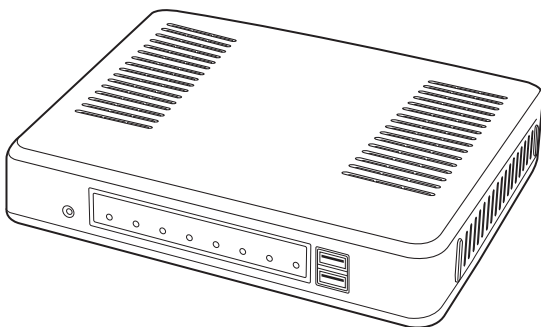




INSTRUCTION MANUAL

RoIP GATEWAY **VE-PG3**



Icom Inc.

INTRODUCTION

1 BEFORE USING THE VE-PG3

2 BRIDGE MODE APPLICATION

3 CONVERTER MODE APPLICATION

4 ANALOG TELEPHONE APPLICATION

5 BRIDGE MODE SETTING SCREEN

6 CONVERTER MODE SETTING SCREEN

7 MAINTENANCE

8 FOR YOUR INFORMATION

INTRODUCTION

Thank you for purchasing the VE-PG3. The VE-PG3 is a network converter that allows you to connect Icom radios or repeaters to a VoIP network.

This guide describes the basic settings to operate the VE-PG3.

READ ALL INSTRUCTIONS carefully and completely before using.

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INTRODUCTION

For USA

1. This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the back of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.
2. The following USOC jacks may be used with this equipment: RJ11C.
3. A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.
4. The REN is used to determine the number of devices that may be connected to a telephone line.
Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.
5. If the equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required.
But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.
6. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications to maintain uninterrupted service.
If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.
8. This equipment contains no user serviceable parts. Please contact to
Company Name: Icom America Inc.
Address: 2380 116th Ave NE Bellevue, WA 98004
Phone: (800) 426-7983
9. This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. Contact the state Public Utility Commission, Public Service Commission, or Corporate Commission for information.
10. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this MFP does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer. FCC Telephone Consumer Protection Act The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including FAX machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. The telephone number provided may not be a 900 number or any other number for which charges exceed local or long distance transmission charges.
To comply with this law, you must enter the following information in your fax unit:
 - Date and time: see the Installation section of this document for instructions on doing this.
 - Name and telephone number which identify the source of your fax transmission: see the User's Handbook f for instructions on doing this.

INTRODUCTION

For Canada

This product meets the applicable Industry Canada technical specifications.

Le présent matériel est conforme aux spécifications techniques applicables d'Industrie Canada.

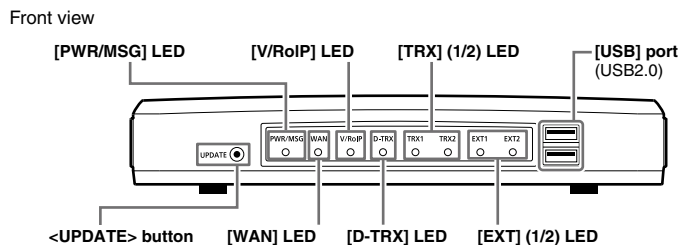
The Ringer Equivalence Number (REN) is an indication of the maximum number of devices allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices not exceed five.

L'indice d'équivalence de la sonnerie (IES) sert à indiquer le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas cinq.

Panel description	1-2
■ Front panel	1-2
■ Rear panel	1-5
■ Bottom panel	1-6

Panel description

■ Front panel



<UPDATE> button When [PWR/MSG] lights orange, a firmware update is ready.

- To use the Firmware Update function, an internet connection, DNS and default gateway settings are necessary.

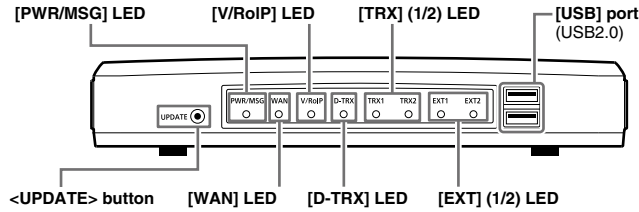
LED	Indication		In the Converter mode	In the Bridge mode
PWR/MSG	Doesn't light		Power is OFF	
	Green	Lights	Power is ON	
		Blinks	Booting	
	Red	Lights	-	
		Blinks	-	
	Orange	Lights	A firmware update is ready./Downloading new firmware.	
			Accessing the USB memory. (While loading the setting file or updating the firmware.)	
		Blinks	Booting	
Initialization is in progress. (Green and Orange LEDs alternately light.) Firmware update is in progress.				
WAN	Doesn't light		No network connection./Connecting to the network is in progress.	
	Green	Lights	Connected to the WAN line. (An IP address has been obtained.)	
		Blinks	The WAN line is communicating.	
	Red	Lights	-	
		Blinks	Authentication error/failed (PPPoE) Failed to obtain IP address (DHCP) (Time-out timer: 30 seconds)	
	Orange	Lights	-	
Blinks		-		
V/RoIP	Doesn't light		No registration	Not connected
	Green	Lights	Registration succeed (All entries)	Connected
		Blinks	The line is communicating.	
	Red	Lights	-	
		Blinks	1 or more registrations failed.	
	Orange	Lights	-	
		Blinks	-	

1 BEFORE USING THE VE-PG3

Panel description (continued)

■ Front panel (continued)

Front view



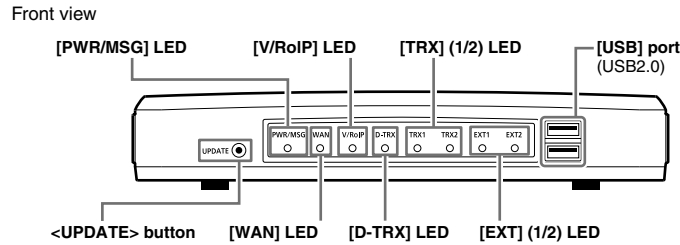
D-TRX*	Doesn't light		No transceiver is connected, or it is turned OFF.
	Green	Lights	Receiving an audio signal.
		Blinks	–
	Red	Lights	Sending an audio signal.
		Blinks	–
	Orange	Lights	The transceiver is communicating.
Blinks		–	
TRX1 TRX2	Doesn't light		No transceiver is connected, or it is turned OFF.
	Green	Lights	Receiving an audio signal.
		Blinks	–
	Red	Lights	Sending an audio signal.
		Blinks	–
	Orange	Lights	The transceiver is communicating.
Blinks		–	
EXT1 EXT2	Doesn't light		No input or output signal.
	Green	Lights	Input is busy.
		Blinks	–
	Red	Lights	Output is busy.
		Blinks	–
	Orange	Lights	Input or output is busy.
Blinks		–	

*For the operation using an IC-FR5000/FR6000.

- All indicators light while updating the firmware or rebooting.
- The indication may differ, depending on the setting.

Panel description (continued)

■ Front panel (continued)



[USB] ports

CAUTION: Turn OFF the power before connect or disconnect the USB memory.

[Connecting a USB memory]

The configuration and firmware can be transferred using a USB memory (purchase separately).

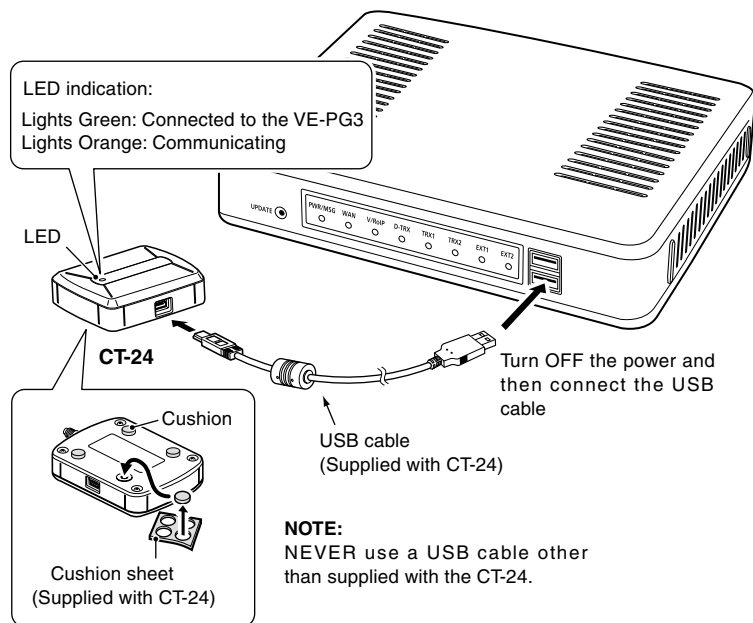
- Only one USB memory can be accepted at a time.

[Connecting the CT-24:

Connect the optional CT-24 to communicate with IC-FR5000/FR6000.

- The VE-PG3 accepts up to two CT-24s.
- When you want to connect two CT-24s and USB memory, a USB HUB (self-powered HUB) is required.

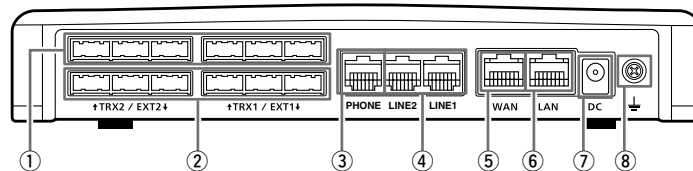
Connect one CT-24 and the USB memory to the USB port, and connect the other CT-24 to the USB HUB.



1 BEFORE USING THE VE-PG3

Panel description (continued)

■ Rear panel

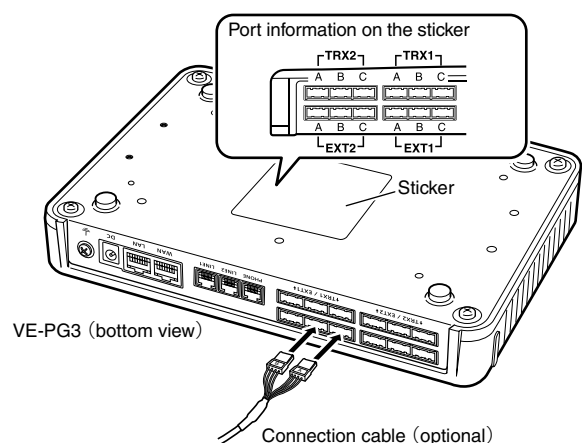


- | | |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ① [TRX](1/2) port | Connect the transceiver through the optional cable. |
| ② [EXT](1/2) port | Connect the external equipment through the optional cable. |
| ③ [PHONE] port | Connect a telephone. |
| ④ [LINE](1/2) ports | Connect to the PSTN. |
| ⑤ [WAN] port..... | Connect the network terminal device.
• The router function is disabled as the default setting.
Configure the network setting (DHCP Client/Static IP/PPPoE) according to your network service provider. |
| ⑥ [LAN] port | Connect the network device such as a HUB. |
| ⑦ DC jack | Connect the supplied AC adaptor. |
| ⑧ Ground terminal | Connect the ground wire. |

ABOUT THE OPTIONAL CONNECTION CABLE

Before connecting cables, see the cable's manual and the sticker on the bottom of the VE-PG3 for port information.

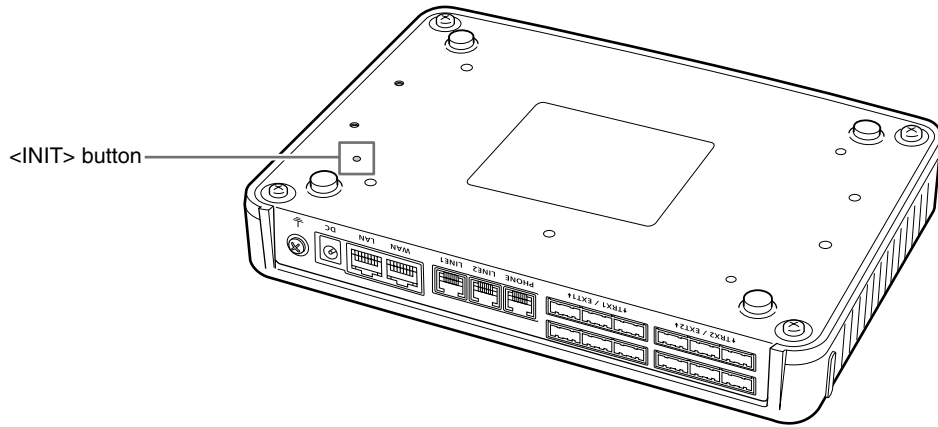
- Verify that both the VE-PG3 and connected devices are turned OFF when connecting or disconnecting the cable.
- Hold the connector body when connecting or disconnecting them.
- When other cables are connected, you can use needle-nose pliers to carefully insert or remove connectors.
- Never bend or pinch the cable.
- Never place a heavy object on the cable.
- Never touch the cable with wet hands.
- Always connect the cable correctly. An incorrect connection could damage the VE-PG3 and/or the transceiver.



1 BEFORE USING THE VE-PG3

Panel description (continued)

■ Bottom panel



<INIT> button If you cannot access to the VE-PG3 setting screen, you can initialize the VE-PG3.

- See the "PRECAUTIONS" leaflet for the detail.
- Initializing clears all the settings.

1. Operation in the Multicast mode	2-2
1. Configuration	2-2
2. Connection	2-3
3. Operation	2-4
2. Operation in the Unicast mode	2-5
1. Configuration	2-5
2. Connection	2-6
3. Operation	2-7
4. Using the Mixing function	2-8
1. Configuration	2-8
2. Connection	2-9
3. Operation	2-10
5. Operating in the NXDN Conventional mode	11
1. UC-FR5000 configuration	11
2. VE-PG3 configuration	12
3. Connection	13
4. Operation	14

NOTE:

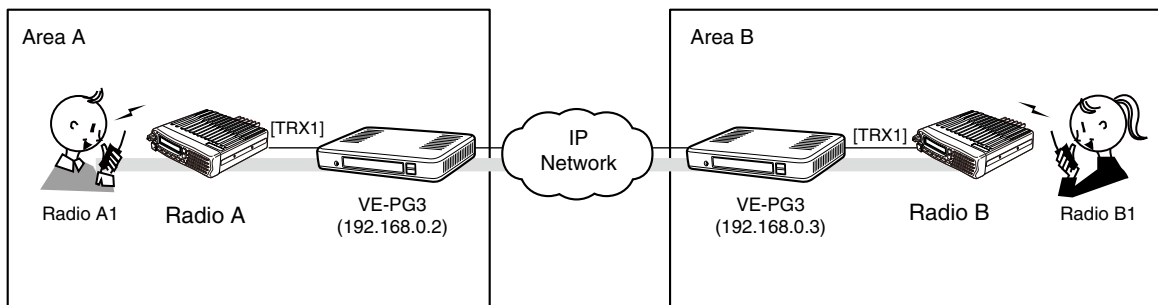
In this guide, the descriptions assume that all configurations of the PC and VE-PG3's IP address have been completed.

2 BRIDGE MODE APPLICATION

1. Operation in the Multicast mode

In the Multicast mode, a call from one site can be sent to multiple sites.

- In the instruction, the example of the communication as illustrated below, is used.



An example of Multicast mode

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

VE-PG3 (Area A/B)

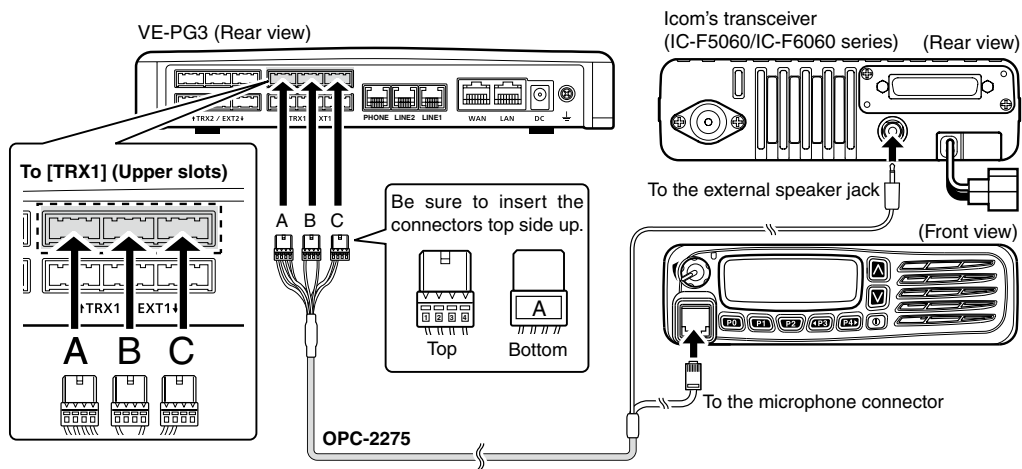
Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Bridge
		IP Communication Mode	IP Communication Mode	Multicast
Port Settings	Transceiver 1 (TRX1)	Transceiver Model:	Transceiver Model	IC-F5060/F6060

1. Operation in the Multicast mode (continued)

2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

- 1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.
 - Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

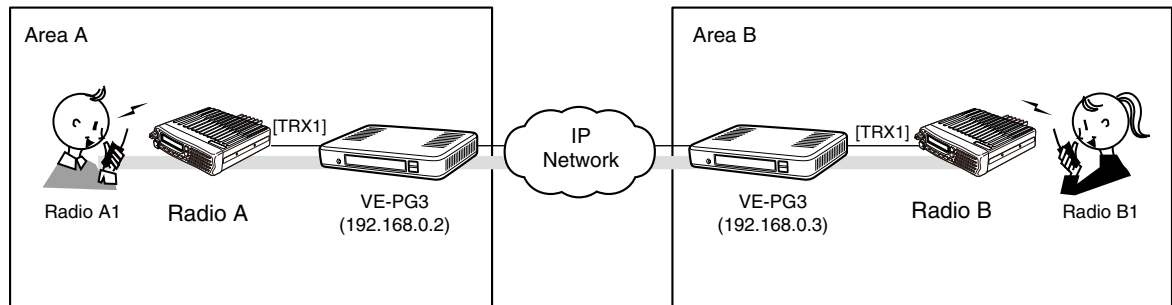
- 2 When all the connections are finished, turn ON the transceiver and VE-PG3's power.

NOTE:

- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.

1. Operation in the Multicast mode (continued)

3. Operation



An example of Multicast mode

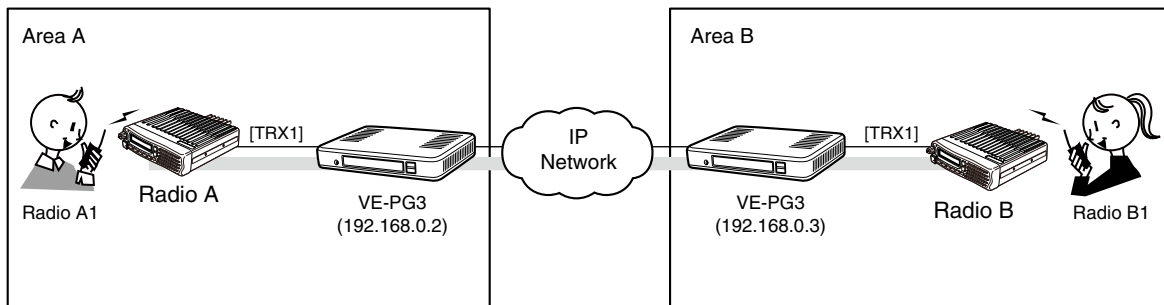
- All radios in the area must have same setting.
- Radio A1 and B1 can normally communicate as if they are directly communicating in the simplex mode.

2 BRIDGE MODE APPLICATION

2. Operation in the Unicast mode

In the Unicast mode, you can call the designated radio, using a communication port.

- In the instruction, the example of the communication as illustrated below, is used.



An example of communication the Unicast mode

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

VE-PG3 (Area A)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Bridge
		IP Communication Mode	IP Communication Mode	Unicast
Port Settings	Transceiver 1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060
Bridge Connection	Bridge Connection	Bridge Connection Point	Connection IP Address*	192.168.0.3
			Connection Port Number	21500
			My Station Port Number	21500
List of Bridge Connection Point Entries			Connection Status**	"During transmit"

*Enter the IP address of VE-PG3 in area A (ex. 192.168.0.2) for the VE-PG3 in area B.

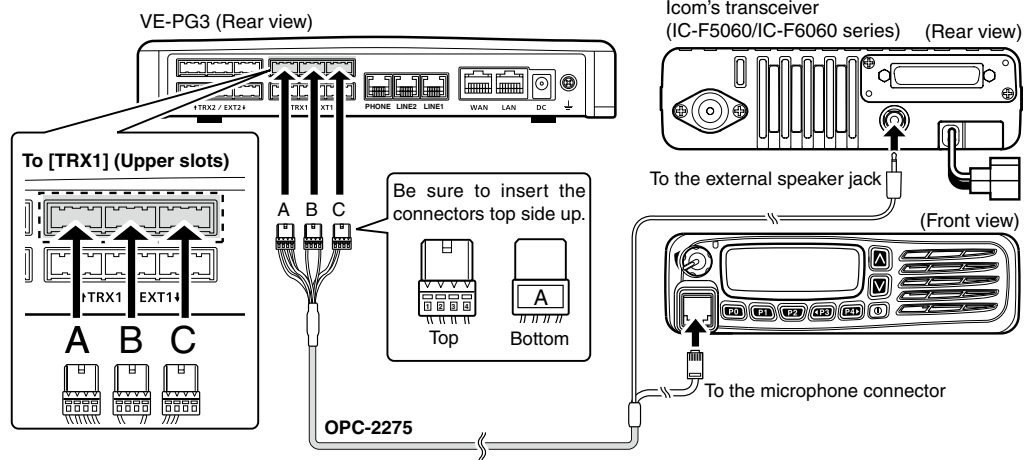
**Click [Connect], and verify that "During transmit" is displayed.

2. Operation in the Unicast mode (continued)

2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

- 1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.
 - Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

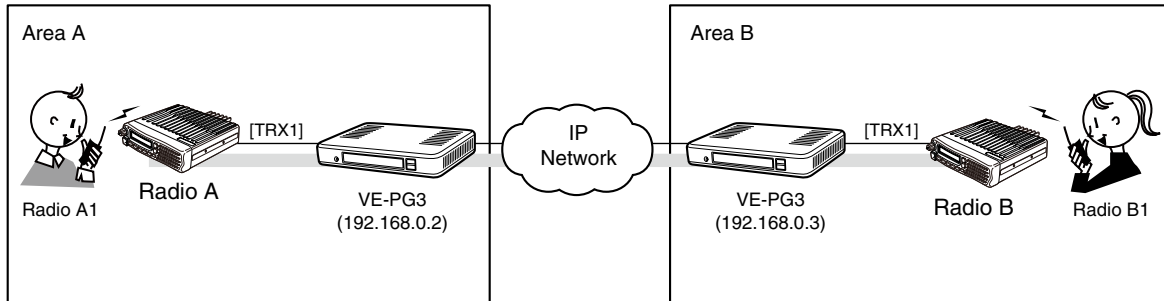
- 2 When all the connections are finished, turn ON the transceiver and VE-PG3's power.

NOTE:

- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.

2. Operation in the Unicast mode (continued)

3. Operation



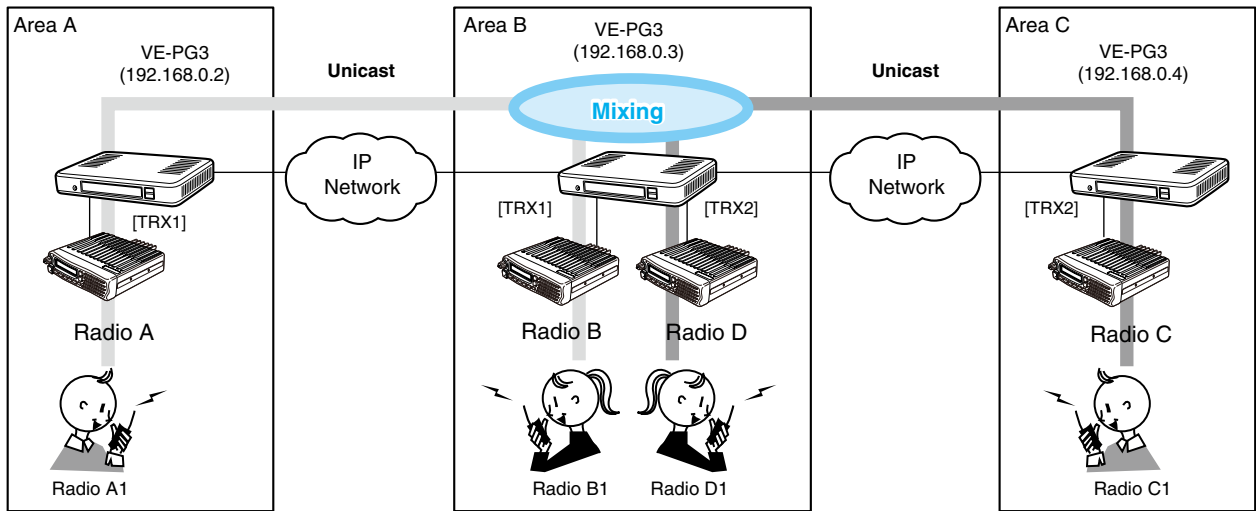
An example of communication the Unicast mode

- All radios in the area must have same setting.
- Radio A1 and B1 can normally communicate as if they are directly communicating in the simplex mode.

4. Using the Mixing function

The mixing function mixes conversations from different Areas. As shown in the figure below, the Area A radio users can talk to the Area B and relayed to the Area C.

- In this example, the audio signal of [TRX1] port and [TRX2] port (VE-PG3 in Area B) are mixed as illustrated below.



An example of communication with the Mixing function

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

- Configure the VE-PG3 in Area A and C, referring to “operation in the Unicast mode.”

VE-PG3 (Area B)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Bridge
		IP Communication Mode	IP Communication Mode	Unicast
		Mixing Group*		Transceiver 1(TRX1), Transceiver2(TRX2)
Port Settings	Transceiver 1 (TRX1)	Transceiver Model:	Transceiver Model	IC-F5060/F6060
	Transceiver 2 (TRX2)	Transceiver Model:	Transceiver Model	IC-F5060/F6060
Bridge Connection	Bridge Connection Point	Bridge Connection Point	Connection IP Address	TRX1:192.168.0.2 TRX2:192.168.0.4
			List of Bridge Connection Point Entries	Connection Status

*Enter the round marks to the “Group1” field in the Transceiver 1 (TRX1) and Transceiver 2 (TRX2) rows.

Port	Mixing Group				
	None	Group1	Group2	Group3	Group4
Transceiver 1 (TRX1)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transceiver 2 (TRX2)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Transceiver 1 (D-TRX1)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Transceiver 2 (D-TRX2)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Using the Mixing function (continued)

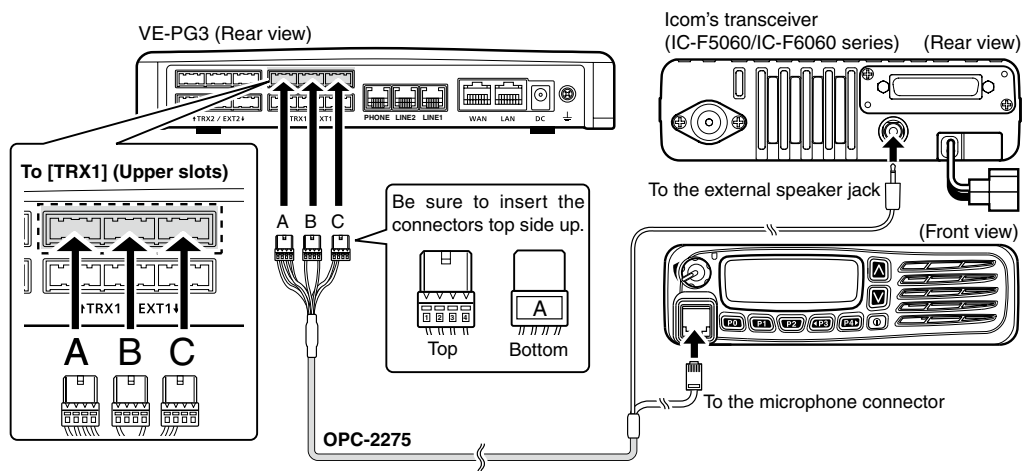
2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

1

Connect the VE-PG3 and the transceiver, using the appropriate optional cable.

- Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

2

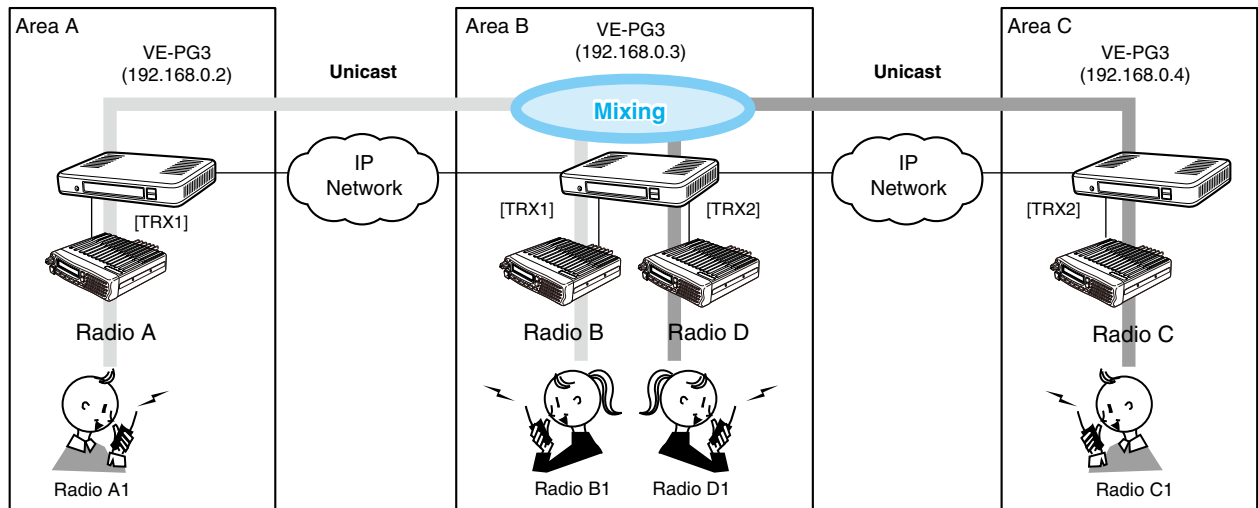
When all the connections are finished, turn ON the transceiver and VE-PG3's power.

NOTE:

- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.
- Only Voice Codec g.711 can be used with the Mixing function.

4. Using the Mixing function (continued)

3. Operation



An example of communication with the Mixing function

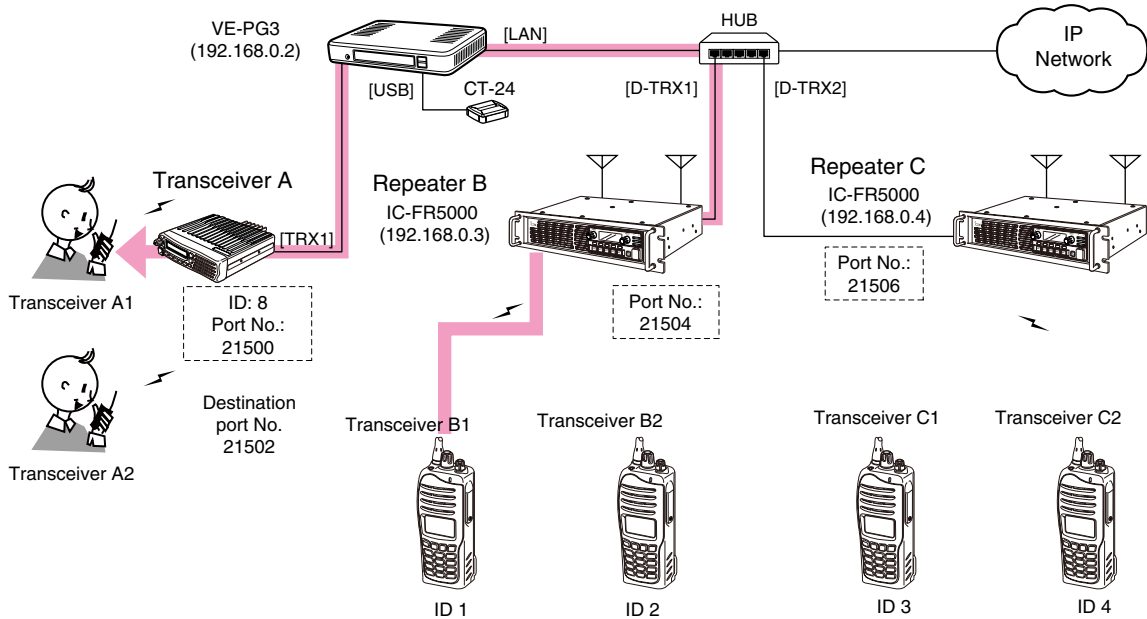
- All radios in the area must have same setting.
- Radio A1 and B1 can normally communicate as if they are directly communicating in the simplex mode.
- The conversations from different Areas can be heard.
- While other radios are transmitting, you cannot transmit.

2 BRIDGE MODE APPLICATION

5. Operating in the NXDN Conventional mode

The IC-FR5000 series can be connected with the VE-PG3 via Ethernet cable (IP network) using the UC-FR5000 network board.

- In the instruction, the example of the communication as illustrated below, is used.
- The optional CT-24 digital voice converter is required.



An example of digital transceiver communication in the Conventional mode

1. UC-FR5000 configuration

Access the UC-FR5000 setting screen, and set the items as shown below.

Operation Mode Select

- Conventional
- Single-site Trunking
- Multi-site Trunking

Remote Dispatch Settings

Service

Remote Dispatch Disable Enable

Connectable Console List

No.	IP Address / Host name / Domain name	Comments
1	192.168.0.2	VE-PG3
2		
3		

Port Setting

Connection Receive Port Default 41200

Data Receive Port Default 41220

Connect Key

Key Code ucfr5000

2 BRIDGE MODE APPLICATION

5. Operating in the NXDN Conventional mode (continued)

2. VE-PG3 configuration

Access the VE-PG3 setting screen, and set the items as shown below.

Menu Item	Setting Screen	Setting Item	Item Name	Value		
Bridge Connection	Bridge Connection Point	Bridge Connection Point (TRX1)	Port Type	Transceiver 1(TRX1)		
			Connection IP Address	192.168.0.2 (VE-PG3's IP address)		
			Connection Port Number	21502 (VE-PG3's unused port)		
				Voice Codec	AMBE+2	
		(D-TRX1)	Port Type	Digital Transceiver 1 (D-TRX1)		
			SelCall in Bridge Connection	Enable		
			Voice Codec	AMBE+2		
		(D-TRX2)	Port Type	Digital Transceiver 2 (D-TRX2)		
			SelCall in Bridge Connection	Enable		
			Voice Codec	AMBE+2		
			List of Bridge Connection Point Entries	Connection Status	During transmit	
		SelCall in Bridge Connection	SelCall in Bridge Connection		Radio B1	Destination ID 1/192.168.0.2 /21504
					Radio B2	Destination ID 2/192.168.0.2 /21504
					Radio C1	Destination ID 3/192.168.0.2 /21506
					Radio C2	Destination ID 4/192.168.0.2 /21506
Radio A1	Destination ID 8/192.168.0.2 /21500					
Port Settings	Transceiver 1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060/F6060		
			Digital Transceiver 1 (D-TRX1)	Transceiver Model	Mode:	NXDN Conventional
					Repeater Address	UC-FR5000's IP address
	TCP Port Number	Connection: Receive port No. (ex. 41200)				
	UDP Port Number	Data: Receive port No. (ex. 41200)				
	Connect Key	UR-FR5000's key code				
	Unit ID	Unit ID (ex. 10)				
	Digital Transceiver 2 (D-TRX2)	Transceiver Model	Mode:	NXDN Conventional		
			Repeater Address	UC-FR5000's IP address		
			TCP Port Number	Connection: Receive port No. (ex. 41200)		
			UDP Port Number	Data: Receive port No. (ex. 41220)		
			Connect Key	UC-FR5000's key code		
			Unit ID	Unit ID (ex. 20)		

5. Operating in the NXDN Conventional mode (continued)

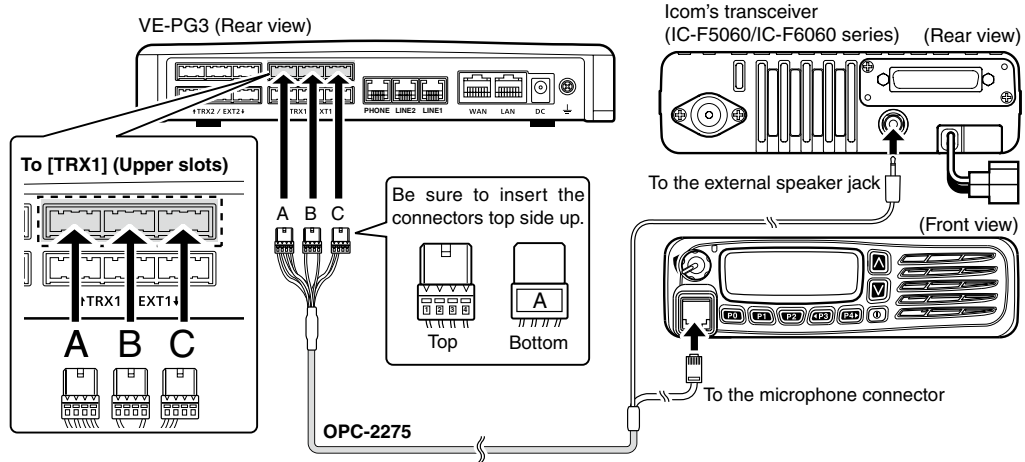
3. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

1

Connect the VE-PG3 and the transceiver, using the appropriate optional cable.

- Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

2

When all the connections are finished, turn ON the transceiver and VE-PG3's power.

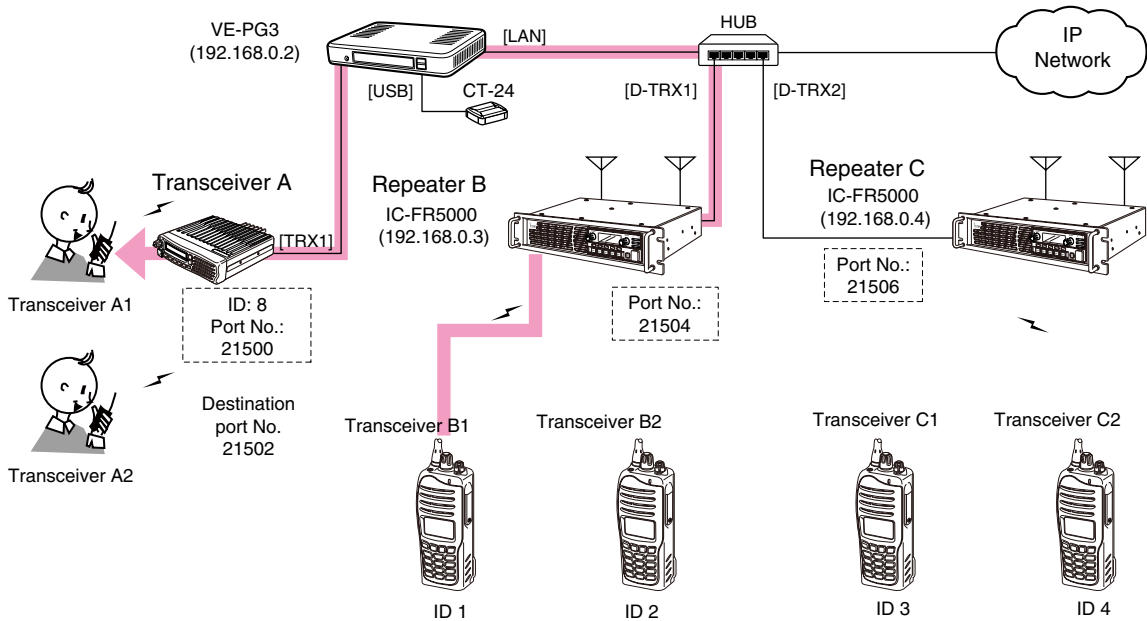
NOTE:

- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.

5. Operating in the NXDN Conventional mode (continued)

4. Operation

When pushing [PTT] on radio B1, the communication route is connected to radio A, to communicate with radio A1 or A2.



An example of digital transceiver communication in the Conventional mode

- All radios communicate with radio A must be set as same as other radios in the area.
- In this example, radio A cannot call radios except radio A1 and A2.

【Calling radio A1 from radio B1】

① Radio B1's operator: Select the radio A1(A2)'s ID (8), and then hold down [PTT] for 1 second.

- The communication route is connected.

② Radio A1's operator: Holding down [PTT], speak into the microphone to respond radio B1.

③ Radio A1's operator: Release [PTT] to return to receive.

- In this setting, radio A1 cannot directly call radio B1. radio A1 can call radio B1 after radio B1 called radio A1, using the Talk-back function.

1. Communication in the Peer to Peer mode	3-2
1. Configuration	3-2
2. Connection	3-3
3. Operation	3-4
2. Using with an in-house sound system	3-5
1. Configuration	3-6
2. Connection	3-8
3. Operation	3-9
3. Using with an external headset	3-10
1. Configuration	3-11
2. Connection	3-13
3. Operation	3-14
4. Making an emergency announcement	3-15
1. Configuration	3-17
2. Connection	3-19
3. Operation	3-20
5. Emergency Notice	3-21
1. Configuration	3-22
2. Connection	3-24
3. Operation	3-26
6. Operating in the NXDN Trunking mode	27
1. UC-FR5000 configuration	27
2. VE-PG3 configuration	28
3. Connection	29
4. Operation	30
7. Connecting to the Bridge mode's VE-PG3	3-31
1. Configuration	3-31
2. Connection	3-33
3. Operation	3-34

NOTE:

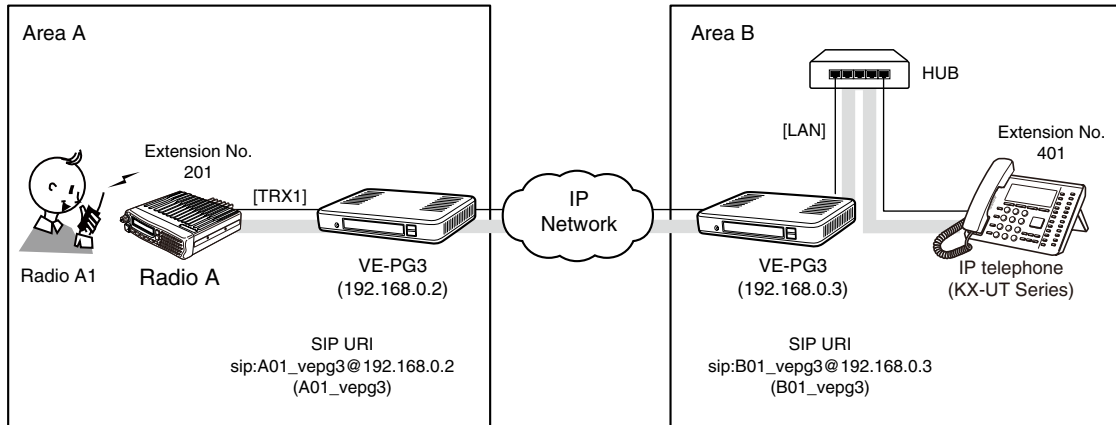
In this guide, the descriptions assume that all configurations of the PC and VE-PG3's IP address have been completed.

3 CONVERTER MODE APPLICATION

1. Communication in the Peer to Peer mode

The VE-PG3 can communicate with an IP phone in the Peer to Peer mode.

- In the instruction, the example of the communication as illustrated below, is used.



An example of Peer to Peer connection

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

VE-PG3 (Area A)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
V/RoIP	Peer to Peer	Peer to Peer	SIP URI	A01_vepg3@192.168.0.2
	VoIP Phone Book	List of VoIP Phone Book Entries	Phone No.	401
Extension Connect	Extension Connect	Extension	SIP URI	B01_vepg3@192.168.0.3
			Extension Number	201
			Port Type	Transceiver 1 (TRX1)
			Outgoing Line (Peer to Peer)	A01_vepg3
			Default Call Destination Number	401 (From Radio A1 to IP Phone)
			Incoming Call	V/RoIP Incoming Call Setting
Port Settings	Transceiver 1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060/F6060

VE-PG3 (Area B)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
Network	DHCP Server	DHCP Server	DHCP Server:	Enable
V/RoIP	Peer to Peer	Peer to Peer	SIP URI	B01_vepg3@192.168.0.3
	VoIP Phone Book	List of VoIP Phone Book Entries	Phone No.	401
Extension Connect	Extension Connect	Extension	SIP URI	A01_vepg3@192.168.0.2
			Extension Number	201
			Outgoing Line (Peer to Peer)	B01_vepg3
			Port Type:	SIP Phone (KX-UT Series)
			Password:	(Any)
			Incoming Call	V/RoIP Incoming Call Setting

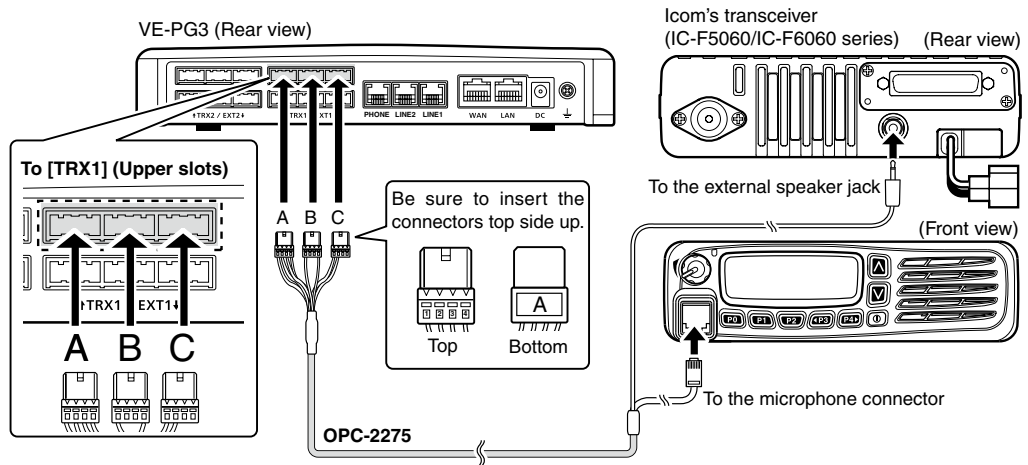
3 CONVERTER MODE APPLICATION

1. Communication in the Peer to Peer mode (continued)

2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

- 1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.
 - Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

- 2 When all the connections are finished, turn ON the transceiver and VE-PG3's power.

NOTE:

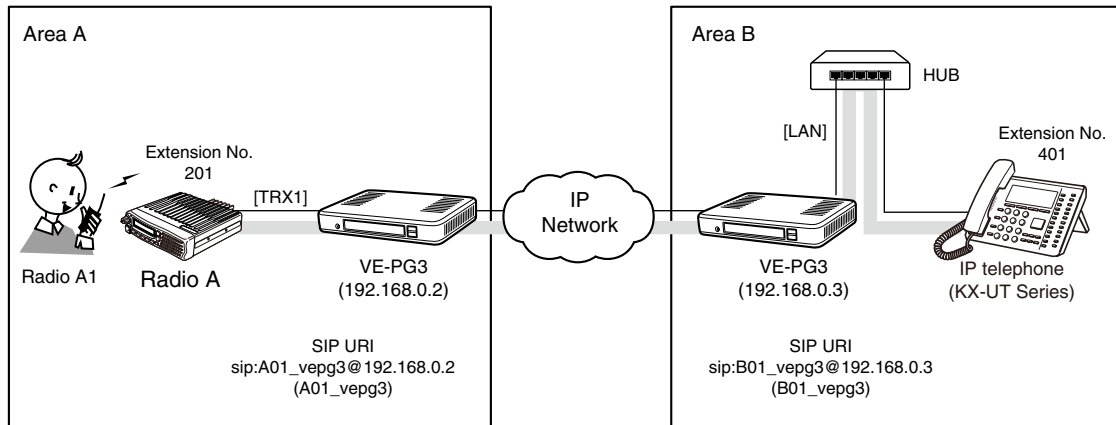
- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.

1. Communication in the Peer to Peer mode (continued)

3. Operation

When pushing [PTT] on radio A1, the IP phone (Extension No.: 401) receives the call.

When dialing the extension No. 201, radio A1 receives the call.



An example of Peer to Peer connection

- All radios in the area must have same setting.

[The procedure to call the IP telephone from transceiver A1.]

① Area A

Radio A1's operator: While holding down [PTT], say something (example: "Test, Test, Test") into the microphone at a normal voice level.

- The IP telephone in the Area B detects the voice, and starts to ring.

② Area A/B

Radio A1's operator: Release [PTT] to receive.

Person on the IP telephone: While the IP telephone is ringing, take the handset off the hook, and then speak into the telephone at a normal voice level.

③ Area A/B

Radio A1's operator: When the person on the IP telephone is finished speaking, hold down [PTT] and speak into the microphone.

[The procedure to call transceiver A1 from the IP telephone.]

① Area B

Person on the IP telephone: Take the handset off the hook, dial "201," and then speak into the telephone at a normal voice level.

- The communication route is connected to radio A whose extension number is "201," and then radio A transmits the audio to radio A1.

② Area A/B

Radio A1's operator: When the person on the IP telephone is finished speaking, hold down [PTT], and speak into the microphone at a normal voice level.

Release [PTT] to receive.

Person on the IP telephone: When radio A1's operator is finished speaking, you can start to speak again.

- Speak only when radio A1's operator stops speaking.

NOTE:

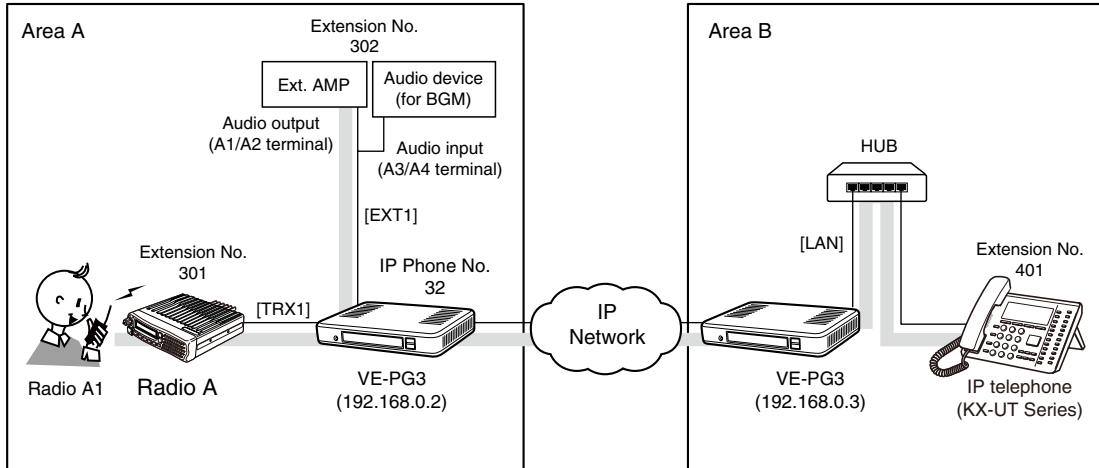
- Full duplex communication is impossible. Communicate with each other by taking turns speaking.
- Pause briefly before you speak, to confirm your party has finished speaking.
- The communication route will be disconnected when the IP telephone's handset is put on the hook, or the VE-PG3 receives no audio for the preset time (default: 15 seconds).

3 CONVERTER MODE APPLICATION

2. Using with an in-house sound system

The received audio from a radio or IP phone can be sent to an external device through the output port, to make an announcement.

