

When the transceiver is connected to the network devices, change the static IP address.

Before using the transceiver, setting a static IP address to the antenna unit and the main unit with EX-4241Utility for IC-SAT100M.

This manual shows system requirements and how to use the software.

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System requirements

The following hardware and software are required:

Operating System (OS)

- Microsoft Windows 10 (32/64bit)
 - Microsoft Windows 8.1 (32/64bit)*
- *Except for Microsoft Windows RT.

Cables (Purchase separately)

- OPC-2357 PROGRAMMING CABLE

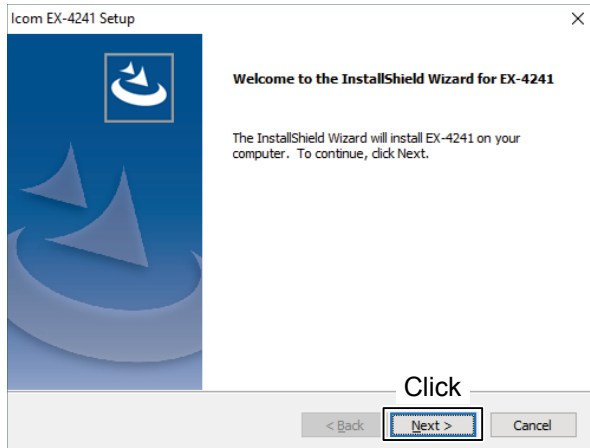
① The instructions are based on using Microsoft Windows 10.

Operation note

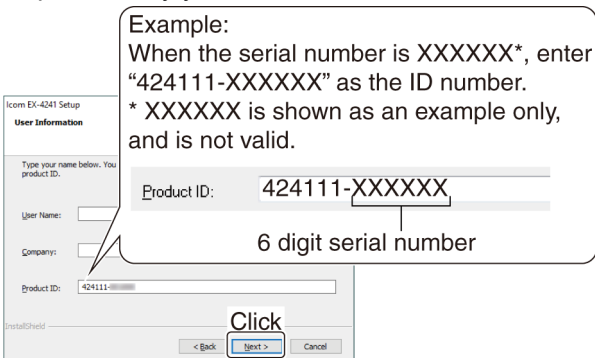
- The contents of this sheet, the software associated with the EX-4241, and the appearance of the EX-4241 are all subject to change without notice.
- The displays, indications, or operations may differ slightly, depending on your system settings, type of OS, and its service pack level.

Installing the EX-4241

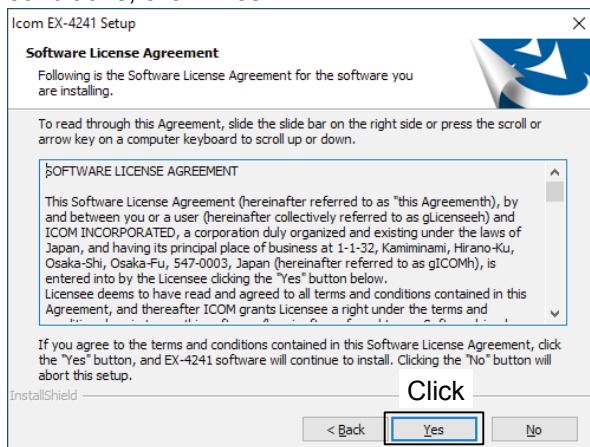
1. Sign in to the PC as the administrator.
 - ① Confirm that no other applications are running.
2. Download and unzip the file.
3. Double-click "setup.exe."
 - ① If the "User Account Control" dialog is displayed, click <Yes>.
 - "Choose Setup Language" is displayed.
4. On the "Welcome to the InstallShield Wizard for EX-4241" screen, click <Next>.



