ICOM

Icom Inc.

INSTRUCTION MANUAL

RoIP GATEWAY
VE−PG3
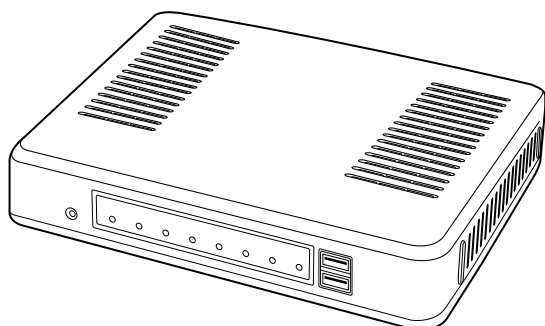
Icom Inc.

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 specifications 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.
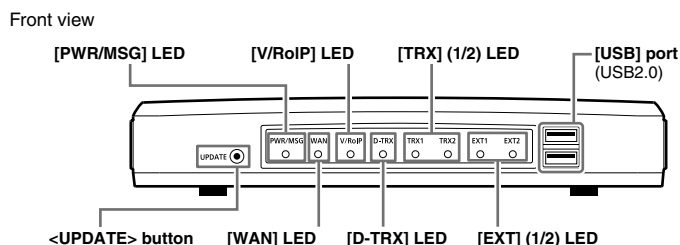
BEFORE USING THE VE-PG3

Panel description

■ Front panel

Front view

[PWR/MSG] LED   [V/RoIP] LED   [TRX] (1/2) LED   [USB] port
(USB2.0)

<UPDATE> button   [WAN] LED   [D-TRX] LED   [EXT] (1/2) LED

<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.

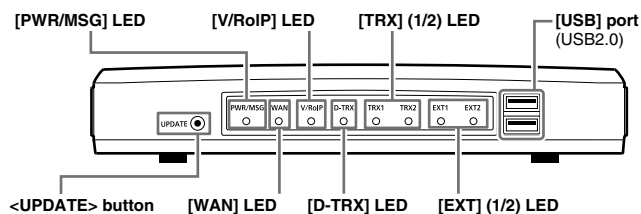| LED	Indication		In the Converter mode	In the Bridge mode
PWR/MSG	**Doesn't light**		Power is OFF	
	Green	**Lights**	Power is ON	
		Blinks	Booting	
	Red	**Lights**	–	
		Blinks	–	
	Orange	**Lights**	A firmware update is ready./Downloading new firmware.	
		Blinks	Accessing the USB flash drive. (While loading the setting file or updating the firmware.)	
			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.)	
	Red	**Lights**	–	
		Blinks	Authentication error/failed (PPPoE) Failed to obtain IP address (DHCP) (Time-out timer: 30 seconds)	
	Orange	**Lights**	LAN port linkdown*	
		Blinks	No PING reply from the specified host.*	
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	–	

*: Setting the [Abnormal Condition Monitoring] item on the [Expansion] screen is necessary for this indication, and the LAN port linkdown monitoring takes priority. See page 5-102 and 5-103 for the details.

Panel description

■Front panel (continued)

Front view

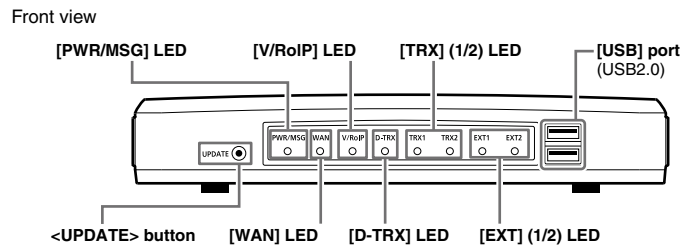[PWR/MSG] LED   [V/RoIP] LED   [TRX] (1/2) LED   [USB] port
(USB2.0)

<UPDATE> button   [WAN] LED   [D-TRX] LED   [EXT] (1/2) LED

D-TRX*	Doesn't light		No transceiver is connected, or it is in the standby mode.
	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 in the standby mode.
	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

■Front panel (continued)

Front view

[PWR/MSG] LED   **[V/RoIP] LED**   **[TRX] (1/2) LED**   **[USB] port**
(USB2.0)

<UPDATE> button   **[WAN] LED**   **[D-TRX] LED**   **[EXT] (1/2) LED**

[USB] ports   …………………   CAUTION: Turn OFF the power before connect or disconnect the USB flash drive.

[Connecting a USB flash drive]

The configuration and firmware can be transferred using a USB flash drive (purchase separately).
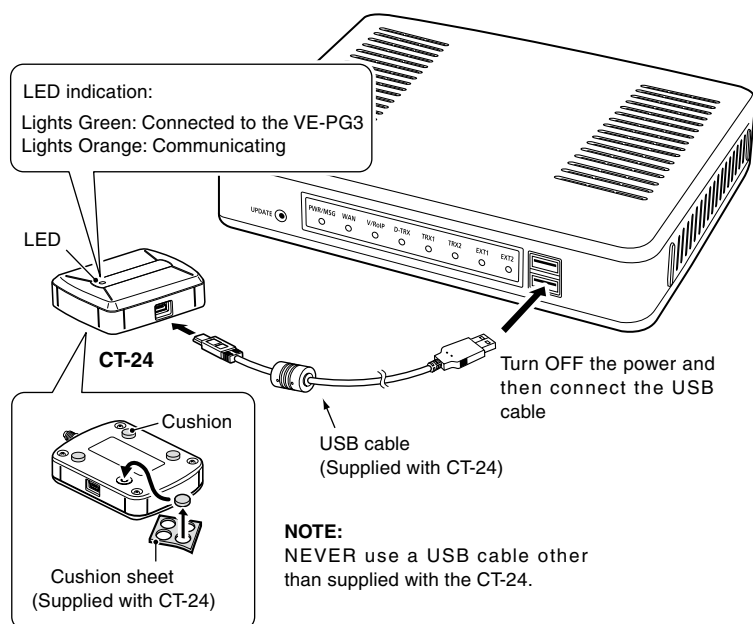• Only one USB flash drive can be accepted at a time.

[Connecting the CT-24]
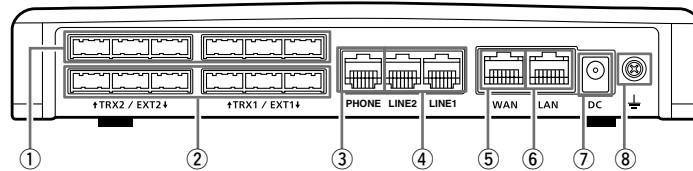Connect the optional CT-24 to communicate with IC-FR5000/FR6000.
• The VE-PG3 accepts up to two CT-24s.
• When you want to connect two CT-24s and USB flash drive, a USB HUB (self-powered HUB) is required.
 Connect one CT-24 and the USB flash drive to the USB port, and connect the other CT-24 to the USB HUB.

LED indication:

Lights Green: Connected to the VE-PG3
Lights Orange: Communicating

LED

CT-24

Turn OFF the power and then connect the USB cable

USB cable
(Supplied with CT-24)

Cushion

Cushion sheet
(Supplied with CT-24)

NOTE:
NEVER use a USB cable other than supplied with the CT-24.

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.

Port information on the sticker

Sticker

VE-PG3 (bottom view)

Connection cable (optional)
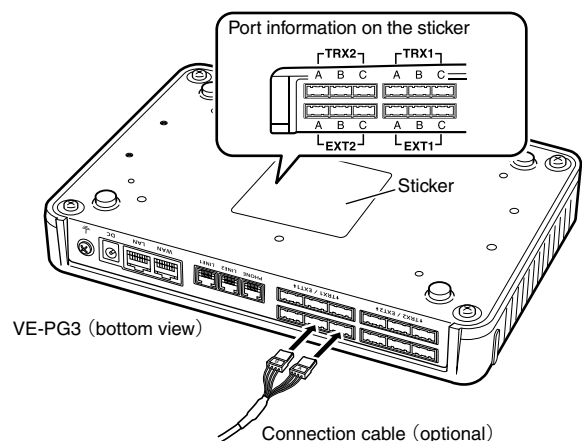
Panel description (continued)

■ Bottom panel
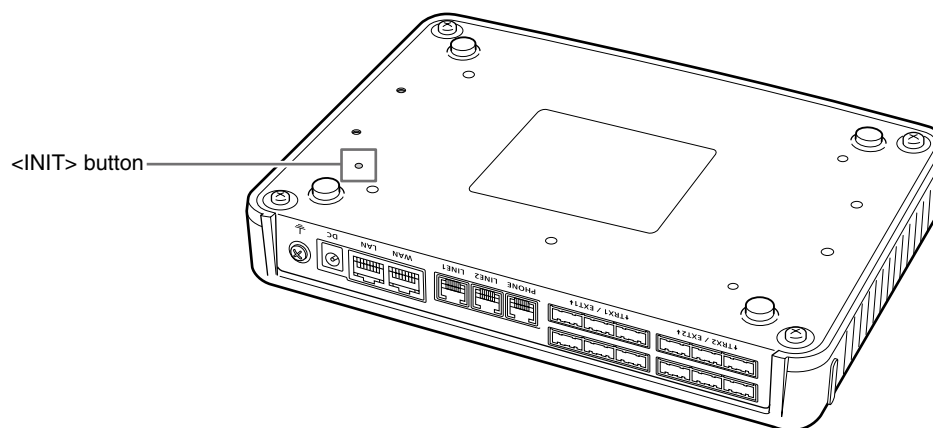
<INIT> button ……………… If you cannot access to the VE-PG3 setting screen, you can initialize the VE-PG3.
- See the "PRECAUTIONS" leaflet for the detail.
- Initializing clears all the settings.

BRIDGE MODE APPLICATION

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.
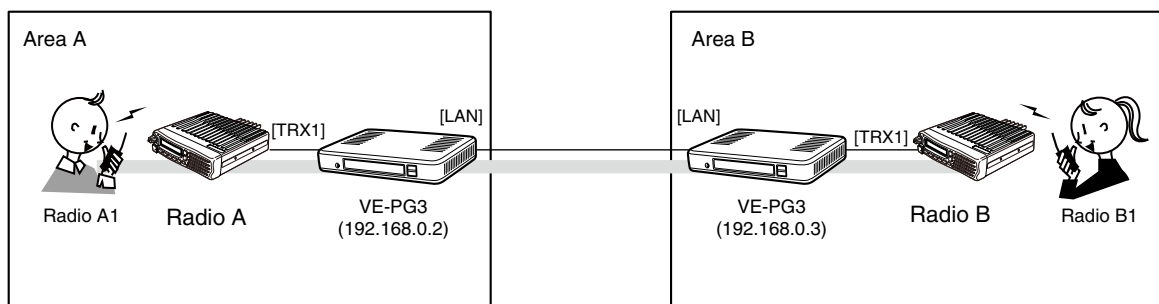
An example of Multicast mode

1. Configuration

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

VE-PG3 (Area A/B)

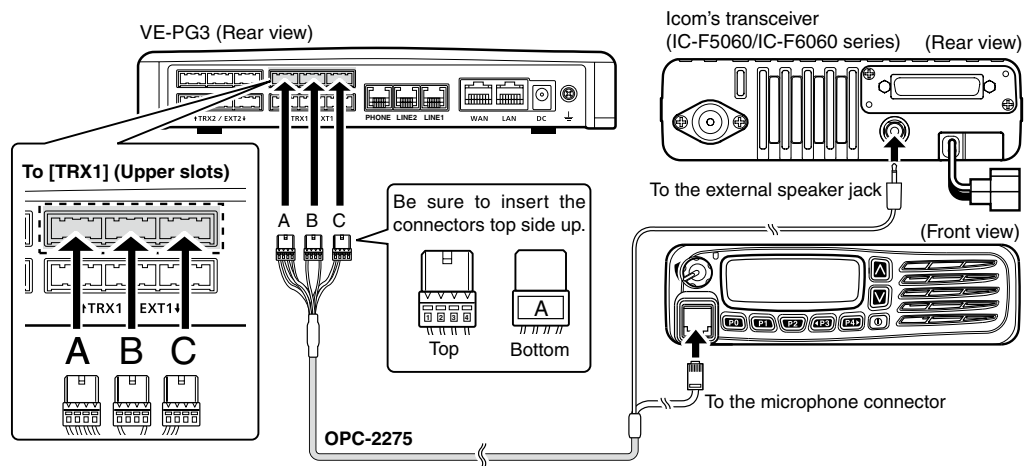| Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Bridge
		IP Communication Mode	IP Communication Mode	Multicast
Port Settings	Transceiver 1 (TRX1)	Transceiver Model:	Transceiver Model	IC-F5060/F6060

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. 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)

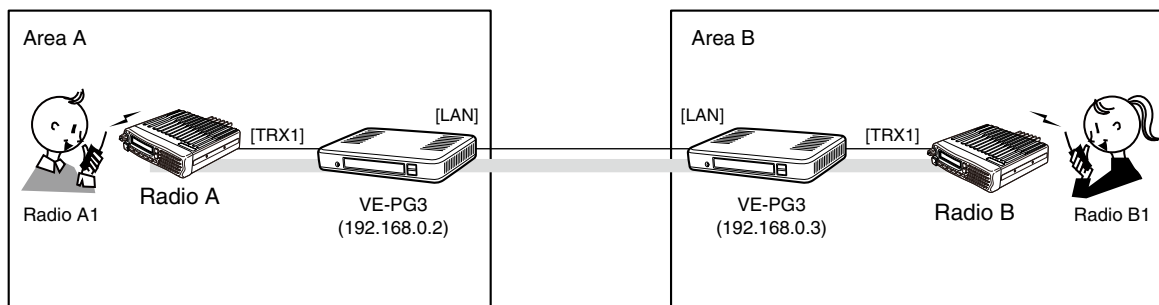| Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Bridge
		IP Communication Mode	IP Communication Mode	Unicast
Port Settings	Transceiver 1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060
Bridge Connection	Bridge Connection	Bridge Connection 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.

VE-PG3 (Rear view)

Icom's transceiver
(IC-F5060/IC-F6060 series) (Rear view)

To [TRX1] (Upper slots)

Be sure to insert the connectors top side up.

To the external speaker jack

(Front view)

Top   Bottom

To the microphone connector

OPC-2275

• 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 BRIDGE MODE APPLICATION

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.

3. 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."
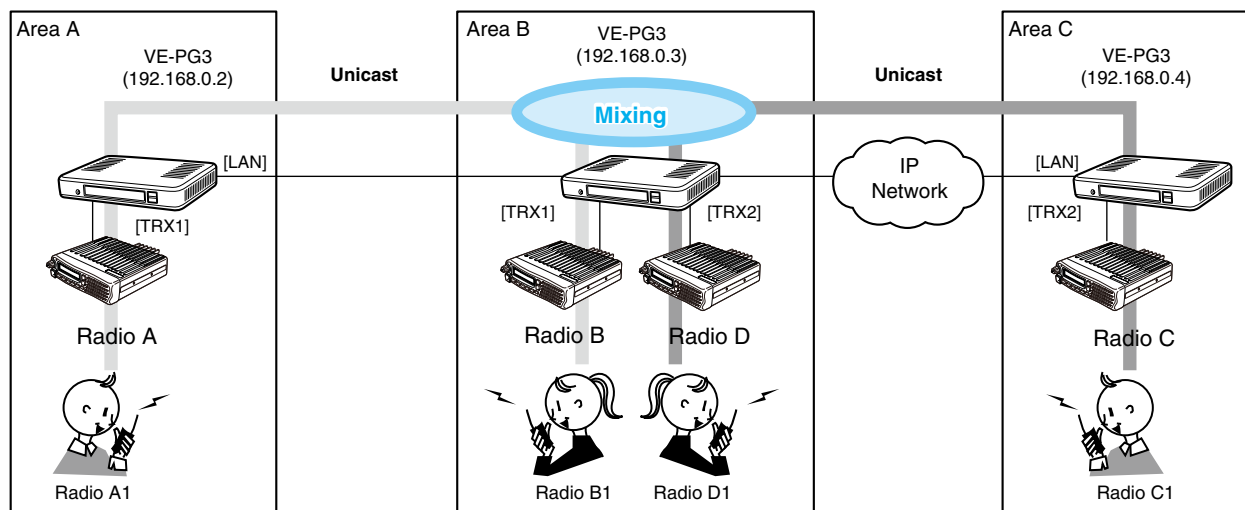
VE-PG3 (Area B)

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), Transceiver 2(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	During Transmit

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

3. 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.

VE-PG3 (Rear view)

Icom's transceiver
(IC-F5060/IC-F6060 series) (Rear view)

To [TRX1] (Upper slots)

A B C

Be sure to insert the connectors top side up.

To the external speaker jack

(Front view)

Top   Bottom

A   B   C

To the microphone connector

OPC-2275

• 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.711u can be used with the Mixing function.

3. 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.

4. 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.

4. Operating in the NXDN Conventional mode (continued)

2. VE-PG3 configuration

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

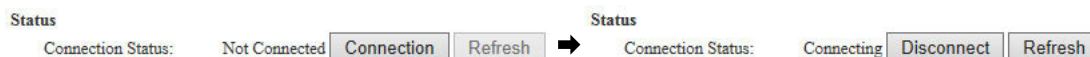| Menu Item	Setting Screen	Setting Item	Item Name	Value
Bridge Connection	Bridge Connection Point	Bridge Connection Point (TRX1)	Port Type	Transceiver 1(TRX1)
			Connection IP Address	192.168.0.2　　(VE-PG3's IP address)
			Connection Port Number	21502　　　　(VE-PG3's unused port)
			Voice Codec	AMBE+2
		(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. 41220)
			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)

• After the configuration, click [Connection] to connect to the network.

4. 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.

VE-PG3 (Rear view)

Icom's transceiver
(IC-F5060/IC-F6060 series)   (Rear view)

To [TRX1] (Upper slots)

A   B   C

Be sure to insert the connectors top side up.

Top   Bottom

To the external speaker jack

(Front view)

To the microphone connector

OPC-2275

- 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. 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.
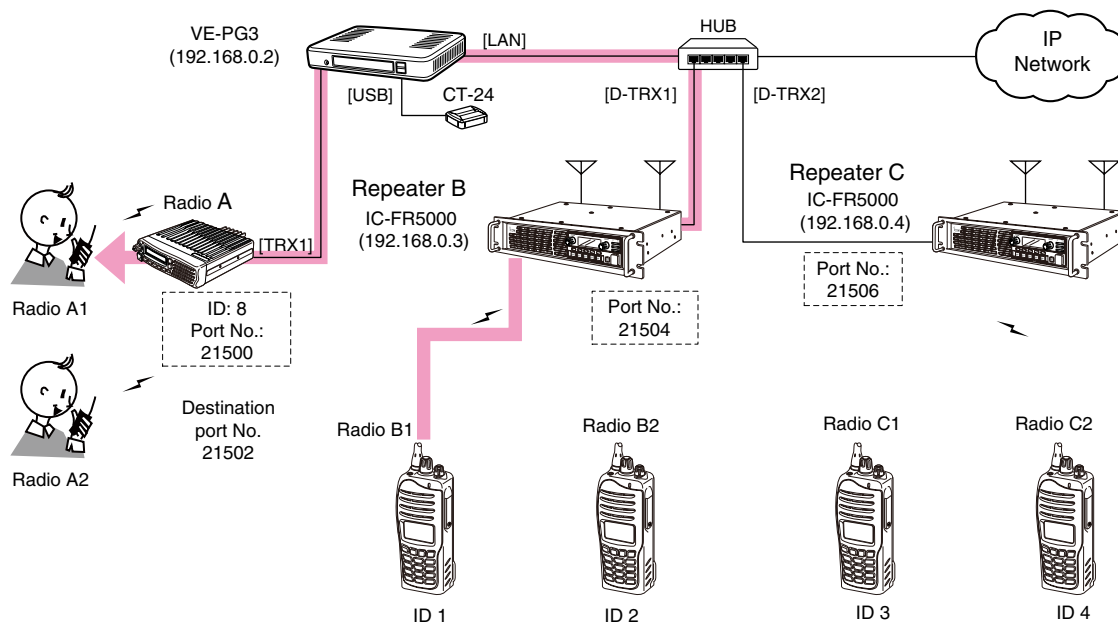
An example of digital transceiver communication in the Conventional mode

• 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】

❶Radio B1's operator: Select the radio A1(A2)'s ID (8), and then hold down [PTT] for 1 second.
  • The communication route is connected.
❷Radio A1's operator: Holding down [PTT], speak into the microphone to respond radio B1.
❸Radio 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.

CONVERTER MODE APPLICATION

Section 3

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.

• Refer to the illustration shown below.
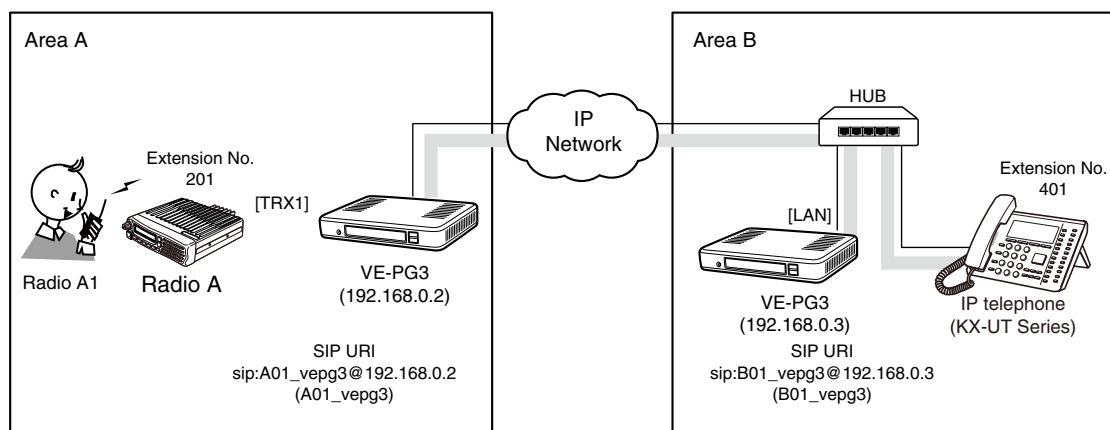
An example of a Peer to Peer connection

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
			SIP URI	B01_vepg3@192.168.0.3
Extension Connect	Extension Connect	Extension	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	Receive Port	201(TRX1)
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.	201
			SIP URI	A01_vepg3@192.168.0.2
Extension Connect	Extension Connect	Extension	Extension Number	401
			Port Type:	SIP Phone (KX-UT Series)
			Password:	(Any)
			Outgoing Line (Peer to Peer)	B01_vepg3
	Incoming Call	V/RoIP Incoming Call Setting	Receive Port	401 (Incoming Call of B01_vepg3)

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.

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 because the noise emitted from them may interfere with the radio.
- When operating the radio, do not transmit near an IP telephone.

1   Connect the VE-PG3 and the transceiver using the OPC-2275 cable.
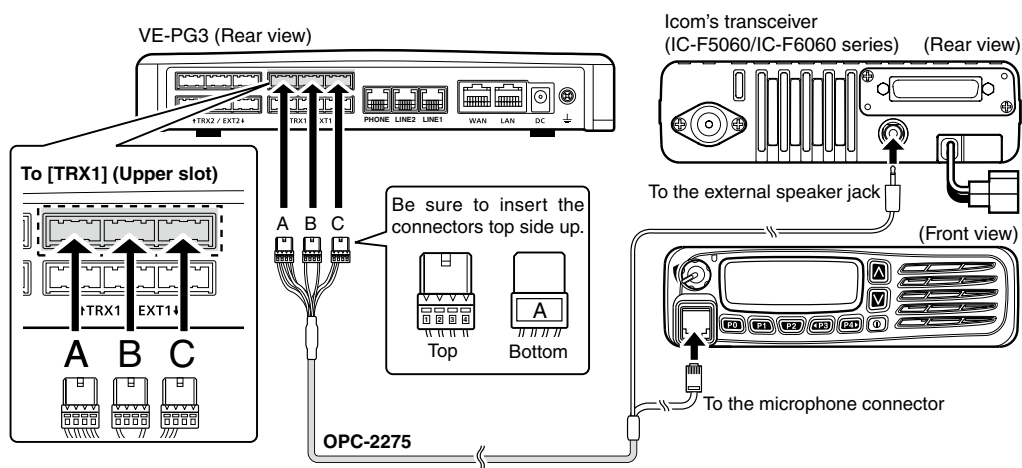
VE-PG3 (Rear view)

Icom's transceiver
(IC-F5060/IC-F6060 series)   (Rear view)

To [TRX1] (Upper slot)

Be sure to insert the connectors top side up.

To the external speaker jack

(Front view)

A B C

Top   Bottom

To the microphone connector

OPC-2275

- 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] slot.

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

3 CONVERTER MODE APPLICATION

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

3. Operation

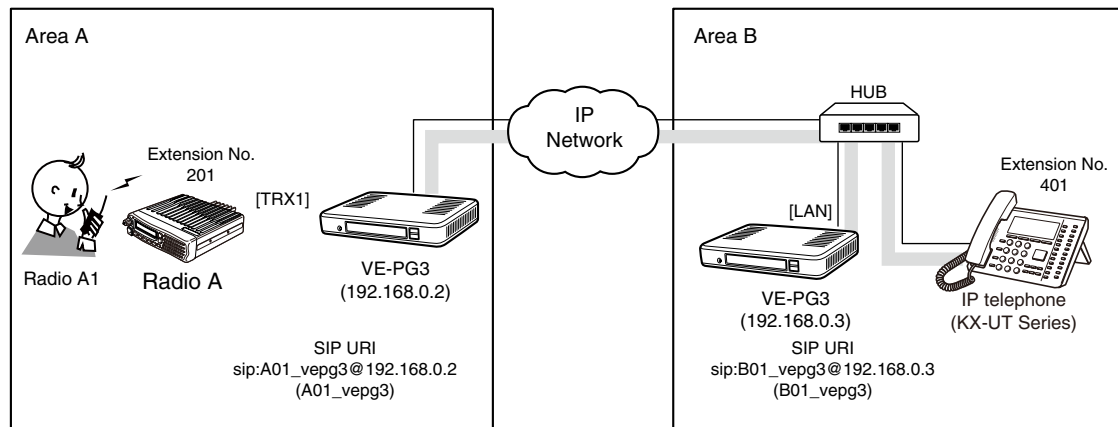When pushing [PTT] on Radio A1, the IP phone (Extension No.: 401) receives the call.

Dial extension 201 on the IP telephone and radio A1 will receive the call.

An example of a Peer to Peer connection

• All radios in the area must be configured the same.

[Calling the IP telephone from Radio A1.]

❶ **Area A**
   Radio A1's operator: While holding down [PTT], say something (example: "Calling extension 401") into the microphone at a normal voice level. The IP telephone in Area B detects the voice, and starts ringing.

❷ **Area A/B**
   Radio A1's operator: Release [PTT] to receive.
   Person on the IP telephone: When the phone rings, pick up the handset, and begin speaking at a normal voice level.

❸ **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.

[Calling Radio A1 from the IP telephone.]

❶ **Area B**
   Person on the IP telephone: Pick up the handset, dial "201," and then after you hear a beep, speak into the telephone at a normal voice level.
   • The communication route is connected to Radio A (Extension "201"). Radio A transmits a beep and then the audio to Radio A1.

❷ **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 back on the hook, or the VE-PG3 receives no audio for a preset time (default: 15 seconds).

3 CONVERTER MODE APPLICATION

2. Using an in-house sound system

You can send the received audio from a radio or IP phone to an external device, to make announcements. Refer to the illustration below.

An example of an in-house audiosystem

2. Using 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	Connection successful	
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	EXT Output	
			Valid Timing	Always-on Connection	
			Reference Level	(Depending on the external device)	
			Input Analog Gain		
			Input Digital Gain		
	EXT Output 1 (EXT1)	EXT Control Terminal	Reference Level	(Depending on the external 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 (seconds) (Depending on the situation)	
Expansion	Priority Control	Priority Level	Individual Calling	Priority	

2. Using an in-house sound system

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
Extension Connect	Extension	Extension	Extension Number	32
			Port Type	SIP Phone (Automatic Detection)
			Password	(Enter a password)
	Extension	Extension	Extension Number	401
			Port Type:	SIP Phone (KX-UT Series)
			Password:	(Enter a password)
			MAC Address	(MAC address of the KX-UT series IP phone in area B)

2. Using 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.

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 Connect the VE-PG3 and the transceiver, using the OPC-2775 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] slot.

2 Make a cable the length you need, with an supplied connector wired as shown, and the appropriate connector for your audio device. Then connect it to the [EXT1] on the VE-PG3 and then to your audio device.

- See Section 8 for port details.
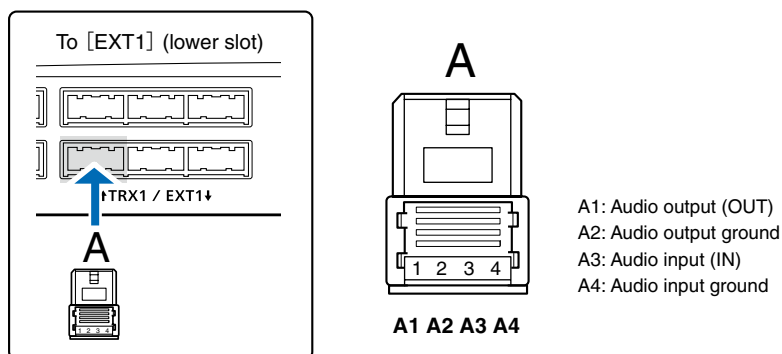
A1: Audio output (OUT)
A2: Audio output ground
A3: Audio input (IN)
A4: Audio input ground

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

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

3. Operation

When Radio A1 transmits, or the IP phone in area B (Extension No.: 401) dials 32, the call is output through the external audio device.
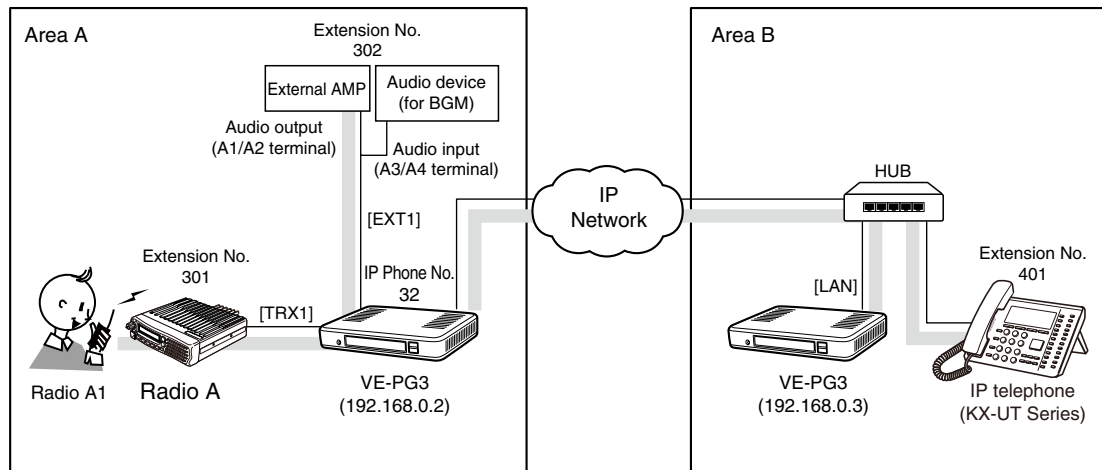
An example of an in-house audiosystem

• All radios in the area must have the same settings.

[Making an announcement from Radio A1]

❶ **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.

❷ **Area A**
The BGM fades out and the announcement made by Radio A1's operator is output to the external AMP, followed by the "Broadcast start sound."

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

[Making an announcement from the IP phone]

❶ **Area B**
Person on the IP telephone: Take the handset off the hook, dial "32."

❷ **Area A**
The call from the IP phone is received by the IP line whose number is "32."

❸ **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".

❸ **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 an external headset

You can communicate with a radio and an 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.
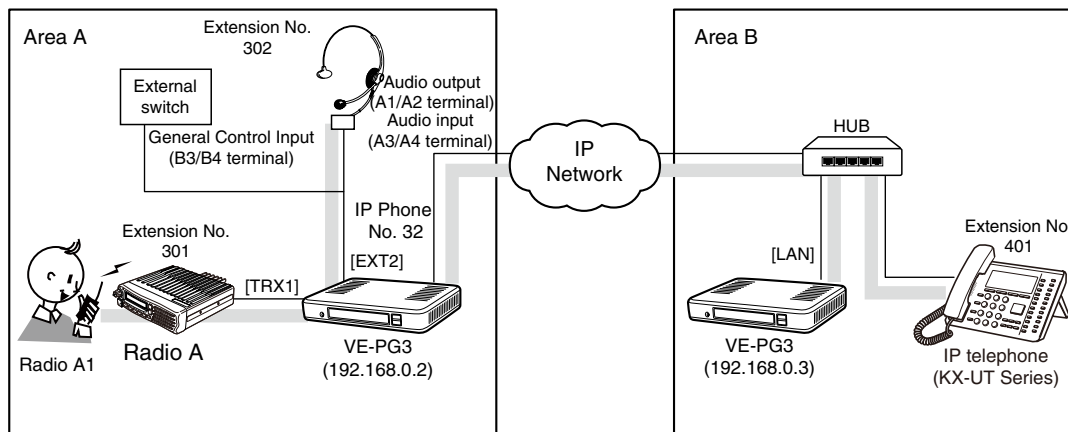
• Set [EXT I/O Port Mode] to [Combined.]

• A lock type PTT switch can be used.

An example of using a headset

3. Using 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	Connection successful
Extension Connect	Extension connect	Extension		
		(TRX1)	Extension Number	301
			Port Type	Transceiver 1 (TRX1)
			Default Call Destination Number	302 (From Radio 1 to [EXT I/O 2])
		(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	Input Connection Port	IP Network
		(EXT Control Terminal)	Valid Timing	Control Data Detect
			Power for the Microphone	Enable
			Reference Level	(Depending on the external device)
			Input Analog Gain	
			Input Digital Gain	
		(EXT Control Terminal)	Reference Level	(Depending on the external device)
			Output Analog Gain	
			Output Digital Gain	
			Response Waiting Time	(Select a desired setting)
			Restoration Waiting Time	
		(Notice Tone to the Transceiver)	Calling Notice Tone	(Select a desired setting)
			Send Connect Success Tone	
			Disconnect Notice Tone	
			Send Connect Failure Tone	
			Tone Level	

3. Using an external headset

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
Extension Connect	Extension connect	Extension	Extension Number	32
			Port Type	SIP Phone (Automatic Detection)
			Password	(Enter a password)
	Extension	Extension	Extension Number	401
			Port Type	SIP Phone (KX-UT Series)
			Password	(Enter a password)
			MAC Address	(MAC address of the KX-UT series IP phone in area B)

3 CONVERTER MODE APPLICATION

2. Connection

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

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 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] slot.

2 Make a cable the length you need, with two supplied connectors wired as shown, and the appropriate connectors for your audio device. Then connect it to the [EXT2] on the VE-PG3 and then to your audio device.
- See Section 8 for the port details.

Connector pin configuration

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

B3: Control input
B4: Control ground
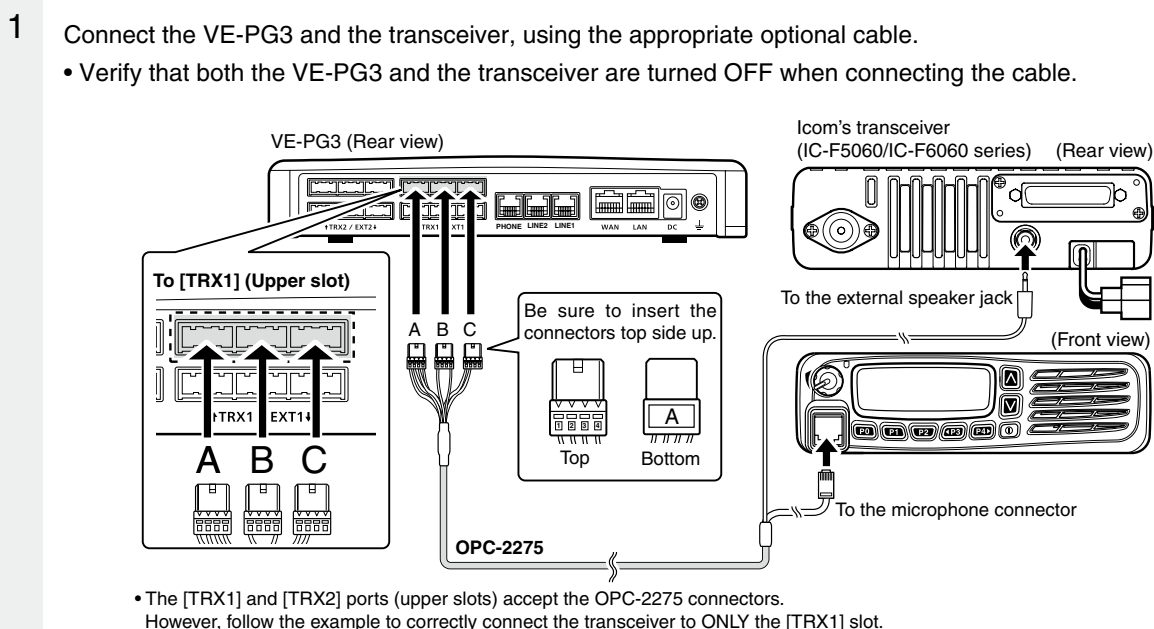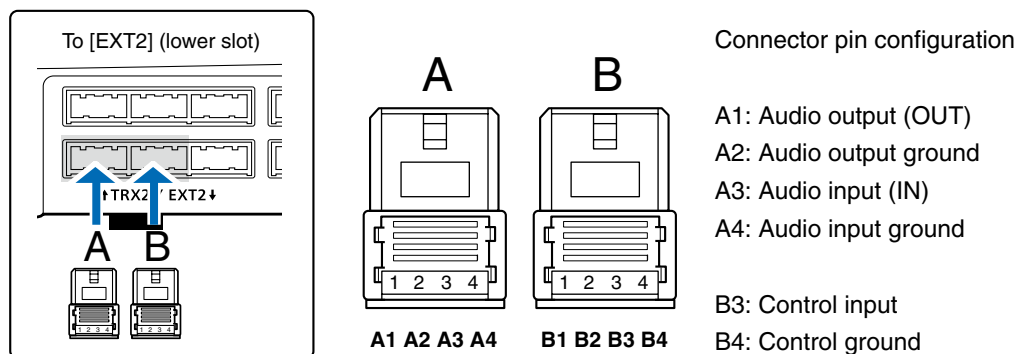
3 When all the connections are complete, turn ON the transceiver and VE-PG3's power.

3. Using 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 a headset

• All radios in the area must have same setting.

[Calling the headset from Radio A1]

❶ Area A
Radio A1's operator: While holding down [PTT], say something (example: "Test, Test, Test") into the microphone at a normal voice level.
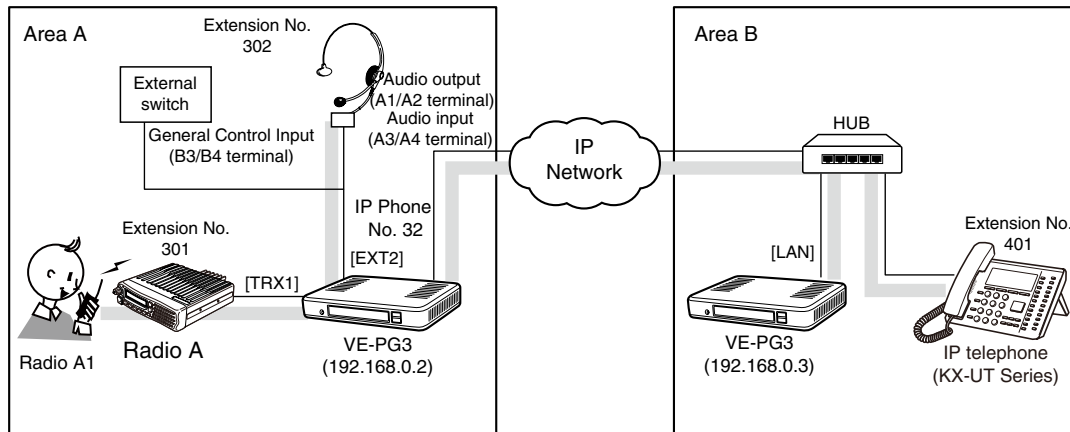• The headset receives the call.

❷ Area A/B
Headset operator: Turn ON the external switch, and then speak into the headset at a normal voice level.

❸ Area A/B
Headset operator: When finished the speaking, turn OFF the external switch.
• Turn OFF switch to stand-by for another call.

[Calling the IP phone from the headset.]

❶ 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.

❷ Area B
Person on the IP telephone: Take the handset off the hook to response the call.

❸ Area A
Headset's operator: When finished the speaking, turn OFF the external switch.
• Turn OFF switch to stand-by for another call.

[Calling the headset from the IP phone.]

❶ Area B
Person on the IP telephone: Take the handset off the hook, dial 32.
• The headset receives the call.

❷ Area A/B
Headset operator: Turn ON the external switch, and then speak into the headset at a normal voice level.

❸ Area A/B
Headset operator: When finished the speaking, turn OFF the external switch.
• Turn OFF the switch to stand-by for another call.

4. Making an emergency announcement

When you turn ON the external switch, the announcement is sent to the external AMP and the radio.

Even if the external AMP or radio is busy, the ongoing communication is cancelled and the announcement takes priority.

• The announcement is made from the IP phone.

• A lock type lever PTT switch can be used.
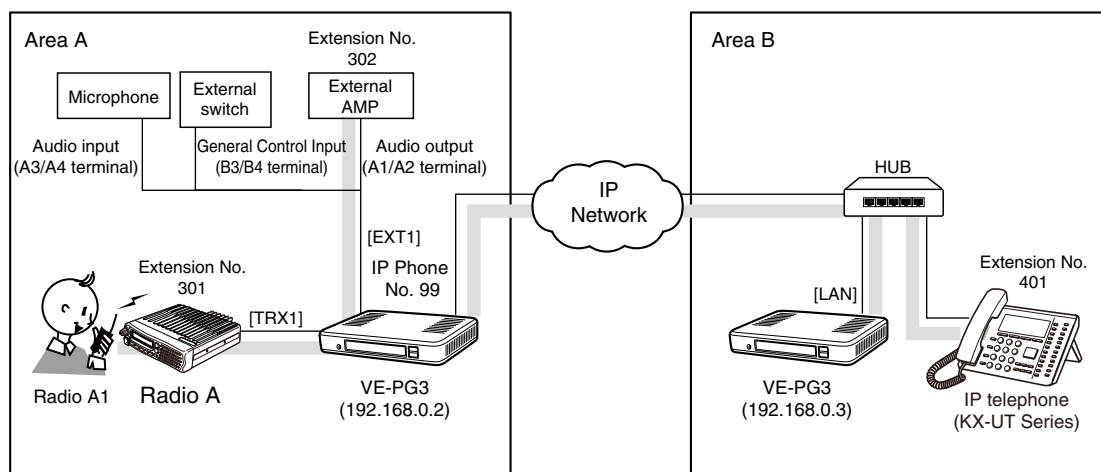
An example of emergency call using an external microphone

4. Making an emergency announcement (continued)

About the emergency announcement

- The emergency announcement has a higher 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 destination of the external input port is set as "Emergency," and event's timing condition is satisfied.
  The call is sent to the extension number that is assigned as the emergency notice.

Emergency announcement destination

- The emergency announcement is output from the port selected on the [Expansion] screen in the [Emergency Notice] menu.
- The emergency announcement interrupts any ongoing communication.
- While the emergency notice is ongoing, any the release timer is disabled.
- The emergency notice is output as a broadcast. No response can be made.
- No emergency notice is allowed until the prior one ends.

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	Connection successful
Extension Connect	Extension Connect	Extension	Extension Number	301
		(TRX1)	Port Type	Transceiver 1 (TRX1)
			Default Call Destination No.	302 (From Radio 1 to EXT Output 1)
		(EXT1)	Extension Number	302
			Port Type	EXT Output 1 (EXT1)
		(Emergency Notice)	Extension Number	999
			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	Emergency
			Valid Timing	Control Data Detect
			Power for the Microphone	Enable
			Reference Level	(Depending on the external device)
			Input Analog Gain	
			Input Digital Gain	
	EXT Output 1 (EXT1)	EXT Control Terminal	Reference Level	(Depending on the external device)
			Output Analog Gain	
			Output Digital Gain	
			Fade-out	(Select a desired setting)
			Fade-in	
		Announce Tone	Start Tone	(Select a desired setting)
			End Tone	
			Tone Level	
		V/RoIP Control	Send Connect Success Tone to Telephone	(Select a desired setting)
			Notice Tone Volume	
		Release Timer	No Voice Release Timer	5 (seconds) (Select a desired setting)
Expansion	Emergency Notice	Emergency Notice	Transceiver 1 (TRX1)	Enable
			EXT Output 1 (EXT1)	Enable

4. Making an emergency announcement

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
Extension Connect	Extension Connect	Extension	Extension Number	99
			Port Type	SIP Phone (Automatic Detection)
			Password	(Enter a password)
	Extension Connect	Extension	Extension Number	401
			Port Type:	SIP Phone (KX-UT Series)
			Password:	(Enter a password)
			MAC Address	(MAC address of the KX-UT series IP phone in area B)

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.

