

VE-PG3 Application Notes

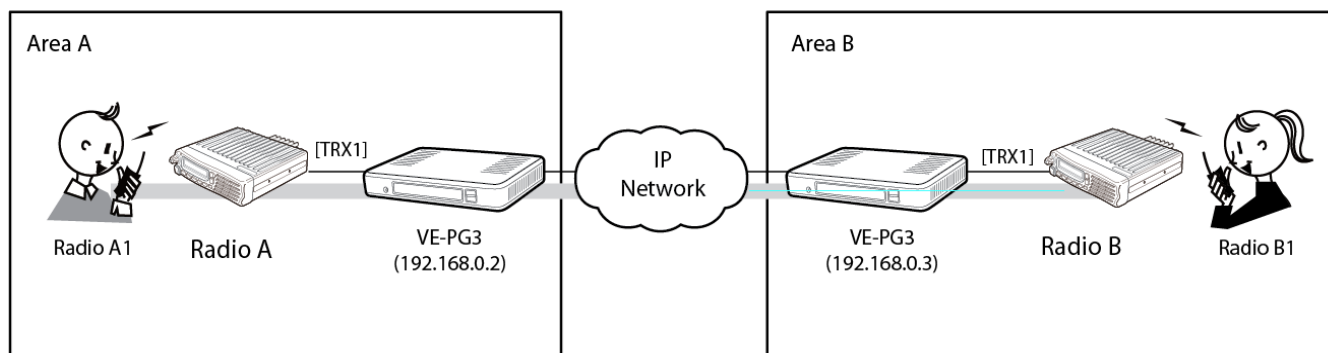
UNICAST MODE: DIGITAL NXDN OPERATION

What is Unicast Mode?

The Digital Unicast Mode allows you to connect (bridge) from your portable and talk to a portable radios in another area. An IP connection provides communication through the VE-PG3 and the fixed base station to the other area.

Unicast Operation

In this Application, Radio A1 transmits to Radio A. Radio A then sends the signal through its VE-PG3 to remote site B.



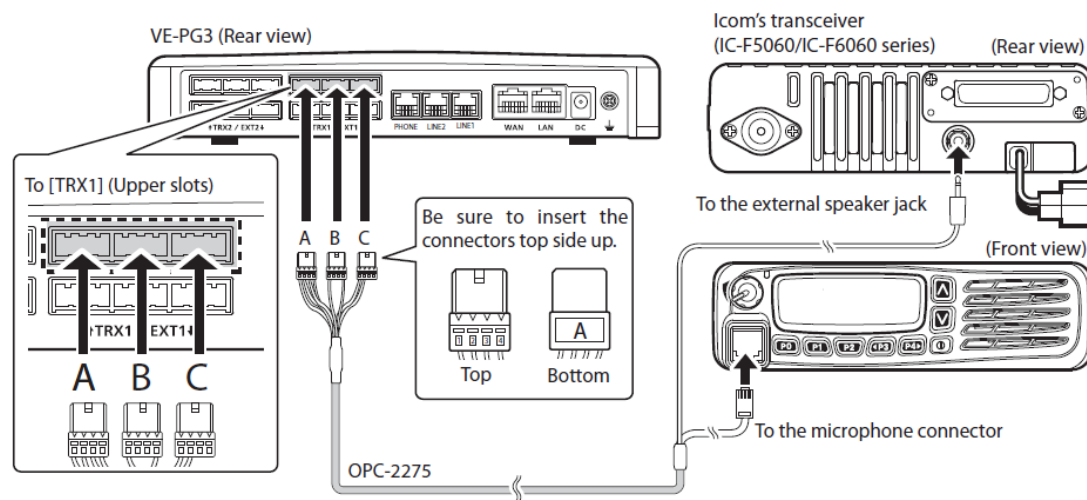
What You Will Need

- Two VE-PG3 units
- Two F5061 mobile radios, digital mode
- Two F3161 handheld radios, digital mode
- Two OPC-2275 cables (for connecting the VEPG3 and F5061 radio)

How to Connect

Connect the VE-PG3 and the mobile radio as shown in the following diagram.