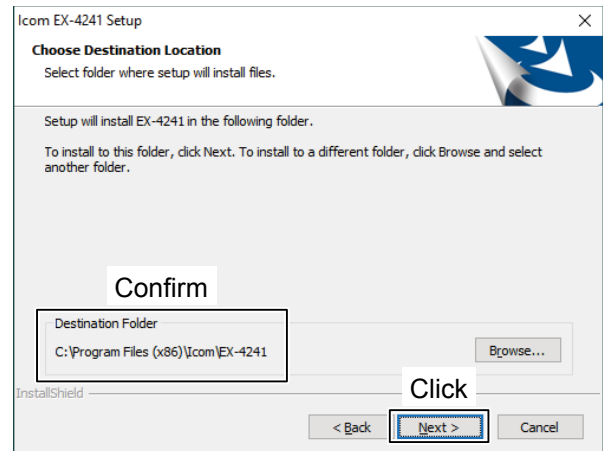
5. "User Information" is displayed. Enter your name (option), your company name (option), and the product ID number as described below. Click <Next >>.
 - Product ID number: 424111-(6 digit serial number)
 - If you downloaded the software, enter the ID provided by your distributor.



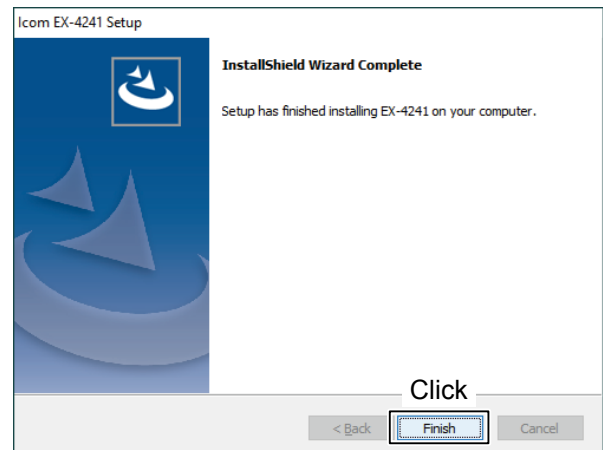
6. "Software License Agreement" is displayed. Read carefully, and if you agree to the terms and conditions, click <Yes>.



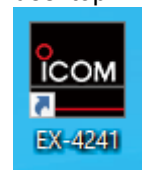
7. On the "Choose Destination Location" screen, click <Next>>.
 - ① If desired, click <Browse...> and select another destination folder before clicking <Next >.



8. After the installation has completed, click <Finish>.



9. A "EX-4241" folder is created in the Windows Start menu, and a shortcut icon is added onto the desktop.



TIP:

You can uninstall the EX-4241 using the "Apps & features" in the "Apps" menu. To get started, click on Start > Settings > Apps > Apps & features.