- In the instruction, the example of the communication as illustrated below, is used.



An example of in-house audiosystem

3 CONVERTER MODE APPLICATION

2. Using with an in-house sound system (continued)

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

VE-PG3 (Area A)

Menu Item	Setting Screen	Setting Item	Item Name	Value	
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter	
		EXT I/O Port Mode	EXT I/O Port Mode	Separate	
V/RoIP	IP Line	SIP Server	IP Phone Number	32 (Extension Number set in the VE-PG3 in area B)	
			SIP Server Address	192.168.0.3 (IP address set in the VE-PG3 in area B)	
			SIP Service Domain	192.168.0.3 (Extension Domain set in the VE-PG3 in area B)	
			User ID	32 (Extension Number set in the VE-PG3 in area B)	
			Password	(Any) (Password set in the VE-PG3 in area B)	
	List of SIP Server Entries	Connection Status	During Transmit		
Extension Connect	Extension connect	Extension	Extension Number	301 (Transceiver1) 302 (EXT Output1)	
			Port Type	Transceiver 1 (TRX1) EXT Output 1 (EXT1)	
			Default Call Destination No.	302 -	
	Incoming Call	V/RoIP Incoming Call Setting	Receive Port	- 32:302 (EXT1)	
Port Settings	Transceiver 1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060/F6060 (default)	
			EXT Input 1 (EXT1)	EXT Control Terminal	Input Connection Port
				Valid Timing	Always-on Connection
				Reference Level	(Depending on the connected device)
				Input Analog Gain	
				Input Digital Gain	
		EXT Output 1 (EXT1)	EXT Control Terminal	Reference Level	(Depending on the connected device)
				Output Analog Gain	
				Output Digital Gain	
				Fade-out	(Depending on the situation)
				Fade-in	
			Announce Tone	Start Tone	(Depending on the situation)
				End Tone	
			Tone Level		
		V/RoIP Control	Send Connect Success Tone to Telephone	(Depending on the situation)	
			Notice Tone Volume		
		Release Timer	No Voice Release Timer	5 (sec.) (Depending on the situation)	
Expansion	Priority Control	Priority Level	Individual Calling	Priority	

(Continued on the next page.)

3 CONVERTER MODE APPLICATION

2. Using with an in-house sound system (continued)

1. Configuration (continued)

VE-PG3 (Area B)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
V/RoIP	VoIP Phone Book	List of VoIP Phone Book Entries	Phone No.	32
Extension Connect	Extension	Extension	Extension Number	32
			Port Type	SIP Phone (Automatic Detection)
			Password	(Any)
	Extension	Extension	Extension Number	401
			Port Type:	SIP Phone (KX-UT Series)
			Password:	(Any)
			MAC Address	(MAC address of the VE-PG3 in area A)

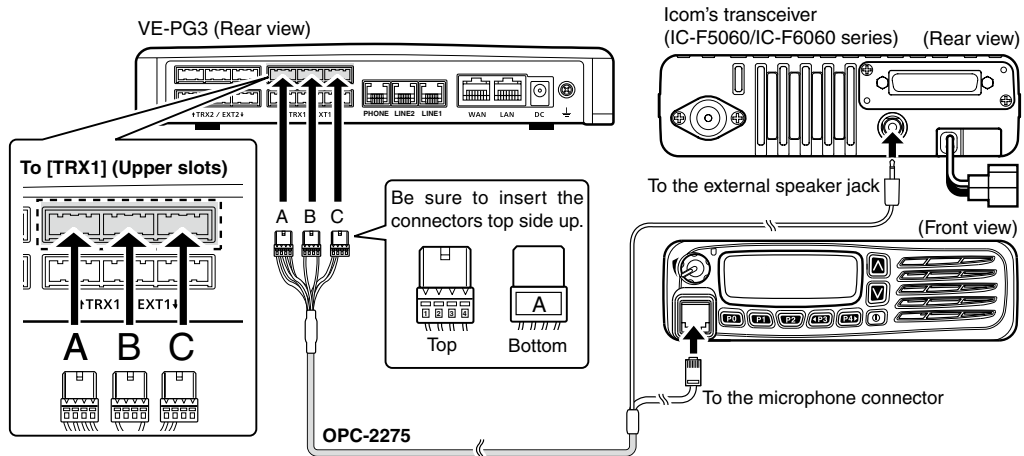
3 CONVERTER MODE APPLICATION

2. Using with an in-house sound system (continued)

2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

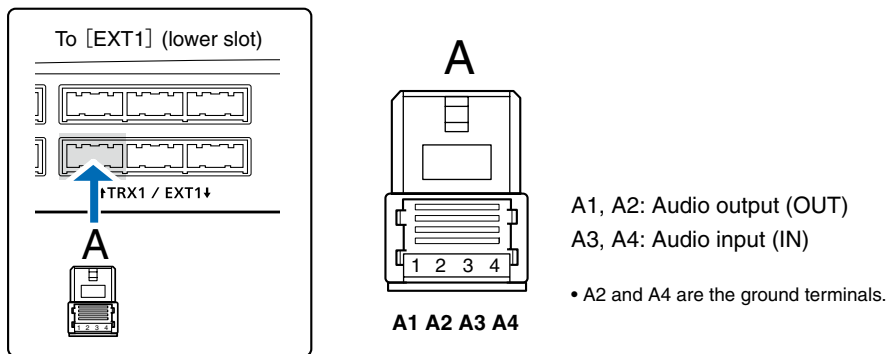
- 1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.
 - Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

- 2 Prepare the cable as shown below, and then connect the VE-PG3 and the audio device.

- See Section 8 for the port details.



- 3 When all the connections are finished, turn ON the transceiver and VE-PG3's power.

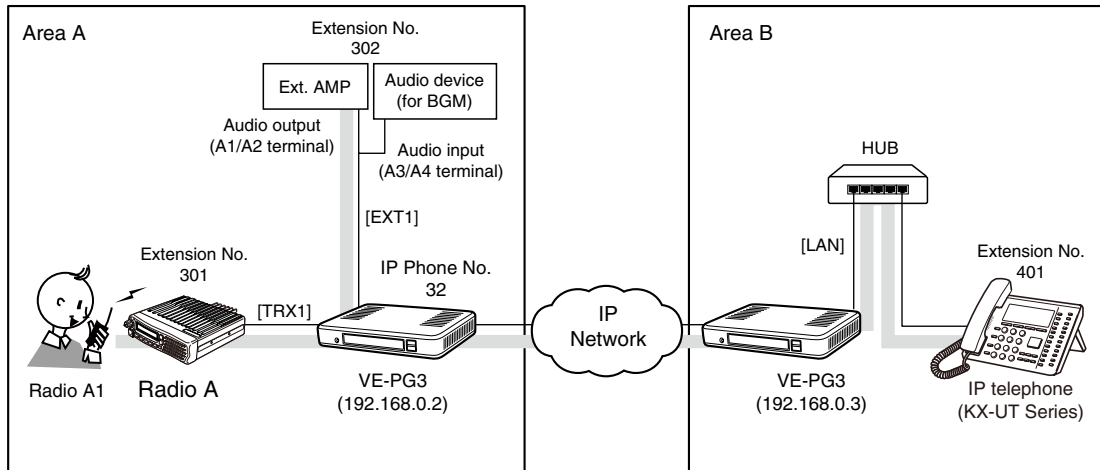
NOTE:

- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.

2. Using with an in-house sound system (continued)

3. Operation

When radio A1 transmit, or the IP phone in area B (Extension No.: 401) dials "32," the call is output through the external audio device.



An example of in-house audiosystem

- All radios in the area must have same setting.

[When radio A1 makes an announcement.]

① Area A

Radio A1's operator: While holding down [PTT], say something (example: "Test, Test, Test") into the microphone at a normal voice level.

- The [TRX1] and [EXT1] ports are internally connected.

② Area A

The BGM fades out and the audio signal (announcement) from Radio A1 is output to the external AMP, followed by the "Broadcast start sound".

③ Area A

When the announcement is done, or no audio signal is detected for 5 seconds (default), the BGM fades in, after the "Broadcast end sound."

[When the IP phone makes an announcement.]

① Area B

Person on the IP telephone: Take the handset off the hook, dial "32."

② Area A

The call from the IP phone is received by the IP line whose number is "32."

③ Area A

The external audio device which is connected to [EXT1] fades out the BGM, and the announcement is output to the external AMP, followed by the "Broadcast start sound".

③ Area A/B

Person on the IP telephone: When putting the handset on, or no audio signal is detected for 5 seconds (default), the BGM fades in, after the "Broadcast end sound" and preset time period.

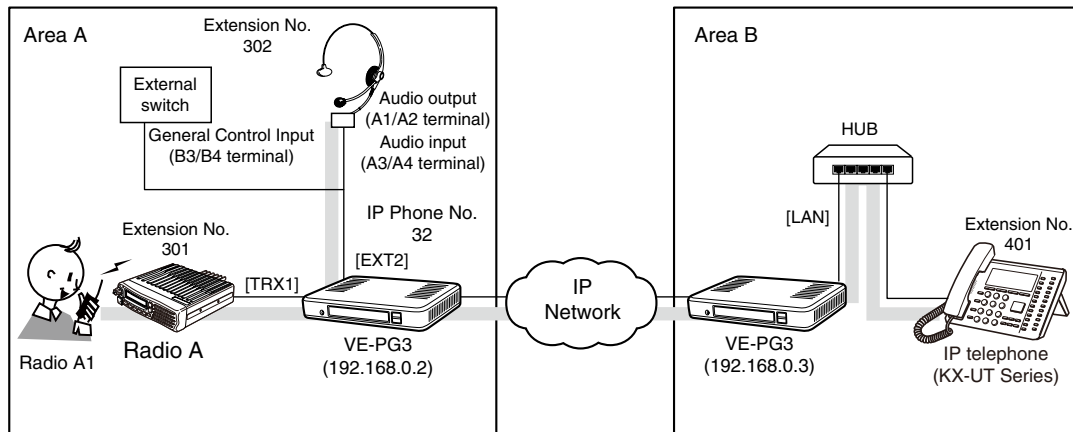
3 CONVERTER MODE APPLICATION

3. Using with an external headset

You can communicate with a radio and IP phone using a headset.

When the external switch in the illustration below is turned ON, the communication route is connected to the preset call destination.

- Set [EXT I/O Port Mode] to 「Combined」.
- A lock type lever PTT switch can be used.



An example of using with a headset

3 CONVERTER MODE APPLICATION

3. Using with an external headset (continued)

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

VE-PG3 (Area A)

Menu Item	Setting Screen	Setting Item	Item Name	Value		
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter		
		EXT I/O Port Mode	EXT I/O Port Mode	Combined (EXT I/O 2 (EXT2))		
V/RoIP	IP Line	SIP Server	IP Phone Number	32 (Extension Number set in the VE-PG3 in area B)		
			SIP Server Address	192.168.0.3 (IP address set in the VE-PG3 in area B)		
			SIP Service Domain	192.168.0.3 (Extension Domain set in the VE-PG3 in area B)		
			User ID	32 (Extension Number set in the VE-PG3 in area B)		
			Password	(Password set in the VE-PG3 in area B)		
		List of SIP Server Entries	Connection Status	During Transmit		
Extension Connect	Extension connect	Extension (EXT1)	Extension Number	301		
			Port Type	Transceiver 1 (TRX1), [EXT Output 1 (EXT1)]		
			Default Call Destination Number	302 (From Radio 1 to [EXT I/O 2])		
		Extension (EXT2)	Extension Number	302		
			Port Type	{EXT I/O 2 (EXT2)}		
			Outgoing Line (IP Line)	32		
			Default Call Destination Number	401 (From [EXT I/O 2] to IP Phone)		
		Incoming Call	V/RoIP Incoming Call Setting	Receive Port	32:302 (EXT2)	
		Port Settings	Transceiver 1 (TRX1)	Transceiver Model:	Transceiver Model	IC-F5060/F6060 (default)
				EXT I/O 2 (EXT2)	EXT Control Terminal (EXT Control Terminal)	Input Connection Port
			Valid Timing			Control Data Detect
			Power for the Microphone			Enable
			Reference Level			(Depending on the connected device)
Input Analog Gain						
Input Digital Gain						
(EXT Control Terminal)	Reference Level		(Depending on the connected device)			
	Output Analog Gain					
	Output Digital Gain					
(Notice Tone to the Transceiver)	Response Waiting Time		(Depending on the situation)			
	Restoration Waiting Time					
	Calling Notice Tone		(Depending on the situation)			
	Send Connect Success Tone					
	Disconnect Notice Tone					
		Send Connect Failure Tone				
		Tone Level				

(Continued on the next page.)

3 CONVERTER MODE APPLICATION

3. Using with an external headset (continued)

1. Configuration (continued)

VE-PG3 (Area B)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
V/RoIP	VoIP Phone Book	List of VoIP Phone Book Entries	Phone No.	32
Extension Connect	Extension connect	Extension	Extension Number	32
			Port Type	SIP Phone (Automatic Detection)
			Password	(Any)
	Extension	Extension	MAC Address	(MAC address of the VE-PG3 in area A)
			Extension Number	401
			Port Type:	SIP Phone(KX-UT Series)
			Password:	(Any)
Incoming Call	V/RoIP Incoming Call Setting	Receive Port	401 (Receive Port of the VE-PG3 in area B)	

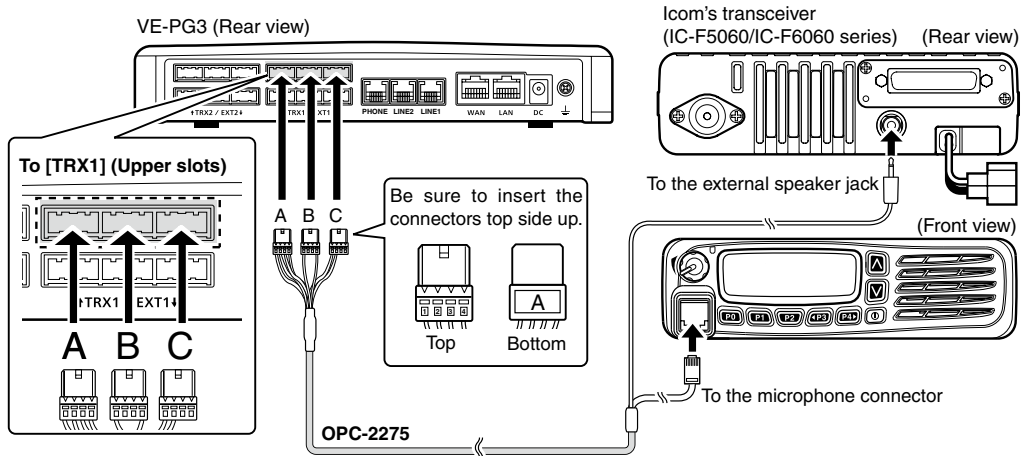
3 CONVERTER MODE APPLICATION

3. Using with an external headset (continued)

2. Connection

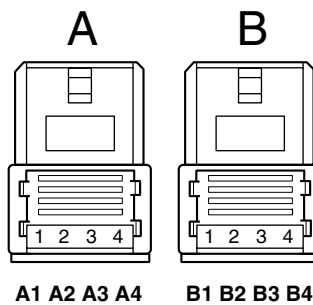
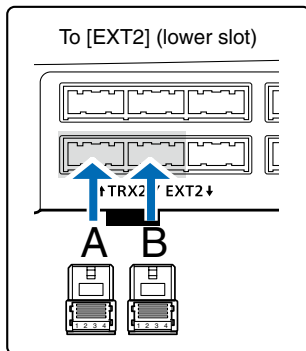
Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

- 1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.
 - Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

- 2 Prepare the cable as shown below, and then connect the VE-PG3 and the audio device.
 - See Section 8 for the port details.



A1, A2: Audio output (OUT)
A3, A4: Audio input (IN)
B3, B4: Control input

- A2, A4 and B4 are the ground terminals.

- 3 When all the connections are finished, turn ON the transceiver and VE-PG3's power.

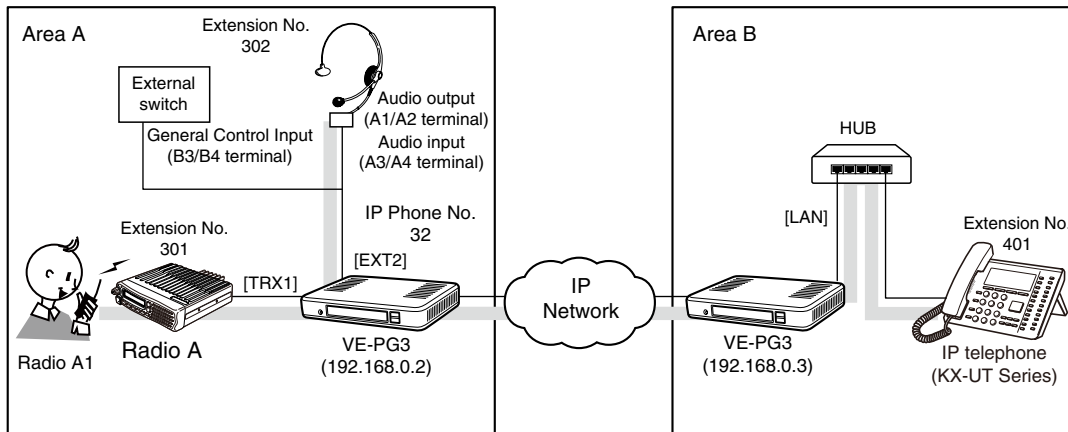
NOTE:

- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.

3. Using with an external headset (continued)

3. Operation

When [PTT] on radio A1 is pushed, or the IP phone in area B (Extension No.: 401) dials "32," the call is received by the headset.



An example of using with a headset

- All radios in the area must have same setting.

[The procedure to call the headset from radio A1.]

- Area A**
Radio A1's operator: While holding down [PTT], say something (example: "Test, Test, Test") into the microphone at a normal voice level.
 - The headset receives the call.
- Area A/B**
Headset's operator: Turn ON the external switch, and then speak into the headset at a normal voice level.
- Area A/B**
Headset's operator: When finished the speaking, turn OFF the external switch.
 - Turn OFF switch to stand-by for another call.

[The procedure to call the headset from the IP phone.]

- Area B**
Person on the IP telephone: Take the handset off the hook, dial "32," and then speak into the telephone at a normal voice level.
 - The headset receives the call.
- Area A/B**
Headset's operator: Turn ON the external switch, and then speak into the headset at a normal voice level.
- Area A/B**
Headset's operator: When finished the speaking, turn OFF the external switch.
 - Turn OFF switch to stand-by for another call.

[The procedure to call the IP phone from the headset.]

- Area A**
Headset's operator: Turn ON the external switch, and then speak into the headset at a normal voice level.
 - The IP phone receives the call and rings.
- Area B**
Person on the IP telephone: Take the handset off the hook to response the call.
- Area A**
Headset's operator: When finished the speaking, turn OFF the external switch.
 - Turn OFF switch to stand-by for another call.

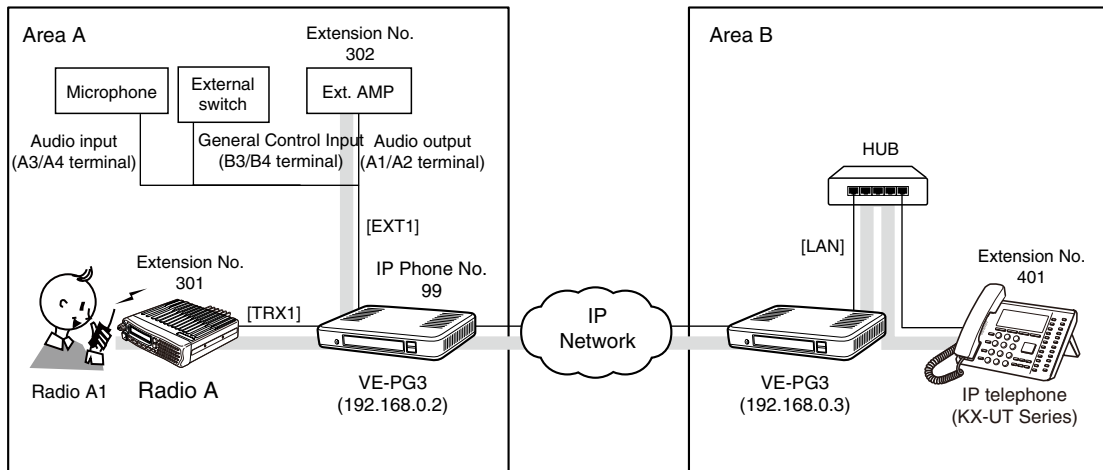
3 CONVERTER MODE APPLICATION

4. Making an emergency announcement

When the external switch turns ON, the announcement is output to the external AMP and radio.

Even while the external AMP or radio is used for other call, the ongoing communications are cancelled and the announcement takes the priority.

- The announcement can be made from the IP phone.
- A lock type lever PTT switch can be used.



An example of emergency call using an external microphone

4. Making an emergency announcement (continued)

About the emergency announcement

- The emergency announcement is higher in the priority than other calls, and can be received by all devices in the system.
- The emergency announcement can be made according to the following conditions.
- The external port is set as "emergency."
- The call is designated to the extension number which is assigned as the emergency notice.

Emergency announcement destination

- The emergency announcement is output from the port selected on the [Emergency Notice] in the 「Expansion」 menu.
- The emergency announcement interrupts any ongoing communication.
- While the emergency notice is ongoing, any release timer doesn't work.
- The emergency notice is output as a broadcast. No response cannot be made.
- No emergency notice is allowed, until the prior one ends.

3 CONVERTER MODE APPLICATION

4. Making an emergency announcement (continued)

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

VE-PG3 (Area A)

Menu Item	Setting Screen	Setting Item	Item Name	Value			
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter			
		EXT I/O Port Mode	EXT I/O Port Mode	Separate			
V/RoIP	IP Line	SIP Server	IP Phone Number	99 (Extension Number set in the VE-PG3 in area B)			
			SIP Server Address	192.168.0.3 (IP address set in the VE-PG3 in area B)			
			SIP Service Domain	192.168.0.3 (Extension Domain set in the VE-PG3 in area B)			
			User ID	99 (Extension Number set in the VE-PG3 in area B)			
			Password	(Password set in the VE-PG3 in area B)			
	List of SIP Server Entries	Connection Status	During Transmit				
Extension Connect	Extension Connect	Extension (TRX1)	Extension Number	301			
			Port Type	Transceiver 1 (TRX1)			
			Default Call Destination No.	302 (From Radio 1 to EXT Output 1)			
		Extension (EXT1)	Extension Number	302			
			Port Type	EXT Output 1 (EXT1)			
			Extension Number	999			
		(Emergency Notice)	Port Type	Emergency Notice			
			Incoming Call	V/RoIP Incoming Call Setting	Receive Port	99:999(Emergency call No.)	
			Port Settings	Transceiver 1 (TRX1)	Transceiver Model:	Transceiver Model	IC-F5060/F6060 (default)
					EXT Input 1 (EXT1)	EXT Control Terminal	Input Connection Port
		Valid Timing		Control Data Detect			
		Power for the Microphone		Enable			
		Reference Level		(Depending on the connected device)			
		Input Analog Gain					
		Input Digital Gain					
	EXT Output 1 (EXT1)	EXT Control Terminal		Reference Level	(Depending on the connected device)		
		Output Analog Gain					
		Output Digital Gain					
		Fade-out	(Depending on the situation)				
		Fade-in					
	Announce Tone	Start Tone	(Depending on the situation)				
		End Tone					
		Tone Level					
	V/RoIP Control	Send Connect Success Tone to Telephone	(Depending on the situation)				
		Notice Tone Volume					
	Release Timer	No Voice Release Timer	5 (sec.) (Depending on the situation)				
Expansion	Emergency Notice	Emergency Notice	Transceiver 1 (TRX1)	Enable			
			EXT Output 1 (EXT1)	Enable			

(Continued on the next page.)

3 CONVERTER MODE APPLICATION

4. Making an emergency announcement (continued)

1. Configuration (continued)

VE-PG3 (Area B)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
V/RoIP	VoIP Phone Book	List of VoIP Phone Book Entries	Phone No.	99
Extension Connect	Extension Connect	Extension	Extension Number	99
			Port Type	SIP Phone (Automatic Detection)
			Password	(Any)
			MAC Address	(MAC address of the VE-PG3 in area B)
Extension Connect	Extension	Extension	Extension Number	401
			Port Type:	SIP Phone(KX-UT Series)
			Password:	(Any)
Incoming Call	V/RoIP Incoming Call Setting	Receive Port	401 (Receive Port of the VE-PG3 in area B)	

3 CONVERTER MODE APPLICATION

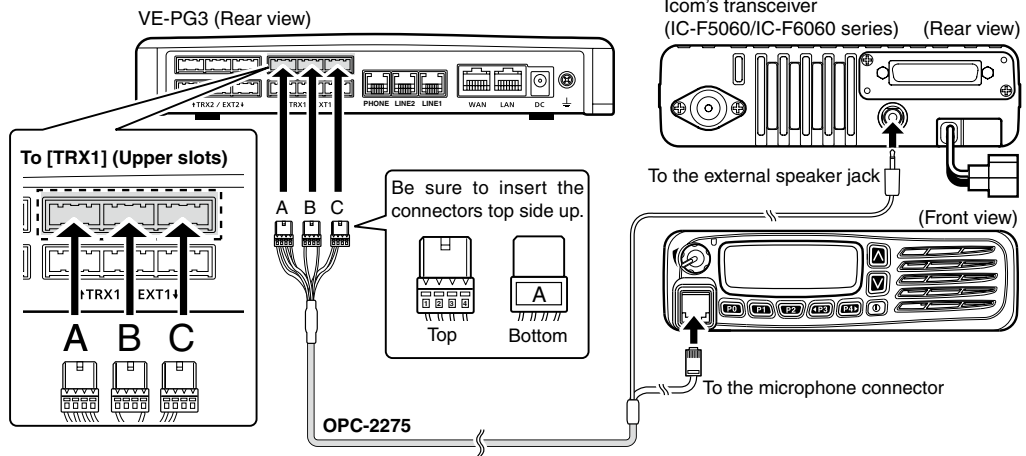
4. Making an emergency announcement(continued)

2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.

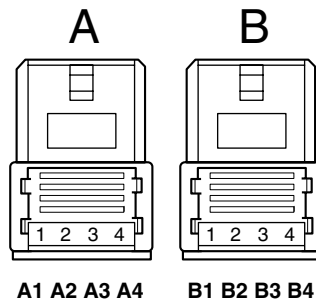
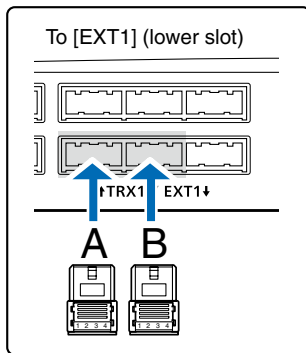
- Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

2 Prepare the cable as shown below, and then connect the VE-PG3 and the audio device.

- See Section 8 for the port details.



A1, A2:Audio output (OUT)
A3, A4:Audio input (IN)
B3, B4:Control input

- A2, A4 and B4 are the ground terminals.

3 When all the connections are finished, turn ON the transceiver and VE-PG3's power.

NOTE:

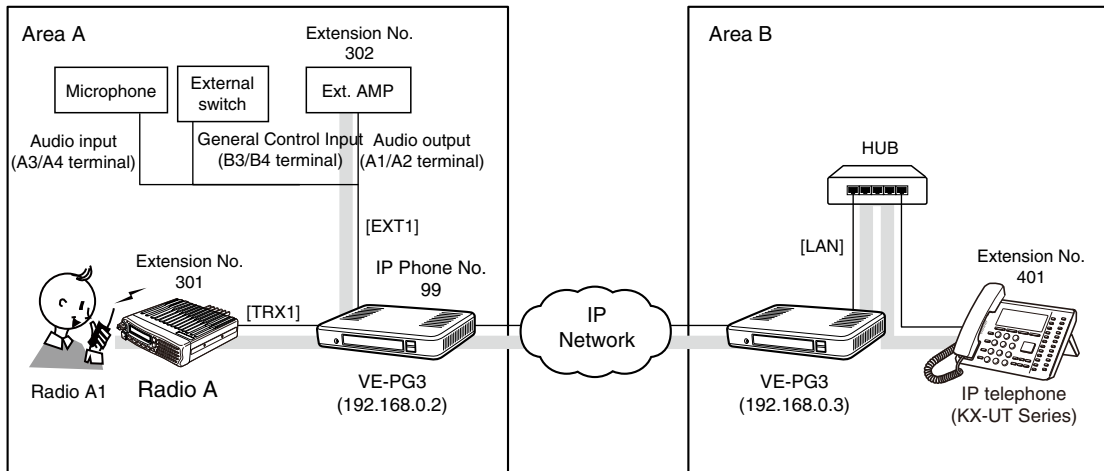
- Full duplex communication is impossible. Communicate with each other by taking turns speaking.
- Pause briefly before you speak, to confirm your party has finished speaking.
- The communication route will be disconnected when the IP telephone's handset is put on the hook, or the VE-PG3 receives no audio for the preset time (default: 15 seconds).

3 CONVERTER MODE APPLICATION

4. Making an emergency announcement (continued)

3. Operation

When [PTT] on radio A is pushed, the regular broadcast is made. And when the IP phone dials "99," the emergency broadcast is made.



An example of emergency call using an external microphone

- All radios in the area must have same setting.

[The procedure to make an emergency broadcast from radio A1.]

- 1 Area A**
Radio A1's operator: While holding down [PTT], say something (example: "Test, Test, Test") into the microphone at a normal voice level.
 - The [TRX1] and [EXT1] ports are internally connected.
- 2 Area A/B**
The audio signal (announcement) from Radio A1 is output to the external audio device connected to [EXT1], followed by the "Broadcast start sound".
- 3 Area A**
When no audio signal is detected for 5 seconds (default), the route is disconnected, after the "Broadcast end sound."

[The procedure to make an emergency broadcast from the IP phone.]

- 1 Area B**
Person on the IP telephone: Take the handset off the hook, dial "32," and then speak into the telephone at a normal voice level.
 - The [TRX1] and [EXT1] ports receive the call.
- 2 Area A**
The audio signal (announcement) from IP phone is output to the external audio devices connected to [TRX1] and [EXT1] ports.

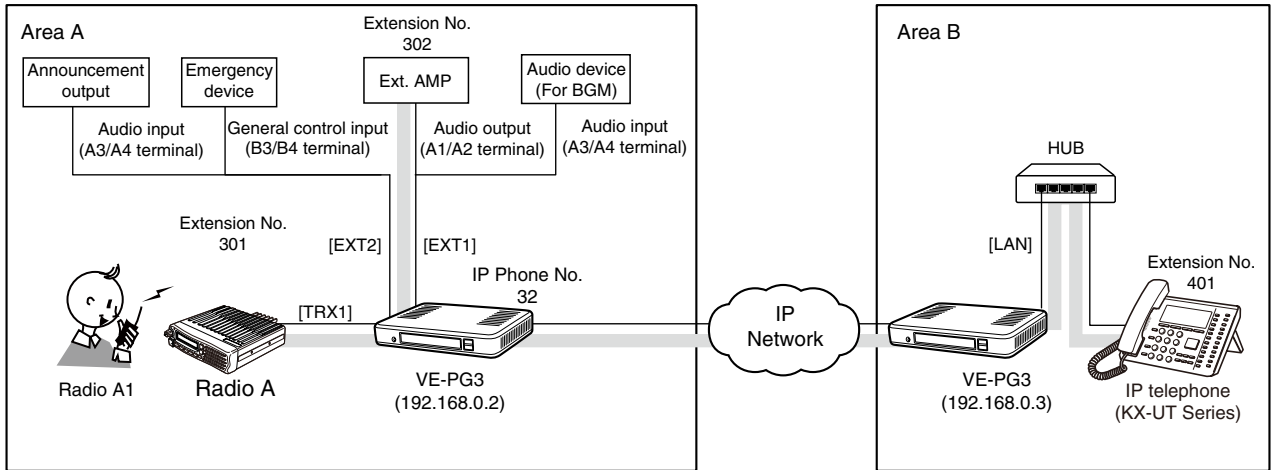
3 CONVERTER MODE APPLICATION

5. Emergency Notice

When the external switch turns ON, and emergency announcement is made.

Even while the external AMP or radio is used for other call, the ongoing communications are cancelled and the announcement takes the priority.

- The used external switch must be turned ON, when an emergency situation occurs is detected.



An example of operation with an emergency notice device

3 CONVERTER MODE APPLICATION

5. Emergency Notice (continued)

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

VE-PG3 (Area A)

Menu Item	Setting Screen	Setting Item	Item Name	Value	
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter	
		EXT I/O Port Mode	EXT I/O Port Mode	Separate	
V/RoIP	IP Line	SIP Server	IP Phone Number	32 (Extension Number set in the VE-PG3 in area B)	
			SIP Server Address	192.168.0.3 (IP address set in the VE-PG3 in area B)	
			SIP Service Domain	192.168.0.3 (Extension Domain set in the VE-PG3 in area B)	
			User ID	32 (Extension Number set in the VE-PG3 in area B)	
			Password	(Password set in the VE-PG3 in area B)	
	List of SIP Server Entries	Connection Status	During Transmit		
Extension Connect	Extension Connect	Extension (TRX1)	Extension Number	301	
			Port Type	Transceiver 1 (TRX1)	
		Extension (EXT1)	Extension Number	302	
			Port Type	EXT I/O 1 (EXT1)	
	Incoming Call	V/RoIP Incoming Call Setting	Receive Port	32:302 (EXT1)	
Port Settings	Transceiver 1 (TRX1)	Transceiver Model:	Transceiver Model	IC-F5060/F6060 (default)	
			EXT Input 1 (EXT1)	EXT Control Terminal	Input Connection Port
				Valid Timing	Always-on Connection
				Reference Level	(Depending on the connected device.)
				Input Analog Gain	
				Input Digital Gain	
		EXT Output 1 (EXT1)	EXT Control Terminal	Reference Level	(Depending on the connected device.)
				Output Analog Gain	
				Output Digital Gain	
				Fade-out	(Depending on the situation.)
				Fade-in	
			Announce Tone	Start Tone	(Depending on the situation.)
				End Tone	
				Announce Tone Volume	
		V/RoIP Control	Send Connect Success Tone to Telephone	(Depending on the situation.)	
			Notice Tone Volume		
		Release Timer	No Voice Release Timer	5 (sec.) (Depending on the situation.)	
EXT Input 2 (EXT2)	EXT Control Terminal	EXT Control Terminal	Input Connection Port	Emergency	
			Valid Timing	Control Data Detection	
	EXT Control Terminal	Input Type	(Depending on the situation.)		
		Event ON Time			
		Event OFF Time			
		Control Input Detection	(Depending on the connected device.)		
		Control Input Pull-up Setting			
Expansion	Priority Control	Priority Level	Individual Calling	Priority	
	Emergency Notice	Emergency Notice	Transceiver 1 (TRX1)	Enable	
			EXT I/O 1 (EXT1)	Enable	

(Continued on the next page.)

3 CONVERTER MODE APPLICATION

5. Emergency Notice (continued)

1. Configuration (continued)

VE-PG3 (Area B)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
V/RoIP	VoIP Phone Book	List of VoIP Phone Book Entries	Phone Number	32
Extension Connect	Extension	Extension	Extension Number	32
			Port Type	SIP Phone (Automatic Detection)
			Password	(Any)
			MAC Address	(MAC address of the VE-PG3 in area B)
	Extension	Extension	Extension Number	401
			Port Type:	SIP Phone (KX-UT Series)
			Password:	(Any)
Incoming Call	V/RoIP Incoming Call Setting	Receive Port	401 (Receive Port of the VE-PG3 in area B)	

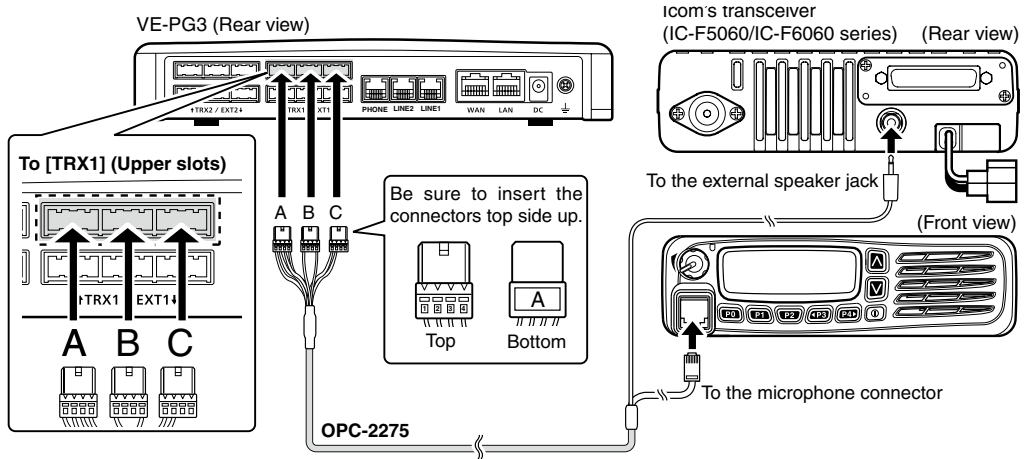
3 CONVERTER MODE APPLICATION

5. Emergency Notice (continued)

2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

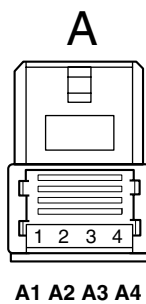
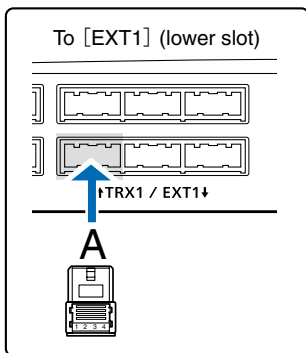
- 1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.
 - Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

- 2 Prepare the cable as shown below, and then connect the VE-PG3 and the audio device.

- See Section 8 for the port details.



A1/A2: Audio output (OUT)
A3/A4: Audio input (IN)

- A2 and A4 are the ground terminals.

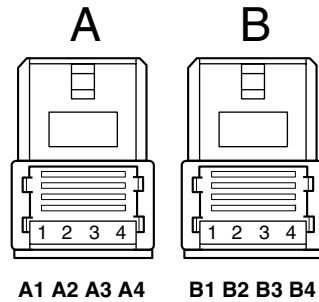
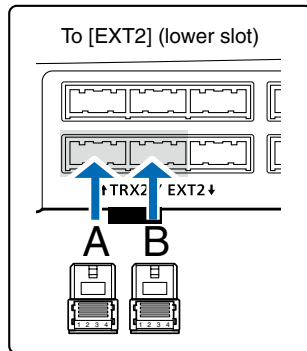
(Continued on the next page.)

3 CONVERTER MODE APPLICATION

5. Emergency Notice (continued)

2. Connection (continued)

- 3** Prepare the cable as shown below, and then connect the VE-PG3 and the audio device.
- See Section 8 for the port details.



A3/A4: Audio input (IN)
B3/B4: Control input

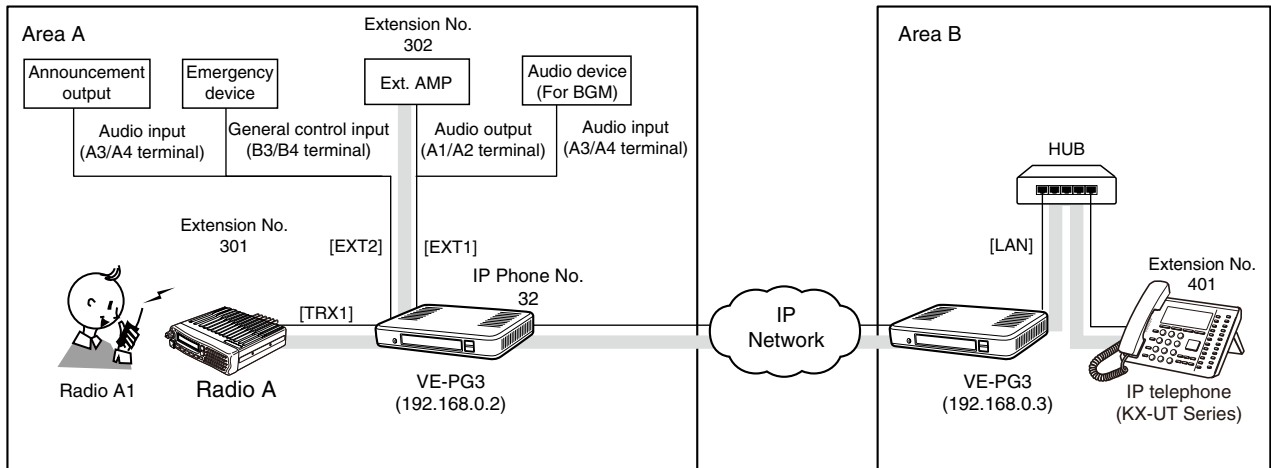
- A4 and B4 are the ground terminals.

- 4** When all the connections are finished, turn ON the transceiver and VE-PG3's power.

5. Emergency Notice (continued)

3. Operation

When an emergency situation is detected, an emergency announcement to the external audio device and radio is made.



An example of operation with an emergency notice device

- All radios in the area must have same setting.

[When an emergency situation occurs.]

① Area A

When an emergency situation is detected, the external switch turns ON.

② Area A

The ongoing regular call and BGM is cancelled, and then the emergency announcement is made.

- Radio A automatically transmit the announcement.

③ Area A

When the external switch is turned OFF, the emergency announcement is cancelled.

- The BGM resumes.

NOTE:

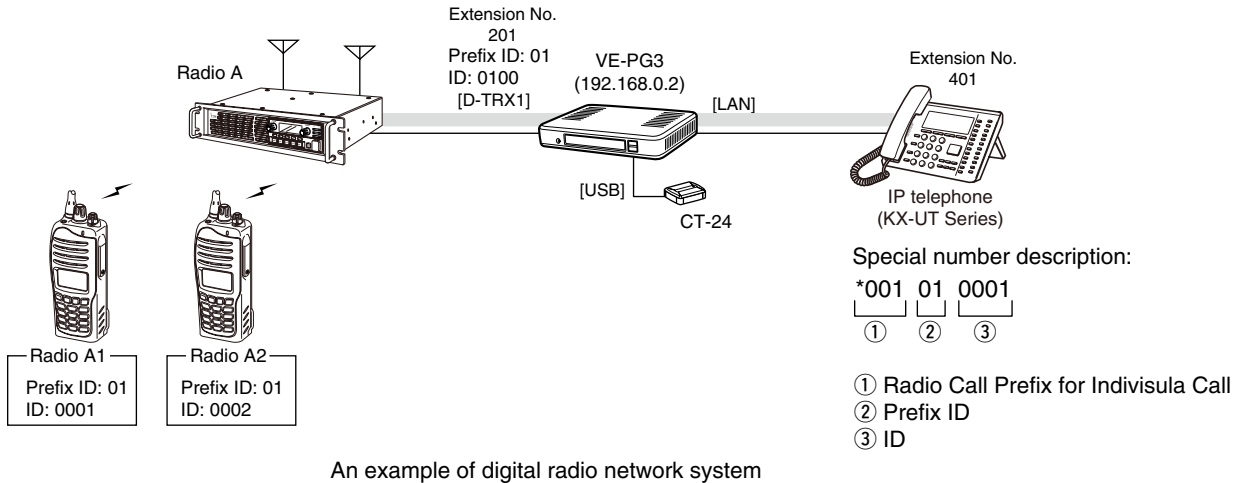
- Full duplex communication is impossible. Communicate with each other by taking turns speaking.
- Pause briefly before you speak, to confirm your party has finished speaking.
- The communication route will be disconnected when the IP telephone's handset is put on the hook, or the VE-PG3 receives no audio for the preset time (default: 15 seconds).

3 CONVERTER MODE APPLICATION

6. Operating in the NXDN Trunking mode

The IC-FR5000 series can be connected with the VE-PG3 via Ethernet cable (IP network) using the UC-FR5000 network board.

- In the instruction, the example of the communication as illustrated below, is used.
- The optional CT-24 digital voice converter is required.



1. UC-FR5000 configuration

Access the UC-FR5000 setting screen, and set the items as shown below.

Operation Mode Select

- Conventional
- Single-site Trunking
- Multi-site Trunking

Remote Dispatch Settings

Service

Remote Dispatch Disable Enable

Connectable Console List

No.	IP Address	DestPort	Fleet ID	Prefix ID	Unit ID	Comments
1	192.168.0.2	43200	1	1	200	
2						
3						

Port Setting

Data Receive Port 41220

Connect Key

Key Code ucfr5000

3 CONVERTER MODE APPLICATION

6. Operating in the NXDN Trunking mode (continued)

2. VE-PG3 configuration

Access the VE-PG3 setting screen, and set the items as shown below.

Menu Item	Setting Screen	Setting Item	Item Name	Value	
Extension Connect	Extension Connect	Extension	Extension Number	201	
			Port Type:	Digital Transceiver 1 (D-TRX1)	
			Extension Number	401	
			Port Type	SIP Phone (KX-UT Series)	
			Password	(Any)	
			MAC Address	IP Phone's MAC address	
	Incoming Call	V/RoIP Incoming Call Setting	Receive Port	201 (D-TRX1)	
Port Settings	Digital Transceiver 1 (D-TRX1)	Transceiver Model	Mode	NXDN Trunking	
			Digital Transceiver Connection	Repeater Address	UC-FR5000's IP address
			Connect Key	UR-FR5000's key code	
			Prefix ID:	1	
			Unit ID:	100	

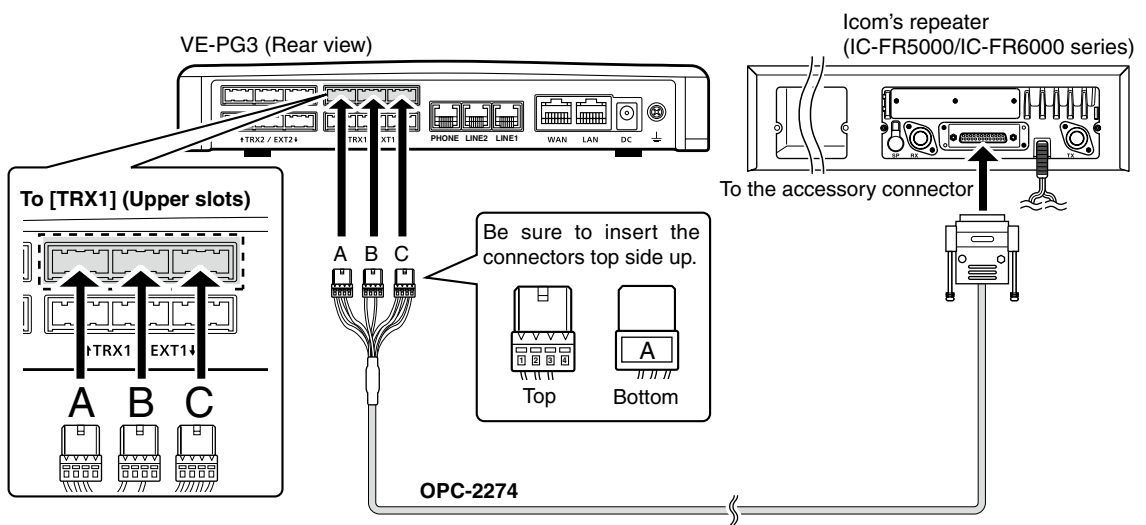
3 CONVERTER MODE APPLICATION

6. Operating in the NXDN Trunking mode (continued)

3. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

- 1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.
 - Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- 2 When all the connections are finished, turn ON the transceiver and VE-PG3's power.

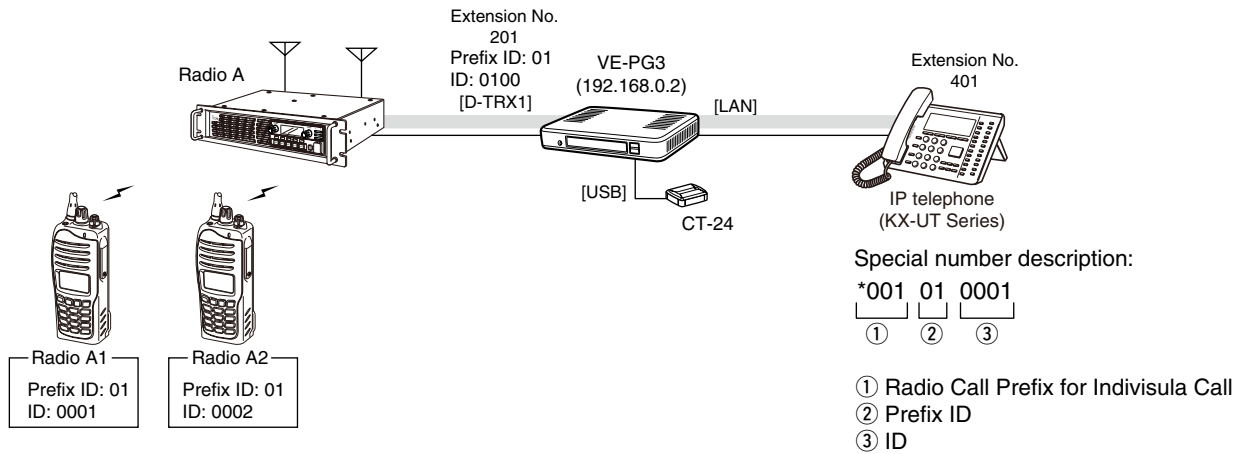
NOTE:

- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.

6. Operating in the NXDN Trunking mode (continued)

4. Operation

When the IP phone call VE-PG3, Radio A1 receives the call.



An example of digital radio network system

- All radios in the area must have same setting.

[Calling radio A1 from the IP phone.]

- ① IP phone's operator: Dial the [D-TRX] port's extension number (201), and then sequentially dial the special number (*001010001) to call radio A1.
 - The communication route is connected.
- ② Radio A1's operator: When the beep sounds, holding down [PTT], speak into the microphone to respond the call.
- ③ Radio A1's operator: Release [PTT] to return to receive.

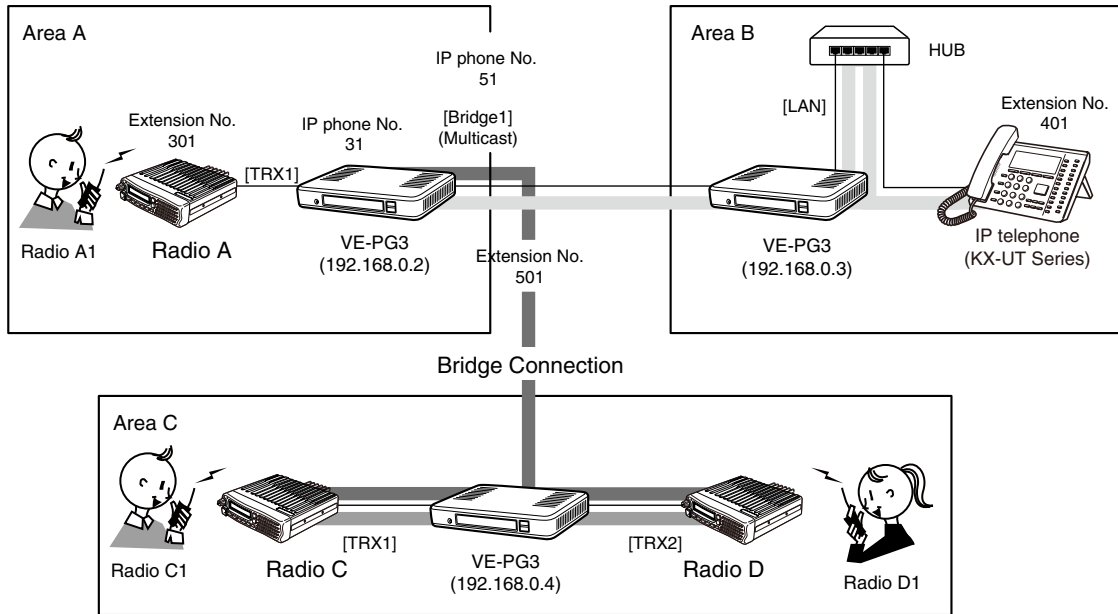
NOTE:

- Full duplex communication is impossible. Communicate with each other by taking turns speaking.
- Pause briefly before you speak, to confirm your party has finished speaking.
- The communication route will be disconnected when the IP telephone's handset is put on the hook, or the VE-PG3 receives no audio for the preset time (default: 15 seconds).