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).

1   Connect the VE-PG3 and the transceiver using the OPC-2275 cable.
  • Verify that both the VE-PG3 and the transceiver are turned OFF when connecting the cable.
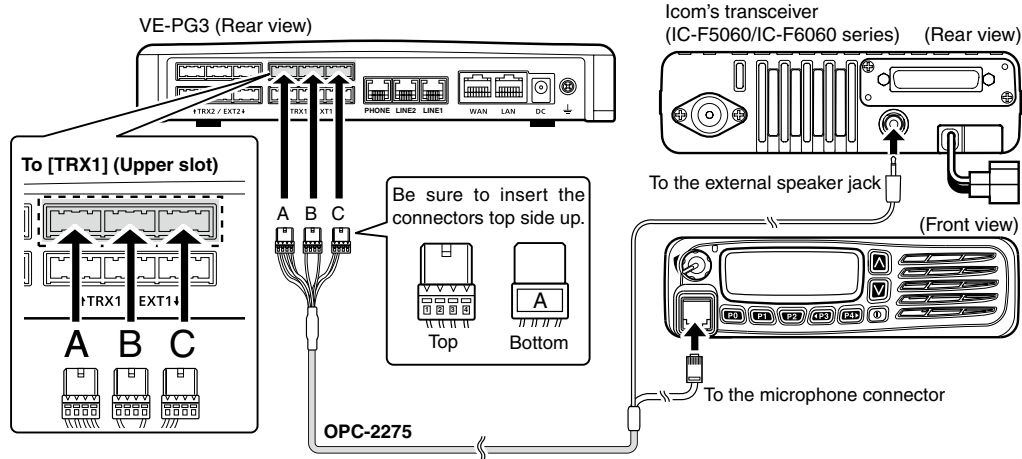
• The [TRX1] and [TRX2] ports (upper slots) accept the OPC-2275 connectors.
  However, follow the example to correctly connect the transceiver to ONLY the [TRX1] slot.

2   Make a cable the length you need, with two connectors wired as shown, and the appropriate connectors for your audio device. Then connect it to the [EXT1] on the VE-PG3 and then to your audio device.

  • See Section 8 for the port details.
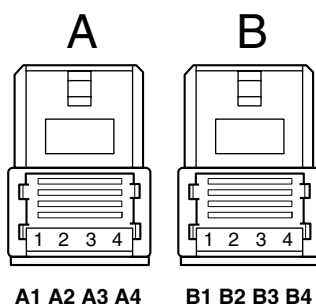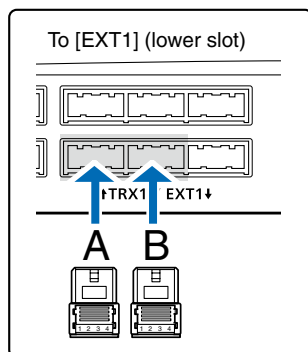
Connector pin configuration

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

B3: Control input
B4: Control ground

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

4. Making an emergency announcement (continued)

3. Operation

Push [PTT] on Radio A1 to make a regular broadcast. Dial 99 on the IP phone to make an emergency broadcast.

An example of emergency call using an external microphone

• All radios in the area must have the same setting.

[Making a regular broadcast from Radio A1.]

❶ Area A
Radio A1's operator: While holding down [PTT], say something (example: "Standby for an announcement") into the microphone at a normal voice level.
• The [TRX1] and [EXT1] ports are internally connected.

❷ Area A/B
The announcement from Radio A1 is output to the external audio device connected to [EXT1], followed by the "Broadcast start sound."
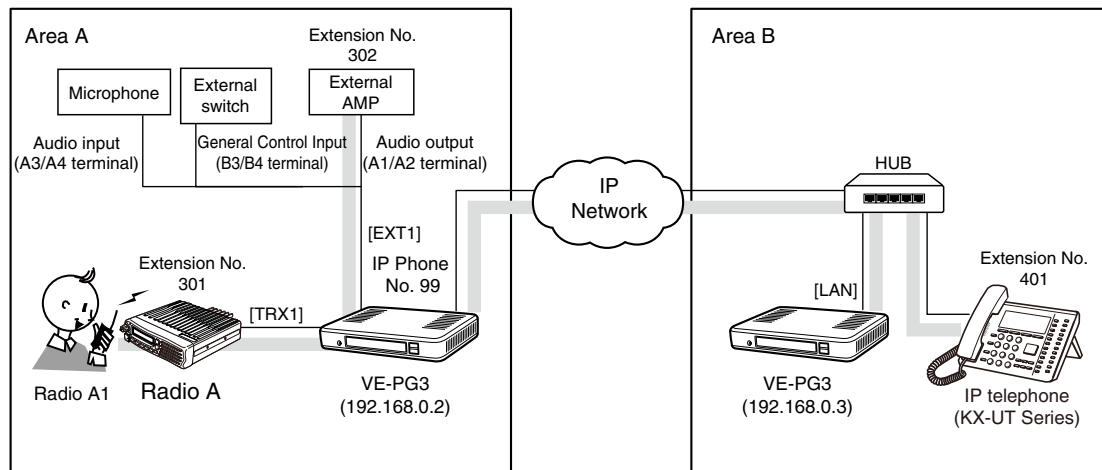
❸ Area A
When no audio signal is detected for 5 seconds (default), the route is disconnected, after the "Broadcast end sound."

[Making an emergency broadcast from the external microphone.]

❶ Area A
Turn ON the external switch (connect B3 and B4 terminals).

❷ Area A
The announcement from the external microphone is output to the external audio device connected to [EXT1] and Radio A1, followed by the "Broadcast start sound."

[Making an emergency broadcast from the IP phone.]

❶ Area B
Person on the IP telephone: Take the handset off the hook, dial 99.
• The [TRX1] and [EXT1] ports receive the call.

❷ Area A
The announcement from the IP phone is output to the external audio devices connected to the [TRX1] and [EXT1] ports.
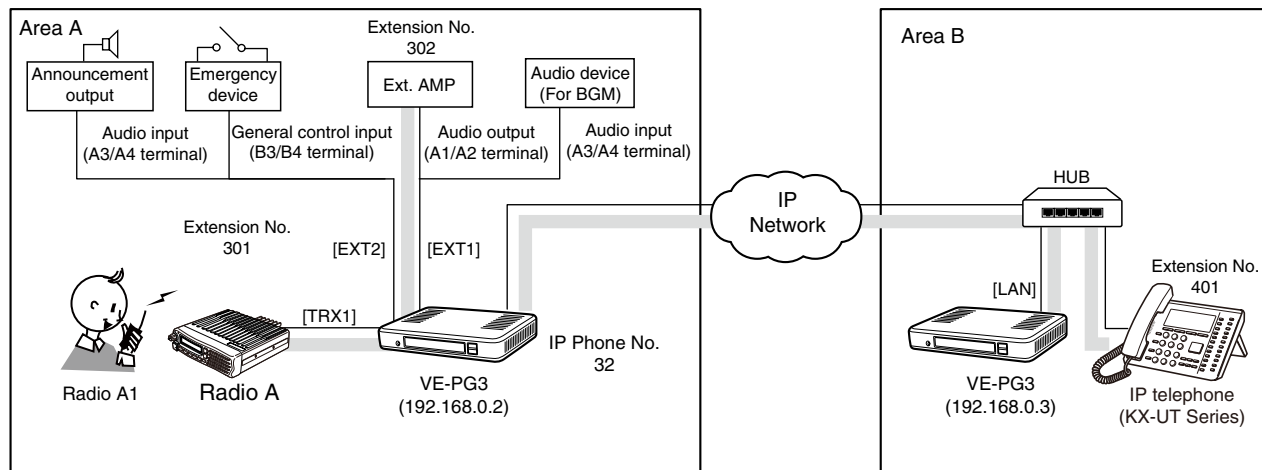
5. Emergency Notice

When you turn ON the external switch, and an emergency announcement is made.

Even while the external AMP or radio is busy, the ongoing communications are cancelled and the announcement takes the priority.

• The external switch must be turned ON, when an emergency situation is detected.

An example of an emergency notice device operation

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	Connection successful
Extension Connect	Extension Connect	Extension	Extension Number	301
		(TRX1)	Port Type	Transceiver 1 (TRX1)
		(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	Ext Output
			Valid Timing	Always-on Connection
			Reference Level	(Depending on the external device.)
			Input Analog Gain	
			Input Digital Gain	
	EXT Output 1 (EXT1)	EXT Control Terminal	Reference Level	(Select a desired setting.)
			Output Analog Gain	
			Output Digital Gain	
			Fade-out	(Select a desired setting.)
			Fade-in	
		Announce Tone	Start Tone	(Select a desired setting.)
			End Tone	
			Announce Tone Volume	
		V/RoIP Control	Send Connect Success Tone to Telephone	(Select a desired setting.)
			Notice Tone Volume	
		Release Timer	No Voice Release Timer	5 (seconds) (Select a desired setting.)
	EXT Input 2 (EXT2)	EXT Control Terminal	Input Connection Port	Emargency
			Valid Timing	Control Data Detection
		EXT Control Terminal	Input Type	(Select a desired setting.)
			Event ON Time	
			Event OFF Time	
			Control Input Detection	(Depending on the external 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

5. Emergency Notice

1. Configuration (continued)

VE-PG3 (Area B)

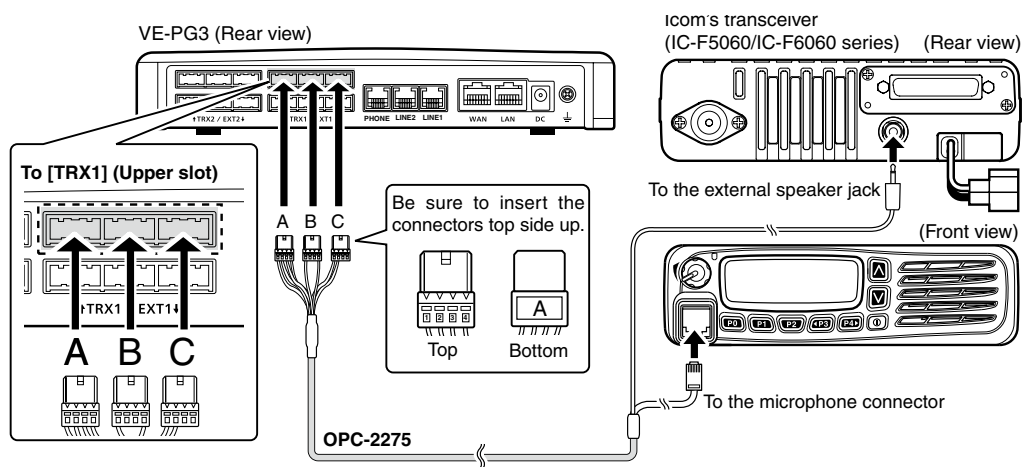| Menu Item	Setting Screen	Setting Item	Item Name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
Extension Connect	Extension	Extension	Extension Number	32
			Port Type	SIP Phone (Automatic Detection)
			Password	(Enter the password)
	Extension	Extension	Extension Number	401
			Port Type:	SIP Phone (KX-UT Series)
			Password:	(Enter the password)
			MAC Address	(MAC address of the KX-UT series IP phone in area B)

5. Emergency Notice (continued)

2. Connection

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

NOTE:
• Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.

1 Connect the VE-PG3 and the transceiver, using the OPC-2275 cable.

VE-PG3 (Rear view)

Icom's transceiver
(IC-F5060/IC-F6060 series)   (Rear view)

To [TRX1] (Upper slot)

A B C

Be sure to insert the connectors top side up.

Top   Bottom

To the external speaker jack

(Front view)

A B C

OPC-2275

To the microphone connector

• 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] slot.

2 Make a cable the length you need, with the supplied connector wired as shown, and the appropriate connectors for your audio device. Then connect it to the [EXT1] on the VE-PG3 and then to your audio device.

• See Section 8 for the port details.

To [EXT1] (lower slot)

TRX1 / EXT1

A

A1 A2 A3 A4
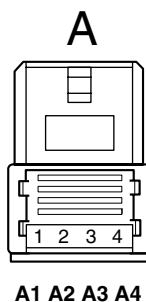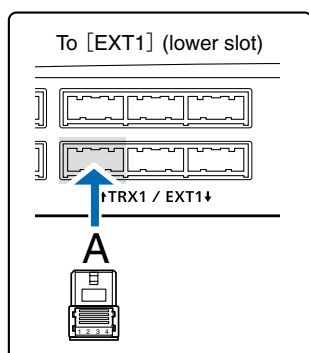
Connector pin configuration

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

5. Emergency Notice

2. Connection (continued)

3   Make a cable the length you need, with two supplied connectors wired as shown, and the appropriate connectors for your audio device. Then connect it to the [EXT2] on the VE-PG3 and then to your audio device.

• See Section 8 for the port details.

To [EXT2] (lower slot)

↑TRX2 EXT2↓

A B

A   B

A1 A2 A3 A4   B1 B2 B3 B4

Connector pin configuration

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

B3: Control input
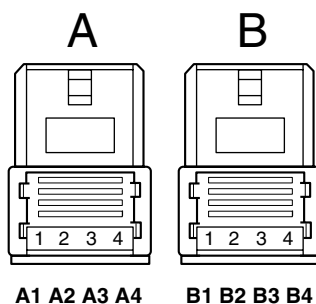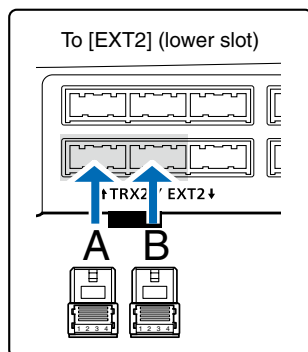B4: Control ground

4   When all the connections are complete, 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 an external audio device and a radio is made.
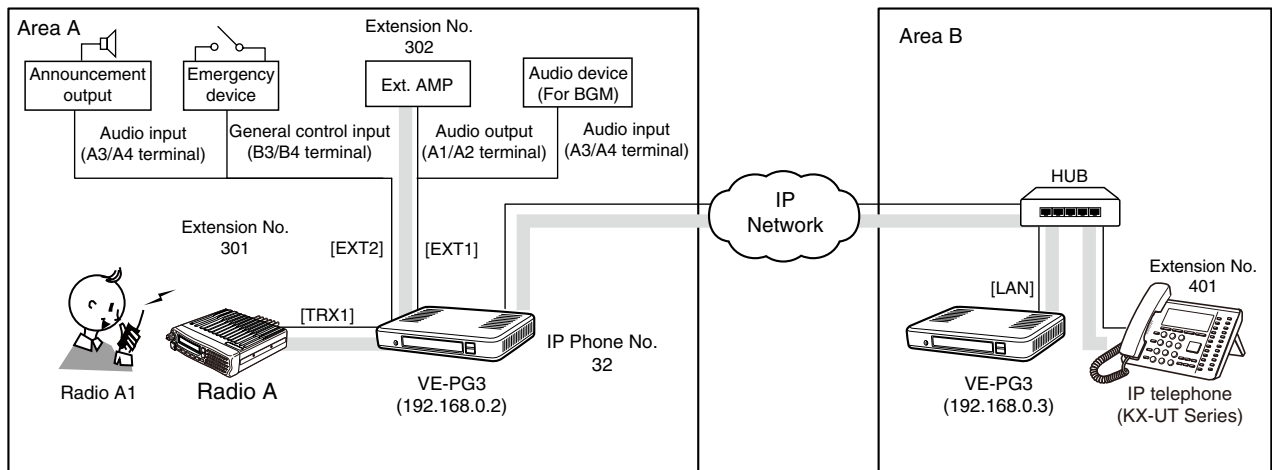
An example of an emergency notice device operation

• All radios in the area must have the same settings.

[When an emergency situation occurs.]

❶ **Area A**
When an emergency situation is detected the emergency device, the external switch automatically turns ON.

❷ **Area A**
Any ongoing regular call and/or BGM (if connected) are cancelled, and then the emergency announcement is output to the external amplifier (connected to [EXT1]) and Radio A.

❸ **Area A**
When the external switch is turned OFF, the emergency announcement is cancelled after any stop tone, if programmed, and the BGM resumes, if connected.

6. Operating in the NXDN Trunking mode

The IC-FR5000 series repeaters can be connected to the VE-PG3 through an Ethernet cable (IP network) using the UC-FR5000 network board.

• The optional CT-24 digital voice converter is required.

Special number description:
• **Individual Call**
  *001 01 0001
  ① ② ③
  ① Radio Call Prefix for D-TRX1 Individual Call
  ② Prefix ID
  ③ ID

• **Group Call**
  #001 01 1000
  ① ② ③
  ① Radio Call Prefix for D-TRX1 Group Call
  ② Prefix ID
  ③ ID

• **All Call**
  #123
  Special Number (Assigned as All Call)

Note: Since the VE-PG3 can accept up to two CT-24's, only two digital communication lines are available at a time, even when three D-TRX ports are connected to the network.
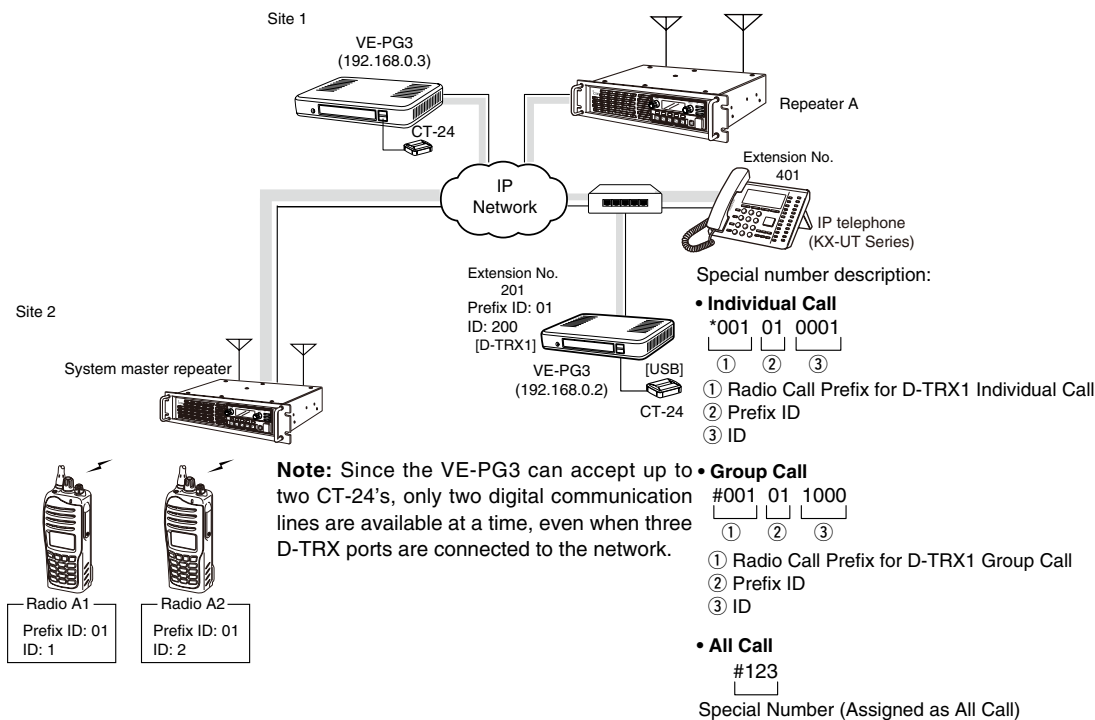
An example of a digital radio network system

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

Remo 192.168.0.2   ○ Disable   ● Enable

Connectable Console List

No.	IP Address	DestPort	Fleet ID	Prefix ID	Unit ID	Comments
1	192.168.0.200	43200	1	1	200	
2						
3						

Port Setting

Data   Receive Port   41220

Connect Key

Key Code   ucfr5000

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	(Enter a password)
			MAC Address	(MAC address of the KX-UT series IP phone)
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	200

• After the configuration, click [Connection] to connect to the network.

Status   Status
Connection Status: Not Connected [Connection] [Refresh] ➡ Connection Status: Connecting [Disconnect] [Refresh]

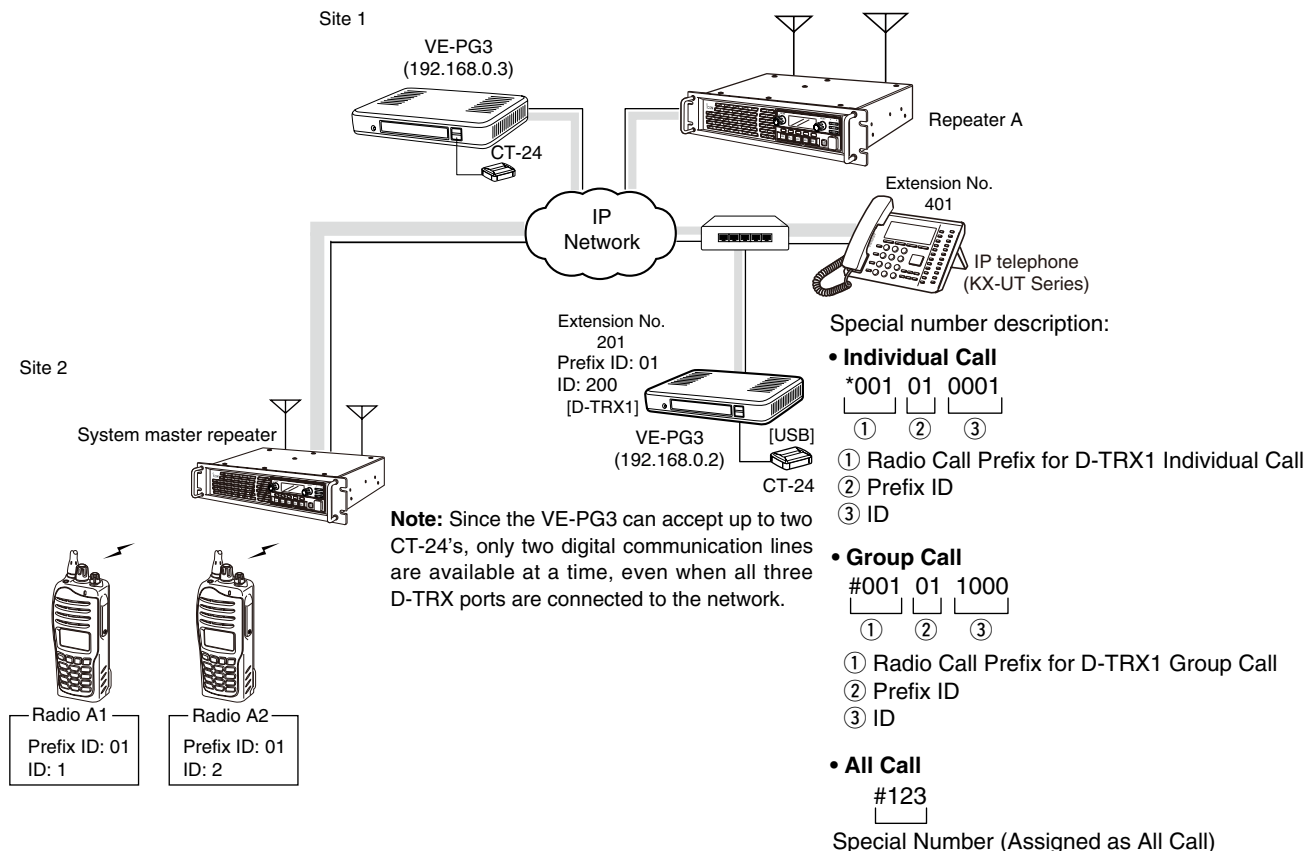## 6.Operating in the NXDN Trunking mode (continued)

3. Connection

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

6.Operating in the NXDN Trunking mode (continued)

4. Operation

When the IP phone calls the VE-PG3, Radio A1 receives the call and automatically transmits it.

Site 1

VE-PG3
(192.168.0.3)

CT-24

Repeater A

Extension No.
401

IP
Network

IP telephone
(KX-UT Series)

Extension No.
201
Prefix ID: 01
ID: 200
[D-TRX1]

Site 2

System master repeater

VE-PG3
(192.168.0.2)

[USB]

CT-24

Note: Since the VE-PG3 can accept up to two CT-24's, only two digital communication lines are available at a time, even when all three D-TRX ports are connected to the network.

Radio A1
Prefix ID: 01
ID: 1

Radio A2
Prefix ID: 01
ID: 2

Special number description:

• **Individual Call**
  *001 01 0001
   ①   ②   ③

① Radio Call Prefix for D-TRX1 Individual Call
② Prefix ID
③ ID

• **Group Call**
  #001 01 1000
   ①   ②   ③

① Radio Call Prefix for D-TRX1 Group Call
② Prefix ID
③ ID

• **All Call**
  #123

Special Number (Assigned as All Call)

An example of a digital radio network system

• All radios in the area must have same setting.

[Calling radio A1 from the IP phone.]

❶IP phone's operator: Dial the [D-TRX] port's extension number (*001010001).

   • The communication route is connected.

❷Radio A1's operator: When the beep sounds, hold down [PTT] and speak into the microphone to answer the call.

❸Radio A1's operator: Release [PTT] 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.
• Turn ON the subscriber transceiver's Talk Back Timer function.
• 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.
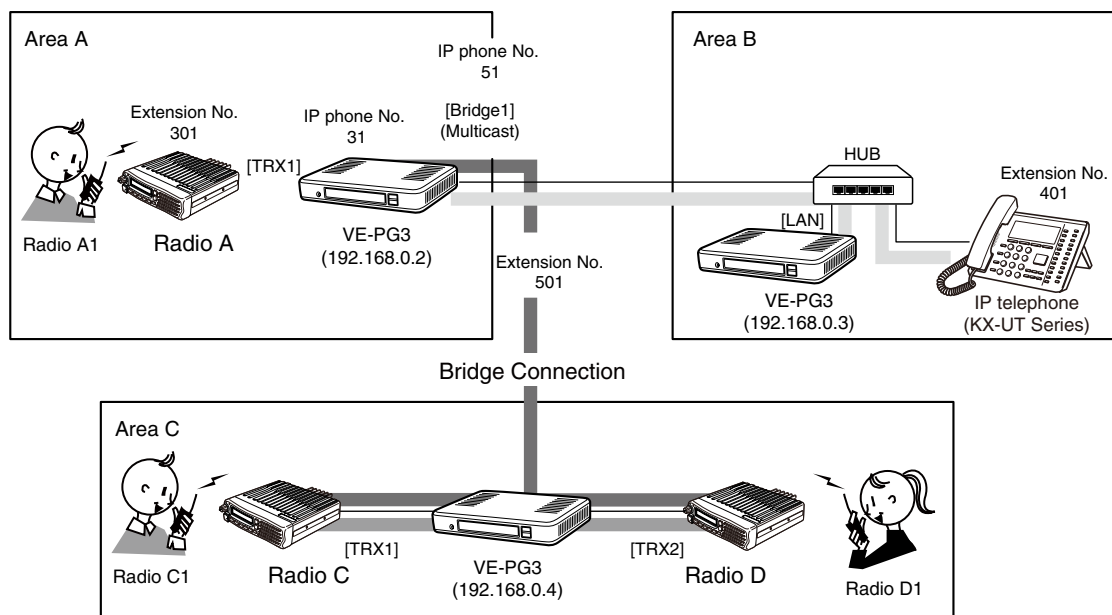
An example of the connection in the Converter mode and Bridge mode

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	Connection successful
Extension Connect	Extension Connect	Extension (TRX1)	Extension Number	301
			Port Type	Transceiver 1 (TRX1)
			Outgoing Line (IP Line)	31
			Default Call Destination No.	401 (Calling the IP phone from Radio 1)
		(Bridge1)	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

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

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 the KX-UT series IP phone in area B)
	Extension	Extension	Extension Number	51
			Port Type	SIP Phone (Automatic Detection)
			Password	(Enter a password)
			MAC Address	(MAC address of the KX-UT series IP phone in area B)
	Extension	Extension	Extension Number	401
			Port Type:	SIP Phone(KX-UT Series)
			Password:	(Enter a password)
			MAC Address	(MAC address of the KX-UT series IP phone in area B)
	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)
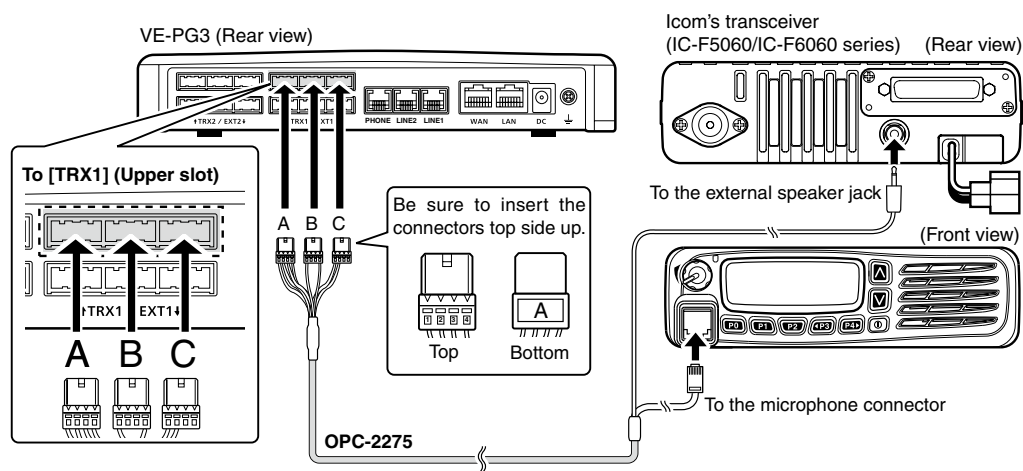
2. Connection

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

NOTE:
• Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.

1   Connect the VE-PG3 and the transceiver, using the OPC-2775 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] slot.
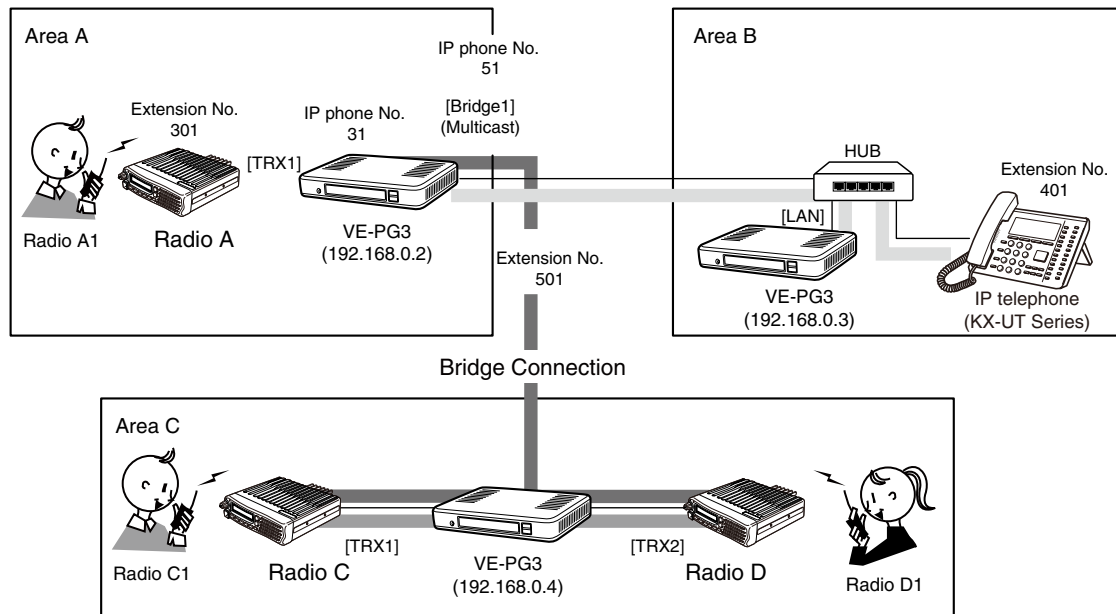
2   When all the connections are complete, turn ON the transceiver and VE-PG3's power.

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

3. Operation

The IP phone in area B dials 51 to call radio A1, and the call is also routed to 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 A. (The call is also routed to C1 and D1 in area C.)**]**

❶ **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.

❷ **Area A**
Radio A1 receives the call. Push Radio A1's [PTT] to respond to the call from the IP phone in area B.

❸ **Area C**
The call is routed to all radios on the same channel with Radio C and Radio D.

[The procedure to call radio in area A. (The call is NOT routed to C1 and D1 in area C.)**]**

❶ **Area B**
Person on the IP telephone: Take the handset off the hook, dial 31 (IP phone No.), and then speak into the telephone at a normal voice level.

❷ **Area A**
Radio A1 receives the call. Push Radio A1's [PTT] to respond to the call from the IP phone in area B.

❸ **Area C**
The call is NOT routed to radio in area C.

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).

ANALOG TELEPHONE APPLICATION

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

4-2

The VE-PG3 has two PSTN line connectors and an analog telephone set connector. Radio user can call an analog telephone, and radio user from an analog telephone.

• In the instruction, the example of the communication as illustrated below, is used.
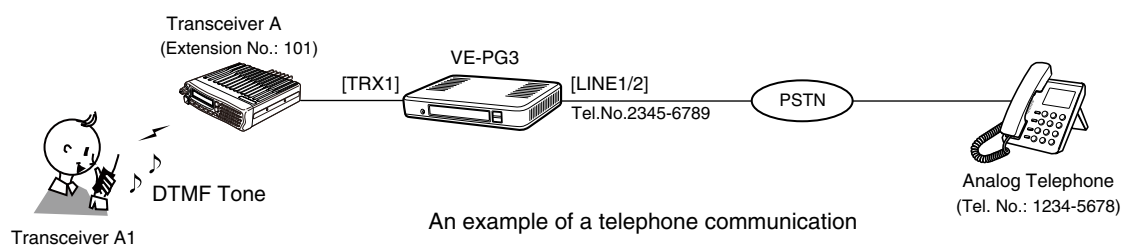
An example of a telephone communication

1. Configuration

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

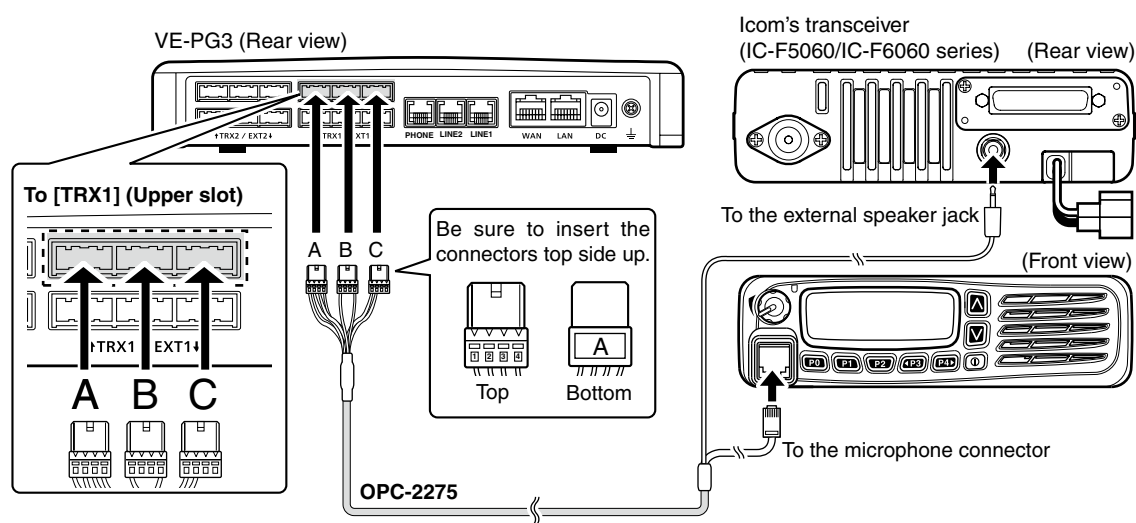| Menu item	Setting screen	Setting item	Item name	Value
Operating Mode	Operating Mode	Operating Mode	Operating Mode	Converter
Port Settings	Transceiver 1 (TRX1)	Transceiver Model	Transceiver Model	IC-F5060/F6060
		DTMF Call Setting	Use DTMF Call	Enable
V/RoIP	LINE1	PSTN	Contract Line Number	(Ex. 2345-6789)
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)

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] slot.

2   When all the connections are complete, turn ON the transceiver and VE-PG3's power.
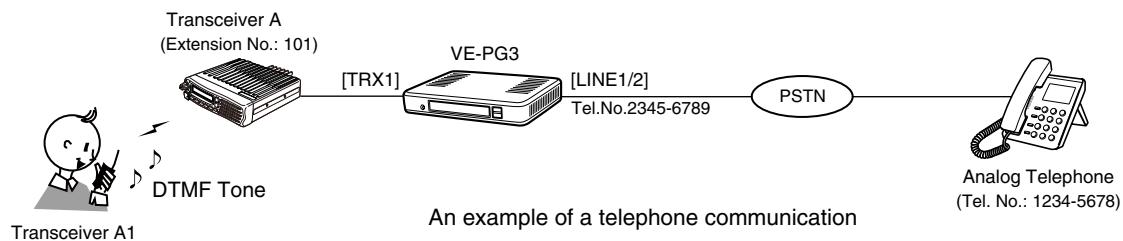
NOTE:
  • Verify that both the radio and the VE-PG3 are turned OFF when connecting or disconnecting the transceiver.
  • Keep the radio away from a PC, AC adaptor and other electronic equipment. The noise emitted from those equipment may interfere with the radio.
  • When operating the radio, do not transmit near the IP telephone.

Telephone function (continued)

3. Operation

Transceiver A
(Extension No.: 101)

VE-PG3

[TRX1]

[LINE1/2]
Tel.No.2345-6789

PSTN

Analog Telephone
(Tel. No.: 1234-5678)

DTMF Tone

Transceiver A1

An example of a telephone communication

[Making a telephone call from the radio]

❶While holding down [PTT], push "∗(OFF-hook Sending tone)" for X seconds, and then enter push the phone number "12345678."

❷Release [PTT].

  • The communication route is connected.

❸When the callee telephone's handset is taken off its hook, 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).

BRIDGE MODE SETTING SCREEN

Section 5

5 BRIDGE MODE SETTING SCREEN

Continued from the previous page.

Continued from the previous page.

5 BRIDGE MODE SETTING SCREEN

1. About the setting screen

Link to the Icom website

Setting menu

Setting screen
Setting buttons

Link to the Icom website

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

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.
Click [TOP] to expand or contract the menu items.

Setting screen

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

Setting buttons

Save or cancel setting values.
If "A reboot is required to apply all the new settings." 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.

> Now rebooting.
> Wait XX seconds for startup.
>
> If this page doesn't automatically refresh after rebooting, click [Back].
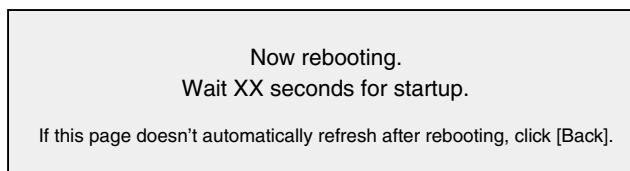
• If the setting screen does not automatically return, click [Back] after the "Now rebooting." message appears.
• Items and buttons may differ, depending on the settings.

■System Status

Displays the firmware version and MAC addresses (WAN/LAN).

System Status

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

- The MAC address is a unique address which is assign to any kind of network device. The MAC address consists of 12 digit number.
- The MAC addresses are also printed on the label on the bottom of the VE-PG3.

■Network Status

Displays the network information such as IP addresses (WAN/LAN).

Network Status

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

- If [Connection Type] and [Connection Setting] are configured on the [WAN] screen, the WAN IP address is displayed .

■Operating Mode Status

Displays 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)

- The configured settings, which are set to [Operating Mode] and [EXT I/O Port Mode] in the [Operating Mode] menu is displayed.

2. [TOP] Menu (continued)   [TOP]

■Bridge Connection Status

Displays the connection status of ports in the Bridge mode.

Bridge Connection Status

Transceiver 1 (TRX1)	IP Communication Mode	Multicast
	Destination	239.255.255.1 : 22510
	Connection State	Transmitting
Transceiver 2 (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
Controller 1		Not Set
Controller 2		Not Set
Controller 3		Not Set
Controller 4		Not Set
Emergency Notice		Not Set

■Mixing Group Status

Displays 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

• The configured ports, which belong to each mixing group, is displayed.

5 BRIDGE MODE SETTING SCREEN

2. [TOP] Menu (continued)

■Digital Transceiver Connection Status

Displays 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

■Controller Connection Status

Displays the connection status of IP1000C's.

Controller Connection Status

Controller 1	Not Set
Controller 2	Not Set
Controller 3	Not Set
Controller 4	Not Set

■SYSLOG

Displays the log information. The latest 500 log entries are displayed.

(This is an example.)

①Severity ……………………   Select the log information to display.

                                   • Enter a check mark to display the log entries.

                                   • Remove the check mark and click <Refresh> to hide the entries.

                                                     (Default: ☑ DEBUG ☑ INFO ☑ NOTICE)

                                   Note: The selection is not stored, and reset when you leave this screen.

                                   [To select the severity to display]

                                   Remove the check mark in the box to hide, and enter the check mark to dis-

                                   play.

                                   Note: The selection is not stored, and reset when you leave this screen.

②<Refresh> …………………   Click to update the log screen.

                                   Note: When the number of entries exceeds 511, the oldest entry is deleted

                                        instead of recording a new one.

③<Clear> ……………………   Click to delete all log entries.

                                   Note: All log entries are also deleted when the VE-PG3 is turned OFF or ini-

                                        tialized.

④<Save> ……………………   Click to save the log to a PC with a text file (extension: "txt").

                                   • Click this button, and then select a folder to save the file.

                                   Note: Only the selected severities are saved.

■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
		①	②
12/07 06:58:47	Connection made : Transceiver 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.

4. [Network] Menu

5-10

■Host Name

Enter the host name.

Host Name

Host Name: VE-PG3

Host Name……………………   Enter the host name. (Up to 31 characters)   (Default: VE-PG3)

The entered name will be displayed when you access the VE-PG3 using tel-net.

Usable characters: A–Z, a–z, –.

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

■IP Address

Enter the addresses.

IP Address

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

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:

①IP Address…………………   Enter the LAN IP address according to your network environment.

(Default: 192.168.0.1)

Note: When using the DHCP Server function, the network part of the IP address must be the same as that set in the [IP Pool Start Address] item in the [DHCP Server] menu. (☞P5-13)

②Subnet Mask………………   Enter the subnet mask according to your network environment.

(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

③Default Gateway …………   If a default gateway device (such as a router) is connected to the LAN port, enter the device's IP address.
• If the default gateway is set to the LAN side, the network route is on the 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: 192.168.0.1
② Subnet Mask: 255.255.255.0
③ Default Gateway:
④ Primary DNS Server:
⑤ Secondary DNS Server:

④Primary DNS server………   Enter the DNS server address specified by your service provider.

If you have two DNS server addresses, enter the primary address.

• You are required to set this item for the Automatic Firmware Update function.

• If you use the Router function, this setting is invalid.

⑤Secondary DNS

Server   ……………………   Enter the secondary DNS server address, if you have two DNS server addresses.

• You are required to set this item for the Automatic Firmware Update function.

• If you use the Router function, this setting is invalid.

■DHCP Server

Configure the DHCP Server function.

DHCP Server

① DHCP Server: ● Disable ○ Enable
② IP Pool Start Address: 192.168.0.10
③ Pool Size: 30
④ Subnet Mask: 255.255.255.0
⑤ Lease Time: 72   hours
⑥ Domain Name:
⑦ Default Gateway:
⑧ DNS Proxy: ● Disable ○ Enable
⑨*Primary DNS Server:
⑩*Secondary DNS Server:
⑪ Primary WINS Server:
⑫ Secondary WINS Server:
⑬ TFTP: ○ Disable ● Enable
⑭ TFTP Server: *If the TFTP Server setting is blank,
                                             the system IP address is used.

*Appears only when "Disable" is selected in [DNS Proxy].

① DHCP Server   ……………   Select "Enable" to use the DHCP Server function.   (Default: Disable)
                             When "Enable" is selected, the DHCP Server functions according to the con-
                             figuration set in ② – ⑩.

② IP Pool Start Address ……   Enter the IP pool start address.   (Default: 192.168.0.10)

③ Pool Size   …………………   Enter the size of IP pool.   (Default: 30)
                             Note: Up to 128 addresses can be automatically assigned by the DHCP serv-
                                   er function. Another 32 addresses can be manually assigned.
                             • When "0" is set, the IP address is NOT automatically assigned.

④ Subnet Mask………………   Enter the subnet mask for the IP pool start address set in the [IP Pool Start
                             Address] item (②).   (Default: 255.255.255.0)

⑤ Lease Time   ………………   Enter the lease time period.   (Default: 72)
                             Range: 1–9999 (hours)

⑥ Domain Name   ……………   Enter the network address domain name. (Up to 127 characters)

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).
                             Note: Set the IP address different from that of VE-PG3's.