Before connecting the OPC-2357 to the PC

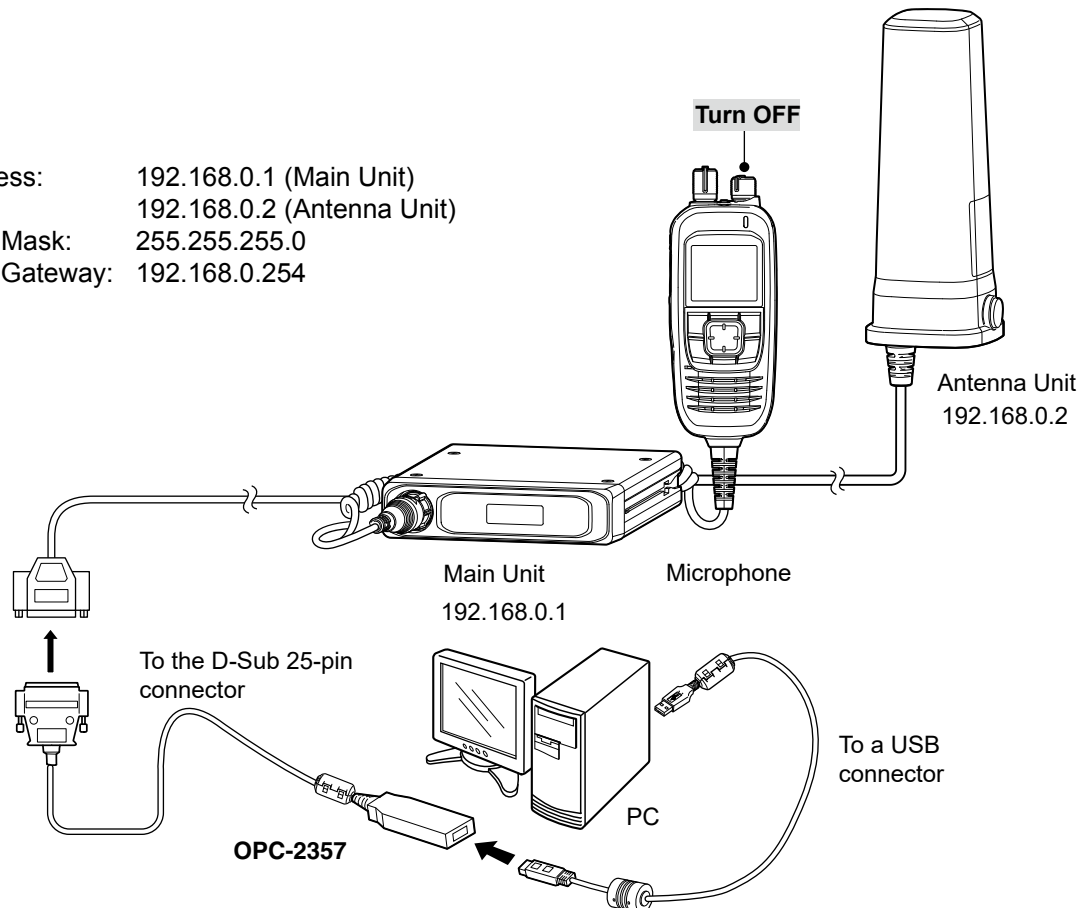
To use the OPC-2357 PROGRAMMING CABLE, you must first install a USB driver.
The driver and installation guide are supplied with the programming cable.
Read the guide carefully before installing the driver.

Connecting with PC

1. Be sure the transceiver is OFF, and Windows has completed its startup.
2. Connect the cable, as shown below.
3. Turn ON the transceiver.

Default

IP address: 192.168.0.1 (Main Unit)
192.168.0.2 (Antenna Unit)
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.0.254



Editing Network Setting

NOTE:

- To prevent data loss, you should first read all the transceiver's setting data into the EX-4241. Before editing or entering, make a backup file onto your PC. A backup file enables easy restoring even if the setting data in the transceiver is accidentally deleted. After that, enter or edit parameters using the EX-4241. If you write the setting data into your transceiver before reading, the settings are overwritten. See page 5 to read the data from the transceiver settings and to save the settings file.
- DO NOT** turn OFF the transceiver or the PC, and **DO NOT** disconnect the cable while reading or writing setting data. Otherwise, the data could be lost or deleted.

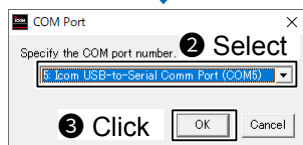
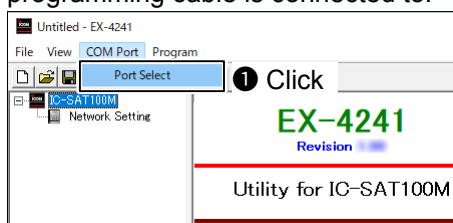
- Click "EX-4241" in the Start menu, and then click "EX-4241" to start the software.

• Microsoft® Windows® 8.1:

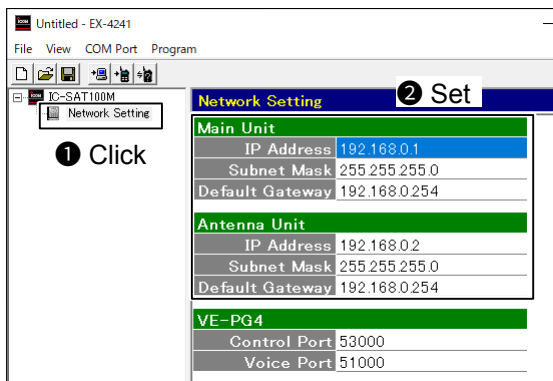
<Start> →  → EX-4241

① You can also start the software by simply double-clicking the EX-4241 shortcut icon on the desktop.