3 CONVERTER MODE APPLICATION

7. Connecting to the Bridge mode's VE-PG3

You can connect the VE-PG3 to other Bridge mode's VE-PG3, through the virtual bridge port. In this example as shown below, the IP phone in area B can call radio C1 in area C.



An example of the connection in the Converter mode and Bridge mode

1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

VE-PG3 (Area A)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
		IP Communication Mode	Bridge1	Multicast
V/RoIP	IP Line	SIP Server	IP Phone Number	31, 51 (Extension Number set in VE-PG3 in area B)
			SIP Server Address	192.168.0.3 (IP address set in VE-PG3 in area B)
			SIP Service Domain	192.168.0.3 (Extension Domain set in VE-PG3 in area B)
			User ID	31, 51 (Extension Number set in VE-PG3 in area B)
			Password	(Password set in VE-PG3 in area B)
	List of SIP Server Entries	Connection Status	During Transmit	
Extension Connect	Extension Connect	Extension (TRX1)	Extension Number	301
			Port Type	Transceiver 1 (TRX1)
			Outgoing Line (IP Line)	31
		(Bridge1)	Default Call Destination No.	401 (Calling the IP phone from Radio 1)
			Extension Number	501
			Port Type	Bridge1
Incoming Call	V/RoIP Incoming Call Setting	Receive Port		31:301 (TRX1)
				51:501 (Bridge1)
Port Settings	Transceiver1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060/F6060 (default)
	Bridge1	Bridge Connection	Connection Status	During Transmit

(Continued on the next page.)

3 CONVERTER MODE APPLICATION

7. Connecting to the Bridge mode's VE-PG3 (continued)

1. Configuration (continued)

VE-PG3 (Area B)

Menu Item	Setting Screen	Setting Item	Item Name	Value	
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter	
V/RoIP	VoIP Phone Book	List of VoIP Phone Book Entries	Extension Number	31, 51	
Extension Connect	Extension	Extension	Extension Number	31	
			Port Type	SIP Phone (Automatic Detection)	
			Password	(Any)	
			MAC Address	(MAC address of VE-PG3 in area A)	
	Extension	Extension	Extension	Extension Number	51
				Port Type	SIP Phone (Automatic Detection)
				Password	(Any)
				MAC Address	(MAC address of VE-PG3 in area A)
	Extension	Extension	Extension	Extension Number	401
				Port Type:	SIP Phone(KX-UT Series)
				Password:	(Any)
				MAC Address	(MAC address of VE-PG3 in area A)
Incoming Call	V/RoIP Incoming Call Setting		Receive Port	401 (Receive port of VE-PG3 in area A)	

VE-PG3 (Area C)

Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Bridge
		IP Communication Mode	Transceiver 1 (TRX1)	Multicast (default)
			Transceiver 2 (TRX2)	Multicast (default)
Bridge Connection	Bridge Connection Point	Bridge Connection Point	Port Type	Transceiver 1 (TRX1)/ Transceiver 2 (TRX2)
		The List of Bridge Connection Point Entries	Connection Status	During Transmit
Port Settings	Transceiver 1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060/F6060 (default)
	Transceiver 2 (TRX2)	Transceiver Model	Transceiver Model	IC-F5060/F6060 (default)

7. Connecting to the Bridge mode's VE-PG3 (continued)

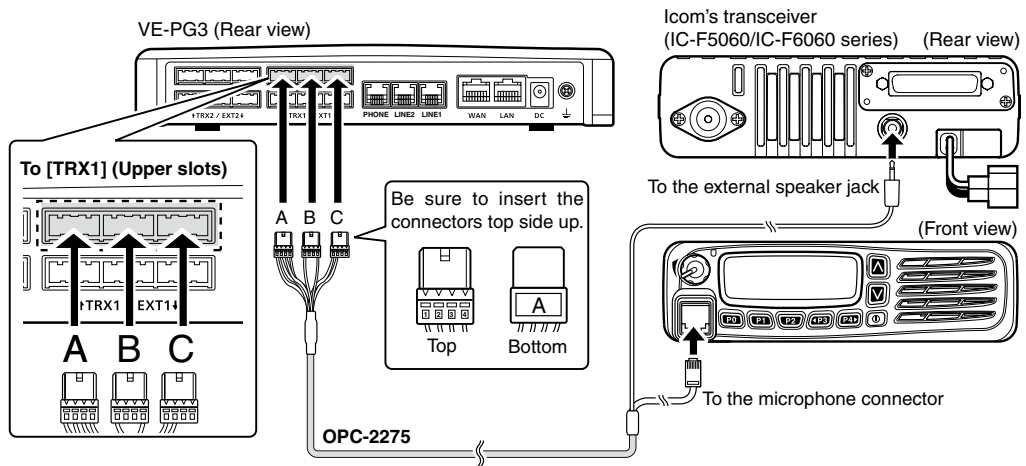
2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

1

Connect the VE-PG3 and the transceiver, using the appropriate optional cable.

- Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

2

When all the connections are finished, turn ON the transceiver and VE-PG3's power.

NOTE:

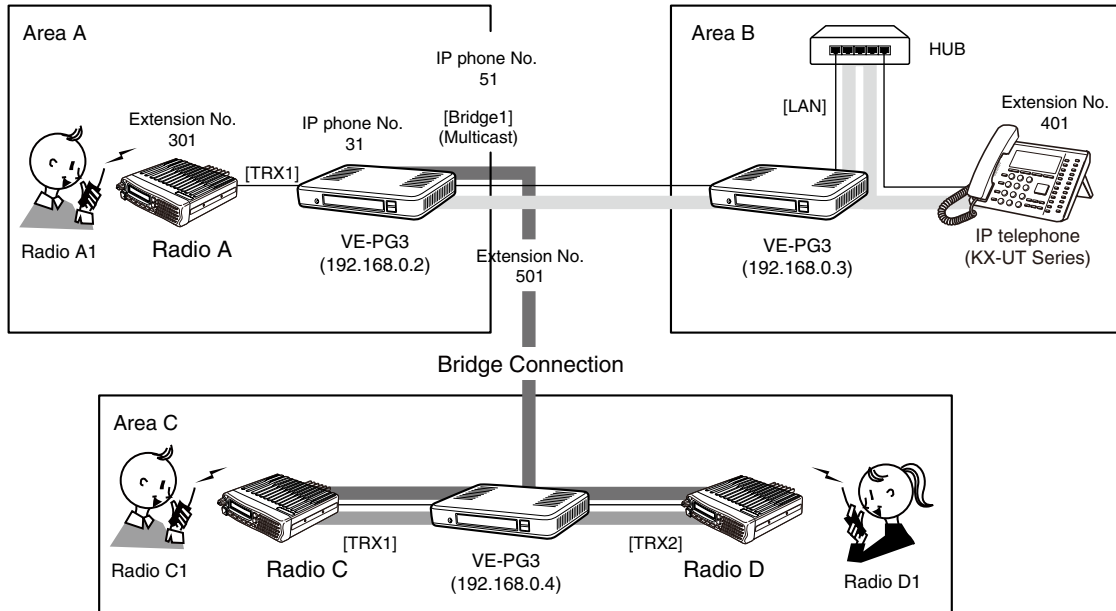
- Full duplex communication is impossible. Communicate with each other by taking turns speaking.
- Pause briefly before you speak, to confirm your party has finished speaking.
- The communication route will be disconnected when the IP telephone's handset is put on the hook, or the VE-PG3 receives no audio for the preset time (default: 15 seconds).

3 CONVERTER MODE APPLICATION

7. Connecting to the Bridge mode's VE-PG3 (continued)

3. Operation

The IP phone in area B dials "51" to call radio C1 and D1 in area C.



An example of the connection in the Converter mode and Bridge mode

[The procedure to call radio in area C.]

① Area B

Person on the IP telephone: Take the handset off the hook, dial "51" (IP phone No.), and then speak into the telephone at a normal voice level.

② Area A

The VE-PG3 in area C whose IP No. is "51" receives the call.

③ Area C

The call is routed to all radios (radio C1 and D1 whose channel is same with radio C and D).

NOTE:

- Full duplex communication is impossible. Communicate with each other by taking turns speaking.
- Pause briefly before you speak, to confirm your party has finished speaking.
- The communication route will be disconnected when the IP telephone's handset is put on the hook, or the VE-PG3 receives no audio for the preset time (default: 15 seconds).

Telephone function	4-2
1. Configuration	4-2
2. Connection	4-3
3. Operation	4-4

NOTE:

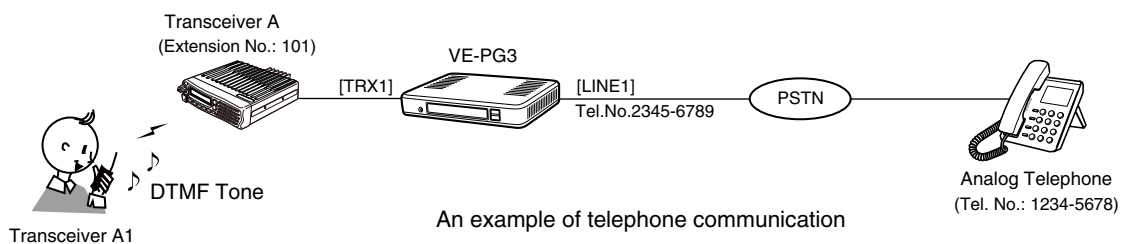
In this guide, the descriptions assume that all configurations of the PC and VE-PG3's IP address have been completed.

4 ANALOG TELEPHONE APPLICATION

Telephone function

The VE-PG3 has two PSTN line connectors and an analog telephone set connector. Radio user can dial to telephone numbers and connect to radio users from a telephone line.

- In the instruction, the example of the communication as illustrated below, is used.



1. Configuration

Access the VE-PG3 setting screen, and set the items as shown below.

Menu item	Setting screen	Setting item	Item name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
Port Settings	Transceiver 1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060/F6060
		DTMF Call Setting	Use DTMF Call	Enable
V/RoIP	LINE1	PSTN	Contract Line Number	(Ex. 2345-6789)
Extension Connect	Extension Connect	Extension	Extension Number	(Ex. 101)
			Port Type	Transceiver 1 (TRX1)
			Outgoing Line Priority	LINE
			Outgoing Line (LINE)	(Ex. 2345-6789)
	Special Number	Special Number	OFF-hook Sending	" * " (DTMF tone)

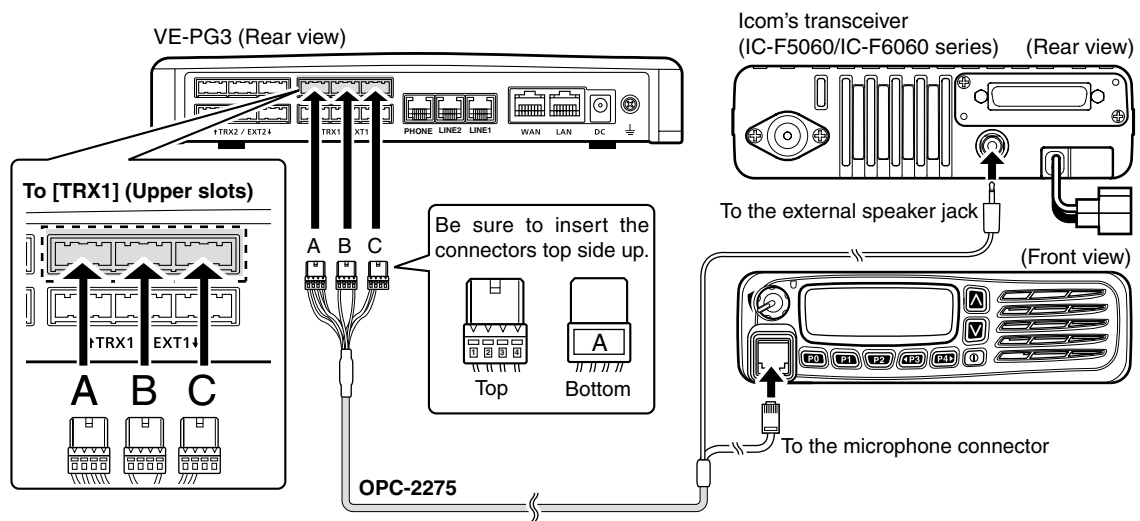
4 ANALOG TELEPHONE APPLICATION

Telephone function (continued)

2. Connection

Set the transceiver channel, volume level, TX output power, and other necessary settings, before connecting to the VE-PG3.

- 1 Connect the VE-PG3 and the transceiver, using the appropriate optional cable.
 - Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.



- The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors, however, follow the example to correctly connect the transceiver to ONLY the [TRX1] on the VE-PG3.

- 2 When all the connections are finished, turn ON the transceiver and VE-PG3's power.

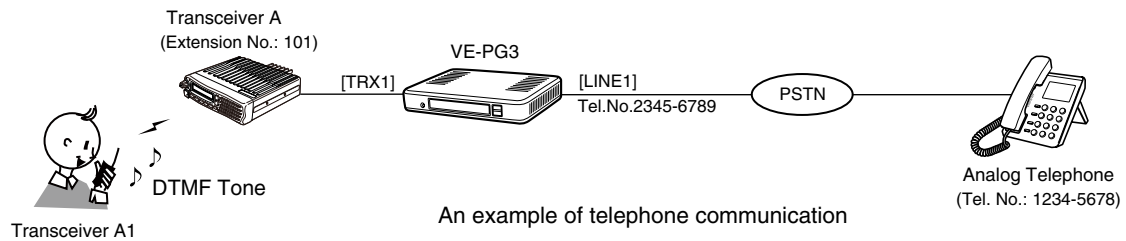
NOTE:

- Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
- Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
- When operating the radio, do not transmit near the IP telephone.

4 ANALOG TELEPHONE APPLICATION

Telephone function (continued)

3. Operation



[Making a telephone call from the radio]

- ❶ While holding down [PTT], push “* (OFF-hook Sending tone)” for while, and then sequentially push the phone number “12345678.”
- ❷ Release [PTT].
 - The communication route is connected.
- ❸ When callee telephone’s handset is taken off, a beep sounds.

NOTE:

- Full duplex communication is impossible.
Communicate with each other by taking turns speaking.
- Pause briefly before you speak, to confirm your party has finished speaking.
- The communication route will be disconnected when the telephone's handset is put on the hook, or the VE-PG3 receives no audio for the preset time (default: 15 seconds).

1. About the setting screen	5-4
2. [TOP] Menu	5-5
■ System Status	5-5
■ Network Status	5-5
■ Operating Mode Status	5-5
■ Bridge connect Status	5-6
■ Mixing group Status	5-6
■ Digital Transceiver Connect Status	5-7
3. [Information] Menu	5-8
■ SYSLOG	5-8
■ Call/Reception Record	5-9
4. [Network] Menu	5-10
■ Host Name	5-10
■ IP Address	5-11
■ DHCP Server	5-13
■ Static DHCP	5-14
■ Static DHCP Table	5-14
■ Routing Table	5-15
■ Static Routing	5-15
■ List of Static Routing Entries	5-15
■ QoS	5-16
■ QoS Rule	5-17
■ List of QoS Rule Entries	5-17
5. [Router] Menu	5-17
■ Connection Status <input type="text" value="DHCP client"/>	5-17
■ Connection Status <input type="text" value="Static IP"/>	5-18
■ Connection Status <input type="text" value="PPPoE"/>	5-19
■ Connection Type	5-20
■ Connection Settings <input type="text" value="DHCP client"/>	5-21
■ Connection Settings <input type="text" value="Static IP"/>	5-22
■ Connection Settings <input type="text" value="PPPoE"/>	5-23
■ List of Connection Settings <input type="text" value="PPPoE"/>	5-26
■ PPPoE Bridge	5-27
■ IPv6 Bridge	5-27
■ NAT	5-28
■ DMZ Host	5-28
■ Port Forwarding	5-29
■ List of Port Forwarding Entries	5-29

(Continued on the next page.)

5 BRIDGE MODE SETTING SCREEN

Continued from the previous page.

■ Dynamic DNS	5-30
■ Dynamic DNS Updates	5-32
■ IPsec Pass Through	5-33
■ PPTP Pass Through	5-34
■ IP Filter	5-35
■ List of IP Filter Entries	5-44
■ ICMP Stealth	5-45
6. [Operating Mode] Menu	5-46
■ Operating Mode	5-46
■ EXT I/O Port Mode	5-48
■ IP Communication Mode	5-49
■ Mixing Group	5-50
7. [Bridge Connection] Menu	5-51
■ Bridge Connection Point	5-51
■ Bridge Connection Point List	5-56
■ Save or Write SelCall in Bridge Connection Setting	5-57
■ SelCall in Bridge Connection	5-58
■ SelCall in Bridge Connection List	5-59
■ Save or Write SelCall Number Converting Setting	5-60
■ About the SelCall Number Converting	5-61
■ SelCall Number Converting	5-62
■ List of SelCall Number Converting Entries	5-63
8. [Port Settings] Menu	5-64
■ Transceiver Model	5-64
■ Transceiver Connection General Setting	5-65
■ Bridge Connection Communicate	5-68
■ Transceiver Control	5-69
■ Voice Transmission Control to the Transceiver	5-71
■ Voice Reception Control from the Transceiver	5-72
■ Digital Transceiver Model Mode: NXDN Trunking	5-73
■ Digital Transceiver Connection Mode: NXDN Trunking	5-74
■ Digital Transceiver Communication Mode: NXDN Trunking	5-76
■ Digital Transceiver Communication Mode: NXDN Trunking	5-77
■ Digital Transceiver Control Mode: NXDN Trunking	5-77
■ Digital Transceiver Connection Mode: NXDN Conventional	5-78
■ Digital Transceiver Communication Mode: NXDN Conventional	5-80
■ Digital Transceiver Control Mode: NXDN Conventional	5-81
■ Bridge Communication	5-82
■ EXT Input Control	5-83
■ EXT Control Terminal	5-88
■ Bridge Communication	5-90
■ Control Circuit	5-91
■ Serial Communication	5-92
■ EXT Voice Terminal	5-93
■ Voice Transmission Control to the EXT Device	5-94
■ EXT Control Terminal	5-95

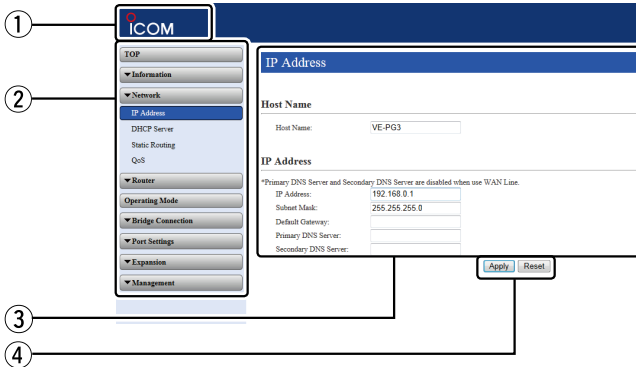
(Continued on the next page.)

Continued from the previous page.

■ Bridge Communication	5-96
9. [Expansion] Menu	5-97
■ V/RoIP	5-97
■ TOS	5-98
■ Emergency Notice	5-100
■ Abnormal Condition Monitoring	5-101
10. [Management] Menu	5-103
■ Administrator	5-103
■ Date and Time	5-104
■ Time Zone	5-104
■ NTP	5-105
■ SYSLOG	5-106
■ SNMP	5-107
■ USB	5-108
■ Reboot	5-109
■ Backup Settings	5-110
■ Restore Settings	5-110
■ Online Settings	5-111
■ List of Settings	5-112
■ Factory Defaults	5-113
■ Firmware Status	5-114
■ Online Update	5-115
■ Automatic Update	5-116
■ Manual Update	5-116

5 BRIDGE MODE SETTING SCREEN

1. About the setting screen



① Link to the Icom web site

Click the Icom logo to open the Icom web site if your PC is connected to the Internet.

② Setting menu

Displays the screen name list on the menu line. When you click the menu title, a list of items drops down which you can use to select the desired setting item.

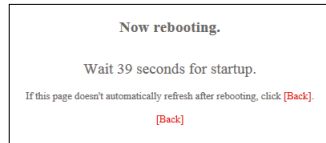
③ Setting screen

Displays the settings and values when you click the screen name.

④ Setting buttons

Save or cancel setting values.

If “Items that need to be restarted have changed.” is displayed on the screen when you click the [Apply] button, click the [OK] button.



The VE-PG3 reboots, and the setting items and values are updated.

The following message is displayed on the screen while the VE-PG3 is rebooting.

- If the setting screen does not automatically return, click [Back] in about 30 seconds after the “Now rebooting.” message is appeared.
- Items and buttons may differ, depending on the setting.

5 BRIDGE MODE SETTING SCREEN

2. [TOP] Menu

[TOP]

■ System Status

You can confirm the VE-PG3's version information, MAC address (WAN/LAN), and so on.

System Status

Host Name	VE-PG3
IPL	Rev. 6
Version	XXXXXXXXXXXXXXXXXXXX
WAN MAC Address	XXXXXXXXXXXX
LAN MAC Address	XXXXXXXXXXXX

- The WAN MAC address is set with unique numbers which is composed of 12 digits (0090C7*****). The WAN MAC address is printed on the serial number label on the VE-PG3's bottom panel.

■ Network Status

You can confirm the VE-PG3's network information.

Network Status

WAN Mode	PPPoE
WAN Status	-
LAN IP Address	192.168.0.1
DHCP Server	Disabled

■ Operating Mode Status

You can confirm the operating mode status of the [EXT1]/[EXT2] ports.

Operating Mode Status

Operating Mode	Bridge Mode	
EXT I/O Port Mode	EXT I/O 1(EXT1)	EXT I/O Unit (Separate)
	EXT I/O 2(EXT2)	EXT I/O Unit (Separate)

■ Bridge connect Status

You can confirm the connection status of ports in the Bridge mode.

Bridge connect Status

Transceiver1 (TRX1)		Not Set
Transceiver2 (TRX2)	IP Communication Mode	Multicast
	Destination	239.255.255.1 : 22510
	Connection State	Transmitting
Digital Transceiver 1 (D-TRX1)		Not Set
Digital Transceiver 2 (D-TRX2)		Not Set
Digital Transceiver 3 (D-TRX3)		Not Set
Digital Transceiver 4 (D-TRX4)		Not Set
EXT Input 1 (EXT1)		Not Set
EXT Output 1 (EXT1)		Not Set
EXT Input 2 (EXT2)		Not Set
EXT Output 2 (EXT2)		Not Set
Emergency Notice		Not Set

■ Mixing group Status

You can confirm the mixing group setting.

Mixing Group Status

Group 1	Transceiver 1 (TRX1) Transceiver 2 (TRX2)
Group 2	Not Set
Group 3	Not Set
Group 4	Not Set

■ Digital Transceiver Connect Status

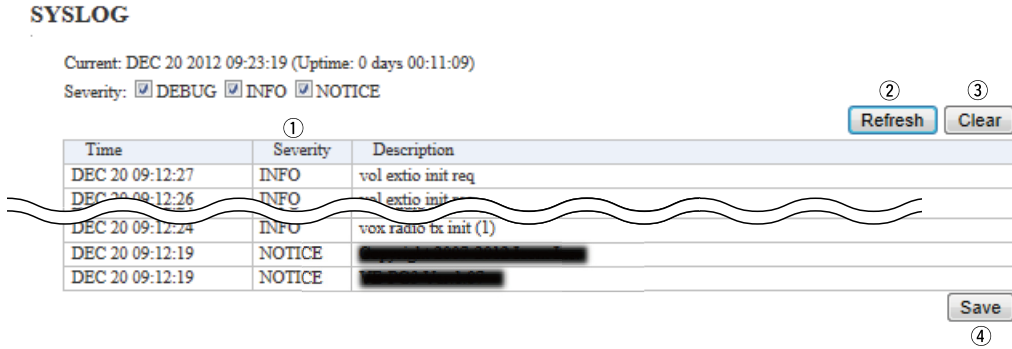
You can confirm the connection status of digital transceivers.

Digital Transceiver Connection Status

Digital Transceiver 1 (D-TRX1)	Not Set
Digital Transceiver 2 (D-TRX2)	Not Set
Digital Transceiver 3 (D-TRX3)	Not Set
Digital Transceiver 4 (D-TRX4)	Not Set

■ **SYSLOG**

Displays the VE-PG3's log information.



(This is an example.)

- ① **Severity** Select whether or not to display the DEBUG, INFO and NOTICE log information.
 - When you check a check box, the log information is displayed.
 - The check box state is not saved.

(Default: DEBUG INFO NOTICE)

[When you do not want to display log information]
Take OFF the check mark from the desired box, and click [Reload].

- ② **<Refresh>** Reloads the SYSLOG information if you have checked the DEBUG, INFO and NOTICE check boxes.
 - If the number of entries exceeds 500, the oldest entry is deleted instead of recording a new one.
- ③ **<Clear>** Deletes the displayed SYSLOG information.
 - When you turn OFF the power or reboot the VE-PG3, the logs are also deleted.
- ④ **<Save>** Saves the log as the text file (extension: "txt").
Click this button, and then select a folder to save the file.

Call/Reception Record

Displays the VE-PG3's communication history.

- Up to 1000 record entries can be stored.
- When the number of entries exceeds 1000, the oldest entry is deleted instead of recording a new one.

Call/Reception Record

Time	Description	Refresh	Clear
12/07 06:58:47	Connection made : Transceiver 2	①	②
		③	Save

(This is an example.)

- ① <Refresh> Reloads the VE-PG3's communication record entries.
- ② <Clear> Deletes the displayed VE-PG3's communication record entries.
 - When you turn OFF the power or reboot the VE-PG3, the history is also deleted.
- ③ <Save> Saves the history as the text file (extension: ".txt").
Click this button, and then select a folder to save the file.

■ Host Name

Set this VE-PG3's name.

Host Name

Host Name:

Host Name.....

Set a name of up to 31 characters (a to z, A to Z, 0 to 9 or "-" are usable).
(Default: VE-PG3)

- The name will be displayed when you access the VE-PG3 by telnet.
- DO NOT set the first or last character with "-."

■ IP Address

Set the VE-PG3's LAN addresses.

IP Address

*The Primary DNS Server and the Secondary DNS Server settings are ignored when using a WAN connection.

① IP Address:	<input type="text" value="192.168.0.1"/>
② Subnet Mask:	<input type="text" value="255.255.255.0"/>
③ Default Gateway:	<input type="text"/>
④ Primary DNS Server:	<input type="text"/>
⑤ Secondary DNS Server:	<input type="text"/>

- ① IP Address..... Enter the VE-PG3's IP address to connect to the network.
(Default: 192.168.0.1)
- If you use the DHCP, enter the same network port of the address as that of set in the DHCP.
- ② Subnet Mask..... Enter the subnet mask to connect to the network.
(Default: 255.255.255.0)
- (Setting example: When you set the subnet mask to “255.255.255.248”)**
- IP address can be set between “192.168.0.0” and “192.168.0.7.”
 - IP address for network devices can be set between “192.168.0.2” and “192.168.0.6.”
 - The following IP address cannot be used for network devices.
192.168.0.0 : Network address
192.168.0.1 : VE-PG3 IP address
192.168.0.7 : Broadcast IP address
- ③ Default Gateway Enter the default gateway when your VE-PG3 communicates with a network device which has a different network part IP address.
- If the default gateway is set to the LAN side, the network route is on the LAN side when the default gateway is set to the LAN side. WAN side when the default gateway is set to the WAN side.

■ IP Address (continued)

IP Address

*The Primary DNS Server and the Secondary DNS Server settings are ignored when using a WAN connection.

① IP Address:	<input type="text" value="192.168.0.1"/>
② Subnet Mask:	<input type="text" value="255.255.255.0"/>
③ Default Gateway:	<input type="text"/>
④ Primary DNS Server:	<input type="text"/>
⑤ Secondary DNS Server:	<input type="text"/>

- ④ Primary DNS server Enter the DNS server address specified by your service provider.
If you have two DNS server addresses, enter the primary address.
- ⑤ Secondary DNS
Server Enter the secondary DNS server address, if you have two DNS server
addresses.

DHCP Server

Configure the DHCP details.

DHCP Server

① DHCP Server:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
② IP Pool Start Address:	<input type="text" value="192.168.0.10"/>
③ Pool Size:	<input type="text" value="30"/>
④ Subnet Mask:	<input type="text" value="255.255.255.0"/>
⑤ Lease Time:	<input type="text" value="72"/> hours
⑥ Domain Name:	<input type="text"/>
⑦ Default Gateway:	<input type="text"/>
⑧ DNS Proxy:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑨ Primary WINS Server:	<input type="text"/>
⑩ Secondary WINS Server:	<input type="text"/>
⑪ TFTP:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑫ TFTP Server:	<input type="text"/>

- ① DHCP Server Select "Enable" to use the DHCP. (Default: Disable)
- ② IP Pool Start Address Enter the starting address. (Default: 192.168.0.10)
- ③ Pool Size Enter the number of IP address that provides the DHCP server. (Default: 30)
Range: 0 to 128
- ④ Subnet Mask..... The subnet mask for the IP address set on [IP Pool Start Address](②). (Default: 255.255.255.0)
- ⑤ Lease Time Enter the valid release time of the IP address provided by the DHCP server. Range: 1 to 9999 (hour) (Default: 72)
- ⑥ Domain Name Enter the domain name (up to 127 characters) if required. The DHCP server informs the domain to the connected device.

DHCP Server (continued)

DHCP Server

① DHCP Server: Disable Enable

② IP Pool Start Address:

③ Pool Size:

④ Subnet Mask:

⑤ Lease Time: hours

⑥ Domain Name:

⑦ Default Gateway:

⑧ DNS Proxy: Disable Enable

⑨ Primary WINS Server:

⑩ Secondary WINS Server:

⑪ TFTP: Disable Enable

⑫ TFTP Server:

- ⑦ Default Gateway Enter the IP address of the connecting device, if the network part of the IP address is different from that of set in [IP Pool Start Address](②).
- ⑧ DNS Proxy Select “Enable” for the DNS substitute function. (Default: Enable)
When “Enable” is selected, you don’t need to change the setting even when the DNS server address has changed.
- ⑨ Primary WINS Server Enter the primary WINS server IP address.
- ⑩ Secondary WINS Server... Enter the secondary WINS server IP address, if required.
- ⑪ TFTP Select “Enable” to notify the address. (Default: Disable)
- ⑫ TFTP Server Enter the TFTP server address.
If the address is not specified, the VE-PG3’s IP address is notified.

Static DHCP

You can assign an IP address for the MAC address up to 32 entries.
The set IP address is returned when DHCP request is occurred.

Static DHCP

MAC Address	IP Address	
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

Static DHCP Table

The list of the MAC address and the assigned IP address entries.

Static DHCP Table

MAC Address	IP Address	
<input type="text" value=""/>	192.168.0.100	<input type="button" value="Delete"/>

5 BRIDGE MODE SETTING SCREEN

4. [Network] Menu (continued)

[Network]–[Static Routing]

■ Routing Table

Displays the available packet routing paths.

Routing Table

Destination	Subnet Mask	Gateway	Route	Owner
127.0.0.0	255.0.0.0	127.0.0.1	lo0	misc
127.0.0.1	255.255.255.255	127.0.0.1	lo0	host
192.168.0.0	255.255.255.0	192.168.0.1	mirror0	misc
192.168.0.1	255.255.255.255		lo0	host

■ Static Routing

You can register up to 32 packet routing paths.

Static Routing

Destination	Subnet Mask	Gateway	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

- This is an example.

<Add> Click to add the setting to [List of Static Routing Entries].

■ List of Static Routing Entries

List of Static Routing Entries

Destination	Subnet Mask	Gateway	
127.0.0.0	255.0.0.0	127.0.0.1	<input type="button" value="Delete"/>

- This is an example.

<Delete> Click to delete the entry.

■ QoS

Limits the bandwidth of the communication between WAN and LAN.

QoS

① QoS: Disable Enable

② **Bandwidth Limit(Transmit)**

WAN:	<input type="text" value="30.0"/>	Mbps
LAN:	<input type="text" value="30.0"/>	Mbps

- ① QoS Select "Enable" to apply the QoS rule set in [QoS Rule]. (Default: Enable)
- ② Bandwidth Limit(Transmit) Enter the bandwidth for the packets which exceed the bandwidth limit in 0.1 Mbps step. (Default: 30.0)
Range: 0.0 to 100.0 (Mbps)

QoS Rule

Set the packet priority by the TOS value.

QoS Rule

① No.:
 ② TOS: Entered in hexadecimal code(01 - FF)

- ① No. Assign the number for the rule.
 The VE-PG3 checks every outgoing packet according to the rule set on [List of QoS Rule Entries].
<Add>
 Click to add a new rule.
 • More than 1 rule entry is required.
- ② TOS Enter the TOS value for the reference.
 Range: "01" to "FF" (in hex)

List of QoS Rule Entries

List of QoS Rule Entries

No.	TOS	①	②
1	E0	Edit	Delete
2	C0	Edit	Delete

- ① <Edit> Click to edit the setting on the [QoS Rule] field.
- ② <Delete> Click to delete the entry.

■ Connection Status DHCP client

Displays the registered line status.

Connection Status

①	Connection State	Connecting	Reconnect	Refresh
②	Connection Type	DHCP Client		
③	DNS Server			
④	IP Address			
⑤	Peer IP Address			
⑥	Uptime			

- ① Connection State The connection status ([No Connection]/[Connecting]/[Connected]) of WAN.
<Reconnect>
 Click to reconnect to WAN.
<Refresh>
 Click to refresh the connection status.
 • If "Connecting" doesn't appear, check the registered settings.

- ② Connection Type The type of line connection.

- ③ DNS Server DNS server IP address which is manually set or automatically obtained by the DHCP.

- ④ IP Address..... The VE-PG3's IP address (WAN).

- ⑤ Peer IP Address The gateway IP address obtained by the DHCP.

- ⑥ Uptime The elapsed time from when you connected to your service provider. Click <Refresh> to reload.

■ **Connection Status** Static IP

Displays the network connection status.

Connection Status

①	Connection State	Disconnected Refresh
②	Connection Type	Static IP
③	DNS Server	
④	IP Address	
⑤	Peer IP Address	
⑥	Uptime	

- ① **Connection State** The connection status of the line. ([Disconnected]/[Connecting]/[Connected])
<Refresh>
Click to refresh the screen.

- ② **Connection Type** The type of line connection.

- ③ **DNS Server** DNS server IP address which is manually set.

- ④ **IP Address**..... The VE-PG3's IP address (WAN).

- ⑤ **Peer IP Address** The gateway IP address which is manually set.

- ⑥ **Uptime** The elapsed time from when you have connected to your service provider.
Click <Reload> to refresh the screen.

Connection Status PPPoE

Displays the network connection status.

Connection Status

①	Destination	None ▾	Connect	Refresh
②	Connection Status	Disconnected		
③	Connection Type	PPPoE		
④	DNS Server			
⑤	IP Address			
⑥	Peer IP Address			
⑦	Uptime			

- ① Destination Displays the WAN connecting destination.
 - Before you select, disconnect the line.
 - <Connect>/<Disconnect>**
Click to connect or disconnect the line.
 - <Refresh>**
Click <Reload> to refresh the screen.

- ② Connection Status The connection status of the line. ([Disconnected]/[Connecting]/[Connected])

- ③ Connection Type The type of line connection.

- ④ DNS Server The DNS server IP address specified by your service provider.

- ⑤ IP Address..... The VE-PG3's IP address (WAN).

- ⑥ Peer IP Address The IP address specified by your service provider.

- ⑦ Uptime The elapsed time from when you connected to your service provider. ([Disconnected]/[Connecting]/[Connected])

■ Connection Type

Connection Type

① Connection Type: ▼

- ① Connection Type Select the connection type specified by your service provider.
(Default: No Connection)
- When you don't connect the line to the WAN port, select "**No Connection.**"
 - When you connect the line to the WAN port.
A bridge type modem or a circuit-terminating equipment (FTTH) can be connected.
- "DHCP Client"**
When using the Router function, the IP address (WAN) is automatically obtained by the DHCP.
- "Static IP"**
When using the Router function, the IP address (WAN) is specified by your service provider
- "PPPoE"**
The IP address (WAN) is automatically obtained by the PPPoE from your service provider.

Connection Settings DHCP client

Configure the network connection (WAN).

Connection Settings

① Nickname:	<input type="text"/>
② Primary DNS Server:	<input type="text"/>
③ Secondary DNS Server:	<input type="text"/>

- ① Nickname Enter the name of your service provider. (up to 31 characters)

- ② Primary DNS Server Enter the DNS server address specified by your service provider.
If you have two DNS addresses, enter the primary address.

- ③ Secondary DNS Server ... Enter the secondary address, if you have two DNS addresses.

■ Connection Settings **Static IP**

Configure the network connection (WAN).

Connection Settings

① Nickname:	<input type="text"/>
② IP Address:	<input type="text"/>
③ Subnet Mask:	<input type="text"/>
④ Default Gateway:	<input type="text"/>
⑤ Primary DNS Server:	<input type="text"/>
⑥ Secondary DNS Server:	<input type="text"/>

- ① Nickname Enter the name of your service provider. (up to 31 characters)
- ② IP Address..... Enter the IP address specified by your service provider.
- ③ Subnet Mask..... Enter the subnet mask (WAN) specified by your service provider.
- ④ Default Gateway Enter the default gateway address specified by your service provider.
- ⑤ Primary DNS Server Enter the DNS server address specified by your service provider.
If you have two DNS addresses, enter the primary address.
- ⑥ Secondary DNS Server ... Enter the secondary address, if you have two DNS addresses.

Connection Settings PPPoE

Configure the network connection (WAN).

Connection Settings

① Select Connection:	<input type="text" value="WAN01"/>
② Nickname:	<input type="text" value="WAN01"/>
③ Username:	<input type="text" value="icom123456"/>
④ Password:	<input type="password"/>
⑤ Reconnect Mode:	<input type="text" value="Always-on"/>
⑥ IP Address:	<input type="text"/>
⑦ Primary DNS Server:	<input type="text"/>
⑧ Secondary DNS Server:	<input type="text"/>
Detail Settings	
⑨ Authentication Protocol:	<input type="text" value="Automatic"/>
⑩ MSS Limit:	<input type="text" value="1322"/>
⑪ AC-Name:	<input type="text"/>
⑫ Service-Name:	<input type="text"/>

- ① Select Connection Select the connect destination from [WAN01] to [WAN08]. (You can select up to 8 destinations.) (Default: WAN01)

- ② Nickname Enter the name of your service provider. (up to 31 characters)

- ③ Username Enter the username or account name specified by your service provider. (Upper and lowercase characters are treated differently.)

- ④ Password Enter the password specified by your service provider.
 - All input characters are displayed as "*" or "•."

- ⑤ Reconnect Mode Select the mode to connect the [PPPoE] line. (Default: Always-on)
 - **Manual**
The line is manually connected/disconnected, by clicking <Connect> /<Disconnect> button in the [Connection Status] item.
 - The line is disconnected, when the VE-PG3 is booted.
 - **Always-on**
The line is always connected to the destination which is selected in the [Select Connection] item.
 - You can manually connect or disconnect by clicking <Connect> /<Disconnect> in the [Connection Status] item.

- ⑥ IP Address..... Enter the IP address (WAN), if specified by your service provider.

■ Connection Settings (continued) **PPPoE**

Connection Settings

① Select Connection:	<input type="text" value="WAN01"/>
② Nickname:	<input type="text" value="WAN01"/>
③ Username:	<input type="text" value="icom123456"/>
④ Password:	<input type="password"/>
⑤ Reconnect Mode:	<input type="text" value="Always-on"/>
⑥ IP Address:	<input type="text"/>
⑦ Primary DNS Server:	<input type="text"/>
⑧ Secondary DNS Server:	<input type="text"/>
Detail Settings	
⑨ Authentication Protocol:	<input type="text" value="Automatic"/>
⑩ MSS Limit:	<input type="text" value="1322"/>
⑪ AC-Name:	<input type="text"/>
⑫ Service-Name:	<input type="text"/>

- ⑦ Primary DNS Server Enter the DNS server address specified by your service provider.
If you have two DNS addresses, enter the primary address.

- ⑧ Secondary DNS Server ... Enter the secondary address, if you have two DNS addresses.

- ⑨ Authentication Protocol ... Enter the authentication protocol specified by your service provider.
(Default: Automatic)

If not specified, select [Automatic].
 - **PAP**
Use the password for the authentication.
Note that the password is not encrypted.
 - **CHAP**
The authentication information is encrypted. More securer protocol than PAP.

■ Connection Settings (continued) **PPPoE**

Connection Settings

① Select Connection:	WAN01 ▾
② Nickname:	WAN01
③ Username:	icom123456
④ Password:	
⑤ Reconnect Mode:	Always-on ▾
⑥ IP Address:	
⑦ Primary DNS Server:	
⑧ Secondary DNS Server:	
Detail Settings	
⑨ Authentication Protocol:	Automatic ▾
⑩ MSS Limit:	1322
⑪ AC-Name:	
⑫ Service-Name:	

- ⑩ MSS Limit Enter the MSS limit, if specified by your service provider. (Default: 1322)
Acceptable range: 536 to 1452 bytes
The MSS value is the maximum size of the TCP segment to receive.
- ⑪ AC-Name Enter the AC-name (Access Concentrator name), if specified by your service provider.
- ⑫ Service-Name Enter the Service-name, if specified by your service provider.

5 BRIDGE MODE SETTING SCREEN

5. [Router] Menu (continued)

[Router]-[WAN]

■ List of Connection Settings PPPoE

List of Connection Settings

Nickname	Username	Reconnect Mode	
WAN01	icom123456	Always-on	Delete

<Delete> Click to delete the entry.

■ PPPoE Bridge

PPPoE Bridge

PPPoE Bridge: Disable Enable

PPPoE Bridge Select "Enable" to bridge the PPPoE frame between WAN and LAN. (Default: Disable)

■ IPv6 Bridge

IPv6 Bridge

IPv6 Bridge: Disable Enable

IPv6 Bridge Select "Enable" to bridge the IPv6 frame between WAN and LAN. (Default: Disable)

■ NAT

NAT

NAT: Disable Enable

NAT..... Select "Enable" to use the NAT function. (Default: Enable)
When it is enabled, the global IP address (WAN) is converted to the private address by the masquerade function.

■ DMZ Host

DMZ Host

DMZ Host IP Address:

DMZ Host IP Address Enter the IP address for the object to use the DMZ Host function.
• The static masquerade table setting is applied when both the DMZ Host function and static masquerade table is set.

Port Forwarding

Routes the packet to the designated IP address according to the protocol and port number.

Port Forwarding

①	②	③	④	⑤
WAN Port	LAN IP Address	LAN Port	Protocol	
Custom ▾ <input type="text"/>	<input type="text"/>	Custom ▾ <input type="text"/>	TCP ▾	Add

- ① WAN Port When you specify the port (WAN) number set in [Protocol](④), select "[Custom]."
Or select from mnemonics (DNS, Finger, FTP, Gopher, NEWS, POP3, SMTP, TELNET, Web, Whois).
- ② LAN IP Address Enter the private IP address (LAN) to send the packet.
- ③ LAN Port When you specify the port (LAN) number set in [Protocol](④), select "[Custom]."
Or select from mnemonics (DNS, Finger, FTP, Gopher, NEWS, POP3, SMTP, TELNET, Web, Whois).
- ④ Protocol Select from TCP, UDP, TCP/UDP, GRE and ESP.
- ⑤ <Add> Click to add a static masquerade table to the list.
 - Up to 32 masquerade tables can be added.

List of Port Forwarding Entries

List of Port Forwarding Entries

WAN Port	LAN IP Address	LAN Port	Protocol	①	②
Web	192.168.0.100	Web	TCP/UDP	Edit	Delete
FTP	192.168.0.200	FTP	TCP/UDP	Edit	Delete

• This is an example.

- ① <Edit>..... Click to edit the table.
 - The registered entry is reloaded to the "Port Forwarding" field.
- ② <Delete> Click to delete the entry.

■ Dynamic DNS

Configure to link the domain which is obtained from the dynamic DNS server, and the VE-PG3's IP address (WAN).

Dynamic DNS

① No.:	1 ▾
② Automatic Update:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ Update Interval:	10 ▾ days
④ Dynamic DNS Server:	RFC2136 ▾
⑤ Server URL:	<input type="text"/>
⑥ Host Name:	<input type="text"/>
⑦ Domain Name:	<input type="text"/>
⑧ Username:	<input type="text"/>
⑨ Password:	<input type="text"/>
⑩ Connection Status:	<input checked="" type="radio"/> Online <input type="radio"/> Offline

- ① No. The assigned number of the dynamic DNS service configuration (1 or 2).
(Default: 1)

- ② Automatic Update Select "Enable" to automatically update the IP address to the dynamic DNS server.
(Default: Disable)
• If the update fails, retries to access in 1 hour.

- ③ Update Interval Select the interval of registration update from the dynamic DNS server.
Selectable range; 1 to 99
(Default: 10)

- ④ Dynamic DNS Server Select the type of dynamic DNS server.
(Default: None)

- ⑤ Server URL Enter the IP address of the dynamic DNS server. (Up to 31 characters)
• This item appears only when you select "RFC2136" in [Dynamic DNS Server].

- ⑥ Host Name Enter the host name of the dynamic DNS server. (Up to 31 characters)

- ⑦ Domain Name Enter the domain name of the dynamic DNS server. (Up to 31 characters)

- ⑧ Username Enter the username of the dynamic DNS server. (Up to 31 characters)

Dynamic DNS (continued)

Dynamic DNS

① No.:	1
② Automatic Update:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ Update Interval:	10 days
④ Dynamic DNS Server:	RFC2136
⑤ Server URL:	
⑥ Host Name:	
⑦ Domain Name:	
⑧ Username:	
⑨ Password:	
⑩ Connection Status:	<input checked="" type="radio"/> Online <input type="radio"/> Offline

⑨ Password Enter the password of the dynamic DNS server. (Up to 31 characters)
• All input characters are displayed as " * " or "•."

⑩ Connection Status Select "Offline" to inform the dynamic DNS server that the network is offline.
(Default: Online)
This function may be used when the VE-PG3 is temporary turned OFF on testing.

Dynamic DNS Updates

Displays the update status of the dynamic DNS server.

Dynamic DNS Updates

No.	① Time	② Status	③ Host Address	④ IP Address	⑤ Refresh
1	---/---/--- --:--	Not Updated	-	-	⑥ Update the Server
2	---/---/--- --:--	Not Updated	-	-	Update the Server

- ① Time The IP address automatically updates the date and time.

- ② Status If the automatic update is succeeded, "IP address updated" appears.
 - Click <Refresh> to refresh the list.
 - When any of the message shown below appears, check the dynamic DNS settings.
 - [Failed to access the dynamic DNS server]
 - [Failed to log in the dynamic DNS server]
 - [An error returned from the dynamic DNS server]
 - [Authentication error]
 - [Script error], and so on.

- ③ Host Address The host name registered to the dynamic DNS server.
 - Same as the name set to [Host Name] and [Domain] in the [Dynamic DNS] field.

- ④ IP Address..... The global IP address registered to the dynamic DNS server.

- ⑤ <Refresh> Click to refresh the list.

- ⑥ <Update the Server> Click to send the VE-PG3's IP address (WAN) to the dynamic DNS server which is selected in [Dynamic DNS].

IPsec Pass Through

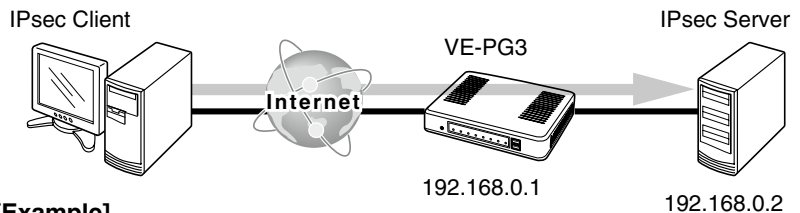
IPsec Pass Through

IPsec Pass Through: Disable Enable

IPsec Pass Through.....

Select "Enable" to access the IPsec server (WAN) from the IPsec client (LAN), through the internet. (Default: Enable)

- When sending the IKE (Internet KeyExchange) from the IPsec client (WAN) to the IPsec server (LAN), register the port (UDP/No. 500) to open.



[Example]

Enter the IPsec server's IP address (example;192.168.0.2) to the [LAN IP Address] field.

Port Forwarding				
WAN Port	LAN IP Address	LAN Port	Protocol	
Custom ▾ 500	192.168.0.2	Custom ▾ 500	UDP ▾	Update

List of Port Forwarding Entries				
WAN Port	LAN IP Address	LAN Port	Protocol	
500	192.168.0.2	500	UDP	Edit Delete

PPTP Pass Through

PPTP Pass Through

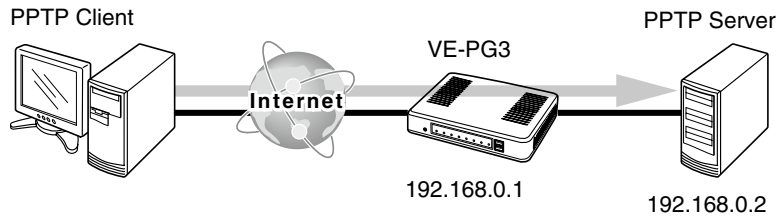
PPTP Pass Through: Disable Enable

PPTP Pass Through

Select "Enable" to access the PPTP server (WAN) from the PPTP client (LAN), through the internet. (Default: Enable)

You can also access the PPTP server (LAN) from the PPTP client (WAN).

- When sending from the PPTP client (WAN) to the PPTP server (LAN), register the port (TCP/No. 1723) to open.



[Example]

Enter the PPTP server's IP address (example;192.168.0.2) to the [LAN IP Address] field on the [NAT] screen.

Port Forwarding				
WAN Port	LAN IP Address	LAN Port	Protocol	
Custom 1723	192.168.0.2	Custom 1723	TCP	Update

List of Port Forwarding Entries				
WAN Port	LAN IP Address	LAN Port	Protocol	
1723	192.168.0.2	1723	TCP	Edit Delete

IP Filter

Configure the packet filtering.

IP Filter

① No.:

② Entry: Disable Enable

③ Action: Block Pass

④ Direction: In Out

⑤ Source IP Address: Mask:

⑥ Destination IP Address: Mask:

⑦ Protocol: Custom Value:

⑧ Source Port: Custom Value: -

⑨ Destination Port: Custom Value: -

⑩ TCP Flags: URG ACK PSH RST SYN FIN

Options

⑪ Stateful Packet Inspection (SPI): Disable Enable

⑫ Quick: Disable Enable

⑬ SYSLOG: Disable Enable

① No. Select the filtering order from "1" to "64."
 The IP Filter function filters the TX and/or RX packets, according to the filtering condition set in [List of IP Filter Entries].

You can change the filtering option in [Quick] item.