⑧ DNS Proxy   ………………   Select "Enable" to use the DNS Proxy function.   (Default: Enable)
                             When "Enable" is selected, you don't need to change the setting even when
                             the DNS server address has been changed. (Appropriate network settings in
                             [Network] and [Router] menu is necessary.)
                             When "Disable" is selected, the addresses entered in [Primary DNS Server] and
                             [Secondary DNS Server] are notified to the DHCP client, as the DNS server address.

■DHCP Server (continued)

DHCP Server

① DHCP Server: ⦿ Disable   ○ Enable
② IP Pool Start Address: 192.168.0.10
③ Pool Size: 30
④ Subnet Mask: 255.255.255.0
⑤ Lease Time: 72   hours
⑥ Domain Name:
⑦ Default Gateway:
⑧ DNS Proxy: ⦿ Disable   ○ Enable
⑨*Primary DNS Server:
⑩*Secondary DNS Server:
⑪ Primary WINS Server:
⑫ Secondary WINS Server:
⑬ TFTP: ○ Disable   ⦿ Enable
⑭ TFTP Server: *If the TFTP Server setting is blank,
                                      the system IP address is used.

*Appears only when "Disable" is selected in [DNS Proxy].

⑨ Primary DNS Server   ……   Enter the DNS server's primary address.

⑩ Secondary DNS Server   …   Enter the DNS server's secondary address.

⑪ Primary WINS Server ……   Enter the WINS server's primary address.
                                         If you have two WINS server addresses, enter the primary address.

⑫ Secondary WINS Server…   Enter the WINS server's secondary address.
                                         If you have two WINS server addresses, enter the secondary address.

⑬ TFTP …………………………   (Not used in the Bridge mode.)

⑭ TFTP Server ………………   (Not used in the Bridge mode.)

■Static DHCP

Enter the MAC and IP addresses, and then click <Add>. You can enter up to 32 entries.

This setting is valid when you use the DHCP function.

Note: Make sure that the addresses of the devices on the network don't overlap or conflict. If a DHCP server is already connected to the network, and there is an address conflict, a network problem will occur. See the Troubleshooting section for possible solutions.

Static DHCP

MAC Address	IP Address	
		Add

■Static DHCP Table

Displays the static DHCP entries.

Static DHCP Table

MAC Address	IP Address	
▆▆▆▆▆▆▆▆▆▆	192.168.0.100	Delete

<Delete>   ……………………   Click to delete the entry.

■Routing Table

Displays the routing information.

Routing Table

① Destination	② Subnet Mask	③ Gateway	④ Route	⑤ 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

① Destination ………………   The network address of the route's destination network.

② Subnet Mask ……………   The subnet mask of the route's destination network.

③ Gateway …………………   The route's gateway address.

④ Route ……………………   The routing interface.

                                  • lo0:   Loop back interface

                                  • vr0:   Static IP or DHCP client (WAN)

                                  • pppoe0:   PPPoE (WAN)

                                  • mirror0:   LAN

⑤ Owner ……………………   The type of routing path.

                                  • static: Static route

                                  • misc: Broadcast frame

                                  • host: Host route

■Static Routing

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

Static Routing

①Destination	②Subnet Mask	③Gateway	
			Add

• This is an example.

① Destination ………………   The network address of the route's destination network.
② Subnet Mask ……………   The subnet mask of the route's destination network.
③ Gateway …………………   The route's gateway address.
<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	
192.168.250.0	255.255.255.0	192.168.0.254	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: 30.0   Mbps
    LAN: 30.0   Mbps

①QoS   ………………………   Select "Enable" to apply the QoS rule.   (Default: Enable)
When "Enable" is selected, the QoS Rule is applied according to the [QoS Rule] entries.
• You can configure the TOS for the packet, that is related to the VoIP,
by setting "TOS" or "Diffserv" in the TOS Setting] item on the [VoIP Expansion] screen.

②Bandwidth Limit(Transmit)   Enter the bandwidth for the packets that exceed the bandwidth limit to between 0.0 and 100.0 Mbps (in 0.1 Mbps step).   (Default: 30.0 Mbps)
Although the packets that exceed the bandwidth limit is limited, the priority packet is transmitted regardless of this setting.
Note: Even if "0.0" is set, the communication is disconnected.

■QoS Rule

Set the packet priority by the TOS value.

The VE-PG3 checks the TOS field in the IP header according to the QoS rule.

The packet, which meets the QoS rule, is not object to limit.

QoS Rule

① No.:   3 ▾
② TOS: Entered in hexadecimal code(01 - FF)

[Add] [Reset]

①No. …………………………   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 or apply the change.

• The rule entries are displayed on the [List of QoS Rule Entries].

Note: More than 1 rule entry is required.

Reset

Click to restore the settings to their default.

Note: You cannot restore the settings after you've clicked <Add>.

②TOS …………………………   Enter the TOS value for the reference.

Range: 01 to FF (in hex)

■List of QoS Rule Entries

Displays the all QoS rule entries.

• This list is displayed when "Enable" is set to the [QoS] item.

• The TOS value "E0" and "C0" are set as the default, for the VoIP packet priority.

List of QoS Rule Entries

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

①Edit …………………………   Click to edit the setting on the [QoS Rule] field.

②Delete………………………   Click to delete the entry.

■Connection Status   ⌈   **DHCP client**   ⌉

Displays the WAN connection 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	

①Connection State ………… Displays the WAN connection status.

Reconnect: Click to re-obtain the IP address and reconnect to the network.

Refresh: Click to refresh the screen.

Note: If "Connecting" is not displayed in this item, check the cable connection and network configuration.

Status:

"Unplugged": Linkdown. Cable not connected.
"Connecting": Attempting to connect. DHCP IP is not obtained yet.
"Connected": Connection established. DHCP IP has been obtained.

②Connection Type ………… Displays the WAN connection type.

③DNS Server ……………… Displays the DNS server's IP address.

④IP Address………………… Displays the VE-PG3's WAN IP address obtained by the DHCP.

⑤Peer IP Address ………… Displays the gateway IP address obtained by the DHCP.

⑥Uptime …………………… Displays the elapsed time the VE-PG3 has been connected to the network.

• Click <Refresh> to update the screen.

■Connection Status   (Static IP)

Displays the WAN 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	

①Connection State …………   Displays the WAN connection status.

Refresh: Click to refresh the screen.

Note: If "Connecting" is not displayed in this item, check the cable connection
        and network configuration.

Status:

"Unplugged":   Linkdown. Cable not connected.
"Disconnected": Linkup. Static IP is not specified.
"Connected":   Linkup. Static IP specified.

②Connection Type …………   Displays the WAN connection type.

③DNS Server ………………   Displays the DNS server's IP address which is manually set.

④IP Address…………………   The VE-PG3's WAN IP address which is manually set.

⑤Peer IP Address …………   Displays the gateway IP address which is manually set.

⑥Uptime ……………………   Displays the elapsed time the VE-PG3 has been connected to the network.
Click <Refresh> to update the screen.

■Connection Status   ⬭ PPPoE ⬭

Displays the WAN 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	

①Destination   ………………   Select the destination from the WAN connection set in the [Select connection] item (p. 5-24).
Connect / Disconnect
Click to manually connect or disconnect the selected WAN connection.
Refresh
Click to update the screen.
Note: If "Connecting" is not displayed in this item, check the cable connection and network configuration.

②Connection Status   ………   Displays the connection status; "Unplugged," "Connecting," "Connected" and "Disconnected."

③Connection Type …………   Displays the WAN connection type.

④DNS Server   ………………   Displays the DNS server's IP address.

⑤IP Address…………………   Displays the VE-PG3's WAN IP address.

⑥Peer IP Address   …………   Displays the default Gateway IP address specified by your service provider.

⑦Uptime   ……………………   Displays the elapsed time the VE-PG3 has been connected to the network. Click <Refresh> to update the screen.

■Connection Type

Select the WAN connection type.

Connection Type

Connection Type:	Static IP ▼

Connection Type ……………   Select the WAN connection type as specified by your ISP.

(Default: No Connection)

When NOT connecting the network through the [WAN] port:
No Connection

Select this when the WAN port is not connected to the network.

The VE-PG3 is not connected to the network, even if the WAN port is physically connected to a network port.

Note: PPPoE and IPv6 bridge communications also cannot be used.

When connecting the network through the [WAN] port:

A Bridge type modem or FTTH DCE (Data Circuit-terminating Equipment) can be connected.

DHCP Client

The WAN IP address is automatically obtained by a DHCP server.

Static IP

The WAN IP address is specified by your ISP.

PPPoE

The WAN IP address is specified by your ISP in the PPPoE method.

■Connection Settings ⸺ DHCP client ⸺

Configure the WAN connection.

Connection Settings

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

①Nickname …………………   Enter a connection name of up to 31 characters

②Primary DNS Server ……   Enter the primary DNS server address as specified by your ISP.
                                • If the DNS server address is not specified, it is automatically obtained by the
                                  DHCP.

③Secondary DNS Server …   Enter the secondary DNS server address as specified by your ISP.

■Connection Settings (Static IP)

Configure the WAN connection.

Connection Settings

① Nickname:
② IP Address:
③ Subnet Mask:
④ Default Gateway:
⑤ Primary DNS Server:
⑥ Secondary DNS Server:

①Nickname …………………   Enter an ISP name of up to 31 characters

②IP Address…………………   Enter the WAN IP address as specified by your ISP.

③Subnet Mask………………   Enter the subnet mask as specified by your ISP.

④Default Gateway …………   Enter the default gateway address as specified by your ISP.

⑤Primary DNS Server ……   Enter the primary DNS server address as specified by your ISP.

⑥Secondary DNS Server …   Enter the secondary DNS server address as specified by your ISP.

■Connection Settings ⟨ PPPoE ⟩

Configure the WAN connection. (Up to 8 destinations can be registered.)

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:

① Select Connection ……… Select the WAN connection. (Up to 8 destinations can be registered.)

(Default: WAN01)

② Nickname ………………… Enter or edit an ISP name of up to 31 characters.
• The ISP name entered to the [Select Connection] is displayed as the default.

③ Username ………………… Enter a login user name or account name.

④ Password ………………… Enter a login password.
• The entered characters are displayed as an * (asterisk) or a • (dot).

⑤ Reconnect Mode ………… Select the PPPoE connection method.

(Default: Always-on)

• **Manual**
The PPPoE line can be manually connected or disconnected, by clicking <Connect> or <Disconnect>.
• The network is disconnected, when the VE-PG3 is booted.

• **Always-on**
The PPPoE line is always connected to the destination set in the [Select Connection] item.
• The network is disconnected, when the VE-PG3 is booted.
• You can manually connect or disconnect by clicking <Connect> or <Disconnect> in the Connection Status item.

⑥ IP Address………………… Enter the WAN IP address, if specified by your ISP.

■ 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:

⑦ Primary DNS Server ……   Enter the primary DNS server address as specified by your ISP.

⑧ Secondary DNS Server …   Enter the secondary DNS server address as specified by your ISP.

⑨ Authentication Protocol …   Enter the authentication protocol as specified by your ISP.

                                                                    (Default: Automatic)

                                 • **Select "Automatic" if not specified.**
                                 • **PAP**
                                    Use a 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 ISP.   (Default: 1322)
Range: 536 to 1452 (Bytes)
The MSS value is the maximum TCP segment size to receive.
Generally, this value must be set to high as long as no fragment occurs. But, since the MTU of PPPoE line is less than that of normal ethernet (1500 byte), setting too high MSS value may cause the network problem.

⑪ AC-Name …………………   Enter the access concentrator name, if specified by your ISP.

⑫ Service-Name ……………   Enter the service name, if specified by your ISP.

■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

Note: The WAN side's operating mode setting is necessary to use this function.

This function cannot be used when "No Connection" is selected in [Connection Type].

PPPoE Bridge

PPPoE Bridge: ⦿ Disable ○ Enable

PPPoE Bridge ……………… Select Enable to bridge the PPPoE frame between WAN and LAN.

(Default: Disable)

■IPv6 Bridge

Note: This function cannot be used when "No Connection" is selected in [Connection Type].

IPv6 Bridge

IPv6 Bridge: ⦿ Disable ○ Enable

IPv6 Bridge ………………… Select Enable to bridge the IPv6 frame between WAN and LAN.

(Default: Disable)

■NAT

Configure the NAT function.

Note: This function cannot be used when "No Connection" is selected in [Connection Type].

NAT

NAT: ○ Disable ⦿ Enable

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

■DMZ Host

Configure the DMZ Host function.

Note: This function cannot be used when "No Connection" is selected in [Connection Type].

DMZ Host

DMZ Host IP Address: [   ]

DMZ Host IP Address ………   Enter the DMZ host IP address.
                        The DMZ Host function (De-militarized Zone) transfers the unknown IP frame
                        from the WAN side (internet) to the specified IP address on the LAN side. But
                        you need to pay attention because it also decreases the security of the IP
                        address, which is specified as the transfer destination.
                        • The static masquerade table setting is applied when both the DMZ Host
                          function and static masquerade table is set.

■Port Forwarding

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

Port Forwarding

① WAN Port	② LAN IP Address	③ LAN Port	④ Protocol	⑤
Custom ▾		Custom ▾	TCP ▾	Add

①WAN Port …………………   Select the mnemonic for the WAN port number.
Note: Select "Custom" to set the WAN port by number.
If you don't select the port by number, select the port by the mnemonics (DNS, Finger, FTP, Gopher, NEWS, POP3, SMTP, TELNET, Web and Whois)

②LAN IP Address …………   Enter the private IP address.

③LAN Port …………………   Select Custom if you select the LAN port by the number.
If you don't select the port by number, select the port by the mnemonics (DNS, Finger, FTP, Gopher, NEWS, POP3, SMTP, TELNET, Web and Whois)

④Protocol ……………………   Select the protocol.

⑤Add …………………………   Click to submit the entry.
• Up to 32 tables can be submitted.
• When you click <Edit> on the Port Forwarding Entries list, the <Update> button is displayed.

■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.

①Edit …………………………   Click to edit the entry.
• The entry contents are loaded to the Port Forwarding field above.

②Delete………………………   Click to remove the entry.

■Dynamic DNS

Configure the dynamic DNS client.

Dynamic DNS

① No.:   1 ▼
② Automatic Update: ⦿ Disable   ○ 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: ⦿ Online   ○ Offline

① No. ………………………… Select the entry number.   (Default: 1)

② Automatic Update ……… Select Enable to automatically notify the dynamic DNS server of the change of the VE-PG3's global IP address.   (Default: Disable)
• If the update fails, automatically re-tries to reassess in 1 hour.
• If "Disable" is selected, the [Update Interval] item is also disabled.

③ Update Interval …………… Select the update interval.   (Default: 10)
Range: 1 to 99 (days)
Note: According to the DNS server, the obtained domain is automatically dis-carded after the period. This can be prevented by updating periodically.

④ Dynamic DNS Server …… Select RFC2136 to use the RFC2136 dynamic DNS server.   (Default: None)

⑤ Server URL ……………… Enter the RFC2136 dynamic DNS server's URL. (Up to 127 characters)
• This item appears only when you select RFC2136 in [Dynamic DNS Server].

⑥ Host Name ……………… Enter the VE-PG3's host name of up to 31 characters.

⑦ Domain Name …………… Enter the VE-PG3's domain name of up to 31 characters.

⑧ Username ………………… Enter the user ID to access the dynamic DNS server of up to 31 characters.

■ Dynamic DNS (continued)

Dynamic DNS

① No.:   1 ▾
② Automatic Update: ● Disable ○ 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: ● Online ○ Offline

⑨ Password .... Enter the password of up to 31 characters to access the dynamic DNS server.

• The entered characters are displayed as an * (asterisk) or a • (dot).

⑩ Connection Status .... Select "Offline" to inform the dynamic DNS server that the network is temporally offline.

(Default: Online)

■Dynamic DNS Updates

Displays the update status of the dynamic DNS servers.

①Time ………………………   Displays the time when the VE-PG3 notified the dynamic DNS server of the
                                       VE-PG3's global IP address.

②Status………………………   Displays the update status.
                                       Note: If an error message appears, check the setting following the message.
                                       • 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.

③Host Address ……………   Displays the host name that is registered to the dynamic DNS server.
                                       • The host name and domain that are entered to the [Dynamic DNS] item.

④IP Address…………………   Displays the global IP address that is registered to the dynamic DNS server.

⑤Refresh ……………………   Click to update the screen.

⑥Update the Server ………   Click to send the VE-PG3's WAN IP address to the dynamic DNS server.

■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 server (LAN), through the internet.   (Default: Enable)
If "Enable" is selected, the LAN initiator and responder are transparent in the IPsec ESP tunnel mode.

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

IPsec Client   VE-PG3   IPsec Server

Internet
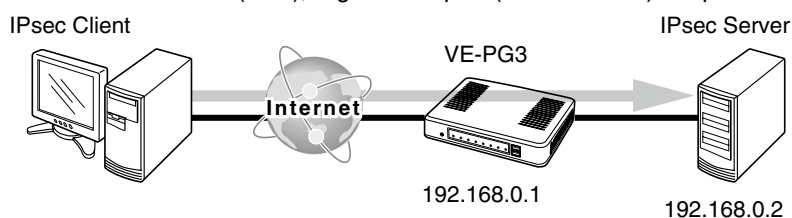
192.168.0.1   192.168.0.2

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).

Example:

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

PPTP Client   VE-PG3   PPTP Server

Internet
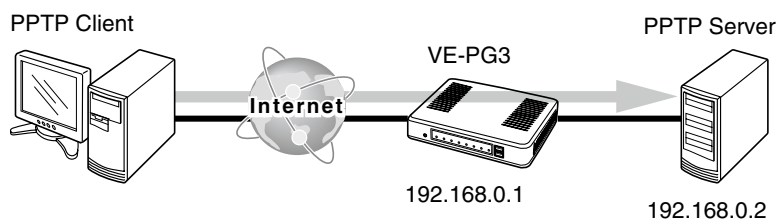
192.168.0.1   192.168.0.2

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 function.

Note: This function cannot be used when "No Connection" is selected in [Connection Type].

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

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

①No. …………………………   Select the filtering order (1–64).

The filter function checks/inspects the packets in the selected order according to the filter setting in [List of IP Filter Entries].

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

Note: You cannot select the number which is already set in the [IP FIlter Setting].

②Entry ………………………   Select Enable to apply the filter setting.   (Default: Disable)

Select Disable in the unused filter entry.

1(off) appears on a disabled filter setting in the No. item on the List of IP Filter Entries.

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

③Action ………………………   Select the filtering method.   (Default: Pass)

Block: Blocks all packets matched to the filtering condition.

Pass: Passes all packets matched to the filtering condition.

④Direction …………………   Select the filtering direction.   (Default: IN)

IN: Filters the incoming packets from the WAN interfaces.

OUT: Filters the outgoing packets to the WAN interfaces.

⑤Source IP Address ………   Enter the source IP Address (and mask) to filter.

The all packets from the entered IP address are filtered (blocked or passed).

Leave this item blank to filter all packets.

Mask range: "1"–"32"

■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

⑥Destination IP Address …   Enter the destination IP Address (and mask) to filter.

The all packets to the entered IP address are filtered (blocked or passed).

Leave this item blank to filter all packets.

Mask range: 1–32.

⑦Protocol ……………………   Select the transport layer's protocol to filter.   (Default: Any)

Any: Any protocols

TCP: Only TCP

(Item ⑧, ⑨ and ⑩ appear.)

UDP: Only UDP

(Item ⑧ and ⑨ appear.)

TCP/UDP: TCP and UDP

(Item ⑧ and ⑨ appear.)

■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

⑦ Protocol (continued)   ……   **ICMP**:   Only ICMP

Enter the ICMP type and code to the [Type] and [Code] items.

Range: 0–255

Protocol:	ICMP	Custom Value:
Type:		
Code:		

Type:

Enter the type of ICMP header to filter between 0 and 255.

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

Code:

Enter the type of ICMP code to filter between 0 and 255.

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

IGMP: Only IGMP

Custom: Specified by the protocol number.

Enter the upper IP layer protocol number into the [Custom Value] item.

Range: 0–255

■ 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, or enter the TCP/UDP source port number.

There are two ways to specify the port number.

• **Specifying by number**

1. Select "Common."

2. Set the common port number to Start - End.

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

Port number range: 1 to 65535 (in decimal)

• **Specifying by mnemonic**

Select a source port other than Any or Common.

DNS, Finger, FTP, Gopher, NEWS, POP3,SMTP, Telnet, Web and Whois are selectable.

• When "Any" is selected, all types of the port number types 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

⑨Destination Port …………   Select the destination port, or enter the TCP/UDP destination port number.

There are two ways to specify the port number.
• **Specifying by number**
  1. Select "Custom."
  2. Set the Custom port number to Start - End.
  When you use a specific port, enter only the start point, or enter the same number to both the start and end points.
  Port number range: 1 to 65535 (in decimal)
• **Specifying by mnemonic**
  Select a source port other than Any or Custom.
  Selectable mnemonics are DNS, Finger, FTP, Gopher, NEWS, POP3,SMTP, Telnet, Web and Whois are selectable.
  • When "Any" is selected, all of the port number types 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

⑩ TCP Flags ....   Select the TCP flags.

Filters the packets with the specified TCP flag.
• You can select the TCP flag from URG, ACK, PSH, RST, SYN and FIN.
  The selected flag's first character is displayed in [List of IP Filter Entries]
  (P5-45). (Example: ACK and RST are selected)

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

• When "None" is selected, the packet is filtered regardless of the TCP flag.

■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

⑪Stateful Packet Inspection (SPI)

……………………………   Select Enable to temporary pass through the response packets.

(Default: Disable)

Note: If the [Action] item is set to "Block," this is item is invalid.

To transmit the packet to the [WAN] port, set the [Action] and [Direction] items to "Pass" and "OUT."

• The SPI is set to "Enable" for the second IP filter entry.

⑫Quick ………………………   Select whether to stop or continue checking when a packet matches a filtering condition.   (Default: Enable)

• **Enable:**   Stops matching when the packet is matched to the filtering condition. The packet is filtered by the filtering entry and no more filtering conditions will be processed.

• **Disable:**   Continues matching when the packet is matched to the filtering condition.

• If the packet matches no other filtering conditions, the packet is filtered by the filtering entry.

• If the packet matches other filtering conditions, the packet is filtered by the last-matched filtering entry.

See ① [No.] (p.5-36) for the filtering order.

■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

⑬SYSLOG   …………………   Select Enable to output the filtering SYSLOG.   (Default: Disable)
                              • The log information is displayed on the [SYSLOG] screen in the [Information]
                                Menu. (p.5-8)

                              Note: This function may affect the system performance. We recommend you
                                    not to use this function except for the testing purposes.

■List of IP Filter Entries

List of IP Filter Entries

No.	Action / Direction	Protocol (TCP Flags)	Source IP Address (Source Port) / Destination IP Address (Destination Port)	SPI / Quick / SYSLOG	
1 (off)	Block	TCP (AR)	* (*)	Disable	① ② Edit Delete
				Disable	
	In		* (*)	Disable	
	Pass		* (*)	Enable	

• This is an example.

About the default IP filter settings.
• No. 1: Blocks all incoming packets.
• No. 2: Passes all outgoing packets and its response packets.

      Note: The outgoing packets' response packets are not blocked by the filter No. 1.

• No. 58: Passes the FTP packets.
• No. 59–64:   These filtering conditions prevent the Windows applications from the remote access, and leaking
      information caused by the File Sharing.

Note: The * mark matches all values.

①Edit …………………………   Click to edit the entry.
      • The entry contents are loaded to the IP Filter Setting field (P5-36).

②Delete………………………   Click to remove the entry.

■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)
If "Enable" is selected, the [WAN] port doesn't response to the ICMP Echo request (Ping).

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 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 that you not use this function except for testing purposes.

6. [Operating Mode] Menu

■Operating Mode

Select the operating mode.

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

Operating Mode

Operating Mode: Bridge ▼

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 section 6 for the Converter mode.

About the Multicast mode:

The operating mode is set to "Bridge," and Multicast mode is set as the default.
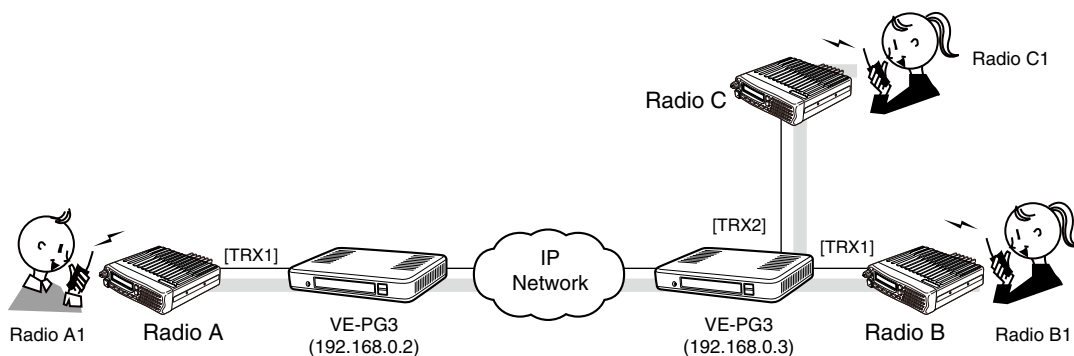
An example of communicating in the Multicast mode

6. [Operating Mode] Menu   [Operating mode]

■Operating mode (continued)

Operating Mode

Operating Mode: Bridge ▼

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 communicating in the Unicast mode

6. [Operating Mode] Menu (continued)

■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: EXT I/O Unit ▼
② EXT I/O Port Mode: Separate ▼
EXT I/O 2 (EXT2)
① Connection Unit: EXT I/O Unit ▼
② EXT I/O Port Mode: Separate ▼

①Connection Unit …………
Select the device to connect to the [EXT] (1/2) port, from [EXT I/O Unit] and [Transceiver]. (Default: EXT I/O Unit)
• If you select "Transceiver," select the device name on the [EXT I/O (1/2)] screen after the reboot.

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

• **Separate**
You can separately connect 2 devices to the [EXT 1] and [EXT 2] ports.
(Connection Example: Connect the microphone to the [EXT 1] port and the external amplifier to the [EXT 2] port.)
Note: When you select "Separate," select the audio device on the [EXT Input (1/2)] or [EXT Output (1/2)]screen after the reboot.

• **Combined**
You can only connect one device to one [EXT] slot.
(Connection Example: Connect the headset to the [EXT 1] and [EXT 2] ports.)
Note: When you select "Separate," select the audio device on the [EXT I/O (1/2)] screen after the reboot.

[EXT2] port → A1~A4 B1~B4 C1~C4 | A1~A4 B1~B4 C1~C4 ← [EXT1] port
↑TRX2 / EXT2↓   ↑TRX1 / EXT1↓
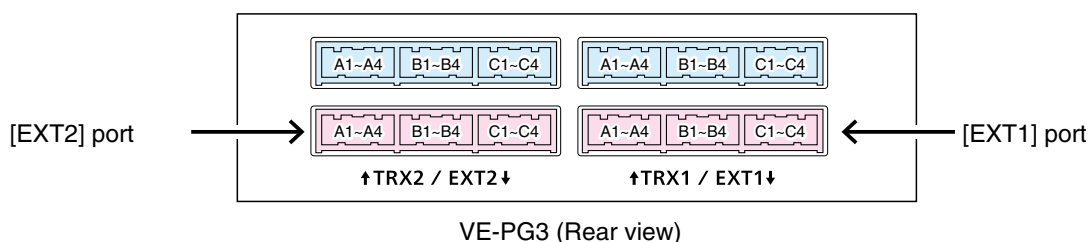
VE-PG3 (Rear view)
• See Section 8 for port details.

6. [Operating Mode] Menu (continued)   [Operating mode]
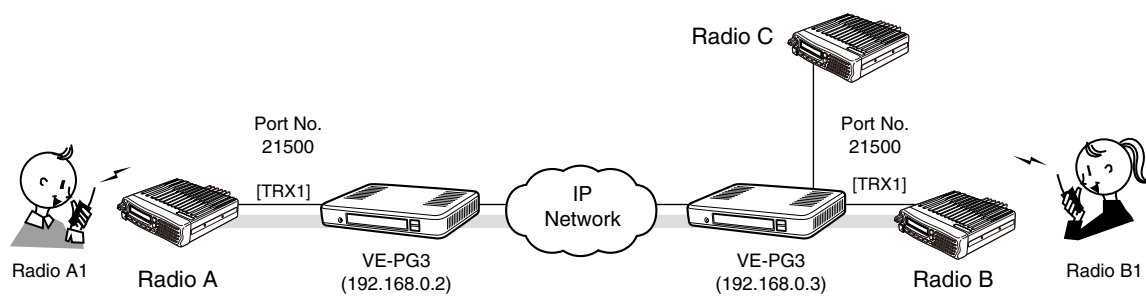
■IP Communication Mode

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

Port	①IP Communication Mode	②CT-24 Assignment
Transceiver 1 (TRX1)	Multicast ∨	☐
Transceiver 2 (TRX2)	Multicast ∨	☐
Digital Transceiver 1 (D-TRX1)	Unicast ∨	☐
Digital Transceiver 2 (D-TRX2)	Unicast ∨	☐
Digital Transceiver 3 (D-TRX3)	Unicast ∨	☐
Digital Transceiver 4 (D-TRX4)	Unicast ∨	☐
EXT Input 1 (EXT1)	Unicast ∨	☐
EXT Output 1 (EXT1)	Unicast ∨	☐
EXT Input 2 (EXT2)	Unicast ∨	☐
EXT Output 2 (EXT2)	Unicast ∨	☐
Controller 1	Unicast ∨	☐
Controller 2	Unicast ∨	☐
Controller 3	Unicast ∨	☐
Controller 4	Unicast ∨	☐
Emergency Notice	Unicast ∨	☐

• This is an example.

①IP Communication Mode…   Select the communication mode of the ports from "Multicast mode" and "Unicast mode."

> • **Multicast**
> Communicates between two and more interfaces (Multi points).
> The Bridge communication is available through the matched destination IP address (Multicast) and port number.
> • **Unicast**
> Communicates between two interfaces (Point-to-point).
> The Bridge communication is available by exchanging two VE-PG3s IP address and port number.

②CT-24 Assignment ………   Enter a check mark when using the optional CT-24, to communicate with the IC-FR5000/FR6000.
• Select the Audio Codec for each port on the [Bridge Communication] screen.

Device to connect	Audio Codec	
	AMBE+2	G.711u
Digital transceiver (1–4)	Not necessary	Necessary
Other than Digital transceiver (Transceiver/External audio device)	Necessary	Not necessary

Note: Up to 2 CT-24's can be used at a time.

■Mixing Group

The Mixing function mixes conversations from different areas.

• To use the Mixing function, select G.711u codec.

Mixing Group

Port	Mixing Group				
	None	Group1	Group2	Group3	Group4
Transceiver 1 (TRX1)	○	◉	○	○	○
Transceiver 2 (TRX2)	○	◉	○	○	○
Digital Transceiver 1 (D-TRX1)	◉	○	○	○	○
Digital Transceiver 2 (D-TRX2)	◉	○	○	○	○
Digital Transceiver 3 (D-TRX3)	◉	○	○	○	○
Digital Transceiver 4 (D-TRX4)	◉	○	○	○	○
EXT Input 1 (EXT1)	◉	○	○	○	○
EXT Output 1 (EXT1)	◉	○	○	○	○
EXT Input 2 (EXT2)	◉	○	○	○	○
EXT Output 2 (EXT2)	◉	○	○	○	○
Controller 1	◉	○	○	○	○
Controller 2	◉	○	○	○	○
Controller 3	◉	○	○	○	○
Controller 4	◉	○	○	○	○

Apply   Reset

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.

• AMBE+2 Audio Codec cannot be used with the mixing function.

7. [Bridge Connection] Menu   [Bridge Connection]–[Bridge Connection Point]

■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: ◉ Disable ○ Enable
③ Connection IP Address: [   ]
④ Connection Port Number: [21504]
⑤ My Station Port Number: [21504]
⑥ Voice Codec: [G.711u ⌄]

• The screen may differ depending on the setting.

①Port 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.
                                • The [EXT I/O (1/2)] can be selected when "Combined" is selected in the
                                  [EXT I/O Port Mode] on the [Operating Mode] screen.

②SelCall 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 or IP1000C.
                                Note: This item is displayed when [Digital Transceiver (1–4)] or [Controller] is
                                      selected.

7. [Bridge Connection] Menu

■Bridge Connection Point (continued)

Bridge Connection Point

① Port Type:	Transceiver 1 (TRX1) ▾	
③ Connection IP Address:	239.255.255.1	
④ Connection Port Number:	22510	
⑤ My Station Port Number:	22510	
⑥ Voice Codec:	G.711u ▾	
⑦ Multicast TTL:	1	

③Connection IP Address …

This item differs, depending on the mode selected in the [[IP Communication Mode] item.

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 the call destination is other than to a digital transceiver.
If you set the VE-PG3's IP address to [Connection IP Adrees] as the dummy address, set the port number which is not used for [Connection Port Number](④).

7. [Bridge Connection] Menu

■Bridge Connection Point (continued)

Bridge Connection Point

① Port Type:	Transceiver 1 (TRX1)	▽
③ Connection IP Address:	239.255.255.1	
④ Connection Port Number:	22510	
⑤ My Station Port Number:	22510	
⑥ Voice Codec:	G.711u ▽	
⑦ Multicast TTL:	1	

④Connection 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: **When [IP Communication Mode] is set to [Unicast]:**

  21500 (Transceiver 1 (TRX1)),

  21502 (Transceiver 2 (TRX2)),

  21504 (Digital Transceiver 1 (D-TRX1)),

  21506 (Digital Transceiver 2 (D-TRX2)),

  21508 (Digital Transceiver 3 (D-TRX3)),

  21510 (Digital Transceiver 4 (D-TRX4)),

  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)),

  21540 (Controller 1),

  21542 (Controller 2),

  21544 (Controller 3),

  21546 (Controller 4),

  21520 (Emergency Notice),

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

  22510 (Transceiver 1 (TRX1), Transceiver 2 (TRX2), Digital Transceiver 1 (D-TRX1), Digital Transceiver 2 (D-TRX2), Digital Transceiver 3 (D-TRX3), Digital Transceiver 4 (D-TRX4), External Input1 (EXT1), External Output1 (EXT1), External I/O 1 (EXT1), External Input2 (EXT2), External Output2 (EXT2), External I/O 2 (EXT2)), Controller 1–Controller 4,

  22520 (Emergency Notice).

7. [Bridge Connection] Menu

■Bridge Connection Point (continued)

Bridge Connection Point

① Port Type:	Transceiver 1 (TRX1) ⌄	
③ Connection IP Address:	239.255.255.1	
④ Connection Port Number:	22510	
⑤ My Station Port Number:	22510	
⑥ Voice Codec:	G.711u ⌄	
⑦ Multicast TTL:	1	

⑤My 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: **When [IP Communication Mode] is set to [Unicast]:**
        21500 (Transceiver 1 (TRX1)),
        21502 (Transceiver 2 (TRX2)),
        21504 (Digital Transceiver 1 (D-TRX1)),
        21506 (Digital Transceiver 2 (D-TRX2)),
        21508 (Digital Transceiver 3 (D-TRX3)),
        21510 (Digital Transceiver 4 (D-TRX4)),
        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)),
        21540 (Controller 1),
        21542 (Controller 2),
        21544 (Controller 3),
        21546 (Controller 4),
        21520 (Emergency Notice),
  When [IP Communication Mode] is set to [Multicast]:
  22510 (Transceiver 1 (TRX1), Transceiver 2 (TRX2), Digital Transceiver 1 (D-TRX1), Digital Transceiver 2 (D-TRX2), Digital Transceiver 3 (D-TRX3), Digital Transceiver 4 (D-TRX4), External Input1 (EXT1), External Output1 (EXT1), External I/O 1 (EXT1), External Input2 (EXT2), External Output2 (EXT2), External I/O 2 (EXT2)), Controller 1–Controller 4,
  22520 (Emergency Notice).

■Bridge Connection Point (continued)

Bridge Connection Point

① Port Type: Digital Transceiver 1 (D-TRX1) ▽
② SelCall in Bridge Connection: ⦿ Disable ◯ Enable
③ Connection IP Address: [   ]
④ Connection Port Number: [21504]
⑤ My Station Port Number: [21504]
⑥ Voice Codec: [G.711u ▽]

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

Device to connect	Audio Codec	
	AMBE+2	G.711u
Digital transceiver (1–4)	Not necessary	Necessary
Other than Digital transceiver (Transceiver/External audio device)	Necessary	Not necessary

When "Multicast" is selected as the IP Connection mode.

Bridge Connection Point

① Port Type: Transceiver 1 (TRX1)   ▽
③ Connection IP Address: [239.255.255.1]
④ Connection Port Number: [22510]
⑤ My Station Port Number: [22510]
⑥ Voice Codec: [G.711u ▽]
⑦ Multicast TTL: [1]

⑦Multicast TTL ……………   Set the Time to Live value.   (Default: 1)
                              • TTL stands for Time To Live, which is used to control the Multicast packet
                                delivery scope. Every time the packets pass through the router, this value
                                subtracted. When the value is "0," the packets are discarded.
                              Range: 1 to 255
                              Note: This item is displayed when "Multicast" is selected in the [IP
                                    Communication Mode].

7. [Bridge Connection] Menu (continued)

■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	②	③	④
		Connection	My Station					
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> …………………   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 load the entry to the [Bridge Connection Point] field.

④<Delete>   …………………   Click to delete the entry.

⑤<Delete All> ………………   Click to delete all entries.

7. [Bridge Connection] Menu (continued)   [Bridge Connection]–[SelCall in Bridge Connection]

■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: [   ] [Browse...] [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: [Save]   Save to bridge_route.csv file.

①Load Settings from File …   You can load the saved [SelCall in Bridge Connection Setting flie] (Extension:csv) file, and write it to the VE-PG3.

Click <Browse...>, and select the [SelCall in Bridge Connection Setting flie] (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 Setting flie].

Note: When the Setting file (Extension: sav) is used to restore the setting, the Bridge SelCall Rule File (Extension: csv) will be overwritten.

②Save to the File……………   Click to save the [SelCall in Bridge Connection Setting flie] contents in the PC, as the [SelCall in Bridge Connection Setting flie] (Extension: csv).

• You can edit the saved file on a spreadsheet.

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

①Index ………………………   The index assigned for the entry.
                                   Setting range: "1" to "1000"

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

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

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

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

Destination SelCall in Bridge Connection

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

⑦Port 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].

7. [Bridge Connection] Menu (continued)   [Bridge Connection]–[List of SelCall in Bridge Connection Entries]

■List of SelCall in Bridge Connection Entries

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	Radio1	Individual	1	123	192.168.0.1	50002	Edit	Delete
								Delete All ③

① \<Edit>………………………   Click to load the entry on [SelCall in Bridge Connection] for edit.

② \<Delete> …………………   Click to delete the entry.
                                Note: The deleted entries cannot be restored.

③ \<Delete all> ………………   Click to delete all entries.
                                Note: The deleted entries cannot be restored.

■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 Settings from File: [   ] [Browse...] [Write]
A CSV format file can be written to this product.
When the file is written, the current settings will be overwritten.

② Save to File: [Save]   Save to idtbl_brg.csv file.

①Load Settings from File …   You can load 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 setting is overwritten.)
• The contents of the file is loaded to [List of SelCall Number Converting Entries].

②Save 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.

7. [Bridge Connection] Menu (continued)

■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.
Note: This is an example in the Conventional mode.
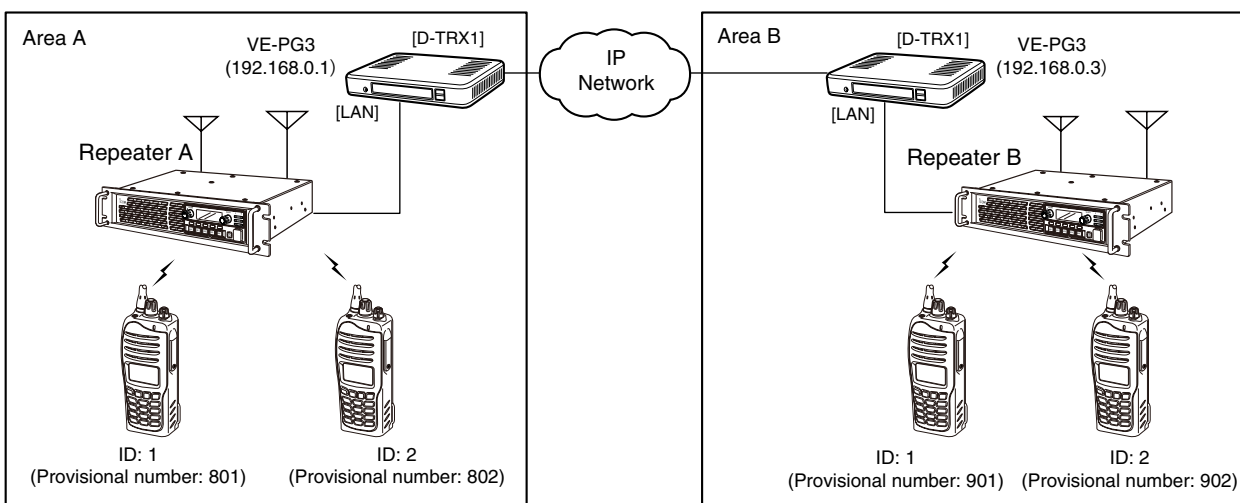
• The conversion table for the above example. <Area A>

List of SelCall Number Converting Entries

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

• The conversion table for the above example. <Area B>

List of SelCall Number Converting Entries

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

■SelCall Number Converting

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

SelCall Number Converting

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

①Index ………………………   The index assigned for the entry.
                                 Index range: "1" to "1000"

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

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

④Prefix ID……………………   Enter the SelCall prefix ID.

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

Convert Destination
⑥Call Type …………………   Select the call type.   (Default: Individual)
                                 • Individual : Call only one radio.
                                 • Group   : Call all radios that belong to the specified group.
                                 • All   : Call all radios.

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

⑧ID …………………………   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].

7. [Bridge Connection] Menu (continued)

■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	Radio1	Individual	1	123	Individual	11	123	Edit	Delete

Delete All
③

① <Edit>………………………   Click to load the entry on the [SelCall Number Converting] field.

② <Delete> …………………   Click to delete the entry.
Note: The deleted entries cannot be restored.

③ <Delete all> ………………   Click to delete all entries.
Note: The deleted entries cannot be restored.

8. [Port Settings] Menu

■Transceiver Model

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

• The following explanation is an example of selecting "General."

Transceiver Model

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

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

(Default: IC-F5060/F6060)

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

VE-PG3 (Rear view)

• See Section 8 for port details.

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 Model].

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ⌄ dB
② RX Volume Offset from the Transceiver: -24 ⌄ 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 ON/OFF Detection: ◯ Disable ⦿ Enable
⑧ *1 Power ON/OFF Detection Signal: Use PTT Type ⌄
⑨ *1 Power ON/OFF Detection Signal Logic: ⦿ High ◯ Low
⑩ *2 Detection Invalidity Timer (OFF ⇒ ON):   0   milliseconds
⑪ *2 Send and Receive Change: ⦿ Disable ◯ Enable
⑫ *2 Serial Communication: ◯ Disable ⦿ Enable
⑬ *2 Client Mode: ⦿ Disable ◯ Enable
⑭ *2 TCP Port Number: 50000
⑮ Communication Control: ⦿ Full-Duplex ◯ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ⌄
⑰ Data Mode: ⦿ Auto ◯ Manual
⑱ Transceiver Control: ◯ Disable ⦿ Enable
⑲ *3 Transceiver Mode: NXDN Conventional ⌄

Client Mode = "Enable"

⑫ *2 Serial Communication: ◯ Disable ⦿ Enable
⑬ *2 Client Mode: ◯ Disable ⦿ Enable
⑳ Server Address: [   ]
㉑ Server Port Number: 50000
⑮ Communication Control: ⦿ Full-Duplex ◯ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ⌄
㉒ Baud Rate: 9600 ⌄
㉓ Data Bits: 8 ⌄
㉔ Parity: none ⌄
㉕ Stop Bits: 1 ⌄
㉖ Connection Status: Not Connected [Connection] [Refresh]

Data Mode = "Manual"

⑰ Data Mode: ◯ Auto ⦿ Manual
㉒ Baud Rate: 9600 ⌄
㉓ Data Bits: 8 ⌄
㉔ Parity: none ⌄
㉕ Stop Bits: 1 ⌄
㉗ Session Timer: 30

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

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

*3 Appears only when "Enable" is selected in [Transceiver Control].

① TX Volume Offset to the Transceiver

……………………………   Adjust the VE-PG3's transmitting audio level that is sent to the connected transceiver between "–30" and "+15" (dB).   (Default: –22)
• Higher level makes the microphone more sensitive to the small voice, and is suitable for a quiet environment.
Lower level make the microphone less sensitive to the voice, and is suitable for a noisy environment with louder voice.