- Click "Port Select" from the <COM Port> menu, and then select the COM port number that the programming cable is connected to.

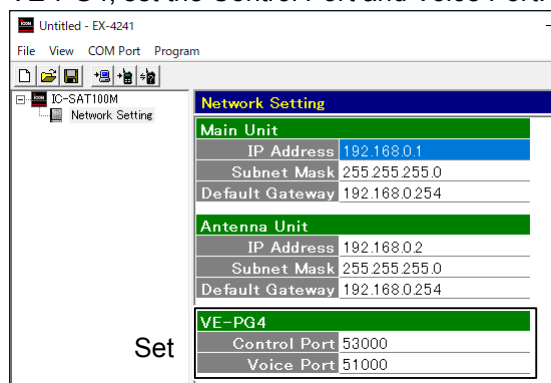


- Click , or select "Read ← TR" in the <Program> menu to read the data from the setting data.
- Click "Network Settings" and set the IP address, Subnet Mask, and Default Gateway for the IC-SAT100M Main Unit and Antenna Unit.



① This is a default setting.

- When registering two or more IC-SAT100M to VE-PG4, set the Control Port and Voice Port.

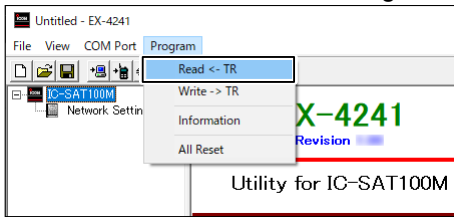


- Click , or select "Write → TR" in the <Program> menu to write the setting data into the transceiver.

◇ About basic operation

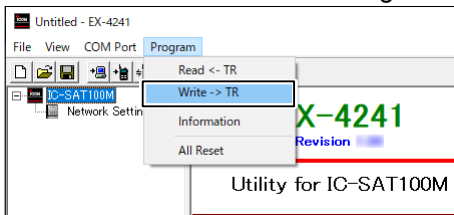
To read the data from the transceiver

Select “Read ← TR” in the <Program> menu.



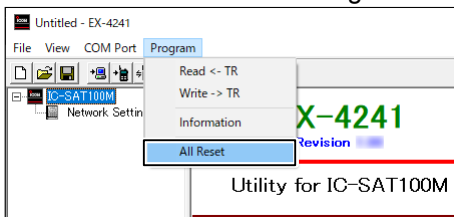
To write the setting data into the transceiver

Select “Write → TR” in the <Program> menu.



To reset to the transceiver default settings

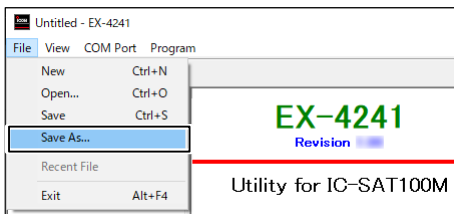
Select “All Reset” in the <Program> menu.



- ① Connect the Main Unit and the Antenna Unit, as shown in the illustration on page 3.
- ① If you select “All Reset,” the settings on the IC-SAT100M Menu screen is also initialized.

To save the settings file to a folder on your PC

Select “Save” or “Save As...” in the <File> menu.



- ① If you have a data file to write to the transceiver, select “Open...” in the <File> menu, and then select the file.