② Entry Select "Enable" to enable the filter setting. (Default: Disable)

Select "Disable" for the filter setting that is not used.
 "(off)" is displayed in the disabled filter setting.

1 (off)	Block	Any	*	Disable
			(*)	Disable
	In		*	Disable
			(*)	Disable

■ IP Filter (continued)

IP Filter

① No.:	<input type="text"/> ▼
② Entry:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
③ Action:	<input type="radio"/> Block <input checked="" type="radio"/> Pass
④ Direction:	<input checked="" type="radio"/> In <input type="radio"/> Out
⑤ Source IP Address:	<input type="text"/> Mask: <input type="text"/> 32 ▼
⑥ Destination IP Address:	<input type="text"/> Mask: <input type="text"/> 32 ▼
⑦ Protocol:	TCP ▼ Custom Value: <input type="text"/>
⑧ Source Port:	Any ▼ Custom Value: <input type="text"/> - <input type="text"/>
⑨ Destination Port:	Any ▼ Custom Value: <input type="text"/> - <input type="text"/>
⑩ TCP Flags:	<input type="checkbox"/> URG <input type="checkbox"/> ACK <input type="checkbox"/> PSH <input type="checkbox"/> RST <input type="checkbox"/> SYN <input type="checkbox"/> FIN
Options	
⑪ Stateful Packet Inspection (SPI):	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
⑫ Quick:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑬ SYSLOG:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

- ③ Action Select the filter type. (Default: Pass)
 - **Block** : Discards all packets that match the filtering condition.
 - **Pass** : Passes through all packets that match the filtering condition.

- ④ Direction Select the filtering direction. (Default: IN)
 - **IN** : The receiving packets are filtered.
 - **OUT** : The transmitting packets are filtered.

- ⑤ Source IP Address Enter the source IP address to filter.

Filters the packets from the host specified by IP address and subnet mask*.

When no parameter is specified, the packet is filtered regardless of source IP address.

*Selectable bit range: "1" to "32"

■ IP Filter (continued)

IP Filter

① No.:	<input type="text" value=""/> ▾
② Entry:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
③ Action:	<input type="radio"/> Block <input checked="" type="radio"/> Pass
④ Direction:	<input checked="" type="radio"/> In <input type="radio"/> Out
⑤ Source IP Address:	<input type="text"/> Mask: <input type="text" value="32"/> ▾
⑥ Destination IP Address:	<input type="text"/> Mask: <input type="text" value="32"/> ▾
⑦ Protocol:	<input type="text" value="TCP"/> ▾ Custom Value: <input type="text"/>
⑧ Source Port:	<input type="text" value="Any"/> ▾ Custom Value: <input type="text"/> - <input type="text"/>
⑨ Destination Port:	<input type="text" value="Any"/> ▾ Custom Value: <input type="text"/> - <input type="text"/>
⑩ TCP Flags:	<input type="checkbox"/> URG <input type="checkbox"/> ACK <input type="checkbox"/> PSH <input type="checkbox"/> RST <input type="checkbox"/> SYN <input type="checkbox"/> FIN
Options	
⑪ Stateful Packet Inspection (SPI):	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
⑫ Quick:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑬ SYSLOG:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

⑥ Destination IP Address ... Enter the destination IP address to filter.

Filters the packets to the host, specified by IP address and subnet mask*.
 When no parameter is specified, the packet is filtered regardless of source IP address.

*Selectable bit range: "1" to "32"

⑦ Protocol Filters the packets specified by the transport layer protocol. (Default: All)

- **All** : All protocols
- **TCP** : Only TCP
- **UDP** : Only UDP
- **TCP/UDP** : TCP and UDP

(Continued on next page.)

■ IP Filter (continued)

IP Filter

① No.:

② Entry: Disable Enable

③ Action: Block Pass

④ Direction: In Out

⑤ Source IP Address: Mask:

⑥ Destination IP Address: Mask:

⑦ Protocol: Custom Value:

⑧ Source Port: Custom Value: -

⑨ Destination Port: Custom Value: -

⑩ TCP Flags: URG ACK PSH RST SYN FIN

Options

⑪ Stateful Packet Inspection (SPI): Disable Enable

⑫ Quick: Disable Enable

⑬ SYSLOG: Disable Enable

⑦ Protocol (continued)

• **ICMP** : Only ICMP

When "ICMP" is selected, [Type] and [Code] appear.

Protocol:	<input type="text" value="ICMP"/> <input type="button" value="v"/>	Custom Value:	<input type="text"/>
Type:	<input type="text"/>		
Code:	<input type="text"/>		

[Type]

Enter the type of ICMP header (0–255) to filter.

When the type is not specified, all types of the header are filtered.

[Code]

Enter the type of ICMP code (0–255) to filter.

When the type is not specified, all types of the header is filtered.

• **IGMP** : Only IGMP

• **Specify** : Enter the protocol number contained in the IP layer header. Protocol number is between 0 to 255 in decimal.

■ IP Filter (continued)

IP Filter

① No.:

② Entry: Disable Enable

③ Action: Block Pass

④ Direction: In Out

⑤ Source IP Address: Mask: 32

⑥ Destination IP Address: Mask: 32

⑦ Protocol: TCP Custom Value:

⑧ Source Port: Any Custom Value: -

⑨ Destination Port: Any Custom Value: -

⑩ TCP Flags: URG ACK PSH RST SYN FIN

Options

⑪ Stateful Packet Inspection (SPI): Disable Enable

⑫ Quick: Disable Enable

⑬ SYSLOG: Disable Enable

⑧ Source Port

Select the source port to filter.

Filters the packets from the port specified by TCP/UDP number.

There are two ways to specify the port number.

• **Specifying by number**

1. Select [Common].
2. Enter the port number to [Common (Start)—(End)].

When you use a specific port, enter the only start point, or enter the same number to both start and end point.

Port number range: 1 to 65535 (in decimal)

• **Specifying by mnemonic**

Select other than [Any] and [Common].

Selectable mnemonics are [DNS], [Finger], [FTP], [Gopher], [NEWS], [POP3], [SMTP], [Telnet], [Web] and [Whois].

- When [Any] is selected, all types of port number are filtered.

■ IP Filter (continued)

IP Filter

① No.:

② Entry: Disable Enable

③ Action: Block Pass

④ Direction: In Out

⑤ Source IP Address: Mask 32

⑥ Destination IP Address: Mask 32

⑦ Protocol: TCP Custom Value:

⑧ Source Port: Any Custom Value: -

⑨ Destination Port: Any Custom Value: -

⑩ TCP Flags: URG ACK PSH RST SYN FIN

Options

⑪ Stateful Packet Inspection (SPI): Disable Enable

⑫ Quick: Disable Enable

⑬ SYSLOG: Disable Enable

⑨ Destination Port Select the destination port to filter.

Filters the packets from the specified TCP/UDP port number.

There are two ways to specify the port number.

• **Specifying by number**

1. Select [Custom].
2. Enter the port number to [Custom (Start)–(end)].

When you use a specific port, enter the only start point, or enter the same number to both start and end point.

Port number range: 1 to 65535 (in decimal)

• **Specifying by mnemonic**

Select other than [Any] and [Custom].

Selectable mnemonics are [DNS], [Finger], [FTP], [Gopher], [NEWS], [POP3], [SMTP], [Telnet], [Web] and [Whois].

- When [Any] is selected, all types of the port number are filtered.

■ IP Filter (continued)

IP Filter

① No.: ▼

② Entry: Disable Enable

③ Action: Block Pass

④ Direction: In Out

⑤ Source IP Address: Mask: ▼

⑥ Destination IP Address: Mask: ▼

⑦ Protocol: ▼ Custom Value:

⑧ Source Port: ▼ Custom Value: -

⑨ Destination Port: ▼ Custom Value: -

⑩ TCP Flags: URG ACK PSH RST SYN FIN

Options

⑪ Stateful Packet Inspection (SPI): Disable Enable

⑫ Quick: Disable Enable

⑬ SYSLOG: Disable Enable

⑩ TCP Flags Select the TCP flag to filter.

Filters the packets with the specified TCP flag.

- The first character of the selected flag is displayed in [List of IP Filter Entries]. (example: ACK and RST are selected)

List of IP Filter Entries				
No.	Action	Protocol (TCP Flags)	Source IP Address (Source Port)	SPI
	Direction		Destination IP Address (Destination Port)	Quick SYSLOG
1	Block	TCP (AR)	*	Disable
	In		(*)	Enable
			(*)	Disable

- When [None] is selected, the packet is filtered regardless of the TCP flag.

■ IP Filter (continued)

IP Filter

① No.:	<input type="text"/> ▼
② Entry:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
③ Action:	<input type="radio"/> Block <input checked="" type="radio"/> Pass
④ Direction:	<input checked="" type="radio"/> In <input type="radio"/> Out
⑤ Source IP Address:	<input type="text"/> Mask <input type="text"/> 32 ▼
⑥ Destination IP Address:	<input type="text"/> Mask <input type="text"/> 32 ▼
⑦ Protocol:	TCP ▼ Custom Value: <input type="text"/>
⑧ Source Port:	Any ▼ Custom Value: <input type="text"/> - <input type="text"/>
⑨ Destination Port:	Any ▼ Custom Value: <input type="text"/> - <input type="text"/>
⑩ TCP Flags:	<input type="checkbox"/> URG <input type="checkbox"/> ACK <input type="checkbox"/> PSH <input type="checkbox"/> RST <input type="checkbox"/> SYN <input type="checkbox"/> FIN
Options	
⑪ Stateful Packet Inspection (SPI):	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
⑫ Quick:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑬ SYSLOG:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

⑪ Stateful Packet Inspection (SPI)

.....

Select "Enable" to pass the RX packets that meets the filter condition.

(Default: Disable)

- When you select "Block" in [Action](③), you cannot select "Enable."

⑫ Quick:

.....

Select [Enable] to resume the filtering even when the packet matches the filter condition.

When [Enable] is selected, following filtering is skipped when the packet matches the filter condition. (Default: Disable)

■ IP Filter (continued)

IP Filter

① No.:

② Entry: Disable Enable

③ Action: Block Pass

④ Direction: In Out

⑤ Source IP Address: Mask

⑥ Destination IP Address: Mask

⑦ Protocol: Custom Value:

⑧ Source Port: Custom Value: -

⑨ Destination Port: Custom Value: -

⑩ TCP Flags: URG ACK PSH RST SYN FIN

Options

⑪ Stateful Packet Inspection (SPI): Disable Enable

⑫ Quick: Disable Enable

⑬ SYSLOG: Disable Enable

⑬ SYSLOG Select "Enable" to output the SYSLOG.

(Default: Disable)

- The SYSLOG is displayed on the [SYSLOG] screen in the [Information] menu.
- This function may affect the system performance. We recommend not using this except for the testing purpose.

■ List of IP Filter Entries

List of IP Filter Entries

No.	Action	Protocol (TCP Flags)	Source IP Address (Source Port)	SPI	
	Direction		Destination IP Address (Destination Port)	Quick SYSLOG	
1 (off)	Block	TCP (AR)	* (*)	Disable	① ② <input type="button" value="Edit"/> <input type="button" value="Delete"/>
	In		* (*)	Disable	
	Pass		* (*)	Enable	

• This is an example.

[About the default IP filter settings]

- No. 1 : Blocks all incoming packets, except the acknowledge packets for outgoing packets.
- No. 2 : Passes through all outgoing packets and its acknowledge packet.
- No. 58 : Passes through the FTP packets.
- No. 59 to 64 : Prevents an authorized access and remote control.
- "*" indicates that all options for the item are selected.

① <Edit> Click to edit the filter setting.
The filter setting is loaded to the [IP Filter] field.

② <Delete> Click to clear the filter setting.

■ ICMP Stealth

Select the ICMP stealth mode function option.

ICMP Stealth

- ① ICMP Stealth: Disable Enable
- ② SYSLOG: Disable Enable

① ICMP Stealth..... Select "Enable" to enable the ICMP Stealth function. (Default: Enable)

② SYSLOG Select "Enable" to output the SYSLOG, when an Echo request (Ping) is received through the WAN port. (Default: Disable)

When an ICMP Echo request (Ping) is received through the WAN port, the SYSLOG (as "NOTICE" level) is also output regardless of the ICMP Stealth setting.

- The SYSLOG is displayed on the [SYSLOG] screen in the [Information] menu.
- This function may affect the system performance. We recommend not using this except for the testing purpose.

■ Operating Mode

Select the operating mode.

- Some settings return to their default settings, when the operating mode is changed.

Operating Mode

Operating Mode:

Operating mode Select the operating mode. (Default: Bridge)

• Bridge

When communicating between 2 transceivers through the IP network, select this mode.

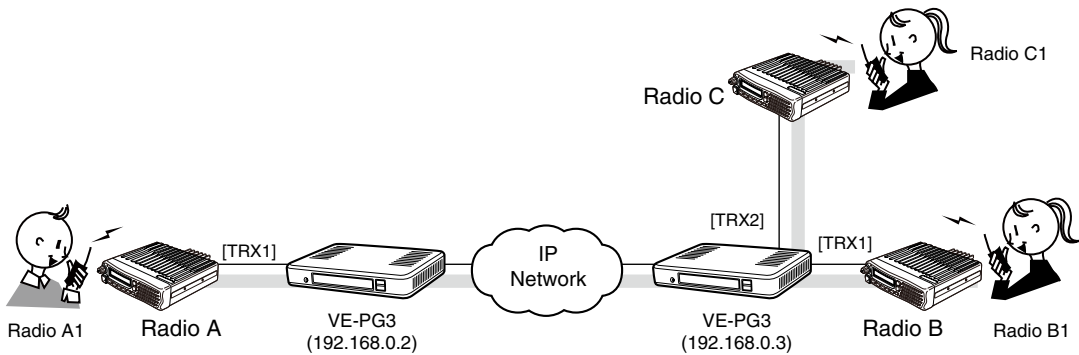
Select the communication mode (Multicast mode or Unicast mode) when the connected transceivers and external devices send an audio signal to the IP network.

• Converter

See the section 6 for the Converter mode.

About the Multicast mode

The Multicast mode is selected as the default.



An example of communication in the Multicast mode

■ Operating mode (continued)

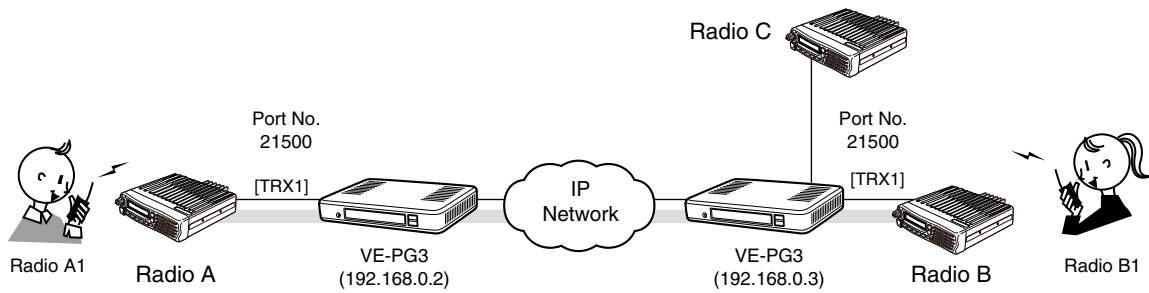
Operating Mode

Operating Mode:

Operating mode (continued)

About the Unicast mode

The VE-PG3 specifies the call destination according to the port number and IP address.



An example of communication in the Unicast mode

EXT I/O Port Mode

Select the input or output mode for each port.

- Some settings return to their default settings, when the port mode is changed.

EXT I/O Port Mode

EXT I/O 1 (EXT1)

① Connection Unit:
 ② EXT I/O Port Mode:

EXT I/O 2 (EXT2)

① Connection Unit:
 ② EXT I/O Port Mode:

① Connection Unit Select the device to connect to the [EXT] (1/2) port, from [EXT I/O Unit] and [Transceiver]. (Default: EXT I/O Unit)

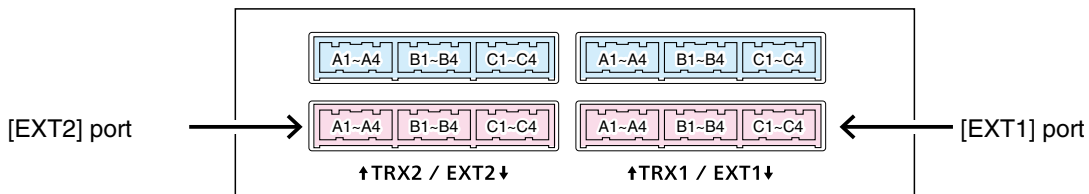
② EXT I/O Port Mode Select the I/O mode from [Separate] and [Combined]. (Default: Separate)
 • If [Transceiver] is selected in [Connection Unit] (①), this item is not displayed.

• Separate

You can separately connect 2 devices to the [EXT] (1/2) ports.
 (Connection Example: Connect the microphone to the [EXT] (1) port and the external amplifier to the [EXT] (2) port.)

• Combined

You can only connect one device to the [EXT] (1/2) port.
 (Connection Example : Connect the headset to the [EXT] (1) and [EXT] (2) ports.)



VE-PG3 (Rear view)

- See Section 8 for port details.

IP Communication Mode

Select the IP communication mode (Multicast mode or Unicast mode) when the connected transceivers and external devices send an audio signal to the IP network.

- Some settings return to their default settings, when the IP communication mode is changed.

IP Communication Mode

After changing [IP Communication Mode], Bridge connection is initialized.

Port	① IP Communication Mode	② CT-24 Assignment
Transceiver 1 (TRX1)	Unicast ▼	<input type="checkbox"/>
Transceiver 2 (TRX2)	Multicast ▼	<input type="checkbox"/>
Digital Transceiver 1 (D-TRX1)	Unicast ▼	<input type="checkbox"/>
Digital Transceiver 2 (D-TRX2)	Unicast ▼	<input type="checkbox"/>
Digital Transceiver 3 (D-TRX3)	Unicast ▼	<input type="checkbox"/>
Digital Transceiver 4 (D-TRX4)	Unicast ▼	<input type="checkbox"/>
EXT Input 1 (EXT1)	Unicast ▼	<input type="checkbox"/>
EXT Output1 (EXT1)	Unicast ▼	<input type="checkbox"/>
EXT Input 2 (EXT2)	Unicast ▼	<input type="checkbox"/>
EXT Output2 (EXT2)	Unicast ▼	<input type="checkbox"/>
Emergency Notice	Unicast ▼	<input type="checkbox"/>

- This is an example.

① IP Communication Mode... Select the communication mode of the ports from “Multicast mode” and “Unicast mode.” (Default: Unicast)

• **Multicast**

Communicate between the VE-PG3s with the same Multicast IP address.

• **Unicast**

Communicate between the VE-PG3s with the same IP address or domain name.

② CT-24 Assignment Enter a check mark when using the optional CT-24, to communicate with the IC-FR5000/FR6000.

■ Mixing Group

The mixing function mixes conversations from different areas.

Mixing Group

Port	Mixing Group				
	None	Group1	Group2	Group3	Group4
Transceiver 1 (TRX1)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transceiver 2 (TRX2)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Transceiver 1 (D-TRX1)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Transceiver 2 (D-TRX2)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Transceiver 3 (D-TRX3)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Transceiver 4 (D-TRX4)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EXT Input1 (EXT1)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EXT Output1 (EXT1)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EXT Input2 (EXT2)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EXT Output2 (EXT2)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the above example, the audio signal of the [TRX1] port and [TRX2] port are mixed with.

- The port which is set to [None] can communicate with the call destination, which is set in the [Bridge Connection] screen.
- Each port can only belong to one group.

5 BRIDGE MODE SETTING SCREEN

■ Bridge Connection Point

The network setting to operate in the Bridge mode.

Bridge Connection Point

① Port Type:	Digital Transceiver 1 (D-TRX1) ▼
② SelCall in Bridge Connection:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ Connection IP Address:	<input type="text"/>
④ Connection Port Number:	21504
⑤ My Station Port Number:	21504
⑥ Voice Codec:	G.711u ▼

- The screen may differ depending on the setting.

- ① Port Type Select the type of port to connect the device.
(Default: Differ depending on the setting.)
- You cannot select a port which has already been used.
- ② SelCall in Bridge Connection Select "Enable" to connect to the destination set in [List of SelCall in Bridge Connection Entries] on the [SelCall in Bridge Connection]. (Default: Disable)
- When you select "Enable," you can make an individual call with a digital transceiver.

5 BRIDGE MODE SETTING SCREEN

7. [Bridge Connection] Menu

[Bridge Connection]–[Bridge Connection]

■ Bridge Connection Point (continued)

Bridge Connection Point

① Port Type:	Digital Transceiver 1 (D-TRX1) ▼
② SelCall in Bridge Connection:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ Connection IP Address:	<input type="text"/>
④ Connection Port Number:	21504
⑤ My Station Port Number:	21504
⑥ Voice Codec:	G.711u ▼

③ Connection IP Address ...

This item differs, depending on the mode setting.

- When [Unicast] is selected in [IP Communication Mode].
Enter the destination, VE-PG3's IP address or domain name. (Up to 63 characters)
- When [Multicast] is selected in [IP Communication Mode].
Enter the destination VE-PG3's Destination IP address.
To operate the VE-PG3 in the Multicast mode, set ALL the VE-PG3s' Connection IP address to the same one.
- The setting range: "224.0.0.0" to "239.255.255.255"
- When using only one VE-PG3 for the individual Call, group Call or in-house sound system:
Enter a dummy IP address (to be not used in any situation) when call destination is other than to a digital transceiver.
Set the port number which is not used for [Connection Port Number:](④).

■ Bridge Connection Point (continued)

Bridge Connection Point

① Port Type:	Digital Transceiver 1 (D-TRX1) ▼
② SelCall in Bridge Connection:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ Connection IP Address:	<input type="text"/>
④ Connection Port Number:	21504
⑤ My Station Port Number:	21504
⑥ Voice Codec:	G.711u ▼

④ Connection Port Number

Enter the destination's VE-PG3 port number.

(Enter the same port number as in the [My Station Port Number](⑤) item.)

- Setting range: Even numbers between 2 and 65534

(Some numbers may not be acceptable.)

- The set port number (RTP) and the port number +1 (RTCP) are used for the communication.
- When using in the Unicast mode, do not set the port number which has already been used by another connection setting.
- The default number differs, depending on the setting as shown below.

(Default: 21504(Digital Transceiver 1(D-TRX1)),
 21506(Digital Transceiver 2(D-TRX2)),
 21508(Digital Transceiver 3(D-TRX3)),
 21510(Digital Transceiver 4(D-TRX4)),
 21520(Emergency),

When [IP Communication Mode] is set to [Unicast]:

21500(Transceiver 1(TRX1)),
 21502(Transceiver 2(TRX2)),
 21512(External Input1 (EXT1), External I/O 1(EXT1)),
 21514(External Output1 (EXT1)),
 21516(External Input2 (EXT2), External I/O 2(EXT2)),
 21518(External Output2 (EXT2)),

When [IP Communication Mode] is set to [Multicast]:

22510(Transceiver 1(TRX1), Transceiver 2(TRX2), External Input1 (EXT1), External Output1 (EXT1), External I/O 1(EXT1), External Input2 (EXT2), External Output2 (EXT2), External I/O 2(EXT2))

■ Bridge Connection Point (continued)

Bridge Connection Point

① Port Type:	Digital Transceiver 1 (D-TRX1) ▼
② SalCall in Bridge Connection:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ Connection IP Address:	<input type="text"/>
④ Connection Port Number:	21504
⑤ My Station Port Number:	21504
⑥ Voice Codec:	G.711u ▼

⑤ My Station Port Number ...

Enter the port number to receive the audio signal.

- This port number is also for the audio transmit port.
- Setting range: Even numbers between 2 and 65534
(Some numbers may not be acceptable.)
- The set port number (RTP) and the port number +1 (RTCP) are used for the communication.
- When using in the Unicast mode, do not set the port number which is already used by another connection setting.
- The default number differs, depending on the setting.

(Default: 21504(Digital Transceiver1(D-TRX1)),
21506(Digital Transceiver2(D-TRX2)),
21508(Digital Transceiver3(D-TRX3)),
21510(Digital Transceiver4(D-TRX4)),
21520(Emergency Notice),

When [IP Communication Mode] is set to [Unicast]:

21500(Transceiver1(TRX1)),
21502(Transceiver2(TRX2)),
21512(External Input1 (EXT1), External I/O 1(EXT1)),
21514(External Output1 (EXT1)),
21516(External Input2 (EXT2), External I/O 2(EXT2)),
21518(External Output2 (EXT2)),

When [IP Communication Mode] is set to [Multicast]:

22510(Transceiver1(TRX1), Transceiver2(TRX2), External
Input1 (EXT1), External Output1 (EXT1), External I/O
1(EXT1), External Input2 (EXT2), External Output2 (EXT2),
External I/O 2(EXT2))

5 BRIDGE MODE SETTING SCREEN

■ Bridge Connection Point (continued)

Bridge Connection Point

① Port Type:	Digital Transceiver 1 (D-TRX1) ▼
② SelCall in Bridge Connection:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ Connection IP Address:	<input type="text"/>
④ Connection Port Number:	21504
⑤ My Station Port Number:	21504
⑥ Voice Codec:	G.711u ▼

⑥ Voice Codec Select the codec type from [G.711u] and [AMBE+2]. (Default: G.711u)

5 BRIDGE MODE SETTING SCREEN

7. [Bridge Connection] Menu (continued)

[Bridge Connection]–[Bridge Connection]

■ Bridge Connection Point List

The list of the connection status and setting of connected radio or device.

List of Bridge Connection Point Entries

Port Type	Connection IP Address	Port Number		Voice Codec	Connection Status	Action		
		Connection	My Station			②	③	④
Transceiver 1 (TRX1)	239.255.255.1	22510	22510	G.711u	During transmit	Disconnect	Edit	Delete
Transceiver 2 (TRX2)	239.255.255.1	22510	22510	G.711u	During transmit	Disconnect	Edit	Delete

① Refresh
Delete All
⑤

- ① <Refresh> Click to refresh the list.
- ② <Connect>/<Disconnect> Click to connect or disconnect the communication route.
 • Before editing or deleting the setting, disconnect the communication.
- ③ <Edit> Click to edit the setting on the [Bridge Connection Point] field.
- ④ <Delete> Click to delete the setting.
- ⑤ <Delete All> Click to delete all entered settings.

■ Save or Write SelCall in Bridge Connection Setting

You can load or save the connection setting.

Save or Write the SelCall in Bridge Connection Setting

① Load Settings from File:
A CSV format file can be written to this product.
When the file is written, the current settings will be overwritten.

② Save to File: Save to [bridge_route.csv](#) file.

- ① Load a Save Setting File You can reload the saved [SelCall in Bridge Connection Setting fle] (Extension:csv) file, and write it to the VE-PG3.
Click <Browse...>, and select the [SelCall in Bridge Connection Setting fle] (Example: bridge_route.csv) to load.
Verify that the selected file is displayed, and then click <Write>.
- The contents of the file is loaded to [SelCall in Bridge Connection List].
- ② Save to the File..... Click to save the [SelCall in Bridge Connection List] contents in the PC, as the [SelCall in Bridge Connection] file (Extension: csv).
- You can edit the saved file on a spreadsheet.

5 BRIDGE MODE SETTING SCREEN

7. [Bridge Connection] Menu (continued)

[Bridge Connection]–[SelCall in Bridge Connection]

■ SelCall in Bridge Connection

Configure the rule of individual Callee destination in the Bridge mode.
The communication route is connected according to this setting.

SelCall in Bridge Connection

① Index	② Name	③ Call Type	④ Prefix ID	⑤ Destination ID	Destination SelCall in Bridge Connection		⑧
					⑥ Address	⑦ Port Number	
2		Individual					Add

① Index The index assigned for the entry. (Default: 1)
Setting range: "1" to "1000"

② Name You can name the setting. (Up to 31 characters)

③ Call Type Select the type of call. (Default: Individual)

- Individual : Call only specified radio.
- Group : Call all radios that belong to the specified group.
- All : Call all radios.

④ Prefix ID Enter the prefix ID of the SelCall destination.
ID range: (Depending on the system mode)

⑤ Destination ID Enter the ID of the SelCall destination.
ID range: (Depending on the system mode)

Destination SelCall in Bridge Connection

⑥ Address Enter the VE-PG3's IP address which is connected to the radio that communicates with the SelCall destination.

⑦ Port Number Enter the VE-PG3's port number which is connected to the radio that communicates with the SelCall destination.

⑧ <Add> Click to add a SelCall rule to the [SelCall in Bridge Connection List].

5 BRIDGE MODE SETTING SCREEN

7. [Bridge Connection] Menu (continued)

[Bridge Connection]–[SelCall in Bridge Connection]

■ SelCall in Bridge Connection List

The list of Bridge Connection setting.

List of SelCall in Bridge Connection Entries

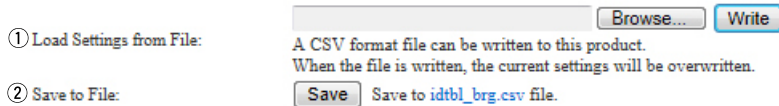
Index	Name	Call Type	Prefix ID	Destination ID	Destination SelCall in Bridge Connection		①	②
					Address	Port Number		
1	Radiol	Individual	1	123	192.168.0.1	50002	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
<input type="button" value="Delete All"/>								

- ① <Edit> Click to edit the setting on [SelCall in Bridge Connection List].
- ② <Delete> Click to delete the setting.
- ③ <Delete all> Click to delete all entered settings.

■ Save or Write SelCall Number Converting Setting

You can load or save the setting which connects the destination's SelCall number (Prefix ID and ID) and the convert destination's SelCall number (Prefix ID and ID).

Save or Write the SelCall Number Converting Setting



① Load a Save Setting File

You can reload the saved [SelCall Number Converting Setting] file (Extension: csv) and write it to the VE-PG3.

Click <Browse...>, and select the [SelCall Number Converting Setting] file (Example: idtbl_brg.csv) to load.

Verify that the selected file is displayed, and then click <Write>.

- The contents of the file is loaded to [List of SelCall Number Converting Entries].

② Save to the File.....

Click <Save> to save the [List of SelCall Number Converting Entries] table in the PC, as the [SelCall Number Converting Setting] file (Extension: csv).

- You can edit the saved file on a spreadsheet.

5 BRIDGE MODE SETTING SCREEN

7. [Bridge Connection] Menu (continued)

[Bridge Connection]–[SelCall Number Converting]

■ About the SelCall Number Converting

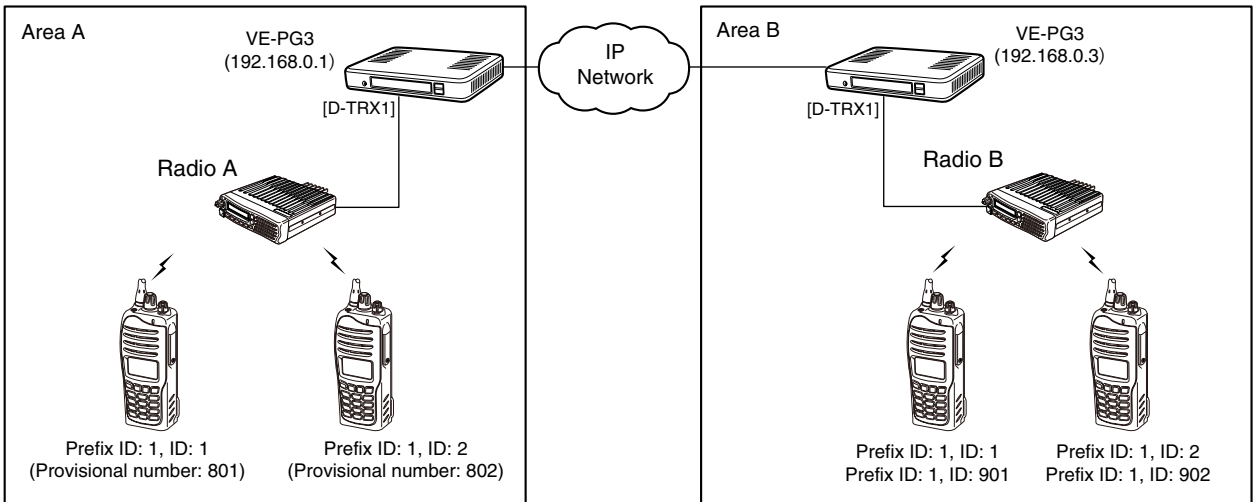
When a SelCall number is shared beyond the site, you cannot call a radio across the site due to "SelCall number duplication." The SelCall Number Convert function solves this problem by automatically converting the SelCall number.

Here is an example to show how the function works.

The radio in area A (ID=1) is calling the radio in area B (ID=2) using a provisionally assigned SelCall number (902).

The provisionally assigned SelCall number is converted into the actual one (902 to 2), according to the number conversion table.

Thus they can talk each other across the sites.



- The conversion table for the above example.

Index	Name	Destination			Convert Destination				
		Call Type	Prefix ID	ID	Call Type	Prefix ID	ID	Edit	Delete
1	Radio B1	Individual	1	901	Individual	1	1	Edit	Delete
2	Radio B2	Individual	1	902	Individual	1	2	Edit	Delete
3	Radio A1	Individual	1	1	Individual	1	801	Edit	Delete
4	Radio A2	Individual	1	2	Individual	1	802	Edit	Delete

5 BRIDGE MODE SETTING SCREEN

7. [Bridge Connection] Menu (continued)

[Bridge Connection]–[SelCall Number Converting]

■ SelCall Number Converting

Even when a SelCall number is shared in several sites, you can call a radio in different site by using the provisionally assigned SelCall destination ID.

SelCall Number Converting

① Index	② Name	Destination			Convert Destination			⑨ Add
		③ Call Type	④ Prefix ID	⑤ ID	⑥ Call Type	⑦ Prefix ID	⑧ ID	
2		Individual			Individual			

- ① Index The index assigned for the entry.
Index range: "1" to "1000" (Default: 1)

- ② Name You can name the setting. (Up to 31 characters)

- Destination
- ③ Call Type Select the type of call. (Default: Individual)
 - Individual : Call only specified radio.
 - Group : Call all radios that belong to the specified group.
 - All : Call all radios.

- ④ Prefix ID Enter the SelCall prefix ID.

- ⑤ ID Enter a provisionally assigned SelCall destination ID.
ID range: (Depending on the system mode)

- Convert Destination
- ⑥ Call Type Select the call type. (Default: Individual)

- ⑦ Prefix ID Enter the SelCall destination's prefix ID.
ID range: (Depending on the system mode)

- ⑧ ID Enter the ID of the SelCall destination.
ID range: (Depending on the system mode)

- ⑨ <Add> Click to add a SelCall rule to the [List of SelCall Number Converting Entries].

5 BRIDGE MODE SETTING SCREEN

7. [Bridge Connection] Menu (continued)

[Bridge Connection]–[SelCall Number Converting]

■ List of SelCall Number Converting Entries

The list of SelCall Number Converting setting.

List of SelCall Number Converting Entries

Index	Name	Destination			Convert Destination			①	②
		Call Type	Prefix ID	ID	Call Type	Prefix ID	ID		
1	Radiol	Individual	1	123	Individual	11	123	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
								<input type="button" value="Delete All"/>	

③

- ① <Edit> Click to edit the setting on the [SelCall Number Converting] field.
- ② <Delete> Click to delete the setting.
- ③ <Delete all> Click to delete all entered settings.

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver Model

Select the radio to be connected to the [TRX1]/[TRX2] port.

Transceiver Model

Transceiver Model: *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 the radio to be connected to the [TRX1]/[TRX2] port.
(Default: IC-F5060/F6060)

- If your radio needs detailed setting, select "General Setting."

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

Transceiver Connection "General Setting"

The setting screen when "General Setting" is selected in [Transceiver Mode].

Transceiver Connection	
① TX Volume Offset to the Transceiver:	-22 dB
② RX Volume Offset from the Transceiver:	-24 dB
③ PTT Type:	<input checked="" type="radio"/> Single PTT <input type="radio"/> Superimposed PTT
④ PTT Logic:	<input type="radio"/> High <input checked="" type="radio"/> Low
⑤ SQL Type:	<input checked="" type="radio"/> Single SQL <input type="radio"/> Superimposed SQL
⑥ SQL Logic:	<input checked="" type="radio"/> High <input type="radio"/> Low
⑦ Power Detection:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑧ Power Detection Signal Logic:	<input checked="" type="radio"/> High <input type="radio"/> Low
⑨ Send and Receive Change:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
⑩ Serial Communication:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑪ TCP Port Number:	50000
⑫ Communication Control:	<input checked="" type="radio"/> Full-Duplex <input type="radio"/> Half-Duplex
⑬ Signal Level:	±5V (RS-232C)

*Appears only when "Enable" is selected in [Power Detection].

**Appears only when "Enable" is selected in [Serial Communication].

① TX Volume Offset to Transceiver:

..... Adjust the VE-PG3's transmitting audio level that is sent to the connected transceiver between "15" and "-30" (dB). (Default: -22)

② RX Volume Offset from Transceiver:

..... Adjust the VE-PG3's audio level from the transceiver between "+26" to "-26" (dB). (Default: -24)

③ PTT Type

Select the PTT circuit type. (Default: Single PTT)

- Single PTT: The speaker line and PTT input line are separated.
- Superimposed PTT: The PTT input line is superimposed on the MIC input (A1 terminal).

④ PTT Logic

Select the PTT logic. (Default: Low)

- **High:** PTT line becomes "High" when [PTT] is pushed. (Active High)
- **Low:** PTT line becomes "Low" when [PTT] is pushed. (Active Low)

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

Transceiver 1 (TRX1)/Transceiver 2 (TRX2)(continued) "General Setting"

Transceiver Connection	
① TX Volume Offset to the Transceiver:	-22 dB
② RX Volume Offset from the Transceiver:	-24 dB
③ PTT Type:	<input checked="" type="radio"/> Single PTT <input type="radio"/> Superimposed PTT
④ PTT Logic:	<input type="radio"/> High <input checked="" type="radio"/> Low
⑤ SQL Type:	<input checked="" type="radio"/> Single SQL <input type="radio"/> Superimposed SQL
⑥ SQL Logic:	<input checked="" type="radio"/> High <input type="radio"/> Low
⑦ Power Detection:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑧ Power Detection Signal Logic:	<input checked="" type="radio"/> High <input type="radio"/> Low
⑨ Send and Receive Change:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
⑩ Serial Communication:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑪ TCP Port Number:	50000
⑫ Communication Control:	<input checked="" type="radio"/> Full-Duplex <input type="radio"/> Half-Duplex
⑬ Signal Level:	±5V (RS-232C)

*Appears only when “Enable” is selected in [Power Detection].

**Appears only when “Enable” is selected in [Serial Communication].

- ⑤ SQL Type Select the squelch signal type. (Default: Single SQL)
- Single SQL: The squelch signal is separately input.
 - Superimposed SQL: The squelch signal is superimposed on the MIC input line.
- ⑥ SQL Logic Select the squelch detection type. (Default: High)
- **High:** The squelch line becomes “High” while receiving signal. (Active High)
 - **Low:** The squelch line becomes “Low” while receiving signal. (Active Low)
- ⑦ Power Detection Select “Enable” to detect the power status (ON/OFF) of the radio. (Default: Disable)
- ⑧ Power Detection Signal Logic
- Select the logic to detect the power status (ON/OFF) of the radio. (Default: High)
- High: Becomes High when the radio’s power is ON. (Active high)
 - Low: Becomes Low when the radio’s power is ON. (Active low)

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

Transceiver 1 (TRX1)/Transceiver 2 (TRX2)(continued) "General Setting"

Transceiver Connection

- ① TX Volume Offset to the Transceiver: dB
- ② RX Volume Offset from the Transceiver: dB
- ③ PTT Type: Single PTT Superimposed PTT
- ④ PTT Logic: High Low
- ⑤ SQL Type: Single SQL Superimposed SQL
- ⑥ SQL Logic: High Low
- ⑦ Power Detection: Disable Enable
- ⑧ Power Detection Signal Logic: High Low
- ⑨ Send and Receive Change: Disable Enable
- ⑩ Serial Communication: Disable Enable
- ⑪ TCP Port Number:
- ⑫ Communication Control: Full-Duplex Half-Duplex
- ⑬ Signal Level:

*Appears only when "Enable" is selected in [Power Detection].

**Appears only when "Enable" is selected in [Serial Communication].

- ⑨ Send and Receive Change... Select "Enable" for one common usage line as the MIC input (A1 terminal) and AF output (A3 terminal). (Default: Disable)
If your radio commonly uses one line as the MIC input and AF output, select "Enable".
- ⑩ Serial Communication Select "Enable" to use the serial communication. (Default: Disable)
- ⑪ TCP Port Number Enter the port number between 1024 and 65535. (Default: TRX1=50000, TRX2=50001)
- ⑫ Communication Control ... Select the communication type. (Default: Full duplex)
- ⑬ Signal Level Select the serial communication line signal level. (Default: ±5 V (RS-232C))

■ Bridge Connection Communicate

Set the Bridge connection details for the [TRX1]/[TRX2] port.

Bridge Communication

① Encryption: Disable Enable

② Talk-Back: Disable Enable Talk-Back Time sec

Default Callee ID

③ Default Callee ID: Disable Enable

① Encryption Select "Enable" to encrypt the communication. (Default: Disable)
• When you select "Enable," enter the appropriate key to [Encryption Key].

② Talk-Back Select "Enable" to enable the Talk-Back. (Default: Enable, 5 (sec))
• When you select "Enable," select the Talk-Back Time between 1 and 10 (second).

Default Callee ID

③ Default Callee ID Select "Enable" to add the destination ID to the transmit signal. (Default: Disable)

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver Control

Set the transceiver control details for the [TRX1]/[TRX2] port.

Transceiver Control

① Priority Receive: Disable Enable

② Audio Transmission Methods to the Transceiver: VOX

③ Audio Detection Methods from the Transceiver: VOX *SQL is only available in the corresponding radio.

④ TX Volume: 0 dB

⑤ RX Volume: 0 dB

⑥ Transceiver's Beep Invalidation Time: 400 milliseconds *Setting values is set in five milliseconds steps.

① Priority Receive Select "Enable" to keep receiving, even if the transceiver detects the received audio. (Default: Disable)

② Audio Transmission Methods to the Transceiver

Select the Audio Transmission Method.

"General Setting" (Default: VOX)

Other than "General Setting" (Default: RTP)

- VOX : Sends the audio signal and enables the PTT, when the input audio signal level exceeds the threshold level.
- RTP : Sends the audio signal and enables the PTT, while receiving the RTP packet,

"General Setting"

- PTT Always-on : The VE-PG3 always sends the PTT control signal to the radio to transmit.

"General Setting"

- PTT Always-off : The VE-PG3 doesn't send the PTT control signal to the radio.

③ Audio Detection Methods from the Transceiver:

..... Select the Audio Detection Method (Default: VOX)

- VOX : According to the input audio signal level.
- SQL : According to the squelch status (Open/Close).

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver Control (continued)

Transceiver Control

① Priority Receive: Disable Enable

② Audio Transmission Methods to the Transceiver: VOX

③ Audio Detection Methods from the Transceiver: VOX *SQL is only available in the corresponding radio.

④ TX Volume: 0 dB

⑤ RX Volume: 0 dB

⑥ Transceiver's Beep Invalidation Time: 400 milliseconds *Setting values is set in five milliseconds steps.

- ④ TX Volume Adjust the VE-PG3's transmitting audio level that is sent to the connected transceiver between "+6" and "-12" (dB). (Default: 0)

- ⑤ RX Volume Adjust the VE-PG3's audio output level of the audio signal that is received from the connected transceiver between "+6" to "-12" (dB). (Default: 0)

- ⑥ Transceiver's Beep Invalidation Time
Enter the time period to mute the audio (including beep signal) from the connected radio. (Default: 400)
Range: "0" to "1000" (in 5 milliseconds step)

■ Voice Transmission Control to the Transceiver

The VOX (voice operated transmission) function automatically switches the connected transceiver to transmit, when the VE-PG3 receives the audio signal through the network.

Voice Transmission Control to the Transceiver

*Setting values of attack time, release time and voice delay are set in five milliseconds steps.

① Attack Time:	50	milliseconds
② Release Time:	500	milliseconds
③ Voice Delay:	200	milliseconds
④ Voice Threshold:	40	%

① Attack Time Enter the TX delay time in 5 milliseconds step. (Default: 50)
 Range: 5 to 500 milliseconds
 The time is the delay before the VOX switch turns ON after an audio signal is received through the network.

② Release Time Select the RX delay time in 5 milliseconds step. (Default: 500)
 Range: 5 to 2000 milliseconds
 It is the delay time for the VOX switch to turn OFF, after no audio signal is received through the network.

③ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 200)
 Range: 0 to 500 milliseconds

④ Voice Threshold Set the voice threshold level. (Default: 40)
 Range: 0 to 100 %

The VOX function automatically switches between receive and transmit according to this threshold level.
 Lower values make the VOX function more sensitive to the audio signal.

■ Voice Reception Control from the Transceiver

The VOX (voice operated transmission) function automatically switches the connected transceiver to transmit, when the VE-PG3 receives an audio signal through the network.

Audio Detection Methods from the Transceiver: VOX

Voice Reception Control from the Transceiver

*Setting values of attack time, release time and voice delay are set in five milliseconds steps.

- ① Attack Time: milliseconds
- ② Release Time: milliseconds
- ③ Voice Delay: milliseconds
- ④ Voice Threshold: %

Audio Detection Methods from the Transceiver: SQL

Voice Reception Control from the Transceiver

*Setting values of release time and voice delay are set in five milliseconds steps.

- Release Time: milliseconds
- Voice Delay: milliseconds
- Ignore Time: milliseconds

- ① Attack Time Enter the RX delay time in 5 milliseconds step. (Default: 50)
Range: 5 to 500 milliseconds
It is the delay time period before the VE-PG3 to output the audio signal to the port.
- ② Release Time Select the RX delay time in 5 milliseconds step. (Default: 200)
Range: 5 to 2000 milliseconds
The delay time for the VE-PG3 to output the control signal to the network which informs that the audio signal is no longer received.
- ③ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 5)
Range: 0 to 500 milliseconds
- ④ Voice Threshold Set the voice threshold level. (Default: 40)
Range: 0 to 100 %

The audio signal is output to the network according to this threshold level.

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]—[Digital Transceiver 1 (D-TRX1)]—
[Digital Transceiver 4 (D-TRX4)]

■ Digital Transceiver Model Mode: NXDN Trunking

Select the mode from the Trunking and Conventional.

Digital Transceiver Model

Mode: NXDN Trunking ▼

*Each setting is initialized after changing.

- Mode See page 5-74 for the [NXDN Trunking] mode.
See page 5-78 for the [NXDN Conventional] mode.

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu

[Port Settings]–[Digital Transceiver 1 (D-TRX1)]–
[Digital Transceiver 4 (D-TRX4)]

Digital Transceiver Connection Mode: NXDN Trunking

Set the details to connect to the UC-FR5000 Network Controller..

Digital Transceiver Connection

① Repeater Address:	<input type="text"/>
② Repeater Port Number:	<input type="text" value="41220"/>
③ Local Port Number:	<input type="text" value="43000"/>
④ Connect Key:	<input type="text" value="ucfr5000"/>
⑤ Area Bit:	<input checked="" type="radio"/> OFF <input type="radio"/> ON
⑥ Integrator Code:	<input type="text" value="1"/>
⑦ System Code:	<input type="text" value="1"/>
Unit	
⑧ Prefix ID:	<input type="text" value="1"/>
⑨ Unit ID:	<input type="text" value="1"/>
Talkgroup	
⑧ Prefix ID:	<input type="text" value="1"/>
⑨ Talkgroup ID:	<input type="text" value="1"/>

- ① Repeater Address Enter the UC-FR5000's IP address.

- ② Repeater Port Number ... Enter the Receive Port number which is set in the UC-FR5000.

- ③ Local Port Number Enter the Dest Port number which is set in the UC-FR5000.

- ④ Connect Key Enter the Key Code which is set in the UC-FR5000.

- ⑤ Area Bit Turn the Area Bit ON or OFF. (Default: OFF)

- ⑥ Integrator Code Enter the Integrator Code which is set in the UC-FR5000. (Default: 1)

- ⑦ System Code Enter the System Code which is set in the UC-FR5000. (Default: 1)

- Unit**
- ⑧ Prefix ID/Unit ID Enter the Prefix ID and Unit ID which is set in the UC-FR5000. (Default: 1 (for both))

- Talkgroup**
- ⑨ Prefix ID/Talkgroup ID Enter the Prefix ID and Talkgroup ID which is set in the UC-FR5000. (Default: 1 (for both))

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Digital Transceiver 1 (D-TRX1)]–
[Digital Transceiver 4 (D-TRX4)]

■ Digital Transceiver Connection (continued) Mode: NXDN Trunking

Encryption
⑩ Encryption: Disable Enable

Status
⑪ Connection Status: Not Connected Connection Refresh

⑩ Encryption Select "Enable" to encrypt the communication. (Default: Disable)
• When you select "Enable," enter the appropriate key to [Encryption Key].

Status
⑪ Connection Status Displays the communication status.

<Connection>

Click to connect to the UC-FR5000.

- "Connecting" appears when connected to the UC-FR5000.

<Reload>

Click to refresh the status.

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Digital Transceiver 1 (D-TRX1)]–
[Digital Transceiver 4 (D-TRX4)]

Digital Transceiver Communication Mode: NXDN Trunking

Set the calling details.

Digital Transceiver Communication

① Talk-Back: Disable Enable Talk-Back Time seconds

② RX All Call: Disable Enable

Default Callee ID

③ Call Type:

④ Destination Prefix ID:

⑤ Destination ID:

- ① Talk-Back Select "Enable" to enable the Talk-Back. (Default: Enable, 5 (sec))
 - When you select "Enable," select the Talk-Back Time between 1 and 10 (second).

- ② RX All Call Select "Enable" to permit all talkgroups to receive the call. (Default: Disable)

- Default Callee ID
- ③ Call Type Select the type of call. (Default: Group)
 - **Individual** : Call only specified radio.
 - **Group** : Call all radios that belong to the specified group.
 - **All** : Call all radios.

- ④ Destination Prefix ID Enter the destination prefix ID. (Default: 1)
ID range: (Depending on the system mode)

- ⑤ Destination ID Enter the destination ID. (Default: 1)
ID range: (Depending on the system mode)

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Digital Transceiver 1 (D-TRX1)]–
[Digital Transceiver 4 (D-TRX4)]

■ Digital Transceiver Communication Mode: NXDN Trunking

Set the calling details.

Digital Transceiver Communication

Talk-Back: Disable Enable Talk-Back Time seconds
RX All Call: Disable Enable
Default Callee ID
Call Type:
Destination Prefix ID:
Destination ID:

Talk-Back Select "Enable" to enable the Talk-Back. (Default: Enable, 5 (sec))
• When you select "Enable," select the Talk-Back Time between 1 and 10 (second).

■ Digital Transceiver Control Mode: NXDN Trunking

Set the calling details.

Digital Transceiver Control

Release Time: milliseconds

Release Time Select the RX delay time in 100 milliseconds step. (Default: 200)
Range: 200 to 1000 milliseconds
It is the delay time for the VOX switch to turn OFF after no audio signal is received.

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Digital Transceiver 1 (D-TRX1)]–
[Digital Transceiver 4 (D-TRX4)]

Digital Transceiver Connection Mode: NXDN Conventional

Set the details to connect to the UC-FR5000 Network Controller..

