specified group.
Prefix ID (Convert Destination)	Enter the SelCall destination's pr • Range: 0 ~ 30	efix ID.
8 ID (Convert Destination)	Enter the ID of the SelCall destin ID range differs, Depending on the	
	When "All" is selected in [Call Typ changes to gray, and you cannot	e (Destination)] (③), this item's color change the setting.
<b>᠑</b> <add></add>	Click to add the entry. The registered contents are display Entries] screen.	red on the [List of SelCall Number Converting

#### SelCall Number Converting screen

Destination Settings > SelCall Number Converting

# List of SelCall Number Converting Entries

Lists the SelCall Number Converting settings.

Index	Name	Destinatio	n		Convert D	estination				
		Call Type	Prefix ID	ID	Call Type	Prefix ID	ID	1	2	
1		Individual		9001	Individual		1	Edit	Delete	
2		Individual		1	Individual		8001	Edit	Delete	

❶ <edit></edit>	Click to edit the entry. ① The registered contents are displayed in [SelCall Number Converting].
<b>2</b> <delete></delete>	Click to delete the entry. Tou cannot restore after clicking <delete>.</delete>
3 <delete all=""></delete>	Click to delete all of the entries.

Destination Settings > Destination Settings

# Destination Settings (All)

The settings to call all the registered wireless LAN transceivers (IP100H/IP100FS).

If necessary, you can include other bases connections, IP transceiver controllers, and transceiver ports. (Up to 22 locations, excluding the IP transceiver controller)

① This screen is displayed when clicking [Edit] of [List of Destination Setting Entries (All Call)].

stinatio	Call Type : All
	Communication Type : 1 O Simplex   Full-Duplex
	All Call for Talkgroup : 2 O Disabled 💿 Enable
Additio	onal Controller
	1(Offfice1 (Main)) 2(Office2 (Sub))
	IP Transceiver Controller     Digital Transceiver1 (D-TRX1) Digital Transceiver2 (D-TRX2) Digital Transceiver3 (D-TRX3)     Digital Transceiver4 (D-TRX4)     EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4)     Emergency Notification     Microphone (MIC)     RoIP Gateway1 RoIP Gateway2 RoIP Gateway3 RoIP Gateway4 RoIP Gateway5     RoIP Gateway6 RoIP Gateway7 RoIP Gateway8

This is an example of setting "All" as the Call Type.

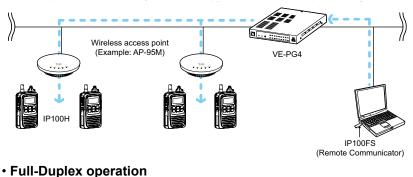
#### **1** Communication Type .....

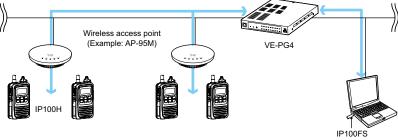
Select "Simplex" or "Full-Duplex."

(Default: Full-Duplex)

#### Simplex operation

When "Simplex" is selected, the called station cannot reply until the caller station stops transmitting.





(Remote Communicator)

Destination Settings > Destination Settings

Destination Settings (All)

estinati	Call Type : All	
	Communication Type : 1 O Simplex 💿 Full-Duplex	
	All Call for Talkgroup : 2 O Disabled 💿 Enable	
Addi	nal Controller	
	1(Offfice1 (Main)) 2(Office2 (Sub))	
	Digital Transceiver1 (D-TRX1)     Digital Transceiver2 (D-TRX2)     Digital Transceiver3 (D-TRX     Digital Transceiver4 (D-TRX4)     EXT I/O1 (EXT1)     EXT I/O2 (EXT2)     EXT I/O3 (EXT3)     EXT I/O4 (EXT4)     Emergency Notification     Microphone (MIC)     RoIP Gateway1     RoIP Gateway2     RoIP Gateway3     RoIP Gateway4     RoIP Gateway5	,
	RolP Gateway6 RolP Gateway7 RolP Gateway8	

This is an example of setting "All" as the Call Type.

**2** All Call for Talkgroup ..... Select whether or not the All call includes the wireless LAN transceivers that belong to the Talkgroup. (Default: Enable) **3** Additional Controller ..... Select the additional controller when configuring several controllers, and the All call calls between the different controllers. ① By clicking "All," you can select or cancel all entries in the list. ① When "Sub" is selected in the [Additional Controller Settings] setting (Transceiver Controller > RoIP Settings > Additional Controller Settings), specify the master controller as the connection destination, as shown below. None Additional Controller : IP Transceiver Controller/Connection ① The other bases in [Additional Controller] (3) and [IP Transceiver Controller/ Connection Port] (4) can be connected to a total of up to 22 locations. ("IP Transceiver Controller" is not included this number of connections.) If you connect the other bases to more than 22 locations, you cannot

communicate properly.

#### Destination Settings > Destination Settings

Destination Settings (All)

<ul> <li>Digital Transceiver4 (D-TRX4)</li> <li>EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4)</li> <li>Emergency Notification</li> <li>Microphone (MIC)</li> </ul>		estination Settings
All Call for Talkgroup 2 Disabled Enable Additional Controller All 1 (Offfice1 (Main)) 2(Office2 (Sub)) IP Transceiver Controller/Connection Port All IP Transceiver Controller/Connection Port Digital Transceiver1 (D-TRX1) Digital Transceiver2 (D-TRX2) Digital Transceiver3 (D-TR) Digital Transceiver4 (D-TRX4) EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4) Emergency Notification Microphone (MIC) RolP Gateway1 RolP Gateway2 RolP Gateway3 RolP Gateway4 RolP Gateway5		Call Type .
3       Additional Controller         Image: All image:		Communication Type : 1 O Simplex <ul> <li>Full-Duplex</li> </ul>
<ul> <li>All</li> <li>1(Offfice1 (Main)) 2(Office2 (Sub))</li> <li>IP Transceiver Controller/Connection Port</li> <li>All</li> <li>IP Transceiver Controller</li> <li>Digital Transceiver1 (D-TRX1) Digital Transceiver2 (D-TRX2) Digital Transceiver3 (D-TR)</li> <li>Digital Transceiver4 (D-TRX4)</li> <li>EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4)</li> <li>Emergency Notification</li> <li>Microphone (MIC)</li> <li>RoIP Gateway1 RoIP Gateway2 RoIP Gateway3 RoIP Gateway4 RoIP Gateway5</li> </ul>		All Call for Talkgroup : 2 🔿 Disabled 💿 Enable
4       IP Transceiver Controller/Connection Port <ul> <li>IP Transceiver Controller</li> <li>Digital Transceiver1 (D-TRX1)</li> <li>Digital Transceiver2 (D-TRX2)</li> <li>Digital Transceiver3 (D-TRX)</li> <li>Digital Transceiver4 (D-TRX4)</li> <li>EXT I/O1 (EXT1)</li> <li>EXT I/O2 (EXT2)</li> <li>EXT I/O3 (EXT3)</li> <li>EXT I/O4 (EXT4)</li> <li>Emergency Notification</li> <li>Microphone (MIC)</li> <li>RoIP Gateway1</li> <li>RoIP Gateway3</li> <li>RoIP Gateway4</li> <li>RoIP Gateway4</li> <li>RoIP Gateway5</li> </ul>		Additional Controller
<ul> <li>All</li> <li>IP Transceiver Controller</li> <li>Digital Transceiver1 (D-TRX1)</li> <li>Digital Transceiver2 (D-TRX2)</li> <li>Digital Transceiver3 (D-TR2)</li> <li>Digital Transceiver4 (D-TRX4)</li> <li>EXT I/O1 (EXT1)</li> <li>EXT I/O2 (EXT2)</li> <li>EXT I/O3 (EXT3)</li> <li>EXT I/O4 (EXT4)</li> <li>Emergency Notification</li> <li>Microphone (MIC)</li> <li>RoIP Gateway1</li> <li>RoIP Gateway2</li> <li>RoIP Gateway4</li> <li>RoIP Gateway5</li> </ul>		All I(Offfice1 (Main)) 2(Office2 (Sub))
EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4)     Emergency Notification     Microphone (MIC)     RoIP Gateway1 RoIP Gateway2 RoIP Gateway3 RoIP Gateway4 RoIP Gateway5	(X3)	
Microphone (MIC)     RoIP Gateway1 RoIP Gateway2 RoIP Gateway3 RoIP Gateway4 RoIP Gateway5		EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4)
RolP Gateway6 RolP Gateway7 RolP Gateway8		
		RoIP Gateway6 RoIP Gateway7 RoIP Gateway8
<b>9</b>	6 v Rese	(S) Apply

This is an example of setting "All" as the Call Type.

IP Transceiver Controller/ Connection Port	<ul> <li>Select the communication devices.</li> <li>IP Transceiver Controller*1</li> <li>Digital Transceiver1 (D-TRX1) ~ Digital Transceiver4 (D-TRX4)</li> <li>EXT I/O1 (EXT1) ~ EXT I/O4 (EXT4)*2</li> <li>Emergency Notification</li> <li>Microphone (MIC)</li> <li>RoIP Gateway1 ~ RoIP Gateway8</li> <li>*1 Displayed when an IP Transceiver Controller is connected.</li> <li>*2 When [Connected Unit] is set to "EXT I/O Unit" and [EXT I/O Port Mode] is set to "Separate" in [EXT I/O Port Mode] setting (Connection Port Settings &gt; EXT I/O (EXT) &gt; EXT I/O Port Mode], "EXT Input" and "EXT Output" are displayed.</li> <li>When clicking "All," you can select or cancel all at once.</li> <li>When a speaker microphone is connected to the [MIC] port, the audio input/ output of the [EXT1] port is disconnected.</li> <li>The Audio input/output of the [MIC] port and the [EXT1] port cannot be used at the same time.</li> <li>The other bases in [Additional Controller] (3) and [IP Transceiver Controller/ Connection Port] (4) can be connected to a total of up to 22 locations. ("IP Transceiver Controller" is not included this number of connections.) If you connect the other bases to more than 22 locations, you cannot communicate properly.</li> </ul>
S <apply></apply>	Click to apply the entries. ① The registered contents are displayed in [List of Destination Setting Entries (All Call)].
6 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply></apply>

```
Destination Settings > Destination Settings
```

# Destination Settings (Group)

The settings to call the registered group through the IP network or the RoIP Gateway's transceiver port. ① The displayed contents are changed according to the Call Type.

Destinati	on Settings		
	No. : 1	10	~
	Name : 2		
	Call Type : 3	Group	~
	Destination ID : 4		
		● Normal 🔘 High	
Destination			
	Communication Type : 6	Simplex  Full-Duplex	

This is an example of setting "Group" as the Call Type (3).

1 No	Select the number to register the destination Group. Up to 1990 destinations can be registered.
<b>2</b> Name	Enter a destination name of up to 31 characters.
3 Call Type	Select "Group" for Group calls.
Destination ID	Enter a 4 digit destination number. • Range: 0001 ~ 9999
<b>5</b> Group Priority	Select "Normal" or "High" to set the priority in the Group call. (Default: Normal) (1) This item can be selected when "Group" is selected in [Call Type] (3).

#### Destination Settings > Destination Settings

#### Destination Settings (Group)

Destinati	on Settings		
	No. : 1	10	~
	Name : 2		
	Call Type : 3	Group	~
	Destination ID : 4		
		● Normal 🔿 High	
Destination			
	Communication Type : 6	○ Simplex	

This is an example of setting "Group" as the Call Type (3).

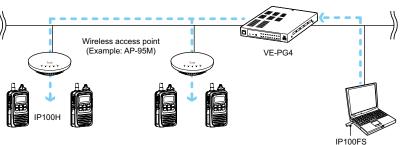
**6** Communication Type .....

Select "Simplex" or "Full-Duplex."

(Default: Full-Duplex)

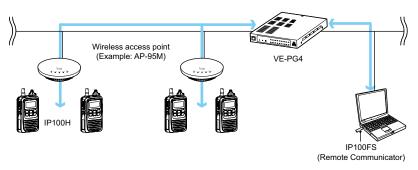
#### Simplex operation

When "Simplex" is selected, the called station cannot reply until the caller station stops transmitting.



(Remote Communicator)

• Full-Duplex operation



#### Destination Settings > Destination Settings

#### Destination Settings (Group)

	Communication Type : O Simplex   Full-Duplex
WLAN T	ransceivers
ali 🗌	□ 0101(Sales1) □ 0102(Sales2) □ 0103(Sales3) □ 0050(IP100FS)
Addition	al Controller
ali 🗌	□ 1(Offfice1 (Main)) □ 2(Office2 (Sub))
[	Digital Transceiver4 (D-TRX4) EXT Input1 (EXT1) EXT Output1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT Input4 (EXT4) EXT Output4 (EXT4) Emergency Notification Microphone (MIC) RoIP Gateway1 RoIP Gateway2 RoIP Gateway3 RoIP Gateway4 RoIP Gateway5 RoIP Gateway6 RoIP Gateway7 RoIP Gateway8

This is an example of setting "Group" as the Call Type (3).

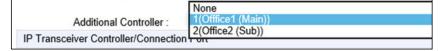
#### **WLAN Transceivers** ......

Select the IP100H and IP100FS that belong the group from the list. ① The WLAN transceivers added in [Transceiver Registration] are displayed. ① By clicking "All," you can select or cancel all at once.

8 Additional Controller .....

Select an additional controller when configuring several controllers, and the Group call calls between the different controllers.

- D By clicking "All," you can select or cancel all entries in the list.
   When "Sub" is selected in the [Additional Controller Settings] setting (Transceiver Controller > RoIP Settings > Additional Controller Settings),
  - specify the master controller as the connection destination, as shown below.



 The other bases in [Additional Controller] (3) and [IP Transceiver Controller/ Connection Port] (9) can be connected to a total of up to 22 locations.
 ("IP Transceiver Controller" is not included in this number of connections.) If you connect other bases to more than 22 locations, you cannot communicate properly.

NOTE: When you use the Additional Controller Link function, set the other bases to be paired in the [Area Entry List] setting (Transceiver Controller > RoIP Server Settings > Area Call > Area Entry List).
 For example, when the destination setting of Group 1 in the additional Controller 1 is set to additional Controller 2, the destination setting of Group 1 in the additional Controller 2 must be set to additional Controller 1.
 The same applies in the case when the connection configuration between the other bases consists of the master controller and the multiple sub controllers.

#### Destination Settings > Destination Settings

#### Destination Settings (Group)

WLAN Transceivers         All       0101(Sales1)       0102(Sales2)       0103(Sales3)       0050(IP100FS)         Additional Controller         Additional Controller       1(Offfice1 (Main))       2(Office2 (Sub))         IP Transceiver Controller/Connection Port         All       Digital Transceiver1 (D-TRX1)       Digital Transceiver3 (D-TRX3)         Digital Transceiver4 (D-TRX4)       EXT Input1 (EXT1)       EXT I/O2 (EXT2)       EXT I/O3 (EXT3)         EXT Input4 (EXT4)       EXT Output4 (EXT4)       EXT Output4 (EXT4)       Ext Input4 (EXT4)       Ext Output4 (EXT4)         Emergency Notification       Microphone (MIC)       RoIP Gateway1       RoIP Gateway2       RoIP Gateway3       RoIP Gateway5         RoIP Gateway6       RoIP Gateway7       RoIP Gateway8       RoIP Gateway8		Cor	mmunication Type	: O Simple:	x    Full-	-Duplex	-			
Additional Controller         All       1(Offfice1 (Main))         2(Office2 (Sub))         IP Transceiver Controller/Connection Port         All       Digital Transceiver1 (D-TRX1)         Digital Transceiver4 (D-TRX1)         Digital Transceiver4 (D-TRX4)         EXT Input1 (EXT1)         EXT Input1 (EXT1)         EXT Input4 (EXT4)         Ext regency Notification         Microphone (MIC)         RolP Gateway1         RolP Gateway1         RolP Gateway1         RolP Gateway1         RolP Gateway1	WL	AN Transc	ceivers							
All       1(Offfice1 (Main)) 2(Office2 (Sub))         IP Transceiver Controller/Connection Port         All       Digital Transceiver1 (D-TRX1) Digital Transceiver2 (D-TRX2) Digital Transceiver3 (D-TRX3)         Digital Transceiver4 (D-TRX4)         EXT Input1 (EXT1)       EXT Output1 (EXT1) EXT I/O2 (EXT2)         EXT Input4 (EXT4)       EXT Output4 (EXT4)         Emergency Notification         Microphone (MIC)         RoIP Gateway1       RoIP Gateway2         RoIP Gateway1       RoIP Gateway3	$\Box$		0101(Sales1)	0102(Sales2)	0103(Sa	lles3) 🗆 00	050(IP100	FS)		
IP Transceiver Controller/Connection Port         All       Digital Transceiver1 (D-TRX1)       Digital Transceiver2 (D-TRX2)       Digital Transceiver3 (D-TRX3)         Digital Transceiver4 (D-TRX4)       EXT Input1 (EXT1)       EXT I/O2 (EXT2)       EXT I/O3 (EXT3)         EXT Input4 (EXT4)       EXT Output4 (EXT4)       EXT Input4 (EXT4)       Ext Gutput4 (EXT4)         Emergency Notification       Microphone (MIC)       RoIP Gateway1       RoIP Gateway2       RoIP Gateway3       RoIP Gateway5	Add	itional Cor	ntroller							
All       Digital Transceiver1 (D-TRX1)       Digital Transceiver2 (D-TRX2)       Digital Transceiver3 (D-TRX3)         Digital Transceiver4 (D-TRX4)       EXT Input1 (EXT1)       EXT Output1 (EXT1)       EXT I/O2 (EXT2)       EXT I/O3 (EXT3)         EXT Input4 (EXT4)       EXT Output4 (EXT4)       Emergency Notification       Microphone (MIC)         RoIP Gateway1       RoIP Gateway2       RoIP Gateway3       RoIP Gateway5		AJI	1(Offfice1	(Main)) 2(Of	fice2 (Sub)	))				
		EX     EX     E     E     E     Mi     R	T Input1 (EXT1) T Input4 (EXT4) mergency Notificat icrophone (MIC) DIP Gateway1	EXT Output1 EXT Output4 ion RoIP Gateway2	(EXT4)	Gateway3 🗆				

This is an example of setting "Group" as the Call Type (3).

#### IP Transceiver Controller/

Connection Port.....

Select the communication devices.

- IP Transceiver Controller\*1
- Digital Transceiver1 (D-TRX1) ~ Digital Transceiver4 (D-TRX4)
- EXT I/O1 (EXT1) ~ EXT I/O4 (EXT4)\*2
- Emergency Notification
- Microphone (MIC)
- RolP Gateway1 ~ RolP Gateway8
- \*1 Displayed when an IP Transceiver Controller is connected.
- \*2 When [Connected Unit] is set to "EXT I/O Unit" and [EXT I/O Port Mode] is set to "Separate" in [EXT I/O Port Mode] setting (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode), "EXT Input" and "EXT Output" are displayed.
- By clicking "All," you can select or cancel all at once.
- ① When a speaker microphone is connected to the [MIC] port, the audio input/ output of the [EXT1] port is disconnected. The Audio input/output of the [MIC] port and the [EXT1] port cannot be used at the same time.
- The other bases in [Additional Controller] (3) and [IP Transceiver Controller/ Connection Port] (3) can be connected to a total of up to 22 locations. ("IP Transceiver Controller" is not included this number of connections.) If you connect the other bases to more than 22 locations, you cannot communicate properly.
- ① For the EXT port that the IC-SAT100 is connected, you can belong to only a Group or Talkgroup.

Click to apply the entries.
 The registered contents are displayed in [List of Destination Setting Entries (Group Call)].

**(I)** <Reset> .....

Click to reset the settings.

① You cannot reset after clicking <Apply>.

```
Destination Settings > Destination Settings
```

# Destination Settings (Talkgroup)

The settings to call the registered Talkgroup through the IP network or the RoIP Gateway's transceiver port. ① The displayed contents are changed according to the Call Type.

N- 1	~
No. : 0 1	•
Name : 2	~
Call Type : 3 Talkgroup	•
Destination ID : 4 _0001	
Talkgroup Type : 🌀 💿 Normal 🛛 🔿 Multiplex Talkgroup	
Destination	
Communication Type : 👩 🔿 Simplex 💿 Full-Duplex	
Talkgroup Call for IP100FS : 👩 🔿 Disabled 💿 Enable	
Callee ID for IP100FS : 8 All   All   Appointment	

This is an example of setting "Talkgroup" as the Call Type (3), and "Appointment" as the Callee ID for IP100FS (8).

<b>1</b> No	Select the number to register the destination Talkgroup. Up to 1990 destinations can be registered.
<b>2</b> Name	Enter a destination name of up to 31 characters.
3 Call Type	Select "Talkgroup" for Talkgroup calls.
4 Destination ID	<ul> <li>Enter a 4 digit destination number.</li> <li>Range: 0001 ~ 9999</li> <li>This number must also be registered in the [ID List] setting (Transceiver Controller &gt; Common Settings &gt; ID List &gt; ID List).</li> <li>When "FUNC Key" in the [Talkgroup Selection] setting (Transceiver Controller &gt; Common Settings &gt; Profile &gt; Profile &gt; Talkgroup Selection) is selected, the wireless LAN transceiver can call to members in the same Talkgroup. Select "OFF" on the wireless LAN transceiver to return to the usual standby mode screen.</li> </ul>

Talkgroup 1001 Talkgroup1001	Talkgroup OFF
Talkgroup is selected	Talkgroup is OFF
奈路 (11) 10/8 16:57 Talkgroup1001	♠ ▲ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
Talkgroup is selected	Talkgroup is OFF

Destination Settings > Destination Settings

#### Destination Settings (Talkgroup)

No. : 🚺	1	~
Name : 2		
Call Type : 3	Talkgroup	~
Destination ID : 4		
Talkgroup Type : 5	Normal O Multiplex Talkgroup	
Destination		
Communication Type : 6	<ul> <li>Simplex          <ul> <li>Full-Duplex</li> </ul> </li> </ul>	
Talkgroup Call for IP100FS : 7		
Callee ID for IP100FS : (8)	<ul> <li>All          <ul> <li>Appointment</li> </ul> </li> </ul>	
Destination ID :		

This is an example of setting "Talkgroup" as the Call Type (3), and "Appointment" as the Callee ID for IP100FS (8).

5 Talkgroup Type
------------------

When "Multiplex Talkgroup" is selected, you can talk to multiple Talkgroups.

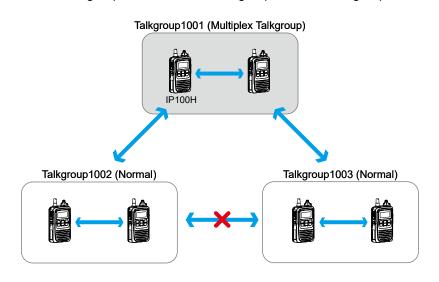
	Talkgroup Type :	O Normal	Multiplex Talkgroup		
Linked Talkgr	oup				
	~	~	~	~	
	~	~	~	~	

This setting can be selected when "Talkgroup" is selected in Call Type (3).

- $\textcircled$  You cannot register the Multiplex Talkgroup in other Multiplex Talkgroups.
- ① The normal Talkgroup can only belong to 1 Multiplex Talkgroup.

Example: When Talkgroup1002 (Normal) and Talkgroup1003 (Normal) belong to Talkgroup1001 (Multiplex).

- •Talkgroup1001 can call to Talkgroup1001, Talkgroup1002, and Talkgroup1003.
- •Talkgroup1002 can call to Talkgroup1001 and Talkgroup1002.
- •Talkgroup1003 can call to Talkgroup1001 and Talkgroup1003.



Destination Settings > Destination Settings

#### Destination Settings (Talkgroup)

No. : 1	~
Name : 2	
Call Type : 3 Talkgroup	~
Destination ID : 4 0001	
Talkgroup Type : 👩 💿 Normal 🛛 Multiplex Talkgroup	
Destination	
Communication Type : 6 O Simplex 💿 Full-Duplex	
Talkgroup Call for IP100FS : 👩 🔿 Disabled 💿 Enable	
Callee ID for IP100FS : 8 All  All  Appointment	
Destination ID :	

This is an example of setting "Talkgroup" as the Call Type (3), and "Appointment" as the Callee ID for IP100FS (3).

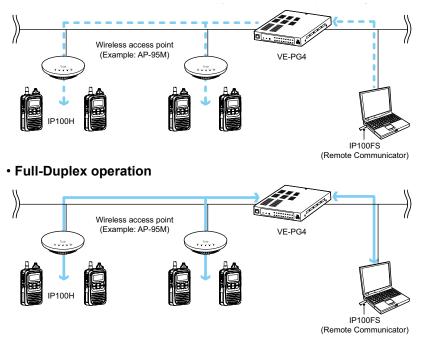
#### **6** Communication Type .....

Select "Simplex" or "Full-Duplex."

(Default: Full-Duplex)

#### Simplex operation

① When "Simplex" is selected, the called station cannot reply until the caller station stops transmitting.



**7** Talkgroup Call for IP100FS... Select whethe

Select whether or not the Talkgroup Call includes the IP100FS. (Default: Enable)

8 Callee ID for IP100FS .....

Select the IP100FS to be called when "Enable" is selected in [Talkgroup Call for IP100FS] (7). (Default: All)

- When "Appointment" is selected, you can register up to 5 IP100FS's destination IDs (4digits).
- ① This item is not displayed when "Disabled" is selected in [Talkgroup Call for IP100FS] (?).
- ① In the Multiplex Talkgroup, the settings for the IP100FS must be the same for all the Talkgroups.

Destination Settings > Destination Settings

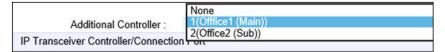
#### Destination Settings (Talkgroup)

$\sim$	Destination IU
Additio	onal Controller
	□ 1(Offfice1 (Main)) □ 2(Office2 (Sub))
IP Tra	nsceiver Controller/Connection Port
All	IP Transceiver Controller     Digital Transceiver1 (D-TRX1) Digital Transceiver2 (D-TRX2) Digital Transceiver3 (D-TRX3)     Digital Transceiver4 (D-TRX4)     EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4)     Emergency Notification     Microphone (MIC)     RolP Gateway1 RolP Gateway2 RolP Gateway3 RolP Gateway4 RolP Gateway5     RolP Gateway6 RolP Gateway7 RolP Gateway8

This is an example of setting "Talkgroup" as the Call Type (3).

#### Additional Controller .....

Select the additional controller when configuring several controllers, and the Talkgroup call calls between the different controllers. ① By clicking "All," you can select or cancel all entries in the list. ① When "Sub" is selected in the [Additional Controller Settings] setting



(Transceiver Controller > RoIP Settings > Additional Controller Settings), specify the master controller as the connection destination, as shown below.

 The other bases in [Additional Controller] ((2)) and [IP Transceiver Controller/ Connection Port] ((10)) can be connected to a total of up to 22 locations. ("IP Transceiver Controller" is not included this number of connections.) If you connect the other bases to more than 22 locations, you cannot communicate properly.

#### Destination Settings > Destination Settings

#### Destination Settings (Talkgroup)

$\sim$					
Additio	Destination ID:				
IP Transceiver Controller/Connection Port					
□ AII	IP Transceiver Controller     Digital Transceiver1 (D-TRX1) Digital Transceiver2 (D-TRX2) Digital Transceiver3 (D-TRX3)     Digital Transceiver4 (D-TRX4)     EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4)     Emergency Notification     Microphone (MIC)     RolP Gateway1 RolP Gateway2 RolP Gateway3 RolP Gateway4 RolP Gateway5     RolP Gateway6 RolP Gateway7 RolP Gateway8				

This is an example of setting "Talkgroup" as the Call Type (3).

#### **10** IP Transceiver Controller/

Connection Port.....

Select the communication devices.

- IP Transceiver Controller\*1
- Digital Transceiver1 (D-TRX1) ~ Digital Transceiver4 (D-TRX4)
- EXT I/O1 (EXT1) ~ EXT I/O4 (EXT4)\*2
- Emergency Notification
- Microphone (MIC)
- RoIP Gateway1 ~ RoIP Gateway8
- \*1 Displayed when an IP Transceiver Controller is connected.
- \*2 When [Connected Unit] is set to "EXT I/O Unit" and [EXT I/O Port Mode] is set to "Separate" in [EXT I/O Port Mode] setting (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode), "EXT Input" and "EXT Output" are displayed.
- ① By clicking "All," you can select or cancel all at once.
- When a speaker microphone is connected to the [MIC] port, the audio input/ output of the [EXT1] port is disconnected.
   The Audio input/output of the [MIC] port and the [EXT1] port cannot be used at the same time.
- The other bases in [Additional Controller] (9) and [IP Transceiver Controller/ Connection Port] (10) can be connected to a total of up to 22 locations.
   ("IP Transceiver Controller" is not included this number of connections.) If you connect the other bases to more than 22 locations, you cannot communicate properly.

Destination Settings > Destination Settings

#### Destination Settings (Talkgroup)

$\sim$	Destination IU
Additio	onal Controller
	□ 1(Offfice1 (Main)) □ 2(Office2 (Sub))
IP Tra	nsceiver Controller/Connection Port
All	IP Transceiver Controller     Digital Transceiver1 (D-TRX1) Digital Transceiver2 (D-TRX2) Digital Transceiver3 (D-TRX3)     Digital Transceiver4 (D-TRX4)     EXT I/O1 (EXT1) EXT I/O2 (EXT2) EXT I/O3 (EXT3) EXT I/O4 (EXT4)     Emergency Notification     Microphone (MIC)     RolP Gateway1 RolP Gateway2 RolP Gateway3 RolP Gateway4 RolP Gateway5     RolP Gateway6 RolP Gateway7 RolP Gateway8

This is an example of setting "Talkgroup" as the Call Type (3).

<pre>①<apply></apply></pre>	Click to apply the entries.
	<ul> <li>When "Normal" is selected in the Talkgroup Type</li> <li>The entries are displayed in [List of Destination Setting Entries (Talkgroup Call)].</li> </ul>
	• When "Multiplex Talkgroup" is selected in the Talkgroup Type The entries are displayed in [List of Destination Setting Entries (Multiplex Talkgroup Call)].
<b>1</b> 2 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

```
Destination Settings > Destination Settings
```

# Destination Settings (Individual)

The settings to call the registered destination station through the IP network or the RoIP Gateway's transceiver port. ① The displayed contents are changed according to the Call Type.

Destination Settings		
No. : 🚺	1	~
Name : 2		
Call Type : 🤇	Individual	~
Destination ID : 4		
Destination		
Additional Controller/IP Transceiver 5	None	~
Controller/Connection Port :		6 7 Apply Reset

This is an example of setting "Individual" as the Call Type (3).

<b>1</b> No	Select the number to register the destination station. Up to 1990 destinations can be registered.
2 Name	Enter a destination name of up to 31 characters.
3 Call Type	Select "Individual" for Individual calls.
Destination ID	Enter a 4 digit destination number. • Range: 0001 ~ 9999

#### Destination Settings > Destination Settings

#### Destination Settings (Individual)

No. : 1	1	
Name : 2		
Call Type : 3	Individual	· · · · · · · · · · · · · · · · · · ·
Destination ID : 4	0001	
Destination		
Additional Controller/IP Transceiver 5	None	`
Additional Controller/IP Transceiver 5 Controller/Connection Port :	None	6 Apply Re

This is an example of setting "Individual" as the Call Type (3).

#### **5** Additional Controller/IP Transceiver Controller/Connection Port ... Sele

Select the communication devices or the path.

- None
- Additional Controller\*1
- IP Transceiver Controller\*2
- Digital Transceiver1 (D-TRX1) ~ Digital Transceiver4 (D-TRX4)
- EXT I/O1 (EXT1) ~ EXT I/O4 (EXT4)\*3
- Emergency Notification
- Microphone (MIC)
- RolP Gateway1 ~ RolP Gateway8
  - \*1 The registered additional Controllers are displayed.
  - \*2 Displayed when an IP Transceiver Controller is connected.
- \*3 When [Connected Unit] is set to "EXT I/O Unit" and [EXT I/O Port Mode] is set to "Separate" in the [EXT I/O Port Mode] setting (Connection Port Settings > EXT I/O (EXT) > EXT I/O Port Mode), "EXT Input" and "EXT Output" are displayed.
- ① When a speaker microphone is connected to the [MIC] port, the audio input/ output of the [EXT1] port is disconnected. The Audio input/output of the [MIC] port and the [EXT1] port cannot be used at the same time.