② RX Volume Offset from the 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 microphone 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)

8. [Port Settings] Menu   [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: ● Single PTT ○ Superimposed PTT
④ PTT Logic: ○ High ● Low
⑤ SQL Type: ○ Single SQL ● Superimposed SQL
⑥ SQL Logic: ● High ○ Low
⑦ Power ON/OFF Detection: ○ Disable ● Enable
⑧ Power ON/OFF Detection Signal:[*1]   Use PTT Type ✓
⑨ Power ON/OFF Detection Signal Logic:[*1]   ● High ○ Low
⑩ Detection Invalidity Timer (OFF ⇒ ON):[*2] 0   milliseconds
⑪ Send and Receive Change:[*2]   ● Disable ○ Enable
⑫ Serial Communication:[*2]   ○ Disable ● Enable
⑬ Client Mode:[*2]   ● Disable ○ Enable
⑭ TCP Port Number:[*2]   50000
⑮ Communication Control: ● Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ✓
⑰ Data Mode: ● Auto ○ Manual
⑱ Transceiver Control: ○ Disable ● Enable
⑲ Transceiver Mode:[*3]   NXDN Conventional ✓

Client Mode = "Enable"

⑫ Serial Communication:[*2]   ○ Disable ● Enable
⑬ Client Mode:[*2]   ○ Disable ● Enable
⑳ Server Address:
㉑ Server Port Number: 50000
⑮ Communication Control: ● Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ✓
㉒ Baud Rate: 9600 ✓
㉓ Data Bits: 8 ✓
㉔ Parity: none ✓
㉕ Stop Bits: 1 ✓
㉖ Connection Status: Not Connected [Connection] [Refresh]

Data Mode = "Manual"

⑰ Data Mode: ○ Auto ● Manual
㉒ Baud Rate: 9600 ✓
㉓ Data Bits: 8 ✓
㉔ Parity: none ✓
㉕ Stop Bits: 1 ✓
㉗ Session Timer: 30

*[1]Appears only when "Enable" is selected in [Power Detection].
*[2]Appears only when "Enable" is selected in [Serial Communication].
*[3]Appears only when "Enable" is selected in [Transceiver Control].

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 speaker
                                input line (A3 terminal).

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 ON/OFF Detection…   Select "Enable" to detect the power status (ON/OFF) of the radio.
                                                                            (Default: Disable)

⑧ Power ON/OFF Detection
   Signal …………………………   Select the PTT type to detect the power status (ON/OFF) of the radio.
                                                                    (Default: Use PTT Type)
                            • Single PTT: The microphone line and PTT input line are separated.
                            • Superimposed PTT: The PTT input line is superimposed on the MIC input
                                (A1 terminal).
                            • Use PTT Type: The PTT type selected in [PTT Type] (③) is used.

⑨ Power ON/OFF 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)

8. [Port Settings] Menu

[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: ● Single PTT ○ Superimposed PTT
④ PTT Logic: ○ High ● Low
⑤ SQL Type: ○ Single SQL ● Superimposed SQL
⑥ SQL Logic: ● High ○ Low
⑦ Power ON/OFF Detection: ○ Disable ● Enable
⑧*1 Power ON/OFF Detection Signal: Use PTT Type ∨
⑨*1 Power ON/OFF Detection Signal Logic: ● High ○ Low
⑩*2 Detection Invalidity Timer (OFF ⇒ ON): 0 milliseconds
⑪*2 Send and Receive Change: ● Disable ○ Enable
⑫*2 Serial Communication: ○ Disable ● Enable
⑬*2 Client Mode: ● Disable ○ Enable
⑭*2 TCP Port Number: 50000
⑮ Communication Control: ● Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ∨
⑰ Data Mode: ● Auto ○ Manual
⑱ Transceiver Control: ○ Disable ● Enable
⑲*3 Transceiver Mode: NXDN Conventional ∨

Client Mode = "Enable"

⑫*2 Serial Communication: ○ Disable ● Enable
⑬*2 Client Mode: ○ Disable ● Enable
⑳ Server Address:
㉑ Server Port Number: 50000
⑮ Communication Control: ● Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ∨
㉒ Baud Rate: 9600 ∨
㉓ Data Bits: 8 ∨
㉔ Parity: none ∨
㉕ Stop Bits: 1 ∨
㉖ Connection Status: Not Connected [Connection] [Refresh]

Data Mode = "Manual"

⑰ Data Mode: ○ Auto ● Manual
㉒ Baud Rate: 9600 ∨
㉓ Data Bits: 8 ∨
㉔ Parity: none ∨
㉕ Stop Bits: 1 ∨
㉗ Session Timer: 30

*1Appears only when "Enable" is selected in [Power Detection].
*2Appears only when "Enable" is selected in [Serial Communication].
*3Appears only when "Enable" is selected in [Transceiver Control].

⑩ Detection Invalidity Timer
  (OFF => ON) ……………… Enter the power ON/OFF detection delay time in millisecond.   (Default: 0)
When the power ON is detected, VE-PG3 mutes the audio input from the transceiver. The detection delay is the amount of time the VE-PG3 detects the power status before the VE-PG3 recognizes the power status.
Range: 0 to 10000 milliseconds
Note: If "0" is set, the audio input from the transceiver is not muted even if the power ON is detected.

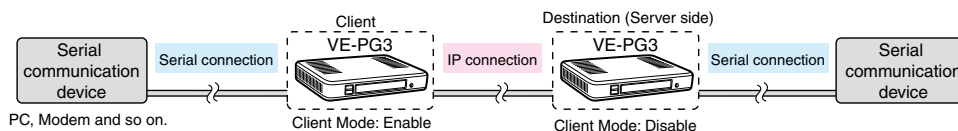⑪ Send and Receive Change… Select "Enable" to use one common line (A3 terminal) as the MIC input and AF output.   (Default: Disable)
If your radio commonly uses one line as the MIC input and AF output, select "Enable."

⑫ Serial Communication …… Select "Enable" to use the serial communication.   (Default: Disable)

⑬ Client Mode ……………… Select "Enable" to set the VE-PG3 as the client in the serial communication.
(Default: Disable)

⑭ TCP Port Number ……… Enter the port number between 1024 and 65535.
(Default: TRX1=50000, TRX2=50001)

8. [Port Settings] Menu

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

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

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

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

*[3]Appears only when "Enable" is selected in [Transceiver Control].

⑮Communication Control … Select the communication type from "Full-Duplex" and "Half-Duplex."

(Default: Full-Duplex)

If "Relay" is selected in [Control Circuit Change] or "Enable" in [8V Power Source], "Full-Duplex" is automatically selected.

⑯Signal Level ……………… Select the serial communication line logic voltage level.

(Default: ±5 V (RS-232C))

⑰Data Mode………………… [Data Mode] selects the communication method for the Serial Communication between a device and the VE-PG3. (Default: Auto)

• **Auto:** Automatically starts the serial communication from a Virtual Serial Port installed on your PC.

• **Manual:** Manually sets a serial communication method for a device.

* [Baud Rate] (㉒) – [Session Timer] (㉗) are displayed when "Manual" is selected.

⑱ Transceiver Control................ Select "Enable" to control the transceiver using the serial communication.

(Default: Disable)

⑲ Transceiver Mode................... Select the operating mode from NXDN Conventional, NXDN Trunking or dPMR.

(Default: NXDN Conventional)

⑳ Server Address .... Enter the destination VE-PG3's IP address.

㉑ Server Port Number............... Enter the destination VE-PG3's port number.

(Default: TRX1=50000, TRX2=50001)

Range: "1024" to "65535"

8. [Port Settings] Menu

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

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

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

*[3]Appears only when "Enable" is selected in [Transceiver Control].

㉒Baud Rate ....   Select the serial communication baud rate between a device and the VE-PG3. (Default: 9600)

㉓ Data Bits ....   Select the data bit length for the serial communication. (Default: 8)

㉔ Parity ....   Select a parity bit of [none], [odd], or [even]. (Default: none)

㉕ Stop Bits ....   Select the stop bit length for the data of 1 or 2. (Default: 1)

㉖ Connection Status ....   Displays the connection status. Click "Connection" to connect the serial communication.

㉗ Session Timer ....   Set the time to cut the TCP session when there is no communication from the host. (Default: 30)
Setting range: 0 to 86400 seconds
*The timeout does not occur when "0" is set.

8. [Port Settings] Menu (continued)   [Port Settings]–[Transceiver 1 (TRX1)/[Transceiver 2 (TRX2)]

■Bridge Communication

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

Bridge Communication

① Encryption:	⦿ Disable ○ Enable	
② Talk-Back:	○ Disable ⦿ Enable Talk-Back Time	5 ∨ sec
Default Callee ID		
③ Default Callee ID:	○ Disable ⦿ Enable	
④ Call Type:	Group ∨	
⑤ Destination Prefix ID:		
⑥ Destination ID:	1	
⑦ My Station Prefix ID:		
⑧ My Station ID:	1	

① Encryption ………………… Select "Enable" to encrypt the communication.   (Default: Disable)
• When you select "Enable," enter the appropriate key to [Encryption Key].
Note: Optional CT-24 is necessary for encryption by the AMBE+2 codec.

② Talk-Back ………………… Select "Enable" to enable the Talk-Back.   (Default: Enable, 5 (seconds))
The Talk-Back function automatically selects the received caller to reply to the received call, while the Talk-Back Time remains.
• When you select "Enable," select the Talk-Back Time between 1 and 10 (seconds).

Default Callee ID

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

④ Call Type ………………… Select the type of call.
• Individual: Call only specified radio.
• Group: Call all radios that belong to the specified group.
• All: Call all radios.

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

⑥ Destination ID …………… Enter the ID of the SelCall destination.   (Default: 1)
ID range: (Depending on the system mode)

⑦ My Station Prefix ID……… Enter the station prefix ID.
ID range: (Depending on the system mode)

⑧ My Station ID …………… Enter the station ID.   (Default: 1)
ID range: (Depending on the system mode)

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: SQL ▼   *SQL is only available in the corresponding radio.
④ Pull-up Control: ⦿ Disable ○ Enable
⑤ Call Back RX to TX: ⦿ Disable ○ Enable
⑥ TX Volume: 0 ▼ dB
⑦ RX Volume: 0 ▼ dB
⑧ Transceiver's Beep Invalidity Time: 400   milliseconds *Setting value is set in five milliseconds steps.

*Appears only when "SQL" is selected in [Audio Detection Methods from the Transceiver].

①Priority Receive   …………   Select "Enable" to keep receiving and inhibit the transmission, while the
                                  transceiver is receiving. (Like a "Busy Lockout" function)   (Default: Disable)

②Audio 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.

③Audio 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).
                                  • Always Receive: Always in the receive mode.
                                  Note: When "IC-F5060/F6060" (default) is selected in [Transceiver Model],
                                        this item is fixed to "VOX."

8. [Port Settings] Menu   [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: SQL ▽   *SQL is only available in the corresponding radio.
④ Pull-up Control: ● Disable ○ Enable
⑤ Call Back RX to TX: ● Disable ○ Enable
⑥ TX Volume: 0 ▽ dB
⑦ RX Volume: 0 ▽ dB
⑧ Transceiver's Beep Invalidity Time: 400   milliseconds *Setting value is set in five milliseconds steps.

*Appears only when "SQL" is selected in [Audio Detection Methods from the Transceiver].

④Pull-up Control ……………   Select "Enable" to pull up the Single Squelch input terminal.
                                                                    (Default: Disable)

⑤Call Back RX to TX ………   Select "Enable" to mix the audio from the repeater with the audio from the
                             telephone.   (Default: Disable)
                             Note: When "Enable" is selected, select "Disable" in [Priority Receive].
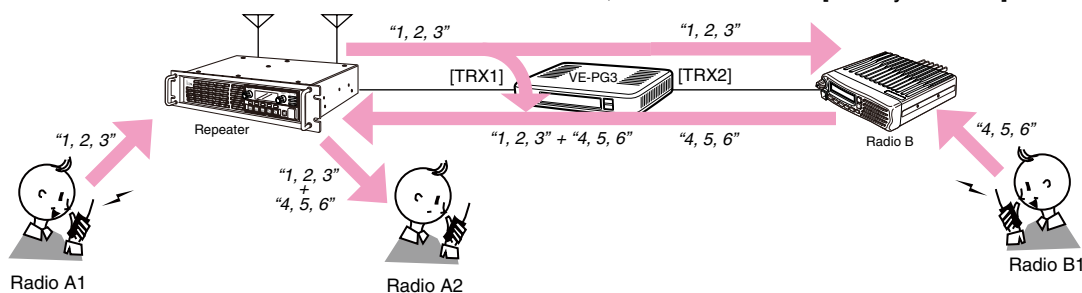
An example of communication with the Call Back RX to TX function

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

⑦RX 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)

⑧Transceiver's Beep Invalidity 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)

8. [Port Settings] Menu (continued)   [Port Settings]–[Transceiver 1 (TRX1)/[Transceiver 2 (TRX2)]

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

①Attack Time ……………… Enter the TX delay time in 5 milliseconds step.   (Default: 50)
Range: 5 to 500 milliseconds
The voice delay is the amount of time the transmitter stays OFF after receiving a signal before the VOX switches to transmit.

②Release 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.

③Voice Delay ……………… Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds step.   (Default: 200)
Range: 0 to 500 milliseconds
The voice delay is the amount of time the VE-PG3 stores the transmit audio to prevent missing the beginning of speech.

④Voice 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.

8. [Port Settings] Menu (continued)　　　[Port Settings]–[Transceiver 1 (TRX1)/[Transceiver 2 (TRX2)]

■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: 50   milliseconds
② Release Time: 200   milliseconds
③ Voice Delay: 5   milliseconds
④ Voice Threshold: 40   %

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.
② Release Time: 200   milliseconds
③ Voice Delay: 5   milliseconds
⑤ Ignore Time: 300   milliseconds

Audio Detection Methods from the Transceiver: Always Receive

Voice Reception Control from the Transceiver

*Setting values of voice delay is set in five milliseconds steps.
③ Voice Delay: 5   milliseconds

①Attack 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.

②Release 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.

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

④Voice 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.

Audio Detection Methods from the Transceiver: SQL

⑤Ignore Time ………………　　Set the amount of time to ignore the received audio signal.
　　　　(Default: 300)
Range: 0 to 2000 (milliseconds)
The VE-PG3 ignores the audio signal received within the Ignore Time.

8. [Port Settings] Menu (continued)

■Digital Transceiver Model   Mode: NXDN Trunking

Select the system mode.

Before planning to set up the communication system with the VE-PG3, grasp your network environment and configuration.

The optional CT-24 is necessary, according to the transceiver type and audio codec.

Device to connect	Audio Codec	
	AMBE+2	G.711u
Digital transceiver	Not necessary	Necessary
Other than Digital transceiver (Transceiver/External audio device)	Necessary	Not necessary

Note: Up to 2 CT-24's can be used at a time.

Digital Transceiver Model

Mode: NXDN Trunking ▾   *Each setting is initialized after changing.

• Mode   ………………………

8. [Port Settings] Menu (continued)

■Digital Transceiver Connection (Mode: NXDN Trunking)

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

Digital Transceiver Connection

①	Repeater Address:	
②	Repeater Port Number:	41220
③	Local Port Number:	43000
④	Connect Key:	ucfr5000
⑤	Area Bit:	● OFF ○ ON
⑥	Integrator Code:	1
⑦	System Code:	1
Unit		
⑧	Prefix ID:	1
⑧	Unit ID:	1
Talkgroup		
⑨	Prefix ID:	1
⑩	Talkgroup ID:	1
Encryption		
⑪	Encryption:	● Disable ○ Enable
Status		
⑫	Connection Status:	Not Connected [Connection] [Refresh]

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

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

③Local Port Number ………   Enter the Data Receive Port number which is set in the UC-FR5000.

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

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

⑥Integrator Code …………   Displays the Integrator Code which is set in the UC-FR5000.

⑦System Code ……………   Displays the System Code which is set in the UC-FR5000.

Unit
⑧Prefix ID/Unit ID …………   Enter the Prefix ID (for NXDN Trunking) and Unit ID which are set in the UC-FR5000.   (Default: 1)

Talkgroup
⑨Prefix ID……………………   Enter the Prefix ID (for NXDN Trunking) which is set in the UC-FR5000.   (Default: 1)

⑩Talkgroup ID ………………   Enter the Talkgroup ID.   (Default: 1)

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

■ Digital Transceiver Connection (continued) **Mode: NXDN Trunking**

Digital Transceiver Connection

① Repeater Address:
② Repeater Port Number: 41220
③ Local Port Number: 43000
④ Connect Key: ucfr5000
⑤ Area Bit: ⦿ OFF ○ ON
⑥ Integrator Code: 1
⑦ System Code: 1

Unit
⑧ Prefix ID: 1
⑧ Unit ID: 1

Talkgroup
⑨ Prefix ID: 1
⑩ Talkgroup ID: 1

Encryption
⑪ Encryption: ⦿ Disable ○ Enable

Status
⑫ Connection Status: Not Connected   Connection   Refresh

⑪ Encryption …………………   Select "Enable" to encrypt the communication.   (Default: Disable)
     • When you select "Enable," enter the appropriate key to [Encryption Key].

Status
⑫ Connection Status ………   Displays the communication status.

    <Connection>
     Click to connect to the UC-FR5000.
     • "Connecting" appears while connecting to the UC-FR5000.

    <Reload>
     Click to update the status.

8. [Port Settings] Menu (continued)

■Digital Transceiver Communication (Mode: NXDN Trunking)

Set the calling details.

Digital Transceiver Communication

① Talk-Back: ○ Disable ⦿ Enable   Talk-Back Time [5 ▼] seconds
② RX All Call: ⦿ Disable ○ Enable
Default Callee ID
③ Call Type: [Group ▼]
④ Destination Prefix ID: [1]
⑤ Destination ID: [1]

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

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)

8. [Port Settings] Menu (continued)

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

■Digital Transceiver Control   Mode: NXDN Trunking

Set the calling details.

Digital Transceiver Control

Release Time: 200 ▼ 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.

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:		
② TCP Port Number:	41203	
③ UDP Port Number:	41223	
④ Connect Key:	ucfr5000	
Packet Encryption:	◉ Disable ○ Enable	
Unit		
⑤ Unit ID:	1	
Talkgroup		
⑥ Talkgroup ID:	1	

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

②TCP Port Number ………   Enter the Connection Receive Port number which is set in the UC-FR5000.
(Default: 41200)

③UDP Port Number ………   Enter the Data Receive Port number which is set in the UC-FR5000.
(Default: 41220)

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

Unit
⑤Unit ID ……………………   Enter the Unit ID.   (Default: 1)

Talkgroup
⑥Talkgroup ID ………………   Enter the Talkgroup ID.   (Default: 1)

8. [Port Settings] Menu

■Digital Transceiver Connection (continued)   Mode: NXDN Conventional

RAN
①RX RAN …………………… Enter the RAN code for receiving. (Default: 1)

②TX RAN …………………… Enter the RAN code for transmitting. (Default: 1)

③Appointment ……………… Enter the check mark when you separately set the TX RAN.

④Encryption ………………… Select "Enable" to encrypt the communication. (Default: Disable)
• When you select "Enable," enter the appropriate key to [Encryption Key].

Status
⑤Connection Status ……… Displays the communication status.

<Connection>
Click to connect to the UC-FR5000.
• "Connecting" appears when connected to the UC-FR5000.

<Refresh>
Click to refresh the status.

8. [Port Settings] Menu (continued)

■Digital Transceiver Communication ⟨ **Mode: NXDN Conventional** ⟩

Set the calling details.

Digital Transceiver Communication

① Talk-Back: ○ Disable ◉ Enable   Talk-Back Time [5 ▼] seconds
② Digital SQL: ◉ Disable ○ Enable
③ RX All Call: ◉ Disable ○ Enable
Default Callee ID
④ Call Type: [Group ▼]
⑤ Destination ID: [1]

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

②Digital SQL ………………   Select "Enable" to enable the digital squelch.   (Default: Disable)

③RX All Call …………………   Select "Enable" to permit all talkgoups to receive the call.
                                                                        (Default: Disable)

Default Callee ID
④Call 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.

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

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: [200 ▾] 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.

■Digital Transceiver Connection   Mode: dPMR Mode2

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

Digital Transceiver Connection

① Repeater Address:
② TCP Port Number: 41200
③ UDP Port Number: 41220
④ Connect Key: ucfr5000
⑤ Packet Encryption: ○ Disable ⦿ Enable   Key 00000000

Unit
⑥ Unit ID: 1

RX ID Range
⑦ Talkgroup ID (Start):   100000

Talkgroup
⑧ Talkgroup ID: 100000

CC
⑨ RX CC: 0
⑩ TX CC: ⑪ ☐ Appointment 0

Scrambler
⑫ Scrambler: ○ Disable ⦿ Enable   Scrambler Key 1

Status
⑬ Connection Status: Not Connected   Connection   Refresh

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

② TCP Port Number ………   Enter the Connection Receive Port number which is set in the UC-FR5000.
(Default: 41200)

③ UDP Port Number ………   Enter the Data Receive Port number which is set in the UC-FR5000.
(Default: 41220)

④ Connect Key ………………   Enter the Key Code which is set in the UC-FR5000.   (Default: ucfr5000)

⑤ Packet Encryption ………   Select "Enable" to encrypt the data packet.   (Default: Disable)
• When you select "Enable," enter the appropriate key to [Key].

Unit
⑥ Unit ID ……………………   Enter the Unit ID which is set in the UC-FR5000.   (Default: 1)

RX ID Range
⑦ Talkgroup ID (Start) ………   Enter the Talkgroup Start ID.   (Default: 100000)

Talkgroup
⑧ Talkgroup ID ………………   Enter the Talkgroup ID.   (Default: 100000)

8. [Port Settings] Menu (continued)

■ Digital Transceiver Connection (continued)   Mode: dPMR Mode2

Digital Transceiver Connection

① Repeater Address:
② TCP Port Number: 41200
③ UDP Port Number: 41220
④ Connect Key: ucfr5000
⑤ Packet Encryption: ○ Disable ⦿ Enable   Key 00000000
Unit
⑥ Unit ID: 1
RX ID Range
⑦ Talkgroup ID (Start):   100000
Talkgroup
⑧ Talkgroup ID: 100000
CC
⑨ RX CC: 0
⑩ TX CC: ⑪ ☐ Appointment 0
Scrambler
⑫ Scrambler: ○ Disable ⦿ Enable   Scrambler Key 1
Status
⑬ Connection Status: Not Connected Connection   Refresh

CC
⑨ RX CC ……………………   Enter the CC for receiving.   (Default: 0)

⑩ TX CC ……………………   Enter the CC for transmitting.   (Default: 0)
                            • Enter the check mark in [Appointment] to separately set the TX CC.

⑪ Appointment ………………   Enter the check mark when you separately set the TX CC.

Scrambler
⑫ Scrambler …………………   Select "Enable" to encrypt the audio packet.   (Default: Disable)
                            • Enter the Scrambler Key when you select "Enable."

Status
⑬ Connection Status ………   Displays the communication status.   (Default: 1)

                            <Connection>
                            Click to connect to the UC-FR5000.
                            • "Connecting" appears when connected to the UC-FR5000.

                            <Refresh>
                            Click to update the status.

8. [Port Settings] Menu (continued)

■Digital Transceiver Communication ⟨ **Mode: dPMR Mode2** ⟩

Set the calling details.

Digital Transceiver Communication

① Talk-Back: ○ Disable ◉ Enable   Talk-Back Time [5 ▾] seconds
② Digital SQL: ◉ Disable ○ Enable
③ RX All Call: ◉ Disable ○ Enable
Default Callee ID
④ Call Type: [Group ▾]
⑤ Destination ID: [100000]

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

② Digital SQL ……………… Select "Enable" to enable the digital squelch.   (Default: Disable)

③ RX All Call ………………… Select "Enable" to permit all talkgoups to receive the call.
(Default: Disable)

Default Callee ID
④ 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.

⑤ Destination ID …………… Enter the destination ID.   (Default: 100000)
ID range: (Depending on the system mode)

■Digital Transceiver Control ⟨ **Mode: dPMR Mode2** ⟩

Set the calling details.

Digital Transceiver Control

Release Time: [200 ▾] 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.

8. [Port Settings] Menu (continued)   [Port Settings]–[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

■Bridge Communication

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

Configure these call settings to call the transceiver (or audio device) that is connected to the [EXT1]/[EXT2] port in the Bridge mode.

Bridge Communication

① Encryption: ⦿ Disable ○ Enable
Default Callee ID
② Default Callee ID: ○ Disable ⦿ Enable
③ Call Type: [Group ▽]
④ Destination Prefix ID: [   ]
* ⑤ Destination ID: [1   ]
⑥ My Station Prefix ID: [   ]
⑦ My Station ID: [1   ]

*Appears when "Enable" is selected in [Default Callee ID].

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 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: 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

①Input Connection Port ......   Select the port which outputs the received audio signal.
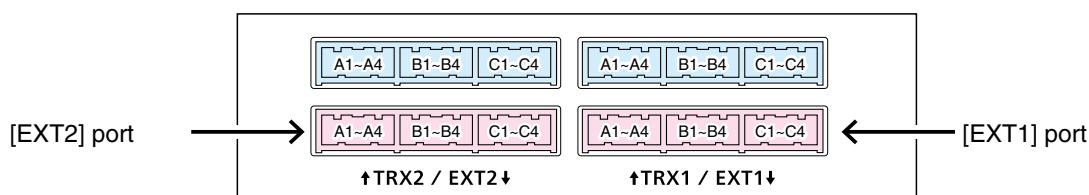
(Default: IP Network)

• **EXT Output:** Sends the audio signal to the [EXT1]/[EXT2] port.

• If "Combine" is selected in the [EXT I/O Mode] item, this item cannot be selected.

• **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. (The [Emergency Notice] on the [Emergency Notice] screen)

• 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.

8. [Port Settings] Menu   [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: 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

②Valid 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 "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].

③Power for the Microphone…   Select "Enable" to supply the voltage to the microphone connected to A3/A4 terminal (Audio input) microphone.   (Default: Disable)

④Reference 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.

[EXT2] port ⟶

| A1~A4 | B1~B4 | C1~C4 | | A1~A4 | B1~B4 | C1~C4 |
| A1~A4 | B1~B4 | C1~C4 | | A1~A4 | B1~B4 | C1~C4 |

⬆TRX2 / EXT2⬇   ⬆TRX1 / EXT1⬇

⟵ [EXT1] port

VE-PG3 (Rear view)

• See Section 8 for port details.

8. [Port Settings] Menu   [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: 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

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)
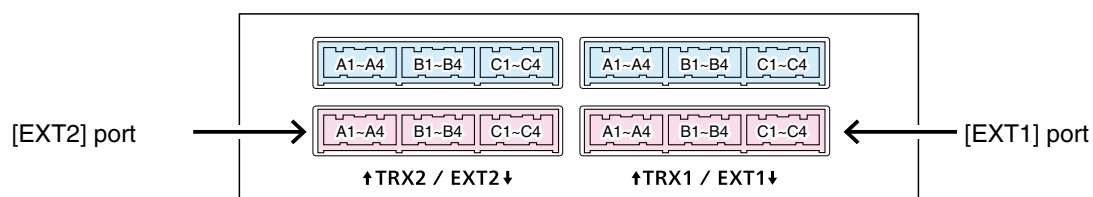
[EXT2] port ⟶   ⟵ [EXT1] port

⬆TRX2 / EXT2⬇   ⬆TRX1 / EXT1⬇

VE-PG3 (Rear view)
• See Section 8 for port details.

8. [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.

Note: Appears when "Always-on Connection" or "Control Data Detection" in the [Valid Timing] item.

Voice Control

Voice Delay: 5   milliseconds   *Setting values are set in five milliseconds steps.

Voice Delay …………………   Set the audio signal buffer time to prevent intermittent audio in 5 milliseconds
step.   (Default: 5)
Range: 0 to 995 milliseconds in 5 milliseconds step
The VE-PG3 stores the audio for the specified time of period to prevent the
beginnings of phrases are clipped.

8. [Port Settings] Menu (continued)   [Port Settings]–[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

■Voice Reception Control from the EXT Device

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

Note: Appears only when "Voice Data Detection" is selected in [Valid Timing].

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:	50	milliseconds
② Release Time:	200	milliseconds
③ Voice Delay:	5	milliseconds
④ Voice Threshold:	40	%

①Attack 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.

②Release 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.

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

Range: 0 to 500 milliseconds

The audio signal is sent after the set delay. Higher value may improve the missing of beginning of speech.

④Voice 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.

8. [Port Settings] Menu (continued)   [Port Settings]–[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

■EXT Control Terminal

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

Note: Appears only when "Voice Data Detection" is selected in [Valid Timing].

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: ○ Disable ⦿ Enable

①Input 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.

The input signal has been detected for the period of time, which is set in the [Event ON Time], the VE-PG3 recognizes the signal input and retains the condition for the period of time, which is set in the [Event OFF Time].

• 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.

The input signal has been detected for the period of time, which is set in the [Event ON Time], the VE-PG3 recognizes the signal input and retains the condition for the period of time, which is set in the [Event OFF Time].

②Event 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)
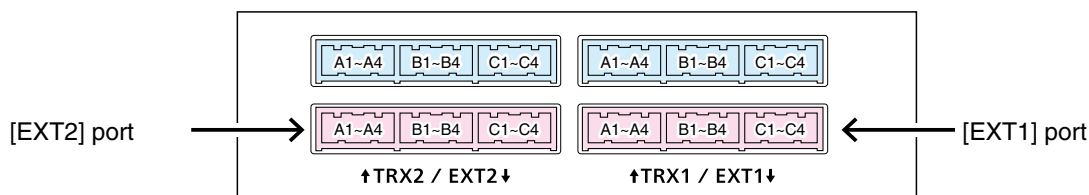
VE-PG3 (Rear view)

• See Section 8 for port details.

■EXT Control Terminal (continued)

EXT Control Terminal

① Input Type: 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: ○ Disable ● Enable

③Event 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)
Note: The suitable delay time may differ, depending on the audio device.

④Control 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).

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

[EXT2] port → | A1~A4 | B1~B4 | C1~C4 | | A1~A4 | B1~B4 | C1~C4 | ← [EXT1] port
↑TRX2 / EXT2↓   ↑TRX1 / EXT1↓

VE-PG3 (Rear view)
• See Section 8 for port details.

8. [Port Settings] Menu (continued)   [Port Settings]–[EXT Output 1 (EXT1)/EXT Output 2 (EXT2)]
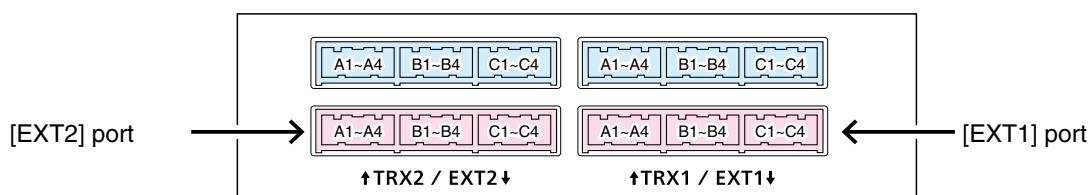
■Bridge Communication

When "AMBE+2" is selected in [Audio Codec] and encryption is used, this configuration is necessary.

Note: When you use the encryption, you have to assign the use of CT-24 to the [EXT Output 1 (EXT1)/EXT Output 2 (EXT2)] in the [IP Communication Mode] item on the [Operating Mode] screen.

• When "G.711u" is selected in [Audio Codec], this configuration is NOT necessary even encryption is used.

Bridge Communication

Encryption: ⦿ Disable ○ Enable

Encryption ……………………   Select "Enable" to encrypt the communication using AMBE+2 codec.

(Default: Disable)

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

8. [Port Settings] Menu (continued)   [Port Settings]–[EXT Output 1 (EXT1)/EXT Output 2 (EXT2)]

■Control Circuit

Configure the details of the control circuit 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 [Short ▼]