Digital Transceiver Connection

① Repeater Address:	<input type="text"/>
② TCP Port Number:	<input type="text" value="41203"/>
③ UDP Port Number:	<input type="text" value="41223"/>
④ Connect Key:	<input type="text" value="ucfr5000"/>
Packet Encryption:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Unit	
⑤ Unit ID:	<input type="text" value="1"/>
Talkgroup	
⑥ Talkgroup ID:	<input type="text" value="1"/>

- ① Repeater Address Enter the UC-FR5000's IP address.
- ② Repeater Port Number ... Enter the Receive Port number which is set in the UC-FR5000.
- ③ Local Port Number Enter the Dest Port number which is set in the UC-FR5000.
- ④ Connect Key Enter the Key Code which is set in the UC-FR5000.
- Unit**
- ⑤ Unit ID Enter the Prefix ID and Unit ID which is set in the UC-FR5000. (Default: 1)
- Talkgroup**
- ⑥ Talkgroup ID Enter the Talkgroup ID which is set in the UC-FR5000. (Default: 1)

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]—[Digital Transceiver 1 (D-TRX1)]—
[Digital Transceiver 4 (D-TRX4)]

■ Digital Transceiver Connection (continued) Mode: NXDN Conventional

RAN

① RX RAN:

② TX RAN: Appointment

Encryption

④ Encryption: Disable Enable

Status

⑤ Connection Status: Not Connected

RAN

- ① RX RAN Enter the RAN code for receiving. (Default: 1)
- ② TX RAN Enter the RAN code for transmitting. (Default: 1)
- ③ Appointment Enter the check mark when you separately set the TX RAN.
- ④ Encryption Select "Enable" to encrypt the communication. (Default: Disable)
 - When you select "Enable," enter the appropriate key to [Encryption Key].

Status

- ⑤ Connection Status Displays the communication status.
 - <Connection>
Click to connect to the UC-FR5000.
 - "Connecting" appears when connected to the UC-FR5000.
 - <Reload>
Click to refresh the status.

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Digital Transceiver 1 (D-TRX1)]–
[Digital Transceiver 4 (D-TRX4)]

■ Digital Transceiver Communication Mode: NXDN Conventional

Set the calling details.

Digital Transceiver Communication

① Talk-Back:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	Talk-Back Time	<input type="text" value="5"/>	seconds
② Digital SQL:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable			
③ RX All Call:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable			
Default Callee ID				
④ Call Type:	<input type="text" value="Group"/>			
⑤ Destination ID:	<input type="text" value="1"/>			

- ① Talk-Back Select “Enable” to enable the Talk-Back. (Default: Enable, 5 (sec))
 - When you select "Enable," select the Talk-Back Time between 1 and 10 (second).

- ② Digital SQL Select “Enable” to enable the digital squelch. (Default: Disable)

- ③ RX All Call Select “Enable” to permit all talkgroups to receive the call. (Default: Disable)

- Default Callee ID
- ④ Call Type Select the type of call. (Default: All)
 - **Individual** : Call only specified radio.
 - **Group** : Call all radios that belong to the specified group.
 - **All** : Call all radios.

- ⑤ Destination ID Enter the destination ID. (Default: 1)
ID range: (Depending on the system mode)

5 BRIDGE MODE SETTING SCREEN

8. [Port Settings] Menu (continued)

[Port Settings]–[Digital Transceiver 1 (D-TRX1)]–
[Digital Transceiver 4 (D-TRX4)]

■ Digital Transceiver Control Mode: NXDN Conventional

Set the calling details.

Digital Transceiver Control

Release Time: milliseconds

Release Time Select the RX delay time in 100 milliseconds step. (Default: 200)
Range: 200 to 1000 milliseconds
It is the delay time for the VOX switch to turn OFF after no audio signal is received.

■ Bridge Communication

Set the details of the input audio from the [EXT1]/[EXT2] port.

Bridge Communication

① Encryption:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Talk-Back:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable Talk-Back Time <input type="text" value="5"/> seconds
Default Callee ID	
② Default Callee ID:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
③ Call Type:	<input type="text" value="Group"/>
④ Destination Prefix ID:	<input type="text"/>
⑤ Destination ID:	<input type="text" value="1"/>
⑥ My Station Prefix ID:	<input type="text"/>
⑦ My Station ID:	<input type="text" value="1"/>

- ① Encryption Select “Enable” to encrypt the communication. (Default: Disable)
 • When you select "Enable," enter the appropriate key to [Encryption Key].
- Default Callee ID
- ② Default Callee ID Select “Enable” to apply the ID to the TX signal. (Default: Disable)
 • When you select "Enable," enter the IDs in the below items.
- ③ Call Type Select the type of call. (Default: Group)
 • **Individual** : Call only specified radio.
 • **Group** : Call all radios that belong to the specified group.
 • **All** : Call all radios.
- ④ Destination Prefix ID Enter the destination prefix ID.
 ID range: (Depending on the system mode)
- ⑤ Destination ID Enter the destination ID. (Default: 1)
 ID range: (Depending on the system mode)
- ⑥ My Station Prefix ID Enter the station prefix ID.
 ID range: (Depending on the system mode)
- ⑦ My Station ID Enter the station ID. (Default: 1)
 ID range: (Depending on the system mode)

■ EXT Input Control

Set the details of the input audio from the [EXT1]/[EXT2] port.

EXT Input Control

EXT Voice Terminal

① Input Connection Port:

② Valid Timing:

③ Power for the Microphone: Disable Enable

④ Reference Level:

⑤ Input Analog Gain: dB

⑥ Input Digital Gain: dB

Voice Reception Control from the EXT Device

⑦ Voice Delay: milliseconds

① Input Connection Port

Select the port which outputs the received audio signal.

(Default: IP Network)

- **EXT Output** : Sends the audio signal to the [EXT1]/[EXT2] port.
- **IP Network** : Sends the audio signal to the IP network.
 - The audio signal is sent to the port set in [Bridge Connection Point] on the [Bridge Connection] screen.
- **Emergency** : Sends the audio signal to the device which is specified as the emergency call destination.
 - Emergency communication has priority over normal communication.
 - The VE-PG3 enters the Emergency mode when the condition specified in [Enable Timing] on the [External Input1 (EXT1)] screen is satisfied.
 - In the Emergency mode, all ongoing communication routes, other than which is for the Emergency Notice, are disconnected.
 - To transmit the call as the Emergency Notice, set the port type to “Emergency Notice” on the [Bridge Connection Point] screen, and set the Emergency Notice device to “Enable” on the [Emergency Notice] screen.

EXT Input Control (continued)

EXT Input Control

EXT Voice Terminal

① Input Connection Port: IP Network

② Valid Timing: Always-on Connection

③ Power for the Microphone: Disable Enable

④ Reference Level: -10dBs

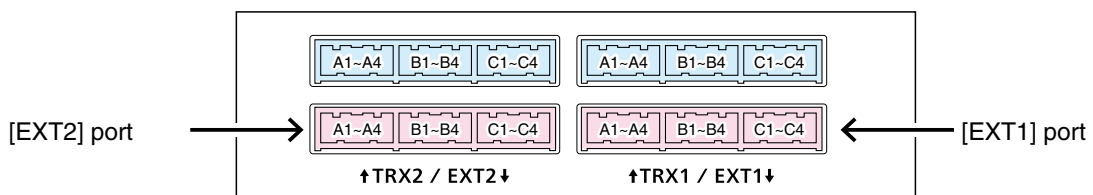
⑤ Input Analog Gain: 0 dB

⑥ Input Digital Gain: 0 dB

Voice Reception Control from the EXT Device

⑦ Voice Delay: 5 milliseconds

- ② Valid Timing Select the condition to send the audio signal. (Default: Control input detect)
- **Always-on**
Always sends the audio signal to the destination selected in [Input Connection Port].
 - When "IP Network" or "Emergency" is selected in [Input Connection Port], this option cannot be selected.
 - **Audio Input Detect**
When an audio signal is input, sends the audio signal to the destination selected in [Input Connection Port].
 - **Control Input Detect**
When the control signal is input, sends the audio signal to the destination selected in [Input Connection Port].
- ③ Power for the Microphone... Select "Enable" to supply the voltage to the microphone connected to A3/A4 terminal (Audio input) microphone. (Default: Disable)
- ④ Reference Level Select the input line A3/A4 terminal (Audio input) sensitivity from [-10 dBs] and [-40 dBs] (0 dBs=0.775 Vrms). (Default: -10dBs)
- The sensitivity differs depending on the microphone.



VE-PG3 (Rear view)

• See Section 8 for port details.

■ EXT Input Control (continued)

EXT Input Control

EXT Voice Terminal

① Input Connection Port: IP Network ▼

② Valid Timing: Always-on Connection ▼

③ Power for the Microphone: Disable Enable

④ Reference Level: -10dBs ▼

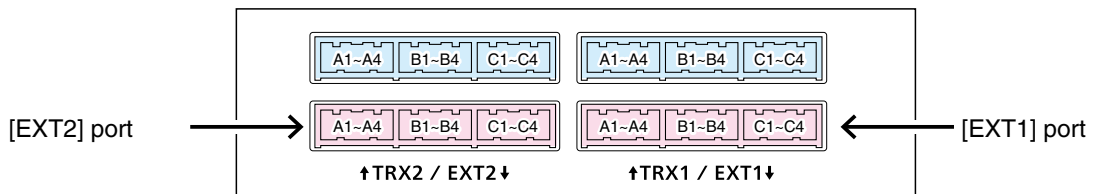
⑤ Input Analog Gain: 0 ▼ dB

⑥ Input Digital Gain: 0 ▼ dB

Voice Reception Control from the EXT Device

⑦ Voice Delay: 5 milliseconds

- ⑤ Input Analog Gain Set the analog signal input (A3/A4 terminal (Audio input)) gain. (Default: 0)
Range: "+26" to "-26" (in 1 dB step)
- ⑥ Input Digital Gain Set the digital signal input (A3/A4 terminal (Audio input)) gain. (Default: 0)
Range: "+6" to "-12" (in 1 dB step)



VE-PG3 (Rear view)

• See Section 8 for port details.

■ EXT Input Control (continued)

Set the voice delay time for the [EX1T]/[EXT2] port.

EXT Input Control

EXT Voice Terminal

① Input Connection Port: IP Network ▾

② Valid Timing: Always-on Connection ▾

③ Power for the Microphone: Disable Enable

④ Reference Level: -10dBs ▾

⑤ Input Analog Gain: 0 ▾ dB

⑥ Input Digital Gain: 0 ▾ dB

Voice Reception Control from the EXT Device

⑦ Voice Delay: 5 milliseconds

*Appears only when "Control Data Detection" or "Always-on Connection" is selected in [Valid Timing].

- ⑦ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 5)
Range: 0 to 500 milliseconds in 5 milliseconds step

■ EXT Input Control (continued)

Set the input audio control details for the [EXT1]/[EXT2] port.

Voice Transmission Control to the EXT Device

*Setting values of Attack Time, Release Time and Voice Delay are set in five milliseconds steps.

Audio Transmission Methods to the EXT Output Device: ▼

① Attack Time:	<input type="text" value="50"/>	milliseconds
② Release Time:	<input type="text" value="500"/>	milliseconds
③ Voice Delay:	<input type="text" value="200"/>	milliseconds
④ Voice Threshold:	<input type="text" value="40"/>	%

*Appears only when “Voice Data Detection” is selected in [Valid Timing].

- ① Attack Time Enter the TX delay time. (Default: 50)
 Range: 5 to 2000 milliseconds in 5 milliseconds step
 It is the delay time before the VOX switch turns ON after an audio signal is received through the network.

- ② Release Time Select the RX delay time in 5 milliseconds step. (Default: 200)
 Range: 5 to 2000 milliseconds
 It is the delay time for the VOX switch to turn OFF after no audio signal is received through the network.

- ③ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 5)
 Range: 0 to 500 milliseconds

- ④ Voice Threshold Set the voice threshold level. (Default: 0)
 Range: 0 to 100 %
 The VOX function automatically switches between receive and transmit according to this threshold level.
 Lower values make the VOX function more sensitive to the audio signal.

EXT Control Terminal

Set the details of the control signal from the [EXT1]/[EXT2] port.

EXT Control Terminal

① Input Type:

② Event ON Time: seconds

③ Event OFF Time: seconds

④ Control Input Detection:

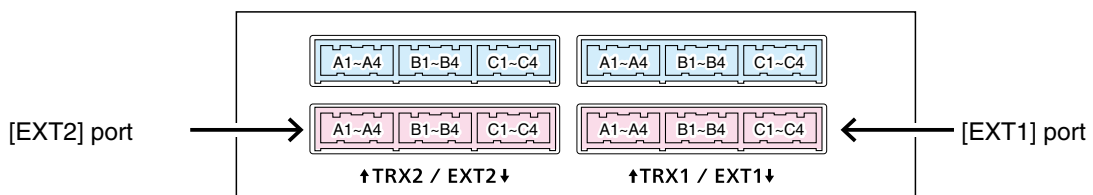
⑤ Control Input Pull-up Setting: Disable Enable

*Appears only when “Control Data Detection” is selected in [Valid Timing].

① Input Type Select the control signal input condition. (Default: Momentary)

- Momentary
While the control signal is input from the B3/B4 terminal (General control I/O), activates the port.
- One-shot
When the control signal is input from the B3/B4 terminal (General control I/O), continuously activates the port. And deactivates with no input.

② Event ON Time Select the delay time until the input is detected. (Default: 1)
Range: [0.1], [0.3], [0.5], [1], [1.5], [2], [3] (second)



VE-PG3 (Rear view)

• See Section 8 for port details.

EXT Control Terminal (continued)

EXT Control Terminal

① Input Type:

② Event ON Time: seconds

③ Event OFF Time: seconds

④ Control Input Detection:

⑤ Control Input Pull-up Setting: Disable Enable

③ Event OFF Time Select the delay time until the port (B3/B4 terminal (General control input)) is deactivated. (Default: 1)
 Range: [0.1], [0.3], [0.5], [1], [1.5], [2], [3] (second)

④ Control Input Detection ... Select the port input state of B3/B4 terminal (General control input). (Default: Short circuit (LOW))

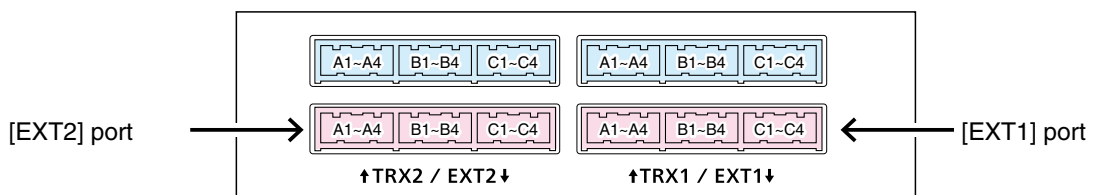
When the input port is pulled up:

- **Short circuit (LOW)** : B3/B4 terminal (General control input) is connected to the GND.
- **Open circuit (HIGH)** : B3/B4 terminal (General control input) is open.

When the input port is NOT pulled up:

- **Short circuit (LOW)** : No voltage is applied to the B3/B4 terminal (General control input).
- **Open circuit (HIGH)** : A voltage is applied to the B3/B4 terminal (General control input).

⑤ Control Input Pull-up Setting Select “Enable” to internally pull up the B3/B4 terminal (General control input). (Default: Enable)



VE-PG3 (Rear view)

• See Section 8 for port details.

■ Bridge Communication

When "AMBE+2" is selected in [Audio Codec]

Bridge Communication

Encryption: Disable Enable

Encryption

Select "Enable" to encrypt the communication using AMBE codec.

(Default: Disable)

- When you select "Enable," enter the appropriate key to [Encryption Key].

■ Control Circuit

Configure the details for the device connected to the [EXT1]/[EXT2] port.

Control Circuit Change:Control Output Circuit

Control Circuit

- ① Control Circuit Change: Control Output Circuit Relay Circuit
- ② Control Output Logic: High Low
- ③ 8V Power Source: Disable Enable

Control Circuit Change:RelayCircuit

Control Circuit

- ① Control Circuit Change: Control Output Circuit Relay Circuit
- ② Control Output Logic: Valid Event Detection

① Control Circuit Change ... Select the control circuit type. (Default: Control Output Circuit)

Control Circuit Change:Control Output Circuit

② Control Output Logic Select the activate state. (Default: Low)

- **High:** The squelch line becomes “High” while receiving no signal. (Active High)
- **Low:** The squelch line becomes “Low” while receiving no signal. (Active Low)

Control Circuit Change:RelayCircuit

② Control Output Logic Select the port state. Relay output terminal (B1/B2 terminal) is short circuit or open circuit. (Default: Short)

When the audio signal is output, the control signal is also output.

- **Short:** The squelch line becomes “High” while receiving no signal. (Active High)
- **Open:** The squelch line becomes “Low” while receiving no signal. (Active Low)

Control Circuit Change:Control Output Circuit

③ 8V Power Source Select “Enable” to supply the 8 V to the microphone, which is connected to the external output terminal (B1/B2 terminal). (Default: Disable)
Specification: Less than 30 V/0.5 A

■ EXT Voice Terminal

Set the audio output control details for the [EX1T]/[EXT2] port.

EXT Voice Terminal

① Reference Level:	<input type="text" value="-20dBs"/>
② Output Analog Gain:	<input type="text" value="0"/> dB
③ Output Digital Gain:	<input type="text" value="0"/> dB

- ① Reference Level Select the output level of A1/A2 terminal (Audio output). (Default: -20dBs)
- ② Output Analog Gain Set the analog signal input (A1/A2 terminal (Audio output)) gain. (Default: 0)
Range: "+15" to "-30"
- ③ Output Digital Gain Set the digital signal input (A1/A2 terminal (Audio output)) gain. (Default: 0)
Range: "+6" to "-12"

Voice Transmission Control to the EXT Device Control Circuit Change:Control Output Circuit

Set the audio output control details for the [EX1T]/[EXT2] port.

- This setting item appears when "Control Output Circuit" is selected in [Control Circuit Change].

Voice Transmission Control to the EXT Device

*Setting values of attack time, release time and voice delay are set in five milliseconds steps.

① Audio Transmission Methods to the EXT Output Device:	<input type="text" value="VOX"/>	
② Attack Time:	<input type="text" value="50"/>	milliseconds
③ Release Time:	<input type="text" value="500"/>	milliseconds
④ Voice Delay:	<input type="text" value="5"/>	milliseconds
⑤ Voice Threshold:	<input type="text" value="40"/>	%

*Appears only when "VOX" is selected in [Audio Transmission Methods to the Transceiver].

① Audio Transmission Methods to the EXT Output Device

Select the Audio Transmission Method. (Default: RTP)

- VOX : Sends the audio signal and enables the PTT, when the input audio signal level exceeds the threshold level.
- RTP : Sends the audio signal and enables the PTT, while receiving the RTP packet,
- PTT Always-on : Always sends the audio signal to the radio and enables the PTT.
- PTT Always-off : Always sends the audio signal to the radio and disables the PTT.

② Attack Time Enter the TX delay time in 5 milliseconds step. (Default: 50)
 Range: 5 to 500 milliseconds
 It is the delay time before the VOX switch turns ON after an audio signal is received through the network.

③ Release Time Select the RX delay time in 5 milliseconds step. (Default: 500)
 Range: 5 to 2000 milliseconds
 It is the delay time for the VOX switch to turn OFF after no audio signal is received through the network.

④ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 5)
 Range: 0 to 500 milliseconds

⑤ Voice Threshold Set the voice threshold level. (Default: 40)
 Range: 0 to 100 %

The VOX function automatically switches between receive and transmit according to this threshold level.

■ EXT Control Terminal Control Circuit Change:Relay Circuit

Set the control signal output details for the [EX1T]/[EXT2] port.

- This setting item appears when "Relay Circuit" is selected in [Control Circuit Change].

EXT Control Terminal

*Setting values of release time and voice delay are set in five milliseconds steps.

① Control Output at the Start of Audio Output:	<input type="text" value="RTP synchronization"/>
② Release Time:	<input type="text" value="100"/> milliseconds
③ Voice Delay:	<input type="text" value="5"/> milliseconds

*Appears only when "RTP synchronization" is selected on [Control Output at the Start of Audio Output].

① Control Output at the Start of Audio Output

Select the control signal output option. (Default: RTP synchronization)

- Disable : Does not send the control signal.
- RTP synchronization : Sends the control signal when RTP is received.
 - Regardless of the audio signal presence, the relay is activated while the RTP is received.

② Release Time

Select the RX delay time in 5 milliseconds step. (Default: 100)

Range: 5 to 2000 milliseconds

It is the delay time for the VOX switch to turn OFF after not audio signal is received through the network.

③ Voice Delay

Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 5)

Range: 0 to 500 milliseconds

Bridge Communication

Configure the encryption of Bridge communication.

Bridge Communication

① Encryption: Disable Enable

Default Callee ID

② Default Callee ID: Disable Enable

③ Call Type: ▼

④ Destination Prefix ID:

⑤ Destination ID:

⑥ My Station Prefix ID:

⑦ My Station ID:

- ① Encryption Select "Enable" to encrypt the communication. (Default: Disable)
 • When you select "Enable," enter the appropriate key to [Encryption Key].

- ② Default Callee ID Select "Enable" to apply the ID to the TX signal. (Default: Enable)
 • When you select "Enable," enter the IDs in the bellow items.

- ③ Call Type Select the type of call. (Default: Individual)
 • Individual : Call only specified radio.
 • Group : Call all radios that belong to the specified group.
 • All : Call all radios.

- ④ Destination Prefix ID Enter the destination prefix ID in two digits.
 ID range: (Depending on the system mode)

- ⑤ Destination ID Enter the destination ID in four digits. (Default: 1)
 ID range: (Depending on the system mode)

- ⑥ My Station Prefix ID Enter the station prefix ID in two digits.
 ID range: (Depending on the system mode)

- ⑦ My Station ID Enter the station ID in four digits. (Default: 1)
 ID range: (Depending on the system mode)

■ V/RoIP

Set the V/RoIP details.

V/RoIP

- ① Frame Time: milliseconds
- ② Receive Buffer Size: milliseconds

- ① Frame Time Select the frame transmit interval in the digital communication. (Default: 20)
Shorter value improves the delay, depending on your network environment.

- ② Receive Buffer Size Select the buffer time to keep the audio from breaking up. (Default: 40)
Shorter value improves the delay, but it may frequently break the audio signal.

■ TOS

Set the details for the TOS (Type-Of-Service) function.

TOS: Not used

TOS

① TOS Type: Not used TOS Diffserv

TOS: TOS

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): Priority Level Service Type (HEX): E0

TOS: Diffserv

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): DSCP (HEX): E0

① TOS type Select the TOS (Type-Of Service) format. (Default: TOS)

- **Not used**

Does not use the TOS function.

- **TOS**

Sends the VoIP packets to TOS field (8 bits) in the IP header using the TOS format.

- **Diffserv**

Sends the VoIP packets to TOS field (8 bits) in the IP header using the Diffserv (Differentiated Service) format.

■ TOS (continued)

TOS: Not used

TOS

① TOS Type: Not used TOS Diffserv

TOS: TOS

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): Priority Level Service Type (HEX): E0

TOS: Diffserv

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): DSCP (HEX): E0

② Media (RTP) Select the Priority level and Service type of the sent VoIP packets.

• **Priority Level**

Set the TOS priority level between 0 to 7 in decimal.

(Default: 7)

• **Service Type**

Set the TOS service type code between 0 to 15 in decimal.

(Default: 0)

• **DSCP**

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

■ Emergency Notice

Select the port to use as the emergency notice output.

Emergency Notice

- ① Transceiver 1 (TRX1): Disable Enable
 - Transceiver 2 (TRX2): Disable Enable
 - ② Digital Transceiver 1 (D-TRX1): Disable Enable
 - Digital Transceiver 2 (D-TRX2): Disable Enable
 - Digital Transceiver 3 (D-TRX3): Disable Enable
 - Digital Transceiver 4 (D-TRX4): Disable Enable
 - ③ EXT I/O 1 (EXT1): Disable Enable
 - EXT Output 2 (EXT2): Disable Enable
 - ④ Emergency Notice Equipment: Disable Enable
- *Emergency notice port is not yet set.([Bridge connection])

- ① Transceiver 1 (TRX1)
 Transceiver 2 (TRX2) If you select “Enable,” the emergency notice is sent to the port ([TRX1]/[TRX2]).
(Default: Disable)

- ② Digital Transceiver 1 (D-TRX1) –
 Digital Transceiver 4 (D-TRX4)
 If you select “Enable,” the emergency notice is sent to the port ([D-TRX1] to [D-TRX4]).
(Default: Disable)

- ③ EXT Output 1 (EXT1)
 EXT Output 2 (EXT2) If you select “Enable,” the emergency notice is sent to the connected transceiver or external device.
(Default: Disable)

- ④ Emergency Notice Equipment If you select “Enable,” the emergency notice is sent to the specified Bridge connect destination.
(Default: Disable)
 - Select “Emergency” in [Input Connection Port] on the [EXT Input 1 (EXT1)]/[EXT Input 2 (EXT2)] (Or EXT I/O1/2) screen.

■ Abnormal Condition Monitoring

Set the monitor function for the communication error.

Abnormal Condition Monitoring

① LAN Port Downlink		
Monitoring:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].
Control Output:	Disable ▾	
② PING Test		
Monitoring:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	*LAN port downlink is enabled when monitoring is enabled. *Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].
Control Output:	Disable ▾	
IP Address:	<input type="text"/>	
Monitor Period:	10 <input type="text"/> minutes	

- This is an example.

① LAN Port Downlink Select "Enable" to automatically detect the communication error. When the Ethernet cable disconnects from the VE-PG3's [LAN] port, the [WAN] LED blinks Orange, and the error message is displayed on the "SYSLOG" screen in the "Information" menu. (Default: Disable)

Control Output

Select "Enable" to output the error detect signal from the B1/B2 terminal (+/-). (Default: Disable)

- Select "Relay circuit" in the Control Circuit] item on the [EXT Output](1/2), or [EXT I/O](1/2) screen.

While the error detect signal sends, the VE-PG3 cannot receive signals from the external device that is connected to the B1/B2 terminal (+/-).

■ Abnormal Condition Monitoring (continued)

Abnormal Condition Monitoring

① LAN Port Downlink		
Monitoring:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	
Control Output:	<input type="button" value="Disable"/>	*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].
② PING Test		
Monitoring:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	*LAN port downlink is enabled when monitoring is enabled.
Control Output:	<input type="button" value="Disable"/>	*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].
IP Address:	<input type="text"/>	
Monitor Period:	<input type="text" value="10"/> minutes	

- This is an example.

② PING test Select "Enable" to send the PING commands to the specified IP address.
 (Default: Disable)
 When the Ethernet cable disconnects from the VE-PG3's [LAN] port, the [WAN] LED blinks Orange, and the error message is displayed on the "SYSLOG" screen in the "Information" menu.

Control Output

Select "Enable" to output the error detect signal from the B1/B2 terminal (+/-).
 (Default: Disable)
 • Select "Relay circuit" in the Control Circuit] item on the [EXT Output](1/2), or [EXT I/O](1/2) screen.

While the error detect signal sends, the VE-PG3 cannot receive signals from the external device that is connected to the B1/B2 terminal (+/-).

IP Address:

Enter the destination IP address to send the commands.

Monitor Period:

Set the monitor period between 1 to 4320 minutes.

(Default: Disable)

■ Administrator

Set the administrator password.

Administrator

① Username: admin

② Current Password:

③ New Password:

④ New Password (confirm) :

- ① Username Displays the administrator login ID.
 - The ID is fixed to “admin,” and it cannot be changed.

- ② Current Password Input the current password, if you want to change it. (Default: admin)
 - All input characters are displayed as “ * ” or “•.”

- ③ New Password Input a new password up to 31 characters.

- ④ New Password (confirm) Input the new password again to confirm.

[CAUTION]
 When you forget the password, you can no longer access the setting screen.
 In such case, you must re-initialize the VE-PG3. See the "PRECAUTIONS" leaflet for details.

To prevent unauthorized access
 You must be careful when choosing your password, and changing it occasionally is highly recommended.
 See the VE-PG3 instruction manual for the password setting.

- Choose the one that is not easy to be guessed.
- Use numbers, characters and letters (both lower and upper case).

■ Date and Time

Set the VE-PG3's internal clock time. (See the "Maintenance" section for detail.)

Date and Time

① Current Time: 2012/12/20 15:49 (Etc/UTC)
② Manually Set Time: 2012 / 12 / 20 15 : 48 (Year/Month/Day Hour:Minute) ③

- ① Current Time The time when you accessed the VE-PG3's setting screen is displayed.
- ② Manually Set Time Set the date and time, if you want to manually set it.
- ③ <Set> Click<Set> to synchronize the internal clock with the displayed time.

■ Time Zone

Set the appropriate Time Zone.

Time Zone

① Time Zone:
② Use Daylight Savings Time: Disable Enable

- ① Time Zone Select the appropriate Time Zone.
- ② Use Daylight Savings Time Select "disable" if necessary.

NTP

Set the date and time automatically. See the "Maintenance" section for details.

- To use this function, an internet connection, DNS and default gateway settings are necessary.

NTP

① NTP Client:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
② NTP Server 1:	<input type="text" value="210.173.160.27"/>
③ NTP Server 2:	<input type="text" value="210.173.160.57"/>
④ Polling Interval:	<input type="text" value="1"/> days
⑤ Last Update:	----/--/--
⑥ Next Update:	2012/12/21 14:34

① NTP Client..... Select "Enable" to turn ON the Automatic Clock Synchronize function. (Default: Enable)

The Automatic Clock Synchronize function automatically synchronizes the internal clock with the time management server (NTP).

② NTP Server 1 Enter the IP address of the time management server (NTP). (Default: 210.173.160.27)

③ NTP Server 2 Enter the IP address of the time management server (NTP) other than above. (Default: 210.173.160.57)

If there is no response from the above IP address, the VE-PG3 accesses this one.

④ Polling Interval Enter the period to access the time management server (NTP). (Default: 1)
Range: 1 to 99 (day)

⑤ Last Update Displays the day of the VE-PG3's last-access to the time management server.

⑥ Next Update Displays the day of the VE-PG3's accesses to the time management server next.

■ SYSLOG

Select the information displayed on the SYSLOG screen.

SYSLOG

① DEBUG: Disable Enable
② INFO: Disable Enable
③ NOTICE: Disable Enable
④ Host IP Address:

- ① DEBUG Select whether to enable or disable to display the debug information on the SYSLOG screen. (Default: Disable)
- ② INFO Select whether to enable or disable to display the information messages on the SYSLOG screen. (Default: Enable)
- ③ NOTICE..... Select whether to enable or disable to display the notice messages on the SYSLOG screen. (Default: Enable)
- ④ Host IP Address If you use the SYSLOG function, enter the IP address of the host that receives the SYSLOG messages.

SNMP

Set the SNMP (Simple Network Management Protocol) when you monitor the protocol, to automatically monitor using the SNMP monitor.

SNMP

① SNMP:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
② Get Community:	<input type="text" value="public"/>
③ System Location:	<input type="text"/>
④ System Contact:	<input type="text"/>

- ① SNMP..... Select whether to enable or disable the SNMP monitor function.
(Default: Enable)
 - If you select “Enable,” you can monitor the VE-PG3’s information with the SNMP monitor.

- ② Get Community Set an ID of up to 31 characters, which is required for the access to the SNMP monitor.
(Default: public)

- ③ System Location Enter a location name of up to 127 characters to be displayed on the SNMP monitor.
 - The SNMP monitor is compatible with MIB-II (RFC1213).

- ④ System Contact Enter a contact information of up to 127 characters to be displayed on the SNMP monitor.
 - The SNMP monitor is compatible with MIB-II (RFC1213).

■ USB

Select the option. to use USB flash device.

USB

- ① USB Flash Drive: Disable Enable
- ② USB Access Permission: Firmware Update
- Backup/Restore Configuration

- ① USB Flash Drive Select "Enable" if you use the Automatic firmware update function or Automatic Setting Load function. (Default: Enable)
 - See the "Maintenance" section for details.

- ② USB Access Permission..... Select the access permit option.
 - (Default: Firmware Update
 - Backup/Restore Configuration)

 - Firmware Update
Enter the check mark to enable the firmware update using a USB memory.
 - Backup/Restore Configuration
Enter the check mark to enable the Backup/Restore settings using a USB memory.

■ Reboot

Click to reboot the VE-PG3.

Reboot

Reboot Now:

[Reboot](#)

Backup Settings

Click to save the settings to the PC or USB memory which is connected to the PC.

Backup Settings

Save to File:

Backup

Restore Settings

Load the VE-PG3's settings file.

Restore Settings

① Load Settings from File:

Browse...

② Restore:

Restore

① Load Settings from File ... Click to load the setting file.

② Restore Click to overwrite the setting to the VE-PG3.

■ Online Settings

You can remotely configure the VE-PG3, through the secured network path.

- An SFTP server is required for this function.

Online Settings

① Online Settings: Disable Enable

② Sever Host Name:

③ Subscriber Name:

④ Password:

⑤ Upload:

⑥ Download

- ① Online Settings Select "Enable" to use this function. (Default: Disable)
- ② Sever Host Name Enter the SFTP server IP address or FQDN (Fully Qualified Domain Name) up to 128 characters.
- ③ Subscriber Name Enter the SFTP server username up to 128 characters.
- ④ Password Enter the SFTP server password up to 128 characters.
- ⑤ Upload Click to upload the VE-PG3's setting file to the SFTP server.
- ⑥ Download Click to download the VE-PG3's setting file to the SFTP server.
 - The VE-PG3 automatically reboots.

■ List of Settings

Displays the setting logs.

- All logs are cleared when the VE-PG3 is initialized.

List of Settings

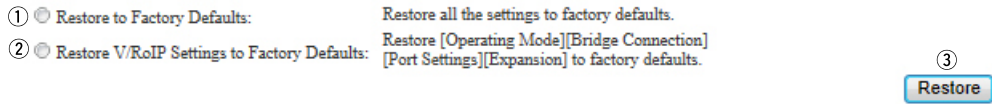
```
digital port hc_time 4 90
digital port proto 4 2
ext port extvox_thresh 1 40
ext port extvox_thresh 2 40
ext port out_release_time 2 200
ext port out_voice_delay 1 200
ext port ptt_gd_time 1 400
```

(This is an example.)

■ Factory Defaults

Restores the VE-PG3 settings.

Factory Defaults



- ① Restore to Factory Default Select this item, and then click <Restore> to restore all the settings to factory defaults.
 - After initializing, reset the VE-PG3’s IP address, operating mode, and so on.

- ② Restore V/RoIP Settings to Factory Default Select this item, and then click <Restore> to restore the settings except in the [Network], [Router] and [Management]) to factory defaults.

- ③ <Restore> Click to restore the setting according to the selected restore option.

■ Firmware Status

Displays the firmware version.

Firmware Status

IPL:
Version:

Rev. 6

■ Online Update

Updates the firmware by using the Firmware Update function

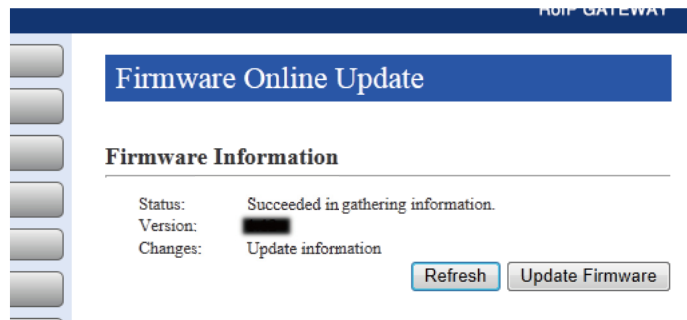
Online Update

Check for Updates:

Check for Updates

Click to access the update management server.

When successfully accessed to the server, the latest firmware version is displayed as below.



(This is an example.)

About the firmware information:

- When there is a newly updated firmware, "Update information" is displayed.
- When there is no updated firmware, "Firmware already up-to-date" is displayed.
- When an error message is displayed, verify that the internet connection is available in your network environment.

■ Automatic Update

The firmware can be automatically downloaded and updated.

Automatic Update

Automatic Update: Disable Enable

Automatic Update..... Select "Enable" to automatically download and update the latest firmware.
(Default: Enable)

■ Manual Update

Download a new firmware from the Icom web site, and then write it to the VE-PG3.

Manual Update

① Update Firmware using File:
② Firmware Update:

① Update Firmware using File Click <Browse...> to load the firmware file.

② Firmware Update Click <Update> to write the selected firmware to the VE-PG3.

1. About the setting screen	6-4
2. [TOP] Menu	6-5
■ System Status	6-5
■ Network Status	6-5
■ Operating Mode Status	6-5
■ IP Line Status	6-5
■ Bridge connect Status	6-6
■ Digital Transceiver Connect Status	6-6
■ Phone Extension Status	6-6
3. [Information] Menu	6-7
■ SYSLOG	6-7
■ Call/Reception Record	6-8
4. [Network] Menu	6-9
■ Host Name	6-9
■ IP Address	6-10
■ DHCP Server	6-12
■ Static DHCP	6-13
■ Static DHCP Table	6-13
■ Routing Table	6-14
■ Static Routing	6-14
■ List of Static Routing Entries	6-14
■ QoS	6-15
■ QoS Rule	6-16
■ List of QoS Rule Entries	6-16
5. [Router] Menu	6-17
6. [Operating Mode] menu	6-46
■ Operating Mode	6-46
■ EXT I/O Port Mode	6-47
■ IP Communication Mode	6-48
7. [V/RoIP] Menu	6-49
■ PSTN	6-49
■ Device	6-50
■ Ring Time Detection	6-51
■ DTMF Encode	6-52
■ Status Detection	6-53
■ Tone Detection	6-54
■ SIP Server	6-55
■ List of SIP Server Entries	6-56
■ Peer to Peer Common Setting	6-58

(Continued on the next page.)

(Continued from the previous page.)

■ Peer to Peer.....	6-58
■ List of Peer to Peer Entries	6-59
■ VoIP Phone Book	6-60
■ VoIP Phone Book Entry.....	6-61
■ List of VoIP Phone Book Entries	6-61
8. [Extension Connect] Menu	6-57
■ Basic.....	6-57
■ Extension Connect.....	6-58
■ List of Extension Entries	6-61
■ PHONE	6-62
■ Extension Group Entry (New)	6-63
■ List of Extension Group Entries	6-64
■ Calling	6-65
■ List of Calling Entries.....	6-66
■ V/RoIP Incoming Call Setting	6-67
■ Special Number	6-68
■ Radio Call Prefix.....	6-69
■ Outside Call Dispatch	6-69
■ Phone Maintenance	6-70
■ Telephone Group	6-71
■ Button Assignment.....	6-72
■ Tone	6-72
■ Ring Tone.....	6-72
■ Group Select	6-73
■ Save or write the Phone Book	6-73
■ Phone Book Entry	6-74
■ List of Phone Book Entries	6-75
■ Save or Write the Callee ID to Phone Number Setting	6-76
■ Callee ID to Phone Number	6-77
■ List of Callee ID to Phone Number Entries	6-78
■ User Transmission Restriction	6-79
■ ID Restriction	6-79
■ List of ID Restriction Entries	6-79
9. [Port Settings] Menu	6-80
■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2)	6-80
■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2) "General Setting"	6-81
■ Transceiver Control	6-83
■ Voice Transmission Control to the Transceiver	6-87
■ Voice Reception Control from the Transceiver	6-88
■ V/RoIP Control	6-89
■ Release Timer.....	6-90
■ Digital Transceiver Connection.....	6-91
■ Digital Transceiver Communication	6-93
■ Digital Transceiver Control	6-94
■ Voice Transmission Control to the Digital Transceiver	6-97
■ V/RoIP Control (Digital Transceiver)	6-98

(Continued on the next page.)

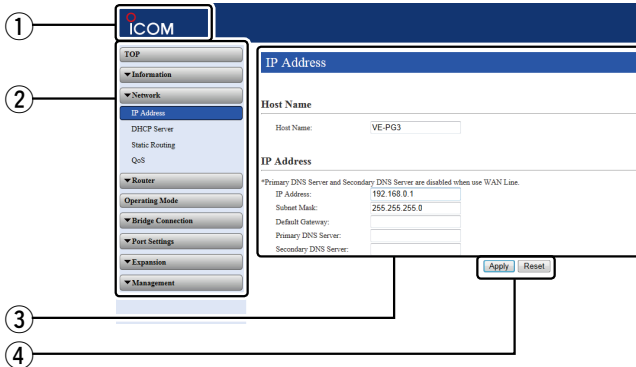
6 CONVERTER MODE SETTING SCREEN

(Continued from the previous page.)

■ Release Timer (Digital Transceiver)	6-99
■ EXT Voice Terminal	6-100
■ Voice Control	6-103
■ Voice Reception Control from the EXT Device	6-104
■ EXT Control Terminal.....	6-105
■ V/RoIP Control	6-107
■ Release Timer.....	6-108
■ Control Circuit (EXT Output).....	6-109
■ Serial Communication	6-110
■ EXT Voice Terminal (Output)	6-111
■ EXT Control Terminal (EXT Output)	6-113
■ Voice Transmission Control to the EXT Device (EXT Output).....	6-114
■ Announce Tone (EXT Output)	6-115
■ V/RoIP Control	6-116
■ Release Timer.....	6-117
■ Device	6-118
■ Ring	6-118
■ Tone	6-119
■ Polarity	6-121
■ Bridge Connection (1 to 4)	6-122
■ Bridge Communication	6-126
■ Bridge Control	6-127
■ Voice Transmission Control to a Bridge Connection.....	6-130
■ Voice Transmission Control from a Bridge Connection	6-131
■ V/RoIP Control	6-132
■ Release Timer.....	6-133
10. [Expansion] Menu	6-134
■ V/RoIP Expansion	6-134
■ TOS	6-135
■ Emergency Notice	6-138
■ Priority Level	6-139
■ Priority Level of the Individual Calling	6-140
■ List of Priority Level of the Individual Calling Entries	6-142
■ Abnormal Condition Monitoring	6-143

6 CONVERTER MODE SETTING SCREEN

1. About the setting screen



① Link to the Icom web site

Click the Icom logo to open the Icom web site if your PC is connected to the Internet.

② Setting menu

Displays the screen name list on the menu line. When you click the menu title, a list of items drops down which you can use to select the desired setting item.

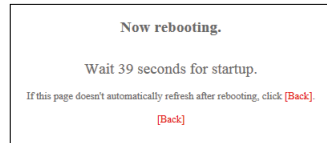
③ Setting screen

Displays the settings and values when you click the screen name.

④ Setting buttons

Save or cancel setting values.

If “Items that need to be restarted have changed.” is displayed on the screen when you click the [Apply] button, click the [OK] button.



The VE-PG3 reboots, and the setting items and values are updated.

The following message is displayed on the screen while the VE-PG3 is rebooting.

- If the setting screen does not automatically return, click [Back] in about 30 seconds after the “Now rebooting.” message is appeared.
- Items and buttons may differ, depending on the setting.

6 CONVERTER MODE SETTING SCREEN

2. [TOP] Menu

[TOP]

System Status

You can confirm the VE-PG3's version information, MAC address (WAN/LAN), and so on.

System Status

Host Name	VE-PG3
IPL	Rev. 6
Version	XXXXXXXXXXXXXXXXXXXX
WAN MAC Address	XXXXXXXXXXXX
LAN MAC Address	XXXXXXXXXXXX

- The WAN MAC address is set with unique numbers which is composed of 12 digits (0090C7*****). The WAN MAC address is printed on the serial number label on the VE-PG3's bottom panel.

Network Status

You can confirm the VE-PG3's network information.

Network Status

WAN Mode	PPPoE
WAN Status	-
LAN IP Address	192.168.0.1
DHCP Server	Disabled

Operating Mode Status

You can confirm the operating mode status of the [EXT1]/[EXT2] ports.

Operating Mode Status

Operating Mode	Bridge Mode	
EXT I/O Port Mode	EXT I/O 1(EXT1)	EXT I/O Unit (Separate)
	EXT I/O 2(EXT2)	EXT I/O Unit (Separate)

IP Line Status

Displays the status of the communication with a VoIP router

IP Line Status

IP Line	0512345678	Connection failure
---------	------------	--------------------

(This is an example.)

- When [SIP Server] is configured on the [IP Line] screen in the [V/RoIP] menu, IP phone number and the status are displayed.

6 CONVERTER MODE SETTING SCREEN

2. [TOP] Menu (continued)

[TOP]

■ Bridge connect Status

Displays the status of the communication with other VE-PG3 in the Bridge mode.

Bridge Connection Status

Bridge 1	IP Communication Mode	Multicast
	Destination	239.255.255.1 : 22510
	Connection State	Not connected
Bridge 2		Not Set
Bridge 3		Not Set
Bridge 4		Not Set

■ Digital Transceiver Connect Status

You can confirm the connection status of digital transceivers.

Digital Transceiver Connection Status

Digital Transceiver 1 (D-TRX1)	Not Set
Digital Transceiver 2 (D-TRX2)	Not Set
Digital Transceiver 3 (D-TRX3)	Not Set
Digital Transceiver 4 (D-TRX4)	Not Set

■ Phone Extension Status

Displays the extension number and the line type to call.

Phone Extension Status

Transceiver 1 (TRX1)	Not Set	
Transceiver 2 (TRX2)	Not Set	
Digital Transceiver 1 (D-TRX1)	Extension Number	201
	Outgoing Line (IP Line)	0512345678
	Outgoing Line (LINE)	Disabled
	Outgoing Line (Peer to Peer)	Disabled
	DID Call	Disabled
Digital Transceiver 2 (D-TRX2)	Not Set	
Digital Transceiver 3 (D-TRX3)	Not Set	
Digital Transceiver 4 (D-TRX4)	Not Set	
EXT Input 1 (EXT1)	Not Set	
EXT Output 1 (EXT1)	Not Set	
EXT I/O 2 (EXT2)	Not Set	
Emergency Notice	Not Set	
SIP Phone 1 (KX-UT Series)	Extension Number	401
	Outgoing Line (IP Line)	Disabled
	Outgoing Line (LINE)	Disabled
	Outgoing Line (Peer to Peer)	Disabled
	IP Address	Not connected
SIP Phone 2 (Standard)	Not Set	
SIP Phone 3 (Standard)	Not Set	
SIP Phone 4 (Standard)	Not Set	
Bridge 1	Not Set	
Bridge 2	Not Set	
Bridge 3	Not Set	
Bridge 4	Not Set	

6 CONVERTER MODE SETTING SCREEN

3. [Information] Menu

[Information]-[SYSLOG]

■ SYSLOG

Displays the VE-PG3's log information.

SYSLOG

Current: DEC 20 2012 09:23:19 (Uptime: 0 days 00:11:09)

Severity: DEBUG INFO NOTICE

Refresh

Clear

Time	Severity	Description
DEC 20 09:12:27	INFO	vol extio init req
DEC 20 09:12:26	INFO	vol extio init req
DEC 20 09:12:24	INFO	vol extio init req
DEC 20 09:12:24	INFO	vox radio tx init (1)
DEC 20 09:12:19	NOTICE	[REDACTED]
DEC 20 09:12:19	NOTICE	[REDACTED]

Save

(This is an example.)

- ① Severity Select whether or not to display the DEBUG, INFO and NOTICE log information.
- When you check a check box, the log information is displayed.
 - The check box state is not saved.
- (Default: DEBUG INFO NOTICE)

[When you do not want to display log information]

Take OFF the check mark from the desired box, and click [Reload].

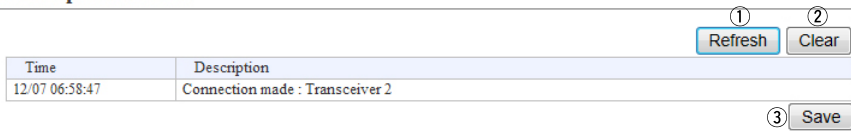
- ② <Refresh> Reloads the SYSLOG information if you have checked the DEBUG, INFO and NOTICE check boxes.
- If the number of entries exceeds 500, the oldest entry is deleted instead of recording a new one.
- ③ <Clear> Deletes the displayed SYSLOG information.
- When you turn OFF the power or reboot the VE-PG3, the logs are also deleted.
- ④ <Save> Saves the log as the text file (extension: "txt").
- Click this button, and then select a folder to save the file.

■ Call/Reception Record

Displays the VE-PG3's communication history.

- Up to 1000 record entries can be stored.
- If the number of entries exceeds 1000, the oldest entry is deleted instead of recording a new one.

Call/Reception Record



Time	Description
12/07 06:58:47	Connection made : Transceiver 2

① Refresh ② Clear

③ Save

(This is an example.)

- ① <Refresh> Reloads the VE-PG3's communication record entries.
- ② <Clear> Deletes the displayed VE-PG3's communication record entries.
 - When you turn OFF the power or reboot the VE-PG3, the history is also deleted.
- ③ <Save> Saves the history as the text file (extension: ".txt").
Click this button, and then select a folder to save the file.

■ Host Name

Set this VE-PG3's name.

Host Name

Host Name:

Host Name.....

Set a name of up to 31 characters (a to z, A to Z, 0 to 9 or "-" are usable).
(Default: VE-PG3)

- The name will be displayed when you access the VE-PG3 by telnet.
- DO NOT set the first or last character with "-."

■ IP Address

Set the VE-PG3's LAN addresses.

IP Address

*Primary DNS Server and Secondary DNS Server are disabled when use WAN Line.

① IP Address:	192.168.0.1
② Subnet Mask:	255.255.255.0
③ Default Gateway:	
④ Primary DNS Server:	
⑤ Secondary DNS Server:	

① IP address Enter the VE-PG3's IP address to connect to the network.
 (Default: 192.168.0.1)

- If you use the DHCP, enter the same network port of the address as that of set in the DHCP.

② Subnet mask Enter the subnet mask to connect to the network.
 (Default: 255.255.255.0)

(Setting example: When you set the subnet mask to “255.255.255.248”)

- IP address can be set between “192.168.0.0” and “192.168.0.7.”
- IP address for network devices can be set between “192.168.0.2” and “192.168.0.6.”
- The following IP address cannot be used for network devices.
 192.168.0.0 : Network address
 192.168.0.1 : VE-PG3 IP address
 192.168.0.7 : Broadcast IP address

③ Default gateway Enter the default gateway when your VE-PG3 communicates with a network device which has a different network part IP address.

- If the default gateway is set to the LAN side, the network route is on the LAN side when the default gateway is set to the WAN side.

■ IP Address (continued)

IP Address

*Primary DNS Server and Secondary DNS Server are disabled when use WAN Line.

① IP Address:	<input type="text" value="192.168.0.1"/>
② Subnet Mask:	<input type="text" value="255.255.255.0"/>
③ Default Gateway:	<input type="text"/>
④ Primary DNS Server:	<input type="text"/>
⑤ Secondary DNS Server:	<input type="text"/>

- ④ Primary DNS server..... Enter the DNS server address specified by your service provider.
If you have two DNS server addresses, enter the primary address.
- ⑤ Secondary DNS
server..... Enter the secondary DNS server address, if you have two DNS server
addresses.

6 CONVERTER MODE SETTING SCREEN

4. [Network] Menu (continued)

[Network]–[DHCP Server]

■ DHCP Server

Configure the DHCP details.

DHCP Server

① DHCP Server:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
② IP Pool Start Address:	<input type="text" value="192.168.0.10"/>
③ Pool Size:	<input type="text" value="30"/>
④ Subnet Mask:	<input type="text" value="255.255.255.0"/>
⑤ Lease Time:	<input type="text" value="72"/> hours
⑥ Domain Name:	<input type="text"/>
⑦ Default Gateway:	<input type="text"/>
⑧ DNS Proxy:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑨ Primary WINS Server:	<input type="text"/>
⑩ Secondary WINS Server:	<input type="text"/>
⑪ TFTP:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑫ TFTP Server:	<input type="text"/>

*If the TFTP Server setting is blank, the system IP address is used.