# G<Apply> ..... Click to apply the entries. The registered contents are displayed in [List of Destination Setting Entries (Individual Call)].

# ⑦ <Reset> Click to reset the settings. ③ You cannot reset after clicking <Apply>.

```
Destination Settings > Destination Settings
```

# Destination Settings (Telephone)

The settings to call the registered telephone through the IP network. ① The displayed contents are changed according to the Call Type.

~
~
56

This is an example of setting "Telephone" as the Call Type (3).

1 No	Select the number to register the destination station. Up to 1990 destinations can be registered.
<b>2</b> Name	Enter a destination name of up to 31 characters.
3 Call Type	<ul><li>Select "Telephone" for Telephone calls.</li><li>This Call Type includes the transceivers connected by the Bridge Connection through a VE-PG4.</li></ul>
<b>4</b> Destination Phone Number	Enter a destination phone number of up to 31 digit numbers and characters (# or *).
5 <apply></apply>	<ul><li>Click to apply the entries.</li><li>The registered contents are displayed in [List of Destination Setting Entries (Telephone)].</li></ul>
<b>6</b> <reset></reset>	Click to reset the settings. (1) You cannot reset after clicking <apply>.</apply>

```
Destination Settings > Destination Settings
```

# ■ List of Destination Setting Entries (All Call)

Lists the destination setting entries for All Calls. ① Click <Edit> to edit the entry.

st of Destination Setting Entries (All Call)				
Communication Type	All Call for Talkgroup	Additional Controller	IP Transceiver Controller/Connection Port	
Full-Duplex	Enable	•	Not Set	Edit

Destination Settings > Destination Settings

# ■ List of Destination Setting Entries (Group Call)

Lists the destination setting entries for Group Calls.

II No.	. Name	Destination ID	Group Priority	Number of WLAN Transceivers	Additional Controller	IP Transceiver Controller/Connection Port	2	3
2	Sales	0001	Normal	-	-	Set	Edit	Delete

Check Box	Click to add a check mark to delete the entry. ① By clicking <all>, you can select or cancel all the entries.</all>
2 <edit></edit>	Click to edit the entry.
<b>3</b> <delete></delete>	Click to delete the entry. ① You cannot restore after clicking <delete>.</delete>
Oelete Selected>	Click to delete the selected entries. ① You cannot restore after clicking <delete selected="">.</delete>
5 <delete all=""></delete>	Click to delete all of the entries. ① You cannot restore after clicking <delete all="">.</delete>

Destination Settings > Destination Settings

# ■ List of Destination Setting Entries (Talkgroup Call)

Lists the destination setting entries for Talkgroup Calls.

All	No.	Name	Destination ID	Additional Controller	IP Transceiver Controller/Connection Port	2	3
	3		1002		Not Set	Edit	Delete
	4		1003	-	Not Set	Edit	Delete

Oheck Box	Click to add a check mark to delete the entry.
<b>2</b> <edit></edit>	Click to edit the entry.
S <delete></delete>	Click to delete the entry. (i) You cannot restore after clicking <delete>.</delete>
Oelete Selected>	Click to delete the selected entries. ① You cannot restore after clicking <delete selected="">.</delete>
5 <delete all=""></delete>	Click to delete all of the entries. ① You cannot restore after clicking <delete all="">.</delete>

Destination Settings > Destination Settings

## ■ List of Destination Setting Entries (Multiplex Talkgroup Call)

Lists the destination setting entries for Multiplex Talkgroup Calls.

🗆 Ali	No.	Name	Destination ID	Talkgroup Selection	2	3
	5		1004	1002 1003	Edit	Delete

Check Box	Click to add a check mark to delete the entry. (1) By clicking <all>, you can select or cancel all the entries.</all>
<b>2</b> <edit></edit>	Click to edit the entry.
<b>③</b> <delete></delete>	Click to delete the entry. (1) You cannot restore after clicking <delete>.</delete>
Oelete Selected>	Click to delete the selected entries. ① You cannot restore after clicking <delete selected="">.</delete>
5 <delete all=""></delete>	Click to delete all of the entries. ① You cannot restore after clicking <delete all="">.</delete>

Destination Settings > Destination Settings

# ■ List of Destination Setting Entries (Individual Call)

Lists the destination setting entries for Individual Calls.

🗆 Ali	No.	Name	Destination ID	Additional Controller/IP Transceiver Controller/Connection Port	2	3
	1970	Digital Transceiver1 (D-TRX1)	0201	Digital Transceiver1 (D-TRX1)	Edit	Delete
	1971	Digital Transceiver2 (D-TRX2)	0202	Digital Transceiver2 (D-TRX2)	Edit	Delete
	1972	Digital Transceiver3 (D-TRX3)	0203	Digital Transceiver3 (D-TRX3)	Edit	Delete
	1973	Digital Transceiver4 (D-TRX4)	0204	Digital Transceiver4 (D-TRX4)	Edit	Delete
	1974	EXT Input1 (EXT1)	0351	-	Edit	Delete
	1975	EXT Output1 (EXT1)	0301	EXT I/O1 (EXT1)	Edit	Delete
	1976	EXT Input2 (EXT2)	0352	-	Edit	Delete
	1977	EXT Output2 (EXT2)	0302	EXT I/O2 (EXT2)	Edit	Delete
	1978	EXT Input3 (EXT3)	0353	EXT Input3 (EXT3)	Edit	Delete
	1979	EXT Output3 (EXT3)	0303	EXT Output3 (EXT3)	Edit	Delete
	1980	EXT Input4 (EXT4)	0354	EXT Input4 (EXT4)	Edit	Delete
	1981	EXT Output4 (EXT4)	0304	EXT Output4 (EXT4)	Edit	Delete
	1982	Microphone (MIC)	0311	Microphone (MIC)	Edit	Delete
	1983	RoIP Gateway1	0801	RoIP Gateway1	Edit	Delete
	1984	RoIP Gateway2	0802	RoIP Gateway2	Edit	Delete
	1985	RoIP Gateway3	0803	RoIP Gateway3	Edit	Delete
	1986	RoIP Gateway4	0804	RoIP Gateway4	Edit	Delete
	1987	RoIP Gateway5	0805	RoIP Gateway5	Edit	Delete
	1988	RoIP Gateway6	0806	RoIP Gateway6	Edit	Delete
	1989	RoIP Gateway7	0807	RoIP Gateway7	Edit	Delete
	1990	RoIP Gateway8	0808	RoIP Gateway8	Edit	Delete

① The screen above shows the default settings.

Check Box	Click to add a check mark to delete the entry. (i) By clicking <all>, you can select or cancel all the entries.</all>
2 <edit></edit>	Click to edit the entry.
S <delete></delete>	Click to delete the entry. (i) You cannot restore after clicking <delete>.</delete>
Oelete Selected>	Click to delete the selected entries. ① You cannot restore after clicking <delete selected="">.</delete>
5 <delete all=""></delete>	Click to delete all of the entries. (i) You cannot restore after clicking <delete all="">.</delete>

Destination Settings > Destination Settings

# ■ List of Destination Setting Entries (Telephone)

Lists the destination setting entries for Telephone Calls.

🗆 Ali	No.	Name	Destination Phone Number	2	3
	6	UT136-31	31	Edit	Delete
	7	UT136-32	32	Edit	Delete

Check Box	Click to add a check mark to delete the entry. ① By clicking <all>, you can select or cancel all the entries.</all>
<b>2</b> <edit></edit>	Click to edit the entry.
<b>3</b> <delete></delete>	Click to delete the entry. ① You cannot restore after clicking <delete>.</delete>
<delete selected=""></delete>	Click to delete the selected entries. ① You cannot restore after clicking <delete selected="">.</delete>
5 <delete all=""></delete>	Click to delete all of the entries. <ul> <li>① You cannot restore after clicking <delete all="">.</delete></li> </ul>

Destination Settings > Destination Settings

### Destination Batch Setting

In this settings, you can register the Destination IDs all at once by serial number, or copy the registered settings to other destinations.

Destination Batch Setting				
Call Type : 🕦 _	Group	~		
Destination ID : 2		Add		
_	Enter Unit ID range.			
Refer to : 3	0001	~		

❶ Call Type	Select the Call Type from "Individual," "Group," or "Talkgroup."
<b>2</b> Destination ID	<ul> <li>Enter the range of Destination ID number.</li> <li><add></add></li> <li>By clicking <add> after [Refer to] (③) is set, the entered Destination ID range is registered to the selected reference.</add></li> <li>(i) When the entered Destination ID number is already registered. "Override the settings" is displayed.</li> </ul>
<b>3</b> Refer to	Select the registered setting for reference.

# **EXPERT SETTINGS**

Emergency Notification screen	9-2
Emergency Notification	9-2
Abnormal Condition Monitoring screen	9-3
LAN Port Link-down	9-3
PING Test	9-4
SIP Server Registration	9-5
IP Transceiver Status Filtering screen	9-6
■ IP Transceiver Status Filtering	9-6
Filtering List	9-7
Filtering List Batch Setting	9-8
Connection Port Extension screen	9-9
VoIP Settings	9-9
Call Recording screen	9-12
Common Setting	9-12
Recorder Setting	9-13
List of Recording Box Entries	9-15

# **Emergency Notification screen**

Expert Settings > Emergency Notification

### Emergency Notification

Select the port to use as the emergency notice output.

Emergency Notification	
Digital Transceiver1 (D-TRX1): 1 💽 Dis	sable 🔘 Enable
Digital Transceiver2 (D-TRX2):	sable 🔘 Enable
Digital Transceiver3 (D-TRX3):	sable 🔿 Enable
Digital Transceiver4 (D-TRX4):	sable 🔿 Enable
EXT I/O1 (EXT1): 2 🖲 Dis	sable 🔿 Enable
EXT I/O2 (EXT2): O Dis	sable 🔿 Enable
EXT Output3 (EXT3):   Dis	sable 🔿 Enable
EXT Output4 (EXT4):  Oil	sable 🔿 Enable
Emergency Notification Equipment: 3 • Dis	sable 🔿 Enable
Microphone(MIC): 4	sable 🔿 Enable
RolP Gateway 1: 5 🖲 Dis	sable 🔿 Enable
RolP Gateway 2: O Dis	
RolP Gateway 3:  O Dis	sable 🔿 Enable
RolP Gateway 4:  O Dis	sable 🔿 Enable
RolP Gateway 5:	sable 🔿 Enable
RolP Gateway 6:   Dis	sable 🔿 Enable
RolP Gateway 7:	sable 🔿 Enable
RolP Gateway 8:      Dis	sable 🔿 Enable 6 7
	Apply Reset

Digital Transceiver	Select whether or not to send an emergency notice to D-TRX1 ~ D-TRX4 ports.	the (Default: Disable)
2 EXT I/O / EXT Output	<ul> <li>Select whether or not to send an emergency notice to devices connected to the EXT I/O ports.</li> <li>(1) "EXT Output" is displayed when the "Connected Unit" is su Unit," and "EXT I/O Port Mode" is set to "Separate." (Connection Port Settings &gt; EXT I/O (EXT) &gt; Connected (Connection Port Settings &gt; EXT I/O (EXT) &gt; EXT I/O Po</li> <li>(1) Either of the [EXT1] port or the [MIC] port is usable at the a microphone is connected to the [MIC] port, the [EXT1] port</li> </ul>	(Default: Disable) set to "EXT I/O Unit) rt Mode) same time. When
Semergency Notification Equipment	Select whether or not to send an emergency notice to bridge-connected destination.	the specified (Default: Disable)
Microphone (MIC)	Select whether or not to send an emergency notice to connected to the RoIP gateway.	the microphone (Default: Disable)
5 RoIP Gateway	Select whether or not to send an emergency notice to connected other RoIP gateways.	the bridge- (Default: Disable)
<b>6</b> <apply></apply>	Click to apply the settings.	
<b>♂</b> < Reset >	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>	

# **Abnormal Condition Monitoring screen**

Expert Settings > Abnormal Condition Monitoring

# LAN Port Link-down

Set the monitor function for a communication error.

Monitoring : 1	Disable      Enable     Enable			
Control Output : 2			~	
	*Only usable when [Conr Circuit Switching] is set to		XT I/O is set to [EXT I/O Unit] and [Control	
① The screen shows when Monito	oring (1) is set to "E	nable."		I
<b>1</b> Monitoring		n error is det	etect a RoIP gateway's LAN port tected, it is displayed on the "SY	
	(Information >	SYSLOG >	SYSLOG)	
	,		, De	fault: Disable
	09-11 16:29:32	NOTICE	telephoned: LAN PORT LINK SUCCESS!!	
	09-11 16:29:12	NOTICE	telephoned: LAN PORT LINK ERROR!!	
<b>2</b> Control Output	Select whethe error detect sig	r or not to sl gnal.	itoring ( <b>1</b> ) is set to "Enable." nort the B1/B2 terminal (+/–) to c (De o enable the output control.	output an fault: Disable
	Control Output :	EXT Output4 (EXT	「4) [Connection Unit] of EXT I/O is set to [EXT I/O Un	~

When enabling the output, confirm Switch Control of the port, that you wa
to output the error detect signal to, is set to "Relay Circuit."
 (Connection Port Settings > EXT I/O (EXT) > EXT Output Settings >
 Switching Control)

#### Abnormal Condition Monitoring screen

Expert Settings > Abnormal Condition Monitoring

### PING Test

Set the monitor function for a communication error.

PING Test		_
Control Output : 2	<ul> <li>Disable          <ul> <li>Enable *LAN port Link-down Monitoring is also enabled.</li> <li>Disable</li> <li>*Only usable when [Connection Unit] of EXT I/O is set to [EXT I/O Unit] and [Control Circuit Switching] is set to[Relay Circuit].</li> </ul> </li> </ul>	
IP Address : 3 Monitoring Period : 4		
<ol> <li>2 ~ 4 are displayed only when</li> </ol>	Monitoring (1) is set to "Enable."	
Monitoring	Select whether or not to send PING commands to the ho the IP address. When the error is detected, the error is di "SYSLOG" screen. (Information > SYSLOG >SYSLOG) (D	•
Control Output	Select whether or not to short the B1/B2 terminal (+/–) to error detect signal. (D ① Confirm the Relay Circuit is selected. (Connection Port Settings > EXT I/O (EXT) > EXT Output Se Switching Control)	efault: Disable)
IP Address	Enter the destination IP address to send the PING comm	ands to.
Monitoring Period	Set the monitor period. • Range: 1 ~ 4320 (minutes)	(Default: 10)

Expert Settings > Abnormal Condition Monitoring

# SIP Server Registration

Set the monitor function for the communication error.

SIP Server Registration		
Monitoring :	Disable 🖲 Enable	
Control Output :	Disable	~
	*Only usable when [Connection Unit] of EXT I/O is set to Circuit Switching] is set to[Relay Circuit].	EXT I/O Unit] and [Control
		Apply Reset
		3 4

1 Monitorin	g	Select whether or not to detect the SIP serve the error is detected, the error is displayed or (Information > SYSLOG >SYSLOG) ① The [VoIP] indicator works regardless of this se	n the "SYSLOG" screen. (Default: Disable)
<b>2</b> Control O	utput	<ul> <li>Displayed only when Monitoring (1) is set to Select whether or not to short the B1/B2 term error detect signal.</li> <li>① Confirm the Relay Circuit is selected. (Connection Port Settings &gt; EXT I/O (EXT) &gt; E Switching Control)</li> </ul>	ninal (+/–) to output an (Default: Disable)
S <apply></apply>		Click to apply the settings.	
4 <reset></reset>		Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>	

# **IP Transceiver Status Filtering screen**

Expert Settings > IP Transceiver Status Filtering

### ■ IP Transceiver Status Filtering

Filter settings for transceiver information output to a position information software.  $\ensuremath{\textcircled{}}$  These settings are for future use.

P Transceiver Status Filtering	
IP Transceiver Status Filtering : 1 💿 Disable 🛛 Enable	
Filtering Policy : 2 🖲 Allow List  🔿 Deny List	3 4
-	Apply Reset

IP Transceiver Status Filtering	Select whether or not to use the Filtering function. (Default: Disable)
Piltering Policy	Select whether allow or deny outputting the transceiver informationlisted on the Filtering List.(Default: Allow List)• Allow List:Output the listed transceiver information.• Deny List:Filter the listed transceiver information.
S≤Apply>	Click to apply the settings.
<pre>4<reset></reset></pre>	Click to reset the settings. You cannot reset after clicking <apply>.</apply>

#### IP Transceiver Status Filtering screen

Expert Settings > IP Transceiver Status Filtering

### Filtering List

Add up to 200 Unit IDs for the IP transceivers to be filtered.

Unit ID						
	 	 	 	1	2	3

<pre>1<apply></apply></pre>	Click to apply the settings.
2 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>
<pre>3<delete all=""></delete></pre>	Click to delete all of the entered contents. ① You cannot restore after clicking <delete all="">.</delete>

IP Transceiver Status Filtering screen

Expert Settings > IP Transceiver Status Filtering

## ■ Filtering List Batch Setting

Filtering List Batch Setting			
Range :	* Enter Unit ID range.	 [	Add

Range .....

Enter the range of the unit IDs that you want to add to the Filtering List, and then click <Add> to add transceivers that have an ID within the range. (Example:  $00004 \sim 00010$ )

# **Connection Port Extension screen**

Expert Settings > Connection Port Extension

# ■ VoIP Settings

Sets the audio quality for RoIP gateway or Bridge. The setting items vary, depending on the TOS Type.

VoIP Settings		
Buffering Type 1	Static O Dynamic	
Receive Buffer Size 2	40	✓ milliseconds
TOS Type 🕄	Not Used	<b>5</b> 6 <sup>×</sup>
		Apply Reset
TOS Type: TOS		
VoIP Settings		
Buffering Type : 1	● Static 🔘 Dynamic	
Receive Buffer Size : 2		✓ milliseconds
TOS Type : 3		~
Media (RTP) Priority Level : 4	7	
Media (RTP) Service Type :	0	
Media (RTP) (HEX) :	E0	56 Apply Reset
TOS Type: Diffserv		
VoIP Settings		
Buffering Type :	🖲 Static 🔿 Dynamic	
Receive Buffer Size :	40	✓ milliseconds
Receive Duller Size .	Diffserv	~
TOS Type :		
TOS Type :		56

① The screens above show when the Buffering Type (1) is set to "Static."

Buffering Type	<ul> <li>Select the jitter buffer used to reduce speech break up due to packet fluctuations. (Default: Dynamic)</li> <li>Static: Buffers receive voice data for a set period of time in the Receive Buffer Size (2).</li> <li>Dynamic: Buffering time of the received voice data varies, according to the packet fluctuation status.</li> </ul>
<b>2</b> Receive Buffer Size	<ul> <li>Displayed only when Buffering Type (1) is set to "Static."</li> <li>Set the period of time to buffer the received voice data. (Default: 40)</li> <li>Range: 20 ~ 1000 (milliseconds)</li> <li>(1) The shorter the time you set, the less the delay, however the more the sound will be interrupted.</li> </ul>

#### **Connection Port Extension screen**

#### Expert Settings > Connection Port Extension

VoIP Settings

TOS Type: Not Used	
VoIP Settings	
Buffering Type 1 💿 Static 🔿 Dynamic	
Receive Buffer Size 2 40	✓ milliseconds
TOS Type 3 Not Used	<b>5</b> 6 <sup>×</sup>
	Apply Reset
TOS Type: TOS	
VolP Settings	
Buffering Type : 🕦 🖲 Static 🔿 Dynamic	
Receive Buffer Size : 2 40	✓ milliseconds
TOS Type : 3 TOS	~
Media (RTP) Priority Level : 47	
Media (RTP) Service Type : 0	
Media (RTP) (HEX) : E0	Apply Reset
TOS Type: Diffserv	
VolP Settings	
Buffering Type : 🚺 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 40	<ul> <li>milliseconds</li> </ul>
TOS Type : <u>Diffserv</u>	~
Media (RTP) DSCP : 4 56	
Media (RTP) (HEX) : E0	Apply Reset

① The screens above show when the Buffering Type (1) is set to "Static."

3 TOS Type	Set TOS Type.  • Not Used: Does not use the To	(Default: Not Used) OS function.
	the TOS (Type Of S TOS format applies RFC1349 • The first 3 bits: Shows the p Set into "Me number. • The next 4 bits: Shows the s Set into "Me number.	n. priority. edia (RTP) Priority Level" (④) with a decimal service type. edia (RTP) Service Type" (④) with a decimal number, the higher priority.
	the Diffserv (Different The Diffserv format details: • The former 6 bits: Shows th Set "Med The large	cket to the TOS field (8 bit) in the IP header, in tiated Service) format. The DSCP. ia (RTP) DSCP" (④) with a decimal number. For number, the higher priority. If and fixed to "0."

#### **Connection Port Extension screen**

#### Expert Settings > Connection Port Extension

VoIP Settings

TOS Type: Not Used	
VoIP Settings	
Buffering Type 👤 💿 Static 🛛 Dynamic	
Receive Buffer Size 2 _40	✓ milliseconds
TOS Type 3 Not Used	<u>5_</u> 6 <sup>×</sup> _
	Apply Reset
TOS Type: TOS	
VoIP Settings	
Buffering Type : 1 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 40	✓ milliseconds
TOS Type : 3_TOS	~
Media (RTP) Priority Level : 47	
Media (RTP) Service Type : 0	
Media (RTP) (HEX) : E0	Apply Reset
TOS Type: Diffserv	
VolP Settings	
Buffering Type : 🌓 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 40	✓ milliseconds
TOS Type : 3 _Diffserv	~
Media (RTP) DSCP : 4 56	
Media (RTP) (HEX) : E0	Apply Reset

① The screens above show when the Buffering Type (1) is set to "Static."

4 Media (RTP)	Setting the	e Priority details for the TOS or Diffserv forma	it options.
	• Priority L	<b>_evel</b> : Set the value of the priority level for TOS. Range: 0 ~ 7 (in decimal)	(Default: 7)
	Service 1	<b>Type</b> : Set the value of the service type for TOS. Range: 0 ~15 (in decimal)	(Default: 0)
	• DSCP:	Set the value of DSCP (Differentiated Servic Diffserv. Range: 0 ~ 63 (in decimal)	es Code Point) for (Default: 56)
S <apply></apply>	Click to ap	oply the setting.	
6 <reset></reset>		set the setting. not reset after clicking <apply>.</apply>	

Expert Settings > Call Recording

### ■ Common Setting

Set for recording the audio communication between the transceivers. The audio is saved in a file in each transmitting or receiving.

Common Setting		
Silence Recording : 1 〇 Disable Silence Period to End Recording : 2 <u>5</u>	Inable	seconds
Overwriting the Oldest Files : 3		4 5 Apply Reset

Silence Recording	Select whether or not to record a communication during there is no communication. When enabling this option, the RoIP gateway continues recording for the set period of time in "Silence Period to End Recording," after the communication has been terminated. The second communication that begins while recording will be
	continuously recorded within the same file. (Default: Enable)
Silence Period to End Recording	Set the period of time to stop recording when there is no communication. (Default: 5) • Range: 1 ~30 seconds
Overwriting the Oldest Files	Select whether or not to record and overwrite the older data, when the disk is full. (Default: Disable)
4 <apply></apply>	Click to apply the settings.
S <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Expert Settings > Call Recording

### Recorder Setting

Records communication audio of the linked transceivers.

Target: Disable		
Recorder Setting		
Index :	1	~
Mode :2	Recording	~
Target :3	Disable	
Call Type :4	Group	~
Call Type : Call ID :	_101	9 10 Apply Reset

 $\textcircled$  The screens above show when the Call Type (4) is set to "Group."

# Target: Enable Target: 3 Disable Unit ID : 0101 (Sales1)

1 Index	Select an index. You	can enter up to 4 recording boxes.	(Default: 1)
2 Mode	Select the recording/i • Disable: • Recording:	nonitor mode. (D Does not record or monitors commun Records the communication audio to storage device.	
	Monitor:	Outputs the specified communication particular port.	audio to a
	<ul> <li>Monitor + Recording</li> </ul>	: Simultaneously records and monitors	
<b>3</b> Target	Select whether or not targets.	to set wireless LAN transceivers as	s recording
	When enabling this o Unit ID.	•	efault: Disable)
	-	sceiver is deleted on the Transceiver Re g settings are disabled.	egistration
	(Transceiver Control	er > Transceiver Settings > Transceiver	<sup>r</sup> Registration)
Call Type	Select the type of cal	l to record or monitor. I Calls from or to the specified Call ID.	(Default: All)
	• Group: Group Ca	alls to the specified Group.	
	• All: The All C		frame that list
	• when you select ind	lividual" or "Group," also set the Call ID	from the list.

Expert Settings > Call Recording

Monitoring			
· ·	Destination Address : 5	192.168.0.10	
	Destination Port Number : 6	25002	
	Source Port Number : 7	25002	
	Voice Protocol : 8		9 0

① Displayed when Mode (2) is set to "Monitor" or "Monitor + Recording."

<b>5</b> Destination Address	Enter the IP address of the destination to be monitored.
<b>6</b> Destination Port Number	Enter the port number of the destination to be monitored. (Default: 1: 25000 2: 25002 3: 25004 4: 25006)
⑦ Source Port Number	Enter the number of the source port that is connected to the destination to be monitored. (Default: 1: 25000 2: 25002 3: 25004 4: 25006)
8 Voice Protocol	Displays the voice protocol. (Fixed to "G.711u")
Image: Second secon	Click to apply the settings.
<b>1</b> < Reset >	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

```
Expert Settings > Call Recording
```

### List of Recording Box Entries

Displays the recording box entries.

t of F	Recording Box	Entries						
Index	Mode	Unit ID	Call Type	Call ID	Destination Address	Destination Port Number	Source Port Number	Voice Protocol
1	Recording	0101 (Sales1)	-	-	-	-	-	-
2	Monitor + Recording	0103 (Sales3)	-	-	192.168.0.10	25002	25002	G.711u
3	Disable	-	-	-	-	-	-	-
4	Disable	-	-	-	-	-	-	-

The example in above shows:

1: Recording the communication of the Unit ID 0101.

2: Transmitting the communication audio of the Unit ID 0103 toward the port 25002 of 192.168.0.10 while recording it.

IP Line screen	10-2
SIP Server	10-2
List of SIP Server Entries	10-3
SIP Server Batch Setting	10-4
Peer to Peer screen	10-5
Peer to Peer Common Setting	10-5
Peer to Peer	10-6
List of Peer to Peer Entries	10-7
VoIP Phonebook screen	10-8
Save or Write the VoIP Phonebook	10-8
VoIP Phonebook Entry 1	10-10
List of VoIP Phonebook Entries 1	10-11

### **IP Line screen**

#### IP Line Settings > IP Line

### ■ SIP Server

Setting used for connecting the RoIP gateway to the Session Initiation Protocol (SIP) server.

	SIP Server	
	IP Phone Number : 2	1 V Batch Setting Screen
	SIP Service Domain : 4 _ User ID : 5 _ Password : 6 _	
	Registration Expiration : 7 9 Registration Renewal Timer : 8	600         seconds           Normal :         50         %           Exception :         50         %           Apply         Reset         10
1 Ir	ndex	<ul> <li>Assign the index number for each setting entry.</li> <li>Range: 1 ~ 100</li> <li>Click <batch screen="" setting=""> if you wan to enter 2 or more SIP servers at once. Refer to the SIP Server Batch Setting. (p.10-4)</batch></li> </ul>
<b>2</b> IF	P Phone Number	<ul> <li>Enter an IP phone number to use as a client of SIP server of up to 31 characters (0~9, #, *).</li> <li>① The number must be registered in the SIP server.</li> <li>① Only when Use Letters for Phone Number is set to "Allow," you can enter capital and small letters as a phone number. (PBX Advanced &gt; Advanced Settings &gt; SIP Settings &gt; Use Letters for Phone Number)</li> </ul>
<u>3</u> S	IP Server Address	Enter a server address or host name of up to 63 characters.
<b>4</b> S	IP Service Domain	Enter a service domain name of up to 63 characters.
<b>5</b> U	ser ID	Enter an authentication user ID of up to 63 characters. Use the IP phone number that is entered in (2).
6 P	assword	Enter an authentication password of up to 31 characters. (1) The entered password is masked like as "******".
7R	egistration Expiration	Set the registration expiration time. The connection information stored in the SIP server is discarded after the set time has passed. (Default: 600) • Range: 60 ~ 28800 seconds.
8 R	egistration Renewal Timer	Set the registration renewal interval time to between 10 and 90%. (Default: Normal: 50, Exception: 50) The interval is expressed by the ratio of the value set in Registration Expiration (7) and the period of the normal and exception condition.
9<	Apply>	Click to apply the settings.
10 <	Reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>

#### IP Line screen

```
IP Line Settings > IP Line screen
```

### ■ List of SIP Server Entries

You can edit the SIP server settings on the list.

1	2	3	4 5 Reload Registe
Index	IP Phone Number	Connection Status	Calling Number Notice 7 8
100	121400-1000	Connection failure	Notify V Edit Delete

1 Index	Displays the index number.
Phone Number	Displays the IP phone number.
Connection Status	Displays the SIP server connection status as Connecting, Connection Successful, or Connection failure.
<b>4</b> Calling Number Notice	Select whether or not to notify your IP phone number to the destination. (Default: Notify) (1) Even if this option is set to "Not notified," the IP phone number may be notified, according to the telephone or line environment.
5 <reload></reload>	<ul> <li>Click to reload the screen.</li> <li>When "Connection successful" is not displayed, check the registered settings.</li> </ul>
6 <register></register>	Click to connect to the SIP server.
<pre>⑦<edit></edit></pre>	Click to edit the entry.
8 <delete></delete>	Click to delete the entry. ① You cannot restore after clicking <delete>.</delete>
Set	Click to apply the entry.
<b>(0</b> <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>
Oelete all>	Click to delete all entries. ① You cannot restore after clicking <delete all="">.</delete>

#### IP Line screen

IP Line Settings > IP Line

### ■ SIP Server Batch Setting

You can add 2 or more SIP servers at same time. This screen is displayed when the "**Batch Setting Screen**" is clicked.

	Start Number : 1	2						
	Add Number : 2	3						
SI	P Server Address : 3							
	Service Domain : stration Expiration :	600					sec	on
	n Renewal Timer :	L	Normal :	50	%	Exception :	50	
Index	IP Phone Nu	mber	User ID		Password	Calling	Number Notic	е
2						Notify	·     •	
3						Notify	· · ·	Ē
4						Notify	· · ·	Ē

Start Number	Enter the start number to add more than 2 Phone Number settings at the same time.
2 Add Number	Enter the number of SIP servers you want to add to SIP Service Domains (④).
SIP Server Address	Enter the details on SIP server. ① Refer to the SIP Server Settings for each setting details.
SIP Service Domain	Enter the details on SIP service domain. ① Refer to th SIP Server Settings for each setting details.
5 <apply></apply>	Click to <apply> the entry.</apply>
<b>í</b> o≺Reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>

### Peer to Peer screen

IP Line Settings > Peer to Peer

### Peer to Peer Common Setting

You can edit the Peer to Peer call receive setting from the WAN.

Peer to Peer Common Setting	J.	
Calling from the WAN : 1	Inhibit	2 3 ⊻ Apply Reset

<b>1</b> Calling from the WAN	<ul> <li>Select whether or not to permit receiving the Peer to Peer call from the WAN. (Default: Inhibit)</li> <li>When you select "Allow," Your SIP URI has to be registered to the "SIP URI" item on the "VoIP Phonebook" screen at the caller's SIP server. (IP Line Settings &gt; VoIP Phonebook &gt; VoIP Phonebook Entry &gt; SIP URI)</li> <li>The Callee SIP URI must be registered on the VoIP phone book to receive the call through the WAN side.</li> </ul>
2 <apply></apply>	Click to apply the settings.
<b>3</b> <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Peer to Peer screen

IP Line Settings > Peer to Peer

### Peer to Peer

You can edit SIP URI setting used for Peer to Peer call.