① Control Circuit Change …   Select the control circuit type.   (Default: Control Output Circuit)
        Note: If "Relay" is selected, "Full-Duplex" is automatically selected in the [Communication Control] item on the [Transceiver 1 (TRX1)/ Transceiver 2 (TRX2)] screen.

```
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 mA
        Note: If "Enable" is selected in [8V Power Source], "Full-Duplex" is automatically selected in the [Communication Control] item on the [Transceiver 1 (TRX1)/Transceiver 2 (TRX2)] screen.

8. [Port Settings] Menu (continued)   [Port Settings]–[EXT Output 1 (EXT1)/EXT Output 2 (EXT2)]

■Serial Communication
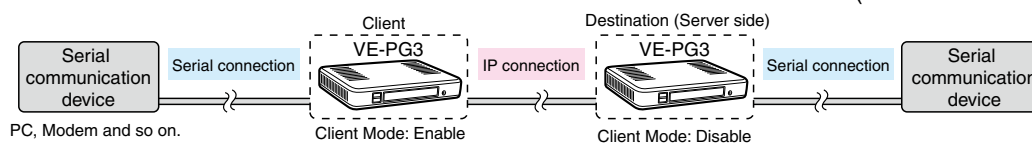
Set the serial communication details.
Note: The setting items appear only when "Enable" is selected in [Serial Communication].

*Appears only when "Manual" is selected in [Data mode].

①Serial Communication ....   Select "Enable" to use the serial communication.   (Default: Disable)

②Client Mode ....   Select "Enable" to use the serial communication as the client. (Default: Disable)

③TCP Port Number ....   Enter the port number between 1024 and 65535.

(Default: EXT1= 50002, EXT2= 50003)

④Server Address......................   Enter the destination VE-PG3's IP address.

⑤Server Port Number ....   Enter the destination VE-PG3's port number.

Range: "1024" to "65535"   (Default: EXT1=50002, EXT2=50003)

⑥Communication Control ....   Select the communication type.   (Default: Full-Duplex)

⑦Signal Level ....   Select the serial communication line signal level from "±5 V (RS-232C),"
"0V/5V (Logic)" and "0V/3V (Logic)."   (Default: ±5 V (RS-232C))

⑧Data Mode…………………   Select the communication method for the Serial Communication between a
device and the VE-PG3.   (Default: Auto)
• **Auto:**   Automatically starts the serial communication from a Virtual
Serial Port installed on your PC.
• **Manual:**   Manually sets a serial communication method for a device.

⑨Baud Rate.............................   Select a serial communication speed between a device and the VE-PG3.
(Default: 9600)

⑩Data Bits................................   Select the bit length for the serial communication between 5 and 8.   (Default: 8)

⑪Parity......................................   Select a parity bit of [none], [odd], or [even].   (Default: none)

⑫Stop Bits................................   Select the stop bit length for the data of 1 or 2.   (Default: 1)

⑬Session Timer.........................   Set the time to cut the TCP session when no packet from the host.   (Default: 30)
Range: 0 to 86400 seconds *The timeout does not occur when "0" is set.

⑭Connection Status..................   Displays the connection status. Click "Connection" to connect the serial com-
munication.   5-98

8. [Port Settings] Menu (continued)   [Port Settings]–[EXT Output 1 (EXT1)/EXT Output 2 (EXT2)]

■EXT Voice Terminal

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

EXT Voice Terminal

① Reference Level: -20dBs
② Output Analog Gain: 0   dB
③ Output Digital Gain: 0   dB

①Reference Level …………   Select the output level of A1/A2 terminal (Audio output), from "Speaker,"
"0dBs" and "–20dBs."   (Default: –20dBs)

②Output Analog Gain………   Set the analog signal input (A1/A2 terminal (Audio output)) gain.   (Default: 0)
Range: "+15" to "–30"

③Output Digital Gain ………   Set the digital signal input (A1/A2 terminal (Audio output)) gain.   (Default: 0)
Range: "+6" to "–12"

8. [Port Settings] Menu (continued)   [Port Settings]–[EXT Output 1 (EXT1)/EXT Output 2 (EXT2)]

■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 items appear 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: VOX

② Attack Time: 50   milliseconds

③ Release Time: 200   milliseconds

④ Voice Delay: 5   milliseconds

⑤ Voice Threshold: 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: 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.

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.

8. [Port Settings] Menu (continued)

■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: [RTP synchronization ▼]
② Release Time: [100] milliseconds
③ Voice Delay: [5] milliseconds

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

①Control 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.

②Release 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 the RTR packet is not received.

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

Range: 0 to 500 milliseconds

Higher value may improve the missing of beginning of the speech.

The VE-PG3 stores the audio for the specified time of period to prevent the beginnings of phrases are clipped.

8. [Port Settings] Menu (continued)   [Port Settings]–[Controller 1–Controller 4]

■Controller Connection

Configure the connection to IP1000C.

Controller Connection

① Controller Address:
② Controller Port Number: 32000
③ Local Port Number: 32010
④ Connection Status: Not connected   Connect   Refresh

① Controller Address ………   Enter the IP1000C's IP address.

② Controller Port Number …   Enter the service port number which is set in the [Service Port Number] item
                                     on the [Additional Controller Settings] screen of the IP1000C.

                                                                              (Default: 32000)

                                     Range: "2" to "65534" (only even numbers)
                                     Note: Set the port number different from that of any other device on the network.

③ Local Port Number ………   Enter the destination IP1000C's service port number.
                                     Set these number to the [Destination Port Number] item on the [Additional
                                     Controller Link] screen of the IP1000C.   (Default: 32010 (Controller 1)
                                                                                              32012 (Controller 2)
                                                                                              32014 (Controller 3)
                                                                                              32016 (Controller 4))
                                     Range: "2" to "65534" (only even numbers)
                                     Note: Set the port number different from that of any other device on the network.

④ Connection Status ………   Displays the connection status between the VE-PG3 and the IP1000C.

                                     <Connect>/<Disconnect>
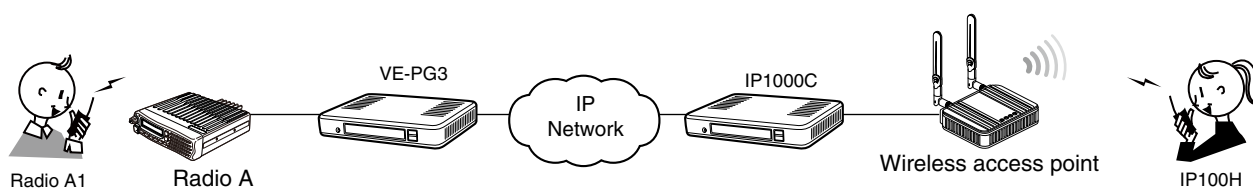   Click to connect or disconnect the connection.
                                     • You can click <Connect> if [Controller Address] is blank.
                                        Note : You cannot change the setting while connecting. Click <Disconnect>
                                              before changing the setting.
                                     <Refresh>
                                     Click to update the status.

An example of communicating using IP1000C

8. [Port Settings] Menu (continued)   [Port Settings]–[Controller 1–Controller 4]

■Controller Communication

Configure the communication between IP1000C.

Controller Communication

① Encryption: ◉ Disable ○ Enable
Default Callee ID
② Call Type: Group ▼
③ Tenant Number: 1
④ Destination ID: 0001
⑤ My Station ID: 0001

① Encryption ………………… Select "Enable" to encrypt the communication.   (Default: Disable)
• When you select "Enable," enter the appropriate key to [Encryption Key].
Note: This setting takes effect when AMBE+2 codec is used.

② 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.

③ Tenant Number ………… Enter the IP1000C's Tenant number.   (Default: 1)
Range: "1" to "10"

④ Destination ID …………… Enter the ID of the SelCall destination.   (Default: 0001)
Range: "0001" to "9999"

⑤ My Station ID …………… Enter the station ID.   (Default: 0001)
Range: "0001" to "9999"

8. [Port Settings] Menu (continued)

■Bridge Communication

Configure the encryption of Bridge communication.

Bridge Communication

① Encryption: ○ Disable ● Enable Encryption Key 1
Default Callee ID
② Default Callee ID: ○ Disable ● Enable
③ Call Type: Group ▾
④ Destination Prefix ID:
*⑤ Destination ID: 1
⑥ My Station Prefix ID:
⑦ My Station ID: 1

* Appears when "Enable" is selected in [Default Callee ID].

①Encryption ………………… Select "Enable" to encrypt the communication.   (Default: Disable)
• When you select "Enable," enter the appropriate key to [Encryption Key].
Note: This setting takes effect when AMBE+2 codec is used.

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

③Call 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.

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

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

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

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

9. [Expansion] Menu

■V/RoIP

Configure the G.711u Audio Codec setting.

V/RoIP

① Frame Time: 20 ▼ milliseconds
② Receive Buffer Size: 40 ▼ milliseconds

①Frame Time ……………… Select the frame transmit interval in the digital communication with the G.711u Audio Codec.   (Default: 20)
Select the interval from "10," "20," "30," "60," "90" and "120" milliseconds.
Lower value improves the delay, depending on your network environment.

②Receive Buffer Size ……… Select the buffer time to keep the audio from breaking up.   (Default: 40)
Range: "20" to "160" (in 20 millisecond step)
Lower 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 7   Service Type 0   (HEX): E0

TOS: Diffserv

TOS

① TOS Type: ○ Not used ○ TOS ⦿ Diffserv
② Media (RTP):   DSCP 56   (HEX): E0

①TOS 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.
>   0 to 3 bits represent the precedence in 8 step.
>   4 to 7 bits represent the TOS.
> • **Diffserv**
>   Sends the VoIP packets to TOS field (8 bits) in the IP header using the Diffserv (Differentiated Services Code Point) format.
>   0 to 5 bits represent the precedence in 64 step.

9. [Expansion] Menu

■ 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 7   Service Type 0   (HEX): E0

TOS: Diffserv

TOS

① TOS Type: ○ Not used ○ TOS ⦿ Diffserv
② Media (RTP):   DSCP 56   (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)
  Higher level makes the priority higher.
• 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 Output 1 (EXT1):	● Disable ○ Enable
EXT Output 2 (EXT2):	● Disable ○ Enable
④ Controller 1:	● Disable ○ Enable
Controller 2:	● Disable ○ Enable
Controller 3:	● Disable ○ Enable
Controller 4:	● Disable ○ Enable
⑤ 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)

• One CT-24 is necessary for each D-TRX port to notice.

③ EXT I/O 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 Controller 1 –

Controller 4 ………………   If you select "Enable," the emergency notice is sent to the IP1000C and routed to the subordinated transceivers.

(Default: Disable)

⑤ Emergency Notice Equipment   If you select "Enable," the emergency notice is sent to the specified Bridge-connected 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: ○ Disable ◉ Enable
Control Output: [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: ○ Disable ◉ Enable   *LAN port downlink is enabled when monitoring is enabled.
Control Output: [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: [   ]
Monitor Period: [10   ]   minutes

• This is an example.

①LAN Port Downlink ………   **Monitoring**
                                    Select "Enable" to automatically detect the communication error.
                                    When the Ethernet cable disconnects from the VE-PG3's [LAN] port, the
                                    [WAN] LED lights 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/B2 terminal (+/–).

■Abnormal Condition Monitoring (continued)

Abnormal Condition Monitoring

①**LAN Port Downlink**

Monitoring: ○ Disable ◉ Enable

Control Output: [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: ○ Disable ◉ Enable   *LAN port downlink is enabled when monitoring is enabled.

Control Output: [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: [   ]

Monitor Period: [10]   minutes

• This is an example.

②PING test …………………

Monitoring

Select "Enable" to send the PING commands to the host specified by the IP address.   (Default: Disable)

When the communication error is detected, 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 PING commands.

Monitor Period:

Set the monitor period between 1 to 4320 minutes.   (Default: 10)

10. [Management] Menu

■ 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.

Only administrator can access the VE-PG3 utility.

• 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.

• All input characters are displayed as " * " or "•."

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).

10. [Management] Menu (continued)

■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)   ③
② Manually Set Time: 2012 /12 /20 15 :48   (Year/Month/Day Hour:Minute)   [Set]

①Current Time………………   The time when you accessed the VE-PG3's setting screen is displayed.

②Manually Set Time ………   Set the date and time, if you want to manually set it.

③<Set> ………………………   Click to synchronize the internal clock with the displayed time.
                                 Note: If you manually set the time, updated the browser screen.

■Time Zone

Set the appropriate Time Zone.

Time Zone

① Time Zone: Etc/UTC   ▼
② Use Daylight Savings Time: ○ Disable ◉ Enable

①Time Zone…………………   Select the appropriate Time Zone.

②Use Daylight Savings Time   Select "disable" if necessary.

10. [Management] Menu (continued)   [Management]–[Date and Time]

■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:	○ Disable ● Enable	
② NTP Server 1:	210.173.160.27	
③ NTP Server 2:	210.173.160.57	
④ Polling Interval:	1 days	
⑤ Last Update:	----/--/-- --:--	
⑥ Next Update:	2014/02/15 02:45	⑦ Apply Reset

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 (everyday) to 99 (day)
Note: If the VE-PG3 cannot access the time management server (NTP), then the VE-PG3 waits for the next interval.

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.

⑦ <Apply> ……………………… Select "Enable" in "NTP Client," and then click to access the NTP server and synchronize the internal clock with the server.

10. [Management] Menu (continued)

■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 …………………………   ISelect 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.

10. [Management] Menu (continued)

■SNMP

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

SNMP

① SNMP: ○ Disable ● Enable
② Get Community: public
③ System Location:
④ System Contact:

①SNMP………………………   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
                         ☑ Load Custom Hold Music

①USB 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
           ☑ Load Custom Hold Music)

• **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.

• **Load Custom Hold Music**

Enter the check mark to automatically load a hold music audio file (.wav) from the inserted USB flash device.

Note: The maximum duration of audio file is a minute.

Note:

• Only one USB flash drive can be used at a time.

• Disconnect the DC cable from the VE-PG3, before inserting the flash drive.

• We recommend to make a backup.

• Some USB flash drives cannot be used.

■Reboot

Click to reboot the VE-PG3.

Click [Reboot], and then click [OK] in the Confirm window.

Note: Rebooting takes about 40 seconds.

Reboot

Reboot Now: Reboot

(Screen while rebooting)

Rebooting

Now rebooting.

Wait 36 seconds for startup.

If this page doesn't automatically refresh after rebooting, click [Back].
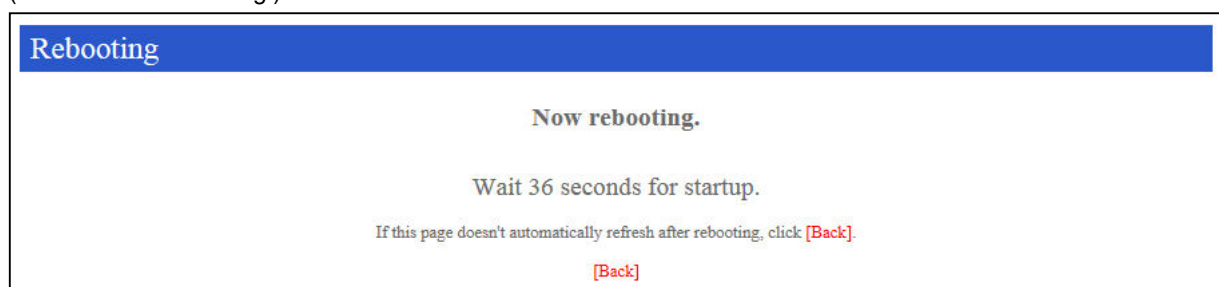
[Back]

■Backup Settings

Save the settings to the PC, or USB flash device which is connected to the PC.

Backup Settings

Save to File: Backup

Backup ………………………   Click and then select the folder in the file select dialog window.

■Restore Settings

Load the VE-PG3's settings file and then apply it.

Restore Settings

① Load Settings from File: Browse...
② Restore: Restore

①Load Settings from File …   Click <Browse...> to select the firmware file.

② Restore ………………………   Click to overwrite the selected firmware to the VE-PG3.
                                                 • The VE-PG3 automatically reboots.

■Online Settings

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

• An SFTP server is required to use this function.

Online Settings

① Online Settings: ⦿ Disable ○ Enable
② Sever Host Name: [   ]
③ Subscriber Name: [   ]
④ Password: [   ]
⑤ Upload: [Upload]
⑥ Download   [Download]

①Online Settings ……………   Select "Enable" to use this function.   (Default: Disable)
                              Note: If no SFTP server is on the network, this function cannot be used even
                                    if "Enable" is selected.

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 and the all settings are updated.

10. [Management] Menu (continued)

■List of Settings

Displays the history of the setting modifications.

• 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 according to the selected option.

Factory Defaults

① ○ Restore to Factory Defaults: Restore all the settings to factory defaults.
② ○ Restore V/RoIP Settings to Factory Defaults: Restore [Operating Mode][Bridge Connection] [Port Settings][Expansion] to factory defaults.

③
Restore
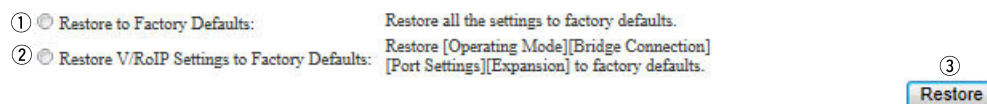
①Restore to Factory Default   Select this item, and then click <Restore> to restore all the settings to the factory defaults.
    • After initializing, re-set the VE-PG3's IP address, operating mode, and so on.
    • The VE-PG3's default IP address is "192.168.0.1."

② Restore V/RoIP Settings to Factory Default
    Select this item, and then click <Restore> to restore the settings.

    • In the Bridge mode:
    [Operating Mode], [Bridge Connection], [Port Settings], [Transceiver 1/2 (TRX1/2)] and [Expansion] are restored.

    • In the Converter mode:
    [Operating Mode], [V/RoIP], [Extension Connect], [Port Settings], [Transceiver Connection] and [Expansion] are restored.

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

■Firmware Status

Displays the firmware version.

Firmware Status

IPL:	Rev. 6
Version:	

Note: About the Firmware update

• Do not turn OFF the VE-PG3's power before the firmware update has been completed.

• You cannot update the firmware in the following conditions.

  - There is an ongoing emergency call.

  - There is an ongoing call on the IP phone in the Converter mode.

10. [Management] Menu (continued)

■Online Update

Updates the firmware by using the Firmware Update function

Note: An internet connection is necessary for this function.

• See page 7-8 for updating details.

Online Update

Check for Updates: [Check]

Check for Updates   …………   Click to access the update management server.

When successfully accessed to the server, the latest firmware version is displayed as below.
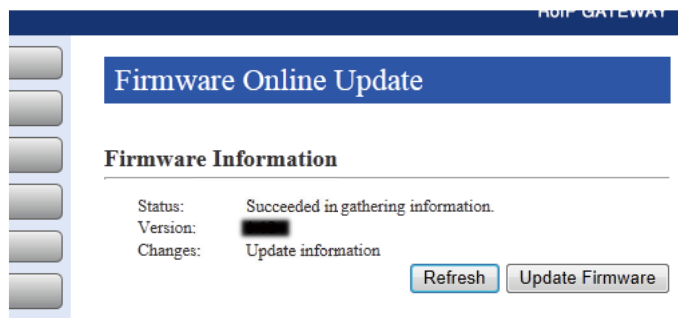
(This is an example.)

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 an 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)
                          • If you select "Disable," you have to manually update the firmware.

■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: [   ] [Browse...]
② Firmware Update: [Update]

①Update Firmware using File   Click <Browse...> to load the firmware file, then select the firmware file
                              (extension: dat) and click "<Open" in the file select window.
                              Verify that the path to the selected file is displayed in the input form.

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

CONVERTER MODE SETTING SCREEN

Section 6

(Continued from the previous page.)

(Continued from the previous page.)

1. About the setting screen

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.

Now rebooting is displayed on the screen.

• If the setting screen does not automatically return, click [Back].
• Items and buttons may differ, depending on the setting.

① **Link to the Icom web site**

Click the Icom logo to open the Icom web site.

② **Setting menu**

Displays the screen name list on the menu line. Click the menu title, then select the desire setting item from the drop down list.

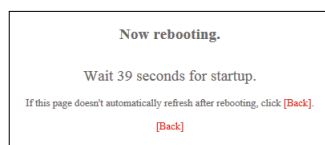Click [TOP] to expand or contract the menu items.

6 CONVERTER MODE SETTING SCREEN

■System Status

Displays the VE-PG3's version information and WAN MAC and LAN MAC addresses.

System Status

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

- The MAC address is a unique address which is assign to any kind of network device. The MAC address consists of 12 digit number.
- The MAC addresses are also printed on the label on the bottom of the VE-PG3.

■Network Status

Displays the VE-PG3's network

Network Status

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

- If [Connection Type] and [Connection Setting] are configured on the [WAN] screen, the WAN IP address is displayed .

■Operating Mode Status

Displays the operating mode status of the [EXT1] and [EXT2] ports.

Operating Mode Status

Operating Mode		Converter 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)

- The configured settings, which are set to [Operating Mode] and [EXT I/O Port Mode] in the [Operating Mode] menu is displayed.

■IP Line Status

Displays the communication status with a VoIP router.

IP Line Status

IP Line	0501234567	Connecting

(This is an example.)

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

2. [TOP] Menu (continued)

■Bridge Connection Status

Displays the communication status 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 Connection Status

Displays 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 outgoing line type to call.

Phone Extension Status

Transceiver 1 (TRX1)		Not Set
Transceiver 2 (TRX2)		Not Set
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
SIP Phone (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
Bridge 1		Not Set
Bridge 2		Not Set
Bridge 3		Not Set
Bridge 4		Not Set

■SYSLOG

Displays the latest 500 log entries.

SYSLOG

Current: DEC 20 2012 09:23:19 (Uptime: 0 days 00:11:09)
① Severity: ☑ DEBUG ☑ INFO ☑ NOTICE   ②   ③
                                [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	vox radio tx init (1)
DEC 20 09:12:19	NOTICE	
DEC 20 09:12:19	NOTICE	

⑤

                                           ④ [Save]

(This is an example.)

① Severity .... Selects the log information to display.

                            Enter the check mark to display the log entries.

                            Remove the check mark and click <Refresh> to hide the entries.

                                      (Default: ☑ DEBUG ☑ INFO ☑ NOTICE)

                            [To select the severity to display]

                            Remove the check mark in the box to hide, and enter the check mark to display.

                            Note: The selection is not stored, and reset when you leave this screen.

② <Refresh> .... Click to update the log screen.

                            Note: When the number of entries exceeds 511, the oldest entry is deleted instead of recording a new one.

③ <Clear> .... Click to delete all log entries.

                            Note: All log entries are also deleted when the VE-PG3 is turned OFF or initialized.

④ <Save> .... Click to save the log to a PC with a text file (extension: "txt").

                            • Click this button, and then select a folder to save the file.

                            Note: Only the selected severities are saved.

⑤ (SYSLOG display) .... Log entries are displayed.

3. [Information] Menu (continued)

■Call/Reception Record

Displays the VE-PG3's communication history of calls made and received.

• Up to 1000 record entries can be stored.

• If the number of entries exceeds 1000, the oldest entry is deleted.

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> …………………… Click to save the history as the text file (extension: "txt"), and then select a folder to save it in.

4. [Network] Menu

■Host Name

Enter the host name.

Host Name

Host Name: VE-PG3

Host Name........................   Enter a host name of up to 31 characters.   (Default: VE-PG3)

• The name will be displayed when you access the VE-PG3 by telnet.

Usable characters: A–Z, a–z, –.

Note: The name must start with an alphanumeric character, and must NOT end with a "–."

4. [Network] Menu (continued)   [Network]–[IP Address]

■IP Address

Enter the VE-PG3's IP Address.

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 LAN IP address according to your network environment.

(Default: 192.168.0.1)

Note: When using the DHCP Server function, the network part of the IP address must be the same as that set in the [IP Pool Start Address] item in the [DHCP Server] menu. (p.5-13)

② Subnet mask .... Enter the subnet mask according to your network environment.

(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 .... If a default gateway device such as a router is connected to the LAN port, enter the device's IP address.
• When the default gateway is set to the WAN side, even if the default gateway is set to the LAN side, the network route 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: [192.168.0.1]
② Subnet Mask: [255.255.255.0]
③ Default Gateway: [   ]
④ Primary DNS Server: [   ]
⑤ Secondary DNS Server: [   ]

④ Primary DNS server………   Enter the primary server address.

• You are required to set this item for the Automatic Firmware Update function.

• If you use the Router function, this setting is invalid.

⑤ Secondary DNS
server………………………   Enter the secondary server address.

• You are required to set this item for the Automatic Firmware Update function.

• If you use the Router function, this setting is invalid.

■DHCP Server

Configure the DHCP Server function.

DHCP Server

① DHCP Server:	◉ Disable ○ Enable	
② IP Pool Start Address:	192.168.0.10	
③ Pool Size:	30	
④ Subnet Mask:	255.255.255.0	
⑤ Lease Time:	72	hours
⑥ Domain Name:		
⑦ Default Gateway:		
⑧ DNS Proxy:	◉ Disable ○ Enable	
⑨* Primary DNS Server:		
⑩* Secondary DNS Server:		
⑪ Primary WINS Server:		
⑫ Secondary WINS Server:		
⑬ TFTP:	○ Disable ◉ Enable	
⑭ TFTP Server:		*If the TFTP Server setting is blank, the system IP address is used.

*Appears only when "Disable" is selected in [DNS Proxy].

①DHCP Server ……………   Select Enable to use the DHCP Server function.   (Default: Disable)
When "Enable" is selected, the DHCP Server functions according to the configuration set in ② – ⑩.

②IP Pool Start Address ……   Enter the IP pool start address.   (Default: 192.168.0.10)

③Pool Size …………………   Enter the size of the IP pool.   (Default: 30)
Note: Up to 128 addresses can be automatically assigned by the DHCP server function. Another 32 addresses can be manually assigned.
• When "0" is set, the IP address is NOT automatically assigned.

④Subnet Mask………………   Enter the subnet mask for the IP pool start address, which is set in the [IP Pool Start Address] item (②).   (Default: 255.255.255.0)

⑤Lease Time ………………   Enter the lease time period.
Range: 1 to 9999 (hours)   (Default: 72)

⑥Domain Name ……………   Enter a network address domain name of up to 127 characters.
The DHCP server sends the domain to the connected device.

⑦Default 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).
Note: Set the IP address different from that of VE-PG3's.

⑧DNS 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 been changed.
When "Disable" is selected, the addresses entered in [Primary DNS Server] and [Secondary DNS Server] are notified to the DHCP client, as the DNS server address.

■ DHCP Server (continued)

DHCP Server

① DHCP Server: ⦿ Disable ◯ Enable
② IP Pool Start Address: 192.168.0.10
③ Pool Size: 30
④ Subnet Mask: 255.255.255.0
⑤ Lease Time: 72   hours
⑥ Domain Name:
⑦ Default Gateway:
⑧ DNS Proxy: ⦿ Disable ◯ Enable
⑨ *Primary DNS Server:
⑩ *Secondary DNS Server:
⑪ Primary WINS Server:
⑫ Secondary WINS Server:
⑬ TFTP: ◯ Disable ⦿ Enable
⑭ TFTP Server: *If the TFTP Server setting is blank, the system IP address is used.

*Appears only when "Disable" is selected in [DNS Proxy].

⑨ Primary DNS Server   ……   Enter the DNS server's primary address.

⑩ Secondary DNS Server …   Enter the DNS server's secondary address.

⑪ Primary WINS Server ……   Enter the WINS server's primary address.

⑫ Secondary WINS Server…   Enter the WINS server's secondary address.

⑬ TFTP ………………………   Select "Enable" to use TFTP server, which is used for provisioning.

                                                          (Default: Enable)

                                   If you use "KX-UT series" IP phone, select "Enable."

⑭ TFTP Server ………………   Enter the TFTP server address.
                                   If the address is not specified, the VE-PG3's IP address is notified.
                                   If you use the separated SIP server, enter the server's address.

■ Static DHCP

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

Static DHCP

MAC Address	IP Address	
		Add

■ Static DHCP Table

Displays the static DHCP entries.

Static DHCP Table

MAC Address	IP Address	
▆▆▆▆▆▆▆▆	192.168.0.100	Delete

■Routing Table

Displays the routing information.

Routing Table

①Destination	②Subnet Mask	③Gateway	④Route	⑤Owner
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

① Destination ……………… The network address of the route's destination network.

② Subnet Mask …………… The subnet mask of the route's destination network.

③ Gateway ………………… The route's gateway address.

④ Route …………………… The routing interface.

- lo0:   Loop back interface
- vr0:   Static IP or DHCP client (WAN)
- pppoe0:   PPPoE (WAN)
- mirror0:   LAN

⑤ Owner …………………… The type of routing path.

- static: Static route
- misc: Broadcast frame
- host: Host route

■Static Routing

You can register up to 32 packet routing paths.

Static Routing

Destination	Subnet Mask	Gateway	
			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	
192.168.0.0	255.255.255.0	192.168.0.3	Delete

- This is an example.

<Delete> …………………… Click to delete the entry.

■QoS

Limits the bandwidth of the communication between WAN and LAN.

①QoS ………………………

Select "Enable" to apply the QoS rule set in [QoS Rule].   (Default: Enable)
When "Enable" is selected, the QoS Rule is applied according to the [QoS Rule] entries.
• You can configure the TOS for the packet, that is related to the VoIP, by setting "TOS" or "Diffserv" in the TOS Setting] item on the [VoIP Expansion] screen.

②Bandwidth 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)
Although the packets that exceed the bandwidth limit is limited, the priority packet is transmitted regardless of this setting.
Note: Even if "0.0" is set, the communication is disconnected.

■QoS Rule

Set the packet priority by the TOS value.

QoS Rule

① No.:	3 ▾
② TOS:	[_____] Entered in hexadecimal code(01 - FF)

①No. …………………………   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.

• The rule entries are displayed on the [List of QoS Rule Entries].

②TOS   ………………………   Enter the TOS value for the reference.

Range: "01" to "FF" (in hex)

■List of QoS Rule Entries

• This list is displayed when "Enable" is set to the [QoS] item.

• The TOS value "E0" and "C0" are set as the default, for the VoIP packet priority.

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.

5. [Router] Menu

• See section 5 for the [Router] Menu in the Bridge mode.

■ Operating Mode

Select the operating mode.

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

Operating Mode

Operating Mode: Converter ∨

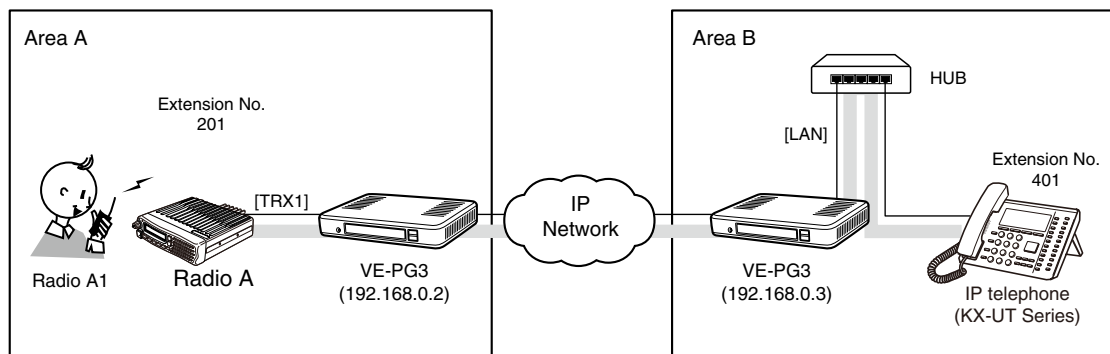Operating Mode ……………   Select the operating mode.   (Default: Bridge)

• **Bridge**

See Section 5 for the Bridge mode.

• **Converter**

When communicating between the VE-PG3 and an IP telephone, select this mode.

Area A

Extension No.
201

[TRX1]

Radio A1   Radio A

VE-PG3
(192.168.0.2)

IP
Network

Area B

HUB

[LAN]

Extension No.
401

VE-PG3
(192.168.0.3)

IP telephone
(KX-UT Series)

An example of the communication in the Converter mode

6. [Operating Mode] Menu (continued)   [Operating 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: EXT I/O Unit ▼
② EXT I/O Port Mode: Separate ▼   *Aafter changing [EXT I/O Port Mode], [EXT I/O Port] is initialized.
EXT I/O 2 (EXT2)
① Connection Unit: EXT I/O Unit ▼
② EXT I/O Port Mode: Separate ▼

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)
• If you select "Transceiver," select the device name on the [EXT I/O (1/2)] screen after the reboot.

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) input port and the external amplifier to the [EXT] (1) output port.)

• Combined
You can connect one device to the [EXT] (1) and [EXT] (2) ports.

6. [Operating Mode] Menu (continued)

■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

Apply   Reset

IP Communication Mode……   Select the mode to communicate between Bridge-connected devices, through the virtual port.   (Default: Unicast)
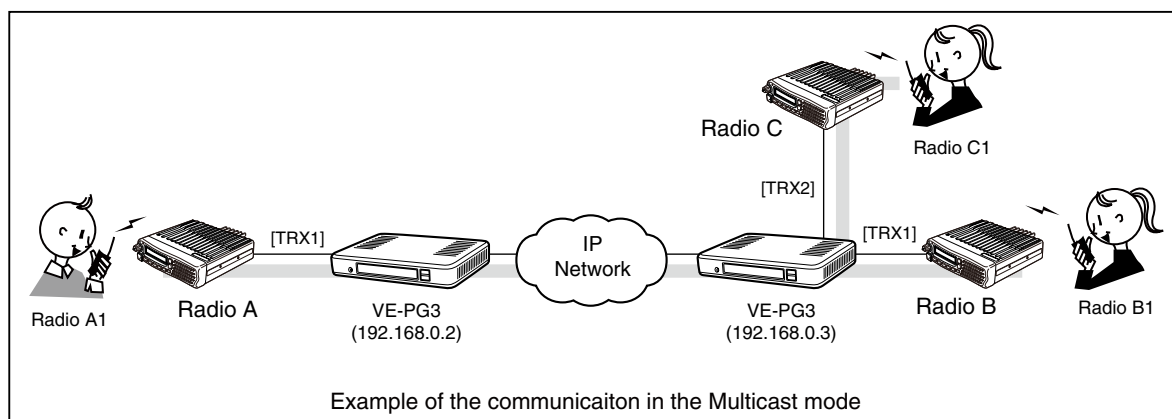
• **Multicast**

Communicates between two and more interfaces (Multi points).

The Bridge communication is available through the matched destination IP address (Multicast) and port number.

• **Unicast**

Communicates between two interfaces (Point-to-point).

The Bridge communication is available by exchanging two VE-PG3s IP address and port number.

Example of the communicaiton in the Multicast mode

Example of the communicaiton in the Unicast mode

7. [V/RoIP] Menu   [V/RoIP]–[LINE1/2]
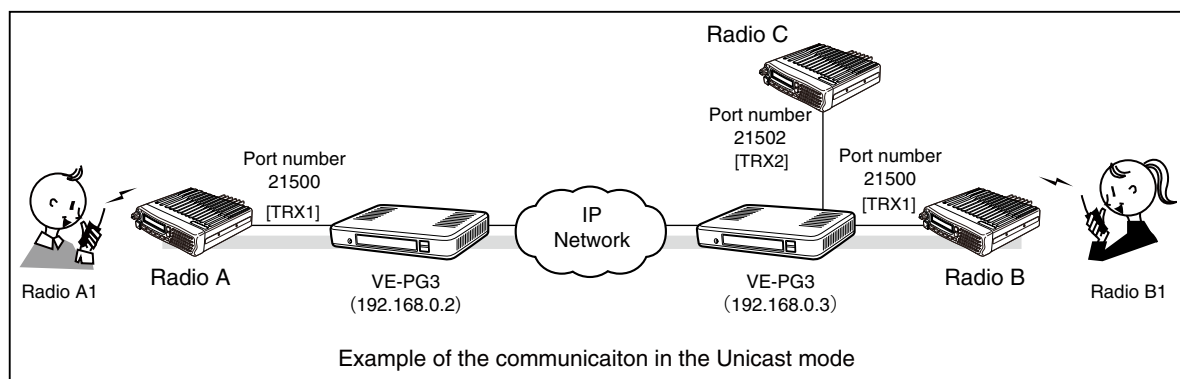
■PSTN

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: [Start] [Refresh]
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 receive audio volume level.   (Default: 0)
Audio level from PSTN to VE-PG3.

② TX Volume ……………… Select the telephone transmit audio volume level.   (Default: 0)
Audio level from VE-PG3 to PSTN.

③ Echo Canceller …………… Select an echo cancelling option.   (Default: Enable (Booting Optimization))
In most cases the default value "Enable (Booting Optimization)" should be fine.
"Enable (Manual optimization)": In case you see frequent optimization process occurred by unstable PSTN line condition and you feel it annoying.
"Disable": only when it's required by specification on the PSTN side, or when you need to see the effect of the Echo Canceller by comparing Enable and Disable.

④ Optimization Status ……… Displays the optimization status: "Not opitimized," "During optimization" or "Optimization failure."

⑤ Optimization ……………… If you select other than "Disable" in the [Optimization Status] item, click <Start> to manually proceed the Echo Canceller optimization.
"Re-optimize" when you need to restart optimization process.

⑥ Echo Suppression ……… Select "Enable" to reduce the echo.   (Default: Enable)
This function suppresses the Echo in addition to the Echo Canceller by reducing the RX audio level depending on the TX audio level. Select "Disable" only when it's required by specification on the PSTN side, or when you need to see the effect of the Echo Suppression by comparing Enable and Disable.

⑦ Echo Suppression Level … Select the echo suppress level.   (Default: –30)
When received audio is discontinuous, decrease this value.
Note: Higher Value may cause chopped voice in case of double-talk situation (speaking both side at the same time). Leave the default value unless something goes wrong.

■PSTN (continued)

PSTN

① RX Volume: 0   ▼ dB
② TX Volume: 0   ▼ dB
③ Echo Canceller: Enable (Booting Optimization) ▼
④ Optimization Status: Not optimized
⑤ Optimization: [Start] [Refresh]
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: [   ]

⑧CNG Signal ………………   Select "Enable" to use CNG (Comfort Noise Generator) function.
The CNG Comfort Noise Generator intentionally applies the white noise to the received audio to reduces the uncomfortableness during audio absence.   (Default: Enable)

⑨CNG Signal Level ………   If you use the CNG function, select the noise level to apply.   (Default: –52)
• Leave the default value unless something goes wrong.

⑩Contract Line Number ……   Enter the contract line number to be recognized as a usable LINE by the VE-PG3.

■Device

Configure the details for telephone.

Note: The default setting is an example for use in USA.

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: ◉ Disable ○ Enable
⑥ TIP/RING Voltage Adjust: 3.5   V
⑦ Min. Operational Loop Current: 10   mA

①Impedance   ……………… | Set the value as listed below or according to the peer equipment. In case of unknown PSTN LINE, find out the value for less Echo and better audio quality.

(Default: 600)

Setting example:
USA: "600"
EU* (ETSI):   "270+750||150nF"
Australia: "220+820||120nF"
New Zealand: "370+620||310nF"

*UK, France, Germany, Netherlands, Sweden, Norway, Italy, Spain, Portugal, Poland, and Denmark

②On Hook Speed   ………… | Enter the time period the telephone detects the on hook state.   (Default: 0.5)
Setting example:
USA: "0.5 milliseconds"
EU* (ETSI):   "3 milliseconds"
Australia: "26"

*UK, France, Germany, Netherlands, Sweden, Norway, Italy, Spain, Portugal, Poland, and Denmark

③Ringer Impedance   ……… | Select the line impedance for the telephone rings.   (Default: High)
• Generally set High, set Synthesized at Poland, South Africa and Slovenia.

④Ringer Threshold Select … | Select the voltage range to detect the call.   (Default: 13.5 – 16.5)
• Leave the default value unless wrong detection occurs.

⑤Current Limiting   ………… | Select "Enable" to limit the current.   (Default: Disable)
• Set Enable in case TBR21 standard is required.
Setting example:
USA: "Disable"
In accordance with ETSI: "Enable"

⑥TIP/RING Voltage Adjust | Select the appropriate voltage for TIP/RING.   (Default: 3.5)
Increasing TIP/RING voltage increases signal headroom.
• Leave the default value unless something goes wrong.

⑦Min. Operational Loop Current | Select the minimum current for operational loop.   (Default: 10)
Increasing this value above 10 mA also increases signal headroom and prevents degradation of the signal level in low-voltage countries.
• Leave the default value unless something goes wrong.

■Ring Time Detection

Configure the details for telephone line.

Ring Time Detection

① Min. Active Timer: 5   [x100 milliseconds]
② Max. Inactive Timer: 45   [x100 milliseconds]

①Min. Active Timer …………   Enter the minimum ring burst period for the VE-PG3 to recognize it as a PSTN
                                    ring.   (Default: 5)
                                    • Leave the default value unless wrong detection occurs.

②Max. Inactive Timer ………   Enter the delay after the end of the ring burst before the VE-PG3 decides that
                                    PSTN ring has ceased.   (Default: 45)
                                    • Leave the default value unless wrong detection occurs.

■DTMF Encode

Configure the details for telephone.

DTMF Encode

*Setting values of Active Timer and Inactive Timer are set in five milliseconds steps.
①Active Timer: 80   milliseconds
②Inactive Timer: 80   milliseconds
③Level: -8 ▼ dB

①Active Timer ………………   Enter the time period of each DTMF tone.   (Default: 80)

②Inactive Timer ……………   Enter the time period of the gap between each DTMF tone.   (Default: 80)

③Level ………………………   Enter the sound level of the DTMF tone.   (Default: –8)

■Status Detection

Configure the details for telephone line.

Status Detection

① Dial Tone Detect:	○ Disable ◉ Enable	
② Caller Connect:	RBT Stop ▼	
③ Caller Disconnect:	BT ▼	
④ Callee Disconnect:	BT ▼	
⑤ Line Cut:	○ Disable ◉ Enable	

①Dial Tone Detect …………

Select "Enable" to detect the dial tone signal.   (Default: Enable)

When "Disable" is selected, the VE-PG3 will start dialing after some waiting period from OFF-Hook without detecting the Dial Tone.

②Caller Connect ……………

Select the detection type when the callee telephone's handset is picked up.
(Default: RBT Stop)

Disable:
The VE-PG3 determines that the call is established immediately after dialing.
RBT stop:
When the RBT (Ring Back Tone) is stopped. Appropriate setting in the "Tone Detection > Ring Back Tone" item is needed to use this method.
Polarity:
When the line Polarity is changed.
Both:
By above both method.

③Caller Disconnect…………

Select the detection type when the end of the call which is initiated by the VE-PG3.
(Default: BT)

Disable: The VE-PG3 does not detect this status.
BT: By the Disconnect Tone (Same tone as the BT Busy Tone in most case). Appropriate setting in the "Tone Detection > Disconnect Tone" is needed to use this method.
Polarity: By the Polarity change.
Both: By above both method.

④Callee Disconnect   ………

Select the detection type when the end of the call which is received by the VE-PG3.
(In the case of the call was initiated by the callee.)   (Default: BT)

Disable: The VE-PG3 does not detect this status.
BT: By the Disconnect Tone (Same tone as the BT Busy Tone in most case). Appropriate setting in the "Tone Detection > Disconnect Tone" is needed to use this method.
Polarity: By the Polarity change.
Both: By above both method.

⑤Line Cut ………………….

If "Enable" is selected, the VE-PG3 does not detect this status.
(Default: Enable)

Note: If all methods for call end detection are disabled, the VE-PG3 ends the call by detecting a long period of silence .

7. [V/RoIP] Menu (continued)   [V/RoIP]–[LINE Settings]

■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**
④ Frequency1: 350 Hz
Frequency2: 440 Hz

⑤ Timing:

ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF

② **Ring Back Tone**
④ Frequency1: 440 Hz
Frequency2: 480 Hz

⑤ Timing:

ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
2000	4000								

③ **Disconnect Tone**
④ Frequency1: 480 Hz
Frequency2: 620 Hz

⑤ Timing:

ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
250	250								

①Dial Tone ………………… Set the tone frequencies and timing.
The tone advising that the PSTN Line (exchange) is ready to receive call information and inviting the user to start dialing.

②Ring Back Tone ………… Set the tone frequencies and timing.
The tone advising the caller that a connection has been made and that a calling signal is being applied to a telephone number or service point.

③Disconnect Tone ………… Set the tone frequencies and timing.
The tone provided to the remaining party to a call after the remote party hangs up. Typically, the disconnect tone is same as the busy tone (the tone advising the caller that the telephone number is busy.).

Items for each settings:
④Frequency1
 Frequency2 ……………… Enter the frequencies for the tone signals.

⑤Timing …………………… 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: 3
② IP Phone Number:
③ SIP Server Address:
④ SIP Service Domain:
⑤ User ID:
⑥ Password:
⑦ Registration Expiration: 600   seconds