◇ COM Port Searching

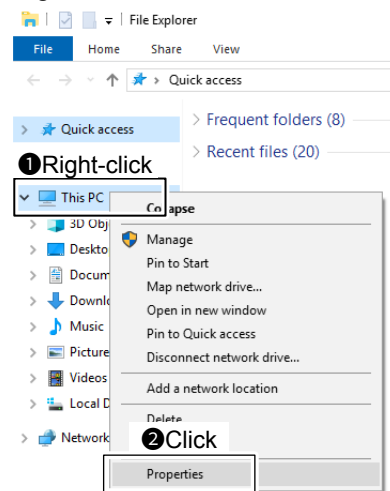
To Confirm the COM port number

1. Click the folder icon on the taskbar.

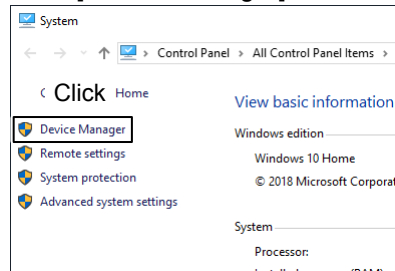


Click

2. Right-click “This PC,” and then click “Properties.”

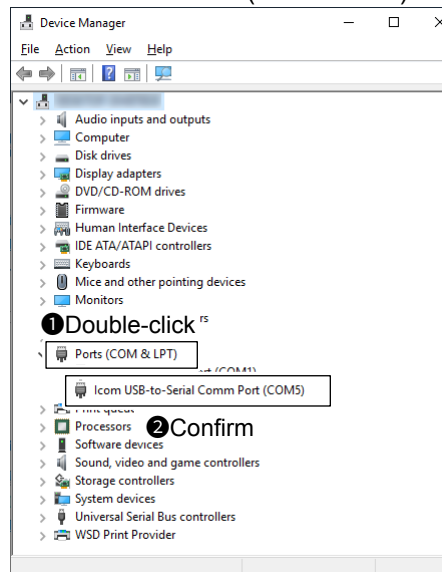


3. Click [Device Manager].



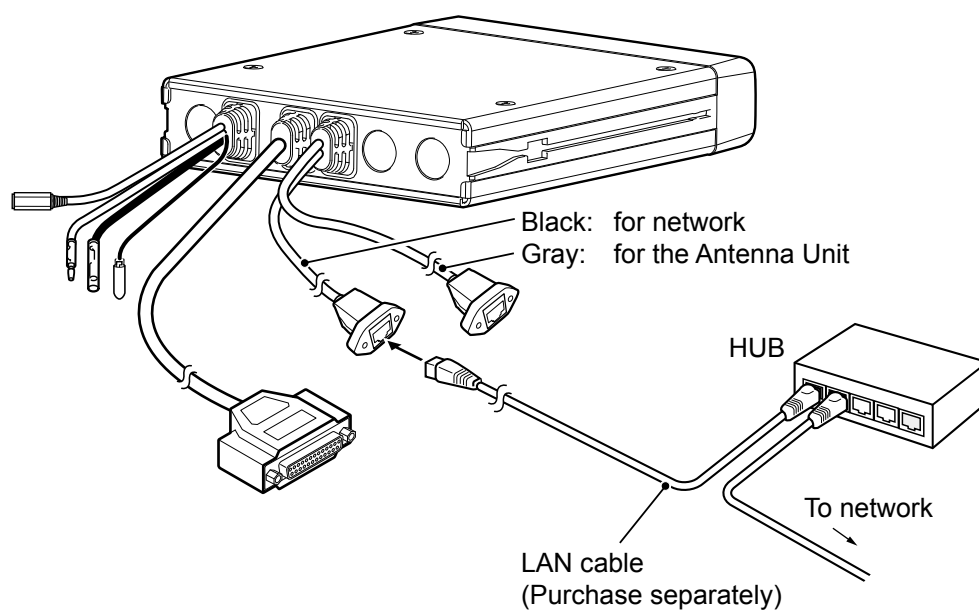
- The “Device Manager” screen is displayed.

4. Double-click “Ports (COM & LPT).”



Connecting with the network devices

After changing the IP address of the IC-SAT100M, connect the black LAN cable (for network) and the network devices such as a HUB.