- | | | |
|-------------------------------|-----------------------------------------------------------------------------|--------------------------|
| ① DHCP Server | Select "Enable" to use the DHCP. | (Default: Disable) |
| ② IP Pool Start Address | Enter the starting address. | (Default: 192.168.0.10) |
| ③ Pool Size | Enter the number of IP address that provides the DHCP server. | (Default: 30) |
| | Range: 0 to 128 | |
| ④ Subnet Mask | The subnet mask for the IP address set on [IP Pool Start Address](②). | (Default: 255.255.255.0) |
| ⑤ Lease Time | Enter the valid release time of the IP address provided by the DHCP server. | (Default: 72) |
| | Range: 1 to 9999 (hour) | |
| ⑥ Domain Name | Enter the domain name (up to 127 characters) if required. | |
| | The DHCP server informs the domain to the connected device. | |

6 CONVERTER MODE SETTING SCREEN

4. [Network] Menu (continued)

[Network]–[DHCP Server]

■ DHCP Server (continued)

DHCP Server

① DHCP Server: Disable Enable

② IP Pool Start Address:

③ Pool Size:

④ Subnet Mask:

⑤ Lease Time: hours

⑥ Domain Name:

⑦ Default Gateway:

⑧ DNS Proxy: Disable Enable

⑨ Primary WINS Server:

⑩ Secondary WINS Server:

⑪ TFTP: Disable Enable

⑫ TFTP Server:

*If the TFTP Server setting is blank, the system IP address is used.

- ⑦ Default Gateway Enter the IP address of the connecting device, if the network part of the IP address is different from that of set in [IP Pool Start Address](②).
- ⑧ DNS Proxy Select “Enable” for the DNS substitute function. (Default: Enable)
When “Enable” is selected, you don’t need to change the setting even when the DNS server address has changed.
- ⑨ Primary WINS Server Enter the primary WINS server IP address.
- ⑩ Secondary WINS Server... Enter the secondary WINS server IP address, if required.
- ⑪ TFTP Select “Enable” to notify the address. (Default: Disable)
- ⑫ TFTP Server Enter the TFTP server address.
If the address is not specified, the VE-PG3’s IP address is notified.

■ Static DHCP

You can assign an IP address for the MAC address.
The set IP address is returned when DHCP request is occurred.

Static DHCP

MAC Address	IP Address	
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

■ Static DHCP Table

The list of the MAC address and the assigned IP address entries.

Static DHCP Table

MAC Address	IP Address	
<input type="text"/>	192.168.0.100	<input type="button" value="Delete"/>

6 CONVERTER MODE SETTING SCREEN

4. [Network] Menu (continued)

[Network]–[Static Routing]

■ Routing Table

Displays the available packet routing paths.

Routing Table

Destination	Subnet Mask	Gateway	Route	Owner
127.0.0.0	255.0.0.0	127.0.0.1	lo0	misc
127.0.0.1	255.255.255.255	127.0.0.1	lo0	host
192.168.0.0	255.255.255.0	192.168.0.1	mirror0	misc
192.168.0.1	255.255.255.255		lo0	host

■ Static Routing

You can register up to 32 packet routing paths.

Static DHCP

MAC Address	IP Address	
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

- This is an example.

<Add> Click to add the setting to [List of Static Routing Entries].

■ List of Static Routing Entries

Static DHCP Table

MAC Address	IP Address	
<input type="text"/>	192.168.0.100	<input type="button" value="Delete"/>

- This is an example.

<Delete> Click to delete the entry.

■ QoS

Limits the bandwidth of the communication between WAN and LAN.

QoS

① QoS: Disable Enable

② **Bandwidth Limit(Transmit)**

 WAN: Mbps

 LAN: Mbps

① QoS Select “Enable” to apply the QoS rule set in [QoS Rule]. (Default: Enable)

② Bandwidth Limit(Transmit) Enter the bandwidth for the packets which exceed the bandwidth limit in 0.1 Mbps step. (Default: 30.0)
Range: 0.0 to 100.0 (Mbps)

■ QoS Rule

Set the packet priority by the TOS value.

QoS Rule

① No.:
 ② TOS: Entered in hexadecimal code(01 - FF)

- ① No. Assign the number for the rule.
 The VE-PG3 checks every outgoing packet according to the rule set on [List of QoS Rule Entries].
<Add>
 Click to add a new rule.
 • More than 1 rule entry is required.
- ② TOS Enter the TOS value for the reference.
 Range: "01" to "FF" (in hex)

■ List of QoS Rule Entries

List of QoS Rule Entries

No.	TOS	①	②
1	E0	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
2	C0	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

- ① <Edit> Click to edit the setting on the [QoS Rule] field.
- ② <Delete> Click to delete the entry.

6 CONVERTER MODE SETTING SCREEN

5. [Router] Menu

[Router]

- See section 5 for the [Router] Menu in the Bridge mode.

6 CONVERTER MODE SETTING SCREEN

6. [Operating Mode] menu

[Operating Mode]

■ Operating Mode

Select the operating mode.

- Some settings return to their default, when the operating mode is changed.

Operating Mode

Operating Mode:

Bridge

**After changing [Operating Mode],
[V/RoIP], [Extension Connect], [Transceiver Connection],
[Port Settings] and [Expansion]
are initialized.*

① Operating Mode

Select the operating mode.

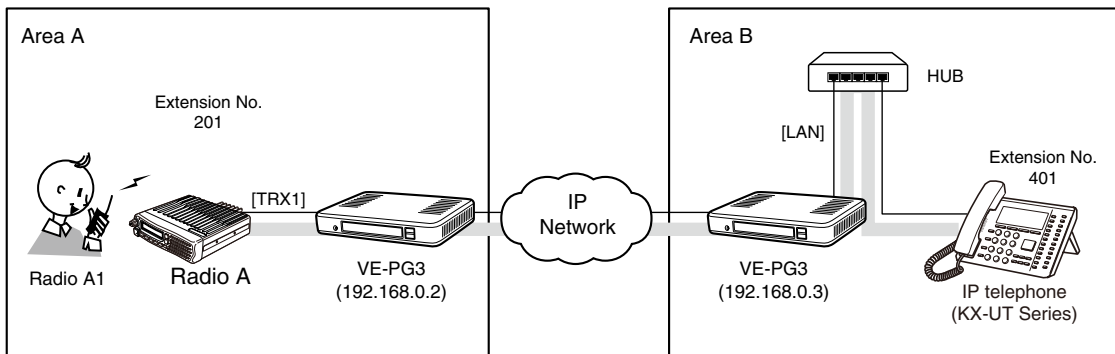
(Default: Bridge)

• Bridge

See Section 5 for the Bridge mode.

• Converter

When communicating between the VE-PG3 and an IP telephone, select this mode.



An example of the communication in the Converter mode

■ EXT I/O Port Mode

Select the input or output mode for each port.

- Some settings return to their default settings, when the port mode is changed.

EXT I/O Port Mode

EXT I/O 1 (EXT1)

Connection Unit:

EXT I/O Port Mode:

EXT I/O 2 (EXT2)

Connection Unit:

EXT I/O Port Mode:

*After changing [EXT I/O Port Mode], [EXT I/O Port] is initialized.

① Connection Unit Select the device to connect to the [EXT] (1/2) port, from [EXT I/O Unit] and [Transceiver]. (Default: EXT I/O Unit)

② EXT I/O Port Mode Select the I/O mode from [Separate] and [Combined]. (Default: Separate)
 • If [Transceiver] is selected in [Connection Unit]①, this item is not displayed.

• Separate

You can separately connect 2 devices to the [EXT] (1/2) ports.

(Connection Example: Connect the microphone to the [EXT] (1) port and the external amplifier to the [EXT] (2) port.)

• Combined

You can only connect one device to the [EXT] (1/2) port.

(Connection Example : Connect the headset to the [EXT] (1) and [EXT] (2) ports.)

6 CONVERTER MODE SETTING SCREEN

■ IP Communication Mode

Select the IP communication mode (Multicast mode or Unicast mode) when the Bridge-connected devices sends an audio signal through the virtual port.

- Some settings return to their default, when the IP communication mode is changed.

IP Communication Mode

Port	IP Communication Mode
Bridge 1	Unicast ▼
Bridge 2	Unicast ▼
Bridge 3	Unicast ▼
Bridge 4	Unicast ▼

IP Communication Mode.....

Select the mode to communication between Bridge-connected devices, through the virtual port (Default: Unicast)

- **Multicast**

Communicate between the VE-PG3s have same Multicast IP address.

- **Unicast**

Communicate between the VE-PG3s has same IP address or domain name.

■ PSTN

Configure the details to connect to the PSTN (Public Switched Telephone Network).

PSTN

- ① RX Volume: 0 dB
- ② TX Volume: 0 dB
- ③ Echo Canceller: Enable (Booting Optimization)
- ④ Optimization Status: Not optimized
- ⑤ Optimization:
- ⑥ Echo Suppression: Disable Enable
- ⑦ Echo Suppression Level: -30 dB
- ⑧ CNG Signal: Disable Enable
- ⑨ CNG Signal Level: -52 dB
- ⑩ Contract Line Number:

- ① RX Volume Select the telephone RX audio volume level. (Default: 0)
- ② TX Volume Select the telephone TX audio volume level. (Default: 0)
- ③ Echo Canceler Select an echo cancelling option. (Default: Enable (Booting Optimization))
- ④ Optimization Status Displays the optimization status; “Not optimized,” “During optimization” or “Optimization failure.”
- ⑤ Optimization Click <Start> to proceed the optimization.
- ⑥ Echo Suppression Select “Enable” to reduce the echo. (Default: Enable)
- ⑦ Echo Suppression Level ... Select the echo suppress level. (Default: –30)
- ⑧ CNG Signal Select “Enable” to intentionally apply the noise signal to the RX audio. (Default: Enable)
- ⑨ CNG Signal Level Select the noise level to apply to the RX audio. (Default: –52)
- ⑩ Contract Line Number Enter the contract line number.

6 CONVERTER MODE SETTING SCREEN

7. [V/RoIP] Menu (continued)

[V/RoIP]–[LINE Settings]

■ Device

Configure the details for telephone.

Device

① Impedance:	600
② On Hook Speed:	0.5 milliseconds
③ Ringer Impedance:	High
④ Ringer Threshold Select:	13.5 - 16.5 V
⑤ Current Limiting:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
⑥ TIP/RING Voltage Adjust:	3.5 V
⑦ Min. Operational Loop Current:	10 mA

- | | | |
|---------------------------------|----------------------------------------------------------------|------------------------|
| ① Impedance | Select the telephone line impedance. | (Default: 600) |
| ② On Hook Speed | Enter the time period the telephone detects the on hook state. | (Default: 0.5) |
| ③ Ringer Impedance | Select the line impedance for the telephone rings. | (Default: High) |
| ④ Ringer Threshold Select ... | Select the voltage range to detect the call. | (Default: 13.5 – 16.5) |
| ⑤ Current Limiting | Select “Enable” to limit the current. | (Default: Disable) |
| ⑥ TIP/RING Voltage Adjust | Select the appropriate voltage for TIP/RING. | (Default: 3.5) |
| ⑦ Min. Operational Loop Current | Select the minimum current for operational loop. | (Default: 10) |

■ Ring Time Detection

Configure the details for telephone line.

Ring Time Detection

① Min. Active Timer:	<input type="text" value="5"/>	[x100 milliseconds]
② Max. Inactive Timer:	<input type="text" value="45"/>	[x100 milliseconds]

- ① Min. Active Timer Enter the minimum period while the line is activated. (Default: 5)
- ② Max. Inactive Timer Enter the maximum period while the line is inactivated. (Default: 45)

■DTMF Encode

Configure the details for telephone.

DTMF Encode

*Setting values of Active Timer and Inactive Timer are set in five milliseconds steps.

① Active Timer:	<input type="text" value="80"/>	milliseconds
② Inactive Timer:	<input type="text" value="80"/>	milliseconds
③ Level:	<input type="text" value="-8"/> ▼	dB

- ① Active Timer Enter the time period while the DTMF encode signal is active. (Default: 80)
- ② Inactive Timer Enter the time period while the DTMF encode signal is inactive. (Default: 80)
- ③ Level Enter the time period while the DTMF encode signal level. (Default: –8)

■ Status Detection

Configure the details for telephone line.

Status Detection

① Dial Tone Detect:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
② Caller Connect:	RBT Stop ▾
③ Caller Disconnect:	BT ▾
④ Callee Disconnect:	BT ▾
⑤ Line Cut:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable

- ① Dial Tone Detect Select "Enable" to detect the dial tone signal. (Default: Enable)
- ② Caller Connect Select the detection type when the callee telephone's handset is picked up. (Default: RBT Stop)
- ③ Caller Disconnect..... Select the detection type when the callee telephone is put on. (Default: BT)
- ④ Callee Disconnect Select the detection type when the callee telephone is put on. (In the case of the call was initiated by the callee.). (Default: BT)
- ⑤ Line Cut Select "Enable" to detect when the telephone line is disconnected. (Default: Enable)

■ Tone Detection

Configure the details for telephone.

Tone Detection

*Setting values of Frequency1 and Frequency2 are set in four hertz steps.(except for Dial Tone)

*Setting values of Timing is set in milliseconds and in five milliseconds steps.

① Dial Tone

Frequency1: Hz

Frequency2: Hz

Timing:	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

② Ring Back Tone

Frequency1: Hz

Frequency2: Hz

Timing:	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF
	<input type="text" value="2000"/>	<input type="text" value="4000"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

③ Disconnect Tone

Frequency1: Hz

Frequency2: Hz

Timing:	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF	<input type="checkbox"/> ON	<input type="checkbox"/> OFF
	<input type="text" value="250"/>	<input type="text" value="250"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- ① Dial Tone Set the tone frequencies and timing when dialing.
- ② Ring Back Tone Set the tone frequencies and timing when the of callee telephone's handset is put on.
- ③ Disconnect Tone Set the tone frequencies and timing when the line is disconnected.

Items for each settings:

- ④ Frequency1
Frequency2 Enter the frequencies for the tone signal.
- ⑤ Timing Set the signal pattern by specifying the ON and OFF times.

■ SIP Server

Configure the details for the SIP server function.

SIP Server

① Index:	<input type="text" value="3"/>
② IP Phone Number:	<input type="text"/>
③ SIP Server Address:	<input type="text"/>
④ SIP Service Domain:	<input type="text"/>
⑤ User ID:	<input type="text"/>
⑥ Password:	<input type="text"/>
⑦ Registration Expiration:	<input type="text" value="600"/> seconds
⑧ Registration Renewal Timer:	Normal: <input type="text" value="50"/> % Exception: <input type="text" value="50"/> %

- ① Index The index assigned for the entry.
Setting range: "1" to "12"

- ② IP Phone Number Enter the IP phone number up to 31 characters.

- ③ SIP Server Address Enter the server address or domain name up to 63 characters.

- ④ SIP Service Domain Enter the server domain name up to 63 characters.

- ⑤ User ID Enter the authentication user ID up to 63 characters.

- ⑥ Password Enter the authentication password.
• All input characters are displayed as "*" or "."

- ⑦ Registration Expiration ... Enter the registration expiration time.
Range: "60" to "28800" (second) (Default: 600)

- ⑧ Registration Renewal Timer : Enter the registration renewal interval time .
(Default: Normal condition: 50, Exception condition: 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.
Range: "10" to "90" (%)

6 CONVERTER MODE SETTING SCREEN

7. [V/RoIP] Menu (continued)

[V/RoIP]–[IP Line]

List of SIP Server Entries

You can edit the SIP server settings on the list.

List of SIP Server Entries

① Index	② IP Phone Number	③ Connection Status	④ Calling Number Notice	⑤ Refresh	⑥ Re-registration
1	0512345678	Connecting	Notify ▼		⑦ Edit ⑧ Delete
2	400	Connecting	Notify ▼		⑦ Edit ⑧ Delete
					⑨ Delete All
					⑩ Apply ⑪ Reset

• This is an example.

- ① Index Displays the value set in [SIP Server].
- ② IP Phone Number Displays the value set in [SIP Server].
- ③ Connection Status The connection status ([Connecting]/[Connection successful]/[Connection failure]) of the SIP server.
 - When "Connecting" doesn't appear, check the registered settings.
- ④ Calling Number Notice ... Select "Disable" to not notify your IP phone number. (Default: Notify)
- ⑤ <Refresh> Click to refresh the screen
 - When "Connecting" doesn't appear, check the registered settings.

6 CONVERTER MODE SETTING SCREEN

7. [V/RoIP] Menu (continued)

[V/RoIP]–[IP Line]

List of SIP Server Entries (continued)

List of SIP Server Entries

① Index	② IP Phone Number	③ Connection Status	④ Calling Number Notice	⑤ Refresh	⑥ Re-registration
1	0512345678	Connecting	Notify ▼	⑦ Edit	⑧ Delete
2	400	Connecting	Notify ▼	⑦ Edit	⑧ Delete

⑨ Delete All
 ⑩ Apply Reset ⑪

- This is an example.

- ⑥ <Re-registration> Click to re-connect to the SIP server.
- ⑦ <Edit> Click to edit the entry.
- ⑧ <Delete> Click to delete the entry.
- ⑨ <Delete All> Click to delete all entries.
- ⑩ <Apply> Click to apply the entries.
- ⑪ <Reset> Click to restore the settings.
 - You cannot restore after clicking <Apply>.

Peer to Peer Common Setting

Peer to Peer Common Setting

Calling from the WAN: Inhibit

Calling from the WAN Select "Allow" to permit to receive the Peer to Peer call from WAN side. (Default: Inhibit)

Peer to Peer

Peer to Peer

1 Index: 1
2 SIP URI: sip:

1 Index Enter the index assigned for the entry. Setting range:"1" to"100"

2 SIP URI Enter the SIP URI up to 63 characters in either format below.

- sip: [SIP username]@[VE-PG3 IP address]
• sip: [SIP username]@[Host name.domain name]

About the [SIP username] part:

Enter an alphabet or number in the [SIP username].

- Use at least one alphabet.

About the [Host name.domain name] part:

- When the VE-PG3 IP address is registered in your party's phone book, enter the IP address (LAN).
• When the VE-PG3 host name is registered in the dynamic DNS or static IP address in your party's phone book, enter the specified host name (ex. telephone) or domain name (ex. icom.co.jp).

List of Peer to Peer Entries

List of Peer to Peer Entries

Index	SIP URI	
1	sip:VEPG3@telephone.icom.co.jp	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

• This is an example.

- ① Index Displays the index assigned for the entry.
- ② SIP URI Displays the SIP URI set in [Peer to Peer].
- ③ <Edit> Click to edit the entry.
- ④ <Delete> Click to delete the entry.
- ⑤ <Delete All> Click to delete all entries.

■ VoIP Phone Book

You can save and load the VoIP phone book file.

Save or Write the VoIP Phone Book

① Load Settings from File:	<input type="text"/>	<input type="button" value="Browse..."/>	<input type="button" value="Write"/>
	A CSV format file can be written to this product. When the file is written, the current settings will be overwritten.		
② Save to File:	<input type="button" value="Save"/>	Save to the voiptbl.csv file.	

- ① Load Settings from File ... You can reload the saved [Phone Book] file (Extension: csv) and write it to the VE-PG3.
Click <Browse...>, and select the [Phone Book] file (Example: voiptbl.csv. csv) to load. Verify that the selected file is displayed, and then click <Write>.
- The contents of the file is loaded to [List of VoIP Phone Book Entries].
- ② Save to the File..... Click <Save>, to save the [List of VoIP Phone Book Entries] table in the PC, as the [List of VoIP Phone Book] file (Extension: csv).
- You can edit the saved file on a spreadsheet.

VoIP Phone Book Entry

Set the phone book data.

VoIP Phone Book Entry

① Index:

② Name:

③ Phone Number:

④ SIP URI: sip:

- ① Index Assign the number to the entry.
- ② Name Enter the callee name up to 31 characters.
- ③ Phone Number Enter the phone number.
 - When communicating in Peer to Peer, enter the numbers and symbol (#, *).
 - NOTE:** The numbers assigned for the emergency telephone call in your country (ex. 911) are not accepted. If such call number is set, making the emergency telephone call is impossible.
- ④ SIP URI When call in Peer to Peer, without the SIP server, enter the callee SIP URI up to 63 characters.
Enter the either format below;
 - sip: [SIP username]@[IP address]
 - sip: [SIP username]@[host name.domain name]

List of VoIP Phone Book Entries

The list of VoIP phone book.

List of VoIP Phone Book Entries

① Index	② Name	③ Phone Number	④ SIP URI		
1	VE-PG3	401	sip:VEPG3@192.168.0.20	Edit	Delete
Delete All					

- ① Index The assigned number to the entry.
- ② Name The callee name.
- ③ Phone Number The phone number.
- ④ SIP URI The callee SIP URI.

6 CONVERTER MODE SETTING SCREEN

8. [Extension Connect] Menu

[Extension Connect]–[Basic]

■ Basic

Configure the details for extension number and callee destination.

- Some items may differ according to the setting.

Basic

① Transfer Switch Back Time: seconds Ring Time seconds
② Hold Tone: ▾
③ Hold Tone Volume: 0 dB +6 dB
④ Transfer from PHONE: Disable Enable

- | | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ① Transfer Switch Back Time | Enter the switch back time when transferring a call. (Default: 20, 30)
(Example on the default value; When there is no response from the transfer destination telephone for 20 seconds, the call received telephone rings for 30 seconds.) |
| ② Hold Tone | Select the hold tone type. (Default: Hold Tone 1) |
| ③ Hold Tone volume | Select the hold tone level. (Default: 0 dB) |
| ④ Transfer from PHONE..... | Select “Enable” to transfer a call from telephone. (Default: Disable) |

■ Extension Connect

Set the extension number and call destination number.

- The displayed items may differ, depending on the setting.

Extension

① Extension Number:

② Port Type: Transceiver 1 (TRX1) ▼

③ Outgoing Line Priority: IP Line ⇒ LINE ▼

⑤ Outgoing Line (IP Line): None ▼

⑥ Outgoing Line (LINE): None ▼

⑦ Outgoing Line (Peer to Peer): None ▼

⑧ Default Call Destination Number:

Digital Transceiver

Extension

① Extension Number:

② Port Type: Digital Transceiver 1 (D-TRX1) ▼

④ Radio System Group: None ▼

⑤ Outgoing Line Priority: IP Line ⇒ LINE ▼

⑥ Outgoing Line (IP Line): None ▼

⑦ Outgoing Line (LINE): None ▼

⑧ Outgoing Line (Peer to Peer): None ▼

⑨ DID Call: Disable Enable

SIP Phone

Extension

① Extension Number:

② Port Type: SIP Phone(KX-UT Series) ▼

⑩ Password:

③ Outgoing Line Priority: IP Line ⇒ LINE ▼

⑤ Outgoing Line (IP Line): None ▼

⑥ Outgoing Line (LINE): None ▼

⑦ Outgoing Line (Peer to Peer): None ▼

⑪ MAC Address:

- ① Extension Number [Enter the extension number (2 to 7 digits) of the device connected to the port set in [Port Type] (②).
- ② Port Type Select the type of port to connect the device. (Default: Transceiver 1 (TRX1))
 - You cannot select the port which is already used.
- ③ Outgoing Line Priority Select the line priority for outgoing call. (Default: IP Line=> LINE)
- ④ Radio System Group Select the group to substitutionally receive the call to the group. (Default: None)
- ⑤ Outgoing Line (IP Line) ... Select the IP line for outgoing call. (Default: None)
- ⑥ Outgoing Line (LINE) Select the PSTN line for outgoing call. (Default: None)

(Continued on the next page.)

6 CONVERTER MODE SETTING SCREEN

8. [Extension Connect] Menu (continued)

[Extension Connect]—[Extension Connect]

Extension (continued)

Extension

- ① Extension Number:
- ② Port Type: Transceiver 1 (TRX1) ▼
- ③ Outgoing Line Priority: IP Line ⇒ LINE ▼
- ⑤ Outgoing Line (IP Line): None ▼
- ⑥ Outgoing Line (LINE): None ▼
- ⑦ Outgoing Line (Peer to Peer): None ▼
- ⑧ Default Call Destination Number:

Digital Transceiver

Extension

- ① Extension Number:
- ② Port Type: Digital Transceiver 1 (D-TRX1) ▼
- ④ Radio System Group: None ▼
- ⑤ Outgoing Line Priority: IP Line ⇒ LINE ▼
- ⑥ Outgoing Line (IP Line): None ▼
- ⑦ Outgoing Line (LINE): None ▼
- ⑧ Outgoing Line (Peer to Peer): None ▼
- ⑨ DID Call: Disable Enable

SIP Phone

Extension

- ① Extension Number:
- ② Port Type: SIP Phone(KX-UT Series) ▼
- ⑩ Password:
- ③ Outgoing Line Priority: IP Line ⇒ LINE ▼
- ⑤ Outgoing Line (IP Line): None ▼
- ⑥ Outgoing Line (LINE): None ▼
- ⑦ Outgoing Line (Peer to Peer): None ▼
- ⑪ MAC Address:

⑦ Outgoing Line (Peer to Peer) Select the SIP username to be used in the Peer to Peer communication.
(Default: None)

⑧ Default Call Destination Number Enter the call destination number for the device which is selected in [Port Type] (②).

⑨ DID Call Select "Enable" to use the DID (Direct Inward Dialing) function which allows you to call the specified radio from an IP phone. (Default: Disable)

Digital Transceiver

Extension (continued)

Extension

① Extension Number:

② Port Type: **Transceiver 1 (TRX1)** ▼

③ Outgoing Line Priority: **IP Line ⇒ LINE** ▼

⑤ Outgoing Line (IP Line): **None** ▼

⑥ Outgoing Line (LINE): **None** ▼

⑦ Outgoing Line (Peer to Peer): **None** ▼

⑧ Default Call Destination Number:

Digital Transceiver

Extension

① Extension Number:

② Port Type: **Digital Transceiver 1 (D-TRX1)** ▼

④ Radio System Group: **None** ▼

⑤ Outgoing Line Priority: **IP Line ⇒ LINE** ▼

⑥ Outgoing Line (IP Line): **None** ▼

⑦ Outgoing Line (LINE): **None** ▼

⑧ Outgoing Line (Peer to Peer): **None** ▼

⑨ DID Call: Disable Enable

SIP Phone

Extension

① Extension Number:

② Port Type: **SIP Phone(KX-UT Series)** ▼

⑩ Password:

③ Outgoing Line Priority: **IP Line ⇒ LINE** ▼

⑤ Outgoing Line (IP Line): **None** ▼

⑥ Outgoing Line (LINE): **None** ▼

⑦ Outgoing Line (Peer to Peer): **None** ▼

⑪ MAC Address:

SIP Phone

- ⑩ Password Enter the password to access the VE-PG3 from a SIP phone up to 31 characters.
- Enter the same password for the SIP phone.

SIP Phone

- ⑪ MAC Address Enter the IP phone's MAC address.

■ List of Extension Entries

Displays the extension numbers and port type set in [Extension].

List of Extension Entries			
Extension Number	Port Type	①	②
201	Transceiver 1 (TRX1)	Edit	Delete
301	Transceiver 2 (TRX2)	Edit	Delete
501	Digital Transceiver 1 (D-TRX1)	Edit	Delete
401	SIP Phone(KX-UT Series)	Edit	Delete
			③ Delete All

• This is an example.

- ① <Edit> Click to edit the setting.
- ② <Delete> Click to delete the setting.
- ③ <Delete All> Click to delete the entries.

PHONE

Configure the details for telephone.

- Some items may differ according to the setting.

PHONE

① FAX Connection:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
② RX Volume:	0 dB
③ TX Volume:	0 dB
④ Blank Time between Digits:	5 seconds
⑤ Echo Canceller:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑥ Echo Suppression:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑦ Echo Suppression Level:	-30 dB
⑧ CNG Signal:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑨ CNG Signal Level:	-55 dB

① FAX Connection	Select "Enable" when connecting a FAX.	(Default: Enable)
② RX Volume:	Select the RX audio volume level.	(Default: 0)
③ TX Volume:	Select the TX audio volume level.	(Default: 0)
④ Blank Time between Digits	Enter the delay to starts to call after the dialing.	(Default: 5)
⑤ Echo Canceler	Select "Enable" to turn ON the echo canceller.	(Default: Enable)
⑥ Echo Suppression	Select "Enable" to reduce the echo.	(Default: Enable)
⑦ Echo Suppression Level ...	Select the echo suppress level.	(Default: -30)
⑧ CNG Signal	Select "Enable" to intentionally apply the noise signal to the RX audio.	(Default: Enable)
⑨ CNG Signal Level	Select the noise level to apply to the RX audio.	(Default: -55)

■ Extension Group Entry (New)

You can manage several extension numbers in the group (up to 26 groups).

You can also set whether the extension number (device) accepts the call or not.

If no response is returned in a specified time period, you can transfer the call to other extension for 2nd and 3rd pick-up.

Extension Group Entry (New)

① Extension Group Entry Name:

② Extension Group Entry Number:

1st Pickup

③ Extension Number: 200(TRX1) 300(PHONE)

2nd Pickup

④ Startup Time:

③ Extension Number: 200(TRX1) 300(PHONE)

3rd Pickup

④ Startup Time:

③ Extension Number: 200(TRX1) 300(PHONE)

- In this example, the call designated to “200” is transferred to “300” after 10 seconds passed, then the call is transferred again to both “200” and “300” after 20 seconds.

① Extension Group Entry Name

Enter the name up to 31 characters.

② Extension Group Entry Number

Enter the group number (2 to 7 digits) for the group entry (①).

The call is received according to the setting, when dialing the set callee destination number.

- You cannot set the number which is already set as the extension number.

③ Extension Number

Enter the extension number for the device when a call is received in the group number.

④ Startup Time

Enter the time period before the call receive is recognized.

(Default: Not used)

Options: "Not used," "10 sec." to "60 sec."

List of Extension Group Entries

List of Extension Entries

Extension Number	Port Type		
201	Transceiver 1 (TRX1)	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
401	Transceiver 2 (TRX2)	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
<input type="button" value="Delete All"/>			

- This is an example.

- ① <Edit> Click to edit the setting.
- ② <Delete> Click to delete the setting.
- ③ <Delete All> Click to delete all entries.

■ Calling

Configure the line settings to call the designated callee.

Calling

① Index	② Prefix	③ Phone Number	④ Priority	⑤ Line Appointment	Calling Line		⑧
					Primary ⑥	Secondary ⑦	
1 ▾			IP Line ⇄ LINE ▾	Extension Setting Priority ▾	▾	▾	Add

- ① Index Assign the number (1 to 1000) for the entry.
- ② Prefix Enter the prefix up 7 digits.
- ③ Phone Number Enter the destination extension number up to 15 digits.
- ④ Priority Select the priority of the line.
- ⑤ Line Appointment Select the prior line to call.
- ⑥ Primary Select the primary line.
- ⑦ Secondary Select the secondary line.
- ⑧ <Add> Click to add the setting to the list.

6 CONVERTER MODE SETTING SCREEN

8. [Extension Connect] Menu (continued)

[Extension Connect]–[Calling]

List of Calling Entries

List of Calling Entries

Index	Prefix	Phone Number	Priority	Line Appointment	Calling Line		①	②	
					Primary	Secondary			
1	10	05012345678	IP Line ⇒ LINE	Extension settin			<input type="button" value="Edit"/>	<input type="button" value="Delete"/>	<input type="button" value="Delete All"/>

• This is an example.

- ① <Edit> Click to edit the setting.
- ② <Delete> Click to delete the setting.
- ③ <Delete All> Click to delete all entries.

■ V/RoIP Incoming Call Setting

Set the callee destination for each phone number set on the [V/RoIP] Menu.

V/RoIP Incoming Call Setting

① Phone Number	② Line	③ Receive Port	④ Ring Tone	⑤ Queuing
0512345678	IP Line	Not used ▼	Outside A ▼	
400	IP Line	Not used ▼	Outside A ▼	

⑥ ⑦

• This is an example.

- ① Phone Number Displays the phone number (Contract Line Number (PSTN), IP Phone Number (IP line) or SIP URI user name (Peer to Peer)) set on the [IP Line] screen.
- ② Line..... Displays the line type set on the [IP Line] screen.
- ③ Receive Port Select the extension number (dial-in service) of the device (port), when a call to the set extension number is received.
(Default: Not used)
- ④ Ring Tone Select the ring tone type when receives a call.
- ⑤ Queuing Select "Enable" to use the Receive Queuing function.
The Receive Queuing function returns the RBT response status while the callee's line is busy, to keep calling until the callee's line is open.
- ⑥ <Apply> Click to apply the change.
- ⑦ <Reset> Reset the setting.

■ Special Number

Set the special numbers.

Special Number

① Call Pickup:	<input type="text" value="*81"/>
② Directed Call Pickup:	<input type="text" value="*80"/>
③ Group Pickup:	<input type="text" value="**"/>
④ OFF-hook Sending:	<input type="text"/>
⑤ OFF-hook Replying:	<input type="text" value="#"/>
⑥ ON-hook:	<input type="text" value="#"/>
⑦ Immediate Calling:	<input type="text" value="None"/>
⑧ Special System Number:	<input type="text" value="*82"/> <input type="text" value="*90"/> <input type="text" value="*91"/> <input type="text" value="*93"/> <input type="text" value="*92"/> <input type="text" value="*83"/> <input type="text" value="*89"/>

- ① Call Pickup Enter the extension number to substitutively respond the call to other extension. (Default: *81)

- ② Directed Call Pickup Enter the number to substitutively respond the call to other extension specified by the input number + the extension number. (Default: *80)

- ③ Group Pickup Enter the callee destination number to substitutively receive the call which is designated to other port belongs to the same group. (Default: **)
 - Numbers (0–9) and symbols (#, *) up to 3 digits.

- ④ OFF-hook Sending Select the tone signal when starting to dial. Hold down this key for a while, then push the number keys to call. (Default: None)

- ⑤ OFF-hook Replying Select the tone signal to receive the call.
 - When no tone signal is specified, the call is automatically received when you are called. (Default: #)

- ⑥ ON-hook Select the tone signal to end (disconnect) the call.
 - Pushing this key disconnects the communication route. (Default: #)

- ⑦ Immediate Calling Set the DTMF code for immediately transmitting the code. (Default: None)

- ⑧ Special System Number ... Enter the special system number. (Default: *82, *90, *91, *93, *92, *83, *89)

6 CONVERTER MODE SETTING SCREEN

8. [Extension Connect] Menu (continued)

[Extension Connect]–[Special Number]

Radio Call Prefix

Enter the prefix number to directory call a radio by specifying the communication route.

- Example: When calling the radio (Prefix ID: 1, ID: 6), you can call the radio by dialing “*001010006.”

Radio Call Prefix

Digital Transceiver 1:	Individual Call	*001	Group Call	#001	All Call	
Digital Transceiver 2:	Individual Call	*002	Group Call	#002	All Call	
Digital Transceiver 3:	Individual Call	*003	Group Call	#003	All Call	
Digital Transceiver 4:	Individual Call	*004	Group Call	#004	All Call	
Bridge 1:	Individual Call	*011	Group Call	#011	All Call	
Bridge 2:	Individual Call	*012	Group Call	#012	All Call	
Bridge 3:	Individual Call	*013	Group Call	#013	All Call	
Bridge 4:	Individual Call	*014	Group Call	#014	All Call	
Radio System Group 1:	Individual Call	*101	Group Call	#101	All Call	
Radio System Group 2:	Individual Call	*102	Group Call	#102	All Call	
Radio System Group 3:	Individual Call	*103	Group Call	#103	All Call	
Radio System Group 4:	Individual Call	*104	Group Call	#104	All Call	

Outside Call Dispatch

Outside Call Dispatch

① Outside Call Number	② Line	③ Prefix
0512345678	IP Line	
400	IP Line	

- ① Outside Call Number Displays the call number.
- ② Line..... Displays the line type.
- ③ Prefix Enter the prefix.

6 CONVERTER MODE SETTING SCREEN

8. [Extension Connect] Menu (continued)

[Extension Connect]—[SIP Phone]

■ Phone Maintenance

Phone Maintenance

① Extension Number	② Model	③ Status	④ Group	⑤ Reboot All
401	SIP Phone(KX-UT Series)	Not Connected	Group 1 ▾	Reboot ⑥

- ① Extension Number The assigned extension number.
- ② Model Displays the device for the extension number.
- ③ Status Displays the connection status.
- ④ Group Select the belonged group.
- ⑤ <Reboot> Click to reboot the IP phone. (For only the KX-UT series IP phone)
- ⑥ <Reboot All> Click to reboot all the IP phones on the list. (For only the KX-UT series IP phone)

■ Telephone Group

Telephone Group

① Group Select:	<input type="text" value="Group 13"/>	<input type="button" value="Group Edit"/>
② Pickup Group Number:	<input type="text" value="13"/>	
③ Dial Waiting Time:	<input type="text" value="5"/> seconds	
④ Key Click Tone:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	
⑤ Call Waiting:	<input checked="" type="radio"/> Refuse <input type="radio"/> Allow	
⑥ Call Pickup Object:	<input type="text" value="Extension Only"/>	
⑦ Group Pickup Object:	<input type="text" value="Outside Call/Extension"/>	
⑧ Directed Call Pickup Object:	<input type="text" value="Outside Call/Extension"/>	
⑨ Long-Hold Watch Time:	<input type="text" value="60"/> seconds	

- ① Group Select..... Select the setting group to edit. (Default: Common Setting)
- ② Pickup Group Number..... Enter the pickup group number. The telephone with the same group number can communicate each other.
- ③ Dial Waiting Time Enter the delay when starts to call after dialing. (For only the KX-UT series IP phone) (Default: 5)
- ④ Key Click Tone Select “Enable” to emit the click sound when a key is pushed (For only the KX-UT series IP phone). (Default: Enable)
- ⑤ Call Waiting Select “Allow” to enable to receive a call during talking. (For only the KX-UT series IP phone)
 - Assigning two or more DN keys (as the function key) is necessary for this function.
 - Pushing the DN key to switch the line, 3 persons can talk by taking turns.
 (Default: Refuse)
- ⑥ Call Pickup Object Select the object to pick up the call. (Default: Extension Only)
- ⑦ Group Pickup Object Select the object to pick up the group call. (Default: Outside Call/Extension)
- ⑧ Directed Call Pickup Object Select the object scope to pick up the call. (Default: Outside Call/Extension)
- ⑨ Long-Hold Watch Time ... Enter the delay until the hold alarm sounds. (Default: 60)

6 CONVERTER MODE SETTING SCREEN

8. [Extension Connect] Menu (continued)

■ Button Assignment

Select the function assignment option for each button.

Button Assignment

Button 12 DN Key ▼	Button 24 DN Key ▼
Button 11 DN Key ▼	Button 23 DN Key ▼
Button 10 DN Key ▼	Button 22 DN Key ▼

■ Tone

Edit the tone pattern for each telephone line parameter.

Tone

*Setting values of Timing is set in milliseconds.

Dial Tone

Frequency1: 350 Hz

Frequency2: 440 Hz

Level: 0 dB

Repeat: Disable Enable

Timing:	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON
	60	0								

Busy Tone

Frequency1: 480 Hz

■ Ring Tone

Edit the tone pattern for each telephone line parameter.

Ring Tone

*Setting values of Timing is set in milliseconds.

Ring Tone 1

Timing:	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	2000	4000						

Ring Tone 2

Timing:	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	800	400	800	4000				

Ring Tone 3

Timing:	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	400	200	400	200	800	4000		

Ring Tone 4

Timing:	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	300	200	1000	200	300	4000		

Ring Tone 5

Timing:	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	2000	4000						

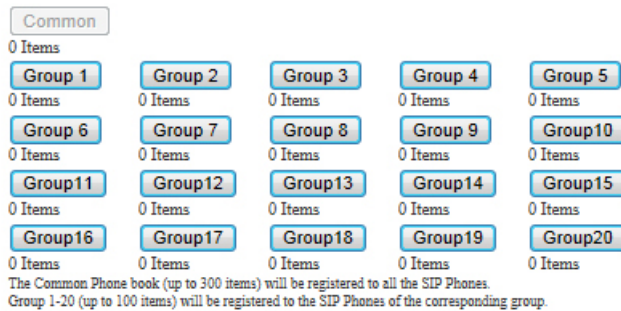
Ring Tone Assignment

Outside A:	Ring Tone 1 ▼
Outside B:	Ring Tone 2 ▼
Outside C:	Ring Tone 3 ▼
Extension A:	Ring Tone 5 ▼
Extension B:	Ring Tone 4 ▼
Extension C:	Ring Tone 3 ▼
Default Extension:	Ring Tone 2 ▼

■ Group Select

Select the phone book group from Group 1 to 20, or Common.

Group Select



Common
0 Items

Group 1 0 Items Group 2 0 Items Group 3 0 Items Group 4 0 Items Group 5 0 Items

Group 6 0 Items Group 7 0 Items Group 8 0 Items Group 9 0 Items Group10 0 Items

Group11 0 Items Group12 0 Items Group13 0 Items Group14 0 Items Group15 0 Items

Group16 0 Items Group17 0 Items Group18 0 Items Group19 0 Items Group20 0 Items

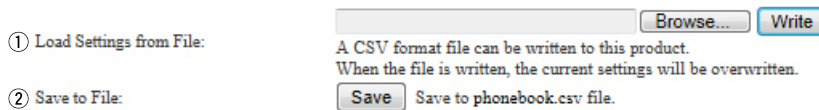
The Common Phone book (up to 300 items) will be registered to all the SIP Phones.
Group 1-20 (up to 100 items) will be registered to the SIP Phones of the corresponding group.

■ Save or write the Phone Book

You can save and load the phone book file. (For only the KX-UT series IP phone)

The phone book can contain up to 300 common call destinations and up to 100 group call destinations.

Save or Write the Phone Book



① Load Settings from File:

② Save to File: Save to phonebook.csv file.

A CSV format file can be written to this product.
When the file is written, the current settings will be overwritten.

- ① Load a saved setting file ... You can reload the saved [Phone Book] file (Extension: csv) and write it to the VE-PG3.
Click <Browse...>, and select the [Phone Book] file (Example: phonebook.csv) to load. Verify that the selected file is displayed, and then click <Write>.
 - The contents of the file is loaded to [List of Phone Book Entries].
- ② Save to the File..... Click <Save> to save the [List of Phone Book Entries] table in the PC, as the [List of Phone Book] file (Extension: csv).
 - You can edit the saved file on a spreadsheet.

■ Phone Book Entry

Phone Book Entry

① No.:	<input type="text" value="1"/> ▼
② Name:	<input type="text"/>
③ Nickname:	<input type="text"/>
④ Phone Number:	<input type="text"/>
⑤ Speed Dial Number:	<input type="text"/>
⑥ Display Types:	<input type="text" value="Phone Number"/> ▼
⑦ Line Types:	<input type="text" value="Outside Call"/> ▼
⑧ Phone Book Groups:	<input type="text" value="Group 1"/> ▼

- | | | |
|---------------------------|----------------------------------------------|-------------------------|
| ① No. | Assign the number for the entry. | |
| ② Name | Enter a name for the entry. | |
| ③ Nick Name..... | Enter a nick name. | |
| ④ Phone Number | Enter the phone number. | |
| ⑤ Speed Dial Number | Enter a speed dial number for short calling. | |
| ⑥ Display Types | Select the display type. | (Default: Phone Number) |
| ⑦ Line Types..... | Select the line type. | (Default: Outside Call) |
| ⑧ Phone Book Groups | Select the phone book group. | (Default: Group 1) |

6 CONVERTER MODE SETTING SCREEN

8. [Extension Connect] Menu (continued)

[Extension Connect]–[Phone Book]

■ List of Phone Book Entries

List of Phone Book Entries

No.	Name	Nickname	Phone Number	Speed Dial Number	Display Types	Line Types	Phone Book Groups	①	②
1	Radio1	R1	0123456789	012	Phone Number	Outside Call	Group 1	Edit	Delete
								③	Delete all

- ① <Edit> Click to edit the phone book entry.
- ② <Delete> Click to delete the phone book entry.
- ③ <Delete All> Click to delete all phone book entries.

■ Save or Write the Callee ID to Phone Number Setting

You can load or save the setting to convert the SelCall number into the IP phone number.

Save or Write the Callee ID to Phone Number Setting

① Load Settings from File:
A CSV format file can be written to this product.
When the file is written, the current settings will be overwritten.

② Save to File: Save to call_tbl.csv file.

① Load a Saved Setting File

.....

You can reload the saved [SelCall Number Converting Setting] file (Extension: csv) and write it to the VE-PG3.

Click <Browse...>, and select the [SelCall Number Converting Setting] file (Example: call_tbl.csv) to load.

Verify that the selected file is displayed, and then click <Write>.

- The contents of the file is loaded to [List of SelCall Number Converting Entries].

② Save to the File

.....

Click <Save> to save the [List of Callee Phone Number Entries] table in the PC, as the [Callee ID to Phone Number] file (Extension: csv).

- You can edit the saved file on a spreadsheet.

■ Callee ID to Phone Number

Configure the settings to convert the SelCall number into the IP phone number.

Callee ID to Phone Number

① Index	② Name	Callee ID			⑥ Phone Number	⑦
		③ Call Type	④ Prefix ID	⑤ Destination ID		
1	Radio1	Individual	1	123	0123456789	Add

- This is an example.

- ① Index Enter the index assigned for the entry.
Setting range: "1" to "1000"
- ② Name You can name the entry. (Up to 31 characters)
- ③ Call Type Select the type of call. (Default: Individual)
 - Individual: Call only specified radio.
 - Group: Call all radios that belong to the specified group.
 - All: Call all radios.
- ④ Prefix ID Enter the prefix ID (0000 to 9999).
- ⑤ Destination ID Enter the destination ID.
Range: "1" to "65519"
- ⑥ Phone Number Enter the number to dial, which follows the radio call number, to call a radio from the IP phone. (Up to 31 characters)
 - The set phone number is displayed on the IP phone as the caller number.
- ⑦ <Add> Click to add the setting to the list.

6 CONVERTER MODE SETTING SCREEN

9. [Transceiver Connection] Menu (continued)

[Transceiver Connection]–
[Callee ID to Phone Number]

List of Callee ID to Phone Number Entries

List of Callee ID to Phone Number Entries

① Index	② Name	Callee ID			⑥ Phone Number		
		③ Call Type	④ Prefix ID	⑤ Destination ID		⑦ Edit	⑧ Delete
1	Radiol	Individual	1	123	0123456789	Edit	Delete
						⑨ Delete All	

• This is an example.

- ① Index the index assigned for the entry.
- ② Name The assigned name.
- ③ Call Type The type of call.
- ④ Prefix ID..... The prefix ID.
- ⑤ Destination ID The destination ID.
- ⑥ Phone Number The assigned phone number.
- ⑦ <Edit>..... Click to edit the entry.
- ⑧ <Delete> Click to delete the entry.
- ⑨ <Delete All> Click to delete all entries.

■ User Transmission Restriction

Select "Allow" to permit the transmission by the specified radio.

User Transmission Restriction

Restriction Type: Allow Deny

■ ID Restriction

Configure the TX restriction by ID.

ID Restriction

① Index: ▼
 ② Prefix ID:
 ③ ID:

- ① Index Assign the number for the entry.
- ② Prefix ID Enter the ID of the radio which is inhibited to transmit.
- ③ ID Enter the prefix ID of the radio which is inhibited to transmit.

■ List of ID Restriction Entries

The list of ID restriction.

List of ID Restriction Entries

① Index	② Prefix ID	③ ID	④	⑤
1	10	123	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
2	10	456	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

⑥

- ① Index the index assigned for the entry.
- ② Prefix ID The prefix ID.
- ③ ID The assigned ID.
- ④ <Edit> Click to edit the entry.
- ⑤ <Delete> Click to delete the entry.
- ⑥ <Delete All> Click to delete all entries.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Select the radio to be connected to [TRX1]/[TRX2].

Transceiver Model

Transceiver Model:

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.

Transceiver Model

Select the radio to be connected to the [TRX1]/[TRX2] port.

(Default: IC-F5060/F6060)

- If your radio needs detailed setting, select “General Setting.”

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

Transceiver 1 (TRX1)/Transceiver 2 (TRX2) "General Setting"

The setting screen when "General Setting" is selected in [Transceiver Mode].

Transceiver Connection

① TX Volume Offset to the Transceiver:	-22	dB
② RX Volume Offset from the Transceiver:	-24	dB
③ PTT Type:	<input checked="" type="radio"/> Single PTT <input type="radio"/> Superimposed PTT	
④ PTT Logic:	<input type="radio"/> High <input checked="" type="radio"/> Low	
⑤ Power Detection:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	
⑦ Send and Receive Change:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	
⑧ Serial Communication:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	
⑨ TCP Port Number:	50000	
⑩ Communication Control:	<input checked="" type="radio"/> Full-Duplex <input type="radio"/> Half-Duplex	
⑫ Signal Level:	±5V (RS-232C)	

*Appears only when "Enable" is selected in [Serial Communication].

- ① TX Volume Offset to Transceiver: Adjust the VE-PG3's transmitting audio level that is sent to the connected transceiver between "+15" and "-30" (dB). (Default: -19)
- ② RX Volume Offset from Transceiver: Adjust the VE-PG3's audio input level of the audio signal that is received from the connected transceiver between "+26" to "-26" (dB). (Default: -24)
- ③ PTT Type Select the PTT circuit type. (Default: Single PTT)
- Single PTT: The speaker line and PTT input line are separated.
 - Superimposed PTT: The PTT input line is superimposed on the MIC line.
- ④ PTT Logic Select the PTT logic. (Default: Low)
- **High:** PTT line becomes "High" when it is pushed. (Active High)
 - **Low:** PTT line becomes "Low" when it is pushed. (Active Low)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2) (continued)

Transceiver Connection

① TX Volume Offset to the Transceiver:	-22 dB
② RX Volume Offset from the Transceiver:	-24 dB
③ PTT Type:	<input checked="" type="radio"/> Single PTT <input type="radio"/> Superimposed PTT
④ PTT Logic:	<input type="radio"/> High <input checked="" type="radio"/> Low
⑥ Power Detection:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
⑦ Send and Receive Change:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
⑧ Serial Communication:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
⑨ TCP Port Number:	50000
⑩ Communication Control:	<input checked="" type="radio"/> Full-Duplex <input type="radio"/> Half-Duplex
⑫ Signal Level:	±5V (RS-232C)

*Appears only when “Enable” is selected in [Serial Communication].

- | | |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ⑤ SQL Type | Select the squelch signal type. (Default: Single SQL) |
| | <ul style="list-style-type: none"> • Single SQL: The squelch signal is separately input. • Superposition SQL: The squelch signal is superimposed on the MIC input line. |
| ⑥ SQL Logic | Select the squelch detection type. (Default: High) |
| | <ul style="list-style-type: none"> • High: The squelch line becomes “High” when the VE-PG3 detects the receiving signal. (Active High) • Low: The squelch line becomes “Low” when the VE-PG3 detects the receiving signal. (Active Low) |
| ⑦ Power Detection | Select “Enable” to detect the power status (ON/OFF) of the radio. (Default: Enable) |
| ⑧ Send and Receive Change | Select “Enable” to the commonly used line as the MIC input (A1 terminal) and audio output (A3 terminal). (Default: Disable)
If your radio commonly uses one line as the MIC input and AF output, select “Enable”. |
| ⑨ Serial Communication | Select “Enable” to use the serial communication. (Default: Disable) |
| ⑩ TCP Port Number | Enter the port number between 1024 and 65535. (Default: 50000) |
| ⑪ Communication Control ... | Select the communication type. (Default: Full duplex) |
| ⑫ Signal Level | Select the serial communication line signal level. (Default: ±5 V (RS-232C)) |

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver Control

Configure the details fro [TRX1]/[TRX2] port.