Peer to Peer	
Index :	
SIP URI :	2 sip : The SIP URL needs to have at least one letter, a to z, or A to Z before the @.     Apply   Reset     3   4
1 Index	Select the index number for each entry. • Range: 1 ~ 500
2 SIP URI	Enter the SIP URI up to 63 characters in either format as shown below. • sip: [SIP username]@[VE-PG4 IP address] • sip: [SIP username]@[Host name.domain name]
	<ul> <li>About the [SIP username] part: Enter an alphabet or number in the [SIP username].</li> <li>① Must include at least one alphabet.</li> <li>About the [Host name.domain name] part:</li> <li>① When the VE-PG4 IP address is registered in your party's phonebook, enter the IP address (LAN).</li> <li>① When the VE-PG4 host name is registered in the dynamic DNS or static IP address in your party's Phonebook, enter the specified host name (ex. telephone) or domain name (ex. icom.co.jp).</li> </ul>
3 <apply></apply>	Click to apply the settings.
<pre>4<reset></reset></pre>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Peer to Peer screen

IP Line Settings > Peer to Peer

### ■ List of Peer to Peer Entries

Displays the entered or edited Peer to Peer settings.

Li	st of Peer to Peer Entries			
	Index 1	SIP URI 2		
	1	sip:VEPG4@telephone.icom.co.jp	Edit Delete	
			3 4	
				Delete All
				5

Index	Displays the index assigned for the entry.
2 SIP URI	Displays the SIP URI.
<b>3</b> <edit></edit>	Click to edit the entry.
Oelete>	Click to delete the entry. ① You cannot restore after clicking <delete>.</delete>
5 <delete all=""></delete>	Click to delete all entries. ① You cannot restore after clicking <delete all="">.</delete>

### **VoIP Phonebook screen**

IP Line Settings > VoIP Phonebook

### ■ Save or Write the VoIP Phonebook

You can save or write the entered VoIP phonebook.

Load Settings from File : 1		Brows
Load Settings from File :		DIOWS
	Write A CSV format file can be written to this product.	
	When the file is written, the current settings will be overwritten.	

<b>1</b> Load Settings from File	<ul> <li>You can load the saved phonebook file in csv format and write it to the RoIP gateway. Click <browse>, and then select the phonebook file (Example: voiptbl.csv) to load. Verify that the selected file is displayed, and then click <write>.</write></browse></li> <li>① The contents of the file is overwritten to "List of VoIP Phonebook Entries."</li> <li>① When the Setting file (Extension: .sav) is used to restore the setting, the VoIP phone book will be overwritten.</li> </ul>
<b>2</b> Save to File	Click to save the "List of VoIP Phonebook" as the [List of VoIP Phonebook Entries] file (voiptbl.csv). ① You can edit the saved file on a spreadsheet. ① You can share the saved file with more than 2 RoIP gateways.

#### VoIP Phonebook screen

#### IP Line Settings > VoIP Phonebook

- Save or Write the VoIP Phonebook
- O About the rules of a CSV file for the VoIP phonebook

When editing a saved CSV file, be sure to observe the following rules. Otherwise the VoIP phonebook settings may not load properly into the RoIP gateway.

Ø VE-PG4 - Internet Explorer		
Attp://192.168.0.1/cgi-bin/ac	irtbl.cgi	
ІСОМ		VE-PG4 RolP GATEWAY
TOP Information	VolP Phonebook	
Network Settings     Router Settings	Save or Write the VoIP Phonebook	

Column	Title	Description
Α	Index	1 ~ 1000
		Do not duplicate the number.
В	Name	Up to 30 characters
С	Phone Number	"tel:" and up to 31 digits (0~9, #,*)
D	SIP URI	Enter either of the following format, up to 63 characters sip:[SIP user name]@[Destination IP address] sip:[SIP user name]@[Destination host name or domain name]
E		Fixed to "voip"

• The lines that begins with "#" are comments.

• Delete unnecessary lines.

#### VoIP Phonebook screen

IP Line Settings > VoIP Phonebook

### ■ VoIP Phonebook Entry

Enter the VoIP phone number to use for the Peer to Peer telephone call.

olP Phonebook Entry	
Index : 1 3	
Name : 2	
Phone Number : 3	
SIP URI : 4 sip :	<b>. . . . . . . . . .</b>
	Apply Rese

1 Index	Select the index number for each entry. • Range: 1 ~1000
2 Name	Enter the callee name up to 31 characters.
8 Phone Number	<ul> <li>Enter the phone number.</li> <li>When communicating in Peer to Peer, enter the numbers and symbol (#, *).</li> <li>Do not use numbers for the emergency calls in your area, otherwise you cannot make an emergency call.</li> </ul>
4 SIP URI	Enter the SIP URI up to 63 characters in either format as shown below. • sip: [SIP username]@[VE-PG4 IP address] • sip: [SIP username]@[Host name.domain name]
5 <apply></apply>	Click to apply the settings.
<b>6</b> <reset></reset>	Click to reset the settings. (1) You cannot reset after clicking <apply>.</apply>

#### VoIP Phonebook screen

```
IP Line Settings > VoIP Phonebook
```

### List of VoIP Phonebook Entries

Displays the list of VoIP phone numbers entered in "VoIP phonebook entry."

Index	Name	Phone Number	SIP URI	0 2
1	telephone	7000	sip:icom7000@telephone.voip.net	Edit Delete
2	telephone1	7100	sip:icom7100@telephone.voip.net	Edit Delete

● <edit></edit>	Click to edit the entry.
<b>2</b> <delete></delete>	Click to delete the entry. ① You cannot restore after clicking <delete>.</delete>
Solution States Sta	Click to delete all entries. ① You cannot restore after clicking <delete all="">.</delete>

Basic screen	11-2
Basic	11-2
Special Number screen	11-3
Common Special Number	11-3
Telephone Special Number	11-4
Transceiver Special Number	11-6
Transceiver Call Prefix	11-7
External Call Routing Number	11-7
Extension screen	11-8
Extension	11-8
List of Extension Entries	11-11
Extension Batch Setting	
Extension Detail	11-13
Extension Group screen	11-15
Extension Group Entry	
List of Extension Group Entries	11-18
Inbound Call screen	11-19
Inbound Call	11-19

# Basic screen

PBX > Basic

### Basic

The common setting for the telephones in the network system.

Transfer Return Time :	20	seconds
Returned Call Ring Time :		seconds
Hold Recall Time :		seconds
	Hold Music 1	~
Hold Music Volume :	5 ● 0 dB ○ +6 dB	6 7
riola Music Volume.		Apply Re

1 Transfer Return Time	<ul> <li>Set the time period until a transferred call is return picked up in that period of time.</li> <li>Range: 0 ~ 99 (seconds)</li> <li>When "0" has set, you can not turn back a transferred transferred to the transferr</li></ul>	(Default: 20)	
Returned Call Ring Time	Set the ring time when a transferred call has returned. (Defa $\oplus$ Range: 1 ~ 99 (seconds)		
3 Hold Recall Time	Set the period of time until Notification tone rings a held call. • Range : 0 ~600 (seconds) ① When "0" has been set, you can not receive the No	(Default: 120)	
4 Hold Music	Set the music on hold. • Hold Music 1: For Elise • Hold Music 2: Greensleeves • Hold Music 3: Home on the range • Hold Music 4: Canon • Hold Music 5: Minuet	(Default: Hold Music 1)	
<b>5</b> Hold Music Volume	Set the audio volume of the music on hold • Range: 0 dB (calm) or +6 dB (loud)	(Default: 0 dB)	
6 <apply></apply>	Click to apply the entries.		
♂ <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>		

PBX > Special Number

### Common Special Number

Sets the common Special Numbers that can be used by both the transceiver and telephones.

Common Special Number										
Call Pickup : 1	*81									
Group Pickup : 2	**									
Direct Pickup : 3	*80									
System Special Number : 4	*82 *98	*93 *77	*85 *87	*88	*89	*99	*84	*86	*76	*97

Call Pickup	The number to pick up a call from another extension. (Default: *81)
2 Group Pickup	<ul> <li>The number to pick up a call from another extension in the same Group. (Default: **)</li> <li>① You can pick up call from a particular group, by pushing the number set in this setting and the Pickup Group No. (See the Section 13)</li> </ul>
3 Direct Pickup	<ul> <li>The number to pick up a call from a particular extension. (Default: *80)</li> <li>① You can pick up call to a particular extension, by pushing the number set in this setting, and then the extension number.</li> </ul>
System Special Number	The Special Numbers are those for internal system management. You cannot assign these numbers as extension numbers or as other Special Numbers. (Default: *82, *93, *85, *88, *89, *99, *84,*86, *76, *97, *98, *77, *87)

#### PBX > Special Number

### Telephone Special Number

Sets the special numbers that can be used only by the telephones. **Options:** Up to 3 digit numbers and characters (0~9, #, \*)

Telphone Special Number	
Call Park : 1 *90 Unpark Call : 2 *91 Inbound Call Pickup : 3 *92 Speaker Call : 4 *83 Call Forward Always : 5 *94 Call Forward No Answer : 6 *95 Call Forward Busy : 7 *96	
1 Call Park	You can park a call by pushing: The number that has been set in this setting, and then the park number or the flexible button (01 ~24) that the Park function is assigned. (Default: *90)
2 Unpark Call	You can unpark a call by pushing: The number that has been set in this setting, and then the park number or the flexible button (01 ~24) that the Park function is assigned. (Default: *91)
3 Inbound Call Pickup	<ul> <li>The Special Number, to pick up or unpark an inbound call from an extension in the same Group. (Default: *92)</li> <li>① To use this function, set "External Call Status" function to a flexible button (01 ~ 24) in the Button Assignment setting. (See Section 13.)</li> <li>To pick up an inbound call from the KX series with another telephone:</li> </ul>
	<ul> <li>Dial the number in this setting (for example: *92), and the Button number (01 ~ 24) of the inbound or parked call.</li> <li>For example, dial "*9203" to pick up the parked call to the Button number 03.</li> </ul>
	<ul> <li>To pick up an inbound call from another telephone than the KX series:</li> <li>Dialing "*81" is recommended because the incoming phone cannot recognize the External Call Status Button number.</li> </ul>
Opeaker Call	You can make a speaker call to an extension by pushing: the number that has been set in this setting, and then the extension number. (Default: *83) ① This function is usable only calls to the KX series telephone.
5 Call Forward Always	<ul> <li>The number to forward or cancel forwarding all the incoming call. (Default: *94)</li> <li>To set the forwarding function, dial "*94" and the destination extension number you want to forward a call. (The alarm "PiPi, PiPi" sounds.)</li> <li>To cancel forwarding, dial "*94." (The alarm "Pi-Pi-, Pi-Pi-" sounds.)</li> </ul>

#### PBX > Special Number

#### ■ Telephone Special Number

<b>Telphone Special Number</b>	
Call Park :	1*90
Call Park : Unpark Call : Inbound Call Pickup : Speaker Call : Call Forward Always : Call Forward No Answer :	<b>2</b> *91
Inbound Call Pickup :	3 *92
Speaker Call :	<b>4</b> *83
Call Forward Always :	5 *94
Call Forward No Answer :	<b>6</b> *95
Call Forward Busy :	<b>7</b> *96

6 Call Forward No Answer	<ul> <li>The number to forward when an incoming call does not answer in a certain period of time. (Default: *95)</li> <li>To set the forwarding function, dial "*95" and the destination extension number you want to forward a call. (The alarm "PiPi, PiPi" sounds.)</li> <li>To cancel forwarding, dial "*95." (The alarm "Pi-Pi-, Pi-Pi-" sounds.)</li> </ul>				
Call Forward Busy	<ul> <li>The number to forward when the extension is busy.</li> <li>To set the forwarding function, dial "*96" and the destination enumber you want to forward a call. (The alarm "PiPi, PiPi" so</li> <li>To cancel forwarding, dial "*96." (The alarm "Pi-Pi-, Pi-Pi-" so</li> </ul>	unds.)			

#### PBX > Special Number

### Transceiver Special Number

Sets the special numbers that can be used only by the transceivers. **Options:** Up to 3 digit numbers and characters (0~9, #, \*)

nceiver Special Number	
OFF-hook for Dialing : 1	
OFF-hook for Answering : 2 #	
ON-hook : 3 #	
Immediate Calling : 4 None	~

<b>1</b> OFF-hook for Dialing	Set the tone signal starting to dial. Hold down this key for a while, then push the number keys to call. (Default: Blank)
	<ul> <li>① Only when this option is set to a 1 digit number, a transceiver enters off-hook condition by holding this key for the set period of time in OFF-hook Detect Timer, then you will be ready to dial.</li> <li>Also you have to enable the DTMF settings in Connection Port Settings.</li> </ul>
<b>2</b> OFF-hook for Answering	Set the tone signal to receive the telephone call on a transceiver. (Default: #)
	① Only when this option is set to a 1 digit number, a transceiver can answer a telephone call by holding this key for the set period of time in OFF-hook Detect Timer. Also you have to enable the DTMF settings in Connection Port Settings.
	${f I}$ When no tone signal has set, the call is automatically received.
3 ON-hook	Set the tone signal to end (disconnect) the call. Push this key to hook the call on a transceiver. (Default: #) ① Only when this option is set to a 1 digit number, a transceiver can cancel a telephone call by holding this key for the set period of time in OFF-hook Detect Timer. Also you have to enable the DTMF settings in Connection Port Settings.
Immediate Calling	Set the DTMF code for immediately transmitting the code. (Default: None)

#### PBX > Special Number

### Transceiver Call Prefix

Sets the prefix to call a transceiver from an extension, by dialing or using the DID (Direct Inward Dialing) function.

**Options:** Up to 4 digit numbers and characters (0~9, #, \*)

① To make an individual call, dial the Individual Call prefix, and then dial the Individual number of the transceiver.

① To make a Group call, dial the Group Call prefix, and then dial the Group number of the transceiver.

① To make an all call, dial the All Call prefix.

Transceiver Call Prefix		
Individual Call :	*	
Group Call :	#	
All Call :	**	
		Apply Reset

PBX > Special Number

### External Call Routing Number

The routing number to acquire a specific outline telephone number, other than that has set in Extension Settings. (PBX > Extension > Extension Settings)

utside Line Phone Number	Line	Routing Number
100 C	IP Line	

Routing Number .....

Enter up to 7 digit numbers and character (# or \*) for each phone number.

When dialing a routing number first, you can make an outside line call using the specified outside line telephone number.

① Be sure that the routing number does not conflict with other Special Numbers or extension numbers.

PBX > Extension

### Extension

Sets each extension (IP phone) details.

\* Do not duplicate the Extension Group numbers and extension numbers.

The set status is displayed on the List of Extension Group Entries.

(PBX > Extension Group > List of Extension Group Entries)

Port Type:SIP Phone (Automati	c Detection)	
Extension		
Port Type : <b>1</b>	SIP Phone (Automatic Detection)	~
Index : 2		~
Name : 3		
Extension Number : 🍳		
Password : 5		
Extension Number Notification on Outbound Call : 6		<b>`</b>
IP Line : 7		<u> </u>
Peer to Peer : 8	No use	~
Connection from WAN : 9		~
MAC Address : 10		Apply Reset

Port Type: Converter Bridge		
Port Type : 1	Converter Bridge	
Index :	3 🗸 🗸 🗸	
Name :		
IP Line :	No use	
Peer to Peer :	No use 🗸 🗸	
Default Call Destination Number : 🛈	Apply Reset	

1 Port Type	Set the type of connected device (port.) (Default: SIP Phone (Automatic Detection))
2 Index	Set the index of the device. • Range: 1 ~ 25 for SIP phones, 1 ~ 20 for a converter bridges
3 Name	Set the name of the device up to 31 characters.
Extension Number	Set the extension to a 2 to 7 digit number.
<b>5</b> Password	Set the password to connect to the RoIP gateway up to 31 characters. (1) The password is only for a SIP phone.

# 11 PBX

#### Extension screen

#### PBX > Extension

#### Extension

#### (Port Type : SIP Phone (Automatic Detection))

Extension		
	1 SIP Phone (Automatic Detection)	~
Index :	2 3	~
Name :		
Extension Number :		
Password :		
Extension Number Notification on Outbound Call :		~
IP Line :	7 No use	~
Peer to Peer :	8 No use	~
Connection from WAN :		~
MAC Address :	0	Apply Reset

#### (Port Type: Converter Bridge )

Port Type 1	Converter Bridge	_
Index :	3	_
Name :		
IP Line :	No use	
Peer to Peer :	No use	_
Default Call Destination Number 👤	Apply Reset	Ī

#### 6 Extension Number Notification

on Outbound Call	Set whether or not to notify your extension number t	
	an outbound call.	(Default: Not Notify)
	<ul> <li>Not Notify: Depends on the setting in the Calling Numb (IP Line settings &gt; IP Line &gt; List of SIP Serv Number Notice)</li> <li>Notify: Notifies the Extension Number to the destination</li> </ul>	er Entries > Calling
⑦ IP Line	Set an IP phone number for the preset outbound.	(Default: No use)
8 Peer to Peer	Set a SIP user name for an outbound.	(Default: No use)

#### PBX > Extension

#### Extension

(Port Type : SIP Phone (Automatic Detection)

Extension		
Port Type :	SIP Phone (Automatic Detection)	~
Index :2	3	×
Name :		
Extension Number :		
Password :5		
Extension Number Notification on Outbound Call :6		~
IP Line : 🗸	No use	~
Peer to Peer :	No use	~
Connection from WAN :9	Deny	~
MAC Address : 🔟		Apply Reset

#### (Port Type: Converter Bridge)

Extension	
Port Type : 1 Converter Bridge	~
Index 3	× ×
Default Call Destination Number : 1	( <u>D</u> )
	Apply Reset

<b>9</b> Connection from WAN	Displayed only when the Port Type (1) has set to SIP phone. Set whether or not to access to the extension from WAN. (1) Be sure to set a long and complicated Password (5).
10 MAC Address	Enter the MAC Address of the Panasonic KX series SIP phone. The MAC Address is settable only when the Port Type (1) is set to other than "SIP Phone (Standard)," "SIP Phone (WLAN)," "Transceiver Controller Telephone Connection," and "Converter Bridge."
Default Call Destination Number	Displayed when the Port Type (1) has set to "Converter Bridge." Enter a destination phone number when the device connected to the Port Type (1) makes a call.
<pre> 2 <apply> </apply></pre>	Click to apply the entries.
<pre>B<reset></reset></pre>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>

PBX > Extension

### ■ List of Extension Entries

The List of Extension entries.

① The Extension Group List is on the Extension Group screen. (PBX > Extension Group)

All	Port Type	Index	Name	Extension Number	Advanced Settings	3	4
	SIP Phone (Automatic Detection)	1	Sales 01	11 2	Advanced	Edit	Delete
	SIP Phone (Automatic Detection)	2	Sales 02	12	Advanced	Edit	Delete
	converter					-	Delete

Extension check box	Click to select that you want to delete or copy the setting. Click "All" to check or uncheck all the items in the list.
2 <advanced></advanced>	Click to display the Extension Detail sub window.
<b>3</b> <edit></edit>	Click to edit the settings in the Extension Settings.
4 <delete></delete>	Click to delete an entry.
<b>5</b> <delete items="" selected=""></delete>	Click to delete the selected entries. ① You cannot restore after clicking <delete items="" selected="">.</delete>
6 <delete all=""></delete>	Click to delete all the entries. ① You cannot restore after clicking <delete all="">.</delete>

PBX > Extension

### Extension Batch Setting

You can register extensions by serial numbering, or copy the setting contents to another extension at once.

Port Type : 1 _S	IP Phone V						
Range : 2	- Add						
5	ter the extension number range.						
	ource : SIP Phone 1(31) Copy						
	Copy to						
	□ All □ SIP Phone 1(31) □ SIP Phone 2(32) □ SIP Phone 3(33) □ SIP Phone 4(34)						
C	opy Item						
	] Port Type						
	Extension Number Notification on Outbound Call						
	IP Line						
	Peer to Peer						
	Connection from WAN						
Range	Enter the start number and the end number of the extension number range you want to copy to, and then click <add> to add the entries.</add>						
Copy Settings	Select the setting options you want to copy and then click <copy> to copy the settings.</copy>						
Copy Settings							
Copy Settings	<ul> <li>copy the settings.</li> <li>Copying the settings <ol> <li>Set the source extension details in the "Extension" above on the</li> </ol> </li> </ul>						
Copy Settings	<ul> <li>copy the settings.</li> <li>Copying the settings <ol> <li>Set the source extension details in the "Extension" above on the screen.</li> </ol> </li> </ul>						
Copy Settings	<ul> <li>copy the settings.</li> <li>Copying the settings <ol> <li>Set the source extension details in the "Extension" above on the screen.</li> <li>Enter the range of extension numbers to those you want to copy the settings.</li> </ol> </li> </ul>						
Copy Settings	<ul> <li>copy the settings.</li> <li>Copying the settings <ol> <li>Set the source extension details in the "Extension" above on the screen.</li> <li>Enter the range of extension numbers to those you want to cop</li> <li>Click <add> to add the extension numbers.</add></li> </ol> </li> </ul>						
Copy Settings	<ul> <li>copy the settings.</li> <li>Copying the settings <ol> <li>Set the source extension details in the "Extension" above on the screen.</li> <li>Enter the range of extension numbers to those you want to cop</li> <li>Click <add> to add the extension numbers.</add></li> <li>In "Source," select a source extension number that you want to</li> </ol></li></ul>						
Copy Settings	<ul> <li>copy the settings.</li> <li>Copying the settings <ol> <li>Set the source extension details in the "Extension" above on the screen.</li> <li>Enter the range of extension numbers to those you want to cop 3. Click <add> to add the extension numbers.</add></li> <li>In "Source," select a source extension number that you want to copy.</li> <li>In "Copy to," check the extensions to those you want to copy the settings.</li> </ol> </li> </ul>						
Copy Settings	<ul> <li>copy the settings.</li> <li>Copying the settings <ol> <li>Set the source extension details in the "Extension" above on the screen.</li> <li>Enter the range of extension numbers to those you want to conditional settings.</li> <li>Click <add> to add the extension numbers.</add></li> <li>In "Source," select a source extension number that you want to copy.</li> </ol> </li> </ul>						

PBX > Extension

### Extension Detail

Displayed by clicking <Advanced> in "List of Extension Settings." (PBX > Extension > List of Extension Settings)

Extension Detail	
Port Type :	SIP Phone (Automatic Detection)
Index :	1
Name :	Sales 01
Extension Number : Call Forward Always	31
Call Forward Settings : 1	● Don't Forward O Target
Call Forward Number : 2 Call Forward No Answer	
Call Forward Settings : 3 Call Forward Number : 4	Don't Forward      Target
Call Time : 5	
Call Forward Busy	
Call Forward Settings : 6	● Don't Forward 🔘 Target
Call Forward Number : <b>7</b> Extension Group Transfer	)
Call Forward Settings : 8	Don't Forward      Forward     Prove the set      Apply Reset

Call Forward Settings	Select whether or not to forward calls when a call destination. (D	cannot arrive at the efault: Don't Forward)
<b>2</b> Call Forward Number	Set the destination phone number of up to 31 digit ① The KX series telephone automatically forwards calls	· · · · · · · · · · · · · · · · · · ·
<b>3</b> Call Forward Settings	Select whether or not to forward calls when the ex answer in the set period of time. (D	tension does not efault: Don't Forward)
Call Forward Number	Set the destination phone number of up to 31 digit	s. (Default: Blank)
5 Call Time	Set the delay time to start forwarding. • Range: 5 ~ 60 (seconds) in 5 second steps	(Default: 5)

# 11 рвх

#### Extension screen

PBX > Extension

Extension Detail

Extension Detail	
Port Type :	SIP Phone (Automatic Detection)
Index :	1
Name :	Sales 01
Extension Number : Call Forward Always	31
Call Forward Settings : 1	● Don't Forward O Target
Call Forward Number : 2 Call Forward No Answer	
Call Forward Settings : 3	● Don't Forward O Target
Call Forward Number : 4 Call Time : 5	5 × seconds
Call Forward Busy	
Call Forward Settings : 6	● Don't Forward O Target
Call Forward Number : 7 Extension Group Transfer	·
Call Forward Settings : 8	Don't Forward     Forward     Forward     Apply     Reset

6 Call Forward Settings	Select whether or not to forward calls from another extension when the extension is busy. (Default: Don't Forward)
Call Forward Number	Set the destination phone number of up to 31 digits. (Default: Blank)
8 Call Forward Settings	Select whether or not to forward inbound calls to the Extension Group. (Default: Don't Forward)
<b>⑨</b> <apply></apply>	Click to apply the entries.
<pre>@<reset></reset></pre>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>

### **Extension Group screen**

#### PBX > Extension Group

You can group up to 50 extension numbers into an Extension Group. You can select the extension (SIP phone) to be incoming and the extension not to receive incoming within the set group.

### Extension Group Entry

Used to newly enter an extension group number.

\* Do not duplicate the Extension numbers and Extension Group numbers.

You can check the extension number and its model name on the "Extension" screen. (PBX > Extension)

#### (Ringing Sequence: Simultaneous)

Port Type : 1	SIP Phone	е			~
Extension Group Number : 2					
Extension Group Name : 3					
Ringing Sequence : 4	Simultane	ous			~
1st Ringing : 5		31	32	33	
	34	41	42	43	
	44	45			
2nd Startup Time : 6	10 second	ls			~
2nd Ringing :		31	32	33	
	34	41	42	43	
	44	45			
3rd Startup Time :	Not used				<b>7</b> 8 ×

Port Type	Select the Port Type that you want to copy the settings. (Default: SIP Phone)				
Extension Group Number	Enter a Extension Group number. • Range: Number in 2 ~ 7 digits				
SExtension Group Name	Enter the Extension Group name of up to 31 characters.				
4 Ringing Sequence		<ul> <li>on when a call is incoming.</li> <li>In Simultaneous ringing sequence, when the primary receiver cannot respond for a certain period of time, you can change to the secondary receiver. You can set the receiver's extension from the primary to the tertiary for a call.</li> <li>In Sequential ringing, you can set the ringing extension group.</li> </ul>			

# **11** PBX

### Extension Group screen

#### PBX > Extension Group

Extension Group Entry

#### (Ringing Sequence: Simultaneous)

Port Type : 1	SIP Phon	е			~
Extension Group Number : 2					
Extension Group Name : 3					
Ringing Sequence : 4	Simultane	ous			~
1st Ringing : 5		31	32	33	
	34	41	42	43	
	44	45			
2nd Startup Time : 6	10 second	ds			~
2nd Ringing :		31	32	33	
	34	41	42	43	
	44	45			
3rd Startup Time :	Not used				7 8∨

5 1st Ringing	<ul> <li>Check the extension numbers to Ring when a call has arrived at the Extension Group.</li> <li>You can also set "2nd Ringing" and "3rd Ringing" by setting the "2nd Startup Time" (6) and "3rd Startup Time."</li> </ul>			
<b>6</b> 2nd Startup Time	Set the period of time until the secondary ring starts when the 1st Ringing extensions do not answer. (Default: Not used) • Range: Not used, or 10 ~ 60 (seconds) in 5 second steps			
♂ <apply></apply>	Click to apply entries.			
8 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>			

# **11** PBX

### Extension Group screen

#### PBX > Extension Group

Extension Group Entry

### (Ringing Sequence: Sequential)

Extension Group Entry						
Port Type :	SIP Phone					~
Extension Group Number: 2						
Extension Group Name :						
Ringing Sequence 4	Sequential					~
Extension Number :5	001 31 🗸	014	~			
	002 32 🗸	015	~			
	003	016	~			
	013 🗸 🗸				6 Apply	7 Reset

1 Port Type	Select the Port	Type that you want to copy the settings. (Default: SIP Phone)		
2 Extension Group Number	Enter a phone number to an Extension Group. Range: number in 2 ~ 7 digits			
<b>3</b> Extension Group Name	Enter the Extension Group name of up to 31 characters.			
4 Ringing Sequence		on when a call is incoming. In simultaneous ringing sequence, when the primary receiver cannot respond for a certain period of time, you can change to the secondary receiver. You can set the receiver's extension from the primary to the tertiary for a call. In Sequential ringing, you can set the ringing extension group.		
5 Extension Number	Select the action when a call is incoming.			
<b>⑥</b> ≺Apply>	Click to apply e	entries.		
⑦ <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>			

Extension Group screen

PBX > Extension Group

### ■ List of Extension Group Entries

Displays the list of Extension Group entries.

Port Type	Extension Group Number	Extension Group Name	Ringing Sequence	Extension Number	0 0
SIP Phone	200	Sales	Simultaneous	<1st Ringing> 31 <2nd Ringing> 10 seconds 32 <3rd Ringing> Not used	Edit Del
SIP Phone	210	Planning	Sequential	33 34	Edit Del

● <edit></edit>	Click to edit an entry.
<b>2</b> <delete></delete>	Click to delete an entry. ① You cannot restore after clicking <delete>.</delete>
S <delete all=""></delete>	Click to reset all the entries. ① You cannot restore after clicking <delete all="">.</delete>

# Inbound Call screen

PBX > Inbound Call

### ■ Inbound Call

Sets the destination extension or queuing of Inbound Calls.

Phone Number	Line	Connect to 1		Ringtone 2	Queuing 3
-	IP Line	Custom 3000*101	~	Outside Tone A 🗸	OFF
100704	Peer to Peer	None	~	Inside Tone A 🗸 🗸	OFF 5

Connect to	<ul> <li>Set the destination extension of Inbound calls to the specified phone number (dial-in number.) (Default: None)</li> <li>You can set an extension number or an extension group number.</li> <li>If you select "Custom," you can set the Individual ID of a transceiver like an example above.</li> <li>To set a Dial-in number, select a DID box in the "DID Settings." (PBX Advanced Settings &gt; DID &gt; DID Settings)</li> </ul>			
Ringtone	<ul> <li>This setting is only for the KX series SIP phones.</li> <li>Set a Ringtone (pattern) for each phone number. (Default for IP Line: Outside Tone A, for Peer to Peer: Inside Tone A)</li> <li>Outside Tone A ~ C: Ringtone pattern for an external call.</li> <li>Inside Tone A ~ C: Ringtone pattern for an internal call.</li> <li>Discrimination in the number: Automatically selects a Ringtone, depending on the phone number of an incoming call.</li> </ul>			
3 Queuing	If set to ON, the Ringing Tone is returned to a caller until the destination phone number is ready to arrive the call, even when the destination phone number is busy, or another request is incoming to it. (Default: OFF)			
<pre>4<apply></apply></pre>	Click to apply the entries.			
5 <reset></reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>			

# **PBX TRANSCEIVER CALL SETTINGS**

Callee ID to Phone Number screen	12-2
Save or Write the Callee ID to Phone Number Setting	12-2
Callee ID to Phone Number	12-3
List of Callee ID to Phone Number Entries	12-4
Outbound Call Restriction screen	12-5
Outbound Call Restriction	12-5
Target ID Entry	12-6
List of Target ID Entries	12-6

## **Callee ID to Phone Number screen**

PBX Transceiver Call Settings > Callee ID to Phone Number

## Save or Write the Callee ID to Phone Number Setting

The common setting for the telephones in the network system.

Save or Write the Callee ID to Phone Number Setting	
Load Settings from File : 1	Browse
Write A CSV format file can be written to this product. When the file is written, the current settings will be overwritten.	
Save to File : 2 Save Save to call_tbl.csv file.	