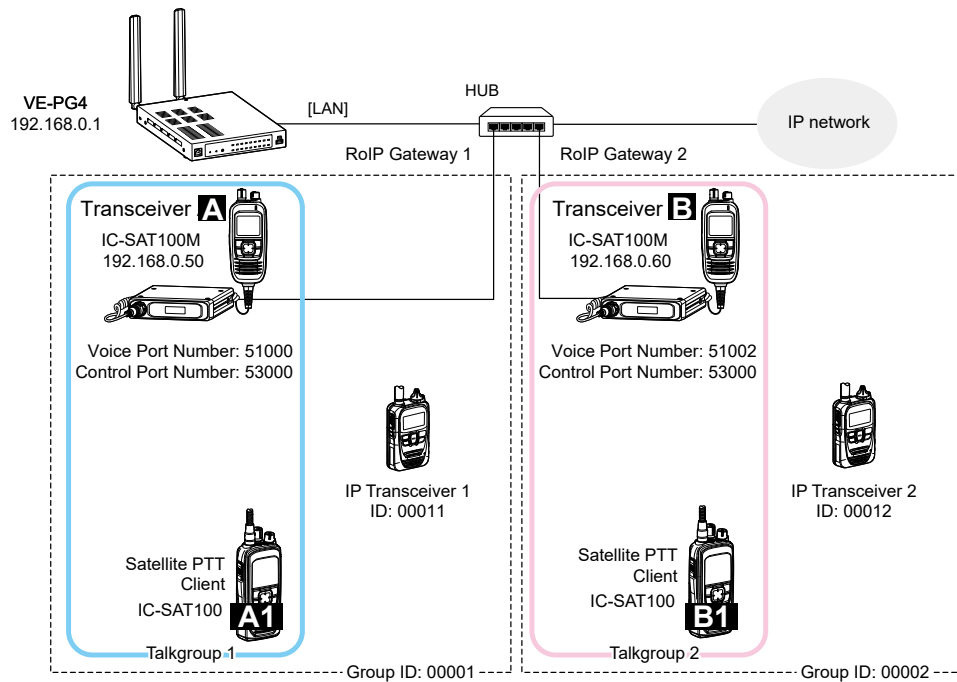


NOTE: Connect the gray LAN cable and the Antenna Unit.

Connecting the VE-PG4

The following is an example of connecting the RoIP Gateway and Satellite PTTs (IC-SAT100M), that enables you to make a call between an IP transceiver and a client Satellite PTT in the set Talkgroup on the RoIP Gateway.

- Each IC-SAT100M connected to the RoIP Gateway is required to be assigned a fixed unique group ID.
- Enter only one fixed Talkgroup to the IC-SAT100M.



① Information

If you want to use the Emergency Call function:

Connect another IC-SAT100M to the [RoIP Gateway] port for the emergency calls.

Setting Example: Talkgroup 1 (for usual calls): Uses the IC-SAT100M (IP address: 192.168.0.50)
Talkgroup 15 (for emergency calls): Uses the IC-SAT100M (IP address: 192.168.0.70)

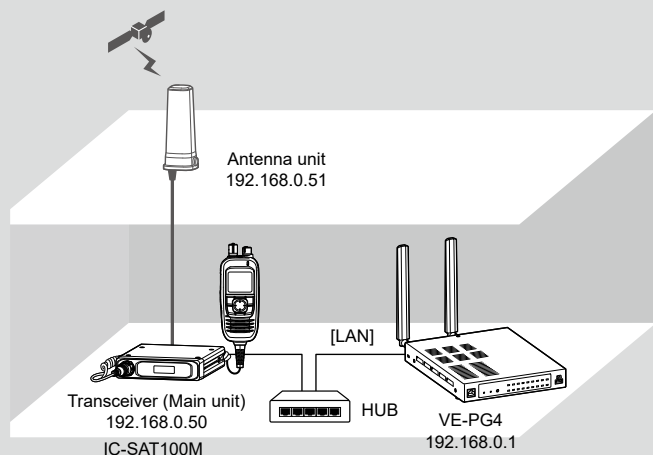
Before connecting the IC-SAT100M to your network:

- On the IC-SAT100M, select "TCP" in the PC Command setting.
([OK] > Function > PC Command)
- Check your network configuration and settings, and then ask your dealer to enter the fixed IP addresses, subnet mask, and default gateway addresses to the IC-SAT100M main units and the antenna units.
- Be sure to enter the IP addresses of your IC-SAT100Ms (Main units) to the VE-PG4.