Transceiver Control

① Priority Receive:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
② PTT Cancel:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ TX Volume:	0 dB
④ RX Volume:	0 dB
⑤ Transceiver's Beep Invalidity Time:	400 milliseconds
*Setting values are set in five milliseconds steps.	
Notice Tone to the Transceiver	
⑥ Reception Notice:	Not used
⑦ Calling Notice Tone:	Notice Tone 2
⑧ Send Connect Success Tone:	Notice Tone 2
⑨ Disconnect Notice Tone:	Notice Tone 3
⑩ Send Connect Failure Tone:	Notice Tone 3
⑪ Notice Tone Volume:	0 dB
PTT Control Type from the Telephone	
⑫ PTT Control Type:	DTMF
⑬ PTT-ON Tone:	0
⑭ PTT-OFF Tone:	0

- ① Priority Receive Mode Select "Enable" to keep receiving, even if the transceiver detects audio from the SIP phone. (Default: Disable)
- ② PTT Cancel Mode Select "Enable" to abort the calling to an IP phone when a transmit request is detected, (Default: Disable)
- ③ TX Volume Adjust the VE-PG3's transmitting audio level that is sent to the connected transceiver between "+6" and "-12" (dB). (Default: 0)
- ④ RX Volume Adjust the VE-PG3's audio input level of the audio signal that is received from the connected transceiver between "+6" to "-12" (dB). (Default: 0)
- ⑤ Transceiver's Beep Invalidity Time
Enter the time period to mute the audio (incl. beep sounds) from the connected radio. (Default: 400)
Range: "0" to "1000" (in 5 milliseconds step)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver Control (continued)

Transceiver Control

① Priority Receive: Disable Enable
② PTT Cancel: Disable Enable
③ TX Volume: 0 dB
④ RX Volume: 0 dB
⑤ Transceiver's Beep Invalidation Time: 400 milliseconds *Setting values are set in five milliseconds steps.
Notice Tone to the Transceiver
⑥ Reception Notice: Not used
⑦ Calling Notice Tone: Notice Tone 2
⑧ Send Connect Success Tone: Notice Tone 2
⑨ Disconnect Notice Tone: Notice Tone 3
⑩ Send Connect Failure Tone: Notice Tone 3
⑪ Notice Tone Volume: 0 dB
PTT Control Type from the Telephone
⑫ PTT Control Type: DTMF
⑬ PTT-ON Tone: 0
⑭ PTT-OFF Tone: 0

Notice Tone to the Transceiver

- ⑥ Reception Notice Select "Tone 1" to "Tone 3" to notify that the call from an IP phone is received.
(Default: None)
- ⑦ Calling Notice Tone Select "Tone 1" to "Tone 3" to notify the calling to an IP phone.
(Default: Notice Tone 2)
- ⑧ Send Connect Success Tone
Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is picked up.
(Default: Notice Tone 2)
- ⑨ Disconnect Notice Tone ... Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is put.
(Default: Notice Tone 3)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver Control (continued)

Transceiver Control

① Priority Receive:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
② PTT Cancel:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
③ TX Volume:	0 dB
④ RX Volume:	0 dB
⑤ Transceiver's Beep Invalidation Time:	400 milliseconds
*Setting values are set in five milliseconds steps.	
Notice Tone to the Transceiver	
⑥ Reception Notice:	Not used
⑦ Calling Notice Tone:	Notice Tone 2
⑧ Send Connect Success Tone:	Notice Tone 2
⑨ Disconnect Notice Tone:	Notice Tone 3
⑩ Send Connect Failure Tone:	Notice Tone 3
⑪ Notice Tone Volume:	0 dB
PTT Control Type from the Telephone	
⑫ PTT Control Type:	DTMF
⑬ PTT-ON Tone:	0
⑭ PTT-OFF Tone:	0

⑩ Send Connect Failure Tone Select "Tone 1" to "Tone 3" to notify that the calling IP phone is unavailable.
(Default: Notice Tone 3)

⑪ Notice Tone Volume Select the tone level for above items. (Default: 0)
Range: "+6" to "–12" (dB)

PTT Control Type from the Telephone

⑫ PTT Control Type Select the signal type to be used for TX control. (Default: VOX)
• If [VOX] is selected, the communication route is connected when an audio input is detected.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ Transceiver Control (continued)

Transceiver Control

① Priority Receive: Disable Enable
② PTT Cancel: Disable Enable
③ TX Volume: 0 dB
④ RX Volume: 0 dB
⑤ Transceiver's Beep Invalidation Time: 400 milliseconds *Setting values are set in five milliseconds steps.

Notice Tone to the Transceiver

⑥ Reception Notice: Not used
⑦ Calling Notice Tone: Notice Tone 2
⑧ Send Connect Success Tone: Notice Tone 2
⑨ Disconnect Notice Tone: Notice Tone 3
⑩ Send Connect Failure Tone: Notice Tone 3
⑪ Notice Tone Volume: 0 dB

PTT Control Type from the Telephone

⑫ PTT Control Type: DTMF
⑬ PTT-ON Tone: 0
⑭ PTT-OFF Tone: 0

- ⑬ PTT-ON Tone Select the button to control the transmission. (Default: 0)
• The TX and RX is switched, when a control tone signal is detected.
- ⑭ PTT-OFF Tone Select the button to control the reception. (Default: 0)
• The transmission is stopped when a control tone signal is detected.

6 CONVERTER MODE SETTING SCREEN

■ Voice Transmission Control to the Transceiver

The VOX (voice operated transmission) function automatically switches the connected transceiver to transmit, when the VE-PG3 receives the audio signal through the network.

Voice Transmission Control to the Transceiver

*Setting values of attack time, release time and voice delay are set in five milliseconds steps.

① Attack Time:	50	milliseconds
② Release Time:	500	milliseconds
③ Voice Delay:	200	milliseconds
④ Voice Threshold:	40	%

*Appears only when “VOX” is selected in [Audio Transmission Methods to the Transceiver].

① Attack Time Enter the attack time in 5 milliseconds step. (Default: 50)
Range: 5 to 500 milliseconds
It is the delay time before the VOX switch turns ON after an audio signal is received through the network.

② Release Time Select the RX delay time in 5 milliseconds step. (Default: 500)
Range: 5 to 2000 milliseconds
It is the delay time for the VOX switch to turn OFF after not audio signal is received through the network.

③ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 200)
Range: 0 to 500 milliseconds

④ Voice Threshold Set the voice threshold level. (Default: 40)
Range: 0 to 100 %

The VOX function automatically switches between receive and transmit according to this threshold level.
Lower values make the VOX function more sensitive to the audio signal.

6 CONVERTER MODE SETTING SCREEN

■ Voice Reception Control from the Transceiver

The VOX (voice operated transmission) function automatically switches the connected transceiver to transmit, when the VE-PG3 receives the audio signal through the network.

Voice Reception Control from the Transceiver

*Setting values of attack time, release time and voice delay are set in five milliseconds steps.

① Attack Time:	1000	milliseconds
② Release Time:	200	milliseconds
③ Voice Delay:	5	milliseconds
④ Voice Threshold:	70	%

- ① Attack Time Enter the RX attack time in 5 milliseconds step. (Default: 50)
Range: 5 to 500 milliseconds
It is the delay time before the VE-PG3 output the audio signal to the port.
- ② Release Time Select the RX delay time in 5 milliseconds step. (Default: 500)
Range: 5 to 2000 milliseconds
It is the delay time for the VE-PG3 to output the control signal to the network, which informs that the audio signal is no longer received.
- ③ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 200)
Range: 0 to 500 milliseconds
- ④ Voice Threshold Set the voice threshold level. (Default: 40)
Range: 0 to 100 %
The audio signal is output to the network according to this threshold level.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Transceiver 1 (TRX1)]/[Transceiver 2 (TRX2)]

■ V/RoIP Control

Set the details for receiving a call on the radio connected to [TRX1]/[TRX2] port.

V/RoIP Control

Send Connect Success Tone to Telephone: Notice Tone 1 ▾
Notice Tone Volume: 0 ▾ dB

① Send Connect Success Tone to Telephone

Select “Tone 1” to “Tone 3” to notify that the connection to the calling IP phone is succeeded. (Default: Tone 1)

② Notice Tone Volume

Select the tone level for above items. (Default: 0)
Range: “+6” to “–12” (dB)

6 CONVERTER MODE SETTING SCREEN

■ Release Timer

Set the timer details for SIP server connection, Peer to Peer connection and so on.

Release Timer

① Call Cancel Timer:	15	seconds
② No Voice Release Timer:	15	seconds
Forced Disconnect		
③ Forced Disconnect Timer:	10	minutes

① Call Cancel Timer..... Enter the time period to cancel the calling. When the set time has passed without the response from the IP phone, the transmission is cancelled. (Default: 15)

Range: "0 (OFF)," "5" to "60" (sec.)

② No Voice Release Timer ... Enter the time period to stop the transmission. When the set time has passed with no audio signal, the transmission is stopped. (Default: 15)

Range: "0 (OFF)," "5" to "600" (sec.)

Forced Disconnect

③ Forced Disconnect Timer Enter the time period to be forced to stop the transmission. When the set time has passed, the transmission is stopped even when the communication is ongoing. (Default: 10)

Range: "0 (OFF)," "5" to "120" (minutes)

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■ Digital Transceiver Connection

Configure the details for digital transceiver communication settings.

Digital Transceiver Connection

① Repeater Address:	<input type="text"/>
② Repeater Port Number:	<input type="text" value="41220"/>
③ Local Port Number:	<input type="text" value="43000"/>
④ Connect Key:	<input type="text" value="ucfr5000"/>
⑤ Area Bit:	<input checked="" type="radio"/> OFF <input type="radio"/> ON
⑥ Integrator Code:	<input type="text" value="1"/>
⑦ System Code:	<input type="text" value="1"/>
Unit	
⑧ Prefix ID:	<input type="text" value="1"/>
⑧ Unit ID:	<input type="text" value="1"/>
Talkgroup	
⑨ Prefix ID:	<input type="text" value="1"/>
⑨ Talkgroup ID:	<input type="text" value="1"/>
Encryption	
⑩ Encryption:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable Encryption Key <input type="text" value="1"/>
Status	
⑪ Connection Status:	Not Connected <input type="button" value="Connection"/> <input type="button" value="Refresh"/>

- ① Repeater Address Enter the UC-FR5000's IP address.
- ② Repeater Port Number ... Enter the Receive Port number which is set in the UC-FR5000.
- ③ Local Port Number Enter the Dest Port number which is set in the UC-FR5000.
- ④ Connect Key Enter the Key Code which is set in the UC-FR5000.
- ⑤ Area Bit Turn the Area Bit ON or OFF. (Default: OFF)
- ⑥ Integrator Code Enter the Integrator Code which is set in the UC-FR5000. (Default: 1)
- ⑦ System Code Enter the System Code which is set in the UC-FR5000. (Default: 1)
- Unit**
- ⑧ Prefix ID/Unit ID Enter the Prefix ID and Unit ID which are set in the UC-FR5000. (Default: 1(for both))
- Talkgroup**
- ⑨ Prefix ID/Talkgroup ID Enter the Prefix ID and Talkgroup ID which are set in the UC-FR5000. (Default: 1(for both))

Digital Transceiver Connection (continued)

Digital Transceiver Connection

① Repeater Address:	<input type="text"/>
② Repeater Port Number:	<input type="text" value="41220"/>
③ Local Port Number:	<input type="text" value="43000"/>
④ Connect Key:	<input type="text" value="ucfr5000"/>
⑤ Area Bit:	<input checked="" type="radio"/> OFF <input type="radio"/> ON
⑥ Integrator Code:	<input type="text" value="1"/>
⑦ System Code:	<input type="text" value="1"/>
Unit	
⑧ Prefix ID:	<input type="text" value="1"/>
⑧ Unit ID:	<input type="text" value="1"/>
Talkgroup	
⑨ Prefix ID:	<input type="text" value="1"/>
⑨ Talkgroup ID:	<input type="text" value="1"/>
Encryption	
⑩ Encryption:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable Encryption Key <input type="text" value="1"/>
Status	
⑪ Connection Status:	Not Connected <input type="button" value="Connection"/> <input type="button" value="Refresh"/>

Encryption

- ⑩ Encryption Select "Enable" to encrypt the communication. (Default: Disable)
 • When you select "Enable," enter the appropriate key to [Encryption Key].

Status

- ⑪ Connection Status Displays the communication status.

<Connection>

Click to connect to the UC-FR5000.

- "Connecting" appears when connected to the UC-FR5000.

<Reload>

Click to refresh the status.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■ Digital Transceiver Communication

Set the calling details.

Digital Transceiver Communication

① RX All Call: Disable Enable
Default Callee ID
② Call Type: Group ▼
③ Destination Prefix ID: 1
④ Destination ID: 1

- ① RX All Call Select “Enable” to permit all talkgroups to receive the call. (Default: Disable)
- Callee Designation
- ② Call Type Select the type of call. (Default: Individual)
- Individual : Call only specified radio.
 - Group : Call all radios that belong to the specified group.
 - All : Call all radios.
- ③ Destination Prefix ID Enter the destination prefix ID. (Default: 1)
Setting range: (Depending on the system mode)
- ④ Destination ID Enter the destination ID. (Default: 1)
Setting range: (Depending on the system mode)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■ Digital Transceiver Control

Configure the details for digital transceiver control.

Digital Transceiver Control

① PTT Cancel:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Notice Tone to the Transceiver	
② Reception Notice:	Not used ▼
③ Calling Notice Tone:	Notice Tone 2 ▼
④ Send Connect Success Tone:	Notice Tone 2 ▼
⑤ Disconnect Notice:	Notice Tone 3 ▼
⑥ Send Connect Failure Tone:	Notice Tone 3 ▼
⑦ Notice Tone Volume:	0 ▼ dB
PTT Control Type from the Telephone	
⑧ PTT Control Type:	DTMF ▼
⑨ PTT-ON Tone:	0 ▼
⑩ PTT-OFF Tone:	0 ▼

① PTT Cancel: Select "Enable" to abort the calling to an IP phone when a transmit request is detected, (Default: Disable)

Notice Tone to the Transceiver
② Reception Notice Select "Tone 1" to "Tone 3" to notify that the call from an IP phone is received. (Default: None)

③ Calling Notice Tone Select "Tone 1" to "Tone 3" to notify the calling to an IP phone. (Default: Notice Tone 2)

④ Send Connect Success Tone Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is picked up. (Default: Notice Tone 2)

⑤ Disconnect Notice Tone ... Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is put. (Default: Notice Tone 3)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■ Digital Transceiver Control (continued)

Digital Transceiver Control

① PTT Cancel:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Notice Tone to the Transceiver	
② Reception Notice:	Not used ▼
③ Calling Notice Tone:	Notice Tone 2 ▼
④ Send Connect Success Tone:	Notice Tone 2 ▼
⑤ Disconnect Notice:	Notice Tone 3 ▼
⑥ Send Connect Failure Tone:	Notice Tone 3 ▼
⑦ Notice Tone Volume:	0 ▼ dB
PTT Control Type from the Telephone	
⑧ PTT Control Type:	DTMF ▼
⑨ PTT-ON Tone:	0 ▼
⑩ PTT-OFF Tone:	0 ▼

⑥ Send Connect Failure Tone

Select “Tone 1” to “Tone 3” to notify that the calling IP phone is unavailable.
(Default: Notice Tone 3)

⑦ Notice Tone Volume

Select the tone level for above items.
Range: “+6” to “-12” (dB)

(Default: 0)

PTT Control Type from the Telephone

⑧ PTT Control Type

Select the signal type to be used for TX control.

(Default: VOX)

- If [VOX] is selected, the communication route is connected when an audio input is detected.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■ Digital Transceiver Control (continued)

Digital Transceiver Control

① PTT Cancel: Disable Enable

Notice Tone to the Transceiver

② Reception Notice: Not used ▼

③ Calling Notice Tone: Notice Tone 2 ▼

④ Send Connect Success Tone: Notice Tone 2 ▼

⑤ Disconnect Notice: Notice Tone 3 ▼

⑥ Send Connect Failure Tone: Notice Tone 3 ▼

⑦ Notice Tone Volume: 0 ▼ dB

PTT Control Type from the Telephone

⑧ PTT Control Type: DTMF ▼

⑨ PTT-ON Tone: 0 ▼

⑩ PTT-OFF Tone: 0 ▼

⑨ PTT-ON Tone: Select the DTMF signal (0 to 9, #, *) to control the radio from the SIP phone. (Default: 0)

- Dialing the callee extension number, and then push the set button to control the callee radio to transmit.

⑩ PTT-OFF Tone: Select the DTMF signal (0 to 9, #, *) to control the radio from the SIP phone. (Default: 0)

- While communicating with a radio, push the set button to control the callee radio to receive.

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■ Voice Transmission Control to the Digital Transceiver

The VOX (voice operated transmission) function automatically switches the connected transceiver to transmit, when the VE-PG3 receives the audio signal through the network.

Voice Transmission Control to the Digital Transceiver

*Setting values of Attack Time, release time and voice delay are set in five milliseconds steps.

① Attack Time:	<input type="text" value="50"/>	milliseconds
② Release Time:	<input type="text" value="500"/>	milliseconds
③ Automatic Voice Delay:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	
④ Voice Delay:	<input type="text" value="200"/>	milliseconds
⑤ Voice Threshold:	<input type="text" value="40"/>	%

- ① Attack Time Enter the TX attack time in 5 millisecond step. (Default: 50)
Range: 5 to 500 milliseconds
It is the delay time before the VOX switch turns ON after an audio signal is received through the network.

- ② Release Time Select the RX delay time in 5 millisecond step. (Default: 500)
Range: 5 to 2000 milliseconds
It is the delay time for the VOX switch to turn OFF after no audio signal is received through the network.

- ③ Automatic Voice Delay ... Select "Enable" to automatically adjust the audio delay, depending on the network delay time. (Default: Enable)

- ④ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 millisecond step. (Default: 200)
Range: 0 to 500 milliseconds

- ⑤ Voice Threshold Set the voice threshold level. (Default: 40)
Range: 0 to 100 %

The VOX function automatically switches between receive and transmit according to this threshold level.
Lower values make the VOX function more sensitive to the audio signal.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)]–[Digital Transceiver4 (D-TRX4)]

■ V/RoIP Control (Digital Transceiver)

Set the details for receiving a call on the radio connected to [D-TRX1]/[D-TRX2] port.

V/RoIP Control

① Send Connect Success Tone to Telephone:	Notice Tone 1 ▾
② Send and Receive Change Notice to the Telephone:	Not used ▾
③ Notice Tone Volume:	0 ▾ dB

① Send Connect Success Tone to Telephone

Select “Tone 1” to “Tone 3” to notify that the connection to the calling IP phone is succeeded. (Default: Tone 1)

② Send and Receive Change Notice to the Telephone:

Select “Tone 1” to “Tone 3” to notify when the TX and RX are changed. (Default: Not used)

③ Notice Tone Volume

Select the tone level for above items. (Default: 0)
Range: “+6” to “-12” (dB)

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■ Release Timer (Digital Transceiver)

Set the timer details for SIP server connection, Peer to Peer connection and so on.

Release Timer

① Call Cancel Timer:	<input type="text" value="15"/>	seconds
② No Voice Release Timer:	<input type="text" value="15"/>	seconds
③ DID Disconnect Timer:	<input type="text" value="60"/>	seconds
Forced Disconnect		
④ Forced Disconnect Timer:	<input type="text" value="10"/>	minutes

① Call Cancel Timer..... Enter the time period to cancel the calling. When the set time has passed without the response from the IP phone, the transmission is cancelled.
(Default: 15)
Range: "0 (OFF)," "5" to "60" (sec.)

② No Voice Release Timer ... Enter the time period to stop the transmission. When the set time has passed with no audio signal, the transmission is stopped.
(Default: 15)
Range: "0 (OFF)," "5" to "600" (sec.)

③ DID Disconnect Timer: ... The waiting time for DID (Direct Inward Dialing) function. When no dial input is detected for this time period, the communication route will be disconnected.
(Default: 60)
Range: "0 (OFF)" to "120" (sec.)
• The DID (Direct Inward Dialing) function allows you to call the specified radio from an IP phone.

Forced Disconnect

④ Forced Disconnect Timer Enter the time period to be forced to stop the transmission. When the set time has passed, the transmission is stopped even when the communication is ongoing.
(Default: 10)
Range: "0 (OFF)," "5" to "120" (minutes)

■ EXT Voice Terminal

Set the details of the input audio from the [EXT1]/[EXT2] port.

EXT Voice Terminal

① Input Connection Port:	IP Network ▾
② Valid Timing:	Control Data Detection ▾
③ Power for the Microphone:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
④ Reference Level:	-10dBs ▾
⑤ Input Analog Gain:	0 ▾ dB
⑥ Input Digital Gain:	0 ▾ dB

① Input Connection Port

Select the port to input the audio signal.

(Default: IP Network)

- **EXT Output:** Sends the audio signal to the . [EXT1]/[EXT2] port.
- **IP Network:** Sends the audio signal to the IP network.
 - The audio signal is sent to the port set in [Bridge Connection Point] on the [Bridge Connection] screen.
- **Emergency:** Sends the audio signal to the device which is specified as the emergency call destination.
 - Emergency communication has priority over normal communication.
 - Emergency communication has priority over normal communication.
 - The VE-PG3 enters the Emergency mode when the condition specified in [Enable Timing] on the [External Input1 (EXT1)] screen is satisfied.
 - In the Emergency mode, all ongoing communication routes, other than which is for the Emergency Notice, are disconnected.
 - To transmit the call as the Emergency Notice, set the port type to "Emergency Notice" on the [Bridge Connection Point] screen, and set the Emergency Notice device to "Enable" on the [Emergency Notice] screen.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

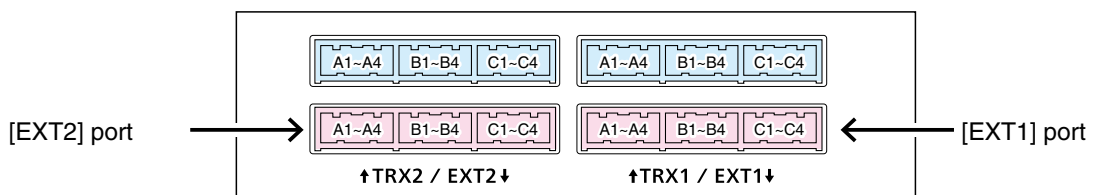
[Port Settings]—[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

EXT Voice Terminal (continued)

EXT Voice Terminal

- ① Input Connection Port: IP Network ▾
- ② Valid Timing: Control Data Detection ▾
- ③ Power for the Microphone: Disable Enable
- ④ Reference Level: -10dBs ▾
- ⑤ Input Analog Gain: 0 ▾ dB
- ⑥ Input Digital Gain: 0 ▾ dB

- ② Valid Timing Select the condition to send the audio signal.
(Default: Control Data Detection)
- **Always-on Connection**
Always sends the audio signal to the destination selected in [Input Connection Port].
 - When "IP Network" or "Emergency" is selected in [Input Connection Port], this option cannot be selected.
 - **Voice Data Detection**
When an audio signal is input, sends the audio signal to the destination selected in [Input Connection Port].
 - **Control Data Detection**
When the control signal is input, sends the audio signal to the destination selected in [Input Connection Port].
- ③ Power for the Microphone Select "Enable" to supply the voltage to the microphone connected to A3/A4 terminal (Audio input) microphone.
(Default: Disable)



VE-PG3 (Rear view)

• See Section 8 for port details.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]—[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

EXT Voice Terminal (continued)

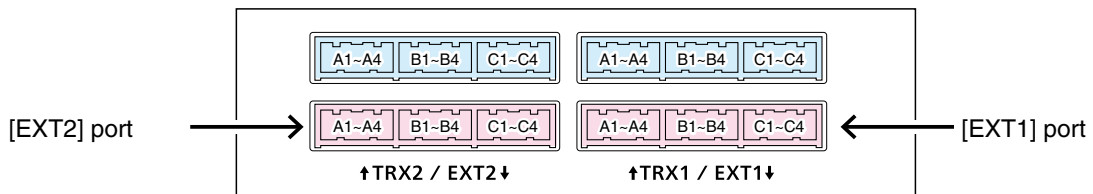
EXT Voice Terminal

- ① Input Connection Port: IP Network
- ② Valid Timing: Control Data Detection
- ③ Power for the Microphone: Disable Enable
- ④ Reference Level: -10dBs
- ⑤ Input Analog Gain: 0 dB
- ⑥ Input Digital Gain: 0 dB

- ④ Reference Level Select the input line A3/A4 terminal (Audio input) sensitivity from "-10dBs" and "-40dBs" (0dBs=0.775 Vrms). (Default: -10dBs)
 - The sensitivity differs depending on the microphone.
- ⑤ Input Analog Gain Set the input signal (A3/A4 terminal (Audio input)) gain for analog AMP. (Default: 0)

Range: "+26" to "-26" (in 1 dB step)
- ⑥ Input Digital Gain Set the input signal (A3/A4 terminal (Audio input)) gain for digital AMP. (Default: 0)

Range: "+6" to "-12" (in 1 dB step)



VE-PG3 (Rear view)

• See Section 8 for port details.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]—[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

■ Voice Control

Set the voice delay time for the [EX1T]/[EXT2] port.

Voice Control

Voice Delay: milliseconds *Setting values are set in five milliseconds steps.

*Appears only when "Control Data Detection" or "Always-on Connection" is selected in [Valid Timing].

Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step. (Default: 5)
Range: 0 to 500 milliseconds in 5 millisecond step

6 CONVERTER MODE SETTING SCREEN

■ Voice Reception Control from the EXT Device

Configure the details for the audio input from [EXT1]/[EXT2] port.

Voice Reception Control from the EXT Device

*Setting values of Attack Time, Release Time and Voice Delay are set in five milliseconds steps.

① Attack Time:	1000	milliseconds
② Release Time:	200	milliseconds
③ Voice Delay:	5	milliseconds
④ Voice Threshold:	70	%

- ① **Attack Time** Enter the TX attack time in 5 millisecond step.
Range: 5 to 500 milliseconds (Default: 50)
The time is the delay before the VOX switch turns ON after an audio signal is received through the network.

- ② **Release Time** Select the RX delay time in 5 millisecond step.
Range: 5 to 2000 milliseconds (Default: 500)
The time is the delay the VOX switch to turns OFF after not audio signal is received through the network.

- ③ **Voice Delay** Set the audio signal buffer time to prevent intermittent audio in 5 millisecond step.
Range: 0 to 500 milliseconds (Default: 200)

- ④ **Voice Threshold** Set the voice threshold level.
Range: 0 to 100 % (Default: 40)

The VOX function automatically switches between receive and transmit according to this threshold level.
Lower values make the VOX function more sensitive to the audio signal.

■ EXT Control Terminal

Set the details of the control signal from the [EXT1]/[EXT2] port.

EXT Control Terminal

① Input Type:

② Event ON Time: seconds

③ Event OFF Time: seconds

④ Control Input Detection:

⑤ Control Input Pull-up Setting: Disable Enable

*Appears only when “Control Data Detection” is selected in [Valid Timing].

- ① Input Type Select the when the control signal is input. (Default: Momentary)
- Momentary
While the control signal is input from the B3/B4 terminal (General control port), activates the port.
 - One-shot
When the control signal is input from the B3/B4 terminal (General control port), continuously activates the port. And deactivates with no input.
- ② Event ON Time Select the delay time until the input is detected. (Default: 1)

■ EXT Control Terminal (continued)

EXT Control Terminal

① Input Type:	Momentary
② Event ON Time:	1 seconds
③ Event OFF Time:	1 seconds
④ Control Input Detection:	Short Circuit (LOW)
⑤ Control Input Pull-up Setting:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable

- ③ Event OFF Time Select the delay time until the port B3/B4 terminal (General control input) is deactivated. (Default: 1)
Range: [0.1], [0.3], [0.5], [1], [1.5], [2], [3](second)
- ④ Control Input Detection ... Select the port input state of B3/B4 terminal (General control input). (Default: Short circuit (LOW))
- When the input port is pulled up:**
- **Short circuit (LOW)** : Active when the B3/B4 terminal (General control input) is connected to the GND (LOW).
 - **Open circuit (HIGH)** : Active when the B3/B4 terminal (General control input) is open (HIGH).
- When the input port is NOT pulled up:**
- **Short circuit (LOW)** : Active when no voltage is applied to the B3/B4 terminal (General control input).
 - **Open circuit (HIGH)** : Active when a voltage is applied to the B3/B4 terminal (General control input).
- ⑤ Control Input Pull-up Setting Select "Enable" to internally pull up the B3/B4 terminal (General control input). (Default: Enable)

■ V/RoIP Control

Set the details for transmitting a call on the radio connected to the [TRX1]/[TRX2] port.

V/RoIP Control

① Send Connect Success Tone to Telephone: ▾
② Volume: ▾ dB

① Send Connect Success Tone to Telephone

Select “Tone 1” to “Tone 3” to notify that the connection to the calling IP phone is succeed. (Default: Tone 1)

② Volume

Select the tone level for above items. (Default: 0)
Range: “+6” to “-12” (dB)

■ Release Timer

Set the timer details for SIP server connection, Peer to Peer connection and so on.

Release Timer

① Call Cancel Timer:	15	seconds
② No Voice Release Timer:	15	seconds
Forced Disconnect		
③ Forced Disconnect Timer:	10	minutes

① Call Cancel Timer..... Enter the time period to cancel the calling. When the set time has passed without the response from the IP phone, the transmission is cancelled. (Default: 15)

Range: "0 (OFF)," "5" to "60" (sec.)

② No Voice Release Timer ... Enter the time period to stop the transmission. When the set time has passed with no audio signal, the transmission is stopped. (Default: 15)

Range: "0 (OFF)," "5" to "600" (sec.)

Forced Disconnect

③ Forced Disconnect Timer Enter the time period to be forced to stop the transmission. When the set time has passed, the transmission is stopped even when the communication is ongoing. (Default: 10)

Range: "0 (OFF)," "5" to "120" (minutes)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[EXT Output 1 (EXT1)/
EXT Output 2 (EXT2)]

■ Control Circuit (EXT Output)

Configure the details for the control circuit connected to the [EXT1]/[EXT2] port.

Control Circuit Switching: **Control output Circuit**

Control Circuit

- ① Control Circuit Switching: Control Output Circuit Relay Circuit
- ② Control Output Logic: High Low
- ④ 8V Electric Supply: Disable Enable

Control Circuit Switching: **Relay Circuit**

Control Circuit

- ① Control Circuit Switching: Control Output Circuit Relay Circuit
- ③ Control Output Logic: Valid Event Detection **Short** ▼

- ① Control Circuit Switching... Select the control circuit type. (Default: Control Output Circuit)

- ② Control Output Logic Select the activate state. (Default: Low)

- ③ Control Output Logic Select the port state. Relay output terminal (B1/B2 terminal) is short circuit or open circuit. (Default: Short)
When the audio signal is output, the control signal is also output.

- ④ 8V Power Source Select "Enable" when supply the 8 V to the EXT Output terminal (B2/B4 terminal), when a microphone is connected. (Default: Disable)
Current limit: Less than 30 mA

Serial Communication

Set the serial communication details.

Serial Communication

① Serial Communication: Disable Enable
② TCP Port Number:
③ Communication Control: Full-Duplex Half-Duplex
④ Signal Level: ▾

*Appears only when “Enable” is selected in [Serial Communication].

- | | | |
|------------------------------|----------------------------------------------------|---------------------------|
| ① Serial Communication | Select “Enable” to use the serial communication. | (Default: Disable) |
| ② TCP Port Number | Enter the port number between 1024 and 65535. | (Default: 50002) |
| ③ Communication Control ... | Select the communication type. | (Default: Full Duplex) |
| ④ Signal Level | Select the serial communication line signal level. | (Default: ±5 V (RS-232C)) |

■ EXT Voice Terminal (Output)

Configure the audio output details for [EXT1]/[EXT2] port.

EXT Voice Terminal

① Reference Level:	-20dBs	▼
② Output Analog Gain:	0	▼ dB
③ Output Digital Gain:	0	▼ dB
④ Response Waiting Time:	0.5 seconds	▼
⑤ Fade-out:	1.5 seconds	▼
⑥ Fade-in:	1.5 seconds	▼

EXT I/O (1/2)

EXT Voice Terminal

Reference Level:	-20dBs	▼
Output Analog Gain:	0	▼ dB
Output Digital Gain:	0	▼ dB
Response Waiting Time:	1.5 seconds	▼
⑦ Restoration Waiting Time:	1.5 seconds	▼

- ① Reference Level Select the output level of A1/A2 terminal (Audio output). (Default: –20dBs)
- ② Output Analog Gain Set the analog signal input (A1/A2 terminal (Audio output)) gain. (Default: 0)
Range: "+15" to "–30"
- ③ Output Digital Gain Set the digital signal input (A1/A2 terminal (Audio output)) gain. (Default: 0)
Range: "+6" to "–12"
- ④ Response Waiting Time ... Select the delay time before the received audio is output. (Default: 1.5 sec.)
This delay time is set according to your sound device specification.
• Select "Disable" to output the audio right after the signal is received.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[EXT Output 1 (EXT1)/
EXT Output 2 (EXT2)]

■ EXT Voice Terminal (Output) (continued)

EXT Voice Terminal

- ① Reference Level: -20dBs ▾
- ② Output Analog Gain: 0 ▾ dB
- ③ Output Digital Gain: 0 ▾ dB
- ④ Response Waiting Time: 0.5 seconds ▾
- ⑤ Fade-out: 1.5 seconds ▾
- ⑥ Fade-in: 1.5 seconds ▾

EXT I/O (1/2)

EXT Voice Terminal

- Reference Level: -20dBs ▾
- Output Analog Gain: 0 ▾ dB
- Output Digital Gain: 0 ▾ dB
- Response Waiting Time: 1.5 seconds ▾
- ⑦ Restoration Waiting Time: 1.5 seconds ▾

⑤ Fade-out Set the time period until the audio signal is muted. (Default: 1.5 sec.)

- The Auto Fader function is available on following settings.
- Set “EXT I/O port” to “Separate mode.” (P6-47)
- Set “Input connection port” to “EXT Output.” (external input and output ports are directory connected)
- Set “Priority level setting” to “Priority calling” or “High priority calling.” (P6-140)

⑥ Fade-in Set the time period until the mute is cancelled. (Default: 1.5 sec.)

The Auto Fader function is available on following settings:

- Set “EXT I/O port” to “Separate mode.” (P6-47)
- Set “Input connection port” to “EXT Output.” (external input and output ports are directory connected)
- Set “Priority level setting” to “Priority calling” or “High priority calling.” (P6-140)

⑦ Restoration Waiting Time Select the delay time the audio level gradually returns. (Default: 1.5 sec.)

■ EXT Control Terminal (EXT Output)

Set the details of the control signal from the [EXT1]/[EXT2] port.

- These items appear when [Relay Circuit] is selected in [Control Circuit Switching].

EXT Control Terminal

① Control Output at the Start of Audio Output: Disable Enable

② EXT Control Output Pattern:

③ Event ON Time: seconds

④ Event OFF Time: seconds

① Control Output at the Start of Audio Output

Select "Enable" to output the control signal when the audio signal is output.
(Default: Enable)

② EXT Control Output Pattern

Select the control signal input condition. (Default: Momentary)

- Momentary
Connects the B1/B2 terminals (Relay circuit) only while the event is detected.
- One-shot
Connects the B1/B2 terminals (Relay circuit) while the event is detected for the time period set in [Event ON time] (③).
• Disconnects the terminals after the time period set in [Event OFF Time] (④) has passed.

③ Event ON Time

Select the delay time until the event is detected. (Default: 1)

④ Event OFF Time

Select the delay time until the B1/B2 terminals (Relay circuit) is disconnected.
(Default: 1)

■ Voice Transmission Control to the EXT Device (EXT Output)

Set the audio output control details for the [EX1T]/[EXT2] port.

Voice Transmission Control to the EXT Device

*Setting values of Attack Time, Release Time and Voice Delay are set in five milliseconds steps.

Attack Time:	50	milliseconds
Release Time:	500	milliseconds
Voice Delay:	5	milliseconds
Voice Threshold:	40	%

- ① Attack Time Enter the TX attack time.
Range: 5 to 500 milliseconds in 5 millisecond step (Default: 50)
It is the delay time before the VOX switch turns ON after an audio signal is received through the network.
- ② Release Time Select the RX delay time in 5 millisecond step.
Range: 5 to 2000 milliseconds in 5 milliseconds step (Default: 500)
It is the delay time for the VOX switch to turn OFF after not audio signal is received through the network.
- ③ Voice Delay Set the audio signal buffer time to prevent intermittent audio. (Default: 5)
Range: 0 to 500 milliseconds in 5 millisecond step
- ④ Voice Threshold Set the voice threshold level. (Default: 40)
Range: 0 to 100 %

The VOX function automatically switches between receive and transmit according to this threshold level.

Lower values make the VOX function more sensitive to the audio signal.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]—[EXT Output 1 (EXT1)/
EXT Output 2 (EXT2)]

■ Announce Tone (EXT Output)

Configure the details for sound effect of audio device connected to the [EXT1]/[EXT2] port.

Announce Tone

*Not available with direct output from EXT Input or always-on connections.

① Start Tone:	Single Tone 1
② End Tone:	Not used
③ Announce Tone Volume:	0 dB

- ① Start Tone Select the tone which sounds before the announcement starts. (Default: Single Tone1)
- ② End Tone Select the tone which sounds after the announcement. (Default: Not Used)
- ③ Announce Tone Volume ... Select the volume level for the announce tones. (Default: 0)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]—[EXT Output 1 (EXT1)/
EXT Output 2 (EXT2)]

■ V/RoIP Control

Set the details for receiving a call on the radio connected to the [EXT1]/[EXT2] port.

V/RoIP Control

① Send Connect Success Tone to Telephone: Notice Tone 1 ▾
② Notice Tone Volume: 0 ▾ dB

① Send Connect Success Tone to Telephone

Select "Tone 1" to "Tone 3" to notify that the connection to the calling IP phone is succeed. (Default: Notice Tone 1)

② Notice Tone Volume

Select the tone level for above items. (Default: 0)
Range: "+6" to "-12"(dB)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]—[EXT Output 1 (EXT1)/
EXT Output 2 (EXT2)]

■ Release Timer

Set the timer details for SIP server connection, Peer to Peer connection and so on.

Release Timer:

① No Voice Release Timer: seconds

Forced Disconnect

② Forced Disconnect Timer: minutes

① No Voice Release Timer ... Enter the time period to stop the transmission. When the set time has passed with no audio signal, the transmission is stopped.
Range: "0 (OFF)," "5" to "60" (sec.) (Default: 15)

Forced Disconnect

② Forced Disconnect Timer Enter the time period to stop the transmission. When the set time has passed, the transmission is forced to stop even the communication is going on.
Range: "0 (OFF)," "5" to "120" (minutes) (Default: 10)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[PHONE]

■ Device

Configure the details for the telephone.

Device

*Setting values of On Hook Voltage and Common Mode Voltage are set in 1.5 volts steps.

*Setting values of Current Limit is set in three milliampere steps.

① Impedance:	<input type="text" value="600"/>	▼
② On Hook Voltage:	<input type="text" value="-48.0"/>	V
③ Common Mode Voltage:	<input type="text" value="-3.0"/>	V
④ Current Limit:	<input type="text" value="29"/>	mA

- ① Impedance Select the appropriate impedance for the telephone. (Default: 600)
- ② On Hook Voltage Enter the appropriate voltage for the telephone. (Default: –48.0)
- ③ Common Mode Voltage ... Enter the appropriate voltage for the telephone. (Default: –3.0)
- ④ Current Limit Enter the limited current value. (Default: 29)

■ Ring

Configure the details for the telephone.

Ring

Ring

① Waveform:	<input type="text" value="Trapezoidal"/>	▼
② Frequency:	<input type="text" value="20"/>	Hz
③ Voltage:	<input type="text" value="85"/>	V
④ Active Timer:	<input type="text" value="20"/>	x100 milliseconds
⑤ Inactive Timer:	<input type="text" value="40"/>	x100 milliseconds

- ① Waveform Select the appropriate waveform for the ring. (Default: Trapezoidal)
- ② Frequency Enter the appropriate frequency for the telephone. (Default: 20)
- ③ Voltage Enter the appropriate voltage for the telephone. (Default: 35)
- ④ Active Timer Enter the appropriate time to detect the line connection. (Default: 20)
- ⑤ Inactive Timer Enter the appropriate time to detect the line disconnection. (Default: 40)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[PHONE]

■ Tone

Configure the details for the telephone tones.

Tone

*Setting values of Frequency1 - 2 and Modulation Frequency1 - 2 are set in four hertz steps.

*Setting values of Timing is set in milliseconds and in five milliseconds steps.

① Dial Tone

Frequency1: Hz
 Frequency2: Hz
 Modulation Frequency1: Hz Rate: %
 Modulation Frequency2: Hz Rate: %
 Level: dB

Timing:

ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

② Second Dial Tone

Frequency1: Hz
 Frequency2: Hz
 Modulation Frequency1: Hz Rate: %
 Modulation Frequency2: Hz Rate: %
 Level: dB

Timing:

ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

③ Ring Back Tone

Frequency1: Hz
 Frequency2: Hz
 Modulation Frequency1: Hz Rate: %
 Modulation Frequency2: Hz Rate: %
 Level: dB

Timing:

ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
<input type="text" value="2000"/>	<input type="text" value="4000"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

① Dial Tone Set the appropriate dial tone pattern.

② Second Dial Tone Set the appropriate second dial tone pattern.

③ Ring Back Tone Set the appropriate Ring Back tone pattern.

6 CONVERTER MODE SETTING SCREEN

■ Tone (continued)

④ **Busy Tone**

Frequency1:	<input type="text" value="480"/>	Hz								
Frequency2:	<input type="text" value="620"/>	Hz								
Modulation Frequency1:	<input type="text" value="0"/>	Hz	Rate: <input type="text" value="0"/>	%						
Modulation Frequency2:	<input type="text" value="0"/>	Hz	Rate: <input type="text" value="0"/>	%						
Level:	<input type="text" value="-15"/>	dB								
Timing:	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>
	<input type="text" value="500"/>	<input type="text" value="500"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

⑤ **Reorder Tone**

Frequency1:	<input type="text" value="480"/>	Hz								
Frequency2:	<input type="text" value="620"/>	Hz								
Modulation Frequency1:	<input type="text" value="0"/>	Hz	Rate: <input type="text" value="0"/>	%						
Modulation Frequency2:	<input type="text" value="0"/>	Hz	Rate: <input type="text" value="0"/>	%						
Level:	<input type="text" value="-15"/>	dB								
Timing:	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>
	<input type="text" value="250"/>	<input type="text" value="250"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

⑥ **Off Hook Warning Tone**

Frequency1:	<input type="text" value="480"/>	Hz								
Frequency2:	<input type="text" value="620"/>	Hz								
Modulation Frequency1:	<input type="text" value="0"/>	Hz	Rate: <input type="text" value="0"/>	%						
Modulation Frequency2:	<input type="text" value="0"/>	Hz	Rate: <input type="text" value="0"/>	%						
Level:	<input type="text" value="0"/>	dB								
Timing:	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>	<input type="text" value="ON"/>	<input type="text" value="OFF"/>
	<input type="text" value="125"/>	<input type="text" value="125"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- ④ Busy Tone Set the appropriate busy tone pattern.
- ⑤ Reorder Tone Set the appropriate reorder tone pattern.
- ⑥ Off Hook Warning Tone ... Set the appropriate Off Hook Warning tone pattern.

6 CONVERTER MODE SETTING SCREEN

■ Polarity

Configure the details for the telephone line polarity.

Polarity

Polarity

① Idle:	Forward ▼
② Ring Inactive:	Forward ▼
③ Caller Connect:	Forward ▼
④ Callee Connect:	Forward ▼
⑤ Caller Disconnect:	Forward ▼
⑥ Callee Disconnect:	Forward ▼
Off Hook Warning After	
⑦ Timing:	30 seconds

Polarity

- ① Idle Select the appropriate polarity for idling state. (Default: Forward)
- ② Ring Inactive Select the appropriate polarity while the line is inactive. (Default: Forward)
- ③ Caller Connect Select the appropriate polarity for detecting the caller's off-hook. (Default: Forward)
- ④ Callee Connect Select the appropriate polarity for detecting the callee's off-hook. (Default: Forward)
- ⑤ Caller Disconnect Select the appropriate polarity for detecting the caller's on-hook. (Default: Forward)
- ⑥ Callee Disconnect Select the appropriate polarity for detecting the callee's on-hook. (Default: Forward)
- Off Hook Warning After**
- ⑦ Timing Enter the delay time to cut off the power supply to the connected telephone, when the handset is off-hook for a long time. (Default: 30)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

■ Bridge Connection (1 to 4)

Configure the Bridge connection.

IP Communication Mode: Unicast

Bridge Connection

① Destination IP Address:	<input type="text"/>
② Destination Port Number:	<input type="text" value="21532"/>
③ Service Port Number:	<input type="text" value="21532"/>
④ Voice Coding:	<input type="text" value="G.711u"/> ▼
⑤ Connection Status:	Not Connected <input type="button" value="Connect"/> <input type="button" value="Refresh"/>

**[DID] of port setting is disabled when [Voice Coding] set to [G.711u].*

IP Communication Mode: Multicast

Bridge Connection

① Destination IP Address:	<input type="text" value="239.255.255.1"/>
② Destination Port Number:	<input type="text" value="22510"/>
③ Service Port Number:	<input type="text" value="22510"/>
④ Voice Coding:	<input type="text" value="G.711u"/> ▼
⑤ TTL for Multicast:	<input type="text" value="1"/>
⑥ Connection Status:	Not Connected <input type="button" value="Connect"/> <input type="button" value="Refresh"/>

**[DID] of port setting is disabled when [Voice Coding] set to [G.711u].*

① Destination IP Address ... The input content differs according to the contents set in [Bridge 1] to [Bridge 4].

- **When "Multicast" is selected:** (Default: 239.255.255.1)
Enter the destination VE-PG3's Destination IP address.
Range: "224.0.0.0" to "239.255.255.255" (class D)
- **When "Unicast" is selected:** (Default: None)
Enter the destination VE-PG3's IP address or domain name. (Up to 63 characters)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

■ Bridge Connection (Bridge 1 to 4) (continued)

IP Communication Mode: Unicast

Bridge Connection

- ① Destination IP Address:
- ② Destination Port Number:
- ③ Service Port Number:
- ④ Voice Coding: *[DID] of port setting is disabled when [Voice Coding] set to [G.711u].
- ⑤ Connection Status: Not Connected

IP Communication Mode: Multicast

Bridge Connection

- ① Destination IP Address:
- ② Destination Port Number:
- ③ Service Port Number:
- ④ Voice Coding: *[DID] of port setting is disabled when [Voice Coding] set to [G.711u].
- ⑤ TTL for Multicast:
- ⑥ Connection Status: Not Connected

② Destination Port Number

Enter the destination VE-PG3's port number.

(Default:

Multicast:	22510
Unicast:	21530 (Bridge1)
	21532 (Bridge2)
	21534 (Bridge3)
	21536 (Bridge4))

Range: "2" to "65534" (only even numbers)

The set port number (RTP) and the port number +1 (RTCP) are used for the communication.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

■ Bridge Connection (Bridge 1 to 4) (continued)

IP Communication Mode: Unicast

Bridge Connection

① Destination IP Address:

② Destination Port Number:

③ Service Port Number:

④ Voice Coding: *[DID] of port setting is disabled when [Voice Coding] set to [G.711u].

⑤ Connection Status: Not Connected

IP Communication Mode: Multicast

Bridge Connection

① Destination IP Address:

② Destination Port Number:

③ Service Port Number:

④ Voice Coding: *[DID] of port setting is disabled when [Voice Coding] set to [G.711u].

⑤ TTL for Multicast:

⑥ Connection Status: Not Connected

③ Service Port Number Enter the destination VE-PG3's port number.
(Default:

Multicast:	22510
Unicast:	21530 (Bridge1)
	21532 (Bridge2)
	21534 (Bridge3)
	21536 (Bridge4)

Range: "2" to "65534" (only even numbers)

- The set port number (RTP) and the port number +1 (RTCP) are used for the communication.
- When using in the Unicast mode, do not set the port number which has already been used by another connection setting.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

■ Bridge Connection (Bridge 1 to 4) (continued)

IP Communication Mode: Unicast

Bridge Connection

① Destination IP Address:

② Destination Port Number:

③ Service Port Number:

④ Voice Coding: ▼ *[DID] of port setting is disabled when [Voice Coding] set to [G.711u].

⑤ Connection Status: Not Connected

IP Communication Mode: Multicast

Bridge Connection

① Destination IP Address:

② Destination Port Number:

③ Service Port Number:

④ Voice Coding: ▼ *[DID] of port setting is disabled when [Voice Coding] set to [G.711u].

⑤ TTL for Multicast:

⑥ Connection Status: Not Connected

- ④ Voice Coding Select the codec type. (Default: G.711u)
- ⑤ TTL for Multicast Enter the maximum hop number of TX packet.
The packet whose hop number exceeds the set limit will be discarded.
Range: "1" to "255" (Default: 1)
- ⑥ Connection Status Display the connection status. (Default: Not Connected)

■ Bridge Communication

Configure the details for communication between bridge-connected device.

Bridge Communication

- ① Encryption: Disable Enable
- ② Talk-Back: Disable Enable Talk-Back Time sec
- Default Callee ID
- ③ Default Callee ID: Disable Enable

- ① Encryption Select "Enable" to encrypt the communication. (Default: Disable)
 - When you select "Enable," enter the appropriate key to [Encryption Key].

- ② Talk-Back Select "Enable" to use the Talk-Back function. (Default: Enable)
 - When you select "Enable," enter the appropriate valid period for the function.

- Default Callee ID
- ③ Default Callee ID Select "Enable" to add the destination ID to the transmit signal. (Default: Disable)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

■ Bridge Control

Configure the details for bridge-connected device.