⑧ Registration Renewal Timer: Normal: 50   % Exception: 50   %

① Index ………………………   Assign the index number for each setting entry.
                                Setting range:"1" to"12"

② IP Phone Number   ………   Enter the IP phone number up to 31 characters.
                                • This number must be registered in the SIP server.
                                Note: The number starts with "0" is not recommended.

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.   (Default: 600)
                                Range: "60" to "28800" (seconds)
                                The connection information stored in the SIP server is discarded after the set
                                time has passed.

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" (%)

■List of SIP Server Entries

You can edit the SIP server settings on the list.

List of SIP Server Entries

Index	IP Phone Number	Connection Status	Calling Number Notice		
1	0512345678	Connecting	Notify ▼	Edit	Delete
2	400	Connecting	Notify ▼	Edit	Delete

⑤ Refresh ⑥ Re-registration
⑦ Edit ⑧ Delete
⑨ Delete All
⑩ Apply Reset ⑪

• This is an example.

①Index ……………………… Displays the index number set in [SIP Server].

②IP Phone Number ……… Displays the phone number set in [SIP Server].
• You cannot change the phone number here.

③Connection Status ……… The connection status ([Connecting]/[Connection successful]/ [Connection failure]) of the SIP server.
• When "Connecting" doesn't appear, check the registered settings.

④Calling Number Notice … Select "Not Notified" if you don't want to notify your IP phone number.
(Default: Notify)

⑤<Refresh> ………………… Click to refresh the screen.
• When "Connection successful" doesn't appear, check the registered settings.

■List of SIP Server Entries (continued)

List of SIP Server Entries

Index	IP Phone Number	Connection Status	Calling Number Notice		
1	0512345678	Connecting	Notify ▼	Edit	Delete
2	400	Connecting	Notify ▼	Edit	Delete

⑤ Refresh   ⑥ Re-registration
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

Select whether inhibit or allow the Peer to Peer call from the WAN side.

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 the WAN side.

(Default: Inhibit)

Note: When you select "Allow," you have to enter the destination SIP URI to the [SIP URI] item on the "VoIP Phonebook" screen.

• The Callee SIP URI must be registered on the VoIP phone book to receive the call through the WAN side.

■Peer to Peer

Peer to Peer

① Index: [1 ▼]
② SIP URI: sip: [   ]

① Index …………………………   Assigned the index number for each entry.
Setting range: "1" to "100"

② SIP URI ……………………   Enter the SIP URI up to 63 characters in either format as shown 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].
• Must include at least one alphabet.

About the [Host name.domain name] part:
• When the VE-PG3 IP address is registered in your party's Phonebook, 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 Phonebook, 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

①	②		③	④
Index	SIP URI			
1	sip:VEPG3@telephone.icom.co.jp		Edit	Delete
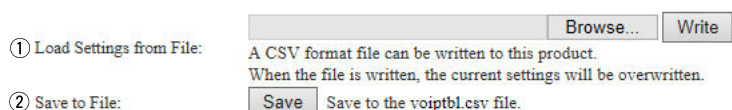
Delete All
⑤

• This is an example.

①Index …………………………   Displays the index assigned for the entry.

②SIP 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.

■Save or Write the VoIP Phonebook

You can save and load the VoIP Phonebook file.

Save or Write the VoIP Phonebook

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

② Save to File:　[Save]　Save to the voiptbl.csv file.

①Load Settings from File　…　You can load the saved [Phonebook] file (Extension: csv) and write it to the VE-PG3.
Click <Browse...>, and select the [Phonebook] file (Example: voiptbl.csv) to load. Verify that the selected file is displayed, and then click <Write>.
• The contents of the file is overwritten to [List of VoIP Phonebook Entries].
Note: When the Setting file (Extension: sav) is used to restore the setting, the VoIP phone book will be overwritten.

②Save to the File……………　Click <Save>, to save the [List of VoIP Phonebook Entries] table in the PC, as the [List of VoIP Phonebook] file (voiptbl.csv).
• You can edit the saved file on a spreadsheet.
• You can share the saved file with plural the VE-PG3.

■VoIP Phonebook Entry

Set the Phonebook data.

VoIP Phonebook Entry

① Index: 1 ▾
② Name: [   ]
③ Phone Number: [   ]
④ SIP URI: sip: [   ]

                    [Apply] [Reset]

①Index ……………………… Assign the number to the entry.
                        • Up to 1000 phone numbers can be registered.

②Name ……………………… Enter the callee name up to 31 characters.

③Phone 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.

④SIP URI …………………… When call in Peer to Peer, without the SIP server, enter the callee SIP URI up to 63 characters.

                        Enter in either format below:
                        • sip: *[SIP username]@[IP address]*
                        • sip: *[SIP username]@[host name.domain name]*

■List of VoIP Phonebook Entries

The list of VoIP Phonebook.

List of VoIP Phonebook Entries

①	②	③	④		
Index	Name	Phone Number	SIP URI		
1	VE-PG3	401	sip:VEPG3@192.168.0.20	Edit	Delete
					Delete All

①Index ……………………… The assigned number to the entry.

②Name ……………………… The callee name.

③Phone Number …………… The phone number.

④SIP URI …………………… The callee SIP URI.

8. [Extension Connect] Menu

■Basic

Configure the details for extension number and callee destination.

• Some items may differ according to the setting.

Basic

①Transfer Switch Back Time: 20 seconds Ring Time 30 seconds
②Hold Music: Hold Music 1
③Hold Music Volume: ⦿ 0 dB ○ +6 dB
④Transfer from PHONE: ⦿ Disable ○ Enable

①Transfer 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.)
②Hold Music ………………	Select the hold music type. (Default: Hold Music 1) **To use "Custom Music 1" to "Custom Music 3"** • Enter the check mark in [load Custom Hold Music] item on the [USB] screen. • Insert the USB flash drive which contains the hold music file of appropriate name. See page 7-14 for details.
③Hold Music volume ………	Select the hold music volume level. (Default: 0 dB)
④Transfer from PHONE……	Select "Enable" to transfer the ongoing call. (Default: Disable) • **Disable** Push the hook switch momentary (Release it within one second.) to toggle the holding and cancelling the hold. • **Enable** The call can be transferred by the following procedure. ① Push the hook switch momentary (Release it within one second.) to hold the call. ② Dial the second calling number. ③ When the party responds, tell about the transferred call, then on-hook the handset. ④ The call has been transferred.

■Extension

Set the extension number and call destination number.
• The displayed items may differ, depending on the setting.

Transceiver   EXT Input 1/2   Emergency Notice

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:

Phone

Extension

① Extension Number:
② Port Type: PHONE
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

Digital Transceiver

Extension

① Extension Number:
② Port Type: Digital Transceiver 1 (D-TRX1)
④ Radio System Group: None
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
⑨ DID Call: ○ Disable ● Enable
⑩*Response Time: 4 seconds
⑪*Dial Tone: Type 1
⑭*Action (DID Timeout):   ● Clear Down ○ Call Default Destination
⑮*DID Timeout Timer: 60 seconds

*Appears when "Enable" is selected in [DID Call].

SIP Phone

Extension

① Extension Number:
② Port Type: SIP Phone(KX-UT Series)
⑫ 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
⑬ MAC Address:

Bridge

Extension

① Extension Number:
② Port Type: Bridge 1
④ Radio System Group: None
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:

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)
                              • If a digital port is busy, then the received call is automatically transferred to a vacant port.

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)

8. [Extension Connect] Menu

<div align="right">[Extension Connect]–[Extension Connect]</div>

■ Extension (continued)

| Transceiver | EXT Input 1/2 | Emergency Notice |

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 ▼
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 ▼
⑨ DID Call: ○ Disable ● Enable
⑩*Response Time: 4 ▼ seconds
⑪*Dial Tone: Type 1 ▼
⑭*Action (DID Timeout):   ● Clear Down ○ Call Default Destination
⑮*DID Timeout Timer: 60   seconds

*Appears when "Enable" is selected in [DID Call].

| Phone |

Extension

① Extension Number: [   ]
② Port Type: PHONE ▼
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 ▼

| SIP Phone |

Extension

① Extension Number: [   ]
② Port Type: SIP Phone(KX-UT Series) ▼
⑫ 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 ▼
⑬ MAC Address: [   ]

| Bridge |

Extension

① Extension Number: [   ]
② Port Type: Bridge 1 ▼
④ Radio System Group: None ▼
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: [   ]

⑦ Outgoing Line (Peer to Peer)   Select the SIP user name 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 |

⑩ Response Time …………   Select the time period before the VE-PG3 automatically answering to the call. Range: "0" to "10" (seconds).   (Default: 4)

⑪ Dial Tone …………………   Select the second dial tone type.   (Default: Type 1)

| SIP Phone |

⑫ 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.

8. [Extension Connect] Menu

■ Extension (continued)

Transceiver | EXT Input 1/2 | Emergency Notice

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 ▼
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 ▼
⑨ DID Call: ○ Disable ● Enable
⑩*Response Time: 4 ▼ seconds
⑪*Dial Tone: Type 1 ▼
⑭*Action (DID Timeout): ● Clear Down ○ Call Default Destination
⑮*DID Timeout Timer: [60] seconds

*Appears when "Enable" is selected in [DID Call].

Phone

Extension

① Extension Number: [   ]
② Port Type: PHONE ▼
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 ▼

SIP Phone

Extension

① Extension Number: [   ]
② Port Type: SIP Phone(KX-UT Series) ▼
⑫ 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 ▼
⑬ MAC Address: [   ]

Bridge

Extension

① Extension Number: [   ]
② Port Type: Bridge 1 ▼
④ Radio System Group: None ▼
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: [   ]

SIP Phone

⑬ MAC Address ⋯⋯⋯⋯⋯ Enter the IP phone's MAC address, if you use the KX-UT Series IP phone.

Note: This item appears when "SIP Phone (KX-UT Series)" or "SIP Phone (Automatic Detection)" is selected in [Port Type].

⑭ Action (DID Timeout) ⋯⋯⋯ Select the action when the VE-PG3 does not receive any DTMF signals for a preset time period of time. (Default: Clear Down)

*When DTMF signals are received within the preset period, the DID Timeout does not occur.

"Clear Down": The VE-PG3 disconnects a call after a preset period of time.

"Call Default Destination": When the VE-PG3 is connected to the Digital Transceiver system, it makes a call to the programmed target transceiver or group.

Setting item: [Port Setting] – [Digital Transceiver (1–4)] – [Digital Transceiver Connection] – [Default Callee ID]

When the VE-PG3 is connected to other devices in the Bridge mode, it makes a call to the programmed target transceiver or group.

Setting item: [Port Setting] – [Bridge (1–4)] – [Bridge Communication] – [Default Callee ID]

8. [Extension Connect] Menu

■ Extension (continued)

Transceiver **EXT Input 1/2** **Emergency Notice**

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
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
⑨ DID Call: ○ Disable ● Enable
⑩*Response Time: 4 seconds
⑪*Dial Tone: Type 1
⑭*Action (DID Timeout): ● Clear Down ○ Call Default Destination
⑮*DID Timeout Timer: 60 seconds

*Appears when "Enable" is selected in [DID Call].

Phone

Extension

① Extension Number:
② Port Type: PHONE
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

SIP Phone

Extension

① Extension Number:
② Port Type: SIP Phone(KX-UT Series)
⑫ 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
⑬ MAC Address:

Bridge

Extension

① Extension Number:
② Port Type: Bridge 1
④ Radio System Group: None
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:

⑮ DID Timeout Timer .... Enter a period of time when [Action (DID Timeout)] starts. (Default: 60)

Setting range: 0 to 120 seconds

* The timeout does not occur when "0" is set.

■ 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 entry.

② <Delete>   …………………   Click to delete the entry.

③ <Delete All> ………………   Click to delete all entries.
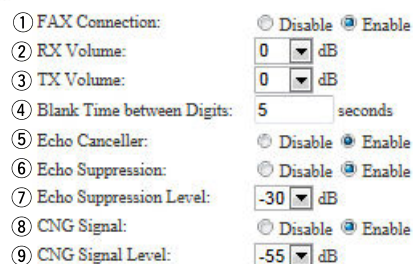
■ PHONE

Configure the details for telephone.
• Some items may differ according to the setting.

PHONE

① FAX Connection: ○ Disable ◉ Enable
② RX Volume: 0 ▾ dB
③ TX Volume: 0 ▾ dB
④ Blank Time between Digits: 5   seconds
⑤ Echo Canceller: ○ Disable ◉ Enable
⑥ Echo Suppression: ○ Disable ◉ Enable
⑦ Echo Suppression Level: -30 ▾ dB
⑧ CNG Signal: ○ Disable ◉ Enable
⑨ CNG Signal Level: -55 ▾ dB

①FAX Connection …………   Select "Enable" when connecting a FAX.   (Default: Enable)

②RX Volume ………………   Select the received audio volume level.   (Default: 0)
                             Range: "6" to "–12" (dB)

③TX Volume ………………   Select the transmit (microphone) audio volume level.   (Default: 0)
                             Range: "6" to "–12" (dB)

④Blank Time between Digits   Enter the delay to starts to call after the dialing.   (Default: 5)
                             Range: "1" to "99" (seconds)

⑤Echo Canceller ……………   Select "Enable" to turn ON the echo canceller.   (Default: Enable)

⑥Echo Suppression ………   Select "Enable" to reduce the echo.   (Default: Enable)

⑦Echo Suppression Level …   Select the echo suppress level.   (Default: –30)
                             Range: "0" to "–65" (dB)

⑧CNG Signal ………………   Select "Enable" to intentionally apply the noise signal to the received audio.
                                                                                 (Default: Enable)

⑨CNG Signal Level ………   Select the noise level to apply to the received audio.   (Default: –55)
                             Range: "–30" to "–65" (dB)

8. [Extension Connect] Menu (continued)

■ 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: GROUP1
② Extension Group Entry Number: 201
1st Pickup
③ Extension Number: ☑ 200(TRX1) ☐ 300(PHONE)
2nd Pickup
④ Startup Time: 10 seconds ▼
③ Extension Number: ☐ 200(TRX1) ☑ 300(PHONE)
3rd Pickup
④ Startup Time: 20 seconds ▼
③ Extension Number: ☑ 200(TRX1) ☑ 300(PHONE)

• In this example, when the extension group number "201" received an incoming call, 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 seconds" to "60 seconds"

■ List of Extension Group Entries

• This is an example.

① <Edit>………………………   Click to edit the entry.

② <Delete> …………………   Click to delete the entry.

③ <Delete All> ………………   Click to delete all entries.

8. [Extension Connect] Menu (continued)

■ Calling

Configure the line settings to call the designated callee.

Calling

①Index	②Routing Number	③Phone Number	④Priority	⑤Line Appointment	Calling Line ⑥Primary	⑦Secondary	⑧
1 ⌄			IP Line ⇒ LINE ⌄	Extension Setting Priority ⌄	⌄	⌄	Add

①Index ……………………… Assign the number (1 to 1000) for the entry.

②Routing Number ………… Enter the routing number up to 7 digits.
　• You call the party by dialing the Routing Number + Phone Number.
　　The call is initiated through the line specified by the entered routing number.
　　(The routing number is not assumed as the part of actual phone number.)

③Phone Number …………… Enter the destination extension number up to 15 digits.
　• You call the party by dialing the Phone Number.
　　The call is initiated through the specified line.
　　(The entered number is assumed as the whole Phone Number.)

④Priority …………………… Select the priority of the outgoing line.
IP Line -> LINE / LINE -> IP Line
The call initiated through the IP Line/LINE takes priority.
IP Line / LINE
The call is always initiated through the IP Line/LINE.

⑤Line Appointment ………… Select the prior line to call.
Extension Setting Priority
The call is initiated through the line selected on the [Extension Connect] screen.
Appointment
The call is initiated through the line selected in the [Calling Line (Primary, Secondary)] item.

Calling line

⑥Primary …………………… Select the primary line, when "Appointment" is selected in [Line Appointment] ⑤.

⑦Secondary ………………… Select the secondary line, when "Appointment" is selected in [Line Appointment] ⑤.

⑧<Add> …………………… Click to add the setting to the list.

8. [Extension Connect] Menu (continued)

■List of Calling Entries

List of Calling Entries

Index	Routing Number	Phone Number	Priority	Line Appointment	Calling Line Primary	Secondary	①	②
1		05012345678	IP Line ⇒ LINE	Extension settin			Edit	Delete
2	10	05012345678	IP Line ⇒ LINE	Extension settin			Edit	Delete

③ Delete All

• This is an example.

①<Edit>………………………   Click to edit the entry.

②<Delete>   …………………   Click to delete the entry.

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 Ringtone	⑤ Queuing
0501234567	IP Line	Not used	Incoming A	
06012345678	LINE	Not used	Incoming A	Disable

⑥ Apply   Reset 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)).
• When the SIP URI was set in the [Peer to Peer] item on the [Peer to Peer] screen, the SIP user name is displayed.

② Line…………………………   Displays the line type set on the [Peer to Peer] screen.

③ Receive Port ………………   The extension number set on the [Extension Connect] screen, or the extension group set on the [Extension Connect] screen can be set as the receive port.
When a call is received, the call is routed to the selected device (port) specified by the extension number (dial-in service).   (Default: Not used)

④ Ringtone …………………   Select the ring tone type when receives a call.
Note: This item takes effect when "SIP Phone(KX-UT Series)" is selected in the [Port Type] item on the [Extension Connect] screen.

⑤ Queuing……………………   Select "Enable" to use the Receive Queuing function.
Note: This item appears when "LINE" is selected as the line type.
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> ……………………   Click to restore the settings.
• You cannot restore after clicking <Apply>.

8. [Extension Connect] Menu (continued)

■ Special Number

Set the special numbers.

Special Number

① Call Pickup:	*81	
② Directed Call Pickup:	*80	
③ Group Pickup:	**	
④ OFF-hook Sending:		
⑤ OFF-hook Replying:	#	
⑥ ON-hook:	#	
⑦ Immediate Calling:	None ▼	

⑧ Special System Number:	*82	*90	*91	*93	*92	*83	*89

①Call Pickup ……………… Enter the extension number to substitutively respond the call to other extension. (Default: *81)

②Directed Call Pickup …… Enter the number to substitutively respond the call to other extension specified by the input number + the extension number. (Default: *80)

③Group 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.
Note: Do not change this setting if not necessary.

④OFF-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)

⑤OFF-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: #)

⑥ON-hook ………………… Select the tone signal to end (disconnect) the call.
• Pushing this key disconnects the communication route. (Default: #)

⑦Immediate Calling ……… Set the DTMF code for immediately transmitting the code. (Default: None)

⑧Special System Number … Enter the special system number. (Default: *82, *90, *91, *93, *92, *83, *89)

8. [Extension Connect] Menu (continued)

■ Radio Call Prefix

Enter the prefix number to directory call a radio by specifying the communication route.

• Example: To make an individual call to Digital Transceiver 1 (Prefix ID: 1, ID: 6), dial "*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	

• This is an example and all numbers are the default setting. Assign numbers according to your need, avoiding number duplication.

■ Outside Call Routing Number

Outside Call Routing Number

①	②	③
Outside Call Number	Line	Routing Number
0501234567	IP Line	1234

①Outside Call Number ……   Displays the call number.

②Line…………………………   Displays the line type.

③Routing Number …………   Enter the routing number.
                                        • When dialing, add the entered number to the ahead of call number, to make an Outside Call through the line selected by the routing number.

■ 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 All> ………………   Click to reboot all the IP phones on the list. (For only the KX-UT series IP phone)

⑥ <Reboot> …………………   Click to reboot the IP phone. (For only the KX-UT series IP phone)

■ Telephone Group ⟨ **Common Setting** ⟩

Configure the common setting of the SIP phone.

Telephone Group

① Group Select: Common Setting ⌄
② RX Volume: 0 ⌄ dB
③ TX Volume: 0 ⌄ dB
④ Echo Canceller: ◉ Disable ○ Enable

① Group Select………………   Select the setting group, then click [Group Edit] to edit the setting items.
                                                          (Default: Common Setting)
                               Note: When "Common Setting" is selected, the setting items shown below
                                     can be configured.

② RX Volume ………………   Select the receive audio volume from "+6" to "–6" (dB).   (Default: 0)

③ TX Volume ………………   Select the transmit (microphone) audio volume from "+6" to "–6" (dB).
                                                                                    (Default: 0)

④ Echo Canceller……………   Select "Enable" to use the Echo Canceller.   (Default: Disable)

8. [Extension Connect] Menu (continued)   [Extension Connect]–[SIP Phone]

■ Tone   Common Setting

Edit the tone frequencies, volume level and patterns for the telephone line parameter.

Note: These setting items appear when [Common Settings] is selected in the [Group Select] item.

Tone

*Setting values of Timing is set in milliseconds.

① Dial Tone

Frequency1: 350 Hz
Frequency2: 440 Hz
Level: 0 dB
Repeat: ○ Disable ○ Enable ● Continuity

OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
60	0							

② Busy Tone

Frequency1: 480 Hz
Frequency2: 620 Hz
Level: 0 dB
Repeat: ○ Disable ● Enable ○ Continuity

OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
60	500	440						

③ Reorder Tone

Frequency1: 480 Hz
Frequency2: 620 Hz
Level: 0 dB
Repeat: ○ Disable ● Enable ○ Continuity

OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
60	250	190						

④ Ring Back Tone

Frequency1: 440 Hz
Frequency2: 480 Hz
Level: 0 dB
Repeat: ○ Disable ● Enable ○ Continuity

OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
60	2000	3940						

⑤ Hold Alarm

Frequency1: 425 Hz
Frequency2: 0 Hz
Level: 0 dB
Repeat: ○ Disable ● Enable ○ Continuity

ON	OFF	ON	OFF	ON	OFF	ON	OFF
120	14880						

① Dial Tone …………………… The indication that the telephone exchange is working, and has recognized an off-hook condition at the telephone, and is ready to accept a call.

② Busy Tone ………………… The indication that the called number is occupied, if that number is calling out, if the other line was left off-hook.

③ Reorder Tone …………… The indication that an invalid code has been dialed, or that all circuits (trunks) are busy and/or the call is cannot be routed.

④ Ring Back tone ………….. The indication that is heard by the caller while the phone they are calling is being rung, to assure the calling party that the called party's line is ringing.

⑤ Hold Alarm ……………… The indication while the connection is not terminated but no verbal communication is possible until the call is removed from hold by the same or another extension.

8. [Extension Connect] Menu (continued)

<div align="right">[Extension Connect]–[SIP Phone]</div>

■ Ringtone Pattern   Common Setting

Edit the ringtone pattern for each telephone line parameter.

Note: These setting items appear when [Common Settings] is selected in the [Group Select] item.

① Pattern 1–5 ………………
     Edit the ringing tone pattern by entering the ring period (ON) and silent period (OFF) in milliseconds.

② Ringtone Pattern Assignment

     Select the ringtone pattern for incoming call and extension call.

8. [Extension Connect] Menu (continued)

■ Telephone Group (Group 1–20)

Telephone Group

① Group Select:	Group 13 ⌄
② Pickup Group Number:	13
③ Dial Waiting Time:	5 ⌄ seconds
④ Key Click Tone:	○ Disable ● Enable
⑤ Call Waiting:	● Refuse ○ Allow
⑥ Call Pickup Object:	Extension Only ⌄
⑦ Group Pickup Object:	Incoming Call/Extension ⌄
⑧ Directed Call Pickup Object:	Incoming Call/Extension ⌄
⑨ Long-Hold Watch Time:	180 seconds
⑩ Phonebook Sharing:	○ Disable ● Enable
⑪ Common Phonebook Sharing:	○ Disable ● Enable
⑫ Phonebook Ringtone Setting:	Ringtone 1 ⌄

⑬ Group Edit

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 allows 3 persons to 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: Incoming Call/Extension)

⑧ Directed Call Pickup Object Select the object scope to pick up the call. (Default: Incoming Call/Extension)

⑨ Long-Hold Watch Time … Enter the delay until the hold alarm sounds. (Default: 180)

⑩ Phonebook Sharing……… Select enable to share the Phonebook among the IP phones. (Default: Enable)

⑪ Common Phonebook Sharing Select enable to share the common Phonebook among the IP phones. (Default: Enable)

⑫ Phonebook Ringtone Setting Select the Ringtone for the group. (Default: Ringtone 1)

⑬ <Group Edit> …………… Click to load the settings to edit.

■ Button Assignment   (**Group 1–20**)

Select the function assignment to each flexible button on KX-UT series IP phone.

Note: These setting items appear when "Common Settings" is selected in the [Group 1–20] item.

Button Assignment

Button 12	Button 24
DN Key	DN Key
Button 11	Button 23
DN Key	DN Key
Button 10	Button 22
DN Key	DN Key
Button 2	Button 14
DN Key	DN Key
Button 1	Button 13
DN Key	DN Key

Button 1–24 …………………   Select the function to assign the button.

One Touch

Select this function if the "One-touch dialing" is assigned to the button.

DN Key (default)

Select this function if the "Directory Number" is assigned to the button.

Headset

Select this function if the "headset" is assigned to the button.
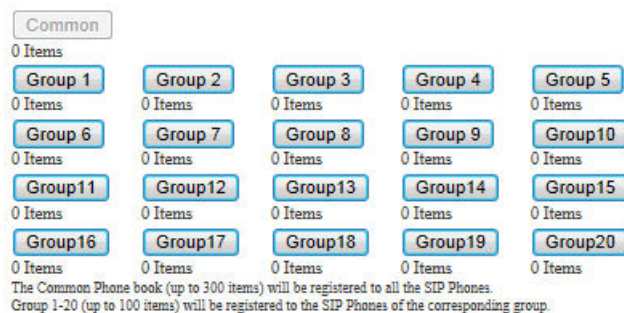
Not used

No function is assigned to the button.

■ Group Select

Select the Phonebook group from Group 1 to 20, or Common.

Group Select

Common
0 Items

Group 1	Group 2	Group 3	Group 4	Group 5
0 Items	0 Items	0 Items	0 Items	0 Items
Group 6	Group 7	Group 8	Group 9	Group10
0 Items	0 Items	0 Items	0 Items	0 Items
Group11	Group12	Group13	Group14	Group15
0 Items	0 Items	0 Items	0 Items	0 Items
Group16	Group17	Group18	Group19	Group20
0 Items	0 Items	0 Items	0 Items	0 Items
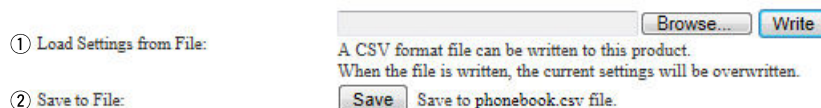
The Common Phone book (up to 300 items) will be registered to all the SIP Phones.
Group 1-20 (up to 100 items) will be registered to the SIP Phones of the corresponding group.

■ Save or write the Phonebook

You can save and load the Phonebook file. (For only the KX-UT series IP phone)
The Phonebook 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: [   ] Browse... 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: Save   Save to phonebook.csv file.

①Load a saved setting file …   You can load the saved [Phonebook] file (Extension: csv) and write it to the VE-PG3.
Click <Browse...>, and select the [Phonebook] file (Example: phonebook.csv) to load. Verify that the selected file is displayed, and then click <Write>.
• The contents of the file is overwritten to [List of Phonebook Entries].

②Save to the File……………   Click <Save> to save the [List of Phonebook Entries] table in the PC, as the [List of Phonebook] file.
File name
Phonebook: "phonebook.csv"
Group phonebook: "phonebook0X.csv" ("X" represents the group phonebook number.)
• You can edit the saved file on a spreadsheet.

■ Phonebook Entry

Phonebook Entry

① No.:   1 ▼
② Name:
③ Nickname:
④ Phone Number:
⑤ Speed Dial Number:
⑥ Display Type: Phone Number ▼
⑦ Line Type: Outside Line ▼
⑧ Phonebook Group: Group 1 ▼

                                              ⑨   ⑩
                                           Apply   Reset

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 quick calling.

⑥ Display Type ………………   Select the display type.   (Default: Phone Number)
                                 Phone Number
                                 When receiving a call, the caller's phone number is displayed on IP phone.
                                 Speed Dial Number
                                 When receiving a call, the caller's speed dial number is displayed on IP
                                 phone.

⑦ Line Type …………………   Select the line type to seize when calling.   (Default: Outside Line)

⑧ Phonebook Group ………   Select the Phonebook grouping number.   (Default: Group 1)

⑨ <Apply> ……………………   Click to apply the entry.

⑩ <Reset> ……………………   Click to restore the settings.
                                 • You cannot restore after clicking <Apply>.

8. [Extension Connect] Menu (continued)   [Extension Connect]–[Phonebook]

■ List of Phonebook 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 Phonebook entry.

②<Delete> …………………   Click to delete the Phonebook entry.

③<Delete All> ………………   Click to delete all Phonebook entries.

9. Assignment Number	[Transceiver Connection]– [Assignment Number]

■DID Special Number

The DID Special Number is used to call the target transceiver or group, using the DID (Direct Inward Dialing) function.

DID Special Number

Individual Call:	*
Group Call:	#
All Call:	**
Delimiter:	*

[Apply] [Reset]

You can make a call to the target transceiver or group by entering [DID Special Number] and [Individual ID] or [DID Special Number] and [Group ID].

*Delimiter is a character to separate between a Prefix ID and a Unit ID to make a call to a digital transceiver.

*Enter a special number of up to 4 digits. Usable characters are: 0-9, #, *, A, B, C and D.

*"#" can be used for only the first digit.

*"#" cannot be used for [Delimiter].
Note: Do not change this setting if not necessary.

■Save or Write the Assignment Number Setting

The DID Special Number is used to call the target transceiver or group.

Save or Write the Assignment Number Setting

| Load Settings from File: | 参照... [Write]
A CSV format file can be written to this product.
When the file is written, the current settings will be overwritten. |
| Save to File: | [Save] Save to idtbl_cvt.csv file. |

• You can save or write an [Assignment Number] file to the VE-PG3.

①Load Settings from File

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

Click <Browse...>, and select the [Assignment Number] file.

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

• The contents of the file are loaded to [List of Assignment Number Entries].

Note: When the setting file (Extension: sav) is used to restore the setting, the Assignment Number file (Extension: sav) will be overwritten.

②Save to File .... Click <Save> to save the [List of Assignment Number Entries] table in the PC, as the [Assignment Number] file (Extension: csv).

• You can edit the saved file in a spreadsheet.

■Assignment Number

An assignment number works like a speed dial. You can make a call to a specified transceiver or group by entering the assignment number instead of entering an ID.

* You cannot make a direct call to a transceiver or group if [Disable] is selected at [Extension] in the [DID Call] setting. In this case, the VE-PG3 makes a call to a target that is selected in [Port Settings].

Assignment Number

①Index	②Name	③Call Type	④Prefix ID	⑤ID	⑥Assignment Number	⑦
1	Security	Individual	1	3	3	Add

• This is an example.

①Index ………………………   Assign the index number for the entry.
Setting range: "1" to "1000."

②Name ………………………   Enter a call target name of up to 31 characters.

③Call Type …………………   Select the type of call.   (Default: Individual)
• **Individual**: Call only a specified radio.
• **Group**: Call all radios that belong to the specified group.
      Note: This setting is valid when the Group Call is not inhibited by the transceiver.
• **All**: Call all radios.

④Prefix ID……………………   Enter the destination prefix ID.
ID range: 1–30 (Necessary for an NXDN Trunking system)

⑤ID …………………………   Enter the destination Unit ID or Group ID.
ID range: (Depends on the system mode)

⑥Assignment Number ……   Enter the number of up to 31 digit for the target transceiver or group when calling target transceiver or group from an IP telephone.
* When the IP telephone receives a call from a transceiver having the corresponding prefix ID and unit ID, it displays the assignment number as the caller ID.

⑦<Add> ……………………   Adds the information entered into [List of Assignment Number Entries].

9. Assignment Number (continued)

■List of Assignment Number Entries

An assignment number works like a speed dial. You can make a call to a specified transceiver or group by entering the assignment number instead of entering an ID.

* You cannot make a direct call to a transceiver or group if [Disable] is selected at [Extension] in the [DID Call] setting. In this case, the VE-PG3 makes a call to a target that is selected in [Port Settings].

List of Assignment Number Entries

Index	Name	Call Type	Prefix ID	ID	Assignment Number	①	②
1	Security	Individual	1	3	3	Edit	Delete

Delete All
③

• This is an example.

① <Edit>……………………… Click to edit the entry.

② <Delete> ………………… Click to delete the entry.

③ <Delete All> ……………… Click to delete all entries.

9. Emergency Notice

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■Emergency Notice

You can send an emergency notice to a device connected to the VE-PG3.

Emergency Notice

Transceiver 1 (TRX1):	⦿ Disable ◯ Enable	
Transceiver 2 (TRX2):	⦿ Disable ◯ Enable	
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	
EXT Output 1 (EXT1):	⦿ Disable ◯ Enable	
EXT Output 2 (EXT2):	⦿ Disable ◯ Enable	
Emergency Notice Equipment:	⦿ Disable ◯ Enable	*Default call destination number is not yet set.([Extension connect])
Bridge 1:	⦿ Disable ◯ Enable	
Bridge 2:	⦿ Disable ◯ Enable	
Bridge 3:	⦿ Disable ◯ Enable	
Bridge 4:	⦿ Disable ◯ Enable	

Select a device connected to the VE-PG3 to send an emergency notice.

(Default: Disable (To all items))

■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: [Browse...] [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: [Save] Save to call_tbl.csv file.

①Load a Saved Setting File

……………………………   You can reload the saved [Callee ID to Phone Number Setting] file (Extension: csv) and write it to the VE-PG3.

Click <Browse...>, and select the [Callee ID to Phone Number Setting] file (Example: call_tbl.csv) to load.

Verify that the selected file path is displayed in the input field, and then click <Write>.

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

Note: This setting is valid when the Group Call is not inhibited by the transceiver.

②Save 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 (call_tbl.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 ③ Call Type	④ Prefix ID	⑤ Destination ID	⑥ Phone Number	⑦
1 ▼	Radio1	Individual ▼	1	123	0123456789	Add

• This is an example.

① Index ………………………
Assign the index 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.
                Note: To call plural IP phones as the group, configuration on
                      the SIP server is necessary.
• All: Call all radios.

④ Prefix ID……………………
Enter the prefix ID (0 to 30).

⑤ Destination ID ……………
Enter the destination ID.
ID range: (Depends on the system mode)

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)

⑦ <Add>………………………
Click to add the setting to the list.

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

Index	Name	Callee ID			Phone Number	①	②
		Call Type	Prefix ID	Destination ID			
1	Radio1	Individual	1	123	0123456789	Edit	Delete

Delete All
③

• This is an example.

① <Edit>……………………… Click to edit the entry.

② <Delete> ………………… Click to delete the entry.

③ <Delete All> ……………… Click to delete all entries.

■User Transmission Restriction

Select "Allow" to permit the transmission by the specified radio.
If "Deny" is selected, the outgoing call by the radio listed on the [List of ID Restriction Entries] is restricted.

User Transmission Restriction

Restriction Type: ○ Allow ◉ Deny

■ID Restriction

Configure the TX restriction by ID.

ID Restriction

①Index: 1 ▼
②Prefix ID: _____
③ID: _____

①Index …………………………   Assign the number for the entry.

②Prefix ID……………………   Enter the prefix ID of the radio which is inhibited to transmit.
                                       Range: Conventional mode "None" / Trunking mode "1–30"

③ID …………………………   Enter the ID of the radio which is inhibited to transmit.
                                       ID range: (Depends on the system mode)

■List of ID Restriction Entries

The list of ID restriction.

List of ID Restriction Entries

Index	Prefix ID	ID	①	②
1	10	123	Edit	Delete
2	10	456	Edit	Delete

③ Delete All

①<Edit>………………………   Click to edit the entry.

②<Delete> …………………   Click to delete the entry.

③<Delete All> ………………   Click to delete all entries.

9. [Port Settings] Menu

■Transceiver Model

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

• The following explanation is an example of selecting "General Setting."

Transceiver Model

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

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

(Default: IC-F5060/F6060)

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

■Transceiver Connection "General Setting"

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

Transceiver Connection

①TX Volume Offset to the Transceiver: -22 ▾ dB
②RX Volume Offset from the Transceiver: -24 ▾ dB
③PTT Type: ◉ Single PTT ○ Superimposed PTT
④PTT Logic: ○ High ◉ Low
⑤SQL Type: ◉ Single SQL ○ Superimposed SQL
⑥SQL Logic: ◉ High ○ Low
⑦Power ON/OFF Detection: ○ Disable ◉ Enable
⑧Power ON/OFF Detection Signal: Use PTT Type ▾
*1 ⑨Power ON/OFF Detection Signal Logic: ◉ High ○ Low
⑩Detection Invalidity Timer (OFF ⇒ ON): 0 milliseconds
⑪Send and Receive Change: ◉ Disable ○ Enable
⑫Serial Communication: ○ Disable ◉ Enable
⑬Client Mode: ◉ Disable ○ Enable
*2 ⑭TCP Port Number: 50000
⑮Communication Control: ◉ Full-Duplex ○ Half-Duplex
⑯Signal Level: ±5V (RS-232C) ▾
⑰Data Mode: ○ Auto ◉ Manual
⑱Baud Rate: 9600 ▾
⑲Data Bits: 8 ▾
*3 ⑳Parity: none ▾
㉑Stop Bits: 1 ▾
㉒Session Timer: 30

"NXDN Conventional"

Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: NXDN Conventional ▾
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"

Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: NXDN Trunking ▾
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"

Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: dPMR ▾
㉚ Detect Clear Down from Transceiver: ◉ Disable ○ Enable

Client Mode:Enable

㉛ Server Address:
㉜ Server Port Number: 50003
㉝ Connection Status: Not Connected [Connection] [Refresh]

*1Appears only when "Enable" is selected in [Power Detection].
*2Appears only when "Enable" is selected in [Serial Communication].
*3Appears only when "Manual" is selected in [Data Mode].

①TX 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)

• Higher level makes the microphone more sensitive to the small voice, and is suitable for a quiet environment.

Lower level make the microphone less sensitive to the voice, and is suitable for a noisy environment with louder voice.

9. [Port Settings] Menu (continued)   [Port Settings]–[Transceiver 1 (TRX1)/[Transceiver 2 (TRX2)]

■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ∨ dB
② RX Volume Offset from the Transceiver: -24 ∨ 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 ON/OFF Detection: ○ Disable ● Enable
⑧ Power ON/OFF Detection Signal: Use PTT Type ∨
*¹ ⑨ Power ON/OFF Detection Signal Logic: ● High ○ Low
⑩ Detection Invalidity Timer (OFF ⇒ ON): 0 milliseconds
⑪ Send and Receive Change: ● Disable ○ Enable
⑫ Serial Communication: ○ Disable ● Enable
⑬ Client Mode: ● Disable ○ Enable
⑭ TCP Port Number: 50000
*² ⑮ Communication Control: ● Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ∨
⑰ Data Mode: ○ Auto ● Manual
⑱ Baud Rate: 9600 ∨
⑲ Data Bits: 8 ∨
*³ ⑳ Parity: none ∨
㉑ Stop Bits: 1 ∨
㉒ Session Timer: 30

"NXDN Conventional"
Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: NXDN Conventional ∨
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"
Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: NXDN Trunking ∨
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"
Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: dPMR ∨
㉚ Detect Clear Down from Transceiver: ● Disable ○ Enable

Client Mode:Enable
㉛ Server Address:
㉜ Server Port Number: 50003
㉝ Connection Status: Not Connected | Connection | Refresh

*¹Appears only when "Enable" is selected in [Power Detection].
*²Appears only when "Enable" is selected in [Serial Communication].
*³Appears only when "Manual" is selected in [Data Mode].

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 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 speaker input line (A3 terminal).

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)

■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ▾ dB
② RX Volume Offset from the Transceiver: -24 ▾ 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 ON/OFF Detection: ○ Disable ● Enable
⑧ Power ON/OFF Detection Signal: Use PTT Type ▾
⑨ Power ON/OFF Detection Signal Logic: ● High ○ Low
⑩ Detection Invalidity Timer (OFF ⇒ ON): 0 milliseconds
⑪ Send and Receive Change: ● Disable ○ Enable
⑫ Serial Communication: ○ Disable ● Enable
⑬ Client Mode: ● Disable ○ Enable
⑭ TCP Port Number: 50000
⑮ Communication Control: ● Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ▾
⑰ Data Mode: ○ Auto ● Manual
⑱ Baud Rate: 9600 ▾
⑲ Data Bits: 8 ▾
⑳ Parity: none ▾
㉑ Stop Bits: 1 ▾
㉒ Session Timer: 30

*1 for items ⑧⑨⑩
*2 for items ⑭⑮⑯
*3 for items ⑱⑲⑳⑳㉑㉒

"NXDN Conventional"

Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: NXDN Conventional ▾
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"

Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: NXDN Trunking ▾
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"

Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: dPMR ▾
㉚ Detect Clear Down from Transceiver: ● Disable ○ Enable

Client Mode:Enable

㉛ Server Address:
㉜ Server Port Number: 50003
Communication Control:
㉝ Connection Status: Not Connected [Connection] [Refresh]

*1 Appears only when "Enable" is selected in [Power Detection].
*2 Appears only when "Enable" is selected in [Serial Communication].
*3 Appears only when "Manual" is selected in [Data Mode].

⑦ Power ON/OFF Detection — Select "Enable" to detect the power status (ON/OFF) of the radio.

(Default: Disable)

⑧ Power ON/OFF Detection
Signal ……………………… Select the PTT type to detect the power status (ON/OFF) of the radio.

(Default: Use PTT Type)

• Single PTT: The microphone line and PTT input line are separated.
• Superimposed PTT: The PTT input line is superimposed on the MIC input (A1 terminal).
• Use PTT Type: The PTT type selected in [PTT Type] (③) is used.

⑨ Power ON/OFF Detection
Signal Logic ……………… Select the logic level to detect the power status (ON/OFF). (Default: High)

High: Outputs "High" while the power is ON.