Load Settings from File	You can load the saved Callee ID to Phone Number settings from a CSV format file. Click <browse> and select the setting file (call_tbl.csv) from the displayed list, and then click <open>. Confirm the correct file is selected, and then click <write> to load the settings from the selected file. ① Note that the previous settings are deleted when the setting file is loaded.</write></open></browse>
<b>2</b> Save to File	Saves the settings in the "List of Callee ID to Phone Number Entries" to a CSV format file. Click <save> and select a folder to save the file into. You can edit the saved file in a spreadsheet.</save>

### Callee ID to Phone Number screen

PBX Transceiver Call Settings > Callee ID to Phone Number

### ■ Callee ID to Phone Number

Enter phone numbers that the RoIP gateway dials to call up SIP phones, when making calls from linked transceivers.

Ca	llee ID 1	to Phone Nu	mber					
	Index 1	Name 2	Callee ID	4		Phone Number 6		
			Call Type 3	Prefix ID	Destination ID 5		0	
	1 🗸		Individual	✓			Add	
) Inde	ex			The index • Range: 1	assigned for o ~ 1000	entry.		
2 Nam	1e			Enter a na	me of up to 3	1 characters.		
3 Call	Type .					t matches bot	n of Prefix	(ID (④) and Destinat
				<ul><li>Individual</li><li>Group:</li><li>All:</li></ul>	: Call only a sp Call all radios Call all radios	that belong to a	a specified	group.
Pref	ix ID .				orefix ID of the (Depends on th	e destination. ne system mode	)	
3 Dest	tinatio	n ID			D of the desti (Depends on th	nation. ne system mode	)	
) Pho	ne Nur	nber		Enter the	ohone numbe	r of up to 31 di	gits.	
∕∕∕	d>					are displayed on	the List of	Callee ID to Phone Num

	Callee ID	to Phone	Number	screen
--	-----------	----------	--------	--------

PBX Transceiver Call Settings > Callee ID to Phone Number

## ■ List of Callee ID to Phone Number Entries

List of the Callee ID entries.

Index	Name	Callee ID			Phone Number	
		Call Type	Prefix ID	Destination ID		0 0
1	Sales 01	Individual	1	31	31	Edit Delete

<b>1</b> <edit></edit>	Click to edit an entry.
<b>2</b> <delete></delete>	Click to delete an entry. ① You cannot restore after clicking <delete>.</delete>
<b>3</b> <delete all=""></delete>	Click to delete all the entries. You cannot restore after clicking <delete all="">.</delete>

## **Outbound Call Restriction screen**

PBX Transceiver Call Settings > Outbound Call Restriction

## Outbound Call Restriction

Set the restriction rules for making outbound calls by the client transceivers.

Outbound Call Restriction			
Restriction Type : 1 🖲	Deny 🔿 Allow	Apply Reset	
Restriction Type	Entries." (See the next pa Deny: Inhibits the liste	on on the transceivers in th age.) ed transceivers to make pho d transceivers to make pho	(Default: Deny) one calls.
2 <apply></apply>	Click to apply the entries.		

<mark>3</mark> <reset></reset>	 Click to reset the entries.
	① You cannot restore after clicking <apply>.</apply>

Outbound Call Restriction so	reen	
PBX Transceiver Call Settings > C	Outbound Call Restriction	
Target ID Entry		
Enter the transceivers for the Outbo	ound Call Restriction.	
Target ID Entry		
Index 1 1 Prefix ID 2 1 Transceiver ID 3	Add Reset	
1 Index	The index assigned for entry. • Range: 1 ~ 1000	(Default: 1)
2 Prefix ID	Enter the prefix ID of the client transceiver. <ul> <li>ID range: (Depends on the system mode)</li> </ul>	
<b>3</b> Transceiver ID	Enter the ID of the client transceiver. <ul> <li>ID range: (Depends on the system mode)</li> </ul>	
4 <add></add>	Click to add the entry. ① The registered contents are displayed on the [List of ]	larget ID Entries] screen.
5 <reset></reset>	Click to reset the entries. ① You cannot restore after clicking <reset>.</reset>	

PBX Transceiver Call Settings > Outbound Call Restriction

## ■ List of Target ID Entries

List of transceivers for the Outbound Call Restriction.

Index	Prefix ID	Transceiver ID	0 0
1	1	0001	Edit Delete
2	1	0002	Edit Delete

❶ <edit></edit>	Click to edit the entry. <ul> <li>The registered contents are displayed on the [Target ID Entry] screen</li> </ul>
2 <delete></delete>	Click to delete an entry. (1) You cannot restore after clicking <delete>.</delete>
S <delete all=""></delete>	Click to delete all the entries. You cannot restore after clicking <delete all="">.</delete>

Telephone (KX-UT Series) screen	13-3
Telephone Maintenance	
Telephone Group	
■ Telephone Individual Settings (KX-UT Series) (Common Setting)	
Dial Tone (Common Setting)	
Busy Tone Common Setting	
Reorder Tone (Common Setting)	
Ring Back Tone Common Setting	
Hold Alarm Common Setting	13-10
Ringtone Pattern Common Setting	13-11
Ringtone Pattern Assignment Common Setting	13-12
■ Telephone Common Settings (Group 1 ~ 30)	13-13
Telephone Individual Settings (KX-UT Series) Group 1 ~ 30	
Button Assignment	13-16
Telephone (KX-HDV Series) screen	
Telephone Maintenance	13-20
Telephone Group	13-22
Dial Tone Common Setting	
Busy Tone Common Setting	13-24
Reorder Tone Common Setting	
Ring Back Tone (Common Setting)	
Hold Alarm (Common Setting)	
Ringtone Pattern Common Setting	13-28
Ringtone Pattern Assignment Common Setting	
Telephone Common Settings Group 1 ~ 30	
■ Telephone Individual Settings (KX-HDV Series) Group 1 ~ 30	
Expand Unit (KX-HDV230) Expand Unit 1 ~ 5 screen	
Telephone Maintenance	
Telephone Group	
Telephone Individual Settings (KX-HDV230)	13-41
Phonebook screen	
Select Group Setting	
Save or Write the Phonebook	
Phonebook Entry	
List of Phonebook Entries	13-47

Transceiver Controller Telephone Connection screen	
Transceiver Controller Telephone Connection	
Communication	
	13-50
PTT Control Setting	
Call Initiation Setting	13-57
Notice Tone on the Telephone	
Release Timer	
Converter Bridge screen	
Converter Bridge	13-60
Communication	
Control	
DTMF Dialing	
PTT Control Setting	
Call Initiation Setting	
Notice Tone on the Telephone	
Release Timer	

PBX Extension > Telephone (KX-UT Series)

## ■ Telephone Maintenance

Assigns a Group to each extension number.

The settings for each extension detail can be edited in "List of Extension Entries" (PBX > Extension > List of Extension Entries).

32     SIP Phone (Automatic Detection)     Connected	Group 1∨ Group 1∨	Reboot
	Group 1 V	
33 SIP Phone (Automatic Detection) Not Connected		Reboot
33 SIP Phone (Automatic Detection) Not Connected	Group 1 V	Reboot
34 SIP Phone (Automatic Detection) Not Connected	Group 1 V	Reboot
3000 Transceiver Controller Telephone Connection	Group 1 🗸	

Check Box	Click to select the extensions if you want to reboot one or more KX series telephones. Click "All" to select all the entries. ① The extensions where Status (④) is "Not Connected" cannot be selected.
Extension Number	Displays the extension number.
S Port Type	Displays the port type of the Extension.
<b>4</b> Status	<ul> <li>Displays the connection status of the telephone.</li> <li>(1) "Not Connected" is displayed for the telephone that is not registered to the SIP server of this RoIP gateway.</li> <li>(1) "—" is displayed for the Converter bridge or the Transceiver Controller Telephone Connection.</li> </ul>
<b>⑤</b> Group	Set the setting Group of the extension.(Default: Group 1)• Options: Group 1 ~ 30① You can customize the flexible function button assignments for each Group.

### Telephone (KX-UT Series) screen

### PBX Extension > Telephone (KX-UT Series)

### ■ Telephone Maintenance

All 🚺	Extension Number	Port Type 3	Status 4	Group 5	6
	31	SIP Phone (Automatic Detection)	Connected	Group 1 V	Reboot
	32	SIP Phone (Automatic Detection)	Connected	Group 1 🗸	Reboot
	33	SIP Phone (Automatic Detection)	Not Connected	Group 1 🗸	Reboot
	34	SIP Phone (Automatic Detection)	Not Connected	Group 1 🗸	Reboot
	3000	Transceiver Controller Telephone Connection		Group 1 🗸	
				7 Reboot Se	8 lected Reboot All Apply Reset

6 <reboot></reboot>	Click to reboot the KX series telephone.
<pre> <b>                                    </b></pre>	Click to reboot the selected (with check marks) KX series telephones.
8 <reboot all=""></reboot>	Click to reboot all the KX series telephones whose Status (④) is "Connected" in the list.
Image: Second secon	Click to apply the entries.
<b>1</b> < Reset >	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Telephone (KX-UT Series) screen
PBX Extension > Telephone (KX-UT Series)
■ Telephone Group
Edits the Group setting of the entered extension (telephone)
Telephone Group
Select Group Setting : Common Setting ✓ Edit
Select Group Setting          Select the setting mode.         • Common Setting         Common settings for the KX-UT Series that are connected to the RoIP gateway, such as the tone patterns or volume levels.
<ul> <li>Group 1 ~ Group 30         The custom settings for the KX-UT Series in the selected Group that are connected to the RoIP gateway, such as the flexible button assignments.     </li> </ul>

PBX Extension > Telephone (KX-UT Series)

## ■ Telephone Individual Settings (KX-UT Series) Common Setting)

The Group setting of the entered extension (telephone)

Telephone Individual Settings (K	X-UT Series)		]
RX Volume : 1		✓ dB	
TX Volume : 2	0	✓ dB	
Echo Canceller : 3	Isable   Enable		
RX Volume	Set the telephone's receiving audio level. • Range: –6 (minimum) ~ +6 (maximum) (dB)		(Default: 0)
2 TX Volume	Set the telephone's transmitting audio level. • Range: –6 (minimum) ~ +6 (maximum) (dB)		(Default: 0)
3 Echo Canceller	Enabling this option prevents an echo when trans	•	receiving. Ilt: Disable)

### Telephone (KX-UT Series) screen

PBX Extension > Telephone (KX-UT Series)

## ■ Dial Tone (Common Setting)

Sets the tone when off-hook.

Dial Tone											
	Frequency 1 : 1350 Frequency 2 : 440	)									Hz
		)									Hz
	Level : 2 _0									~	dB
	Repeat : 3 🔿	Disable	O Enab	le 🖲 C	ontinuous	Sound					
	Timing : 4	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
		60	0								

1 Frequency 1/2	• Range: 0 (inaudible)	icies of the Dial tone. (Default: Frequency 1: 350 / F , 200 ~ 2000 (Hz) 0 Hz tones simultaneously sound at de	, , ,
2 Level	Set the audio level o • Range: –24 (minimu	of the Dial tone. m) ~ +6 (maximum) (dB)	(Default: 0)
3 Repeat	• Disable: • Enable:	D repeat the set tone pattern. (Default: Co Sounds the set pattern in Timing (④) of Continuously repeats the set pattern in Continuously sounds frequencies 1 an	Timing (4)
<b>4</b> Timing	sounds for the set p set period of time in	FF": 60 ~ 16000 (milliseconds)	

### Telephone (KX-UT Series) screen

PBX Extension > Telephone (KX-UT Series)

# Busy Tone Common Setting

Sets the tone when the line is busy.

Busy Tone											
	Frequency 1:1	0									Hz
	Frequency 1 :1 48 Frequency 2 : 62	0									Hz
	Level :20									~	dB
	Repeat :3	Disable	En	able 🔿	Contin	uous So	und				
	Timing :	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
		60	500	440							_

1) Frequency 1/2	• Range: 0 (inaudible)		480 / Frequency 2: 620) nd at default.
2 Level	Set the audio level o • Range: –24 (minimu	of the Busy tone. ım) ~ +6 (maximum) (dB)	(Default: 0)
3 Repeat	• Disable: • Enable:	Sounds the set tone pattern Sounds the set pattern in Timin Continuously repeats the set pa Continuously sounds frequencie	(Default: Enable) g (④) only once ttern in Timing (④)
Timing	sounds for the set p set period of time in • Range of the first "C	one rings and mutes using up beriod of time in the ON settin the OFF settings. DFF": 60 ~ 16000 (milliseconds) : 51 ~ 16000 (milliseconds)	

### Telephone (KX-UT Series) screen

PBX Extension > Telephone (KX-UT Series)

## ■ Reorder Tone (Common Setting)

Sets the Reorder tone.

Reorder Tone											
	Frequency 1:0	480									Hz
	Frequency 1 : 1 Frequency 2 :	620									Hz
	Level : 2									~	dB
	Repeat : 3	) Disable	En	able 🔿	Contin	uous So	und				
	Timing : 4	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
		60	250	190							

1 Frequency 1/2	• Range: 0 (inaudible)	ncies of the Reorder tone. (Default: Frequency 1: 480 / Free , 200 ~ 2000 (Hz) 0 Hz tones simultaneously sound at defau	,
2 Level	Set the audio level o • Range: –24 (minimu	of the Reorder tone. m) ~ +6 (maximum) (dB)	(Default: 0)
3 Repeat	• Disable: • Enable:	o repeat the set tone pattern. (D Sounds the set pattern in Timing (④) only Continuously repeats the set pattern in Tir Continuously sounds frequencies 1 and 2	ming (🕘)
Timing		(Default) FF": 60 ~ 16000 (milliseconds)	

### Telephone (KX-UT Series) screen

PBX Extension > Telephone (KX-UT Series)

## ■ Ring Back Tone (Common Setting)

Sets the Ringback tone.

Ring Back Tone										
Frequency 1 : 1 Frequency 2 :	10								H	Ηz
Frequency 2 : 48	30								- 1	Ηz
Level : 2 0									<b>~</b> (	B
Repeat : 3 〇	Disable	Ena	ble 🔿	Continu	ious Sou	nd				
Timing : 4	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
	60	2000	3940							]

1 Frequency 1/2	Set the tone frequencies of the Ringback tone. (Default: Frequency 1: 440 / Frequency 2: 480 • Range: 0 (inaudible), 200 ~ 2000 (Hz) ① The 440 Hz and 480 Hz tones simultaneously sound at default.			
2 Level		of the Ringback tone. (Default: 0) m) ~ +6 (maximum) (dB)		
3 Repeat	• Disable: • Enable:	o repeat the set tone pattern. (Default: Enable) Sounds the set pattern in Timing (④) only once Continuously repeats the set pattern in Timing (④) Continuously sounds frequencies 1 and 2 (1)		
<b>4</b> Timing		(Default: 60, 2000, 3940) FF": 60 ~ 16000 (milliseconds)		

### Telephone (KX-UT Series) screen

PBX Extension > Telephone (KX-UT Series)

## Hold Alarm Common Setting

Sets the Hold alarm tone that sounds to alert you a second call has been held for certain period of time.

lold Alarm										
	Frequency 1:	425								Hz
	Frequency 1 :	0								Hz
	Level : 2	0							~	dB
	Repeat : 3	O Disable	Enable	le 🔿 (	Continuou	s Sound				
	Timing :	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
		120	14880							

Frequency 1/2	Set the tone freque	ncies of the Hold alarm. (Default: Frequency 1: 425 / Fr ), 200 ~ 2000 (Hz)	equency 2: 0)
2 Level	Set the audio level • Range: –24 (minimu	of the Hold alarm. ım) ~ +6 (maximum) (dB)	(Default: 0)
3 Repeat	• Disable: • Enable:	to repeat the set tone pattern. (De Sounds the set pattern in Timing (④) only Continuously repeats the set pattern in Tim Continuously sounds frequencies 1 and 2	ing (4)
Timing		(Default DFF": 60 ~ 16000 (milliseconds)	

13-10

PBX Extension > Telephone (KX-UT Series)

## ■ Ringtone Pattern (Common Setting)

Sets the Ringtone patterns.

Ringtone Pattern								
*Unit of Ringtone set values shown are in mil	iseconds.							
Pattern 1 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	2000	4000						
Pattern 2 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	800	400	800	4000				
Pattern 3 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	400	200	400	200	800	4000		
Pattern 4 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	300	200	1000	200	300	4000		
Pattern 5 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	2000	4000						

Pattern 1 ~ 5.....

Set the pattern of tone rings and mutes using up to 8 values. The tone sounds for the set period of time in the ON settings, and mutes for the set period of time in the OFF settings.

Pattern	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Pattern 1	2000	4000	_	_	_	_	1	-
Pattern 2	800	400	800	4000	_	_	-	_
Pattern 3	400	200	400	200	800	4000	-	-
Pattern 4	300	200	1000	200	300	4000	-	_
Pattern 5	2000	4000	_	_	_	_	-	-

#### O The default values of Ringtone Patterns

• Range : 51 ~ 5000 (milliseconds)

① A ring pattern must end with OFF.

① The ring patterns can be assigned, according to the incoming call type. See the next item for details.

```
PBX Extension > Telephone (KX-UT Series)
```

### Ringtone Pattern Assignment Common Setting)

Assigns the Ringtone pattern of each incoming call group.

Outside Line A :	Pattern 1	~
Outside Line B :	Pattern 2	~
Outside Line C :	Pattern 3	~
Extension A :	Pattern 5	~
Extension B :	Pattern 4	~
Extension C :	Pattern 3	~
Extension Assignment :	Pattern 2	~
Hold Recall :	Pattern 2	~

Assign a Ringtone pattern for each incoming call type, according to the setting on the Inbound Call screen. (PBX > Inbound Call)

#### (i) Information

- The incoming call group depends on the notified number of incoming calls.
- The calls from the phone numbers that are entered into extensions A to C are treated as the internal calls.
- For an internal call from other than the entered extensions on the Inbound Call screen, the Ringtone pattern set in the "Extension Assignment" sounds.
- When recalling to a parked telephone, the Ringtone set in the "Hold Recall" sounds.

PBX Extension > Telephone (KX-UT Series)

## ■ Telephone Common Settings Group 1 ~ 30)

Sets the rules for incoming calls for each Extension Group.

Telephone Common Settings			
Pickup Group Number :	01		
Call Pickup Target 2		~	
Group Pickup Target :3		~	
Directed Call Pickup Target :4		~	
Call Restriction :5		~	

Pickup Group Number	Enter a pick up group numbe	er of up to 7 digits. (Default: 01 (for the Group1))			
		call of another group extension by dialing the prickup and the Group Number of the group.			
Call Pickup Target	Set the incoming call type the	at the group can pick up. (Default: Extension Only)			
	Options: External Call/Extensi	on, External Call Only, or Extension Only			
3 Group Pickup Target	extension in the same Group	at you can pick up, that arrives at an (Default: External Call/Extension) ion, External Call Only, or Extension Only			
Oirected Call Pickup Target	Set the type of directed call that you can pick up				
	Options: External Call/Extens	(Default: External Call/Extension) ion, External Call Only, or Extension Only			
5 Call Restriction	Select whether or not to rest	-			
		(Default: Disable)			
	Disable:	You can make external calls.			
	Call Restriction Rule 1 ~ 16:	Restricts external calls according to the			
		rules. The rules can be set in "Outbound Call			
		Restriction Rule Settings." (PBX Advanced Settings > Numbering Plan >			
		Outbound Call Restriction Rule Settings)			
	External Call Restriction:	You cannot make any external calls but you			
		can make internal calls (including Peer to Peer calls.)			

PBX Extension > Telephone (KX-UT Series)

## ■ Telephone Individual Settings (KX-UT Series) Group 1 ~ 30)

Sets the rules for the incoming calls, and so on, to each Extension group.

Dial Waiting Time : 0 5	✓ seconds
Accept Internal Calls while on an External Call : ${f 2}$ ${old o}$ Refuse $ \bigcirc$ Allow	
Accept External Calls without Button Assignment : 3 〇 Refuse 💿 Allow	
Holding a Call with the External Call Status Button : $4$ $\odot$ Refuse $\bigcirc$ Allow	
Long-Hold Watch Time : 5 _180	seconds
Phonebook Sharing : 6 O Disable 💿 Enable	
Common Phonebook Sharing : 7 🔿 Disable 💿 Enable	
Ringtone Setting (Phonebook) : 8 Ringtone 1	~
Key Click Tone : 9 O Disable   Enable	

<b>1</b> Dial Waiting Time	The waiting time to start dialing after you finished dialing. (Default: 5) • Range: 1 ~ 15 (seconds)
Accept Internal Calls while on an External Call	Set whether or not to accept an incoming extension call (including a Peer to Peer call) while you are talking on an external call. (Default: Refuse) (Default: Refuse) (Default: Refuse) (Default: Refuse)
Output External Calls without Button Assignment	Set whether or not to accept an inbound call to a <dn key=""> button when an <external call="" status=""> button is not assigned or all <external Call Status&gt; buttons are busy. (Default: Allow) • Allow: Accepts an inbound call to a <dn key=""> button. • Refuse: Rejects an inbound call and returns the busy tone.</dn></external </external></dn>
Holding a Call with the External Call Status Button	When selecting "Allow," you can hold an external call using an <external call="" status=""> button. (Default: Refuse)</external>
S Long-Hold Watch Time	Sounds an alert if you hold a call for time longer than the set period of time. (Default: 180) • Range: 30 ~ 240 (seconds)

### Telephone (KX-UT Series) screen

PBX Extension > Telephone (KX-UT Series)

■ Telephone Individual Settings (KX-UT Series)

Dial Waiting Time : 0 5	<ul> <li>seconds</li> </ul>
Accept Internal Calls while on an External Call : ${f 2}$ ${f \circ}$ Refuse $ \bigcirc$ Allow	
Accept External Calls without Button Assignment : 3 〇 Refuse 💿 Allow	
Holding a Call with the External Call Status Button : $4$ $ullet$ Refuse $\bigcirc$ Allow	
Long-Hold Watch Time : 5 180	seconds
Phonebook Sharing : 6 O Disable 💿 Enable	
Common Phonebook Sharing : 7 🔿 Disable 💿 Enable	
Ringtone Setting (Phonebook) : 8 Ringtone 1	~
Key Click Tone : 9 O Disable 💿 Enable	

6 Phonebook Sharing	Set whether or not to download the Phonebook data f gateway at every boot up of a KX series telephone. You can download up to 300 entries to the common p to 100 entries to the Group phonebook.	
Common Phonebook Sharing	Displayed only when "Phonebook Sharing" (⑤) is ena Set whether or not to download the Common Phoneb RoIP gateway at every boot up of KX series telephone	ook data from the
8 Ringtone Setting (Phonebook)	Select a ringtone from the Ringtone 1 ~ 32. (D	efault: Ringtone 1)
9 Key Click Tone	Set whether or not to sound a tone when you push a latelephone.	key of a KX series (Default: Enable)

PBX Extension > Telephone (KX-UT Series)

## Button Assignment

Sets the functions of the flexible buttons on the telephone.

One Touch		Button 24	
DN Key		DN Key	~
External Call Status		-	
Call Fwd Always Call Fwd No Answer		Button 23	
Call Fwd Busy Headset		DN Key	~
Not used			
Button 10		Button 22	
DN Key	~	DN Key	~
Button 9		Button 21	
DN Key	~	DN Key	~

#### Button Assignments 1 ~ 24 ...

Assign a key function to each Flexible button.

(Default: DN Key)

#### • One Touch:

Used as an alias to a favorite number.

You can assign a frequently used telephone number, a special number, prefix, and so on.

① You can enter an external phone number with a prefix to use a special number for a Transceiver Individual Call.

~

#### • DN key: (Directory Number)

Checks the line assigned to the DN button. When a call arrives on the DN button, pressing the button answers the call. Be sure to assign 2 or more DN keys.

#### The indicator status

- · Quickly blinks green: An external or an extension call has arrived
- Slowly blinks green: Holding on your terminal
- Lights green: The line is in use on your terminal

① The shared line is assigned to the order of the DN key button number.

 The number of sharable lines are the total number of DN keys. Also, it depends on the setting on the "External Call Limiting" screen.
 (PBX Advanced Settings > External Call Limiting)

**Note:** At least two DN keys are required, the one for incoming or talking, the other one for holding or keeping a call. Be sure to assign enough DN keys to manage the shared lines.

### Telephone (KX-UT Series) screen

#### PBX Extension > Telephone (KX-UT Series)

#### Button Assignment

One Touch	Button 24	
DN Key	DN Key	~
External Call Status		
Call Fwd Always Call Fwd No Answer	Button 23	
Call Fwd Busy Headset	DN Key	~
Not used		
Button 10	Button 22	
DN Key	V DN Key	~
Button 9	Button 21	
DN Key	DN Key	~

#### Button Assignments 1 ~ 24 (Continued)

#### External Call Status

Checks the assigned External line (IP line) status. When a call arrives on the External Call Status button, pressing the button answers the call.

Button 12	
External Call Status	~
100 (IP)	~

#### The indicator status

- Blinks red: An External Call is incoming or held
- Lights red: The line is in use on another terminal
- Lights green: The line is in use on your terminal
- ① Assign the same number of External Call Status buttons as the channels you are allowed.

### Telephone (KX-UT Series) screen

#### PBX Extension > Telephone (KX-UT Series)

#### Button Assignment

One Touch		Button 24		
DN Key		DN Key	~	
External Call Status				
Call Fwd Always Call Fwd No Answer		Button 23		
Call Fwd Busy Headset		DN Key	~	
Not used				
Button 10		Button 22		
DN Key	~	DN Key	~	
3utton 9		Button 21		
DN Key	~	DN Key	~	

#### Button Assignments 1 ~ 24 (Continued)

#### Call Fwd Always

Forwards incoming calls to the specified extension while the indicator on this key lights red. Enter the extension number (with a special number, if required) of the forwarding destination. Push the button to start or stop forwarding.

#### The indicator status

- Lights red: Forwards calls
- Not lit: Does not forward calls
- ① You can also start or stop forwarding by dialing the special number for "Call Forward Always" (Default: \*94) and the extension number of the forwarding destination.

(PBX > Special Number > Telephone Special Number > Call Forward Always)

#### Call Fwd No Answer

Forwards an incoming call to the specified extension when you don't answer the call for a certain period of time, such as when you are busy on another call.

Enter the extension number (with a special number, if required) of the forwarding destination.

Push the button to start or stop forwarding.

#### The indicator status

- Lights red: Forwards calls
- Not lit: Does not forward calls

① You can also start or stop forwarding by dialing the special number for "Call Forward No Answer" (Default: \*95) and the extension number of the forwarding destination.

(PBX > Special Number > Telephone Special Number > Call Foward No Answer)

### Telephone (KX-UT Series) screen

#### PBX Extension > Telephone (KX-UT Series)

#### Button Assignment

One Touch	Button 24	
DN Key	DN Key	~
External Call Status		
Call Fwd Always Call Fwd No Answer Call Fwd Busy Headset	Button 23	
	DN Key	~
Not used		
Button 10	Button 22	
DN Key	<ul> <li>DN Key</li> </ul>	~
Button 9	Button 21	
DN Key	DN Key	~

#### Button Assignments 1 ~ 24 (Continued)

#### Call Fwd Busy

Forwards an incoming call to the specified extension when you are busy on another call. Enter the extension number (with a special number, if required) of the forwarding destination. Push the button to start or stop forwarding.

#### The indicator status

- Lights red: Forwards calls
- Not lit: Does not forward calls
- ① You can also start or stop forwarding by dialing the special number of "Call Forward Busy" (Default: \*96) and the extension number of forwarding destination.
   (DEX): 0.0 is the second start of the se

(PBX > Special Number > Telephone Special Number > Call Forward Busy)

#### Headset

Assign to talk using a headset if it is connected to the KX series telephone. The indicator lights red while the headset is in use.

#### Not used

Does not assign any function.

PBX Extension > Telephone (KX-HDV Series)

## ■ Telephone Maintenance

Assigns a Group to each extension number.

The settings for each extension detail can be edited in "List of Extension Entries" (PBX > Extension > List of Extension Entries).

All 🚺	2 Extension Number	Port Type 3	Status 4	Group 5	6
	31	SIP Phone (Automatic Detection)	Connected	Group 1 🗸	Reboot
	32	SIP Phone (Automatic Detection)	Connected	Group 1 🗸	Reboot
	33	SIP Phone (Automatic Detection)	Not Connected	Group 1 🗸	Reboot
	34	SIP Phone (Automatic Detection)	Not Connected	Group 1 🗸	Reboot
	3000	Transceiver Controller Telephone Connection		Group 1 🗸	

Check Box	Click to select the extensions if you want to reboot one or more KX series telephones. Click "All" to select all the entries. () The extensions where Status (()) is "Not Connected" cannot be selected.
2 Extension Number	Displays the extension number.
3 Port Type	Displays the port type of the telephone.
Status	<ul> <li>Displays the connection status of the telephone.</li> <li>① "Not Connected" is displayed for the telephone that is not registered to the SIP server of this RoIP gateway.</li> <li>① "—" is displayed for the Converter bridge or the Transceiver Controller Telephone Connection.</li> </ul>
<b>5</b> Group	Set the setting Group of the extension. You can customize the flexible function button assignments for each Group. (Default: Group 1) • Range: Group 1 ~ 30

### Telephone (KX-HDV Series) screen

### PBX Extension > Telephone (KX-HDV Series)

### ■ Telephone Maintenance

All 🚺	2 Extension Number	Port Type 3	Status 4	Group 5	6
	31	SIP Phone (Automatic Detection)	Connected	Group 1 V	Reboot
	32	SIP Phone (Automatic Detection)	Connected	Group 1 🗸	Reboot
	33	SIP Phone (Automatic Detection)	Not Connected	Group 1 V	Reboot
	34	SIP Phone (Automatic Detection)	Not Connected	Group 1 V	Reboot
	3000	Transceiver Controller Telephone Connection		Group 1 🗸	
				Reboot Se	8 lected Reboot Apply Res 9

6 <reboot></reboot>	Click to reboot the KX series telephone.
<pre> <b>                                    </b></pre>	Click to reboot the selected (with check marks) KX series telephones.
8 <reboot all=""></reboot>	Click to reboot all the KX series telephones whose Status (4) is "Connected" in the list.
Image: Second secon	Click to apply the entries.
<b>⑩</b> <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

Telephone (K)	K-HDV Series	) screen
---------------	--------------	----------

PBX Extension > Telephone (KX-HDV Series)

## Telephone Group

Edits the Group setting of the entered extension (telephone.)

Select Group Setting : Common Set	ing 🗸 Edit

Select Group Setting .....

Select the setting mode, and then click <Edit>.

• The setting screen for the selected Group is displayed.

### Common Setting

Common settings for the KX-HDV Series that are connected to the RoIP gateway, such as the tone patterns or volume levels.

• Group 1 ~ Group 30

The custom settings for the KX-HDV Series in the selected Group that are connected to the RoIP gateway, such as the flexible button assignments.

### Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

## ■ Dial Tone (Common Setting)

Sets the tone when off-hook.

Г

Dial Tone											
	Frequency 1 : 035	0									Hz
Frequency 1 : 1350 Frequency 2 : 440									Hz		
	Level : 2 0									~	dB
	Repeat : 3 🔾	Disable	O Enab	le 🖲 C	ontinuous	Sound					
	Timing : 4	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
		60	0								

<b>1</b> Frequency 1/2	• Range: 0 (inaudible)	ncies of the Dial tone. (Default: Frequency 1: 350 / Fr ), 200 ~ 2000 (Hz) 0 Hz tones simultaneously sound at defa	
2 Level	Set the audio level ( • Range: –24 (minimu	of the Dial tone. m) ~ +6 (maximum) (dB)	(Default: 0)
3 Repeat	• Disable: • Enable:	o repeat the set tone pattern. (Default: Con Sounds the set pattern in Timing (④) or Continuously repeats the set pattern in T Continuously sounds frequencies 1 and	iming (4)
Timing	sounds for the set p set period of time in	FF": 60 ~ 16000 (milliseconds)	

### Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

## Busy Tone Common Setting

Sets the tone when the line is busy.