Bridge Control

① Priority Receive:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
② PTT Cancel:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Notice Tone to the Transceiver	
③ Reception Notice:	Not used
④ Calling Notice Tone:	Notice Tone 2
⑤ Send Connect Success Tone:	Notice Tone 2
⑥ Disconnect Notice Tone:	Notice Tone 3
⑦ Send Connect Failure Tone:	Notice Tone 3
⑧ Notice Tone Volume:	0 dB
PTT Control Type from the Telephone	
⑨ PTT Control Type:	DTMF
⑩ PTT-ON Tone:	0
⑪ PTT-OFF Tone:	0

① Priority Receive Select "Enable" to keep receiving, even if the transceiver detects audio from the SIP phone. (Default: Enable)

② PTT Cancel Select "Enable" to abort the calling to an IP phone when a transmit request is detected. (Default: Disable)

Notice Tone to the Transceiver

③ Reception Notice Select "Tone 1" to "Tone 3" to notify that the call from an IP phone is received. (Default: None)

④ Calling Notice Tone Select "Tone 1" to "Tone 3" to notify the calling to an IP phone. (Default: Notice Tone 2)

⑤ Send Connect Success Tone Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is taken off. (Default: Notice Tone 2)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

Bridge Control (continued)

Bridge Control

① Priority Receive:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
② PTT Cancel:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Notice Tone to the Transceiver	
③ Reception Notice:	Not used ▾
④ Calling Notice Tone:	Notice Tone 2 ▾
⑤ Send Connect Success Tone:	Notice Tone 2 ▾
⑥ Disconnect Notice Tone:	Notice Tone 3 ▾
⑦ Send Connect Failure Tone:	Notice Tone 3 ▾
⑧ Notice Tone Volume:	0 ▾ dB
PTT Control Type from the Telephone	
⑨ PTT Control Type:	DTMF ▾
⑩ PTT-ON Tone:	0 ▾
⑪ PTT-OFF Tone:	0 ▾

⑥ Disconnect Notice Tone ... Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is put on.
(Default: Notice Tone 3)

⑦ Send Connect Failure Tone Select "Tone 1" to "Tone 3" to notify that the calling IP phone is not available.
(Default: Notice Tone 3)

⑧ Notice Tone Volume Select the tone level for above items. (Default: 0)
Range: "+6" to "-12" (dB)

PTT Control Type from the Telephone

⑨ PTT Control Type Select the signal type to be used for TX control. (Default: VOX)
• If [VOX] is selected, the communication route is connected when an audio input is detected.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

■ Bridge Control (continued)

Bridge Control

① Priority Receive:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
② PTT Cancel:	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Notice Tone to the Transceiver	
③ Reception Notice:	Not used ▾
④ Calling Notice Tone:	Notice Tone 2 ▾
⑤ Send Connect Success Tone:	Notice Tone 2 ▾
⑥ Disconnect Notice Tone:	Notice Tone 3 ▾
⑦ Send Connect Failure Tone:	Notice Tone 3 ▾
⑧ Notice Tone Volume:	0 ▾ dB
PTT Control Type from the Telephone	
⑨ PTT Control Type:	DTMF ▾
⑩ PTT-ON Tone:	0 ▾
⑪ PTT-OFF Tone:	0 ▾

⑩ PTT-ON Tone Select the DTMF signal (0 to 9, #, *) to control the radio from the SIP phone.
(Default: 0)

- Dialing the callee extension number, and then push the set button to control the callee radio to transmit.

⑪ PTT-OFF Tone Select the DTMF signal (0 to 9, #, *) to control the radio from the SIP phone.
(Default: 0)

- While communicating with a radio, push the set button to control the callee radio to receive.

When the same DTMF signal (key) is selected in [PTT-ON tone] and [PTT-OFF Tone], each pushing PTT toggles the TX and RX.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

■ Voice Transmission Control to a Bridge Connection

The VOX (voice operated transmission) function automatically switches the connected transceiver to transmit, when the VE-PG3 receives the audio signal through the network.

Voice Transmission Control to a Bridge Connection

*Setting values of Attack Time, Release Time and Voice Delay are set in five milliseconds steps.

① Attack Time:	<input type="text" value="50"/>	milliseconds
② Release Time:	<input type="text" value="500"/>	milliseconds
③ Voice Delay:	<input type="text" value="200"/>	milliseconds
④ Voice Threshold:	<input type="text" value="40"/>	%

- ① Attack Time Enter the TX attack time in 5 millisecond step. It is the delay time before the VOX switch turns ON after an audio signal is received through the network.
 (Default: 50)
 (Default: 10)
Range: 5 to 500 milliseconds
- ② Release Time Select the RX delay time in 5 millisecond step. The time is the delay for the VOX switch to turn OFF after no audio signal is received through the network.
 (Default: 500)
 (Default: 2000)
Range: 5 to 2000 milliseconds
- ③ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 millisecond step.
 (Default: 200)
 (Default: 500)
Range: 0 to 500 milliseconds
- ④ Voice Threshold Set the voice threshold level. The VOX function automatically switches between receive and transmit according to this threshold level.
 (Default: 40)
 (Default: 100)
Range: 0 to 100 %
• Lower values make the VOX function more sensitive to the audio signal.

6 CONVERTER MODE SETTING SCREEN

■ Voice Transmission Control from a Bridge Connection

The VOX (voice operated transmission) function automatically switches the connected transceiver to receive, when the VE-PG3 receives the not audio signal through the network.

Voice Transmission Control from a Bridge Connection

① Attack Time:	1000	milliseconds
② Release Time:	200	milliseconds
③ Voice Delay:	5	milliseconds
④ Voice Threshold:	70	%

① Attack Time Enter the TX attack time in 5 millisecond step. It is the delay time before the VOX switch turns ON after an audio signal is received through the network. (Default: 1000)

Range: 5 to 500 milliseconds

② Release Time Select the RX delay time in 5 millisecond step. It is the delay time for the VOX switch to turn OFF after no audio signal is received through the network. (Default: 200)

Range: 5 to 2000 milliseconds

③ Voice Delay Set the audio signal buffer time to prevent intermittent audio in 5 millisecond step. (Default: 5)

Range: 0 to 500 milliseconds

④ Voice Threshold Set the voice threshold level. The VOX function automatically switches between receive and transmit according to this threshold level. (Default: 40)

Range: 0 to 100 %

- Lower values make the VOX function more sensitive to the audio signal.

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

[Port Settings]–[Bridge 1–Bridge 4]

■ V/RoIP Control

Configure the details when a call from an IP phone is received by the bridge-connected device.

V/RoIP Control

① Send Connect Success Tone to Telephone:	Notice Tone 1 ▼
② Send and Receive Change Notice to the Telephone:	Not used ▼
③ Notice Tone Volume:	0 ▼ dB

① Send Connect Success Tone to Telephone

Select "Tone 1" to "Tone 3" to notify that the connection to the calling IP phone is succeed. (Default: Notice Tone 1)

② Send and Receive Change Notice to the Telephone

Select "Tone 1" to "Tone 3" to notify when the TX and RX are changed. (Default: Not used)

③ Notice Tone Volume

Select the tone level for above items. (Default: 0)
Range: "+6" to "-12" (dB)

■ Release Timer

Configure the timer details for call, forced disconnection and so on.

Release Timer

① Call Cancel Timer:	<input type="text" value="15"/>	seconds
② No Voice Release Timer:	<input type="text" value="15"/>	seconds
③ DID Disconnect Timer:	<input type="text" value="60"/>	seconds
Forced Disconnect		
④ Forced Disconnect Timer:	<input type="text" value="10"/>	minutes

① Call Cancel Timer Enter the time period to cancel the calling. When the set time has passed without the response from the IP phone, the transmission is cancelled. (Default: 15)

Range: "0 (OFF)," "5" to"60" (sec.)

② No Voice Release Timer... Enter the time period to stop the transmission. When the set time has passed with no audio signal, the transmission is stopped. (Default: 15)

Range: "0 (OFF)," "5" to"600" (sec.)

③ DID Disconnect Timer The waiting time for DID (Direct Inward Dialing) function. When no dial input is detected for this time period, the communication route will be disconnected. (Default: 60)

Range: "0 (OFF)" to "120" (sec.)

- The DID (Direct Inward Dialing) function allows you to call the specified radio from an IP phone.

Forced Disconnect

④ Forced Disconnect Timer Enter the time period to be forced to stop the transmission. When the set time has passed, the transmission is stopped even when the communication is going on. (Default: 10)

Range: "0 (OFF)," "5" to"120" (minutes)

■ V/RoIP Expansion

Configure the details for audio quality, incoming call, and so on.

V/RoIP

- ① Receive Buffer Size: milliseconds
- ② Notice Number: IP Phone Number Transceiver ID Information
- ③ Priority when SIP URI are Competing: IP Line Peer to Peer
- ④ SIP 183 Support: Disable Enable
- ⑤ LINE Response Converting: Disable Enable
- ⑥ Relay SIP Response: Disable Enable

- ① Receive Buffer Size Select the buffer time to keep the audio from breaking up. (Default: 40)
Shorter value improves the delay, but it may frequently break the audio signal.
- ② Notice Number Select the number to display on callee phone from “Phone number” and “index number.” (Default: Transceiver ID Information)
- ③ Priority when SIP URI are Competing
Select the line priority to resolve the competition of the IP Line and Peer to Peer SIP URI. (Default: IP Line)
- ④ SIP 183 Support: Select “Enable” to relay the SIP 183 Session Progress” to the extension. (Default: Disable)
- ⑤ LINE Response Converting Select “Enable” to convert the cause of calling failure into the SIP response code. (Default: Enable)
- ⑥ Relay SIP Response Select “Enable” to display the error information on the callee’s IP phone. (Default: Enable)
 - 404: Wrong number.
 - 408: No response.
 - 486: Line busy.
 - Other than above: Put the handset on.

■ TOS

Set the details of TOS (Type-Of-Service) function.

TOS: Not used

TOS

① TOS Type: Not used TOS Diffserv

TOS: TOS

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): Priority Level Service Type (HEX): E0
 ③ VoIP Signaling (SIP): Priority Level Service Type (HEX): C0

TOS: Diffserv

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): DSCP (HEX): E0
 ③ VoIP Signaling (SIP): DSCP (HEX): C0

① TOS type Select the TOS (Type-Of Service) format. (Default: TOS)

- **Not used**

Does not use the TOS function.

- **TOS**

Sends the VoIP packets to TOS field (8 bits) in the IP header using the TOS format.

- **Diffserv**

Sends the VoIP packets to TOS field (8 bits) in the IP header using the Diffserv (Differentiated Service) format.

■ TOS (continued)

TOS: Not used

TOS

① TOS Type: Not used TOS Diffserv

TOS: TOS

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): Priority Level Service Type (HEX): E0
 ③ VoIP Signaling (SIP): Priority Level Service Type (HEX): C0

TOS: Diffserv

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): DSCP (HEX): E0
 ③ VoIP Signaling (SIP): DSCP (HEX): C0

② Media (RTP) Select the Priority level and Service type of the sent VoIP packets.

• **Priority Level**

Set the TOS priority level between 0 to 7 in decimal. (Default: 7)

• **Service Type**

Set the TOS service type code between 0 to 15 in decimal. (Default: 0)

• **DSCP**

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

■ TOS (continued)

TOS: Not used

TOS

① TOS Type: Not used TOS Diffserv

TOS: TOS

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): Priority Level Service Type (HEX): E0
 ③ VoIP Signaling (SIP): Priority Level Service Type (HEX): C0

TOS: Diffserv

TOS

① TOS Type: Not used TOS Diffserv
 ② Media (RTP): DSCP (HEX): E0
 ③ VoIP Signaling (SIP): DSCP (HEX): C0

③ VoIP Signaling (SIP) Set the priority level of the call control packet which is output in the TOS field.

• **Priority Level**

Set the TOS priority level between 0 to 7 in decimal. (Default: 6)

• **Service Type**

Set the TOS service type code between 0 to 15 in decimal. (Default: 0)

• **DSCP**

Set the DSCP (Differentiated Services Code Point) code between 0 to 63 in decimal. (Default: 48)

Emergency Notice

Select the port to use as the emergency notice output.

Emergency Notice

① Transceiver 1 (TRX1): Disable Enable
 Transceiver 2 (TRX2): Disable Enable

② Digital Transceiver 1 (D-TRX1): Disable Enable
 Digital Transceiver 2 (D-TRX2): Disable Enable
 Digital Transceiver 3 (D-TRX3): Disable Enable
 Digital Transceiver 4 (D-TRX4): Disable Enable

③ EXT Output 1 (EXT1): Disable Enable
 EXT Output 2 (EXT2): Disable Enable

④ Emergency Notice Equipment: Disable Enable *Default call destination number is not yet set.([Extension connect])

① Transceiver 1 (TRX1)
 Transceiver 2 (TRX2) If you select “Enable,” the emergency notice is sent to the port ([TRX1]/[TRX2]). (Default: Disable)

② Digital Transceiver 1 (D-TRX1) –
 Digital Transceiver 4 (D-TRX4)
 If you select “Enable,” the emergency notice is sent to the port ([D-TRX1] to [D-TRX4]). (Default: Disable)

③ EXT Output 1 (EXT1)
 EXT Output 2 (EXT2) If you select “Enable,” the emergency notice is sent to the connected transceiver or external device. (Default: Disable)

④ Emergency Notice Equipment
 If you select “Enable,” the emergency notice is sent to the specified Bridge connect destination. (Default: Disable)

- Select “Emergency” in [Input Connection Port] on the [EXT Input 1 (EXT1)]/[EXT Input 2 (EXT2)] (Or EXT I/O1/2) screen.

■ Priority Level

Select the receive call priority level for IP phone and external device.

Priority Level

① Individual Calling: ▼
② EXT Input: ▼

*Only enabled when EXT I/O mode is set to [Separate mode],
and Input connection port is set to [EXT output].

- ① Individual Calling Select the receive call priority level for individual call. (Default: Normal)
- ② EXT Input Select the priority level for the call received by the device connected to the [EXT1]/[EXT2] port. (Default: Normal)

■ Priority Level of the Individual Calling

Specify the call prior to receive.

The priority call takes priority on other ongoing communication.

Calling Type: SIP Server

Priority Level of the Individual Calling

- ① Index:
- ② Name:
- ③ Calling Type: SIP Server Peer to Peer
- ④ Phone Number:
- ⑤ Priority Level:

Calling Type: Peer to Peer

Priority Level of the Individual Calling

- ① Index:
- ② Name:
- ③ Calling Type: SIP Server Peer to Peer
- ⑥ SIP URI: sip:
- ⑤ Priority Level:

- ① Index Assign the number for the entry.
- ② Name Name the entry up to 31 characters.
- ③ Calling Type Select the calling type. (Default: SIP Server)
 - **SIP Server** : Calling through the SIP server (IP Line)
 - **Peer to Peer** : Calling by Peer to Peer
- ④ Phone Number Enter the telephone number up to 31 characters.

■ Priority Level of the Individual Calling (continued)

Calling Type: SIP Server

Priority Level of the Individual Calling

① Index:

② Name:

③ Calling Type: SIP Server Peer to Peer

④ Phone Number:

⑤ Priority Level:

Calling Type: Peer to Peer

Priority Level of the Individual Calling

① Index:

② Name:

③ Calling Type: SIP Server Peer to Peer

⑥ SIP URI: sip:

⑤ Priority Level:

- ⑤ Priority Level Select the priority level for the callee. (Default: Normal)
 When higher priority call is received while a call is ongoing, the call is replaced to the higher one.
 When the same priority call is received, the ongoing call is maintained.
 - The emergency call is not replaced by any priority call.

- ⑥ SIP URI Enter the callee SIP URI up to 63 characters.

■ List of Priority Level of the Individual Calling Entries

List of Priority Level of the Individual Calling Entries

Index	Name	Phone Number / SIP URI	Priority Level	①	②
1	Front Gate	0123456	Normal	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>

③

- This is an example.

- ① <Edit> Click to edit the setting.
- ② <Delete> Click to delete the entry.
- ③ <Delete All> Click to delete all entries.

■ Abnormal Condition Monitoring

Configure the details to monitor the abnormal condition.

Abnormal Condition Monitoring

<p>① LAN Port Downlink</p> <p>Monitoring: <input type="radio"/> Disable <input checked="" type="radio"/> Enable</p> <p>Control Output: <input type="text" value="Disable"/></p>	<p>*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].</p>
<p>② PING Test</p> <p>Monitoring: <input type="radio"/> Disable <input checked="" type="radio"/> Enable</p> <p>Control Output: <input type="text" value="Disable"/></p> <p>IP Address: <input type="text"/></p> <p>Monitor Period: <input type="text" value="10"/> minutes</p>	<p>*LAN port downlink is enabled when monitoring is enabled.</p> <p>*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].</p>
<p>③ SIP Server Registration</p> <p>Monitoring: <input type="radio"/> Disable <input checked="" type="radio"/> Enable</p> <p>Control Output: <input type="text" value="Disable"/></p>	<p>*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].</p>

- This is an example.

① LAN Port Downlink Select "Enable" to automatically detect the communication error . When the Ethernet cable disconnects from the VE-PG3's [LAN] port, the [WAN] LED blinks Orange, and the error message is displayed on the "SYSLOG" screen in the "Information" menu. (Default: Disable)

Control Output

Select "Enable" to output the error detect signal from the B1/B2 terminal (+/-). (Default: Disable)

- Select "Relay circuit" in the Control Circuit] item on the [EXT Output] (1/2), or [EXT I/O] (1/2) screen.

While the error detect signal is sent, the VE-PG3 cannot receive signals from the external device that is connected to the B1/B2terminal (+/-).

■ Abnormal Condition Monitoring (continued)

Abnormal Condition Monitoring

① **LAN Port Downlink**
 Monitoring: Disable Enable
 Control Output:
*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to[Relay circuit].

② **PING Test**
 Monitoring: Disable Enable
 Control Output:
*LAN port downlink is enabled when monitoring is enabled.
 *Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to[Relay circuit].

IP Address:
 Monitor Period: minutes

③ **SIP Server Registration**
 Monitoring: Disable Enable
 Control Output:
*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to[Relay circuit].

- This is an example.

② PING test Select "Enable" to send the PING commands to the specified IP address. (Default: Disable)
 When the Ethernet cable disconnects from the VE-PG3's [LAN] port, the [WAN] LED blinks Orange, and the error message is displayed on the "SYSLOG" screen in the "Information" menu.

Control Output

Select "Enable" to output the error detect signal from the B1/B2 terminal (+/-). (Default: Disable)

- Select "Relay circuit" in the Control Circuit] item on the [EXT Output] (1/2), or [EXT I/O] (1/2) screen.

While the error detect signal is sent, the VE-PG3 cannot receive signals from the external device that is connected to the B1/B2 terminal (+/-).

IP Address:

Enter the destination IP address to send the commands.

Monitor Period:

Set the monitor period between 1 to 4320 minutes. (Default: 10)

Abnormal Condition Monitoring (continued)

Abnormal Condition Monitoring

① LAN Port Downlink

Monitoring: Disable Enable

Control Output:

*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].

② PING Test

Monitoring: Disable Enable

Control Output:

*LAN port downlink is enabled when monitoring is enabled.

*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].

IP Address:

Monitor Period: minutes

③ SIP Server Registration

Monitoring: Disable Enable

Control Output:

*Only usable when [Connection apparatus] of EXT I/O is set to [EXT I/O Unit] and [Control circuit change] is set to [Relay circuit].

- This is an example.

③ SIP Server Registration ...

Select "Enable" to detect the Connection failure (1 entry or more)

(Default: Disable)

When a Connection failure is detected, the error report is displayed on the [SYSLOG] screen in the [Information] Menu

Control Output

Select "Enable" to output the error detect signal from the B1/B2 terminal (+/-). (Default: Disable)

- Select "Relay circuit" in the Control Circuit] item on the [EXT Output] (1/2), or [EXT I/O] (1/2) screen.

While the error detect signal is sent, the VE-PG3 cannot receive signals from the external device that is connected to the B1/B2terminal (+/-).

1. How to restrict access	7-2
Setting password	7-2
2. How to set the VE-PG3's internal clock time	7-3
Setting date and time (Manual setting)	7-3
Setting date and time (Automatic setting)	7-3
3. How to save the VE-PG3's setting to the PC	7-4
Save the settings file to the PC	7-4
4. How to load the saved file to the VE-PG3	7-5
Reload the settings file into the VE-PG3	7-5
5. How initializing the VE-PG3.....	7-6
Ⓐ Using the <INIT> button	7-6
Ⓑ Using the VE-PG3's setting screen	7-6
6. How to update the firmware	7-7
Ⓐ Update the firmware on the setting screen	7-8
Ⓑ Use the Firmware Update function	7-8
7. About the Automatic Restore function	7-9
8. How to restore the configuration using a USB memory.....	7-11
Save the settings file in the USB memory	7-11
Load the settings file into the VE-PG3	7-12

1. How to restrict access

If you set a new administrator password, you can restrict access to the VE-PG3's setting screen.

The default administrator password is "admin."

- The User name is fixed at "admin."

Setting password

- 1** Click the [Management] menu, then [Administrator].
The [Administrator] screen appears.
- 2** Enter [Current Password], [New Password] and [New Password (confirm)] in their respective input fields.
 - Input them up to 31 characters (Selectable from 0–9, a–z and A–Z).
 - Characters entered in the [New Password] and [New Password (confirm)] are displayed in * (asterisk) or • (dot).

The screenshot shows the 'Administrator' configuration page. At the top, there is a blue header with the word 'Administrator'. Below this, the page title 'Administrator' is displayed. The form contains the following fields and controls:

- Username:** A text input field containing the text 'admin'.
- Current Password:** A password input field containing 5 dots.
- New Password:** A password input field containing 8 dots.
- New Password (confirm):** A password input field containing 8 dots.
- Enter:** A large black button with the text 'Enter' in white, positioned to the right of the password fields.
- Apply:** A small grey button with the text 'Apply'.
- Reset:** A small grey button with the text 'Reset'.

- 3** Click <Apply>.

[CAUTION]

If you forget the password, you can no longer access the setting screen.
In such a case, you must initialize the VE-PG3. See the "Precautions" leaflet for details.

To prevent unauthorized access

You must be careful when choosing your password, and change it occasionally.

See the VE-PG3 instruction manual for the password setting.

- Choose one that is not easy to guess.
- Use numbers, characters and letters (both lower and upper case).

2. How to set the VE-PG3's internal clock time

You can set the VE-PG3's internal clock time.

Setting date and time (Manual setting)

- 1** Click the [Management] menu, then [Date and Time].
The [Date and Time] screen appears.
- 2** The time when you accessed the VE-PG3's setting screen is displayed in [Date and Time].
Click <Set> to synchronize the internal clock with the displayed time.
• You can also manually set the time in the [Current Time] field.

Setting date and time (Automatic setting)

The Automatic Clock Synchronize function automatically synchronizes the internal clock with the time management server (NTP).

- To use this function, an internet connection, DNS and default gateway settings are necessary.

- 1** Click [Management] menu, then [Date and Time].
The [Date and Time] screen appears.

- 2** Select the appropriate Time Zone.

- 3** Select "Enable," and then click <Apply>.

3. How to save the VE-PG3's setting to the PC

You can save the VE-PG3's settings to the PC.

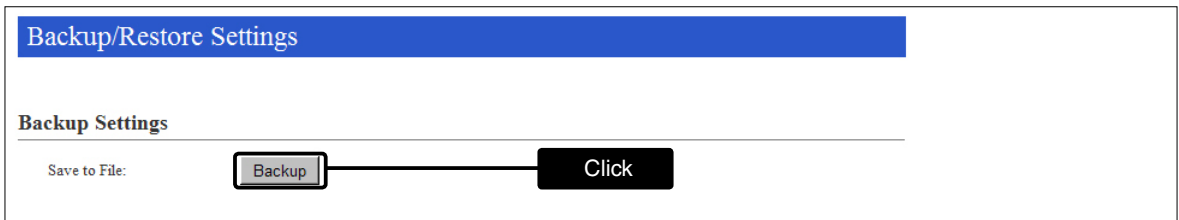
The saved settings can be used to recover the configuration.

- You can also save the settings to a USB memory, to directory load it from the memory. (p. 7-11)

Save the settings file to the PC

- 1** Click the [Management] menu, then [Backup/Restore Settings].
The [Backup/Restore Settings] screen appears.

- 2** Click <Backup> in the [Backup Settings] field.
 - The File Saving window appears.



- 3** Select the desired folder, then click [Save] in the window.
 - The setting file (extension: "sav") is saved to the selected folder.
 - The default file name is composed of the model name (VE-PG3), version number and date.

[NOTE]

DO NOT write the saved file to other devices.

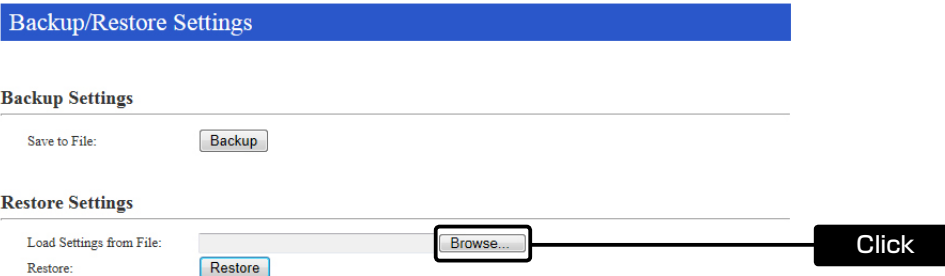
4. How to load the saved file to the VE-PG3

You can load the VE-PG3's settings from the PC.

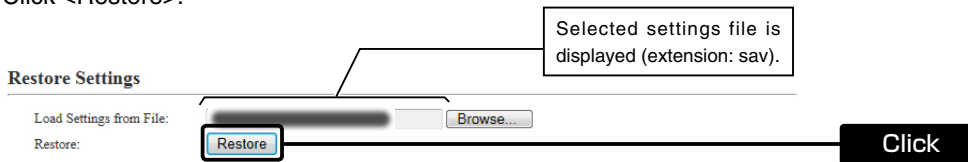
Reload the settings file into the VE-PG3

- 1 Click the [Management] menu, then [Backup/Restore Settings].
 - The [Backup/Restore Settings] screen appears.

- 2 Click <Browse...>, and then select the setting file (extension: "sav").



- 3 Click <Restore>.



- The VE-PG3 automatically reboots.

[NOTE]

DO NOT write the saved file to other devices.

5. How to initialize the VE-PG3

There are two ways to initialize the VE-PG3.

- Set the VE-PG3's IP address again after the VE-PG3 is initialized.

Ⓐ Using the <INIT> button.

If you cannot access the VE-PG3 setting screen, initialize the VE-PG3 using the <INT> button.

Ⓑ Initialize on the VE-PG3's setting screen.

If you can access the VE-PG3 setting screen, initialize the VE-PG3 on the setting screen.

Ⓐ Using the <INIT> button

Initializing clears all the settings.

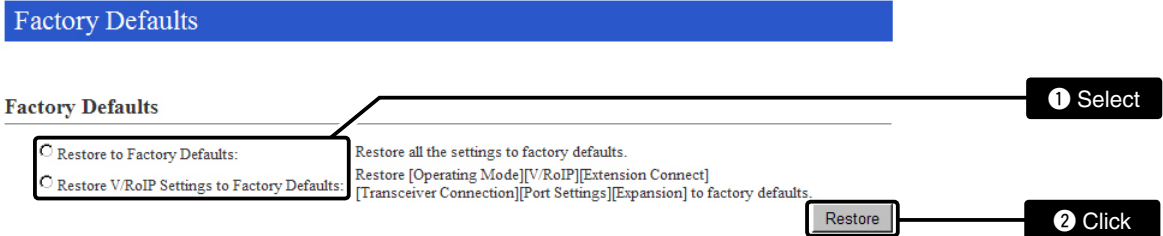
- If the network part of the PC IP address is different from that of the VE-PG3, you cannot access the VE-PG3 setting screen. In such case, change the PC IP address according to your network environment,

See the supplied "Precautions" leaflet for the details.

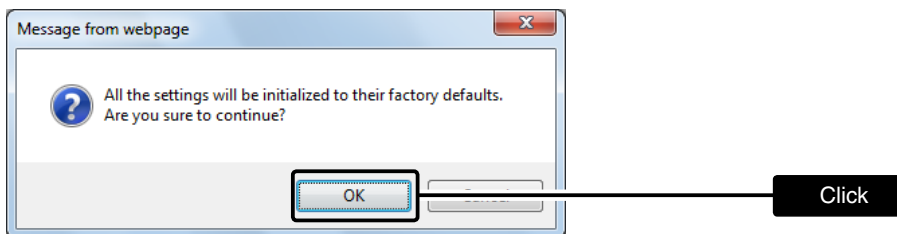
Ⓑ Using the VE-PG3's setting screen

- 1 Click the [Management] menu, then [Factory Defaults].
 - The [Factory Defaults] screen appears.

- 2 Select the initialize option, and then click <Restore>.



- 3 Click <OK>.
 - The VE-PG3 automatically reboots.



About the initializing condition

• When "Restore to Factory Default" is selected:

You can restore all the VE-PG3's settings. The VE-PG3's IP address is set to "192.168.0.1," when initialized. Set the PC's IP address to "192.168.0.xxx." (You can set xxx to any number from 2 to 254.)

• When "Restore V/RoIP Settings to Factory Default" is selected:

In the Bridge mode :You can initialize only these VE-PG3's items; [Operating Mode], [Bridge Connection], [Port Settings] and [Expansion].

In the Converter mode :You can initialize only these VE-PG3's items; [Operating Mode], [V/RoIP], [Extension Connect], [Transceiver Connection], [Port Settings] and [Expansion].

6. How to update the firmware

There are two ways to update the firmware.

Ⓐ Update the firmware on the setting screen. (p. 7-8)

Download a new firmware from the Icom web site, and then write it to the VE-PG3.

Ⓑ Use the Firmware Update function

The firmware can be automatically download and updated.

- To use the Firmware Update function, an internet connection, DNS and default gateway settings are necessary.

ABOUT THE FIRMWARE

The firmware may be updated when the functions and specifications of the VE-PG3 are improved.

Ask your dealer for updated function or specification details.

TOP

System Status

Host Name	VE-PG3	Version number
IPL	Rev. 6	
Version	ver. 1.00 Copyright 2007-2012 Icom Inc.	
WAN MAC Address	00-90-C7-00-B0-8B	
LAN MAC Address	00-90-C7-00-B0-8C	

NOTE:

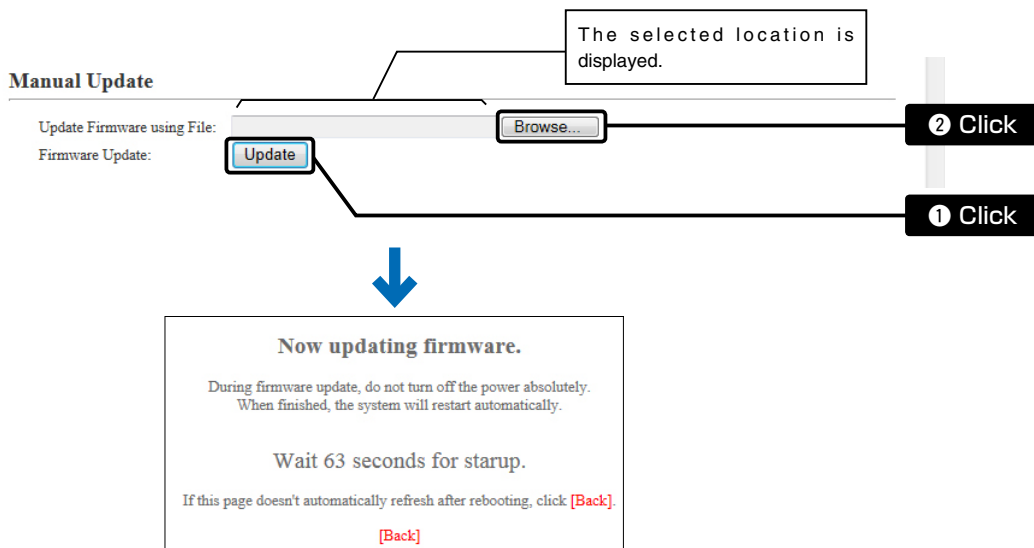
- NEVER turn OFF the power until the updating has been completed. Otherwise, the VE-PG3 may be damaged.
- If the firewall is running, stop it before updating the firmware. If you want to stop the firewall, ask your network administrator for details.
- DO NOT write the saved file to other devices.
- Icom is not responsible on the consequence of the updating the firmware.

6. How to update the firmware (continued)

Ⓐ Update the firmware on the setting screen

We recommend that you save the current setting in the PC, before updating the firmware. (p.7-4)

- 1 Download a new firmware (extension: "dat") from Icom web site.
- 2 Click the [Management] menu, then [Update].
The [Update] screen appears.
- 3 Click <Browse...>, and then select the firmware file (Extension: dat).
 - The "Updating Firmware" screen appears.



- When the updating is finished, the [TOP] screen appears.

Ⓑ Use the Firmware Update function

When [PWR/MSG] lights orange, a firmware update is ready.
See the "Precautions" leaflet for the details.

NOTE:

NEVER turn OFF the VE-PG3's power while updating. It will cause data corruption, or damage the USB memory.

If you cannot access the VE-PG3 setting screen after the updating, change the PC IP address according to your network environment.

7. About the Automatic Restore function

You can clone the VE-PG3's settings or firmware saved in a USB memory to other VE-PG3.

[About the USB memory]

- The USB memory is not supplied. Purchase separately.
- A USB memory such as one with biometric authentication, or one with password protection is not supported.
- Turn OFF the VE-PG3's power before inserting or removing the USB memory, to prevent data corruption.
- Either one of the USB slots accepts the USB memory, but insert only one USB memory at a time.
- Insert the USB memory securely.
- NEVER remove the USB memory or turn OFF the VE-PG3's power, while transferring data. It will cause data corruption, or damage the USB memory. While transferring data, the [PWR/MSG] LED blinks.
- After the firmware updating is finished, check the firmware version on the setting screen to verify that the update was correctly done.
- When importing setting data from the USB memory to the VE-PG3, the originally programmed setting data is automatically saved as "bakdata.sav" in the USB memory, as a backup.

[Supported USB specification]

Interface : USB2.0
Device : USB flash drive (USB Mass Storage Class)
File format : FAT16/FAT32 (exFAT and NTFS are not supported.)

(Continued on the next page.)

7. About the Automatic Restore function (continued)

[About the settings file name]

The settings file must be saved as "savedata.sav" in the USB memory.

- Only the settings file saved on the VE-PG3's setting screen can be used.
See page 7-4 for details.

[About the firmware file name]

The firmware file must be saved as "firmware.dat" in the USB memory.

- You need to rename the file after downloading the firmware from Icom web site.

[About the Automatic Settings Backup function]

The latest 10 backup files (revisions) are stored in the USB memory, as the file name "bakdata_X.sav." (X=Revision number)

(Example)

The name of oldest backup file ; "bakdata_10.sav"

- The firmware is not automatically saved as a backup.
- The latest settings backup file is saved as "bakdata.sav" (with no revision number).

8. How to restore the configuration using a USB memory

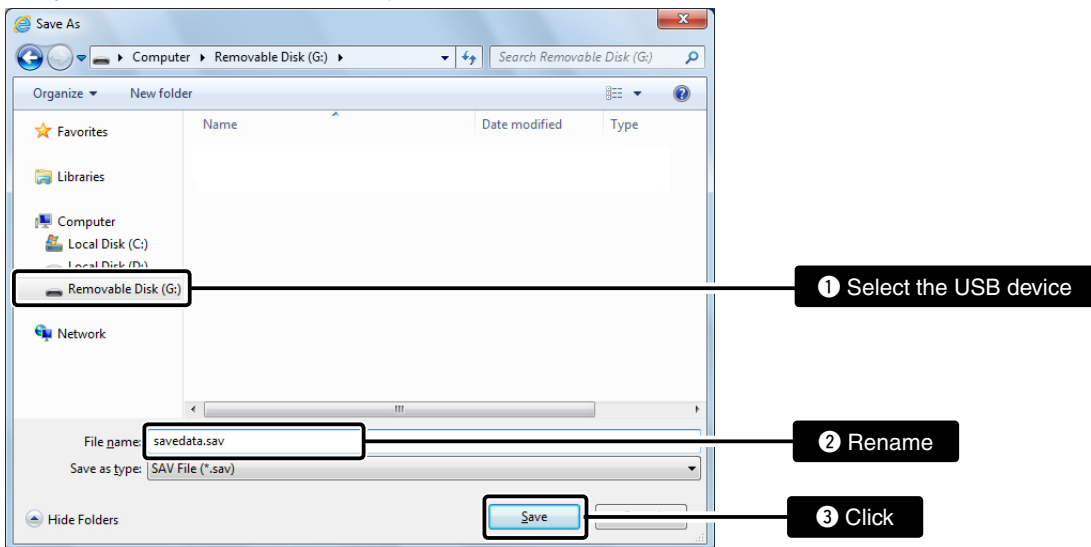
You can clone the setting data to other VE-PG3.
It is convenience when you sequentially configure plural VE-PG3.

Save the settings file in the USB memory

- 1 Insert the USB memory securely to the PC.
- 2 Access the VE-PG3's setting screen.
- 3 Click [Management] menu, then [Backup/Restore Settings].
The [Backup/Restore Settings] screen appears.
- 4 Click <Backup> in the [Backup Settings] field.
The [Save Target As...] window appears.



- 5 Select the route directory of the USB memory, and save the settings file as "savedata.sav."
 - Any of other file name is not acceptable.



(Continued on the next page.)

8. How to restore the configuration using a USB memory (continued)

Load the settings file into the VE-PG3

1 Remove the USB memory from the PC appropriately.

2 Prepare the VE-PG3 to load the settings.

3 Turn OFF the power.

NOTE: Turn OFF the VE-PG3's power, before inserting the USB memory.

4 Insert the USB memory, which contains the setting data (savedata.sav), to the [USB] port, and then turn ON the power.

- While accessing the USB memory, [PWR/MSG] blinks.

NOTE: NEVER remove the USB memory or turn OFF the VE-PG3's power, while transferring data. It will cause data corruption, or damage the USB memory.

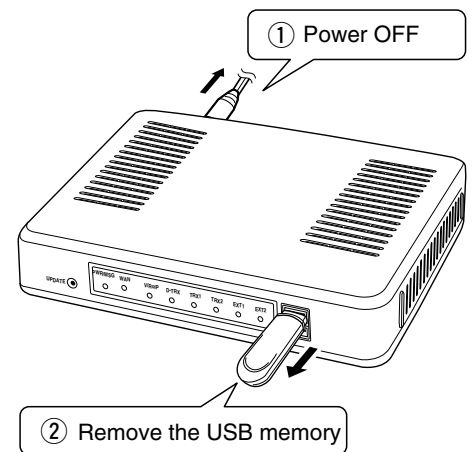
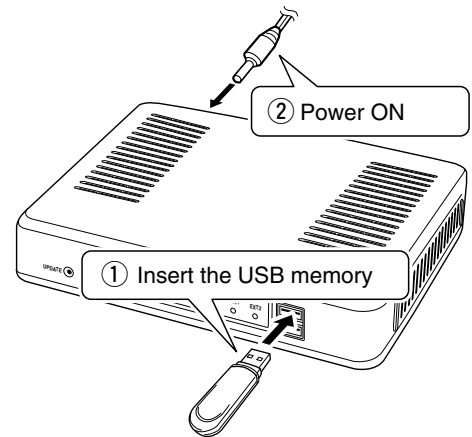
NEVER access the setting screen until the data is loaded into the VE-PG3.

5 When the all data has been loaded into, the [PWR/MSG] LED is blackout and the VE-PG3 automatically restarts.

Verify that the [PWR/MSG] LED lights Green, then turn OFF the power.

Then remove the USB memory from the VE-PG3.

- Turn OFF the VE-PG3's power before inserting or removing the USB memory, to prevent data corruption.
- When importing setting data from the USB memory to the VE-PG3, the originally programmed setting data is automatically saved as "bakdata.sav" in the USB memory, as a backup.



1. Troubleshooting	8-2
2. Connect with the VE-PG3 using Telnet.....	8-4
■ For Windows 7	8-4
■ About the telnet commands	8-4
3. About the external audio device	8-5
■ When connecting VE-PG3 to an in-house sound system.....	8-5
4. Specifications	8-6
■ General	8-6
■ Communication Interfaces	8-6
■ Port details	8-7

1. Troubleshooting

If the VE-PG3 seems to be malfunctioning, please check the followings before sending it to the service center.

The [PWR/MSG] LED does not light.

- The supplied AC adapter is not connected to the VE-PG3.
 - > Verify that the AC adaptor is securely connected.
- The AC adapter is connected to the same AC outlet with the PC.
 - > Connect the AC adapter to a different AC outlet.

The [LAN] LED does not light.

- The Ethernet cable is not properly connected to the VE-PG3.
 - > Verify that the Ethernet cable is securely connected.
- The HUB or PC is turned OFF.
 - > Turn ON the HUB or PC.

You cannot access the VE-PG3's setting screen.

- **The PC's IP address is incorrect.**
 - > Set the fixed VE-PG3's IP address after you set the VE-PG3 to default setting.
- **The network part of PC's IP address is different from the VE-PG3.**
 - > Set the network part of PC's IP address to same as the VE-PG3.
- **A proxy server is used for the web browser setting.**
 - > Set the web browser's proxy server setting to OFF.
 - Click the "Tools" in the web browser menu, and then click "Internet option."
 - Click the "Connections" tab, and click [LAN settings], and then confirm there is no check mark in "Automatically detect settings" and "Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connection)."

The VE-PG3's setting screen is not properly displayed.

- **The javascript or cookie functions are turned OFF.**
 - > Set the javascript and cookie functions to ON.
- **Your version of Microsoft Internet Explorer is 8 or earlier, or your browser is other than Internet Explorer.**
 - > Use Microsoft Internet Explorer 9 or later.

The receiving sound breaks up while operating in the Bridge's Multicast mode.

Two or more transceivers that are connected with the different VE-PG3s are transmitting at the same time.

- > Use only one VE-PG3 in the Always-on connection mode.
- > Set the Always-on connection mode to disable.

1. Troubleshooting (continued)

Cannot cancel an outgoing call.

The VE-PG3 cannot recognize the calling status.

-> Select "Enable" in [SIP 183 Support] on the [VoIP Expansion] screen in the [Expansion] menu.

[Input/Output Digital Gain] doesn't work.

Internal codec is not used.

-> Use [Input/Output Analog Gain] to adjust the signal level.

When the Combined mode is selected, the output audio signal from the [OUT] port does not fade-in or fade-out.

The [EXT1]/[EXT2] port setting is wrong.

-> Set the [EXT Input] port's connect destination to [EXT Output].

The Mixing function doesn't work

AMBE+2 is used as the codec.

-> The Mixing function works on the only G.711 codec.

Malfunction in use of the Mixing function

The communication route is duplicated.

-> Check the Mixing function setting.

The VE-PG3 cannot automatically update the firmware.

- The Ethernet cable is not properly connected to the VE-PG3.
 - > Properly connect the Ethernet cable to the VE-PG3.
 - The VE-PG3 is not connected to internet.
 - > Set the VE-PG3 properly to connect to internet.
 - The firewall is running.
 - > Stop the firewall.
- If you want to stop the firewall, ask your network administrator for details.

2. Connect with the VE-PG3 using Telnet

■ For Windows 7

- ① Start up Windows.
- ② Click the [Start] button, and then click [Run...].
Input "Telnet.exe" to the text box, and then click <OK>.
- ③ The telnet screen appears, then input "open" and VE-PG3's IP address (example: 192.168.0.1).
- ④ Input login ID and password, then push [Enter].
login ID : "admin" (Fixed)
password : (Input the VE-PG3's administrator password)
- ⑤ If the telnet can access to the VE-PG3, "VE-PG3 #" is displayed on the telnet screen.

■ About the telnet commands

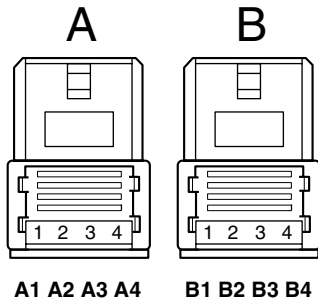
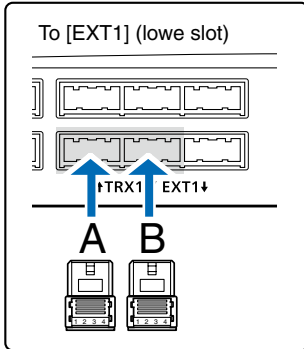
- Command list** The telnet command list is displayed to the telnet screen when pushing the [Tab] key.
The sub command list is displayed on the telnet screen when you push the [Tab] key after inputting the telnet command.
- Command help** The command help is displayed when inputting help command "help" followed by the desired command.
Example) help save (the help for command "save" is displayed.)
- Automatic complement** ... After inputting first few characters of the command name, push the [Tab] key.
The rest of the characters of the command name are automatically input.
Example) n [Tab]->network
If there are several possible commands, all of them are displayed.
Example) res [Tab]->reset restart

3. About the external audio device

■ When connecting VE-PG3 to an in-house sound system

Connect the VE-PG3 and the in-house sound system, using the cable with pin assign as shown below.

- See Section 8 for port details.



- A1/A2: Audio output (OUT)
- A3/A4: Audio input (IN)
- B1/B2: Relay circuit output
- B1/B4: Control output
- B2/B4: 8 V power supply
- B3/B4: Control input

- A2, A4 and B4 are the GND terminals.
- The B1–B4 terminals can be configured on the setting screen.

When connecting an RS-232C cable with the 9-pin D-sub connector

The Virtual Serial Port function of VE-PG3 allows you to control a device with a serial communication interface, through the TCP/IP network.

- See the "Virtual Serial Port" manual in the supplied utility CD for details.

4. Specifications

NOTE: All specifications are the subject to change without notice.

■ General

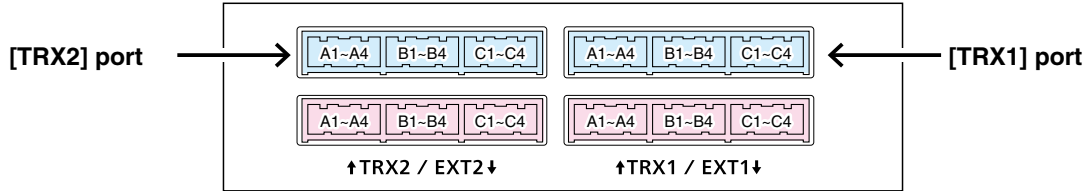
Power supply	: DC12 V \pm 10% [Polarity:⊖—●—⊕] 16W maximum (with the supplied AC adaptor)
Usable condition	: Temperature 0 to 40°C; +32 to +104°F, Humidity 5–95% (At no condensation)
Dimension	: Approximately 232 (W) \times 38 (H) \times 168 (D) mm; 9.1 (W) \times 1.5 (H) \times 6.6 (D) in (objections not included)
Weight	: Approximately 800 g; 28.2 oz (without the supplied accessory not included)
Regulatory Compliance	: FCC (Part 15 Class B/Part 68) TIA868-B ICES-003 ICCS-03 CE Mark ETSI ES 203 021 ETSI EG 201 121 (Advisory Note)
Interface	: LEDs (PWR/MSG, WAN, V/RoIP, D-TRX, TRX(1/2), EXT(1/2)), Buttons (UPDATE, INIT) [USB] ports (USB2.0) \times 2

■ Communication Interfaces

[WAN] port	: [WAN] port (RJ-45 type) \times 1 (Auto MDI/MDI-X) • Based on IEEE802.3/10BASE-T • Based on IEEE802.3u/100BASE-TX
[LAN] port	: [LAN] port (RJ-45 type) \times 1 (Auto MDI/MDI-X) • Based on IEEE802.3/10BASE-T • Based on IEEE802.3u/100BASE-TX
[TRX] (1/2) port	: Analog audio/Transmit control 2.54 mm (0.1 in) pitch quick connector (4 terminals \times 3) \times 2
[EXT] (1/2) port	: Audio input –10 dBs/–40 dBs selectable Input impedance Approximately 10 k Ω unbalance Audio output 0 dBs/–20 dBs selectable 600 Ω load unbalance/8 Ω 1 W speaker Control input Low voltage contacts (DC3.3 V/ 1 mA)/ Voltage input (3–16 V) Control output No voltage contacts (30 V/ 500 mA)/Open collector (3–16 V 10 mA) Connectors 2.54 mm (0.1 in) pitch quick connector (4 terminals \times 3) \times 2
[LINE] port	: RJ-11 \times 2
[PHONE] port	: RJ-11 \times 1
Communication rate	: [WAN] port 10/100 Mbps (Automatic switching/Full duplex) [LAN] port 10/100 Mbps (Automatic switching/Full duplex)
Relay protocol	: Only IPv4 for routing
Signaling protocol	: SIP
Codec	: G.711u, AMBE+2

4. Specifications (continued)

■ Port details



[TRX1]/[TRX2] port

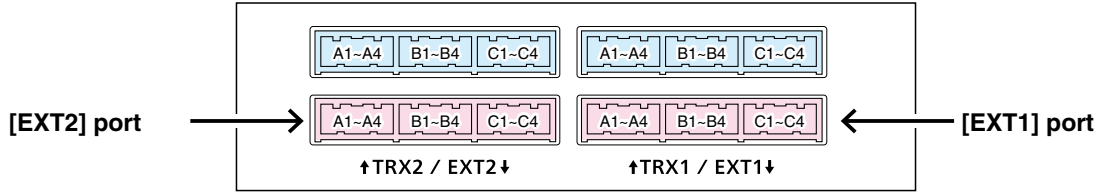
Pin No.	Description
A1	Analog audio output (From the VE-PG3)/Superimpose PTT
A2	Analog GND
A3	Analog audio input (To the VE-PG3)/Superimpose squelch detection
A4	Analog GND
B1	Single PTT control
B2	Serial communication (half duplex)
B3	Single squelch control
B4	Common GND
C1	Serial communication TXD (From the VE-PG3)
C2	Serial communication RXD (To the VE-PG3)
C3	Serial communication RTS (To the VE-PG3)
C4	Serial communication CTS (From the VE-PG3)

• You can change the configuration of ports B1 to B4 on the VE-PG3's setting screen.

- **A1/A2 terminal (+/-): Audio output terminal**
 Adjust the output gain according to the audio amplifier.
 The connected audio equipment may damage if the gain is inappropriately set.
 The length of the cable which connects the audio equipment and VE-PG3 is less than 10 m (3.3 ft.).
 Be careful of the noise and malfunction caused by the earth loop.
 Reference level : Speaker/0 dBs/-20 dBs(0 dBs=0.775 Vrms) selectable
 Load impedance : more than 600 Ω (Speaker: 8 Ω)
- **A3/A4 terminal (+/-): Audio input terminal**
 Adjust the output gain according to the audio amplifier.
 When you use a microphone other than electret condenser microphone (ECM), select "Disable" on the setting screen.
 Reference level : -10 dBs/-40 dBs(0 dBs=0.775 Vrms) selectable
 Input impedance : Approximately 10 kΩ (Approximately 1 kΩ when biased)
 Supplied voltage : Approximately 2.2 V (For Electret Condenser Microphone)
- **B1/B2 terminal (+/-): Relay Circuit output terminal.**
 Turns the connected equipment ON or OFF.
 - You can change the configuration of ports B1 to B4 on the VE-PG3's setting screen.
 - Specification: 30 V/500 mA.

4. Specifications (continued)

■ Port details (continued)



[EXT1]/[EXT2] port

Pin No.	Description
A1	General audio output (From the VE-PG3)/Superposition PTT
A2	Analog GND
A3	General audio input (To the VE-PG3)/Superposition squelch detect
A4	Analog GND
B1	General output/Single PTT Relay circuit output
B2	Serial communication (Half duplex)/8 V power supply Relay circuit output
B3	General input/Single squelch detect
B4	Common GND
C1	Serial communication TXD (From the VE-PG3)
C2	Serial communication RXD (To the VE-PG3)
C3	Serial communication RTS (From the VE-PG3)
C4	Serial communication CTS (To the VE-PG3)

- You can change the configuration of ports B1 to B4 on the VE-PG3's setting screen.

- B1/B4 terminal (+/-): General Control Output Terminal
Turns the connected equipment ON or OFF.
 - You can change the configuration of ports B1 to B4 on the VE-PG3's setting screen.
 - Specification: 3–16 V/10 mA (Open collector).
- B2/B4 terminal (+/-): 8 V Power Supply Terminal
Supplies the 8 V DC to the connected equipment.
 - You can change the configuration of ports B1 to B4 on the VE-PG3's setting screen.
 - Current limit: Less than 30 mA.
- B3/B4 terminal (+/-): General Control Input Terminal
Turns the connected equipment ON or OFF.
 - You can change the configuration of ports B1 to B4 on the VE-PG3's setting screen.
 - Specification: 3–30 V/10 kΩ (Voltage input).
3.3 V/less than 1 mA (Low voltage contacts).

Count on us!