Low: Outputs "Low" while the power is ON.

■Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ▾ dB
② RX Volume Offset from the Transceiver: -24 ▾ 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 ON/OFF Detection: ○ Disable ◉ Enable
⑧ Power ON/OFF Detection Signal: Use PTT Type ▾
*1 ⑨ Power ON/OFF Detection Signal Logic: ◉ High ○ Low
⑩ Detection Invalidity Timer (OFF ⇒ ON): 0   milliseconds
⑪ Send and Receive Change: ◉ Disable ○ Enable
⑫ Serial Communication: ○ Disable ◉ Enable
⑬ Client Mode: ◉ Disable ○ Enable
*2 ⑭ TCP Port Number: 50000
⑮ Communication Control: ◉ Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ▾
⑰ Data Mode: ○ Auto ◉ Manual
⑱ Baud Rate: 9600 ▾
⑲ Data Bits: 8 ▾
*3 ⑳ Parity: none ▾
㉑ Stop Bits: 1 ▾
㉒ Session Timer: 30

*¹Appears only when "Enable" is selected in [Power Detection].
*²Appears only when "Enable" is selected in [Serial Communication].
*³Appears only when "Manual" is selected in [Data Mode].

"NXDN Conventional"
Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: NXDN Conventional ▾
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"
Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: NXDN Trunking ▾
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"
Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: dPMR ▾
㉚ Detect Clear Down from Transceiver: ◉ Disable ○ Enable

Client Mode:Enable
㉛ Server Address:
㉜ Server Port Number: 50003
㉝ Connection Status: Not Connected [Connection] [Refresh]

⑩ Detection Invalidity Timer
(OFF => ON): …………… Enter the power ON/OFF detection delay time in millisecond.   (Default: 0)
When the power ON is detected, VE-PG3 mutes the audio input from the transceiver. The detection delay is the amount of time the VE-PG3 detects the power status before the VE-PG3 recognizes the power status.
Range: 0 to 10000 milliseconds
Note: If "0" is set, the audio input from the transceiver is not muted even if the power ON is detected.

⑪ 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."

⑫ Serial Communication ……   Select "Enable" to use the serial communication.   (Default: Disable)

9. [Port Settings] Menu (continued)   [Port Settings]–[Transceiver 1 (TRX1)/[Transceiver 2 (TRX2)]

■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ▼ dB
② RX Volume Offset from the Transceiver: -24 ▼ 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 ON/OFF Detection: ○ Disable ● Enable
⑧ Power ON/OFF Detection Signal: Use PTT Type ▼
⑨ Power ON/OFF Detection Signal Logic: ● High ○ Low   *1
⑩ Detection Invalidity Timer (OFF ⇒ ON): 0   milliseconds
⑪ Send and Receive Change: ● Disable ○ Enable
⑫ Serial Communication: ○ Disable ● Enable
⑬ Client Mode: ● Disable ○ Enable
⑭ TCP Port Number: 50000   *2
⑮ Communication Control: ● Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ▼
⑰ Data Mode: ○ Auto ● Manual
⑱ Baud Rate: 9600 ▼
⑲ Data Bits: 8 ▼
⑳ Parity: none ▼   *3
㉑ Stop Bits: 1 ▼
㉒ Session Timer: 30

"NXDN Conventional"

Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: NXDN Conventional ▼
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"

Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: NXDN Trunking ▼
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"

Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: dPMR ▼
㉚ Detect Clear Down from Transceiver: ● Disable ○ Enable

Client Mode:Enable

㉛ Server Address:
㉜ Server Port Number: 50003
~Communication Control:~ ~Duplex~ ~Duplex~
㉝ Connection Status: Not Connected [Connection] [Refresh]

*1 Appears only when "Enable" is selected in [Power Detection].
*2 Appears only when "Enable" is selected in [Serial Communication].
*3 Appears only when "Manual" is selected in [Data Mode].

⑬ Client Mode ……………… Select "Enable" to use the serial communication as the client.

(Default: Disable)

Client
VE-PG3
Destination (Server side)
VE-PG3

Serial communication device — Serial connection — VE-PG3 — IP connection — VE-PG3 — Serial connection — Serial communication device

PC, Modem and so on.   Client Mode: Enable   Client Mode: Disable

⑭ TCP Port Number ……… Enter the port number between 1024 and 65535.   (Default: TRX1 50000, TRX2 50001)

⑮ Communication Control … Select the communication type.   (Default: Full-Duplex)
If "Relay" is selected in [Control Circuit Change] or "Enable" in [8V Power Source], "Full-Duplex" is automatically selected.

⑯ Signal Level ……………… Select the serial communication line signal level from "±5 V (RS-232C)," "0V/5V (Logic)" and "0V/3V (Logic)."   (Default: ±5 V (RS-232C))

9. [Port Settings] Menu (continued) [Port Settings]–[Transceiver 1 (TRX1)/[Transceiver 2 (TRX2)]

■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ☑ dB
② RX Volume Offset from the Transceiver: -24 ☑ 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 ON/OFF Detection: ◯ Disable ⦿ Enable
⑧ Power ON/OFF Detection Signal: Use PTT Type ☑
*¹ ⑨ Power ON/OFF Detection Signal Logic: ⦿ High ◯ Low
⑩ Detection Invalidity Timer (OFF ⇒ ON): 0 milliseconds
⑪ Send and Receive Change: ⦿ Disable ◯ Enable
⑫ Serial Communication: ◯ Disable ⦿ Enable
⑬ Client Mode: ⦿ Disable ◯ Enable
⑭ TCP Port Number: 50000
*² ⑮ Communication Control: ⦿ Full-Duplex ◯ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ☑
⑰ Data Mode: ◯ Auto ⦿ Manual
⑱ Baud Rate: 9600 ☑
⑲ Data Bits: 8 ☑
*³ ⑳ Parity: none ☑
㉑ Stop Bits: 1 ☑
㉒ Session Timer: 30

"NXDN Conventional"
Direct Inward Dialing
㉓ DID: ◯ Disable ⦿ Enable
㉔ Control Mode: NXDN Conventional ☑
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"
Direct Inward Dialing
㉓ DID: ◯ Disable ⦿ Enable
㉔ Control Mode: NXDN Trunking ☑
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"
Direct Inward Dialing
㉓ DID: ◯ Disable ⦿ Enable
㉔ Control Mode: dPMR ☑
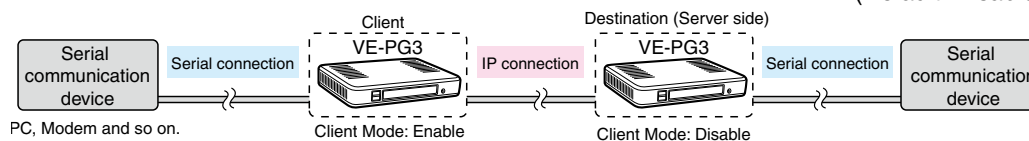㉚ Detect Clear Down from Transceiver: ⦿ Disable ◯ Enable

Client Mode:Enable
㉛ Server Address:
㉜ Server Port Number: 50003
㉝ Connection Status: Not Connected Connection Refresh

*¹Appears only when "Enable" is selected in [Power Detection].
*²Appears only when "Enable" is selected in [Serial Communication].
*³Appears only when "Manual" is selected in [Data Mode].

⑰ Data Mode………………… [Data Mode] selects the communication method for the Serial Communication between a device and the VE-PG3. (Default: Auto)

- **Auto:** Automatically starts the serial communication from a Virtual Serial Port installed on your PC.
- **Manual:** Manually sets a serial communication method for a device.
  * [Baud Rate] (⑱) – [Session Timer] (㉒) are displayed when "Manual" is selected.

⑱ Baud Rate ………………… Select a serial communication speed between a device and the VE-PG3. (Default: 9600)

⑲ Data Bits .... Select the number of bits for the serial communication between 5 and 8. (Default: 8)

⑳ Parity .... Select a parity bit of "none," "odd," or "even." (Default: none)

㉑ Stop Bits .... Select the stop bit length for the data of 1 or 2. (Default: 1)

9. [Port Settings] Menu (continued)　　　　[Port Settings]–[Transceiver 1 (TRX1)/[Transceiver 2 (TRX2)]

■Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ∨ dB
② RX Volume Offset from the Transceiver: -24 ∨ 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 ON/OFF Detection: ○ Disable ◉ Enable
⑧ Power ON/OFF Detection Signal: Use PTT Type ∨
*1 ⑨ Power ON/OFF Detection Signal Logic: ◉ High ○ Low
⑩ Detection Invalidity Timer (OFF ⇒ ON): 0 milliseconds
⑪ Send and Receive Change: ◉ Disable ○ Enable
⑫ Serial Communication: ○ Disable ◉ Enable
⑬ Client Mode: ◉ Disable ○ Enable
⑭ TCP Port Number: 50000
*2 ⑮ Communication Control: ◉ Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ∨
⑰ Data Mode: ○ Auto ◉ Manual
⑱ Baud Rate: 9600 ∨
⑲ Data Bits: 8 ∨
*3 ⑳ Parity: none ∨
㉑ Stop Bits: 1 ∨
㉒ Session Timer: 30

"NXDN Conventional"
Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: NXDN Conventional ∨
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"
Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: NXDN Trunking ∨
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"
Direct Inward Dialing
㉓ DID: ○ Disable ◉ Enable
㉔ Control Mode: dPMR ∨
㉚ Detect Clear Down from Transceiver: ◉ Disable ○ Enable

Client Mode:Enable
㉛ Server Address:
㉜ Server Port Number: 50003
Communi   trol: Duplex   plex
㉝ Connection Status: Not Connected [Connection] [Refresh]

*1Appears only when "Enable" is selected in [Power Detection].
*2Appears only when "Enable" is selected in [Serial Communication].
*3Appears only when "Manual" is selected in [Data Mode].

㉒ Session Timer ....　Set the time to cut the TCP session when there is no communication from the host.　(Default: 30)
Setting range: 0 to 86400 seconds
* The timeout does not occur when "0" is set.

㉓ DID ....　Select "Enable" to use the DID (Direct Inward Dialing) function.　(Default: Disable)

㉔ Control Mode..........................　Select the transceiver system connected to the VE-PG3.　(Default: NXDN Conventional)

㉕ Individual Call.........................　Select "Enable" to use the DID (Direct Inward Dialing) function.　(Default: Disable)

㉖ Talkgroup Call........................　Enter the characters to be recognized as an IP telephone for a group call.　(Default: *2)

9. [Port Settings] Menu (continued)

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

■ Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ▼ dB
② RX Volume Offset from the Transceiver: -24 ▼ 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 ON/OFF Detection: ○ Disable ● Enable
⑧ Power ON/OFF Detection Signal: Use PTT Type ▼
*¹ ⑨ Power ON/OFF Detection Signal Logic: ● High ○ Low
⑩ Detection Invalidity Timer (OFF ⇒ ON):   0   milliseconds
⑪ Send and Receive Change: ● Disable ○ Enable
⑫ Serial Communication: ○ Disable ● Enable
⑬ Client Mode: ● Disable ○ Enable
⑭ TCP Port Number: 50000
*² ⑮ Communication Control: ● Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ▼
⑰ Data Mode: ○ Auto ● Manual
⑱ Baud Rate: 9600 ▼
⑲ Data Bits: 8 ▼
*³ ⑳ Parity: none ▼
㉑ Stop Bits: 1 ▼
㉒ Session Timer: 30

*¹Appears only when "Enable" is selected in [Power Detection].
*²Appears only when "Enable" is selected in [Serial Communication].
*³Appears only when "Manual" is selected in [Data Mode].

"NXDN Conventional"
Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: NXDN Conventional ▼
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"
Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: NXDN Trunking ▼
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"
Direct Inward Dialing
㉓ DID: ○ Disable ● Enable
㉔ Control Mode: dPMR ▼
㉚ Detect Clear Down from Transceiver: ● Disable ○ Enable

Client Mode:Enable
㉛ Server Address:
㉜ Server Port Number: 50003
㉝ Connection Status: Not Connected Connection Refresh

㉗ Prefix ID .... Enter the default prefix ID that is automatically added if a Prefix ID is not specified. This is necessary only if you select the NXDN Trunking.
*The Prefix ID is not used if an invalid ID is entered.   (Default: *1)

㉘ All Call .... Enter the characters to be recognized as an IP telephone for a group call.
(Default: **)

㉙ Delimiter .... Enter a character for the delimiter. This delimiter is necessary to make a call to a digital transceiver through the VE-PG3. In addition, the delimiter function can make an ID to make a call shorter. (Abbreviation: only "0" number)
Example: an Individual Call (*1) to Prefix ID (02) of Unit ID (0010) is "*1*2*10."
(Default: *)

㉚ Detect Clear Down from
Transceiver .... Select "Enable" to detect the disconnect signal from the transceiver.
(Default: Disable)

9. [Port Settings] Menu (continued)   [Port Settings]–[Transceiver 1 (TRX1)/[Transceiver 2 (TRX2)]

■Transceiver 1 (TRX1)/Transceiver 2 (TRX2)

Transceiver Connection

① TX Volume Offset to the Transceiver: -22 ∨ dB
② RX Volume Offset from the Transceiver: -24 ∨ 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 ON/OFF Detection: ○ Disable ⦿ Enable
⑧ Power ON/OFF Detection Signal: Use PTT Type ∨
*¹ ⑨ Power ON/OFF Detection Signal Logic: ⦿ High ○ Low
⑩ Detection Invalidity Timer (OFF ⇒ ON):   0   milliseconds
⑪ Send and Receive Change: ⦿ Disable ○ Enable
⑫ Serial Communication: ○ Disable ⦿ Enable
⑬ Client Mode: ⦿ Disable ○ Enable
⑭ TCP Port Number: 50000
*² ⑮ Communication Control: ⦿ Full-Duplex ○ Half-Duplex
⑯ Signal Level: ±5V (RS-232C) ∨
⑰ Data Mode: ○ Auto ⦿ Manual
⑱ Baud Rate: 9600 ∨
⑲ Data Bits: 8 ∨
*³ ⑳ Parity: none ∨
㉑ Stop Bits: 1 ∨
㉒ Session Timer: 30

"NXDN Conventional"
Direct Inward Dialing
㉓ DID: ○ Disable ⦿ Enable
㉔ Control Mode: NXDN Conventional ∨
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **

"NXDN Trunking"
Direct Inward Dialing
㉓ DID: ○ Disable ⦿ Enable
㉔ Control Mode: NXDN Trunking ∨
㉗ Prefix ID: 1
㉕ Individual Call: *1
㉖ Talkgroup Call: *2
㉘ All Call: **
㉙ Delimiter: *

"dPMR"
Direct Inward Dialing
㉓ DID: ○ Disable ⦿ Enable
㉔ Control Mode: dPMR ∨
�30 Detect Clear Down from Transceiver: ⦿ Disable ○ Enable

Client Mode:Enable
㉛ Server Address:
㉜ Server Port Number: 50003
㉝ Connection Status: Not Connected [Connection] [Refresh]

*¹Appears only when "Enable" is selected in [Power Detection].
*²Appears only when "Enable" is selected in [Serial Communication].
*³Appears only when "Manual" is selected in [Data Mode].

㉛ Server Address........................   Enter the destination VE-PG3's IP address.

㉜ Server Port Number...............   Enter the destination VE-PG3's port number.
                                         (Default: EXT1=50002, EXT2=50003)
                                         Range: "1024" to "65535"

㉝ Connection Status..................   Displays the connection status. Click "Connection" to connect the serial communication.

■Transceiver Control

Configure the details for [TRX1]/[TRX2] port.

Transceiver Control

①	Priority Receive:	⦿ Disable ○ Enable
②	PTT Cancel:	⦿ Disable ○ Enable
③**	Call Back RX to TX:	⦿ Disable ○ Enable
④	TX Volume:	[0 ▾] dB
⑤	RX Volume:	[0 ▾] dB
⑥	Transceiver's Beep Invalidity Time:	[400] milliseconds *Setting value is set in five milliseconds steps.

Notice Tone to the Transceiver

⑦	Reception Notice:	[Not used ▾]
⑧	Calling Notice Tone:	[Notice Tone 2 ▾]
⑨	Send Connect Success Tone:	[Notice Tone 2 ▾]
⑩	Disconnect Notice Tone:	[Notice Tone 3 ▾]
⑪	Send Connect Failure Tone:	[Notice Tone 3 ▾]
⑫	Notice Tone Volume:	[0 ▾] dB

PTT Control Type from the Telephone

⑬	PTT Control Type:	[DTMF ▾]
⑭*	PTT-ON Tone:	[0 ▾]
⑮*	PTT-OFF Tone:	[0 ▾]

Call Control Type to the Telephone

⑯	Call Control Type:	[VOX ▾]

*Appears only when "DTMF" is selected in [PTT Control Type from the Telephone].

**Appears only when "IC-FR5000/FR6000" or "General" is selected in [Transceiver Model].

①Priority Receive Mode ...... Select "Enable" to restrict transmission while receiving an RF signal, even if the transceiver detects audio signal from the SIP phone.   (Default: Disable)

• When "Enable" is selected, the transceiver transmits only when receiving no RF signal.

②PTT Cancel Mode   .... Select "Enable" to abort the calling an IP phone when a transmit request is detected.   (Default: Disable)

③Call Back RX to TX .... Select "Enable" to mix the audio from the repeater with the audio from the telephone.   (Default: Disable)

Note: When "Enable" is selected, select "Disable" in [Priority Receive].
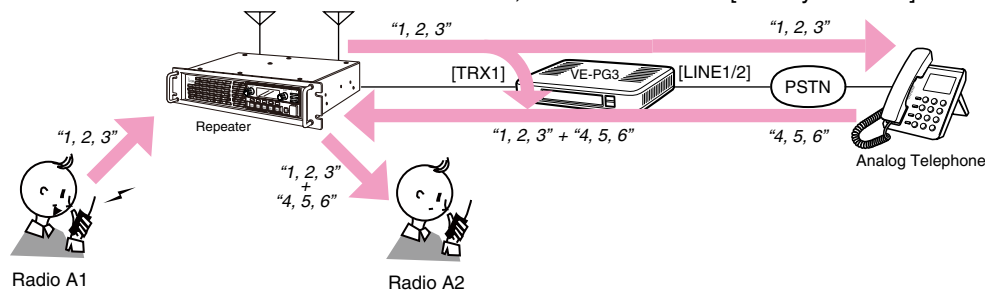
An example of communication with the Call Back RX to TX function

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

9. [Port Settings] Menu

■Transceiver Control (continued)

Transceiver Control

① Priority Receive:	◉ Disable ○ Enable	
② PTT Cancel:	◉ Disable ○ Enable	
③** Call Back RX to TX:	◉ Disable ○ Enable	
④ TX Volume:	0 ▾ dB	
⑤ RX Volume:	0 ▾ dB	
⑥ Transceiver's Beep Invalidity Time:	400 milliseconds	*Setting value is set in five milliseconds steps.

Notice Tone to the Transceiver

⑦ Reception Notice:	Not used ▾
⑧ Calling Notice Tone:	Notice Tone 2 ▾
⑨ Send Connect Success Tone:	Notice Tone 2 ▾
⑩ Disconnect Notice Tone:	Notice Tone 3 ▾
⑪ Send Connect Failure Tone:	Notice Tone 3 ▾
⑫ Notice Tone Volume:	0 ▾ dB

PTT Control Type from the Telephone

⑬ PTT Control Type:	DTMF ▾
⑭* PTT-ON Tone:	0 ▾
⑮* PTT-OFF Tone:	0 ▾

Call Control Type to the Telephone

⑯ Call Control Type:	VOX ▾

*Appears only when "DTMF" is selected in [PTT Control Type from the Telephone].
**Appears only when "IC-FR5000/FR6000" or "General" is selected in [Transceiver Model].

⑤RX 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)

⑥Transceiver's Beep Invalidity Time

Enter the time period to mute the audio (including beep sounds) from the connected radio.   (Default: 400)
Range: "0" to "1000" (in 5 milliseconds step)

Notice Tone to the Transceiver

⑦Reception Notice …………   Select "Notice Tone 1" to "Notice Tone 3" to notify that the call from an IP phone is received.   (Default: Not used)

⑧Calling Notice Tone ………   Select "Notice Tone 1" to "Notice Tone 3" to notify the calling to an IP phone.   (Default: Notice Tone 2)

⑨Send Connect Success Tone   Select "Notice Tone 1" to "Notice Tone 3" to notify that the IP phone's handset is picked up.   (Default: Notice Tone 2)

⑩Disconnect Notice Tone …   Select "Notice Tone 1" to "Notice Tone 3" to notify that the IP phone's handset is put.   (Default: Notice Tone 3)

9. [Port Settings] Menu

■Transceiver Control (continued)

Transceiver Control

① Priority Receive: ◉ Disable ○ Enable
② PTT Cancel: ◉ Disable ○ Enable
③** Call Back RX to TX: ◉ Disable ○ Enable
④ TX Volume: [0 ▾] dB
⑤ RX Volume: [0 ▾] dB
⑥ Transceiver's Beep Invalidity Time: [400] milliseconds   *Setting value is set in five milliseconds steps.

Notice Tone to the Transceiver
⑦ Reception Notice: [Not used ▾]
⑧ Calling Notice Tone: [Notice Tone 2 ▾]
⑨ Send Connect Success Tone: [Notice Tone 2 ▾]
⑩ Disconnect Notice Tone: [Notice Tone 3 ▾]
⑪ Send Connect Failure Tone: [Notice Tone 3 ▾]
⑫ Notice Tone Volume: [0 ▾] dB

PTT Control Type from the Telephone
⑬ PTT Control Type: [DTMF   ▾]
⑭* PTT-ON Tone: [0 ▾]
⑮* PTT-OFF Tone: [0 ▾]

Call Control Type to the Telephone
⑯ Call Control Type: [VOX ▾]

*Appears only when "DTMF" is selected in [PTT Control Type from the Telephone].
**Appears only when "IC-FR5000/FR6000" or "General" is selected in [Transceiver Model].

⑪Send Connect Failure Tone   Select "Tone 1" to "Tone 3" to notify that the calling IP phone is unavailable.
(Default: Notice Tone 3)

⑫Notice Tone Volume ………   Select the tone level for above items.   (Default: 0)
Range: "+6" to "–12" (dB)

PTT Control Type from the Telephone
⑬PTT Control Type …………   Select the input signal type to control the transceiver to transmit.
(Default: VOX)

• VOX: The transceiver transmits and communication route is connected when an audio input is detected.

• DTMF: The transceiver transmits and communication route is connected when a DTMF tone signal is detected.

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

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

• Always Send during Talking: The VE-PG3 keeps sending the PTT control signal, once the communication route has been established.

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

■ Transceiver Control (continued)

Transceiver Control

① Priority Receive:	⦿ Disable ○ Enable	
② PTT Cancel:	⦿ Disable ○ Enable	
③** Call Back RX to TX:	⦿ Disable ○ Enable	
④ TX Volume:	0 ▾ dB	
⑤ RX Volume:	0 ▾ dB	
⑥ Transceiver's Beep Invalidity Time:	400 milliseconds	*Setting value is set in five milliseconds steps.

Notice Tone to the Transceiver

⑦ Reception Notice:	Not used ▾
⑧ Calling Notice Tone:	Notice Tone 2 ▾
⑨ Send Connect Success Tone:	Notice Tone 2 ▾
⑩ Disconnect Notice Tone:	Notice Tone 3 ▾
⑪ Send Connect Failure Tone:	Notice Tone 3 ▾
⑫ Notice Tone Volume:	0 ▾ dB

PTT Control Type from the Telephone

⑬ PTT Control Type:	DTMF ▾
⑭* PTT-ON Tone:	0 ▾
⑮* PTT-OFF Tone:	0 ▾

Call Control Type to the Telephone

⑯ Call Control Type:	VOX ▾

*Appears only when "DTMF" is selected in [PTT Control Type from the Telephone].

**Appears only when "IC-FR5000/FR6000" or "General" is selected in [Transceiver Model].

⑭ PTT-ON Tone ……………   Select the DTMF tone to start the transmission.   (Default: 0)
- The transmission is started when the selected tone signal is detected.
- If the selected DTMF tone is same as that of selected in [PTT-OFF], the transmission and reception toggles every time the tone is detected.

⑮ PTT-OFF Tone ……………   Select the DTMF tone to return to the reception.   (Default: 0)
- The transmission is stopped when the selected tone signal is detected.
- If the selected DTMF tone is same as that of selected in [PTT-ON], the transmission and reception toggles every time the tone is detected.

⑯ Call Control Type …………   Select the Audio Transmission Method.   (Default: VOX)
- VOX: Sends the audio signal and enables the PTT, when the input audio signal level exceeds the threshold level.
- SQL: Sends the audio signal and enables the PTT, while receiving a signal (the squelch is open).

■ DTMF Call Setting

DTMF Call Setting

Use DTMF Call:	⦿ Disable ○ Enable

Use DTMF Call ………………   Select "Enable" to use DTMF signaling.   (Default: Disable)

■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].

①Attack 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.

②Release Time …………… Select the amount of time before returning to receive 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.

③Voice Delay ……………… Select the amount of time to store the audio from the network in 5 milliseconds step. (Default: 200)
Range: 0 to 500 milliseconds
The VE-PG3 stores the audio from the network for the specified time of period to prevent the beginnings of phrases are clipped.

④Voice 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 Transmission Control from the Transceiver

Voice Transmission Control from the Digital Transceiver

Attack Time: 1000 ▼ milliseconds

Attack Time ………………… Select the attack time. (Default: 1000)
Range: 0, 200, 400, 600, 800 and 1000 milliseconds

■Voice Reception Control from the Transceiver

Configure the settings for received audio detection conditions. The VE-PG3 detects that the connected transceiver is receiving signal or not, according to these settings.

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: 1000)
Range: 5 to 500 milliseconds
It is the delay time before the VE-PG3 output the audio signal to the network.

② Release Time …………… Select the amount of time before detecting the audio absence in 5 milliseconds step.　　　(Default: 200)
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 ……………… Select the amount of time to store the audio from transceiver in 5 milliseconds step.　　　(Default: 5)
Range: 0 to 500 milliseconds
The VE-PG3 stores the received audio from the transceiver for the specified time of period to prevent the beginnings of phrases are clipped.

④ Voice Threshold ………… Set the voice threshold level.　　　(Default: 70)
Range: 0 to 100 %
The audio signal from the transceiver is output to the network according to this threshold level.

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: Notice Tone 1)

② Notice Tone 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

①Call Cancel Timer…………   Enter the time period to cancel the calling. When the set time has passed without the response from the IP phone, the calling is cancelled. (Default: 15)
Range: "0 (OFF)," "5" to "60" (sec.)

②No Voice Release Timer …   Enter the time period to cut off the call connection. When the set time has passed with no audio signal, the connection is cut off.   (Default: 15)
Range: "0 (OFF)," "5" to "600" (sec.)

Forced Disconnect
③Forced 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 Model

Select the system mode from Trunking, Conventional or dPMR Mode2, according to your system.

Digital Transceiver Model

Mode: NXDN Trunking   ∨   *Each setting is initialized after changing.

■Digital Transceiver Connection

Configure the details for digital transceiver communication settings.

"NXDN Trunking"

Digital Transceiver Connection

① Repeater Address:
② Repeater Port Number: 41220
③ Local Port Number: 43000
④ Connect Key: ucfr5000
⑤ Area Bit: ◉ OFF ○ ON
⑥ Integrator Code: 1
⑦ System Code: 1
Unit
⑧ Prefix ID: 1
⑧ Unit ID: 1
Talkgroup
⑨ Prefix ID: 1
⑨ Talkgroup ID: 1
Encryption
⑩ Encryption: ◉ Disable ○ Enable
Status
⑪ Connection Status: Not Connected Connection Refresh

"dPMR Mode2"

Digital Transceiver Connection

① Repeater Address:
⑫ TCP Port Number: 41200
⑬ UDP Port Number: 41220
④ Connect Key: ucfr5000
⑭ Packet Encryption: ○ Disable ◉ Enable Key 00000000
Unit
⑧ Unit ID: 1
RX ID Range
⑰ Talkgroup ID (Start):   100000
Talkgroup
⑨ Talkgroup ID: 100000
CC
⑱ RX CC: 0
⑲ TX CC: ⑳ ☐ Appointment 0
Scrambler
㉑ Scrambler: ○ Disable ◉ Enable Scrambler Key 1
Status
⑪ Connection Status: Not Connected Connection Refresh

"NXDN Conventional"

Digital Transceiver Connection

① Repeater Address:
⑫ TCP Port Number: 41200
⑬ UDP Port Number   41220
④ Connect Key: ucfr5000
⑭ Packet Encryption: ○ Disable ◉ Enable Key 00000000
Unit
⑧ Unit ID: 1
Talkgroup
⑨ Talkgroup ID: 1
RAN
⑮ RX RAN: 1
⑯ TX RAN: ☐ Appointment 1
Encryption
⑩ Encryption: ○ Disable ◉ Enable Encryption Key 1
Status
⑪ Connection Status: Not Connected Connection Refresh

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

"NXDN Trunking"

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

"NXDN Trunking"

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

9. [Port Settings] Menu

[Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■Digital Transceiver Connection (continued)

"NXDN Trunking"

Digital Transceiver Connection

① Repeater Address:
② Repeater Port Number: 41220
③ Local Port Number: 43000
④ Connect Key: ucfr5000
⑤ Area Bit: ◉ OFF ○ ON
⑥ Integrator Code: 1
⑦ System Code: 1
Unit
⑧ Prefix ID: 1
⑧ Unit ID: 1
Talkgroup
⑨ Prefix ID: 1
⑨ Talkgroup ID: 1
Encryption
⑩ Encryption: ◉ Disable ○ Enable
Status
⑪ Connection Status: Not Connected [Connection] [Refresh]

"dPMR Mode2"

Digital Transceiver Connection

① Repeater Address:
⑫ TCP Port Number: 41200
⑬ UDP Port Number: 41220
④ Connect Key: ucfr5000
⑭ Packet Encryption: ○ Disable ◉ Enable Key 00000000
Unit
⑧ Unit ID: 1
RX ID Range
⑰ Talkgroup ID (Start): 100000
Talkgroup
⑨ Talkgroup ID: 100000
CC
⑱ RX CC: 0
⑲ TX CC: ⑳ ☐ Appointment 0
Scrambler
㉑ Scrambler: ○ Disable ◉ Enable Scrambler Key 1
Status
⑪ Connection Status: Not Connected [Connection] [Refresh]

"NXDN Conventional"

Digital Transceiver Connection

① Repeater Address:
⑫ TCP Port Number: 41200
⑬ UDP Port Number 41220
④ Connect Key: ucfr5000
⑭ Packet Encryption: ○ Disable ◉ Enable Key 00000000
Unit
⑧ Unit ID: 1
Talkgroup
⑨ Talkgroup ID: 1
RAN
⑮ RX RAN: 1
⑯ TX RAN: ☐ Appointment 1
Encryption
⑩ Encryption: ○ Disable ◉ Enable Encryption Key 1
Status
⑪ Connection Status: Not Connected [Connection] [Refresh]

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

"NXDN Trunking"
⑤ Area Bit …………………… Turn the Area Bit ON or OFF. (Default: OFF)

"NXDN Trunking"
⑥ Integrator Code ………… Displays the Integrator Code which is set in the UC-FR5000.

"NXDN Trunking"
⑦ System Code …………… Displays the System Code which is set in the UC-FR5000.

Unit
⑧ Prefix ID/Unit ID ………… Enter the Prefix ID (for NXDN Trunking) and Unit ID which are set in the UC-FR5000. (Default: 1 (for both))

9. [Port Settings] Menu

[Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■Digital Transceiver Connection (continued)

"NXDN Trunking"

Digital Transceiver Connection

① Repeater Address:
② Repeater Port Number: 41220
③ Local Port Number: 43000
④ Connect Key: ucfr5000
⑤ Area Bit: ● OFF ○ ON
⑥ Integrator Code: 1
⑦ System Code: 1

Unit
⑧ Prefix ID: 1
⑧ Unit ID: 1

Talkgroup
⑨ Prefix ID: 1
⑨ Talkgroup ID: 1

Encryption
⑩ Encryption: ● Disable ○ Enable

Status
⑪ Connection Status: Not Connected [Connection] [Refresh]

"dPMR Mode2"

Digital Transceiver Connection

① Repeater Address:
⑫ TCP Port Number: 41200
⑬ UDP Port Number: 41220
④ Connect Key: ucfr5000
⑭ Packet Encryption: ○ Disable ● Enable Key 00000000

Unit
⑧ Unit ID: 1

RX ID Range
⑰ Talkgroup ID (Start): 100000

Talkgroup
⑨ Talkgroup ID: 100000

CC
⑱ RX CC: 0
⑲ TX CC: ⑳ ☐ Appointment 0

Scrambler
㉑ Scrambler: ○ Disable ● Enable Scrambler Key 1

Status
⑪ Connection Status: Not Connected [Connection] [Refresh]

"NXDN Conventional"

Digital Transceiver Connection

① Repeater Address:
⑫ TCP Port Number: 41200
⑬ UDP Port Number 41220
④ Connect Key: ucfr5000
⑭ Packet Encryption: ○ Disable ● Enable Key 00000000

Unit
⑧ Unit ID: 1

Talkgroup
⑨ Talkgroup ID: 1

RAN
⑮ RX RAN: 1
⑯ TX RAN: ☐ Appointment 1

Encryption
⑩ Encryption: ○ Disable ● Enable Encryption Key 1

Status
⑪ Connection Status: Not Connected [Connection] [Refresh]

Talkgroup

⑨ Prefix ID/Talkgroup ID……   Enter the Prefix ID (for NXDN Trunking) and Talkgroup ID.

(Default: 1 (for both))

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.

9. [Port Settings] Menu

■Digital Transceiver Connection (continued)

"NXDN Conventional"

⑫TCP Port Number ……… Enter the TCP port number which is set in the UC-FR5000 (Connection Port).

(Default: 41200)

"NXDN Conventional"

⑬UDP Port Number ……… Enter the UDP port number which is set in the UC-FR5000 (Data Port).

(Default: 41220)

"NXDN Conventional"

⑭Packet Encryption ……… Select "Enable" to encrypt the data packet. (Default: Disable)

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

RAN

"NXDN Conventional"

⑮RX RAN …………………… Enter the RAN (Radio Access Number) for receiving. (Default: 1)

9. [Port Settings] Menu

■Digital Transceiver Connection (continued)

"NXDN Trunking"

Digital Transceiver Connection

① Repeater Address:		
② Repeater Port Number:	41220	
③ Local Port Number:	43000	
④ Connect Key:	ucfr5000	
⑤ Area Bit:	⦿ OFF ○ ON	
⑥ Integrator Code:	1	
⑦ System Code:	1	
Unit		
⑧ Prefix ID:	1	
⑧ Unit ID:	1	
Talkgroup		
⑨ Prefix ID:	1	
⑨ Talkgroup ID:	1	
Encryption		
⑩ Encryption:	⦿ Disable ○ Enable	
Status		
⑪ Connection Status:	Not Connected [Connection] [Refresh]	

"dPMR Mode2"

Digital Transceiver Connection

① Repeater Address:		
⑫ TCP Port Number:	41200	
⑬ UDP Port Number:	41220	
④ Connect Key:	ucfr5000	
⑭ Packet Encryption:	○ Disable ⦿ Enable Key	00000000
Unit		
⑧ Unit ID:	1	
RX ID Range		
⑰ Talkgroup ID (Start):	100000	
Talkgroup		
⑨ Talkgroup ID:	100000	
CC		
⑱ RX CC:	0	
⑲ TX CC:	⑳ ☐ Appointment 0	
Scrambler		
㉑ Scrambler:	○ Disable ⦿ Enable Scrambler Key	1
Status		
⑪ Connection Status:	Not Connected [Connection] [Refresh]	

"NXDN Conventional"

Digital Transceiver Connection

① Repeater Address:		
⑫ TCP Port Number:	41200	
⑬ UDP Port Number	41220	
④ Connect Key:	ucfr5000	
⑭ Packet Encryption:	○ Disable ⦿ Enable Key	00000000
Unit		
⑧ Unit ID:	1	
Talkgroup		
⑨ Talkgroup ID:	1	
RAN		
⑮ RX RAN:	1	
⑯ TX RAN:	☐ Appointment 1	
Encryption		
⑩ Encryption:	○ Disable ⦿ Enable Encryption Key	1
Status		
⑪ Connection Status:	Not Connected [Connection] [Refresh]	

"NXDN Conventional"

⑯ TX RAN …………………… When a different RAN is assigned for transmitting, enter the RAN for transmitting.
(Default: 1)

• Enter the check mark to [Appointment], and then enter the RAN for transmitting.

"dPMR Mode2"

RX ID Range

⑰ Talkgroup ID (Start) ……… Enter the Talkgroup Start ID. (Default: 100000)

9. [Port Settings] Menu

[Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■ Digital Transceiver Connection (continued)

"NXDN Trunking"

Digital Transceiver Connection

① Repeater Address:		
② Repeater Port Number:	41220	
③ Local Port Number:	43000	
④ Connect Key:	ucfr5000	
⑤ Area Bit:	◉ OFF ○ ON	
⑥ Integrator Code:	1	
⑦ System Code:	1	

Unit

⑧ Prefix ID:	1
⑧ Unit ID:	1

Talkgroup

⑨ Prefix ID:	1
⑨ Talkgroup ID:	1

Encryption

⑩ Encryption: ◉ Disable ○ Enable

Status

⑪ Connection Status: Not Connected [Connection] [Refresh]

"dPMR Mode2"

Digital Transceiver Connection

① Repeater Address:		
⑫ TCP Port Number:	41200	
⑬ UDP Port Number:	41220	
④ Connect Key:	ucfr5000	
⑭ Packet Encryption:	○ Disable ◉ Enable Key	00000000

Unit

⑧ Unit ID:	1

RX ID Range

⑰ Talkgroup ID (Start):	100000

Talkgroup

⑨ Talkgroup ID:	100000

CC

⑱ RX CC:	0
⑲ TX CC:	⑳ ☐ Appointment 0

Scrambler

⑳ Scrambler: ○ Disable ◉ Enable Scrambler Key 1

Status

⑪ Connection Status: Not Connected [Connection] [Refresh]

"NXDN Conventional"

Digital Transceiver Connection

① Repeater Address:		
⑫ TCP Port Number:	41200	
⑬ UDP Port Number	41220	
④ Connect Key:	ucfr5000	
⑭ Packet Encryption:	○ Disable ◉ Enable Key	00000000

Unit

⑧ Unit ID:	1

Talkgroup

⑨ Talkgroup ID:	1

RAN

⑮ RX RAN:	1
⑯ TX RAN:	☐ Appointment 1

Encryption

⑩ Encryption: ○ Disable ◉ Enable Encryption Key 1

Status

⑪ Connection Status: Not Connected [Connection] [Refresh]

CC

"dPMR Mode2"

⑱ RX CC ……………………   Enter the CC for receiving.   (Default: 0)

"dPMR Mode2"

⑲ TX CC ……………………   Enter the CC for transmitting.   (Default: 0)
                                • Enter the check mark in [Appointment] to separately set the TX CC.

"dPMR Mode2"

⑳ Appointment ………………   Enter the check mark when you separately set the TX CC.

Scrambler

"dPMR Mode2"

㉑ Scrambler …………………   Select "Enable" to encrypt the audio packet.   (Default: Disable)
                                • Enter the Scrambler Key when you select "Enable."

9. [Port Settings] Menu (continued)   [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■Digital Transceiver Communication

Set the calling details.

①RX All Call …………………   Select "Enable" to permit all talkgroups to receive the call.

                                                 (Default: Disable)

Callee Designation

②Call 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.

"NXDN Trunking"

③Destination Prefix ID ……   Enter the destination prefix ID.   (Default: 1)

                          Setting range: (Depending on the system mode)

④Destination ID ……………   Enter the destination ID.   (Default: 1)

                          Setting range: (Depending on the system mode)

"NXDN Conventional"

⑤Digital SQL ………………   Select "Enable" to use the Digital Squelch function.   (Default: Disable)

                          • If "Enable" is selected, the squelch opens when the matched RAN and Individual ID or Talkgroup ID are received.

■Digital Transceiver Control

Configure the details for digital transceiver control.

Digital Transceiver Control

①PTT Cancel: ⦿ Disable ○ Enable
②Timing of Target Availability Check: ⦿ After ○ Before
Notice Tone to the Transceiver
③Reception Notice: Not used ▾
④Calling Notice Tone: Notice Tone 2 ▾
⑤Send Connect Success Tone: Notice Tone 2 ▾
⑥Disconnect Notice: Notice Tone 3 ▾
⑦Send Connect Failure Tone: Notice Tone 3 ▾
⑧Notice Tone Volume: 0 ▾ dB
PTT Control Type from the Telephone
⑨PTT Control Type: DTMF ▾
⑩PTT-ON Tone: 0 ▾
⑪PTT-OFF Tone: 0 ▾

①PTT Cancel ………………   Select "Enable" to abort the calling to an IP phone when a transmit request is detected.   (Default: Disable)

②Timing of
　Target Availability Check…   Select "Before" to execute the Target Availability Check before the communication route is established.   (Default: After)

Notice Tone to the Transceiver
③Reception Notice …………   Select "Tone 1" to "Tone 3" to notify that the call from an IP phone is received.   (Default: None)

④Calling Notice Tone ………   Select "Tone 1" to "Tone 3" to notify the calling to an IP phone.   (Default: Notice Tone 2)

⑤Send Connect Success Tone   Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is picked up.   (Default: Notice Tone 2)

⑥Disconnect Notice Tone …   Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is put.   (Default: Notice Tone 3)

9. [Port Settings] Menu

■Digital Transceiver Control (continued)

Digital Transceiver Control

①PTT Cancel:	◉ Disable ○ Enable	
②Timing of Target Availability Check:	◉ After ○ Before	
Notice Tone to the Transceiver		
③Reception Notice:	Not used ∨	
④Calling Notice Tone:	Notice Tone 2 ∨	
⑤Send Connect Success Tone:	Notice Tone 2 ∨	
⑥Disconnect Notice:	Notice Tone 3 ∨	
⑦Send Connect Failure Tone:	Notice Tone 3 ∨	
⑧Notice Tone Volume:	0 ∨ dB	
PTT Control Type from the Telephone		
⑨PTT Control Type:	DTMF ∨	
⑩PTT-ON Tone:	0 ∨	
⑪PTT-OFF Tone:	0 ∨	

⑦Send Connect Failure Tone

Select "Tone 1" to "Tone 3" to notify that the calling IP phone is unavailable.
(Default: Notice Tone 3)

⑧Notice Tone Volume ………   Select the tone level for above items.   (Default: 0)
Range: "+6" to "–12" (dB)

PTT Control Type from the Telephone

⑨PTT Control Type …………   Select the signal type to control TX.   (Default: VOX)

• VOX: The communication route is connected when an audio input is detected.

• If [VOX] is selected, the communication route is connected when an audio input is detected.

• DTMF: The communication route is connected when a DTMF tone is detected.

• Always Send during Talking: The VE-PG3 keeps sending the PTT control signal, once the communication route has been established.

■Digital Transceiver Control (continued)

Digital Transceiver Control

①PTT Cancel:	● Disable ○ Enable
②Timing of Target Availability Check:	● After ○ Before
Notice Tone to the Transceiver	
③Reception Notice:	Not used
④Calling Notice Tone:	Notice Tone 2
⑤Send Connect Success Tone:	Notice Tone 2
⑥Disconnect Notice:	Notice Tone 3
⑦Send Connect Failure Tone:	Notice Tone 3
⑧Notice Tone Volume:	0 dB
PTT Control Type from the Telephone	
⑨PTT Control Type:	DTMF
⑩PTT-ON Tone:	0
⑪PTT-OFF Tone:	0

⑩PTT-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.

⑪PTT-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.

■DTMF Call

Configure the DTMF call setting.

DTMF Call

①Use DTMF Call:	○ Disable ● Enable
Numbering Timer	
②Blank Time between Digits:	5 seconds
* ③OFF-hook Detect Timer:	400 milliseconds *Applied only if the OFF-hook settings in [Special Number] are set to values with one digit.
④ON-hook Detect Timer:	400 milliseconds *Applied only if the ON-hook setting in [Special Number] is set to a value with one digit.

*: Appears when "Enable" is selected in the [Use DTMF Call] item.

①Use DTMF Call……………   Select "Enable" to use the DTMF signaling (0 to 9, # and *). (Default: Disable)

Numbering Timer
②Blank Time Between Digits   Select the time period to detect that the last digit has been input.   (Default: 5)

• Range: "1" to "10" (seconds)

③OFF-hook Detect Timer …   Select the time period to detect the OFF-hook control signal.   (Default: 400)

• Range: "0" to "2000" (milliseconds)

④ON-hook Detect Timer   …   Select the time period to detect the ON-hook control signal.   (Default: 400)

• Range: "0" to "2000" (milliseconds)

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:	50	milliseconds
② Release Time:	500	milliseconds
③ Automatic Voice Delay:	○ Disable ● Enable	
④ Voice Delay:	200	milliseconds
⑤ Voice Threshold:	40	%

①Attack Time ……………… Select the TX attack time. (Default: 50)
Range: 0 to 1000 milliseconds
It is the delay time before the VOX switch turns ON after an audio signal is received through the network.

②Release 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.

③Automatic Voice Delay … Select "Enable" to automatically adjust the audio delay, depending on the network delay time. (Default: Enable)

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

⑤Voice 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.

9. [Port Settings] Menu (continued) [Port Settings]–[Digital Transceiver1 (D-TRX1)–Digital Transceiver4 (D-TRX4)]

■V/RoIP Control

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	

①Send Connect Success Tone to Telephone

  Select "Tone 1" to "Tone 3" to notify that the connection to the calling IP phone is succeeded.   (Default: Notice Tone 1)

②Send 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)

③Notice 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

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
③ DID Disconnect Timer:	60	seconds
Forced Disconnect		
④ Forced Disconnect Timer:	10	minutes

①Call 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.)

②No 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.)

③DID 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
④Forced 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: Voice Data Detection ▾
③* Transmission Cancel: ◉ Disable ○ Enable
④ Power for the Microphone: ◉ Disable ○ Enable
⑤ Reference Level: -10dBs ▾
⑥ Input Analog Gain: 0 ▾ dB
⑦ Input Digital Gain: 0 ▾ dB

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

①Input Connection Port ……   Select the port to input the audio signal.

(Default: IP Network)

• **EXT Output:** Sends the audio signal to the . [EXT1]/[EXT2] port.

• If "Combine" is selected in the [EXT I/O Mode] item, this item cannot be selected.

• **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. (The [Emergency Notice] on the [Emergency Notice] screen)

• 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.
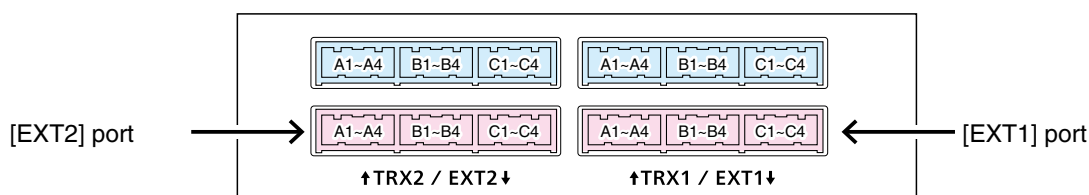
9. [Port Settings] Menu

■ EXT Voice Terminal (continued)

EXT Voice Terminal

① Input Connection Port: IP Network ▼
② Valid Timing: Voice Data Detection ▼
③*Transmission Cancel: ⦿ Disable ○ Enable
④ Power for the Microphone: ⦿ Disable ○ Enable
⑤ Reference Level: -10dBs ▼
⑥ Input Analog Gain: 0 ▼ dB
⑦ Input Digital Gain: 0 ▼ dB

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

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 Transmission Cancel …… | Select "Enable" to automatically cancel the call, when a call is received through the [EXT1]/[EXT2] port. (Default: Disable)

④ Power for the Microphone | Select "Enable" to supply the voltage to the microphone connected to A3/A4 terminal (Audio input) microphone. (Default: Disable)

[EXT2] port → | A1~A4 | B1~B4 | C1~C4 | | A1~A4 | B1~B4 | C1~C4 |
| A1~A4 | B1~B4 | C1~C4 | | A1~A4 | B1~B4 | C1~C4 | ← [EXT1] port
↑TRX2 / EXT2↓   ↑TRX1 / EXT1↓

VE-PG3 (Rear view)

• See Section 8 for port details.

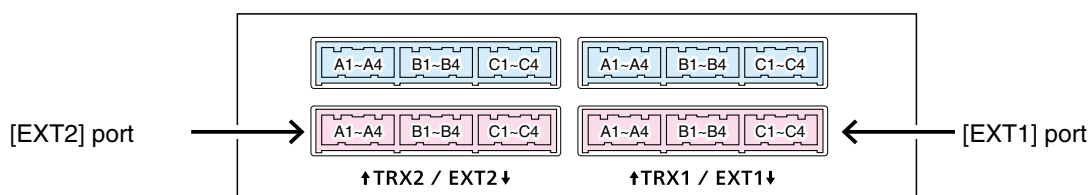## 9. [Port Settings] Menu   [Port Settings]–[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

■EXT Voice Terminal (continued)

EXT Voice Terminal

① Input Connection Port: IP Network ▽
② Valid Timing: Voice Data Detection ▽
③* Transmission Cancel: ⦿ Disable ○ Enable
④ Power for the Microphone: ⦿ Disable ○ Enable
⑤ Reference Level: -10dBs ▽
⑥ Input Analog Gain: 0 ▽ dB
⑦ Input Digital Gain: 0 ▽ dB

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

⑤Reference Level ………… Select the input line A3/A4 terminal (Audio input) sensitivity from "−10dBs" and "−40dBs" (0 dBs=0.775 Vrms).   (Default: −10dBs)
• The sensitivity differs depending on the microphone.

⑥Input 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)

⑦Input 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)

[EXT2] port →
[EXT1] port ←

| A1~A4 | B1~B4 | C1~C4 | | A1~A4 | B1~B4 | C1~C4 |
| A1~A4 | B1~B4 | C1~C4 | | A1~A4 | B1~B4 | C1~C4 |

↑TRX2 / EXT2↓   ↑TRX1 / EXT1↓

VE-PG3 (Rear view)
• See Section 8 for port details.

■Voice Control

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

Voice Control

| Voice Delay: | 5 | 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 ………………… Select the amount of time to store the audio in 5 milliseconds step.

(Default: 5)

Range: 0 to 500 milliseconds