Busy Tone											
	Frequency 1 :	30									Hz
	Frequency 1:1 4	20									Hz
	Level :2 0									~	dB
	Repeat : 3 〇	Disable	En	able 🔿	Contin	uous So	und				
	Timing :	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
		60	500	440							

1 Frequency 1/2	• Range: 0 (inaudible)	ncies of the Busy tone. (Default: Frequency 1: 480 / Freq , 200 ~ 2000 (Hz) 0 Hz tones simultaneously sound at defaul	- /
2 Level	Set the audio level o • Range: –24 (minimu	of the Busy tone. m) ~ +6 (maximum) (dB)	(Default: 0)
3 Repeat	<ul> <li>Disable:</li> <li>Enable:</li> </ul>	o repeat the set tone pattern. (De Sounds the set pattern in Timing (④) only Continuously repeats the set pattern in Tim Continuously sounds frequencies 1 and 2	-
<b>4</b> Timing	•	(Default: FF": 60 ~ 16000 (milliseconds)	

### Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

## Reorder Tone Common Setting

Sets the Reorder tone.

Reorder Tone												
	Frequency 1:1	480									Hz	_
	Frequency 1 : 1 Frequency 2 :	620									Hz	
	Level :2									~	dB	
	Repeat : 3	O Disable	En	nable C	Contir	nuous So	und					
	Timing : 4	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF		
		60	250	190								

<b>1</b> Frequency 1/2	• Range: 0 (inaudible),	cies of the Reorder tone. (Default: Frequency 1: 480 / Fre 200 ~ 2000 (Hz) Hz tones simultaneously sound at defa	
2 Level	Set the audio level o • Range: –24 (minimu	f the Reorder tone. m) ~ +6 (maximum) (dB)	(Default: 0)
3 Repeat	• Disable: • Enable:	o repeat the set tone pattern. ([ Sounds the set pattern in Timing (④) on Continuously repeats the set pattern in T Continuously sounds frequencies 1 and	iming (4)
<b>④</b> Timing	•	(Defau FF": 60 ~ 16000 (milliseconds)	

### Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

## ■ Ring Back Tone (Common Setting)

Sets the Ringback tone.

Frequency 1 : 1	40									Hz
Frequency 2 :	80									Hz
Level :2									~	dB
Repeat : 3	Disable	Ena	ble 🔿	Continu	ious Sou	nd				
Timing : 4	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	
	60	2000	3940							

1 Frequency 1/2	Set the tone frequencies of the Ringback tone. (Default: Frequency 1: 440 / Frequency 2: • Range: 0 (inaudible), 200 ~ 2000 (Hz) ① The 440 Hz and 480 Hz tones simultaneously sound at default.					
2 Level	Set the audio level of the Ringback tone.(Default: 0)• Range: -24 (minimum) ~ +6 (maximum) (dB)					
3 Repeat	Set whether or not to repeat the set tone pattern.(Default: Enable)• Disable:Sounds the set pattern in Timing (④) only once• Enable:Continuously repeats the set pattern in Timing (④)• Continuous Sound:Continuously sounds frequencies 1 and 2					
<b>4</b> Timing	Set the pattern of tone rings and mutes using up to 9 values. The tone sounds for the set period of time in the ON settings, and mutes for the set period of time in the OFF settings. (Default: 60, 2000, 3940) • Range of the first "OFF": 60 ~ 16000 (milliseconds) • Range of the others: 51 ~ 16000 (milliseconds)					

### Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

# ■ Hold Alarm (Common Setting)

Sets the Hold alarm tone that sounds to alert you a second call has been held for certain period of time.

old Alarm	
Frequency 1 : 1 425	Hz
Frequency 1 : 1 425 Frequency 2 : 0	Hz
	✓ dB

1 Frequency 1/2	Set the tone frequencies of the Hold alarm. (Default: Frequency 1: 425 / Fr • Range: 0 (inaudible), 200 ~ 2000 (Hz)	requency 2: 0)
2 Level	Set the audio level of the Hold alarm. • Range: –24 (minimum) ~ +6 (maximum) (dB)	(Default: 0)

PBX Extension > Telephone (KX-HDV Series)

### ■ Ringtone Pattern (Common Setting)

Sets the Ringtone patterns. The Ringtone patterns can be assigned to the

Ringtone Pattern								
*Unit of Ringtone set values shown are in mill	liseconds.							
Pattern 1 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	2000	4000						
Pattern 2 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	800	400	800	4000				
Pattern 3 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	400	200	400	200	800	4000		
Pattern 4 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	300	200	1000	200	300	4000		
Pattern 5 :	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	2000	4000						

#### Pattern 1 ~ 5.....

Set the pattern of tone rings and mutes using up to 8 values. The tone sounds for the set period of time in the ON settings, and mutes for the set period of time in the OFF settings.

Pattern	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Pattern 1	2000	4000	_	_	-	_	-	-
Pattern 2	800	400	800	4000	_	_	_	_
Pattern 3	400	200	400	200	800	4000	-	-
Pattern 4	300	200	1000	200	300	4000	-	-
Pattern 5	2000	4000	_	_	_	_	_	_

#### O The default values of Ringtone Patterns

• Range : 51 ~ 5000 (milliseconds)

A ring pattern must end with OFF.

① The ring patterns can be assigned, according to the incoming call type. See the next item for details.

```
PBX Extension > Telephone (KX-HDV Series)
```

### Ringtone Pattern Assignment Common Setting)

Assigns the Ringtone pattern of each incoming call group.

Outside Line A :	Pattern 1	~
Outside Line B :	Pattern 2	~
Outside Line C :	Pattern 3	~
Extension A :	Pattern 5	~
Extension B :	Pattern 4	~
Extension C :	Pattern 3	~
Extension Assignment :	Pattern 2	~
Hold Recall :	Pattern 2	~

Assign a Ringtone pattern for each incoming call type according to the setting on the Inbound Call screen. (PBX > Inbound Call)

#### (i) Information

- The incoming call group depends on the notified number of incoming calls.
- The calls from the phone numbers that are entered into extensions A to C are treated as internal calls.
- For an internal call from other than the entered extensions on the Inbound Call screen, the Ringtone pattern set in the "Extension Assignment" sounds.
- When recalling to a parked telephone, the Ringtone set in the "Hold Recall" sounds.

PBX Extension > Telephone (KX-HDV Series)

## ■ Telephone Common Settings Group 1 ~ 30)

Sets the rules for incoming calls for each Extension Group.

Felephone Common Settings		
Pickup Group Number : 1	01	
Call Pickup Target : 2		~
Group Pickup Target : 3		~
Directed Call Pickup Target : 4		~
Call Restriction : 5		~

Pickup Group Number	Enter a pick up group number of up to 7 digit.					
		(Default: 01 (for the Group1)) call of another group extension by dialing the p Pickup and the Group Number of the group. pick up the call to Group 1.)				
2 Call Pickup Target	Set the incoming call type the	ning call type that the group can pick up. (Default: Extension Only)				
	Options: Extension Only, Extension	ernal Call Only, or External Call/Extension				
<b>3</b> Group Pickup Target	extension in the same Group	at you can pick up, that arrives at an b. (Default: External Call/Extension) ernal Call Only, or External Call/Extension				
Oirected Call Pickup Target	extension in the same Group	hat you can pick up, that arrives at an (Default: External Call/Extension) ernal Call Only, or External Call/Extension				
<b>5</b> Call Restriction	Select whether or not to restrict making an external call.					
	Disable:	(Default: Disable)				
		You can make external calls. Restricts external calls according to the				
	Can Restriction Rule 1 10.	rules. The rules can be set in "Outbound Call				
		Restriction Rule Settings."				
	(PBX Advanced					
		Outbound Call Restriction Rule Settings)				
	External Call Restriction:	You cannot make any external calls but you can make internal calls (including Peer to Peer calls.)				

PBX Extension > Telephone (KX-HDV Series)

## ■ Telephone Individual Settings (KX-HDV Series) Group 1 ~ 30)

Sets the rules for the incoming calls, and so on, to each Extension group.

Dial Waiting Time : 1 _5	<ul> <li>seconds</li> </ul>
Accept Internal Calls while on an External Call : 🭳 💿 Refuse 🛛 Allow	
Accept External Calls without Button Assignment : 3 〇 Refuse 💿 Allow	
Holding a Call with the External Call Status Button : $4$ $\odot$ Refuse $\bigcirc$ Allow	
Long-Hold Watch Time : 5 180	seconds
Phonebook Sharing : 6 〇 Disable 💿 Enable	
Common Phonebook Sharing : 7 🔿 Disable 💿 Enable	

Dial Waiting Time	The waiting time to start dialing after you finished dialing. (Default: 5) • Range: 1 ~ 15 (seconds)
Accept Internal Calls while on an External Call	Set whether or not to accept an incoming extension call (including a Peer to Peer call) while you are talking on an external call. (Default: Refuse) (Default: Refuse) (Default: Refuse) (Default: Refuse)
Occept External Calls without Button Assignment	Set whether or not to accept an inbound call to a <dn key=""> or <not Used&gt; button when an <external call="" status=""> button is not assigned or all <external call="" status=""> buttons are busy. (Default: Allow) • Allow: Accepts an inbound call to a <dn key=""> or a <not used=""> button. • Refuse: Rejects an inbound call and returns the busy tone.</not></dn></external></external></not </dn>
Holding a Call with the External Call Status Button	When selecting "Allow," you can hold an external call using an <external call="" status=""> button. (Default: Refuse)</external>
SLong-Hold Watch Time	Sounds an alert if you hold a call for time longer than the set period of time. (Default: 180) • Range: 30 ~ 240 (seconds)

## Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

■ Telephone Individual Settings (KX-HDV Series)

Telephone Individual Settings (KX-HDV Series)				
Dial Waiting Time : 1 _5	✓ seconds			
Accept Internal Calls while on an External Call : 🥑 💿 Refuse 🛛 Allow				
Accept External Calls without Button Assignment : 3 〇 Refuse 💿 Allow				
Holding a Call with the External Call Status Button : 🕘 💿 Refuse 🛛 Allow				
Long-Hold Watch Time : 5 _180	seconds			
Phonebook Sharing : 6 〇 Disable 💿 Enable				
Common Phonebook Sharing : 7 🔿 Disable 💿 Enable				

Phonebook Sharing	Set whether or not to download the Phonebook data from the RoIP gateway at every boot up of a KX series telephone. You can download up to 300 entries to the common phonebook and up to 100 entries to the Group phonebook. (Default: Enable) (1) If disabling this setting, the phonbook is not downloaded even if the SIP phone is booted up.
Common Phonebook Sharing	Displayed only when "Phonebook Sharing" (6) is enabled. Set whether or not to download the Common Phonebook data from the RoIP gateway at every boot up of KX series telephones. (Default: Enable)

## Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

■ Telephone Individual Settings (KX-HDV Series)

#### Telephone Individual Settings (KX-HDV Series)

Transfer], [D					
Button Assignment (Page 1) 9					
Index	One Touch	Button Infomation	Button Label		
12	DN Key External Call Status		DN Key		
11	Call Fwd Always Call Fwd No Answer		DN Key		
10	Call Fwd Busy		DN Key		
9	Transfer Blind Transfer		DN Key		
8	Conference Not used		DN Key		
7	DN Key	~	DN Key		
6	DN Key	~	DN Key		
5	DN Key	<b>~</b>	DN Key		

Button Assignments 1 ~ 24

Assign a key function to each Flexible button.

number for an external call.

(Default: DN Key)

## • One Touch:

Used as an alias to a favorite number. You can assign a frequently used telephone number, a special number, prefix, and so on. The entered Button Lavel will be displayed on the KX-HDV series telephone. ① You can enter an external phone number with a prefix to use a special

24 One Touch V 3000\*101 Individual 101

## Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

■ Telephone Individual Settings (KX-HDV Series)

## Telephone Individual Settings (KX-HDV Series)

	Tansfer], [Dramsfer], or ]	once is selection the K	X-HDv		
Button Assignment (Page 1) 9					
Index	One Touch	Button Infomation	Button Label		
12	DN Key External Call Status		DN Key		
11	Call Fwd Always Call Fwd No Answer		DN Key		
10	Call Fwd Busy		DN Key		
9	Transfer Blind Transfer		DN Key		
8	Conference Not used		DN Key		
7	DN Key	~	DN Key		
6	DN Key	~	DN Key		
5	DN Key	~	DN Key		

## 9 Button Assignments 1 ~ 24 (Continued)

#### • DN key: (Directory Number)

Checks the line assigned to the DN button. When a call arrives on the DN button, pressing the button answers the call. Be sure to assign 2 or more DN keys.

#### The indicator status

- Quickly blinks blue: An external or an extension call has arrived
- Slowly blinks blue: Holding on your terminal
- Lights blue: The line is in use on your terminal

① The shared line is assigned to the order of the DN key button number.

① The number of sharable lines are the total number of DN keys. Also it depends on the setting on the "External Call Limiting" screen.

(PBX Advanced Settings > External Call Limiting)

**Note:** At least two DN keys are required, the one for incoming or talking, the other one for holding or keeping a call. Be sure to assign enough DN keys to manage the shared lines.

#### External Call Status

Checks the assigned External line (IP line) status. When a call arrives on the External Call Status button, pressing the button answers the call.

#### The indicator status

• Blinks red: An External Call is incoming or held

- Lights red: The line is in use
- ① Assign the same number of External Call Status buttons as the channels you are allowed.

## Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

■ Telephone Individual Settings (KX-HDV Series)

#### Telephone Individual Settings (KX-HDV Series) THE KX-HD INOL r transfer], [ inster], or to cel is sele outton w N Key] Button Assignment (Page 1) Button Infomation Button Label Index One Touch DN Key 12 External Call Status Call Fwd Always Call Fwd No Answer DN Key 11 Call Fwd Busy **DN Key** 10 Transfer Blind Transfer DN Key 9 Conference 8 Not used DN Key DN Key × 7 DN Key DN Key v DN Key 6 DN Kev DN Key 5

## 9 Button Assignments 1 ~ 24 (Continued)

#### Call Fwd Always

Forwards incoming calls to the specified extension while the indicator on this key lights red. Enter the extension number (with a special number, if required) of the forwarding destination. Push the button to start or stop forwarding.

#### The indicator status

- Lights red: Forwards calls
- Not lit: Does not forward calls
- ① You can also start or stop forwarding by dialing the special number for "Call Forward Always" (Default: \*94) and the extension number of the forwarding destination.

(PBX > Special Number > Telephone Special Number > Call Forward Always)

## Call Fwd No Answer

Forwards an incoming call to the specified extension when you don't answer the call for a certain period of time, such as when you are busy on another call.

Enter the extension number (with a special number, if required) of the forwarding destination.

Push the button to start or stop forwarding.

#### The indicator status

- Lights red: Forwards calls
- Not lit: Does not forward calls
- ① You can also start or stop forwarding by dialing the special number for "Call Forward No Answer" (Default: \*95) and the extension number of the forwarding destination.

(PBX > Special Number > Telephone Special Number > Call Forward No Answer)

## Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

■ Telephone Individual Settings (KX-HDV Series)

#### Telephone Individual Settings (KX-HDV Series)

Button Assignment (Page 1) 9				
ndex	One Touch	Button Infomation	Button Label	
12	DN Key External Call Status		DN Key	
11	Call Fwd Always Call Fwd No Answer		DN Key	
10	Call Fwd Busy		DN Key	
9	Transfer Blind Transfer		DN Key	
8	Conference Not used		DN Key	
7	DN Key	~	DN Key	
6	DN Key	~	DN Key	
5	DN Key	~	DN Key	

## 9 Button Assignments 1 ~ 24 (Continued)

#### Call Fwd Busy

Forwards an incoming call to the specified extension when you are busy on another call.

Enter the extension number (with a special number, if required) of the forwarding destination.

Push the button to start or stop forwarding.

#### The indicator status

- Lights red: Forwards calls
- Not lit: Does not forward calls
- ① You can also start or stop forwarding by dialing the special number of "Call Forward Busy" (Default: \*96) and the extension number of forwarding destination.

(PBX > Special Number > Telephone Special Number > Call Forward Busy)

## Telephone (KX-HDV Series) screen

PBX Extension > Telephone (KX-HDV Series)

■ Telephone Individual Settings (KX-HDV Series)

## Telephone Individual Settings (KX-HDV Series)

angrentansfer], tommansfer], or tomma lis selection and KX-HDV to button women or Key].					
Button Assignment (Page 🧐					
Index	One Touch	Button Infomation	Button Label		
12	DN Key External Call Status		DN Key		
11	Call Fwd Always Call Fwd No Answer		DN Key		
10	Call Fwd Busy Transfer		DN Key		
9	Blind Transfer Conference		DN Key		
8	Not used		DN Key		
7	DN Key	<b>~</b>	DN Key		
6	DN Key	~	DN Key		
5	DN Key	~	DN Key		

## **9** Button Assignments 1 ~ 24 (Continued)

#### Transfer

Holds and forwards a call to the specified extension. After the forwarding destination answers, push [OK] or hang up to transfer a call.

#### Blind Transfer

Holds and immediately forwards a call to the specified extension. Enter the extension number of the destination and hang up the telephone.

#### Conference

Holds a call and makes a conference call to the specified extension. Enter the extension number of the destination. After the destination answers, push the <CONF> button to start the conference call.

#### Not used

Does not assign any function.

## Expand Unit (KX-HDV230) Expand Unit 1 ~ 5 screen

PBX Extension > Expand Unit (KX-HDV230) Expand Unit 1 ~ 5

## Telephone Maintenance

Enters the common phonebook or the phonebook that is shared in the particular Group for the KX series SIP phones. The settings of each extension details can be edited in "List of Extension Entries" (PBX > Extension > List of Extension Entries).

All 🚺	Extension Number	Port Type 3	Status 4	Group 5	6
	31	SIP Phone (Automatic Detection)	Connected	Group 1 🗸	Reboot
	32	SIP Phone (Automatic Detection)	Connected	Group 1 🗸	Reboot
	33	SIP Phone (Automatic Detection)	Not Connected	Group 1 🗸	Reboot
	34	SIP Phone (Automatic Detection)	Not Connected	Group 1 🗸	Reboot
	3000	Transceiver Controller Telephone Connection		Group 1 🗸	

Check Box	Click to select the extensions if you want to reboot one or more KX series telephones. Click "All" to select all the entries. ① The extensions where Status (④) is "Not Connected" cannot be selected.
<b>2</b> Extension Number	Displays the extension number.
3 Port Type	Displays the port type of the telephone.
Status	<ul> <li>Displays the connection status of the telephone.</li> <li>① "Not Connected" is displayed for the telephone that is not registered to the SIP server of this RoIP gateway.</li> <li>① "" is displayed for the Converter Bridge or the Transceiver Controller Telephone Connection.</li> </ul>
5 Group	Set the line Group of the extension. You can customize the flexible function button assignments for each Group. Assign the same Group if you want to use the button functions from other telephones by dialing the special number and button number. (For example: When picking up a parked telephone call) • Range: Group 1 ~ 30

## Expand Unit (KX-HDV230) Expand Unit 1 ~ 5 screen

PBX Extension > Expand Unit (KX-HDV230) Expand Unit 1 ~ 5

## ■ Telephone Maintenance

All 🚺	Extension Number	Port Type 3	Status 4	Group 5	6
	31	SIP Phone (Automatic Detection)	Connected	Group 1 🗸	Reboot
	32	SIP Phone (Automatic Detection)	Connected	Group 1 V	Reboot
	33	SIP Phone (Automatic Detection)	Not Connected	Group 1 🗸	Reboot
	34	SIP Phone (Automatic Detection)	Not Connected	Group 1 🗸	Reboot
	3000	Transceiver Controller Telephone Connection		Group 1 🗸	

<b>⑥</b> <reboot></reboot>	Click to reboot the KX series telephone.
Reboot Selected>	Click to reboot the selected (with check marks) KX series telephones.
<pre>8<reboot all=""></reboot></pre>	Click to reboot all the KX series telephones whose Status (④) is "Connected" in the list.
	Click to apply the entries.
<pre>@<reset></reset></pre>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

## Expand Unit (KX-HDV230) Expand Unit 1 ~ 5 screen

PBX Extension > Expand Unit (KX-HDV230) Expand Unit 1 ~ 5

## ■ Telephone Group

Edits the Group setting of the entered extension (telephone)

Telephone Group				
Select Group Setting :	Group 1	~	Edit	

Select Group Setting .....

Select a Group from Group 1 to Group 30 that you want to edit, and then click <Edit> to enter the edit mode.

## Expand Unit (KX-HDV230) Expand Unit 1 ~ 5 screen

PBX Extension > Expand Unit (KX-HDV230) Expand Unit 1 ~ 5

## ■ Telephone Individual Settings (KX-HDV230)

Assigns the function to each flexible button on the expand units 1 to 5.

		Button Assignment (Page	1)	
Index	Button Type	Button Infomation	Button Label	
10	DN Kev One Touch	<b>~</b> _	DN Key	
9	DN Key External Call Status		DN Key	
8	Call Fwd Always Call Fwd No Answer		DN Key	
7	Call Fwd Busy		DN Key	
6	Transfer Blind Transfer		DN Key	
5	Conference Not used		DN Key	
4	DN Key	~	DN Key	
3	DN Key	✓	DN Key	
2	DN Key	✓	DN Key	
1	DN Key	~	DN Key	

Button Assignment .....

Expand Unit 1 (1 ~ 40) Expand Unit 2 (41 ~ 80) Expand Unit 3 (81 ~ 120) Expand Unit 4 (121 ~ 160) Expand Unit 5 (161 ~ 200) Assign a button function to each flexible button.

- The Assignable functions:
- One Touch
- DN Key (Directory Number)\*
- External Call Status\*
- Call Fwd Always\*
- Call Fwd No Answer\*
- Call Fwd Busy\*
- Transfer
- Blind Transfer
- Conference
- Not used

\* Assignable only to Expand unit 1 (Button 1 ~ 40)

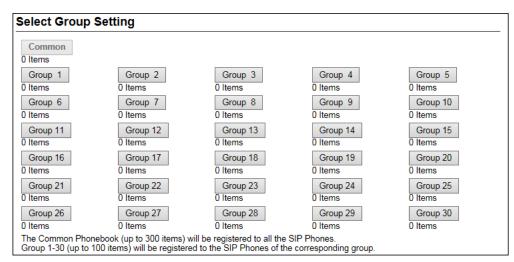
① Refer to the "Button Assignment" on pages 13-33 ~13-37 for details on each button function.

## Phonebook screen

PBX Extension > Phonebook

## Select Group Setting

Edits the phonebook to the Common phonebook and the Group phonebooks.



## Select Group Setting .....

Click the button that you want to edit its phonebook.

The entries in the selected phonebook are displayed in the "List of Phonebook Entries" below on the screen. (See page 13-47.)

- ① The number of entries are displayed below the Group buttons.
- ① You can edit the Group setting in "Telephone Maintenance."
   (PBX Extension > Telephone (KX-UT Series) > Telephone Maintenance)
   (PBX Extension > Telephone (KX-HDV Series) > Telephone Maintenance)

## Phonebook screen

## PBX Extension > Phonebook

## Save or Write the Phonebook

You can save or load the selected phonebook to or from a CSV format file.

ve or Write the Phonebook					
Load Settings from File : 1	Browse				
Write A CSV format file can be written to this product.					
When the file is written, the current settings will be overwritten.					
Save to File : 2 Save Save to phonebook.csv file.					

Load Settings from File	You can load the saved phonebook from a CSV format file. Click <browse> and select the setting file (phonebook.csv) from the displayed list, and then click <open>. Confirm the correct file is selected, and then click <write> to load the phonebook from the selected file.</write></open></browse>
	① Note that the phonebook settings will be overwritten when the phonebook is loaded.
	① The setting backup file on the "Settings Backup/Restore" includes the phonebook data. If the setting file is loaded on the "Settings Backup/Restore" screen (Management > Settings Backup/Restore > Settings Restore), the phonebook settings will be overwritten.
	① A file that is saved by other than the following procedures may not work properly:
	<ul> <li>Saved file using the <save> (2) button.</save></li> </ul>
	<ul> <li>A CSV file in the same format as described on the next page.</li> </ul>
<b>2</b> Save to File	Saves the settings in the "List of Phonebook Entries," on the screen, to a CSV format file.
	Click <save> and select a folder to save the file into.</save>
	① You can edit the saved file in a spreadsheet.
	① The saved file name depends on the selected Group.
	(For example: The phonebook for Group 1 is saved to phonebook01.csv)

## Phonebook screen

#### PBX Extension > Phonebook

#### ■ Save or Write the Phonebook

#### O About the rules of a CSV file for the phonebook

When editing a saved CSV file, be sure to observe the following rules. Otherwise the phonebook settings may not load properly into the RoIP gateway.

	Α	В	С	D	Е	F	G	Н	I	J
1	#	VE-PG4	Phonebook	cor	nfig fi	le				
2	#	Firm Ver.								
3	#	File Ver.								
4	#No.	Name	Phone Number	_	_	Nickname	Speed Dial	Display Type (0=Phone Number/1=Speed Dial Number)	Line Type(0=Outside call/1=Extension)	group
5	1	Sales 1	tel:0123456788			Sales 1	tel:201	0	0	1
6	2	Sales 2	tel:0123456789			Sales 2	tel:202	0	0	1
7	3	John Smith	tel:0123456790			John	tel:	0	0	1
8										

Column	Title	Description
Α	Index	1 ~ 300 for the Common phonebook, 1 ~ 100 for a Group phonebook
		Do not duplicate the number.
В	Name	Up to 30 characters
С	Phone Number	"tel:" and up to 22 digits or prefix
D	<ul> <li>(Reserved)</li> </ul>	Do not edit or delete this column.
E	<ul> <li>– (Reserved)</li> </ul>	Do not edit or delete this column.
F	Nickname	Up to 30 characters
G	Speed Dial Number	"tel:" and up to 7 characters, leave blank if you do not use the Speed Dial
		Number.
Н	Display Type	0: Phone Number, 1: Speed Dial Number
I	Line Type	0: External line, 1: Extension
		Do not edit or delete this column.
J	group	1 ~ 10
		Do not edit or delete this column.

• The lines that begins with "#" are comments.

Delete unnecessary lines.

Phonebook screen

PBX Extension > Phonebook

## Phonebook Entry

You can enter frequently used or commonly used phone numbers into a phonebook. Refer to the Installation guide for details on using a phonebook.

	Index : 11	~
	Name : 2	
	Nickname : 3	
	e Number : 🥝	
Speed Dia	I Number : 5	
Disp	blay Type : 6 Phone Number	

<b>1</b> Index	<ul> <li>Select a number from the list.</li> <li>Range for the Common phonebook: 1 ~ 300</li> <li>Range for the Group phonebooks: 1 ~ 100</li> </ul>
<b>2</b> Name*	Enter a destination name of up to 30 characters.
<b>3</b> Nickname*	Enter a nickname of up to 30 characters.
Phone Number*	<ul> <li>Enter the telephone number (with a special number and prefix, if required) of the destination.</li> <li>① You cannot enter an alias number of up to 22 digits with a special number or a prefix.</li> </ul>
Speed Dial Number	<ul> <li>Enter an alias number of up to 7 digits.</li> <li>The Speed Dial Number is used when making an external call, or a Peer to Peer call (that does not go through the SIP server.)</li> <li>① You cannot dial a Speed Dial Number after any special number and/or a prefix.</li> <li>① A Speed Dial Number is usable on the line that is set in "Extension."</li> <li>① The Speed Dial Number is usable for telephones other than the KX series.</li> </ul> <b>About the Speed Dial numbers</b> Setting numbers other than the emergency telephone numbers in your area are recommended as Speed Dial numbers.

\*Required to enter a phonebook.

## Phonebook screen

## PBX Extension > Phonebook

## Phonebook Entry

Phonebook Entry		
Index : 1	1	~
Name : 2		
Nickname : 3		
Phone Number : 4		
Speed Dial Number : 5		
Display Type : 6	Phone Number	<b>— — — — — — — — — —</b>
		Apply Reset

<b>6</b> Display Type	Select "Phone Number" or "Speed Dial Number" to display a phonebook on the telephone. (Default: Phone Number			
♂ <apply></apply>	Click to apply the entries.			
8 <reset></reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>			

Phonebook screen

PBX Extension > Phonebook

## ■ List of Phonebook Entries

Lists the phonebook entries.

Index	Name	Nickname	Phone Number	Speed Dial Number	Display Type	1 2
1	Sales 1	Sales 1	0101234567	201	Phone Number	Edit Delete
2	Sales 2	Sales 2	0101234568	202	Phone Number	Edit Delete
3	John Smith	John	0101234578		Phone Number	Edit Delete

❶ <edit></edit>	Click to edit an entry.
<b>2</b> <delete></delete>	Click to delete an entry. ① You cannot restore after clicking <delete>.</delete>
3 <delete all=""></delete>	Click to delete all the entries. ① You cannot restore after clicking <delete all="">.</delete>

## Transceiver Controller Telephone Connection screen

PBX Extension > Transceiver Controller Telephone Connection

## Transceiver Controller Telephone Connection

Settings for communication between an IP transceiver and a SIP phone.

```
Transceiver Controller Telephone Connection
```

Extension Number : 3000

Extension Number .....

Displays the extension number of the Transceiver Controller Telephone Connection that is set in "Extension." (PBX > Extension > Extension)

PBX Extension > Transceiver Controller Telephone Connection

## Communication

Settings to communicate between a SIP phone and a transceiver that belongs to a group set in the RoIP gateway.

Communication					
Default Callee ID					
Call Type : 1 Group	~				
Destination ID : 2 1					

❶ Call Type	Set the call type to send from a SIP phone to a to to the RoIP gateway. • Options: Individual, Group, or All	ransceiver that belongs (Default: Group)
<b>2</b> Destination ID	Does not displayed when the Call Type (1) is se Enter the Individual ID or Group ID of the destina	
	<ul> <li>Range: 1 ~ 9999</li> </ul>	( )

PBX Extension > Transceiver Controller Telephone Connection

## Control

The settings for communication control between a SIP phone and a transceiver that are linked to the RoIP gateway.

Control				
PTT Call Cancel on Call Incoming :	O Disable			
Target Availability Check :2				
Timing of Target Availability Check : Notice Tone on the Transceiver	After Call     Prior to Call			
oan meening.	Not used		$\sim$	
Calling :5	Notice Tone 2		~	
Connection Success :6	Notice Tone 2		$\sim$	
	Notice Tone 3		$\sim$	
Connection Failure :	Notice Tone 3		~	
Notice Tone Volume :9	0	~	dB	

PTT Call Cancel on Call Incoming	Select "Enable" to cancel the current call if a SIP another call from the same transceiver while a ca	•
Target Availability Check	Select whether or not to check the availability of a transceiver when a SIP phone makes a call to it. If this setting is enabled, the RoIP gateway will st a linked transceiver if the destination transceiver answer in 5 seconds.	top sending a call to
<b>3</b> Timing of Target Availability Check	Set when the Target Availability Check (2) will or • After Call: Checks after a call is established	ccur. (Default: After Call)

• Prior to Call: Checks before a call is established

## Transceiver Controller Telephone Connection screen

## PBX Extension > Transceiver Controller Telephone Connection

## Control

Control		
PTT Call Cancel on Call Incoming :0	O Disable   Enable	
Target Availability Check :2	Disable      Enable	
Timing of Target Availability Check :3 Notice Tone on the Transceiver	After Call     O Prior to Call	
Call Incoming :	Not used	~
Calling:5	Notice Tone 2	~
Connection Success:	Notice Tone 2	~
		~
Connection Failure :		~
Notice Tone Volume : 9	0	✓ dB

Call Incoming	Select a Notice Tone to send to notify a transceiver that a call from a         SIP phone has arrived.       (Default: Not used)         • Not used:       Does not send a Notice Tone (The transceiver automatically answers.)         • Notice Tone 1 ~ 3:       Sends the selected Notice Tone (The transceiver can answer by pushing [PTT] between the Notice Tones.)
5 Calling	The Notice Tone to send to a transceiver while calling a target SIP phone. (Default: Notice Tone 2)
6 Connection Success	The Notice Tone to send to a transceiver alerting that the target SIP phone answered the call. (Default: Notice Tone 2)
⑦ Disconnect	The Notice Tone to send to a transceiver alerting that the target SIP phone has hung up the call. (Default: Notice Tone 3)
8 Connection Failure	The Notice Tone to send to a transceiver alerting that the call could arrive at the target SIP phone. (Default: Notice Tone 3)
Notice Tone Volume	Set the volume level of the Notice Tones (4 ~ 8). (Default: 0) • Range: –12 (minimum) ~ +6 (maximum) (dB)

## Transceiver Controller Telephone Connection screen

## PBX Extension > Transceiver Controller Telephone Connection

## Control

PTT Control Type		
Group Call/All Call 🕕	VOX	~
Individual Call to a Wireless LAN Transceiver 12	VOX	~
Individual Call to a IP Transceiver 🕚	VOX	~
Individual Call to a Digital Transceiver .	VOX	~
Individual Call to an EXT (Transceiver) :15	DTMF	~
Individual Call to an EXT (EXT I/O Unit)	VOX	~
Individual Call to a Microphone ${f 0}$	VOX	~
	0	~
PTT-OFF Tone	0	~
Call Initiation Control		
Method 20	RTP	~

(1) "PTT-ON Tone"
 (10) and "PTT-OFF Tone"
 (10) are displayed only when any PTT Control Types from
 "Group Call/All Call"
 (11) to "Individual Call to a Microphone"
 (11) are set to "DTMF."