IC-SAT100M default settings

IC-SAT100M (Main unit)	IP address	192.168.0.1
	Subnet mask	255.255.255.0
	Default gateway	192.168.0.254
Antenna unit	IP address	192.168.0.2
	Subnet mask	255.255.255.0
	Default gateway	192.168.0.254
VE-PG4	Control Port Number	53000
	Voice Port Number	51000

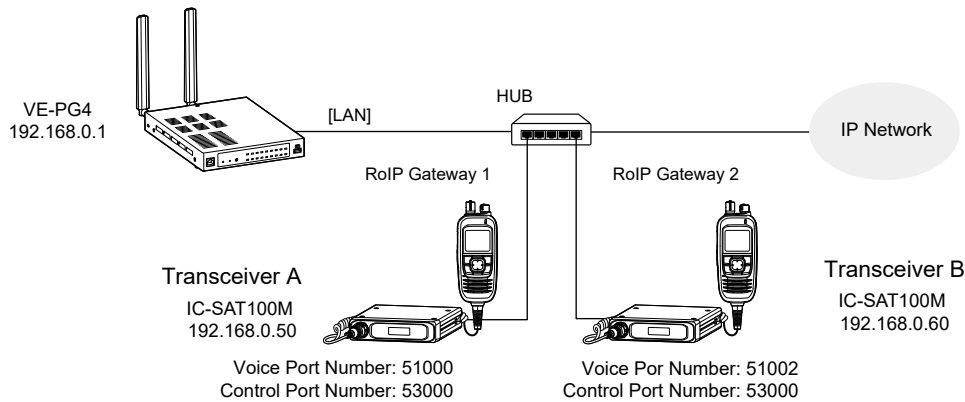
- When connecting two or more IC-SAT100Ms to the VE-PG4, do not conflict the Voice Port Number settings.



◇ Connecting to the IP Network

Connect to the network, and then set up the connection and destination settings on the RoIP Gateway setting screen.

① This instruction describes as the IP transceiver setup has been completed.



1. Open the RoIP Gateway screen.
(Connection Port Settings > RoIP Gateway)
2. In [RoIP Gateway Mode], set Mode to “Transceiver” in the RoIP Gateway (1 ~ 8) that you want to connect the Transceiver A (IC-SAT100M) to. (Example: RoIP Gateway 1)

RoIP Gateway Mode	
RoIP Gateway1	Mode: Transceiver
RoIP Gateway2	Mode: RoIP Gateway
RoIP Gateway3	Mode: RoIP Gateway
RoIP Gateway4	Mode: RoIP Gateway
RoIP Gateway5	Mode: RoIP Gateway
RoIP Gateway6	Mode: RoIP Gateway
RoIP Gateway7	Mode: RoIP Gateway
RoIP Gateway8	Mode: RoIP Gateway

Apply Reset

② Click

3. In [RoIP Gateway], select a RoIP Gateway port (1 ~ 8) that you set in the step 2, and then confirm that the [Transceiver Model] is set to “IC-SAT100M.” (Example: RoIP Gateway 1)

RoIP Gateway	
RoIP Gateway Port :	RoIP Gateway1
Transceiver Model	
Transceiver Model :	IC-SAT100M

*All the settings on this page will be initialized if you change this setting.

Connecting the VE-PG4

◇ Connecting to the IP Network

4. In [Transceiver Connection], enter the Transceiver A (IC-SAT100M) settings to Destination Address, Destination Port Number, and Control Port Number. Then click <Apply>.