The VE-PG3 stores the audio for the specified time of period to prevent the beginnings of phrases are clipped.

9. [Port Settings] Menu (continued)   [Port Settings]–[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

■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   %

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

①Attack Time ……………… Enter the TX attack time in 5 millisecond step.   (Default: 1000)
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.

②Release Time …………… Select the RX delay time in 5 millisecond step.   (Default: 200)
Range: 5 to 2000 milliseconds
The time is the delay the VOX switch to turns OFF after not audio signal is received through the network.

③Voice Delay ……………… Set the audio signal buffer time to prevent intermittent audio in 5 millisecond step.   (Default: 5)
Range: 0 to 500 milliseconds
The audio signal is sent after the set delay. Higher value may improve the missing of beginning of speech.

④Voice Threshold ………… Set the voice threshold level.   (Default: 70)
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.

Note: Appears only when "Control Data Detection" is selected in [Valid Timing].

EXT Control Terminal

① Input Type: [One-shot ▼]
② Event ON Time: [1 ▼] seconds
③ Event OFF Time: [1 ▼] seconds
④* EXT Input Disconnect Timer: [0] seconds
⑤ Control Input Detection: [Short Circuit (LOW) ▼]
⑥ Control Input Pull-up Setting: ○ Disable　● Enable

*Appears only when "One-shot" is selected in [Input Type].

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.
　　　　　　　　　　　　　　　　　The input signal has been detected for the period of time, which is set in the [Event ON Time], the VE-PG3 recognizes the signal input and retains the condition for the period of time, which is set in the [Event OFF Time].

　　　　　　　　　　　　　　　　　• **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.
　　　　　　　　　　　　　　　　　The input signal has been detected for the period of time, which is set in the [Event ON Time], the VE-PG3 recognizes the signal input and retains the condition for the period of time, which is set in the [Event OFF Time].

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: One-shot ▾
② Event ON Time: 1 ▾ seconds
③ Event OFF Time: 1 ▾ seconds
④* EXT Input Disconnect Timer: 0   seconds
⑤ Control Input Detection: Short Circuit (LOW) ▾
⑥ Control Input Pull-up Setting: ○ Disable ◉ Enable

*Appears only when "One-shot" is selected in [Input Type].

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)
Note: The suitable delay time may differ, depending on the audio device.

④ EXT Input Disconnect Timer   Enter the delay time until the [EXT1]/[EXT2] port is ready for the next call.   (Default: 0)
When the callee telephone's handset is taken off its hook, the VE-PG3 automatically clears the [EXT1]/[EXT2] port for the next call, after the delay time has passed.
Range: 0–60 (seconds)
Note: Enter "0" to not to automatically clear the port.

⑤ 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).

⑥ Control Input Pull-up Setting   Select "Enable" to internally pull up the B3/B4 terminal (General control input).   (Default: Enable)

9. [Port Settings] Menu (continued)

■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: Not used
② 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: Not used)

② Volume …………………… Select the tone level for above items. (Default: 0)
Range: "+6" to "–12" (dB)

9. [Port Settings] Menu (continued)

[Port Settings]–[EXT Input 1 (EXT1)/EXT Input 2 (EXT2)]

■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

①Call 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" (seconds)

②No 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" (seconds)

Forced Disconnect
③Forced 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)

■Control Circuit (EXT Output)

Configure the details for the control circuit 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
④ 8V Power Source: ● Disable ○ Enable

Control Circuit Change: **Relay Circuit**

Control Circuit

① Control Circuit Change: ○ Control Output Circuit ● Relay Circuit
③ Control Output Logic: Valid Event Detection [Short ▾]

① Control Circuit Change …   Select the control circuit type.   (Default: Control Output Circuit)
Note: If "Relay" is selected, "Full-Duplex" is automatically selected in the [Communication Control] item on the [Transceiver 1 (TRX1)/Transceiver 2 (TRX2)] screen.

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
Note: If "Enable" is selected in [8V Power Source], "Full-Duplex" is automatically selected in the [Communication Control] item on the [Transceiver 1 (TRX1)/Transceiver 2 (TRX2)] screen.

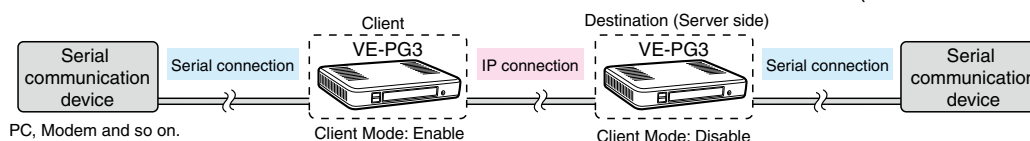## 9. [Port Settings] Menu (continued)

■Serial Communication

Set the serial communication details.
Note: The setting items appear only when "Enable" is selected in [Serial Communication].

Client Mode:Disable

Serial Communication

① Serial Communication: ○ Disable ● Enable
② Client Mode: ● Disable ○ Enable
③ TCP Port Number: 50002
⑥ Communication Control: ● Full-Duplex ○ Half-Duplex
⑦ Signal Level: ±5V (RS-232C) ▽
⑧ Data Mode: ○ Auto ● Manual
⑨ *Baud Rate: 9600 ▽
⑩ *Data Bits: 8 ▽
⑪ *Parity: none ▽
⑫ *Stop Bits: 1 ▽
⑬ *Session Timer: 30

Client Mode:Enable

Serial Communication

① Serial Communication: ○ Disable ● Enable
② Client Mode: ○ Disable ● Enable
④ Server Address:
⑤ Server Port Number: 50002
⑥ Communication Control: ● Full-Duplex ○ Half-Duplex
⑦ Signal Level: ±5V (RS-232C) ▽
⑨ Baud Rate: 9600 ▽
⑩ Data Bits: 8 ▽
⑪ Parity: none ▽
⑫ Stop Bits: 1 ▽
⑭ Connection Status: Not Connected [Connection] [Refresh]

*Appears only when "Manual" is selected in [Data mode].

① Serial Communication .... Select "Enable" to use the serial communication.   (Default: Disable)

② Client Mode .... Select "Enable" to use the serial communication as the client.   (Default: Disable)

③ TCP Port Number .... Enter the port number between 1024 and 65535.
(Default: EXT1= 50002, EXT2= 50003)

④ Server Address .... Enter the destination VE-PG3's IP address.

⑤ Server Port Number .... Enter the destination VE-PG3's port number.
Range: "1024" to "65535"   (Default: EXT1=50002, EXT2=50003)

⑥ Communication Control .... Select the communication type.   (Default: Full duplex)

⑦ Signal Level .... Select the serial communication line signal level from "±5 V (RS-232C),"
"0V/5V (Logic)" and "0V/3V (Logic)."   (Default: ±5 V (RS-232C))

⑧ Data Mode………………… Select the communication method for the Serial Communication between a
device and the VE-PG3.   (Default: Auto)
• **Auto:**   Automatically starts the serial communication from a Virtual
Serial Port installed on your PC.
• **Manual:**   Manually sets a serial communication method for a device.

⑨ Baud Rate .... Select a serial communication speed between a device and the VE-PG3.
(Default: 9600)

⑩ Data Bits .... Select the number of bits for the serial communication between 5 and 8. (Default: 8)

⑪ Parity .... Select a parity bit of [none], [odd] or [even].   (Default: none)

⑫ Stop Bits .... Select the stop bit length for the data of 1 or 2.   (Default: 1)

⑬ Session Timer .... Set the time to cut the TCP session when there is no communication from the host.
Range: 0 to 86400 seconds   (Default: 30)
*The time-out does not occur when "0" is set.

⑭ Connection Status .... Displays the connection status. Click "Connection" to connect the serial communication.

■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.

■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

⑤Fade-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." (P6-19)
• 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." (P6-137)

⑥Fade-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." (P6-19)
• 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." (P6-137)

⑦ Restoration Waiting Time Select the delay time the audio level gradually returns.

(Default: 1.5 sec.)

6 CONVERTER MODE SETTING SCREEN

9. [Port Settings] Menu (continued)

■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 Change].

EXT Control Terminal
① Control Output at the Start of Audio Output: ○ Disable ◉ Enable
② EXT Control Output Pattern: One-shot ▼
③ Event ON Time: 1 ▼ seconds
④ Event OFF Time: 1 ▼ seconds

①Control Output at the Start of Audio Output

Select "Enable" to output the control signal when the audio signal is output.
(Default: Enable)

②EXT 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.

③Event ON Time ……………   Select the delay time until the event is detected.   (Default: 1)

④Event 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 ……………… Select the amount of time to store the audio in 5 milliseconds step.

(Default: 5)

Range: 0 to 500 milliseconds

Higher value may improve the missing of beginning of the speech.

The VE-PG3 stores the audio for the specified time of period to prevent the beginnings of phrases are clipped.

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.

9. [Port Settings] Menu (continued)

■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)

■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

①Send 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)

②Notice Tone Volume   ……   Select the tone level for above items.   (Default: 0)
Range:"+6" to "−12"(dB)

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: 15   seconds
Forced Disconnect
② Forced Disconnect Timer: 10   minutes

①No 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
②Forced 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)

■Bridge Connection (1 to 4)

Configure the Bridge connection.

IP Communication Mode: Unicast

Bridge Connection

① Destination IP Address:
② Destination Port Number: 21532
③ Service Port Number: 21532
④ Voice Coding: G.711u   *[DID Call] of [Extension Connect] is disabled
                              when [Voice Coding] set to [G.711u].
⑥ Connection Status: Not Connected   Connect   Refresh

IP Communication Mode: Multicast

Bridge Connection

① Destination IP Address: 239.255.255.1
② Destination Port Number: 22510
③ Service Port Number: 22510
④ Voice Coding: G.711u   *[DID Call] of [Extension Connect] is disabled
                              when [Voice Coding] set to [G.711u].
⑤ TTL for Multicast: 1
⑥ Connection Status: Not Connected   Connect   Refresh

① Destination IP Address … The input content differs according to the contents set in [Bridge 1] to [Bridge 4].

(Default: 239.255.255.1)

• **When "Multicast" is selected:**

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)

9. [Port Settings] Menu

■ Bridge Connection (Bridge 1 to 4) (continued)

IP Communication Mode: Unicast

Bridge Connection

① Destination IP Address:
② Destination Port Number: 21532
③ Service Port Number: 21532
④ Voice Coding: G.711u *[DID Call] of [Extension Connect] is disabled when [Voice Coding] set to [G.711u].
⑥ Connection Status: Not Connected Connect Refresh

IP Communication Mode: Multicast

Bridge Connection

① Destination IP Address: 239.255.255.1
② Destination Port Number: 22510
③ Service Port Number: 22510
④ Voice Coding: G.711u *[DID Call] of [Extension Connect] is disabled when [Voice Coding] set to [G.711u].
⑤ TTL for Multicast: 1
⑥ Connection Status: Not Connected Connect Refresh

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.

9. [Port Settings] Menu

■ Bridge Connection (Bridge 1 to 4) (continued)

IP Communication Mode: Unicast

Bridge Connection

① Destination IP Address:

② Destination Port Number: 21532

③ Service Port Number: 21532

④ Voice Coding: G.711u   *[DID Call] of [Extension Connect] is disabled
when [Voice Coding] set to [G.711u].

⑥ Connection Status: Not Connected   Connect   Refresh

IP Communication Mode: Multicast

Bridge Connection

① Destination IP Address: 239.255.255.1

② Destination Port Number: 22510

③ Service Port Number: 22510

④ Voice Coding: G.711u   *[DID Call] of [Extension Connect] is disabled
when [Voice Coding] set to [G.711u].

⑤ TTL for Multicast: 1

⑥ Connection Status: Not Connected   Connect   Refresh

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.

9. [Port Settings] Menu

■Bridge Connection (Bridge 1 to 4) (continued)

IP Communication Mode: Unicast

Bridge Connection

① Destination IP Address:
② Destination Port Number: 21532
③ Service Port Number: 21532
④ Voice Coding: G.711u ▾   *[DID Call] of [Extension Connect] is disabled
when [Voice Coding] set to [G.711u].
⑥ Connection Status: Not Connected Connect   Refresh

IP Communication Mode: Multicast

Bridge Connection

① Destination IP Address: 239.255.255.1
② Destination Port Number: 22510
③ Service Port Number: 22510
④ Voice Coding: G.711u ▾   *[DID Call] of [Extension Connect] is disabled
when [Voice Coding] set to [G.711u].
⑤ TTL for Multicast: 1
⑥ Connection Status: Not Connected Connect   Refresh

④ Voice Coding …………… Select the codec type. (Default: G.711u)
When you use the VE-PG3 with IP1000C, select "G.711u Signaling."

⑤ TTL for Multicast ………… Enter the maximum hop number of TX packet.
The packet whose hop number exceeds the set limit will be discarded.

(Default: 1)

• TTL stands for Time To Live, which is used to control the Multicast packet
delivery scope. Every time the packets pass through the router, this value
subtracted. When the value is "0," the packets are discarded.
Range: 1 to 255
Note: This item is displayed when "Multicast" is selected in the [IP
Communication Mode].

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   Encryption Key [1]
② Talk-Back: ○ Disable ● Enable   Talk-Back Time [5 ▾] sec
Default Callee ID
③ Call Type: [Group ▾]
④ Destination Prefix ID: [ ]
⑤ Destination ID: [1]
⑥ My Station Prefix ID: [ ]
⑦ My Station ID: [1]

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 Call Type …………………   Select the type of call.
         • 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 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)

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)

■Bridge Control

Configure the details for bridge-connected device.

*Appears when "G.711u Signaling" is selected in the [Voice Coding] item.

①Priority Receive …………   Select "Enable" to keep receiving, even if the transceiver detects audio from the SIP phone.   (Default: Enable)

②PTT Cancel ………………   Select "Enable" to abort the calling to an IP phone when a transmit request is detected.   (Default: Disable)

③Target Availability Check…   Select "Disable" to skip the communication availability check. (Default: Enable)
If "Enable" is selected, the VE-PG3 disconnects the communication route when a call (except Emergency call) from telephone to IP1000C is failed.
The availability check fails when the called IP100H is busy, or no response is received (Time out timer: 5 seconds).

④Timing of
  Target Availability Check…   Select "Before" to execute the Target Availability Check (③) before the communication route is established.   (Default: After)

Notice Tone to the Transceiver
⑤Reception Notice …………   Select "Tone 1" to "Tone 3" to notify that the call from an IP phone is received.
                                (Default: Not used)

⑥Calling Notice Tone ………   Select "Tone 1" to "Tone 3" to notify the calling to an IP phone.
                                (Default: Notice Tone 2)

⑦Send Connect Success Tone

                                Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is taken off.
                                (Default: Notice Tone 2)

9. [Port Settings] Menu

■Bridge Control (continued)

Bridge Control

① Priority Receive:	◉ Disable ○ Enable	
② PTT Cancel:	◉ Disable ○ Enable	
③*Target Availability Check:	○ Disable ◉ Enable	
④*Timing of Target Availability Check:	◉ After ○ Before	
Notice Tone to the Transceiver		
⑤ Reception Notice:	Not used	
⑥ Calling Notice Tone:	Notice Tone 2	
⑦ Send Connect Success Tone:	Notice Tone 2	
⑧ Disconnect Notice Tone:	Notice Tone 3	
⑨ Send Connect Failure Tone:	Notice Tone 3	
⑩ Notice Tone Volume:	0 dB	
PTT Control Type from the Telephone		
⑪ PTT Control Type:	DTMF	
⑫ PTT-ON Tone:	0	
⑬ PTT-OFF Tone:	0	
Call Control Type to the Telephone		
⑭ Call Control Type:	RTP	

*Appears when "G.711u Signaling" is selected in the [Voice Coding] item.

⑧Disconnect Notice Tone …   Select "Tone 1" to "Tone 3" to notify that the IP phone's handset is put on.

(Default: Notice Tone 3)

⑨Send Connect Failure Tone   Select "Tone 1" to "Tone 3" to notify that the calling IP phone is not available.

(Default: Notice Tone 3)

⑩Notice Tone Volume ………   Select the tone level for above items.   (Default: 0)

Range:"+6" to"–12" (dB)

PTT Control Type from the Telephone

⑪PTT Control Type …………   Select the signal type to control the transmission.   (Default: VOX)

• VOX: The communication route is connected when an audio input is detected.

• DTMF: The communication route is connected when a DTMF tone is detected.

• Always Send during Talking: The VE-PG3 keeps sending the PTT control signal, once the communication route has been established.

9. [Port Settings] Menu

■ Bridge Control (continued)

Bridge Control

①	Priority Receive:	⦿ Disable ◯ Enable
②	PTT Cancel:	⦿ Disable ◯ Enable
③	*Target Availability Check:	◯ Disable ⦿ Enable
④	*Timing of Target Availability Check:	⦿ After ◯ Before
	Notice Tone to the Transceiver	
⑤	Reception Notice:	Not used ▾
⑥	Calling Notice Tone:	Notice Tone 2 ▾
⑦	Send Connect Success Tone:	Notice Tone 2 ▾
⑧	Disconnect Notice Tone:	Notice Tone 3 ▾
⑨	Send Connect Failure Tone:	Notice Tone 3 ▾
⑩	Notice Tone Volume:	0 ▾ dB
	PTT Control Type from the Telephone	
⑪	PTT Control Type:	DTMF ▾
⑫	PTT-ON Tone:	0 ▾
⑬	PTT-OFF Tone:	0 ▾
	Call Control Type to the Telephone	
⑭	Call Control Type:	RTP ▾

*Appears when "G.711u Signaling" is selected in the [Voice Coding] item.

⑫ 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.

⑬ 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.

⑭ Call Control Type …………   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.

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

①Attack Time ……………… Select the TX attack time in 5 milliseconds step. It is the delay time before the VOX switch turns ON after an audio signal is received through the network.

(Default: 50)

Range: 5 to 500 milliseconds

②Release 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.
Range: 5 to 2000 milliseconds   (Default: 500)

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

④Voice 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.

9. [Port Settings] Menu (continued)   [Port Settings]–[Bridge 1–Bridge 4]

■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	%

①Attack 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 2000 milliseconds

②Release 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

③Voice Delay ……………… Set the audio signal buffer time to prevent intermittent audio in 5 millisecond step.   (Default: 5)

Range: 0 to 500 milliseconds

④Voice Threshold ………… Set the voice threshold level. The VOX function automatically switches between receive and transmit according to this threshold level.   (Default: 70)

Range: 0 to 100 %

• Lower values make the VOX function more sensitive to the audio signal.

9. [Port Settings] Menu (continued)

■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)

9. [Port Settings] Menu (continued)

■Release Timer

Configure the timer details for call, forced disconnection and so on.

Release Timer

① Call Cancel Timer:	15	seconds
② No Voice Release Timer:	15	seconds
③ DID Disconnect Timer:	60	seconds
Forced Disconnect		
④ Forced Disconnect Timer:	10	minutes

①Call 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.)

②No 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.)

③DID 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
④Forced 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)

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:	600 ▼	
② On Hook Voltage:	-48.0	V
③ Common Mode Voltage:	-3.0	V
④ Current Limit:	29	mA

①Impedance ……………… Select the appropriate impedance for the telephone.   (Default: 600)

Setting example:
In USA: "600"
EU* (ETSI):   "270+750||150nF"
Australia: "220+820||120nF"
New Zealand: "370+620||310nF"

*UK, France, Germany, Netherlands, Sweden, Norway, Italy, Spain, Portugal,
 Poland, and Denmark

②On Hook Voltage ………… Enter the appropriate voltage for the telephone.   (Default: –48.0)

③Common Mode Voltage … Enter the appropriate voltage for the telephone.   (Default: –3.0)

④Current Limit ……………… Enter the limited current value.   (Default: 29)

■Ring

Configure the details for the telephone.

Ring

Ring

① Waveform:	Trapezoidal ▼	
② Frequency:	20	Hz
③ Voltage:	85	V
④ Active Timer:	20	x100 milliseconds
⑤ Inactive Timer:	40	x100 milliseconds

①Waveform ………………… Select the appropriate waveform for the ring.   (Default: Trapezoidal)

②Frequency ………………… Enter the appropriate frequency for the telephone.   (Default: 20)

③Voltage …………………… Enter the appropriate voltage for the telephone.   (Default: 85)

④Active Timer ……………… Enter the appropriate time to detect the line connection.   (Default: 20)

⑤Inactive Timer …………… Enter the appropriate time to detect the line disconnection.   (Default: 40)

■Tone

Edit the tone frequencies, volume level and patterns for the telephone line parameter.

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:	352	Hz
Frequency2:	440	Hz
Modulation Frequency1:	0	Hz Rate: 0 %
Modulation Frequency2:	0	Hz Rate: 0 %
Level:	-15	dB

	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Timing:										

② **Second Dial Tone**

Frequency1:	420	Hz
Frequency2:	520	Hz
Modulation Frequency1:	0	Hz Rate: 0 %
Modulation Frequency2:	0	Hz Rate: 0 %
Level:	-15	dB

	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Timing:										

③ **Ring Back Tone**

Frequency1:	440	Hz
Frequency2:	480	Hz
Modulation Frequency1:	0	Hz Rate: 0 %
Modulation Frequency2:	0	Hz Rate: 0 %
Level:	-15	dB

	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Timing:	2000	4000								

①Dial Tone ……………… The indication that the telephone exchange is working, and has recognized an off-hook condition at the telephone, and is ready to accept a call.

②Second Dial Tone ……… The indication for call queuing and call forwarding.

③Ring Back Tone ………… The indication that is heard by the caller while the phone they are calling is being rung, to assure the calling party that the called party's line is ringing..

■Tone (continued)

④Busy Tone

Frequency1:	480	Hz
Frequency2:	620	Hz
Modulation Frequency1:	0	Hz Rate: 0	%
Modulation Frequency2:	0	Hz Rate: 0	%
Level:	-15	dB

	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Timing:	500	500								

⑤Reorder Tone

Frequency1:	480	Hz
Frequency2:	620	Hz
Modulation Frequency1:	0	Hz Rate: 0	%
Modulation Frequency2:	0	Hz Rate: 0	%
Level:	-15	dB

	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Timing:	250	250								

⑥Off Hook Warning Tone

Frequency1:	480	Hz
Frequency2:	620	Hz
Modulation Frequency1:	0	Hz Rate: 0	%
Modulation Frequency2:	0	Hz Rate: 0	%
Level:	0	dB

	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Timing:	125	125								

④Busy Tone ……………… The indication that the called number is occupied, if that number is calling out, if the other line was left off-hook.

⑤Reorder Tone …………… The indication that an invalid code has been dialed, or that all circuits (trunks) are busy and/or the call is cannot be routed.

⑥Off Hook Warning Tone … Alerts a user that the telephone has been left off-hook for an extended period.

■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)

■V/RoIP Expansion

Configure the details for audio quality, incoming call, and so on.

V/RoIP

① Receive Buffer Size: `40 ▼` 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 7   Service Type 0   (HEX): E0
③ VoIP Signaling (SIP): Priority Level 6   Service Type 0   (HEX): C0

TOS: Diffserv

TOS

① TOS Type: ○ Not used ○ TOS ⦿ Diffserv
② Media (RTP):   DSCP 56   (HEX): E0
③ VoIP Signaling (SIP): DSCP 48   (HEX): C0

①TOS 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.

　　　　　　　　　　　　　　　　0 to 3 bits represent the precedence in 8 step.

　　　　　　　　　　　　　　　　4 to 7 bits represent the TOS.

　　　　　　　　　　　　　　　• **Diffserv**

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

　　　　　　　　　　　　　　　　0 to 5 bits represent the precedence in 64 step.

■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 7   Service Type 0   (HEX): E0
③ VoIP Signaling (SIP):   Priority Level 6   Service Type 0   (HEX): C0

TOS: Diffserv

TOS

① TOS Type: ○ Not used ○ TOS ◉ Diffserv
② Media (RTP):   DSCP 56   (HEX): E0
③ VoIP Signaling (SIP):   DSCP 48   (HEX): C0

②Media (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 7   Service Type 0   (HEX): E0
③ VoIP Signaling (SIP):   Priority Level 6   Service Type 0   (HEX): C0

TOS: Diffserv

TOS

① TOS Type: ○ Not used   ○ TOS   ◉ Diffserv
② Media (RTP):   DSCP 56   (HEX): E0
③ VoIP Signaling (SIP):   DSCP 48   (HEX): C0

③VoIP 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.

You can send an emergency notice to a device connected to the VE-PG3.

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])
⑤ Bridge 1:	● Disable ○ Enable	
Bridge 2:	● Disable ○ Enable	
Bridge 3:	● Disable ○ Enable	
Bridge 4:	● Disable ○ Enable	

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

②Digital 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)

③EXT 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)

④Emergency 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.

⑤Bridge 1 – Bridge 4 ………   Select a device connected to the VE-PG3 to send an emergency notice
                                    (Bridge 1–4).   (Default: Disable)

■Priority Level

Select the receive call priority level for IP phone and external device.

Priority Level

① Individual Calling: [Normal ▼]
② EXT Input: [Normal ▼]   *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)

10. [Expansion] Menu (continued)	[Expansion]–[Priority Control]

■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: 1
② Name:
③ Calling Type: ◉ SIP Server ○ Peer to Peer
④ Phone Number:
⑤ Priority Level: Normal

Calling Type: Peer to Peer

Priority Level of the Individual Calling

① Index: 1
② Name:
③ Calling Type: ○ SIP Server ◉ Peer to Peer
⑥ SIP URI: sip:
⑤ Priority Level: Normal

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: 1 ▼
② Name: [   ]
③ Calling Type: ● SIP Server ○ Peer to Peer
④ Phone Number: [   ]
⑤ Priority Level: Normal ▼

Calling Type: Peer to Peer

Priority Level of the Individual Calling

① Index: 1 ▼
② Name: [   ]
③ Calling Type: ○ SIP Server ● Peer to Peer
⑥ SIP URI: sip: [   ]
⑤ Priority Level: Normal ▼

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.

10. [Expansion] Menu (continued)

■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	Edit	Delete

③ Delete All

• This is an example.

①<Edit>……………………   Click to edit the entry.

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

① **LAN Port Downlink**
Monitoring: ○ Disable ● Enable
Control Output: [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: ○ Disable ● Enable   *LAN port downlink is enabled when monitoring is enabled.
Control Output: [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: [   ]
Monitor Period: [10]   minutes

③ **SIP Server Registration**
Monitoring: ○ Disable ● Enable
Control Output: [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].

• This is an example.

①LAN 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 lights 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　　*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:　　　　　○ Disable ◉ Enable　　*LAN port downlink is enabled when monitoring is enabled.

　Control Output:　　　[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:　　　　　[　　　　　　　　]

　Monitor Period:　　　[10　　]　minutes

③**SIP Server Registration**

　Monitoring:　　　　　○ Disable ◉ Enable

　Control Output:　　　[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].

• This is an example.

②PING 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: [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: ○ Disable ◉ Enable   *LAN port downlink is enabled when monitoring is enabled.
Control Output: [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: [   ]
Monitor Period: [10   ] minutes
③ **SIP Server Registration**
Monitoring: ○ Disable ◉ Enable
Control Output: [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].

• This is an example.

③SIP 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 (+/–).

MAINTENANCE

Section 7

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 the 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).

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 "Precausions" 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 the date and time (Manual setting)

1 Click the [Management] menu, then [Date and Time].
• The [Date and Time] screen appears.

2 The current time is displayed in [Date and Time].

Click <Apply> to synchronize the internal clock with the current time.
• You can also enter the time in the [Manually Set Time] item.

Setting the 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 and default gateway settings are necessary.

1 Click the [Management] menu, then [Date and Time].
• The [Date and Time] screen appears.

2 Select the appropriate Time Zone.

3 Click <Apply>.

3. How to save the VE-PG3's setting to the PC

You can save the VE-PG3's settings to a PC or USB flash drive.

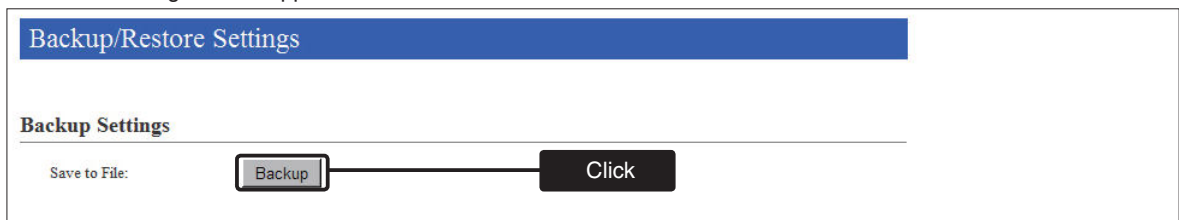The saved settings can be used to recover the configuration.

• The settings can be directly loaded into the VE-PG3 from the USB flash drive.

Saving the settings file to the PC

1   Click the [Management] menu, then [Backup/Restore Settings].
The [Backup/Restore Settings] screen appears.

2   Click <Backup>.
• The File Saving window appears.

3   Select the desired folder/location, then click [Save] in the File Saving 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.
• The settings can be directly loaded into the VE-PG3 from the PC.

Reloading the settings file into the VE-PG3

1　Click [Management], then [Backup/Restore Settings].
　　• The [Backup/Restore Settings] screen appears.

2　Click <Browse...>.
　　• The File Selection window appears.

Click

3　Select the setting file (extension: "sav"), and then click <Restore>.
　　• After loading the setting, the VE-PG3 automatically reboots.

Selected settings file is displayed (extension: sav).

Click
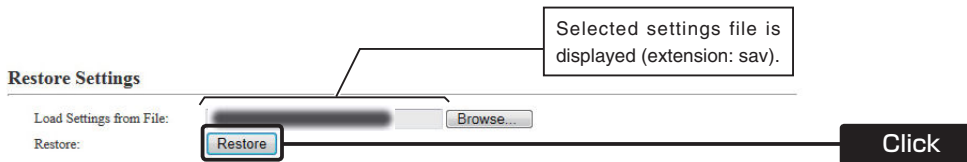
[NOTE]
DO NOT write the saved file to other devices.

5. How to initialize the VE-PG3

There 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 <INIT> 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.
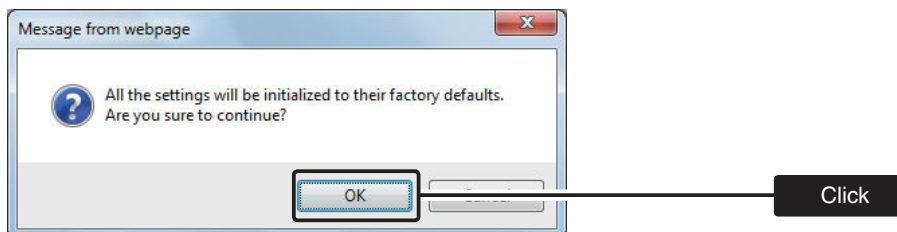 See the supplied "Precautions" leaflet for details.

Ⓑ Using the VE-PG3's setting screen

1 Click [Management], then [Factory Defaults].
  • The [Factory Defaults] screen appears.

2 Select the initialize option, and then click <Restore>.
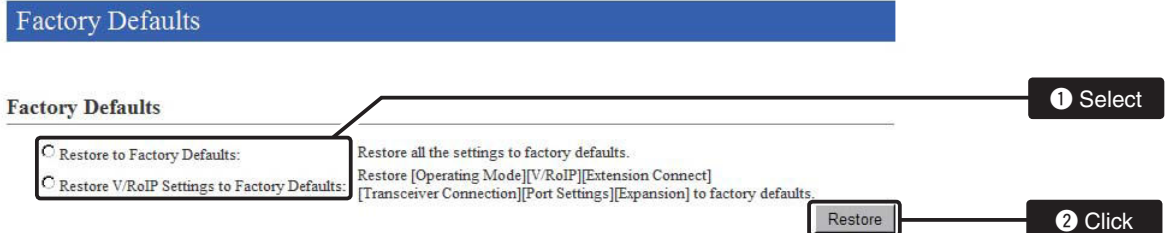
3 Click <OK>.
  • The VE-PG3 automatically reboots.

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 Setings] and [Expansion].

6. How to update the firmware

There are two ways to update the firmware.

Updating on the setting screen (Manual updating)

Update the firmware on the setting screen.

Use the Firmware Update function (Automatic updating)

The firmware can be automatically downloaded and updated.

• You can update the firmware using a USB flash drive.

• When [MSG] lights green, a firmware update is ready. See the "Precautions" leaflet for details..

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
IPL	Rev. 6
Version	Ver. 1.12 Copyright 2007-2013 Icom Inc.
WAN MAC Address	00-90-C7-00-B0-A9
LAN MAC Address	00-90-C7-00-B0-AA

Version number

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 the detail.

• Icom is not responsible on the consequence of the updating the firmware.

## 6. How to update the firmware (continued)

Updating the firmware on the setting screen (Manual updating)

We recommend that you save the current setting in the PC, before updating the firmware.

Note: Some settings may be returned to their default after the firmware update. Check Icom website for details.

• Restricting to access the setting screen is recommended.

1   Download a new firmware (extension: "dat") from Icom web site.

2   Click the [Management] menu, then [Firmware Update].
The [Firmware Update] screen aeaprs.

3   Click <Browse...> to select the firmware file (Extension: dat), and then click [Update].
• The "Updating Firmware" screen appears.
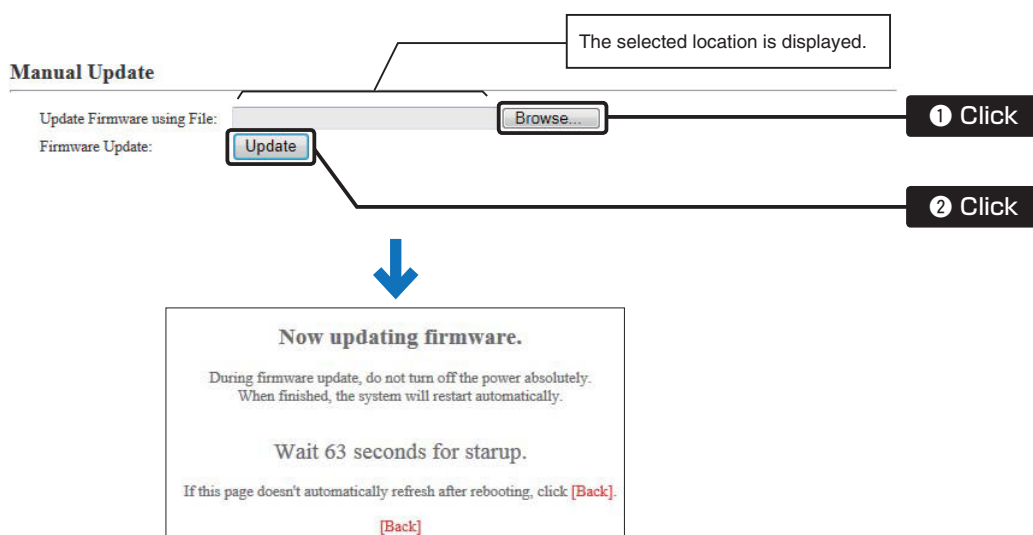
• When the updating is complete, the [TOP] screen appears.

Using the Firmware Update function (Automatic updating)

When [PWR/MSG] lights orange, a firmware update is ready.

See the "Precautions" leaflet for the details.

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

• We recommend to save the setting file as the backup.

NOTE:

NEVER turn OFF the VE-PG3's power while updating. It will cause data corruption, or damage the USB flash drive.

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 saved in a USB flash drive to other VE-PG3.

About the USB flash drive

- The USB flash drive is not supplied. Purchase separately.
- A USB flash drive 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 flash drive, to prevent data corruption.
- Either one of the USB slots accepts the USB flash drive, but insert only one USB flash drive at a time.
- Inser the USB flash drive securely.
- NEVER remove the USB flash drive or turn OFF the VE-PG3's power, while transferring data. It will cause data corruption, or damage the USB flash drive. While transferring data, the [PWR/MSG] LED blinks.
- After the firmware updating is complete, check the firmware version on the setting screen to verify that the update was correctly done.
- When importing setting data from the USB flash drive to the VE-PG3, the originally programmed setting data is automatically saved as "bakdata.sav" in the USB flash drive, 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.)

About the settings file name

The settings file must be saved as "savedata.sav" in the USB flash drive.

The firmware file, which is downloaded from Icom website, must be saved as "firmware.dat" in the USB flash drive.

• 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 flash drive.

• 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 flash drive, as the file name "bakdata_X.sav" (X=Revision number).

(Example)
The oldest backup file's name; "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).
• If the content of settings file is the same as the VE-PG3's current settings, no setting backup file is saved.

7. About the Automatic Restore function (continued)

Settings files management
The settings files and firmware files can be saved in the different folders in a USB flash drive.
• The folder name must be the WAN side MAC address.

Example: WAN side MAC address is 0090C7000001
Inserting the USB flash drive, which contains the files shown below, to the VE-PG3 (MAC address: 0090C7000001), the backup setting file is automatically created in the "0090C7000001" folder.
The settings files and firmware files are load from the "0090C7000001" folder into the VE-PG3 (MAC address: 0090C7000001).
• Settings file or firmware file in other than the "0090C700000**1**" folder is ignored.

Inserting the USB flash drive, which contains the files shown below, to the VE-PG3 (MAC address: 0090C700000**2**), because there is no folder named "0090C700000**2"** (VE-PG3's WAN side MAC name), the backup setting file is automatically created in the root directory of the USB flash drive.
The settings files and firmware files are load from the root directory into the VE-PG3 (MAC address: 0090C700000**2**).

Settings files and firmware for except "0090C7000001."
(If there is the "0090C7000002" folder, they are stored in the folder.)
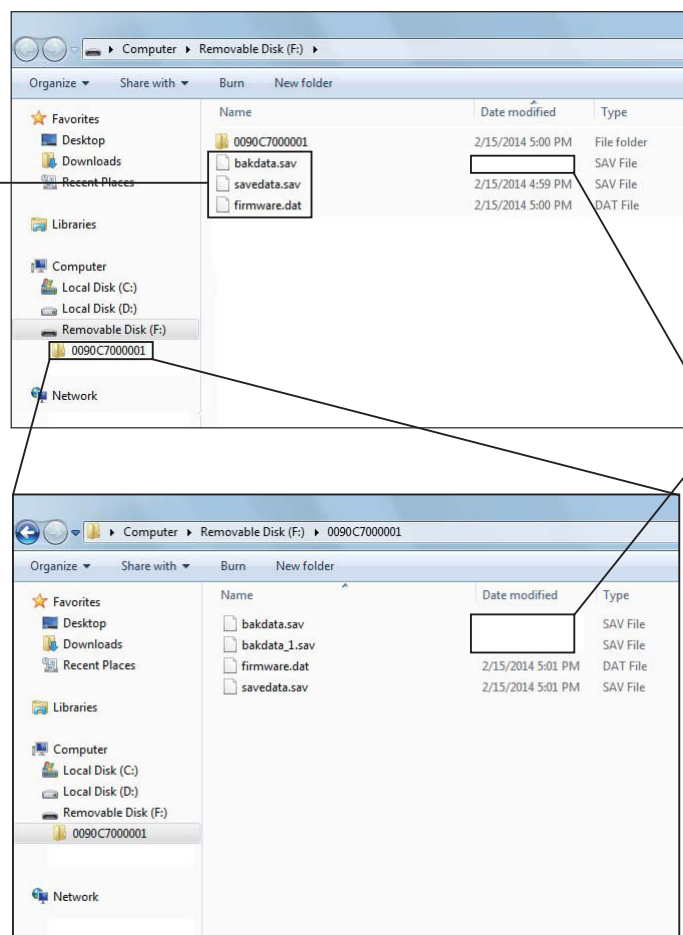
Backup file's modified date is not displayed.

8. How to restore the configuration using a USB flash drive

You can clone the settings to other VE-PG3s.

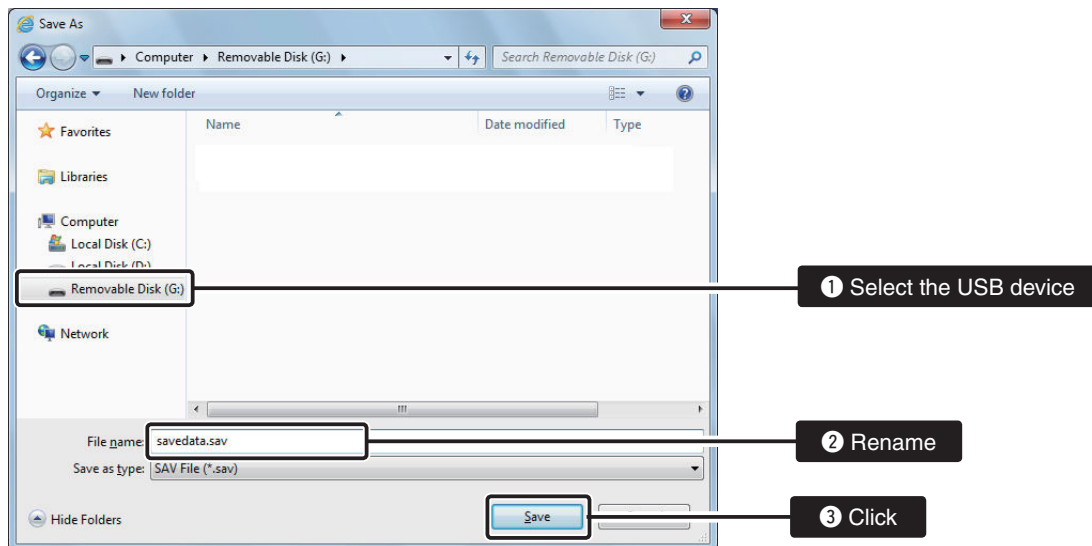It is convenient when you sequentially configure plural VE-PG3s.

Note: Before using a USB flash drive, see page 7-9.

Saving the settings file to a USB flash drive

1 Insert the USB flash drive securely to the PC.

2 Access the VE-PG3's setting screen.

3 Click [Management], then [Backup/Restore Settings].
• The [Backup/Restore Settings] screen appears.

4 Click <Backup>.

5 Select the root directory of the USB flash drive, and save the settings file as "savedata.sav."
• Any of other file name is not acceptable.

8. How to restore the configuration using a USB flash drive (continued)

Loading the settings from the USB flash drive

1 Remove the USB flash drive 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 flash drive.

4 Insert the USB flash drive, which contains the setting data (savedata.sav), to the [USB] port, and then turn ON the power.
• While accessing the USB flash drive, [PWR/MSG] blinks.

NOTE:　NEVER remove the USB flash drive, or turn OFF the VE-PG3's power while transferring data. It will cause data corruption, or damage the USB flash drive.

② Power ON

① Insert the USB memory
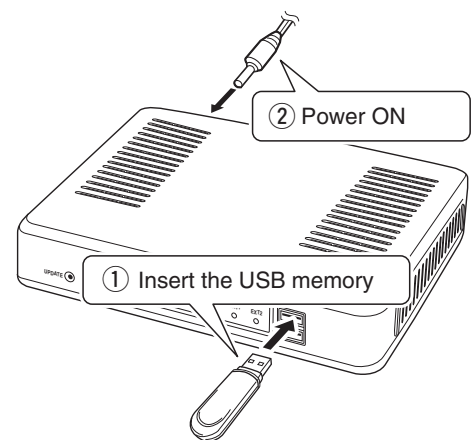
5 When all the data has been loaded into, the [PWR/MSG] LED is blackout and the VE-PG3 automatically restarts.

Verify that the [PWR/MSG]LED lights Green, then turn OFF the power.

Then remove the USB flash drive from the VE-PG3.
• Turn OFF the VE-PG3's power before inserting or removing the USB flash drive, to prevent data corruption.
• When importing setting data from the USB flash drive to the VE-PG3, the originally programmed setting data is automatically saved as "bakdata.sav" in the USB flash drive, as a backup.

① Power OFF

② Remove the USB memory
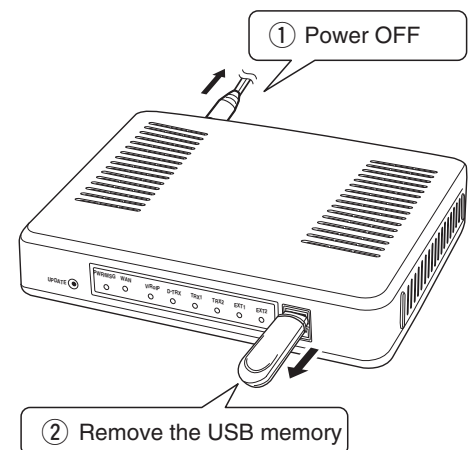
9. How to use the custom hold music

Using a music file as the custom hold music

Note: Enter the check mark in [load Custom Hold Music] item on the [USB] screen. (p.5-116)

1 Prepare the hold music files and name them "music1.wav," "music2.wav," and "music3.wav."
• Adjust the audio in level to appropriate, before copy them to a USB flash drive.
• Any other filename is not acceptable.
• Supported file formats.

CODEC	Sampling Rates	Bits	Channels	Container Format
Liner PCM	8 kHz	16-bit	Monaural	wav
G711 µ-law	8 kHz	8-bit	Monaural (µ-law)	wav

2 Create the folder named "music" in a USB flash drive, then copy the music files to the folder.

Music files.

Create the folder named "music," then copy the music files to the folder.
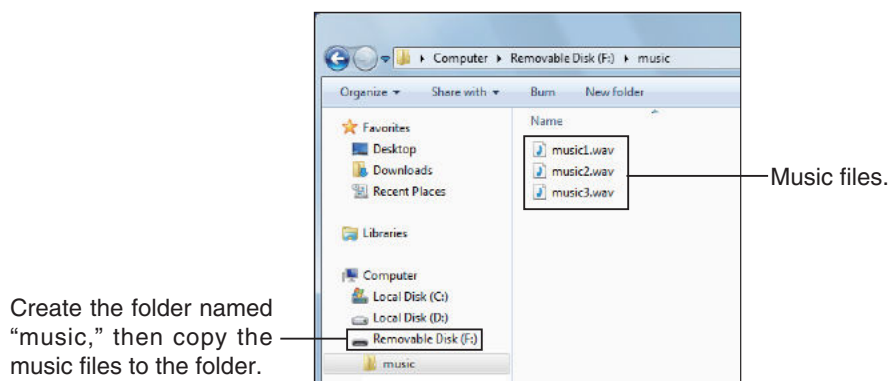
3 Turn OFF the VE-PG3's power.
NOTE: Turn OFF the power, before inserting the USB flash drive.

4 Insert the USB flash drive, which contains the music files ("music1.wav"–"music3.wav"), to the [USB] port, and then turn ON the power.
• While accessing the USB flash drive, [PWR/MSG] blinks.

NOTE: NEVER remove the USB flash drive, or turn OFF the VE-PG3's power while transferring data. It will cause data corruption, or damage the USB flash drive.

② Power ON

① Insert the USB memory

5 Select the music in the [Hold Music] item. (p.6-35)
• Item option and file name
Hold Music 1 = "music1.wav"
Hold Music 2 = "music2.wav"
Hold Music 3 = "music3.wav"
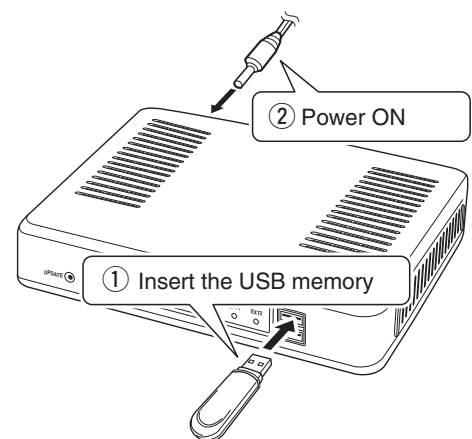
Note: If there is a folder whose name is the same with WAN side MAC address, and there is the "music" folder inside, the audio files in the folder is loaded. In this case, the "music" folder in the root directory is ignored.

FOR YOUR INFORMATION

8-1

Section 8

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 on the rear panel 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 on 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.711u 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

The following commands can be used for the Telnet function.

Command list ………………   Push the [Tab] key to display the telnet command list.

After typing a telnet command, push the [Tab] key to display the sub command list.

Command help ……………   After typing "help," enter a command to display the command description.

Example) "help save"   ("save" command description is displayed.)

Automatic complement …   After typing first few characters of the command, push the [Tab] key. The rest of the characters for the command are automatically entered.

Example) "n" + [Tab] -> network

Suggested commands are displayed.

Example) "res" + [Tab] -> **res**et **res**tart

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.
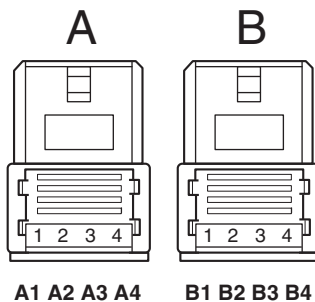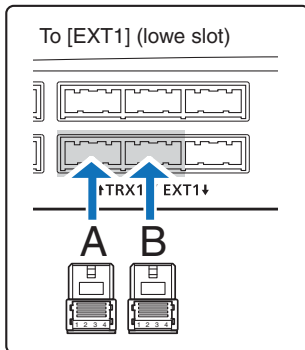
A1: Audio output (OUT)
A2: GND terminal
A3: Audio input (IN)
A4: GND terminal
B1/B2: Relay circuit output
B1: Control output
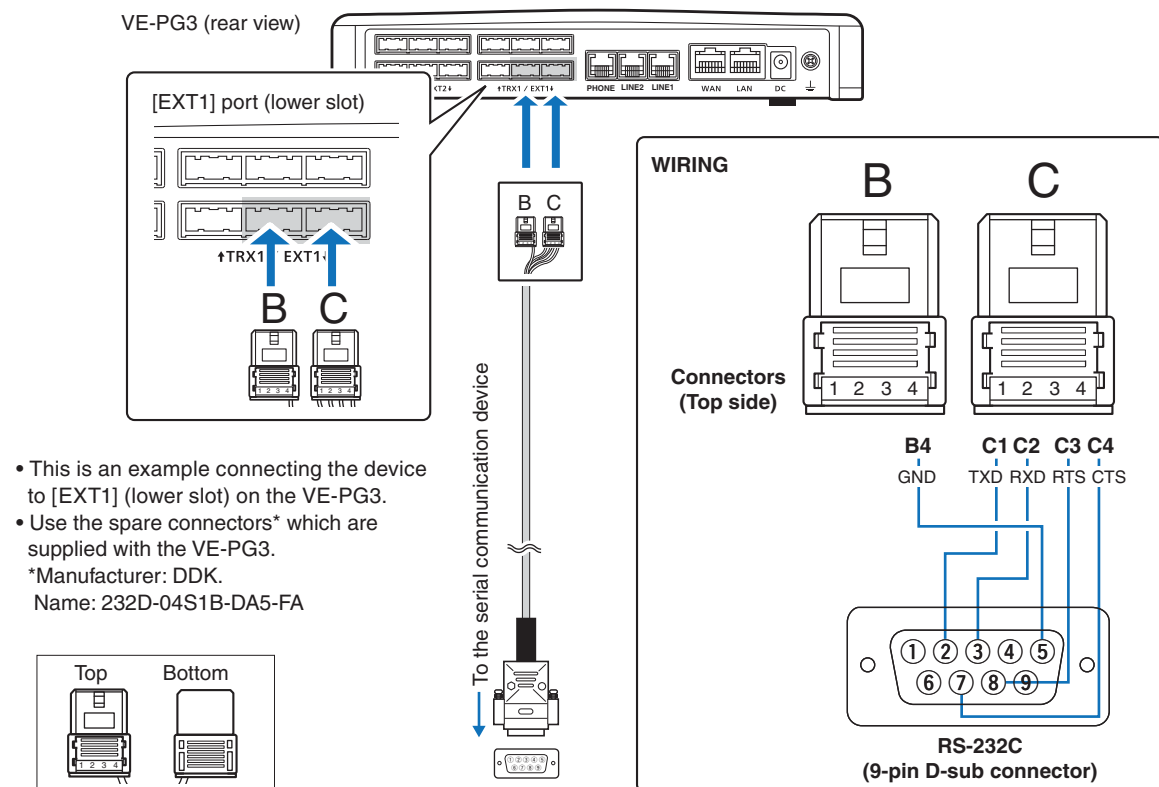B2: 8 V power supply
B3: Control input
B4: GND terminal
• The B1–B4 terminals can be configured on the setting screen.

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.

VE-PG3 (rear view)

[EXT1] port (lower slot)

WIRING

Connectors (Top side)

B4   C1 C2 C3 C4
GND TXD RXD RTS CTS

RS-232C
(9-pin D-sub connector)

• This is an example connecting the device to [EXT1] (lower slot) on the VE-PG3.
• Use the spare connectors* which are supplied with the VE-PG3.
  *Manufacturer: DDK.
   Name: 232D-04S1B-DA5-FA

To the serial communication device

Top   Bottom

4. Specifications

NOTE: All specifications are the subject to change without notice.

■ General

Power supply:	DC12 V ±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) × 38 (H) × 168 (D) mm, 9.1 (W) × 1.5 (H) × 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)
	TIA-968-B
	ICES-003
	ICCS-03
	CE Mark
	ETSI ES 203 021
	ETSI EG 201 121 (Advisory Note)
	Resolution 442
	Resolution 473
	Resolution 512
	Resolution 529
	ETSI TS 102 027-2 V4.1.1 (2006-07)
	ITU-T G.711
Interface:	LEDs (PWR/MSG, WAN, V/RoIP, D-TRX, TRX(1/2), EXT(1/2)), Buttons (UPDATE, INIT)
	[USB] ports (USB2.0)×2

■ Communication Interfaces

[WAN] port:	[WAN] port (RJ-45 type)×1 (Auto MDI/MDI-X)	
	• Based on IEEE802.3/10BASE-T	
	• Based on IEEE802.3u/100BASE-TX	
[LAN] port:	[LAN] port (RJ-45 type)×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 ×3)×2	
[EXT] (1/2) port:	Audio input	−10 dBs/−40 dBs selectable Input impedance Approximately 10 kΩ 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 ×3)×2
[LINE] port:	RJ-11 ×2	
[PHONE] port:	RJ-11 ×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
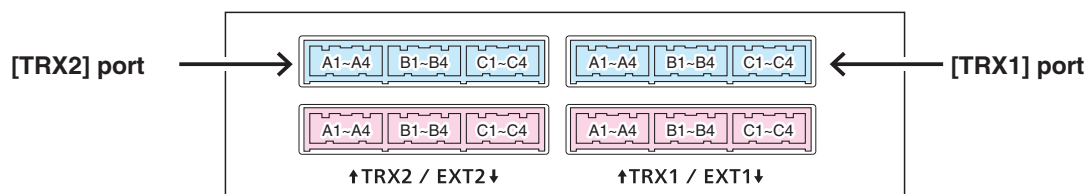
[TRX1]/[TRX2] port

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 (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.

• 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 biassed)

Supplied voltage: Approximately 2.2 V (For Electret Condenser Microphone)

• B1/B2 terminal (+/−) Relay Circuit output terminal.
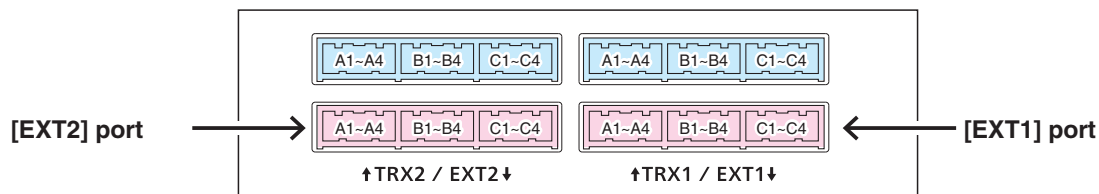
Turns the connected equipment ON or OFF.

• 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!

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