## **O PTT Control Type**

Sets the type of signal that SIP phones use to communicate for each call type or destination device type. • Options: VOX (Voice signal,) DTMF (Tone signal,) or Constant Transmission during Call

When "Constant Transmission during Call" is selected, the No Voice Release Timer detects the communication status only by the signal received from the specified destination.

(PBX Extension > Transceiver Controller Telephone Connection > Release Timer) If a signal from the specified destination is not received for the set period of time, the call may be terminated because of the No Vice Release Timer function.

Group Call/ All Call	transceiv	()
	• VOX:	When a voice signal is received from a SIP phone, the target transceiver enters the transmit mode.
	• DTMF:	When a tone signal is received from a SIP phone, the target transceiver enters the transmit mode.
	Consta	nt Transmission during Call:
		As soon as the communication is established, the target transceiver enters the transmit mode.
		The No Voice Release Timer detects only the signal (VOX or RTP) received from the Converter Bridge connection destination.
Individual Call to a		
Wireless LAN Transceiver	Set the signal type for Individual calls to Wireless LAN transc (De	
	• VOX:	When detecting a voice signal from a SIP phone, the target Wireless LAN transceiver enters the receive mode.
	• DTMF:	When detecting a tone signal from a SIP phone, the target Wireless LAN transceiver enters the receive mode.
	Consta	nt Transmission during Call:
		As soon as the communication is established, the target Wireless
		LAN transceiver enters the receive mode.
		The No Voice Release Timer detects only the signal (VOX or RTP) received from the Wireless LAN transceiver.

## Transceiver Controller Telephone Connection screen

## PBX Extension > Transceiver Controller Telephone Connection

#### Control

PTT Control Type		
Group Call/All Call : 🕕	VOX	~
Individual Call to a Wireless LAN Transceiver : 12		~
Individual Call to a IP Transceiver : 📵	VOX	~
Individual Call to a Digital Transceiver : 🚺		~
Individual Call to an EXT (Transceiver) : 15		~
Individual Call to an EXT (EXT I/O Unit) :		~
Individual Call to a Microphone : 🕧		~
PTT-ON Tone : 18		~
PTT-OFF Tone : 19		~
Call Initiation Control		
Method 20	RTP	~

(1) "PTT-ON Tone" (1) and "PTT-OFF Tone" (1) are displayed only when any PTT Control Types from "Group Call/All Call" (1) to "Individual Call to a Microphone" (1) are set to "DTMF."

#### Individual Call to a IP Transceiver ..... Set the signal type for Individual calls to IP transceivers. (Default: VOX) · VOX: When detecting a voice signal from a SIP phone, the target IP transceiver enters the receive mode. • DTMF: When detecting a tone signal from a SIP phone, the target IP transceiver enters the receive mode. Constant Transmission during Call: As soon as the communication is established, the target IP transceiver enters the receive mode. The No Voice Release Timer detects only the signal (VOX or RTP) received from the IP transceiver. Individual Call to a Digital Transceiver ..... Set the signal type for Individual Calls to digital transceivers. (Default: VOX) · VOX: When a voice signal is received from a SIP phone, the digital transceiver enters the transmit mode. • DTMF: When a tone signal is received from a SIP phone, the digital transceiver enters the transmit mode. Constant Transmission during Call: As soon as the communication is established, the digital transceiver enters the receive mode. The No Voice Release Timer detects only the signal (VOX or RTP) received from the digital transceiver. **(b** Individual Call to an Set the signal type for Individual Calls to EXT (transceivers.) EXT (Transceiver) ..... (Default: VOX) • VOX: When a voice signal is received from a SIP phone, the EXT (transceiver) enters the transmit mode. • DTMF: When a tone signal is received from a SIP phone, the EXT (transceiver) enters the transmit mode. Constant Transmission during Call: As soon as the communication is established, the EXT (transceiver) enters the receive mode. The No Voice Release Timer detects only the signal (VOX or RTP)

received from the EXT (transceiver.)

## Transceiver Controller Telephone Connection screen

## PBX Extension > Transceiver Controller Telephone Connection

## Control

PTT Control Type		
Group Call/All Call : 🕕	VOX	~
Individual Call to a Wireless LAN Transceiver : 10		~
Individual Call to a IP Transceiver : 📵	VOX	~
Individual Call to a Digital Transceiver : 🚺	VOX	~
Individual Call to an EXT (Transceiver) : 😈		~
Individual Call to an EXT (EXT I/O Unit) : 16		~
Individual Call to a Microphone : 🕧	VOX	~
PTT-ON Tone : 18		~
PTT-OFF Tone : 19	0	~
Call Initiation Control		
Method 20	RTP	~

① "PTT-ON Tone" (18) and "PTT-OFF Tone" (19) are displayed only when any PTT Control Types from "Group Call/All Call" (1) to "Individual Call to a Microphone" (1) are set to "DTMF."

#### 10 Individual Call to an EXT

EXT (EXT I/O Unit)	Set the signal type for Individual Calls to EXT (I/O units.)			
		(Default: VOX)		
	• VOX:	When a voice signal is received from a SIP phone, the EXT (I/O unit) enters the transmit mode.		
	• DTMF:	When a tone signal is received from a SIP phone, the EXT (I/O unit) enters the transmit mode.		
	Constant Transmission during Call:			
		As soon as communication is established, the EXT (I/O unit) enters the transmit mode.		
		The No Voice Release Timer detects only the signal (VOX or RTP) received from the EXT (I/O unit.)		
Individual Call to a				
Microphone	Set the s	ignal type for Individual Calls to a speaker microphone. (Default: VOX)		
	• VOX:	When a voice signal is received from a SIP phone, the speaker microphone enters the receive mode.		
	• DTMF:	When a tone signal is received from a SIP phone, the speaker		

- microphone enters the receive mode.
- Constant Transmission during Call:

As soon as communication is established, the microphone enters the receive mode.

The No Voice Release Timer detects only the signal (VOX or RTP) received from the speaker microphone.

## Transceiver Controller Telephone Connection screen

## PBX Extension > Transceiver Controller Telephone Connection

## Control

PTT Control Type		
Group Call/All Call : 🕕	VOX	~
Individual Call to a Wireless LAN Transceiver : 10		~
Individual Call to a IP Transceiver : 📵		~
		~
Individual Call to an EXT (Transceiver) : 😈	DTMF	~
Individual Call to an EXT (EXT I/O Unit) :		~
Individual Call to a Microphone :		~
PTT-ON Tone : 18		~
PTT-OFF Tone : 19		~
Call Initiation Control		
Method 20	RTP	~

(1) "PTT-ON Tone" (18) and "PTT-OFF Tone" (19) are displayed only when any PTT Control Types from "Group Call/All Call" (10) to "Individual Call to a Microphone" (10) are set to "DTMF."

PTT-ON Tone	Select the PTT-ON tone when any signal types shown above (1) ~ 17) is set to "DTMF." (Default: 0) • Range: 0 ~ 9, *, or #
	① Dial this number on the SIP phone to make a destination device start transmitting.
	① If you enter the same value in both the PTT-ON Tone and the PTT-OFF Tone, you can toggle the destination device status by dialing this number.
PTT-OFF Tone	Select the PTT-OFF tone when any signal types shown above (1) ~ 1) is set to "DTMF." (Default: 0) • Range: 0 ~ 9, *, or #
	① Dial this tone on the SIP phone to make the destination device to stop transmitting.
	① If you enter the same value in both the PTT-ON Tone and PTT-OFF Tone, you can toggle the destination device status by dialing this number.
20 Method	Set the transmitting trigger to make a call from a transceiver controller
	to the IP telephone system. (Default: RTP)
	<ul> <li>VOX: Starts dialing when the VOX detects voice data in the voice packet that is received by the bridge interface through the RTP (Real-time Transport Protocol).</li> </ul>
	• <b>RTP</b> : Starts dialing when the RTP (voice data packet) is longer than the set period time in the Attack Time setting is received, regardless of if the RTP includes voice data or not.

PBX Extension > Transceiver Controller Telephone Connection

## PTT Control Setting

The VOX (voice operated transmission) function automatically switches the connected transceiver to transmit, when the RoIP gateway receives an audio signal through the network.

PTT Control Setting	
Setting values of Attack Time, Release Time and Voice Delay are set in five milliseconds	steps.
Attack Time : 1 50	milliseconds
Release Time : 2 500	milliseconds
Voice Delay : 3 _200	milliseconds
VOX Threshold 40	%

1 Attack Time	Enter the TX delay time. • Range: 5 ~ 500 (milliseconds) in 5 millisecond steps	(Default: 50)
	After the continuous signal for the set period of time is rec SIP phone, the transceiver controller starts to transmit.	eived from a
Release Time	Select the RX delay time. • Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps	(Default: 500)
	This is the delay time for the VOX to turn OFF, after no au received through the network.	dio signal is
<b>3</b> Voice Delay	Set the audio signal buffer time to prevent intermittent aud	lio. (Default: 200)
	<ul> <li>Range: 0 ~ 1500 (milliseconds) in 5 millisecond steps</li> </ul>	(20100111 200)
	The voice delay is the amount of time the RoIP gateway s	tores the
	transmitted audio to prevent missing the first part of the sp	eech.
<b>4</b> VOX Threshold	Set the voice threshold level. • Range: 0 ~ 100 (%)	(Default: 40)
	The VOX function automatically switches between receive according to this threshold level. The lower values make the function more sensitive to the voice input.	

PBX Extension > Transceiver Controller Telephone Connection

## ■ Call Initiation Setting

Sets the details on voice transmission to the SIP phone when there is voice input from the transceiver controller.

Call Initiation Setting		
*Setting values of Attack Time, Release Ti	me and Voice Delay are set in five milliseconds steps.	
Attack Time : 1	1000	milliseconds
Release Time : 2	200	milliseconds
Voice Delay :	5	milliseconds
VOX Threshold : 4		%

Attack Time	Enter the TX attack time in 5 millisecond step. It is the delate the VOX switch turns ON after an audio signal is received in network. (E Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps	
Release Time	Select the RX delay time in 5 millisecond step. It is the dela the VOX switch to turn OFF after no audio signal is receive the network. • Range: 5 to 2000 (milliseconds) in 5 millisecond steps	
<b>3</b> Voice Delay	Set the audio signal buffer time to prevent intermittent audi	o. (Default: 5)
	<ul> <li>Range: 0 ~ 500 (milliseconds) in 5 millisecond steps</li> </ul>	
<b>4</b> VOX Threshold	<ul> <li>The VOX function automatically switches between receive according to this threshold level.</li> <li>Range: 0 ~ 100 (%)</li> <li>① Lower values make the VOX function more sensitive to the automatically switches are sensitive to the automatically switches are sensitive.</li> </ul>	(Default: 70)

PBX Extension > Transceiver Controller Telephone Connection

## ■ Notice Tone on the Telephone

Sets the details on the notification to a SIP phone, when a call has arrived on a transceiver controller from a SIP phone.

Notice Tone on the Telepho	ne	
Connection Success 1	Notice Tone 1	~
PTT Monitoring 2		~
Notice Tone Volume		✓ dB

Connection Success	Select a Notice Tone to notify a SIP phone that a call has arrived on the transceiver controller and the SIP phone is ready to transmit. (Default: Notice Tone 1)		
	Not used: Does not send a Notice Tone		
	<ul> <li>Notice Tone 1 ~ 3: Sends the selected Notice Tone</li> </ul>		
<b>2</b> PTT Monitoring	Select a Notice Tone to alert you to switch receiving and transmitting. (Default: Not used)		
	Not used: Does not send a Notice Tone		
	<ul> <li>Notice Tone 1 ~ 3: Sends the selected Notice Tone</li> </ul>		
<b>3</b> Notice Tone Volume	Set the volume level of the Notice Tones (1 ~ 2). (Default: 0) • Range: –12 (minimum) ~ +6 (maximum) (dB)		

## Transceiver Controller Telephone Connection screen

PBX Extension > Transceiver Controller Telephone Connection

## Release Timer

Sets the timers for canceling or disconnecting a call.

Release Timer	
Call Cancel Timer : 1 15	seconds
No Voice Release Timer : 2 15 Forced Disconnect	seconds
Forced Disconnect Timer : 3 10	minutes
	Apply Reset

Call Cancel Timer	Enter the period of time to cancel the call. When the set time has passed without a response from the SIP phone, the call is canceled. (Default: 15) • Range: 0 (OFF) or 5 ~ 60 (seconds)
No Voice Release Timer	Enter the period of time to stop transmitting. When the set time has passed with no audio signal, transmitting is stopped. (Default: 15) • Range: 0 (OFF) or 5 ~ 600 (seconds)
Sorced Disconnect Timer	Enter the period of time to be forcibly stop transmitting. When the set time has passed, transmitting is stopped, even when communication is ongoing. (Default: 10) • Range: 0 (OFF) or 5 ~ 120 (minutes)

## **Converter Bridge screen**

PBX Extension > Converter Bridge

## Converter Bridge

Selects a extension whose settings you want to edit settings in the "Connection" item below.

Converter Bridge			
Extension Number :	(Converter Bridge1)	~	

Extension Number .....

Displays the extension number of the Converter Bridge, if it is set in "Extension" (PBX > Extension > Extension.)

## Converter Bridge screen

PBX Extension > Converter Bridge

## Connection

Sets the destination device of the bridge connection that connects to the SIP phones

Connection		
Transmission Mode :	Multicast	~
Destination Address	239.255.255.1	
Destination Port Number	22510	
Source Port Number	22510	
Voice Protocol		
•	*Voice Protocol can be set on the Bridge Connection.	
Multicast TTL :6	1	
Connection Status :		

① The screen above is when the Transmission Mode (1) is set to "Multicast".

<b>1</b> Transmission Mode	Set the transmissio	n mode on each	extension (port) numb (De	er. fault: Unicast)
2 Destination Address	Set an appropriate (1) setting.	, 0		
	• For Unicast:			
		Set the same va destination.	lue as the bridge setting	,
<b>3</b> Destination Port Number	<ul> <li>Set the same port number as the "Source Port Number" (4) setting of the VE-PG4 that works as the Converter Bridge connection Destination.</li> <li>Range: An even number from 2 to 65534.</li> <li>Do not duplicate other connection port settings.</li> <li><b>The Default port settings in the Unicast mode</b></li> </ul>			
	PORT	DEFAULT	PORT	DEFAULT
	Converter Bridge 1	24200	Converter Bridge 11	24220
	Converter Bridge 2	24202	Converter Bridge 12	24222
	Converter Bridge 3	24204	Converter Bridge 13	24224
	Converter Bridge 4	24206	Converter Bridge 14	24226
	Converter Bridge 5	24208	Converter Bridge 15	24228
	Converter Bridge 6	24210	Converter Bridge 16	24230

24212

24214

24216

24218

Converter Bridge 17

Converter Bridge 18

Converter Bridge 19

Converter Bridge 20

24232

24234

24236

24238

Converter Bridge 7

Converter Bridge 8

Converter Bridge 9

Converter Bridge 10

## Converter Bridge screen

## PBX Extension > Converter Bridge

### Connection

Connection		
Transmission Mode :	Multicast	~
Destination Address	239.255.255.1	
Destination Port Number	22510	
Source Port Number	22510	
Voice Protocol		
	*Voice Protocol can be set on the Bridge Connection.	
Multicast TTL :6	1	
Connection Status		

① The screen above is when the Transmission Mode (1) is set to "Multicast".

## **3 Destination Port Number** (Continued)

## O The Default port settings in the Multicast mode

PORT	DEFAULT	PORT	DEFAULT		
Converter Bridge 1	22510	Converter Bridge 11	22510		
Converter Bridge 2	22510	Converter Bridge 12	22510		
Converter Bridge 3	22510	Converter Bridge 13	22510		
Converter Bridge 4	22510	Converter Bridge 14	22510		
Converter Bridge 5	22510	Converter Bridge 15	22510		
Converter Bridge 6	22510	Converter Bridge 16	22510		
Converter Bridge 7	22510	Converter Bridge 17	22510		
Converter Bridge 8	22510	Converter Bridge 18	22510		
Converter Bridge 9	22510	Converter Bridge 19	22510		
Converter Bridge 10	22510	Converter Bridge 20	22510		

**4** Source Port Number .....

# Set the same port number as the setting in the Converter Bridge connection destination.

Range: An even number from 2 to 65534

① Do not duplicate other connection port settings, when using in the Unicast mode.

O The Default por	t settings in the	Unicast mode
-------------------	-------------------	--------------

PORT	DEFAULT	PORT	DEFAULT
Converter Bridge 1	24200	Converter Bridge 11	24220
Converter Bridge 2	24202	Converter Bridge 12	24222
Converter Bridge 3	24204	Converter Bridge 13	24224
Converter Bridge 4	24206	Converter Bridge 14	24226
Converter Bridge 5	24208	Converter Bridge 15	24228
Converter Bridge 6	24210	Converter Bridge 16	24230
Converter Bridge 7	24212	Converter Bridge 17	24232
Converter Bridge 8	24214	Converter Bridge 18	24234
Converter Bridge 9	24216	Converter Bridge 19	24236
Converter Bridge 10	24218	Converter Bridge 20	24238

## Converter Bridge screen

## PBX Extension > Converter Bridge

## Connection

Connection		
Transmission Mode :	Multicast	~
Destination Address	239.255.255.1	
Destination Port Number :		
Source Port Number :4		
Voice Protocol		
	*Voice Protocol can be set on the Bridge Connection.	
Multicast TTL :6	1	
Connection Status		

① The screen above is when the Transmission Mode is set to "Multicast".

## **4** Source Port Number (Continued)

	O The Default port s	O The Default port settings in the Multicast mode			
	PORT	DEFAULT	PORT	DEFAULT	
	Converter Bridge 1	22510	Converter Bridge 11	22510	
	Converter Bridge 2	22510	Converter Bridge 12	22510	
	Converter Bridge 3	22510	Converter Bridge 13	22510	
	Converter Bridge 4	22510	Converter Bridge 14	22510	
	Converter Bridge 5	22510	Converter Bridge 15	22510	
	Converter Bridge 6	22510	Converter Bridge 16	22510	
	Converter Bridge 7	22510	Converter Bridge 17	22510	
	Converter Bridge 8	22510	Converter Bridge 18	22510	
	Converter Bridge 9	22510	Converter Bridge 19	22510	
	Converter Bridge 10	22510	Converter Bridge 20	22510	
<b>5</b> Voice Protocol	Assignment" setting.		col in the "AMBE+2 Voi e Connection > AMBE		
<b>6</b> Multicast TTL	For the expiration data	a of the voice	Mode (1) is set to "M packet, set the TTL (T communication destina	ïme To Live)	
Connection Status	Displays the status of the Converter Bridge connection. Click <refresh> to reload the status, or <activate> to activate the set devices. ① After they are successfully activated, the button changes to "Inactivate."</activate></refresh>				

## ○ The Default port settings in the Multicast mode

## Converter Bridge screen

PBX Extension > Converter Bridge

## Communication

The settings to communicate between the RoIP gateway and a converter bridge connection destination.

Communication	
Encryption :1 Disable  Encryption Key :	
TalkBack : 2 Disable  Enable TalkBack Time :	✓ seconds
Default Callee ID	
Call Type : 3 Individual	~
Destination Prefix ID : 4	
Destination ID : 5 1	
Source ID : 6 1	

 $\textcircled$  The screen shows when both Encryption and Talkback are enabled.

Encryption	<ul> <li>Select "Enable" to encrypt the communication. (Default: Di When you select "Enable," enter the appropriate key in "Encryptio Key."</li> <li>Range: 1 ~ 32767</li> <li>This setting takes effect when the AMBE+2 codec is used.</li> </ul>	,
2 TalkBack	Commonly used by the transceivers that belong to a group set in a RoIP Gatway. Set the period of time from when the transceiver fin transmitting until the screen returns to the standby mode. (Defa • Range: 1 ~ 10 (seconds)	
3 Call Type	Set the call type to send from a SIP phone to a transceiver that be to the Converter Bridge connection destination. (Default: C • Options: Individual, Group, or All	-
<b>4</b> Dstination Prefix ID	Enter the prefix ID of the destination.(Default:• Range: Blank or 0 ~ 30① The range differs, depending on the system settings	Blank)
<b>5</b> Destination ID	<ul> <li>Does not displayed when the Call Type (3) is set to "All."</li> <li>Enter an Individual ID or Group ID of the destination transceiver, t entered into the Converter Bridge connection destination. (Defa • Range: When the Prefix is not set: 1 ~ 9999999</li> <li>When the Prefix is set: 1 ~ 999999</li> </ul>	hat is: ault: 1)
6 Source ID	Enter an Individual ID or Group ID of the caller. This ID will be announced at the call destination. (Defa • Range: 1 ~ 9999999	ault: 1)

## Converter Bridge screen

```
PBX Extension > Converter Bridge
```

## Control

The settings for the communication control between the RoIP gateway and a Converter Bridge connection destination.

Control		
Prioritized Receive :	◯ Disable	
PTT Call Cancel on Call Incoming : 2	Disable      Disable	
Target Availability Check : 3	🔿 Disable 💿 Enable	
Timing of Target Availability Check : 4	After Call     Prior to Call	
Call Incoming : 5	Not used	~
	AL	~
Calling : 7	Notice Tone 2	~
Connection Success : 8		~
Disconnect : 9	Notice Tone 3	~
Connection Failure : 🚺		~
Notice Tone Volume : 🕕	0	✓ dB

<b>1</b> Prioritized Receive	Select "Enable" to inhibit a SIP phone from transmittin while it is receiving an RTP signal from a Converter Bu destination.	
PTT Call Cancel on Call Incoming	Select "Enable" to cancel the current call if a SIP phor another call from the same Converter Bridge connecti while a call is incoming.	
3 Target Availability Check	Displayed only when the voice protocol setting on the is set to "Bridge Protocol" or "Protocol for Transceiver connection" in the "AMBE+2 Vocoder Assignment." (B Settings > Bridge Connection > AMBE+2 Vocoder Assi Converter Bridge 1 ~ 20) Select whether or not to check the availability of a Con connection destination when a device such as SIP pho RoIP gateway makes a call (excluding an emergency If this setting is enabled, the RoIP gateway will stop se linked transceiver when the destination transceiver is not answer in 5 seconds.	and SIP Phone sridge Connection signment > nverter Bridge one linked to this call) to it. ending a call to a
Timing of Target Availability Check	Set when the Target Availability Check (3) will occur. ( • After Call: Checks after a call is established • Prior to Call: Checks before a call is established	Default: After Call)

## Converter Bridge screen

## PBX Extension > Converter Bridge

## Control

Control			
Prioritized Receive : 1	🔿 Disable 💿 Enable		
PTT Call Cancel on Call Incoming : 2	Oisable O Enable		
Target Availability Check : 3	🔿 Disable 💿 Enable		
Timing of Target Availability Check : 4 Notice Tone on the Transceiver	After Call     O Prior to Call		
Call Incoming : 5	Not used		$\sim$
Dialing Notice Tone on the Transceiver : 6	Not used		$\sim$
Calling : 7	Notice Tone 2		$\sim$
Connection Success : 8	Notice Tone 2		$\sim$
Disconnect : 9	Notice Tone 3		$\sim$
Connection Failure : 🛈			$\sim$
Notice Tone Volume : 🕕	0	~	dB

S Call Incoming	<ul> <li>Select a Notice Tone to send to notify a client transfrom a SIP phone has arrived.</li> <li>Not used: Does not send a Notice Tone (The transceiver automatically a</li> <li>Notice Tone 1 ~ 3: Sends the selected Notice Tone (The transceiver can answer by the Notice Tones.)</li> </ul>	(Default: Not used) answers.)
<b>6</b> Dialing Notice Tone on the Transceiver	Displayed when the "DTMF Dialig" (on the screer	n) is enabled. (Default: Not used)
<b>⑦</b> Calling	The Notice Tone to send to a caller transceiver a SIP phone answered the call.	lerting that the target (Default: Notice Tone 2)
8 Connection Success	The Notice Tone to send to a caller transceiver a SIP phone has hung up the call.	lerting that the target (Default: Notice Tone 2)
Disconnect	The Notice Tone to send to a caller transceiver a could arrive at the target SIP phone.	lerting that the call (Default: Notice Tone 3)
Connection Failure	The Notice Tone to send to a caller transceiver a could arrive at the target SIP phone.	lerting that the call (Default: Notice Tone 3)
1 Notice Tone Volume	Set the volume level of the Notice Tones (5 ~ 10 • Range: –12 (minimum) ~ +6 (maximum) (dB)	). (Default: 0)

## Converter Bridge screen

## PBX Extension > Converter Bridge

Control

Control	the Volume		$\sim$
PTT Control Type			
	PTT Control Type : 1	DTMF	~
	PTT-ON Tone : 13	0	~
	PTT-OFF Tone : 14		~
Call Initiation Control			
	Method : 🚺	RTP	~

① "PTT-ON Tone" (13) and "PTT-OFF Tone" (13) are displayed only when "PTT Control Type" (12) is set to "DTMF."

PTT Control Type	Sets the type of signal that SIP phones use to communicate for each call type or destination device type. (Default: VOX) • VOX: When a voice signal is received from a SIP phone, the target transceiver enters the transmit mode.
	• <b>DTMF</b> : When a tone signal is received from a SIP phone, the target transceiver enters the tranasmit mode.
	Constant Transmission during Call:
	As soon as communication is established, the target transceiver enters the tranasmit mode.
	The No Voice Release Timer detects only the signal (VOX or RTP) received from the Converter Bridge connection destination.
	When "Constant Transmission during Call" is selected, the No Voice Release Timer detects the communication status only by the received signal from the specified destination.
	(PBX Extension > Transceiver Controller Telephone Connection > Release Timer)
	If a signal from the specified destination is not received for the set period of time, the call may be terminated because of the No Voice Release Timer function.
PTT-ON Tone	Select the PTT-ON tone when the either the signal types shown above (12) is set to "DTMF." (Default: 0) • Range: 0 ~ 9, *, or #
	<ol> <li>Dial this number on the SIP phone to make a destination device start transmitting.</li> </ol>
	① If you enter the same value to both the PTT-ON Tone and the PTT-OFF

① If you enter the same value to both the PTT-ON Tone and the PTT-OFF Tone, you can toggle the destination device status by dialing this number.

# 13 PBX EXTENSION

### Converter Bridge screen

#### PBX Extension > Converter Bridge

Control

Control	one Volume		
PTT Control Type			
	PTT Control Type : 🛈	DTMF	~
	PTT-ON Tone : 13	0	~
	PTT-OFF Tone : 14	0	$\sim$
Call Initiation Control			
	Method : 🕕	RTP	~

(1) "PTT-ON Tone" (13) and "PTT-OFF Tone" (13) are displayed only when "PTT Control Type" (12) is set to "DTMF."

PTT-OFF Tone	<ul> <li>Select the PTT-OFF tone when the PTT Control Tone (12) is set to "DTMF." (Default: 0)</li> <li>Range: 0 ~ 9, *, or #</li> <li>Dial this tone on the SIP phone to make the destination device stop transmitting.</li> </ul>
	If you enter the same value to both the PTT-ON Tone and PTT-OFF Tone, you can toggle the destination device status by dialing this number.
(5) Method	<ul> <li>Set the transmitting trigger to make a call from a bridge to the IP telephone system. (Default: RTP)</li> <li>• VOX: Starts dialing when the VOX detects voice data in the voice packet that is received by the bridge interface through RTP (Real-time Transport Protocol).</li> <li>• RTP: Starts dialing when RTP (voice data packet) is received later than the set period time in the Attack Time setting, regardless of if the RTP includes voice data or not.</li> </ul>

# 13 PBX EXTENSION

### Converter Bridge screen

PBX Extension > Converter Bridge

# ■ DTMF Dialing

Set details on DTMF Dialing through a Converter Bridge connection port.

DTMF Dialing				
Timer	DTMF Dialing :	O Disable		
	Permissible Tone Gap :	5		~
	OFF-hook Detect Timer :		✓ mill	iseconds
		*Applied only if the OFF-hook settings in [Special Number] are so one digit.	et to valu	ues with
	ON-hook Detect Timer:	400	✓ mill	iseconds
		*Applied only if the ON-hook setting in [Special Number] is set to digit.	a value	with one

① The screen above shows when "DTMF Dialing" (1) is set to "Enable."

<b>1</b> DTMF Dialing	Select "Enable" to use DTMF signaling. If enabled, set the details in the timer.	(Default: Disable)
<b>2</b> Permissible Tone Gap	<ul> <li>Set the period of time to detect that the last digit has been set in the last digit</li></ul>	(Default: 5)
<b>3</b> OFF-hook Detect Timer	<ul> <li>Set the period of time to detect the ON-hook control si</li> <li>Range: 0 ~ 2000 (milliseconds)</li> <li>① Applied only when a 1 digit number is set to the OFF-hoo Special Number screen.</li> </ul>	(Default: 400)
ON-hook Detect Timer	<ul><li>Select the period of time to detect the ON-hook control</li><li>Range: 0 ~ 2000 (milliseconds)</li></ul>	ol signal. (Default: 400)

Converter Bridge screen

PBX Extension > Converter Bridge

# PTT Control Setting

The VOX (voice operated transmission) function automatically switches the connected transceiver to transmit, when the RoIP gateway receives an audio signal to the Converter Bridge connection destination device.

PTT Control Setting				
*Setting values of Attack Time, Release Time and Voice Delay are set in five millisecond	s steps.			
Attack Time : 0_50	milliseconds			
Release Time : 2 500	milliseconds			
Voice Delay : 3 200	milliseconds			
VOX Threshold : 40	%			

Attack Time	Enter the TX delay time. • Range: 5 ~ 500 (milliseconds) in 5 millisecond steps	(Default: 50)
	<ul> <li>After the continuous signal for the set period of time is receive phone, the transceiver controller starts to transmit.</li> </ul>	d from a SIP
<b>2</b> Release Time	Select the RX delay time. • Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps	(Default: 500)
	This is the delay time for the VOX to turn OFF, after no at received through the network.	udio signal is
<b>3</b> Voice Delay	Set the audio signal buffer time to prevent intermittent au	
	<ul> <li>Range: 0 ~ 500 (milliseconds) in 5 millisecond steps</li> </ul>	(Default: 200)
	The voice delay is the amount of time the RoIP gateway s transmitted audio to prevent missing the first part of the s	
<b>4 VOX Threshold</b>	Set the voice threshold level. • Range: 0 ~ 100 (%)	(Default: 40)
	The VOX function automatically switches between receiver according to this threshold level. The lower values make function more sensitive to the voice input.	

### Converter Bridge screen

PBX Extension > Converter Bridge

# ■ Call Initiation Setting

The VOX (voice operated transmission) function automatically switches the connected transceiver to receive, when the RoIP gateway receives the audio signal from the bridge connection destination device.