Transceiver Connection ① Enter

Destination Address :	192.168.0.50
Destination Port Number :	51000
Control Port Number :	53000
Connection Status :	Disconnected Connect Refresh

TX Volume :	0	▼ dB
RX Volume :	0	▼ dB

② Click

5. In [Transceiver Connection], click <Connect>.
- Connection Status changes to "Connecting."

Transceiver Connection

Destination Address :	192.168.0.50
Destination Port Number :	51000
Control Port Number :	53000
Connection Status :	Disconnected Connect Refresh

↓ ① Click

Transceiver Connection

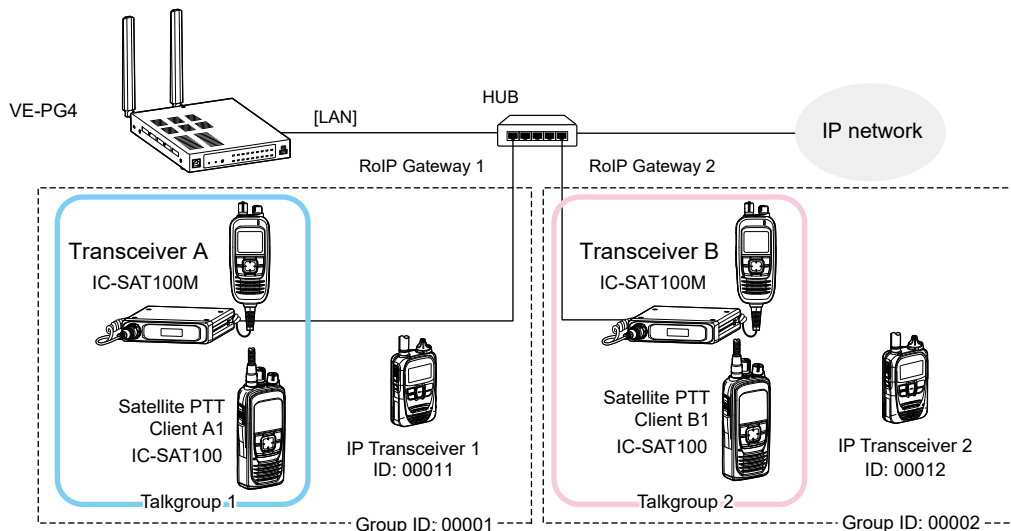
Destination Address :	192.168.0.50
Destination Port Number :	51000
Control Port Number :	53000
Connection Status :	Connecting Connect Refresh

② Confirm

6. Do the same way in the steps 2 to 5, enter the Transceiver B (IC-SAT100M) settings.

◇ Entering the Destination Settings

① This instruction describes as the IP transceiver setup has already been completed.



1. Open the Destination Settings screen.
(Destination Settings > Destination Settings)
2. In [Destination Settings], enter the settings for the Transceiver A (Name, Call Type, Destination ID, and IP Transceiver Controller), and then click <Apply>.

Destination Settings

No. : ① Enter

Name : Transceiver A

Call Type : Group

Destination ID : 00001

Group Priority : ☒ Normal ☐ High

Destination

Communication Type : ☐ Simplex ☒ Full-Duplex

WLAN Transceivers

☐ All
☐ 00101(Sales1)
☐ 00102(Sales2)
☐ 00103(Sales3)
☐ 00050(IP100FS)

Additional Controller : None

IP Transceiver Controller/Connection Port ② Select

☐ All
☒ IP Transceiver Controller

☐ Digital Transceiver1 (D-TRX1)
☐ Digital Transceiver2 (D-TRX2)
☐ Digital Transceiver3 (D-TRX3)
☐ EXT I/O1 (EXT1)
☐ EXT I/O2 (EXT2)
☐ EXT Input3 (EXT3)
☐ EXT Output3 (EXT3)
☐ EXT Input4 (EXT4)
☐ EXT Output4 (EXT4)
☐ Emergency Notification
☐ Microphone (MIC)
☒ RoIP Gateway1
☐ RoIP Gateway2
☐ RoIP Gateway3
☐ RoIP Gateway4
☐ RoIP Gateway5
☐ RoIP Gateway6
☐ RoIP Gateway7
☐ RoIP Gateway8

Apply

Reset

③ Click

3. Do the same way in the step 2, enter the Group 00002 settings.