Call Initiation Setting			
Setting values of Attack Time, Release Time and Voice Delay are set in five milliseconds steps.			
Attack Time : 1000	milliseconds		
Release Time : 2 200	milliseconds		
Voice Delay : 3 5	milliseconds		
VOX Threshold : 4 70	%		

Attack Time	Enter the TX attack time. It is the delay time before the VO turns ON after an audio signal is received through the network (C • Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps	
2 Release Time	Select the RX delay time in 5 millisecond step. It is the dela the VOX switch to turn OFF after no audio signal is receive the network. • Range: 5 to 2000 (milliseconds) in 5 millisecond steps	
S Voice Delay	Set the audio signal buffer time to prevent intermittent audi	o. (Default: 5)
	<ul> <li>Range: 0 ~ 500 (milliseconds) in 5 millisecond steps</li> </ul>	(2014411.0)
<b>4</b> VOX Threshold	<ul> <li>Set the voice threshold level. The audio signal is output to according to this threshold level.</li> <li>Range: 0 ~ 100 (%)</li> <li>The lower values make the VOX function more sensitive to the</li> </ul>	(Default: 70)

Converter Bridge screen

#### PBX Extension > Converter Bridge

## ■ Notice Tone on the Telephone

Sets the details on the notification to SIP phones when a call has arrived on a Converter Bridge port of the RoIP gateway.

Notice Tone on the Telephone		
Connection Success : 1 Notice Tone 1	~	
PTT Monitoring : 2 Not used	~	
Notice Tone Volume : 3 0	✓ dB	

<ol> <li>Connection Success .</li> </ol>			ne to notify a SIP phone that ler, and the SIP phone is rea	
	• No	t used:	Does not send a Notice Tone	· · · · · · · · · · · · · · · · · · ·
	• No	tice Tone 1 ~ 3:	Sends the selected Notice Ton	e
<b>2</b> PTT Monitoring	Sele	ect a Notice Tor	ne to alert you to switch rece	iving and transmitting. (Default: Not used)
	• No	t used:	Does not send a Notice Tone	, , , , , , , , , , , , , , , , , , ,
	• No	tice Tone 1 ~ 3:	Sends the selected Notice Ton	e
<b>3</b> Notice Tone Volume			el of the Notice Tones (1 ~ ( um) ~ +6 (maximum) (dB)	2). (Default: 0)

# 13 PBX EXTENSION

Converter Bridge screen

PBX Extension > Converter Bridge

## Release Timer

Sets the timers for canceling or disconnecting a call.

Release Timer		
Call Cancel Timer :	15	seconds
Call Cancel Timer : No Voice Release Timer : orced Disconnect	15	seconds
Forced Disconnect Timer :	10	minutes
		Apply Reset

Call Cancel Timer	Enter the period of time to cancel the call. When the set time has passed without a response from the SIP phone, the call is canceled. (Default: 15) • Range: 0 (OFF) or 5 ~ 60 (seconds)
<b>2</b> No Voice Release Timer	Enter the period of time to stop transmitting. When the set time has passed with no audio signal, transmitting is stopped. (Default: 15) • Range: 0 (OFF) or 5 ~ 600 (seconds)
Sorced Disconnect Timer	Enter the period of time to be forcibly stop transmitting. When the set time has passed, transmitting is stopped, even when the communication is ongoing. (Default: 10) • Range: 0 (OFF) or 5 ~ 120 (minutes)
<pre>4<apply></apply></pre>	Click to apply the setting.
5 <reset></reset>	Click to reset the setting. You cannot reset after clicking <apply>.</apply>

# **PBX ADVANCED SETTINGS**

Advanced Settings screen	14-2
Prioritization screen	
EXT Output Port Prioritization	14-11
Caller Prioritization	14-12
List of Caller Prioritization Entries	14-14
Numbering Plan screen	14-15
Phone Number Routing Settings	14-15
List of Phone Number Routing Settings	14-16
Exception Outbound Phone Number	14-17
Outbound Phone Number Reformatting Settings	14-18
List of Outbound Phone Number Reformatting Settings	14-19
Outbound Call Restriction Rule Settings	14-20
List of Outbound Call Restriction Rule Settings	14-21
Outside Line Regulation screen	14-22
Outside Line Regulation	14-22
External Call Limiting screen	14-23
Overall Limitation	14-23
Limitation for each Outside Line	14-24
IP Authenticated Extension screen	14-25
IP Authenticated Extension (Pre-registered Extension)	14-25
List of IP Authenticated Extension	14-26
Caller Number Reformatting screen	14-27
Source Line Settings	14-27
Caller Number Reformatting Settings	14-28
List of Caller Number Reformatting Settings	14-29
DID screen	14-30
DID Allocation	14-30
DID Settings	14-31
List of DID settings	14-32

PBX Advanced Settings > Advanvanced Settings

## ■ SIP Settings

The common settings for the terminals to the RoIP gateway.

Extension Domain :	LAN IP address
Domain :	
SIP 183 Support : 2	• Disable
Relay SIP Response : 3	🔾 Disable 💿 Enable
Relay Internal Response : 4	• Disable
Caller ID Relay on Call Forwarding : 5	◯ Not relay 💿 Relay
Preferred Inbound Call Setting :	IP Line O Peer to Peer
Use Letters for Phone Number : 7	● Inhibit 🔿 Allow

1 Extension Domain	You can enter a SIP service domain name of up to 63 characters, to commonly use between the local SIP server and its client SIP phones. (Default: LAN IP address)	
	<ul> <li>① Enter a unique Extension Domain in an IP telephone network. The IP address of the RoIP gateway is recommended for your Extension Domain name to prevent a conflict in domain names.</li> <li>① Enter this value in the "SIP service domain" setting in the client telephone settings.</li> </ul>	
<b>2</b> SIP 183 Support	Enable this option if you want to use the 183 Session Progress.	
	(Default: Disable) The 183 Session Progress response indicates that information about the call state is present in the message body media information (SDP). ① When this option is enabled, the 183 session progress is transferred to a client SIP phone.	
3 Relay SIP Response	<ul> <li>Set whether or not to relay an error message received from an upstream SIP server when a call is outgoing. (Default: Enable)</li> <li>Enable: Relays an error response (4xx ~ 6xx) from the SIP server.</li> <li>Disable: Translates an error response (4xx ~ 6xx) into a 486 response and relays it.</li> <li>① Enable this setting if you want to use a slide outgoing function by connecting another SIP server to this RoIP gateway as a simple relay client device.</li> </ul>	

PBX Advanced Settings > Advanvanced Settings

## Advanced Settings screen

SIP Settings		
Extension Domain : 1 🖲 L	AN IP address O Specify	
Domain :		
SIP 183 Support : 2 🖲 🛛	Disable 🔿 Enable	
Relay SIP Response : 3 🔿 🛛	Disable 💿 Enable	
Relay Internal Response : 4 💿 🛙	Disable 🔘 Enable	
Caller ID Relay on Call Forwarding : 5 O	Not relay 💿 Relay	
Preferred Inbound Call Setting : 6 💿	P Line O Peer to Peer	
Use Letters for Phone Number : 7 💿 In	nhibit 🔿 Allow	
	<ul> <li>Enable: Relays an error response (4xx ~ 6xx) from the SIP phone.</li> <li>Disable: Translates an error response (4xx ~ 6xx) into a 486 response an relays it.</li> </ul>	nd
Caller ID Relay on		
- ·· - ··		
Call Forwarding	Set whether or not to relay the original caller number of a forwarded by using the Blind Transfer function. (Default: Re • Not relay: Your number is shown at the forwarded destination. • Relay: The original caller number is shown at the forwarded destination.	lay
Call Forwarding Preferred Inbound Call Setting	by using the Blind Transfer function. (Default: Re • Not relay: Your number is shown at the forwarded destination.	lay r

PBX Advanced Settings > Advanvanced Settings

## VoIP Settings

Sets the audio quality for SIP phones. The setting items vary, depending on the TOS Type.

(TOS Type: Not Used)	
VoIP Settings	
Buffering Type : 1	✓ milliseconds
TOS Type : 3 Not Used	6 7× Apply Reset

### TOS Type: TOS

VoIP Settings	
Buffering Type : 🚺 💿 Static 🛛 Dynamic	
Receive Buffer Size :2 40	✓ milliseconds
TOS Type : 3 TOS	~
Media (RTP) Priority Level : 7	
Media (RTP) Service Type : 0	
Media (RTP) (HEX) : <u>E</u> 0	
Signaling (SIP) Priority Level : 5	
Signaling (SIP) Service Type : _0	
Signaling (SIP) (HEX) : C0	6 7
-	Apply Reset

#### (TOS Type: Diffserv)

/olP Settings	
Buffering Type : 🚺 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3 Diffserv	~
Media (RTP) DSCP : 4 56	
Media (RTP) (HEX) : E0	
Signaling (SIP) DSCP : 5 48	
Signaling (SIP) DSCP : 5 48 Signaling (SIP) (HEX) : C0	6 Apply Reset

① The screens above show when the Buffering Type (1) is set to "Static"

 Buffering Type
 Select the jitter buffer used to reduce speech break up due to packet fluctuations.

 (Default: Dynamic)

- Static: Buffers receive voice data for a set period of time in the Receive Buffer Size (2).
- **Dynamic**: Buffering time of the received voice data varies, according to the packet fluctuation status.

#### PBX Advanced Settings > Advanvanced Settings

VoIP Settings

#### (TOS Type: Not Used)

/oIP Settings		
Buffering Type :	Static O Dynamic	
Receive Buffer Size : 2	40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3		6 7
		Apply Reset

### TOS Type: TOS

Buffering Type : 1) 💿 Static 🛛 Dynamic	
Receive Buffer Size :2 40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3 TOS	~
Media (RTP) Priority Level : 7	
Media (RTP) Service Type : 0	
Media (RTP) (HEX) : <u>E</u> 0	
Signaling (SIP) Priority Level : 5 6	
Signaling (SIP) Service Type : 0	
Signaling (SIP) (HEX) : C0	6 7

### (TOS Type: Diffserv)

<ul> <li>milliseconds</li> </ul>
~
6 7

① The screens above show when the Buffering Type (1) is set to "Static"

**2** Receive Buffer Size .....

Displayed only when Buffering Type (1) is set to "Static."

Set the period of time to buffer the received voice data. (Default: 40) • Range: 20 ~ 1000 (milliseconds)

The shorter the time you set, the less the delay, however the more the sound will be interrupted.

#### PBX Advanced Settings > Advanvanced Settings

VoIP Settings

#### (TOS Type: Not Used)

/oIP Settings		
Buffering Type :	Static O Dynamic	
Receive Buffer Size : 2	40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3		6 <b>7</b> ~
-		Apply Reset

#### (TOS Type: TOS)

Buffering Type : 🚺 💿 Static 🛛 Dynamic	
Receive Buffer Size :2 40	<ul> <li>milliseconds</li> </ul>
TOS Type 3 TOS	~
Media (RTP) Priority Level :	
Media (RTP) Service Type : 0	
Media (RTP) (HEX) : <u>E</u> 0	
Signaling (SIP) Priority Level :56	
Signaling (SIP) Service Type : 0	
Signaling (SIP) (HEX) : C0	6 7

#### (TOS Type: Diffserv)

Buffering Type : 🚺 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 40	✓ milliseconds
TOS Type : 3 Diffserv	~
Media (RTP) DSCP : 4 56	
Media (RTP) (HEX) : E0	
Signaling (SIP) DSCP : 5 48	
Signaling (SIP) (HEX) : C0	6 7

① The screens above show when the Buffering Type (1) is set to "Static"

**3** TOS Type .....

#### Set TOS Type.

#### (Default: TOS)

- Not Used: Does not use the TOS function.
   TOS: Outputs the VoIP packet to the TOS field (8 bit) in the IP header, in the TOS (Type Of Service) format.
- TOS format applies RFC1349.
  - The first 3 bits: Shows the priority. Set into "Media (RTP) Priority Level" (4) with a decimal number.
- The next 4 bits: Shows the service type.

Set into "Media (RTP) Service Type" (④) with a decimal number. The larger number, the higher priority.

• The last 1 bits: Reserved and fixed to "0."

#### PBX Advanced Settings > Advanvanced Settings

VoIP Settings

#### (TOS Type: Not Used)

/oIP Settings		
Buffering Type :	Static O Dynamic	
Receive Buffer Size : 2	40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3		<b>6 7</b> <sup>×</sup>
		Apply Reset

### TOS Type: TOS

	🖲 Static 🔿 Dynamic	Buffering Type : 🚺 🤅
✓ millised	40	Receive Buffer Size :2
	TOS	TOS Type : 3
	7	Media (RTP) Priority Level :
	0	Media (RTP) Service Type :
	0	Media (RTP) (HEX) :
	6	Signaling (SIP) Priority Level : 5
	0	
6	0	Signaling (SIP) (HEX) :

## TOS Type: Diffserv

oIP Settings	
Buffering Type : 🚺 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 _40	✓ milliseconds
TOS Type : 3 Diffserv	~
Media (RTP) DSCP : 4 56	
Media (RTP) (HEX) : <u>E</u> 0	
Signaling (SIP) DSCP : 5 48	
Signaling (SIP) (HEX) : C0	6 7
-	Apply Reset

① The screens above show when the Buffering Type (1) is set to "Static"

**3 TOS Type** (Continued) .....

**Diffserv**: Outputs the VoIP packet to the TOS field (8 bit) in the IP header, in the Diffserv (Differentiated Service) format.

- ① The Diffserv format details:
  - The former 6 bits: Shows the DSCP.
    - Set "Media (RTP) DSCP" (④) with a decimal number. The larger number, the higher priority.
  - The next 2 bits: Reserved and fixed to "0."

#### PBX Advanced Settings > Advanvanced Settings

VoIP Settings

#### (TOS Type: Not Used)

/oIP Settings		
Buffering Type : 1 💿 S	Static 🔿 Dynamic	
Receive Buffer Size : 2 40		✓ milliseconds
TOS Type : 3 Not		<u> </u>
		Apply Reset

### TOS Type: TOS

VoIP Settings	
Buffering Type : 🕕 💿 Static 🛛 Dynamic	
Receive Buffer Size :2 40	<ul> <li>milliseconds</li> </ul>
TOS Type 3 TOS	~
Media (RTP) Priority Level : 7	
Media (RTP) Service Type : 0	
Media (RTP) (HEX) : <u>E</u> 0	
Signaling (SIP) Priority Level :6	
Signaling (SIP) Service Type : 0	
Signaling (SIP) (HEX) : C0	6 7
	Apply Reset

### TOS Type: Diffserv

Buffering Type : 1   Static O Dynamic	
Receive Buffer Size : 2 40	✓ milliseconds
TOS Type : 3 Diffserv	~
Media (RTP) DSCP : 4 56	
Media (RTP) (HEX) : E0	
Signaling (SIP) DSCP : 5 48	
Signaling (SIP) (HEX) : C0	6 7

① The screens above show when the Buffering Type (1) is set to "Static"

**4** Media (RTP).....

Setting the Priority details for the TOS or Diffserv format options.

- **Priority Level**: Set the value of the priority level for TOS. (Default: 7) Range: 0 ~ 7 (in decimal)
- Service Type: Set the value of the service type for TOS. (Default: 0) Range: 0 ~15 (in decimal)
- DSCP: Set the value of DSCP (Differentiated Services Code Point) for Diffserv. (Default: 56) Range: 0 ~ 63 (in decimal)

#### PBX Advanced Settings > Advanvanced Settings

VoIP Settings

### TOS Type: Not Used

/oIP Settings		
Buffering Type : 1 💿 S	Static 🔿 Dynamic	
Receive Buffer Size : 2 40		✓ milliseconds
TOS Type : 3 Not		<u> </u>
		Apply Reset

#### (TOS Type: TOS)

Buffering Type : 🚺 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3 TOS	~
Media (RTP) Priority Level : 7	
Media (RTP) Service Type : 0	
Media (RTP) (HEX) : <u>E</u> 0	
Signaling (SIP) Priority Level : 5 6	
Signaling (SIP) Service Type : 0	
Signaling (SIP) (HEX) : <u>C</u> 0	6 7

### TOS Type: Diffserv

Buffering Type : 🕦 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3 Diffserv	~
Media (RTP) DSCP : 4 56	
Media (RTP) (HEX) : E0	
Signaling (SIP) DSCP : 5 48	
Signaling (SIP) (HEX) : C0	8 8

① The screens above show when the Buffering Type (1) is set to "Static"

Signaling (SIP) ......
 Setting the Priority options for VoIP packets that are output to the TOS field.
 Priority Level: Set the value of the priority level for TOS. (Default: 6) Range: 0 ~ 7 (in decimal) The larger number, the higher priority.
 Service Type: Set the value of the service type for TOS. (Default: 0) Range: 0 ~15 (in decimal)
 DSCP: Set the value of DSCP (Differentiated Services Code Point) for Diffserv. (Default: 48) Range: 0 ~ 63 (in decimal)

### PBX Advanced Settings > Advanvanced Settings

■ VoIP Settings

### TOS Type: Not Used

/oIP Settings		
Buffering Type :	Static O Dynamic	
Receive Buffer Size : 2	40	<ul> <li>milliseconds</li> </ul>
TOS Type 3 Not Used	<u> </u>	
-		Apply Reset

## (TOS Type: TOS)

VolP Settings	
Buffering Type : 1	
Receive Buffer Size :2 40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3 TOS	~
Media (RTP) Priority Level : 4 7	
Media (RTP) Service Type :	
Media (RTP) (HEX) : <u>E</u> 0	
Signaling (SIP) Priority Level :5	
Signaling (SIP) Service Type : 0	
Signaling (SIP) (HEX) : C0	6 6
	Apply Reset

## TOS Type: Diffserv

Buffering Type : 🚺 💿 Static 🛛 Dynamic	
Receive Buffer Size : 2 40	<ul> <li>milliseconds</li> </ul>
TOS Type : 3 Diffserv	~
Media (RTP) DSCP : 4 56	
Media (RTP) (HEX) : E0	
Signaling (SIP) DSCP : 5 Signaling (SIP) (HEX) : C0	
Signaling (SIP) (HEX) : C0	6 7

① The screens above show when the Buffering Type (1) is set to "Static"

6 <apply></apply>	 Click to apply the setting.
<b>⑦</b> < Reset >	 Click to reset the setting. ① You cannot reset after clicking <apply>.</apply>

PBX Advanced Settings > Prioritization

## EXT Output Port Prioritization

Set the priority of incoming calls from SIP phones or external devices.

EXT Output Port Prioritizatio	n	
From Other Ports : 1	Normal	~
From Own Input Port : 2		~
	*This setting is only valid when EXT I/O mode is set to [Separate mode].	
	Apply 3	Reset

From Other Ports	Set the priority of Incoming calls arrived at other ports than the EXT/IO(1 ~ 4) ports.(Default: Normal)• Options: Normal, Priority, or High Priority
Prom Own Input Port	Set the priority of Incoming calls from the devices those are connected to the EXT/IO (1 ~ 4) ports on this RoIP Gateway. (Default: Normal) This setting is only valid when EXT I/O mode is set to "Separate mode." • Options: Normal, Priority, or High Priority
S <apply></apply>	Click to apply the entries.
<pre>4 <reset></reset></pre>	Click to reset the entries. ① You cannot reset after clicking <apply>.</apply>

PBX Advanced Settings > Prioritization

## Caller Prioritization

Set the priority of incoming calls from SIP phones or external devices. When a call from the specified SIP phone has arrived while you are talking on another call, the RoIP gateway terminates the current call to catch the arrived call.

The priority of calls from other than the specified SIP phone depends on the Priority level (5)

Called via: SIP Server Caller Prioritization		
Name : 2		
Called via : 🧿 💿 SIP Server 🛛 Peer to Peer		
Phone Number : 4		
Priority Level : 6 Normal	7   8     Add   Reset	

#### Called via: Peer to Peer

Caller Prioritization		
Index : 1	2 ~	
Name : 2		
	SIP Server	
SIP URI : 6		
Priority Level : 5 N	Normal 78 Add Reset	

1 Index	Select a number. • Range: 1 ~20
<b>2</b> Name	Enter a caller's name of up to 31 characters.
<b>3</b> Called via	Select the line type of an incoming call.  • SIP Server: Through an IP line.  • Peer to Peer: Peer to Peer
Phone Number	Displayed when Called via (③) is set to "SIP Server." Enter a caller's Phone Number of up to 31 digits.

#### PBX Advanced Settings > Prioritization

Caller Prioritization

Called via: SIP Server

Caller Prioritization			
Index : 1	~		
Name : 2			
Called via : 3 ) SIP Server 🔿 Peer to Peer			
Phone Number : 4			
Priority Level : 5 Normal	~		
	Add Reset		

### Called via: Peer to Peer

Caller Prioritization		
Index :	2	~
Name : 2		
Called via :	SIP Server	
SIP URI :6	sip :	
Priority Level : 5	Normal	~
		Add Reset

S Priority Level	<ul> <li>Set the priority of the destination.</li> <li>Options: Normal, Priority, or High Priority</li> <li>When a call from the prior IP phone has been arrived wh on another call, the current call is terminated and a Ring alert you a prior call is incoming. When a call from the same priority as the current call, the stay connected.</li> <li>An emergency call has priority over all other calls.</li> </ul>	Tone will ring to
6 SIP URI	Displayed when Called via (3) is set to "Peer to Peer Enter the caller's SIP URI of up to 63 characters.	
⑦ <add></add>	Click to add the entries.	
8 <reset></reset>	Click to reset the entries. (1) You cannot reset after clicking <apply>.</apply>	

```
PBX Advanced Settings > Prioritization
```

## ■ List of Caller Prioritization Entries

The list of the entries into the Caller Prioritization.

ndex N	Name	Phone Number / SIP URI	Priority Level	1	2
S	Sales John Smith	010123456789	Normal	Edit	Delete

● <edit></edit>	Click to edit an entry.
<b>2</b> <delete></delete>	Click to delete an entry.
Solution States Sta	Click to delete all the entries. ① You cannot restore after clicking <delete all="">.</delete>

PBX Advanced Settings > Numbering Plan

## Phone Number Routing Settings

Set the Routing rules.

Phone Nur	hone Number Routing Settings					
Index 1		Prefix 2	Outbound Phone Number	Outbound IP Line 4	6	
1	~			~	Add	

1 Index	Enter an index number of the Routing rule up to 400 entries.
2 Prefix	<ul> <li>Enter a Prefix of the phone number of up to 7 digits. The entered prefix will be deleted when the RoIP gateway dials outbound using the Outbound IP Line (④).</li> <li>① You can also set the prefix of the phone number in the "External Call Routing Number" (PBX &gt; Special Number &gt; External Call Routing Number)</li> </ul>
Outbound Phone Number	Enter the specified phone number of up to 15 digits. When a phone number that starts with the specified number is dialed, the RoIP gateway will call outbound using the Outbound IP Line (④).
Outbound IP Line	Select from the phone numbers that are entered in the "IP Line" screen.
5 <add></add>	Click to add the entry.

```
PBX Advanced Settings > Numbering Plan
```

## ■ List of Phone Number Routing Settings

Displays the list of entries into the Phone Number Routing Settings.

st of Phone Number Routing Settings				
Index	Prefix	Outbound Phone Number	Outbound IP Line	1 2
1		800	1234567890	Edit Delete
				3 Delete

❶ <edit></edit>	Click to edit an entry.
<b>2</b> <delete></delete>	Click to delete an entry.
3 <delete all=""></delete>	Click to delete all the entries. ① You cannot restore after clicking <delete all="">.</delete>

```
PBX Advanced Settings > Numbering Plan
```

## Exception Outbound Phone Number

Enter external phone numbers to exclude from applying Outbound Call Restriction Rule or Phone Number Reformatting rule.

Exception Outbound Phone Number				
Outbound Phone Numbers the ①	Apply Reset			

#### **1** Outbound Phone Numbers the following rules are not applied

Enter up to 5 special numbers. When an external phone number, that starts with either of these numbers, is dialed, the digits of the special number are excluded from applying the Outbound Call Restriction Rule or Phone Number Reformatting rule.

2 <apply></apply>		Click to apply the entries.
-------------------	--	-----------------------------

3 <reset></reset>	 Click to reset the settings.
	① You cannot reset after clicking <apply>.</apply>

PBX Advanced Settings > Numbering Plan

## Outbound Phone Number Reformatting Settings

Enter external phone numbers that apply or do not apply the phone number reformatting rules. The Reformatting rules are applied only for outbound calls.

Οι	utbound	Pho	one Number	Reformatting Setti	-				
	Index 1		Reformat 2	3 Outbound Phone Number	4 Delete Digits	5 Added Number	•		
	1	~	Apply V		Don't delete V	Added Humber	6 Add	_	
							Add		
1 Inde	ex			Enter the • Range:	e order for N 1 ~ 100	umber Refo	rmatting o	peration.	
2 Ref	ormat .			is dialed. • Apply: • Excepti		s the number reformat the	according number.	to the rule	
3 Out	bound	Pho	ne Numbe	When an	• •	hone numbe	er that sta	rts with th	up to 15 digits. specified number formatting. (Default: Blank)
4 Dele	ete Digi	ts		beginning	umber of dig g of the diale Don't delete,	ed number.	ant to dele	•	ed digits at the Default: Don't delete)
6 Adc	ded Nun	nbe	r		umber that of up to 15 d	•	add at the	e beginnir	g of the dialed (Default: Blank)
<mark>6</mark> < Ad	d>			Click to a	add the entri	es.			

Number Reformatting C Example 1 • Outbound Phone Num • Delete Digits (4) : • Added Number (5) :	mber (3): 987 Don't Delete	<ul> <li>Example 2</li> <li>Outbound Phone Nur</li> <li>Delete Digits (4):</li> <li>Added Number (5):</li> </ul>	nber (3):0006 3 800987
Dialed number:	98765432	Dialed number:	00065432
Reformatted to:	80098765432	Reformatted to:	80098765432

```
PBX Advanced Settings > Numbering Plan
```

# ■ List of Outbound Phone Number Reformatting Settings

The list of entered rules into Outbound Phone Number Reformatting Settings.

ndex	Reformat	Outbound Phone Number	Delete Digits	Added Number	0	2
1	Apply	987	Don't delete	800	Edit	Delete
2	Exception	0800			Edit	Delete
3	Apply	080	3	090	Edit	Delete
4	Apply	0006	3	800987	Edit	Delete

● <edit></edit>	Click to edit an entry.
<b>2</b> <delete></delete>	Click to delete an entry.
3 <delete all=""></delete>	Click to delete all the entries. ① You cannot restore after clicking <delete all="">.</delete>

PBX Advanced Settings > Numbering Plan

## Outbound Call Restriction Rule Settings

Enter destination phone numbers to restrict or to apply to call.

utbound Call Restriction F	Rule Settings
Rule Index :	1 V Add
Restricted Phone Numbers :	Starting with
Exceptions to the Restricted Phone Numbers :	Starting with
Numbers :	011

 Rule Index You can set restriction rules to each Extension Group (PBX > Extension Group.) Select a group to apply the restriction rules. (Default: Common) · Common: Applies all the groups. • 1 ~ 16: Applies individual groups. Click <Add> to add the entered rule to the List of Extension Group Entries. 2 Restricted Phone Numbers Enter external phone numbers of up to 15 digits to restrict to outbound calls when the dialed number matches them. (Default: Blank) You can enter up to 20 numbers to each Rule Index (1). Exceptions to the **Restricted Phone Numbers** Enter external phone numbers of up to 15 digits to apply to outbound (Default: Blank) calls when the dialed number matches them. You can enter up to 20 numbers to each Rule Index (1).

```
PBX Advanced Settings > Numbering Plan
```

# ■ List of Outbound Call Restriction Rule Settings

The list of entered rules into Outbound Call Restriction Rule Settings.

Rule Index	Outbound Phone Number		
	Restricted	Exception	0 2
Common	0	01	Edit Delete
	123 550		Edit Delete

● <edit></edit>	Click to edit an entry.
<b>2</b> <delete></delete>	Click to delete an entry.
3 <delete all=""></delete>	Click to delete all the entries. ① You cannot restore after clicking <delete all="">.</delete>

# **Outside Line Regulation screen**

PBX Advanced Settings > Outside Line Regulation

## ■ Outside Line Regulation

Set the External line. The outbound call management rules can be applied to this setting.

Outside Line Phone Number	Line	Call Restriction 1		Number Reforma	atting 2
100	IP Line	Disable	~	Disable	~

Call Restriction	Restricts outbound calls for the selected phone line (number). (Default: Disable)			
	<ul> <li>Disable:</li> <li>Call Restriction Rule 1 ~ 16</li> </ul>	<ul> <li>Does not restrict outbound calls.</li> <li>Restricts outbound calls according to the selected rule that is set in "Outbound Call Restriction Rule Settings" in addition to the "Call Restriction" setting in the "Telephone Common Settings".</li> </ul>		
	External Call Restriction:	Restricts outbound calls, excluding Peer to Peer calls.		
<b>2</b> Number Reformatting	rules set in "Outbound Phor	umbers are reformatted, according to the ne Number Reformatting Settings." (PBX ering Plan > List of Outbound Phone		
<b>③</b> ≺Apply>	Click to apply the entries.			
<b>4</b> <reset></reset>	Click to reset the settings. ① You cannot reset after clicking	ng <apply>.</apply>		

# **External Call Limiting screen**

PBX Advanced Settings > External Call Limiting

# Overall Limitation

Set the limit number of the usable outside lines (phone numbers) simultaneously, according to the whole lines connected to the RoIP gateway.

Overall Limitation			
Maximum Number of Simultaneous	50	~	
calls on the whole Outside Lines :			
Maximum Number of Simultaneous 2	0	×	
calls on the Priority Outside Lines :			
Simultaneous Ringing Restriction : 3	<ul> <li>Disable          <ul> <li>Enable</li> </ul> </li> </ul>		

#### Maximum Number of Simultaneous calls on the whole Outside Lines

Set the maximum number of external lines that can simultaneously make. If more calls are inbound or outbound than the value of this setting, they will be busy. (Default: 50) • Range: 1 ~ 50

#### **2** Maximum Number of Simultaneous calls on the Priority Outside Lines

Set the maximum number of lines to reserved for priority calls.

(Default: 0)

- Range: 0 ~ 50
- The number of Normal Outside Lines (non-priority lines) is the value obtained by subtracting the number of Priority Outside Line from the total number of external lines.

#### **3** Simultaneous Ringing

 Restriction
 Leave as default for the normal use.

 You can temporarily restrict incoming calls when there is a concentration of incoming calls.
 (Default: Enable)

### External Call Limiting screen

PBX Advanced Settings > External Call Limiting

## Limitation for each Outside Line

Set the limitation and prioritization settings for each outside line (phone number).

imitation for each Outside Line				
utside Line Phone Number	Line 2	Multiple Call Limitation 3	Prioritization 4	
00	IP Line	No limit 🗸	Normal Outside Line 🗸	
00	IP Line		5	

<ol> <li>Outside Line Phone Number</li> </ol>	Displays the phone numbers in "List of SIP Server Entries."
<b>2</b> Line	Displays the type of phone line.
<b>3</b> Multiple Call Limitation	Sets the maximum number of calls you can simultaneously make on the phone line. (Default: No limit) • Range: No limit, or 1 ~ 50
<b>4</b> Prioritization	<ul> <li>Select the Prioritization of the line. Priority Outside Line means reserved for priority calls. (Default: Normal Outside Line)</li> <li>The number of Normal Outside Lines (non-priority lines) is the value obtained by subtracting the number of Priority Outside Line from the total number of external phone lines.</li> </ul>
<pre>5<apply></apply></pre>	Click to apply the entries.
<b>6</b> <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

# **IP** Authenticated Extension screen

PBX Advanced Settings > IP Authenticated Extension

## ■ IP Authenticated Extension (Pre-registered Extension)

Setting for the gateway connection of the RoIP gateway.

① This settings are for only the special system environment. Leave as default for the normal use.

Extension Number : 0	33(Sales 03)	~
Activation Status : 2	Inactive	~
Accept Multiple SIP Clients : 3		~
SIP Client Identifier : 4		~
Use Domain to Call the SIP Client : 5	OFF	~
SIP Client Authenticated IP Address : 6		
SIP Domain : 7		

Extension Number	Select an Extension number to use the gateway con	nection.
2 Activation Status	Enables the Gateway Connection function of the Rol If enabled, an extension can communicate without re RoIP gateway under the special condition.	
Output State St	Enables to use the multiple gateway connections.	(Default: Disable)
<b>4 SIP Client Identifier</b>	Select how to identify the SIP Client. <ul> <li>Options: SIP URI or Display Name</li> </ul>	(Default: SIP URI)
<b>5</b> Use Domain to Call the SIP Client	Set whether or not to use a specified domain to mak gateway connection. When using the IP address of this RoIP gateway, set	(Default: OFF)
<b>6</b> SIP Client Authenticated IP Address	Enter the IP address of the target device when you u connections.	ise the gateway
<b>7</b> SIP Domain	Enter the domain name of up to 63 characters or the the target device, that are used to authenticate the c gateway connection.	
8 <apply></apply>	Click to apply the entries.	
<pre> 9<reset> </reset></pre>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>	

### IP Authenticated Extension screen

PBX Advanced Settings > IP Authenticated Extension

## ■ List of IP Authenticated Extension

The list of entered IP Authenticated Extension.

t of IP Authenticated Extension					
Index	Name	Extension Number	IP Authenticated Extension	SIP Client Authenticated IP Address	SIP Domain
1	Sales 01	31	Enable	102 102 1	-
2	Sales 02	32	Enable	100 100 0	-
3	Sales 03	33	Disable		
4	Sales 04	34	Disable		

• Select an Extension Number in the "IP Authenticated Extension (Pre-registered Extension)" to edit the entry.

# **Caller Number Reformatting screen**

PBX Advanced Settings > Caller Number Reformatting

## ■ Source Line Settings

Set the rules to reformatting Caller IDs of incoming call.

Line	Phone Number	Reformatting 1 Disabled	~
IP Line	100		
Peer to Peer	VEPG4	Disabled	~
Extension	-	Disabled	~
			2 3

Reformatting	Set whether or not to reformat for each Caller Number. (Default: Disabled) ① The "Extension" rule is applied for incoming call from extensions that are	
	registered to the same SIP server (VE-PG4).	
⊘ <apply></apply>	Click to apply the entries.	
<b>I</b> Solution Solutio	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>	

#### Caller Number Reformatting screen

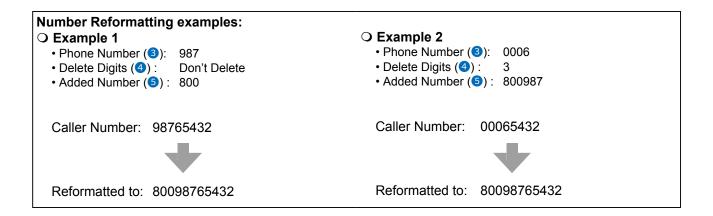
PBX Advanced Settings > Caller Number Reformatting

## Caller Number Reformatting Settings

Set the Caller IDs that are applied the reformatting rules.

Index 1		Reformat 2		Phone Number 3	Delete Digits	Added Number 5	
5	~	Apply	~		Don't delete V		6 Add

1 Index	Enter the order for the Caller Number Reformatting ope • Range: 1 ~ 100	eration.
Reformat	<ul> <li>Set the whether or not to reformat the Caller Number if number is received.</li> <li>Apply: Reformats the number according to the rule.</li> <li>Exception: Does not reformat the number.</li> <li>The "Exception" rules are prior to the "Apply" rules.</li> </ul>	a matched (Default: Apply)
3 Phone Number	Enter the number of up to 15 digits. When the entered number matches at the begining of t Number, the reformatting rule is applied.	(Default: Blank) he Caller
Delete Digits	Enter a number of digits if you want to delete specified beginning of the Caller Number. (Defa • Range: Don't delete, or 1 ~ 15	digits at the ault: Don't delete)
5 Added Number	Enter a number if you want to add up to 15 digits to the Caller Number.	beginning of the (Default: Blank)
<b>6</b> <add></add>	Click to add the entries.	



### Caller Number Reformatting screen

PBX Advanced Settings > Caller Number Reformatting

## ■ List of Caller Number Reformatting Settings

The list of entered Caller Number Reformatting Settings.

ndex	Reformat	Phone Number	Delete Digits	Added Number	1 2
1	Apply	987	Don't delete	800	Edit Delete
2	Exception	0800			Edit Delete
3	Apply	080	3	090	Edit Delete
4	Apply	4567	4	1234	Edit Delete

● <edit></edit>	Click to edit an entry.
<b>2</b> <delete></delete>	Click to delete an entry.
Solution 3 ≤ 2 ≤ 2 ≤ 2 ≤ 2 ≤ 2 ≤ 2 ≤ 2 ≤ 2 ≤ 2 ≤	Click to delete all the entries. ① You cannot restore after clicking <delete all="">.</delete>

## **DID** screen

PBX Advanced Settings > DID

## DID Allocation

DID Allocation		
100(IP)	Don't Select	~
		Apply Reset

DID Allocation ...... Set th

Set the DID you use for External lines.

(Default: Don't Select)

- Range: Don't Select or DID 1 ~ 10
- ① When selecting a DID, the IP line number (phone number) that is entered in the SIP Server Entries is displayed.
- $\textcircled$  When selecting a DID, the "Connect to" is set to the selected DID.

### **DID** screen

```
PBX Advanced Settings > DID
```

## DID Settings

Sets the details when using the DID (Direct Inward Dialing) function.

DID Settings	
Index : 1 DID 1	~
Response Time : 2 4	✓ seconds
Dial Tone : 3 Type 1	~
DID Timeout Action : ④ ◯ Clear Down ⑥ Call Default Destination	
Default Call Destination Number : 5	
Timer : 6 10	seconds
	Apply Reset

① The above screen shows when Action (④) is set to "Call Default Destination."

1 Index	Select a DID that you wa	(Default: DID 1)	
Response Time	Set the delay time to sour arrived. • Range: 0 ~ 10 (seconds)	nd a Dial Tone (3) since an int	oound call has (Default: 4)
<b>3</b> Dial Tone	Selects the tone pattern that sounds on an IP phone. (Default: Type $\bullet$ Options: Type 1 ~ 3		
4 Action	Select the timeout action of the RoIP gateway when the particular period of time (6) has passed without receiving any DTMF signal. (Default: Clear Down)		
	Clear Down:	Cancels the call without calling the transceiver.	e client
	Call Default Destination:	Makes a call to the Default Call D Number (⑤).	estination
Default Call Destination			
Number	Displayed only when Action (④) is set to "Call Default Destination." Set the Destination phone number.		
6 Timer			(Default: 10) rk.
♂ <apply></apply>	Click to apply the entries		
8 <reset></reset>	Click to reset the settings. (i) You cannot reset after clicking <apply>.</apply>		

#### About the DID operation

After the set period of time in Timer ( $^{6}$ ) has passed without any operation since starting the Dial Tone, the DID starts the Action ( $^{4}$ ).

 $\textcircled$  You can immediately dial by pushing "#" without waiting for 5 seconds of digit interval timer.

When dialing an incomplete phone number that does not include a DID number, the call will be canceled after the Busy Tone sounds.

## **DID** screen

PBX Advanced Settings > DID

# ■ List of DID settings

Displays the DID list.

Index	Response Time	Dial Tone	DID Timeout		
			Action	Default Call Destination Number	Timer
DID 1	4	Type 1	Call Default Destination	3000*101	10
DID 2	4	Type 1	Clear Down	-	10
DID 3	4	Type 1	Clear Down	-	10
DID 4	4	Type 1	Clear Down	-	10
DID 5	4	Type 1	Clear Down	-	10
DID 6	4	Type 1	Clear Down	-	10
DID 7	4	Type 1	Clear Down	-	10
DID 8	4	Type 1	Clear Down	-	10
DID 9	4	Type 1	Clear Down	-	10
DID 10	4	Type 1	Clear Down	-	10

① When a DID is set, the IP line setting in Inbound Call is changed to DID. (PBX > Inbound Call)

Phone Number	Line	Connect to		Ringtone	Queuing	
100	IP Line	DID 1	~	Outside Tone A 🗸	OFF	~
VEPG4	Peer to Peer	None	~	Inside Tone A 🗸	OFF	~

# MANAGEMENT

Administrator screen	15-2
Administrator Password	15-2
Management Tools screen	15-3
USB	15-3
■ HTTP/HTTPS	
If you cannot access the setting screen	
Unit ID Confirmation	
Date and Time screen	
Date and Time	
SNTP Server	
SYSLOG screen	
SYSLOG	
SNMP screen	
SNMP	
Network Test screen	
Ping Test	
Traceroute Test	
Management LTE Module screen	
Management LTE Network	
Reboot screen	
Reboot	15-18
Settings Backup/Restore screen	
Settings Backup	
Settings Restore	
List of Settings	
Factory Defaults screen	
Factory Defaults	15-21
Firmware Update screen	
Firmware Status	
Online Update	
Automatic Update	
Manual Update	

## Administrator screen

Management > Administrator

## Administrator Password

Set a password for accessing the setting screen.

dministrator Password	
Username : 1 admin	
Current Password : 2	
New Password : 3	
New Password (Confirm) : 4	<b></b> 6
	Apply Reset

1 Username	Displays the administrator login ID ("admin"). ① You cannot change the Username.		
<b>2</b> Current Password	Enter the current password, when you change it. (Default: admin) ① The entered characters are displayed as an * (asterisk) or a • (dot).		
<b>3</b> New Password	Enter a new password of up to 31 characters. () The entered characters are displayed as an * (asterisk) or a • (dot).		
4 New Password (Confirm)	Enter the new password again.		
S <apply></apply>	Click to apply the entries.		
6 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>		

**CAUTION:** If you have forgotten the password, you cannot access the RoIP Gateway's setting screen. In this case, you have to initialize the RoIP Gateway. See the Section 5 of the Installation guide for details.

#### To prevent unauthorized access

You must be careful when choosing your password. A good policy is to occasionally change it.

- Choose one that is not easy to guess.
- Use numbers, characters, and letters (both upper and lower case).

# Management Tools screen

Management > Management Tools

## ■ USB

Settings for USB flash drives that will be connected to the USB ports.

	USB	
	USB Flash Drive : 🚺 🔿 D	Disable   Enable
	USB Access Permission : 🔵 🗹 F	irmware Update
	<b>⊻</b> s	Settings Backup/Restore
	USB Authentication Key: 3	
	Write USB Authentication Key: 4 Wr	ite
<b>1</b> ເ	JSB Flash Drive	Select "Enable" to use a USB flash drive. (Default: Enable) (1) If you use the Automatic firmware update function, or Automatic Setting Load function, select "Enable."
<b>2</b> t	JSB Access Permission …	<ul> <li>Select the USB flash drive access option. (Default:</li></ul>
3ເ	JSB Authentication Key …	<ul> <li>Settings Backup/Restore (p.15-19)</li> <li>Enter a USB Authentication Key of up to 64 characters to import to and export from the USB flash drive.</li> </ul>
		<ol> <li>This Key can restrict access to the Firmware Update function and Settings Backup/Restore function.</li> <li>After entering the characters, click <apply> in the Management Tools.</apply></li> <li>If you set the USB Authentication Key, the RoIP Gateway can verify the USB authentication key written in the USB flash drive.</li> </ol>

# 15 MANAGEMENT

### Management Tools screen

#### Management > Management Tools

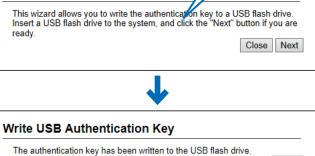
JSB	
USB Flash Drive : 🚺 🔿 Di	sable
USB Access Permission : 🔵 🗹 Fi	mware Update
	ttings Backup/Restore
USB Authentication Key: 3	
Write USB Authentication Key: 4 Write	e

#### **Write USB Authentication Key**

Click to write the USB Authentication Key to the USB flash drive that is inserted in the [USB] port. Click <Write>, then continue as shown below.

If you have inserted a flash drive in which an authentication key is already saved, "An authentication key already exists on the USB flash drive. If you want to overwrite the key, click the "Next" button." is displayed.

#### Write USB Authentication Key



When the "The USB Authentication Key has been changed. Write the key after saving it by pushing the Apply button." window is displayed, click <OK> and then click <Apply> in the Management Tools screen.

Close

	×
This site says	
The USB authentication key has Write the key after saving it wit	
	ОК

# 15 MANAGEMENT

Management Tools screen

Management > Management Tools

## HTTP/HTTPS

HTTP and HTTPS are the protocols to access from a web browser.

① When you set HTTP settings and HTTPS settings to "Enable," you can not access the setting screen using a browser.

HTTP/HTTPS		
	HTTP : 1 O Disable  Enable HTTP Port 2 80	
	HTTPS : 3      O Disable O Enable	
	HTTPS Port : 4 _443	

<b>1</b> HTTP	Select whether to allow access using the HTTP proto	col. (Default: Enable)
<b>2</b> HTTP Port	Enter the HTTP Port number • Range: 80, or 1024 ~ 65535. • Some of the RoIP Gateway's ports cannot access HTTP. ① Enter a different port number from HTTPS, Telnet or SSH	(Default: 80) H.
3 HTTPS	<ul> <li>Select whether to allow access using the HTTP protor</li> <li>① HTTPS access is more secure than Telnet or HTTP accepasswords and data are encrypted.</li> </ul>	(Default: Disable)
HTTPS Port	<ul> <li>Enter the HTTPS Port number.</li> <li>Range: 443, or 1024 ~ 65535.</li> <li>Some the RoIP Gateway's ports cannot access HTTPS.</li> <li>① Enter a port number different from HTTP, Telnet or SSH.</li> </ul>	(Default: 443)

Management Tools screen

Management > Management Tools

## If you cannot access the setting screen

Access Telnet or SSH (Example:192.168.0.1).

- See the INSTALLATION GUIDE Section 6 for details.
- Set to default, the RoIP Gateway can not be accessed from a Telnet client because the Telnet setting is set to "Disable." (Management > Management Tools > Telnet/SSH > Telnet) (See page 15-7.)

After entering "VE-PG4>," enter the letters written in bold as follows, and then press [Enter].

- 1. Enter "network http enabled on," and then press [Enter].
- 2. Enter "save," and then press [Enter].
- The setting is applied.
- 3. Check if you can access the setting screen.



## Management Tools screen

Management > Management Tools

## Telnet/SSH

Set for accessing the RoIP Gateway using Telnet or SSH.

elnet/SSH		
Telnet : 1	Disable	
Telnet Port : 2	23	
SSH:3	🔾 Disable 💿 Enable	
SSH Authentication Method : 4	Automatic	~
SSH Port : 5		
SSH Public Key : 6		

<b>1</b> Telnet	Select whether or	not to allow access to the RoIP Gatev (	vay using Telnet. Default: Disable)
2 Telnet Port	Some the RolP G	Port number. ween 1024 and 65535. ateway's ports cannot access Telnet. port number different than HTTP, HTTPS,	(Default: 23) or SSH.
3 SSH	By using SSH, ye program.	allow to access by the SSH protocol. ou can encrypt the contents to be set usin ports only the SSH protocol Version 2. client to use SSH.	• •
<b>4 SSH Authentication Method</b>		uthentication Method to access the Ro I Settings to "Enable." (De Authenticating with the password. Authenticating with the Public Key. Automatically authenticating with the pas Public Key.	fault: Automatic)
5 SSH Port	Some of the RolP	Port number. ween 1024 and 65535. Gateway's ports cannot access SSH. ber that is different from HTTP, Telnet, or	(Default: 22) HTTPS.
<b>6</b> SSH Public Key		y for accessing. /hen the SSH setting is set to "Enable" and lethod is set to "Public" or "Automatic."	I SSH

Management Tools screen

Management > Management Tools

## Unit ID Confirmation

You can know which VE-PG4 is the current RoIP Gateway by the blinking lights on it.

Unit ID Confirmation		
Check Status : 1 Stop Confirmation State : 2 Sta		3 4 Apply Reset
Check Status	Display the statu	
	<ul> <li>Checking:</li> <li>Stop:</li> </ul>	Checking the Unit ID and [PWR] blinks red. Does not check.
<b>2</b> Confirmation State	•	he <start> button changes to the <stop> button. omatically stops in 2 minutes, but you can also manually stop</stop></start>
S≤ <apply></apply>	Click to apply the	entries set on the Management Tool screen.
<pre>4 <reset></reset></pre>	"Management To	settings, when you change the settings on the ols" screen. et after clicking <apply>.</apply>

## Date and Time screen

Management > Date and Time

## Date and Time

You can set the RoIP Gateway internal clock time. (See Section 3 for details.)

Date and Time	
Current Tim Manually Set Tim	
Current Time	Displays the current time.
2 Manually Set Time	Displays the time when you opened this screen. ① Refresh the browser screen to refresh the time.
<b>3</b> <set></set>	Click to set the internal clock to the time displayed in the "Manually Set Time"(2). ① Before clicking <set>, refresh the browser screen.</set>

# 15 MANAGEMENT

Date and Time screen

Management > Date and Time

## ■ Time Zone

Select the appropriate Time Zone.

Time Zone		
Time Zone :	р_итс	~
Use Daylight Savings Time :	2 🔿 Disable 💿 Enable	
1 Time Zone	Select the appropriate Time Zone.	(Default: UTC)
2 Use Daylight Savings Time	Select "Disable" if not necessary.	(Default: Enable)
	<ol> <li>If "Enable" is selected, the RoIP Gateway auto according to your time zone.</li> <li>If Daylight Savings Time is not used in your ar</li> </ol>	

### Date and Time screen

#### Management > Date and Time

## 

The Automatic Clock Synchronize function automatically synchronizes the internal clock with the time server (NTP).

① To use this function, an Internet connection and default gateway settings are necessary.

NTP	
NTP Client :	Disable ONTP OLTE
NTP Server 1 (2)	210.173.160.27
NTP Server 2 3	
	Not synchronized

NTP Client	Select whether or not to use the Automatic Clock Synchronize function. (Default: Disable)
	<ul> <li>Disable: Not used.</li> <li>NTP: Set to the internal clock automatically by accessing the NTP.</li> <li>LTE: Set to the internal clock automatically by accessing the LTE Module.</li> </ul>
NTP Server 1	Enter the time management server's IP address. (Default: 210.173.160.27) If the RoIP Gateway cannot access this address, the address set in the [NTP Server 2] (3) item is used.
<b>3</b> NTP Server 2	Enter the second time management server's IP address. (Default: 210.173.160.57)
4 Status	Displays the status whether or not to synchronize with the NTP Server or the transceiver module.

**CAUTION:** When you select NTP Client as NTP, you must set the Interface for the NTP server. (Network Settings > IP Address > IP Address > Default Gateway) (Network Settings > Static Routing > Static Routing)

#### TIP: The Automatic Clock Synchronize function

When you connect to the SIM card,

• Set the Automatic Clock Synchronize function to LTE, to synchronize the current time to the transceiver module.

Set the Automatic Clock Synchronize function to NTP, to synchronize the current time to the NTP server.
After inserting the SIM card, the RoIP Gateway is automatically set to the Automatic Clock Synchronize

function.

## Date and Time screen

Management > Date and Time

## SNTP Server

The SNTP server is for other RoIP devices that have no route to an external Time server (NTP). ① To use this function, an Internet connection and default gateway settings are necessary.

	SNTP Server	
	SNTP Serv	rer : 1 O Disable
1 SNTP Se	erver	<ul> <li>Select "Enable" to use the SNTP function. (Default: Enable)</li> <li>When you select 'Enable', the RoIP devices function as an NTP server and set the internal clock time of the RoIP Gateway.</li> <li>This function can be used only for Icom RoIP devices, which cannot set the route to the external NTP server.</li> <li>Set the Date and Time screen before using this function.</li> </ul>
2 <apply></apply>		Click to apply the entries set on Time Zone, NTP, and SNTP Server.
<mark>3</mark> <reset></reset>		Click to reset the settings when you change the settings on Time Zone, NTP, and SNTP Server. ① You cannot reset after clicking <apply>.</apply>

# SYSLOG screen

## Management > SYSLOG

## SYSLOG

Select the information to be saved to the SYSLOG host.

	Disable 🔘 Enable	
INFO : 2 🔿	Disable <ul> <li>Enable</li> </ul>	
NOTICE : 3 O	Disable	
Host IP Address : 4		Apply Reset

<b>2</b> INFO	Select "Enable" to display the INFO messages in Host IP Address (④). (Default: Enable)
	Select "Enable" to display the NOTICE messages in Host IP Address (④). (Default: Enable)
Host IP Address	Enter the SYSLOG host's address. ① The host device must have the SYSLOG server function.
5 <apply></apply>	Click to apply the entries.
<b>6</b> <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

## **SNMP** screen

Management > SNMP

## ■ SNMP

Configure the SNMP function, that is information on the RoIP Gateway for being collected by each host in the IP network for their network management.

SNMP	
SNMP: 1 Community Name (GET) : 2 System Location : 3 System Contact : 4	
SNMP	Select "Enable" to manage the setting information in the SNMP management tool. (Default: Enable)
Community Name (GET)	Enter the Community name to get the SNMP community string. (Up to 31 characters) (Default: public)
<b>3</b> System Location	Enter the SNMP system location. (Up to 127 characters)
System Contact	Enter the SNMP system contact. (Up to 127 characters)
S <apply></apply>	Click to apply the entries.
6 <reset></reset>	Click to reset the settings. ① You cannot reset after clicking <apply>.</apply>

## **Network Test screen**

Management > Network Test

## Ping Test

Verifies that a particular IP address exists and can accept requests.

Ping Test		
Host : 🚺		
Number of times : 2		~
Packet Size : 3	64	✓ bytes
Timeout : 4		✓ milliseconds
		Ping
		5

<b>1</b> Host	Enter the IP address or Domain Name of up to 64 charac the Ping packets to.	ters to send
<b>2</b> Number of Times	Select the number of times to send. • Options: 1, 2, 4, 8	(Default: 4)
8 Packet Size	Select the size of the packet's data. • Options: 32, 64, 128, 256, 512, 1024, 1448, 1500, 2048 (byte:	(Default: 64) s)
Timeout	<ul><li>Select the Ping response time.</li><li>Note: If there is no response within the selected time, a ti returned.</li><li>Options: 500, 1000, 5000 (milliseconds)</li></ul>	(Default: 1000) me out error is
6 <ping></ping>	Click to run the Ping test. (1) The test result is displayed as shown below. Ping Result PING 192.168.100.1 (192.168.100.1) 56(84) bytes of data. 64 bytes from 192.168.100.1: icmp_req=1 ttl=59 time=9.82 ms 64 bytes from 192.168.100.1: icmp_req=2 ttl=59 time=7.00 ms 64 bytes from 192.168.100.1: icmp_req=3 ttl=59 time=5.90 ms 64 bytes from 192.168.100.1: icmp_req=3 ttl=59 time=6.62 ms 192.168.100.1 ping statistics 4 packets transmitted, 4 received, 0% packet loss, time 3010ms rtt min/avg/max/mdev = 5.909/7.342/9.824/1.486 ms	

Save Back

① Click <Save> to save the result to a PC as a text file (extension: "txt"). Note: The file is saved as "ping\_host's address.txt."

① Click <Back> to return to the Ping Test screen.

## Network Test screen

Management > Network Test

## Traceroute Test

Executes a tracerout test against a particular node.

ceroute Test	
Node :	
Node : 1 Maximum Hop Count : 216	~
Timeout : 3 3	✓ seconds
DNS Lookup : 4 O Disable   Enable	5
•	Traceroute

<b>1</b> Node	Enter the node's (device's) IP address or Domain Name of up to 64 characters.
<b>2</b> Maximum Hop Count	Select the maximum hop number.(Default: 16)• Options: 4, 8, 16, 32
<b>3</b> Timeout	Select the response time.(Default: 3)Note: If there is no response within the selected time, a time out error is returned.• Options: 1, 3, 5 (seconds)
DNS Lookup	Select "Enable" to convert the node's (device's) IP address into the host name. (DNS name resolution) (Default: Enable)
S <traceroute></traceroute>	Click to run the traceroute test.
	The test result is displayed as shown below.
	Traceroute Result
	traceroute to 192.168.100.1 (192.168.100.1), 16 hops max, 38 byte packets 1 1.885 ms 2.101 ms 2.248 ms 2 20.590 ms 32.736 ms 5.745 ms 3 192.168.54.1 17.774 ms 4.630 ms 4.497 ms 4 192.168.53.4 5.841 ms 4.537 ms 7.152 ms 5 192.168.100.3 10.446 ms 8.165 ms 8.240 ms 6 192.168.100.1 10.473 ms 8.243 ms 8.037 ms
	Save Back

- Click to save the result to a PC as a text file (extension: "txt").
- The file is saved as "tracert\_node's address.txt."
- Click <Back> to return to the Traceroute Test screen.

# Management LTE Module screen

Management > Management LTE Module

## Management LTE Network

The settings and status for connecting to a LTE netowrk.

Management LTE Network		
Network Selection : Network Search : Network Operator : RSSI Level :	Apply Reset	
Network Selection	Set to automatica or enable the Use • Auto:	ally select the LTE Network, select the last accessed, er to select. (Default: Auto) Automatically selects the network that the LTE module can connect to. LTE is selected prior to 3G if both of them are usable.
	Last accessed:	<ul> <li>When turning on the RoIP Gateway, the same connection way as before is attempted. If the previous LTE Network Operator (PLMN) is not saved, 'Auto' is selected, and saves the LTE Network Operator (PLMN) when the network is able to connect.</li> <li>The RoIP Gateway works as the same way as the "Auto" setting, if it could not connect to the last accessed LTE Network Operator (PLMN.)</li> </ul>
	• User select:	You can select the network from LTE or 3G after searching. If the selected network cannot be found, the RoIP Gateway cannot connect to the network.
2 Network Search	Click <search>, a of the LTE Netwo connect to.</search>	er select," the Network Search setting is displayed. and <ok> on the displayed dialog, to display the list ork Operators (PLMN) that this RoIP Gateway can se a few minutes or more.</ok>
<b>3</b> Network Operator	Displays the con	nected LTE Network Operator (PLMN).
RSSI Level	Displays the RSS	I (Received Signal Strength Indicator) level (dBm).
5 <apply></apply>	Click to apply the	entries.
3 <reset></reset>	Click to reset the	settings. et after clicking <apply>.</apply>

# **Reboot screen**

Management > Reboot

## Reboot

Click <Reboot> to reboot the RoIP Gateway.

Reboot	

Reboot Now : Reboot

## Settings Backup/Restore screen

Management > Settings Backup/Restore

## Settings Backup

Save the RoIP Gateway's settings to a PC as a backup.

Settings Backup		
Save to	b File : Backup	
Save to File	Click <backup> to save the settings to a PC as a backup fil</backup>	le

(Extension: sav). See the topic below to load the saved file into the RoIP Gateway.

Management > Settings Backup/Restore

## Settings Restore

Load the setting file (Extension: "sav") into the RoIP Gateway. Note: Loading takes a few minutes.

Settings Restore	
Load Settings File : 1	Browse
Restore : 2	Restore
Load Settings File	Click <browse> to select the setting file.</browse>
2 Restore	Click <restore> to load the setting into the RoIP Gateway Notes:</restore>

- The RoIP Gateway's settings are overwritten.
- After loading, the RoIP Gateway automatically reboots.
- Caution: Do not modify the settings other than the VE-PG4.

# 15 MANAGEMENT

### Settings Backup/Restore screen

Management > Settings Backup/Restore screen

## ■ List of Settings

Displays the changed settings.

Note: The list is cleared when the RoIP Gateway is initialized.

ext port in_timing 2 sw	
ext port in_timing 3 break	
ext port out_voice_ctrl 2 rtp	
ext port out_voice_ctrl 3 off	
ext port out_voice_delay 2 5	
ext port out_voice_delay 3 300	
ext port out_waittime 2 500	
ext port out_waittime 3 0	
ext port ptt_gd_time 2 0	
ext port ptt_gd_time 3 400	
ext port pullup_ctrl 2 on	
ext port pullup_ctrl 3 off	
ext port radio_connect 2 none	
ext port radio_connect 3 inout	
ext port radio_model 2 almighty	
ext port radio_model 3 ic4810	
ext port radio_receive_mode 2 vox	
ext port radio_receive_mode 3 sql	
ext port recv_priority 2 off	
ext port recv_priority 3 on	
ext port rxgain_offset 2 0	
ext port rxgain_offset 3 -2	
ext port txgain_offset 2 0	
ext port txgain_offset 3 -6	
ipradio call_tbl call_id 1 1001	

(This is only an example.)

# **Factory Defaults screen**

Management > Factory Defaults

## Factory Defaults

You can reload the RoIP Gateway settings to the factory defaults. ① If you forget the IP address and the Administrator's password, see Section 5 in the Installation guide.

Factory Defaults	
All Settings : 1 〇 F	Restore all settings to factory defaults.
	Restore to factory defaults without [Network Settings], [Router Settings], Management]. Restore
All Settings	<ul> <li>Select to return all settings to the factory defaults.</li> <li>① After the RoIP Gateway is initialized, the IP address is returned to the default (192.168.0.1).</li> <li>① If the network part of the PC IP address is different from that of the RoIP Gateway, you cannot access the RoIP Gateway setting screen. In such case, change the PC IP address according to your network environment.</li> </ul>
V/RoIP Settings	Select to return the settings to the factory defaults except for the Network Settings, the Router Settings, and the Management Settings.
Restore	Click to restore the settings.

## Firmware Update screen

Management > Firmware Update

NOTE:

- NEVER turn OFF the power until the update has been completed. Otherwise, the RoIP Gateway may be damaged.
- While updating, all connections are disconnected
- () Ask your dealer for updated function or specification details.

## Firmware Status

Displays the firmware version.

Firmware Status
Version : VE-PG4 Ver. Copyright Icom Inc.

Firmware Update screen

Management > Firmware Update

## Online Update

Downloads the firmware through the Internet, and automatically updates it.

NOTE: To use this function, an Internet connection, or LTE(4G/3G) is required.

Online Update	
Check for Updates :	Check

Check for Updates .....

Click <Check> to access the update management server. When the RoIP Gateway has successfully accessed the server, the latest firmware version is displayed, as shown below.

nline Firmware	e Update
mware Informati	on
Status	Succeeded in gathering information.
Version	

#### About the firmware information:

- When there is a new firmware update available, the <Update Firmware> button is displayed.
- When there is no firmware update, "Firmware already up-to-date" is displayed.
- When an error message is displayed, check the network connection so that you can access the update management server, as follows:

#### When a SIM card is installed:

• Confirm that the antennas are attached properly to the [ANT1] and [ANT2] connectors.

When a SIM card is not installed:

- Confirm that the default gateway and DNS server address are properly set to the RoIP Gateway. (Network Settings > IP Address)
- Ask your network administrator if a web transmission from the RoIP Gateway is blocked.

### Firmware Update screen

Management > Firmware Update

## Automatic Update

The firmware can be automatically downloaded and updated. ① When a SIM card is inserted, the Automatic Update Setting is not displayed.

Automatic Update		
Automatic Update : 10	isable  Enable	
Automatic Update	Select "Enable" to use the Automatic Update function. (Default: Enabl ① Select "Disable" if you do not want to automatically update the firmware.	e)
2 <apply></apply>	Click to apply the entries.	
3 <reset></reset>	Click to reset the settings. (1) You cannot reset after clicking <apply>.</apply>	

## Manual Update

2 Firmware Update .....

The firmware can be updated using the saved firmware.

Manual Update			
Select the update file : Firmware Update :		Browse	
Select the update file	Click <browse> to select the firmwar The selected file appears in the "Update</browse>		

Click <Update> to update the firmware.

Note: After updating, the RoIP Gateway automatically reboots.

Count on us!