Note: Ensure that the radio and VE-PG3 are turned off before connecting.



- 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.

Programming the Radios

1. Program Radios A and A1 at Site A so that their frequencies match (Digital Simplex Mode).
2. Program Radios B and B1 at Site B so that their frequencies match (Digital Simplex Mode).
3. Set the volume to the 9 o'clock position on the F5061 radios.

Programming the VE-PG3

The following paragraphs describe how to:

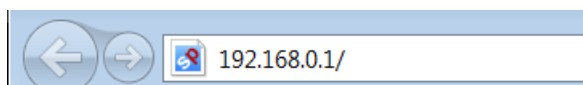
- Change the VE-PG3 IP address
- Program for Unicast

Changing the VE-PG3 IP Address

You will need to change the IP address for both VEPG3 devices to addresses determined by your network plan. Consult your IP professional to create a network plan.

Note: Your VE-PG3 will need to be connected as described in *How to Connect*.

1. Open your web browser. The default address is: 192.168.0.1.



2. Enter the newly assigned IP address of the VE-PG3 in the address field.

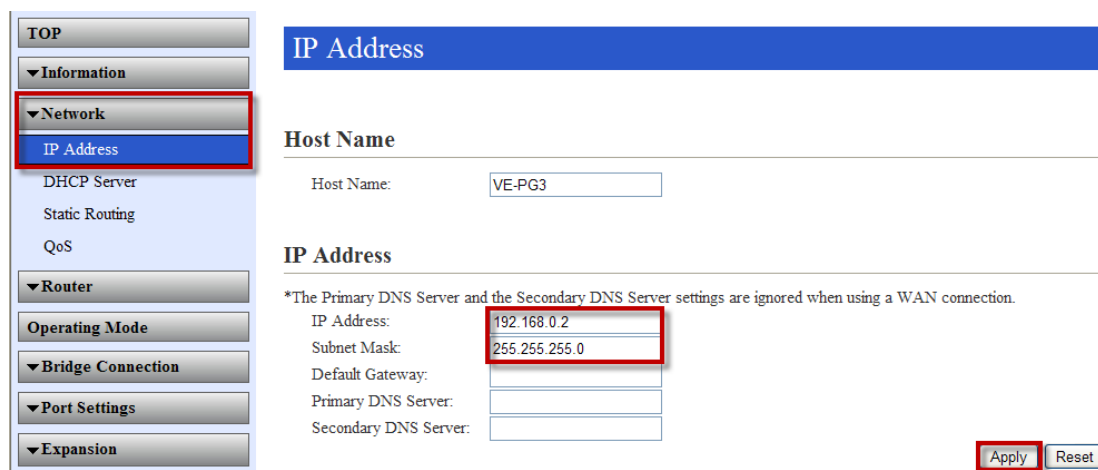
3. After pressing Enter, the Login Authentication window will appear.



4. Enter the following (default) information:
 - Username Admin
 - Password Admin

Set a new IP address for your VE-PG3 according to your network plan.

5. Click **Network** and select **IP Address**.
6. Enter your VE-PG3 IP Address and click **Apply**.



IP Address

Host Name

Host Name:

IP Address

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

IP Address:

Subnet Mask:

Default Gateway:

Primary DNS Server:

Secondary DNS Server:

7. Click Reboot to enter the new VE-PG3 IP Address.



IP Address

A reboot is required to apply all the new settings.

Host Name

Host Name:

8. Once you have rebooted, the login window will appear. Enter the username and password again.

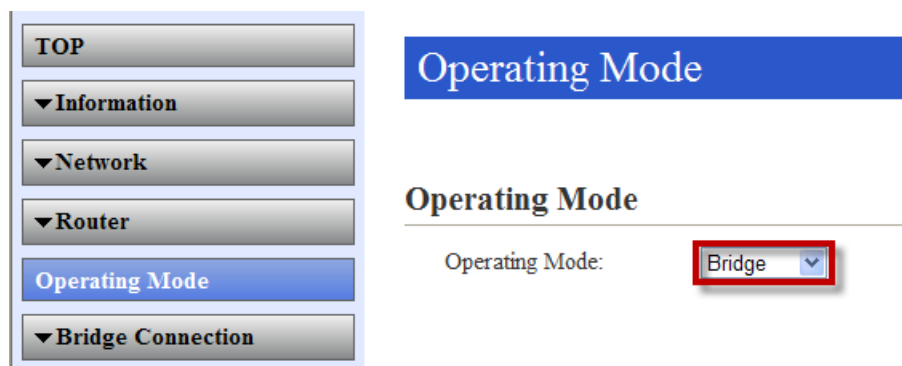
Note: depending on your newly assigned IP address, your computer IP address may have to be changed to access the VE-PG3 again.



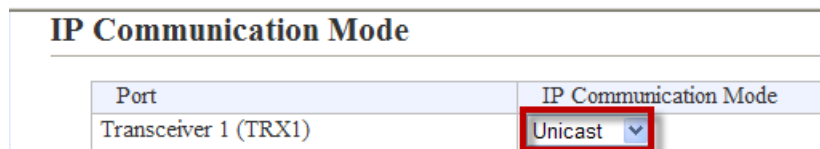
Programming for Unicast Operation

Program the Area B radio to the Area A radio settings.

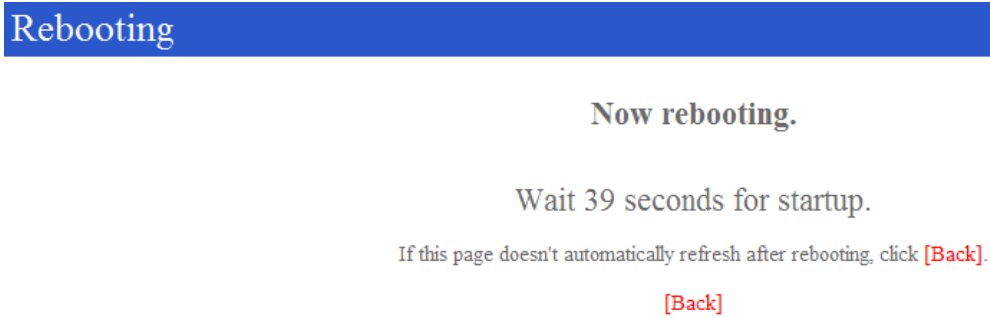
1. Click **Operating Mode**. Ensure that **Bridge** is selected in the dropdown box. Be sure to click **Apply** if you change the setting to **Bridge**.



2. Select **Unicast** for the Area A radio (transceiver 1) and then click **Apply**.

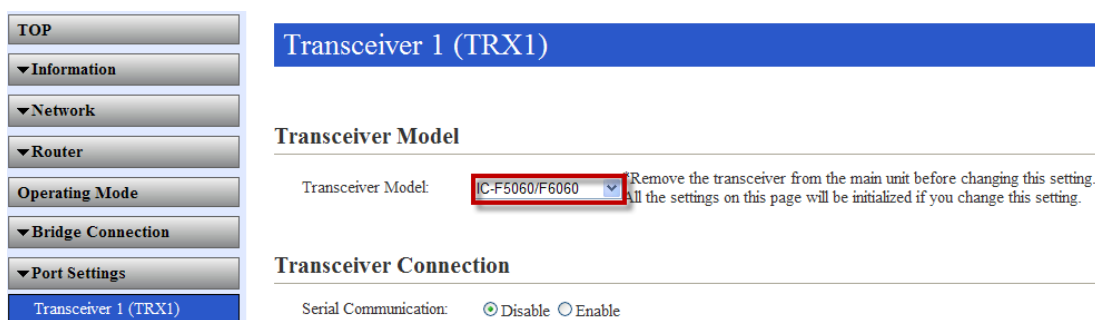


- After clicking **Apply**, you will be prompted to reboot. Follow the instructions in the boot sequence.



- Click the **Port Settings** menu. The Transceiver 1 window will appear. Verify the desired radio model is listed in the drop-down list.

You now enter the Area B radio IP information to the Area A radio.



Transceiver 1 (TRX1)

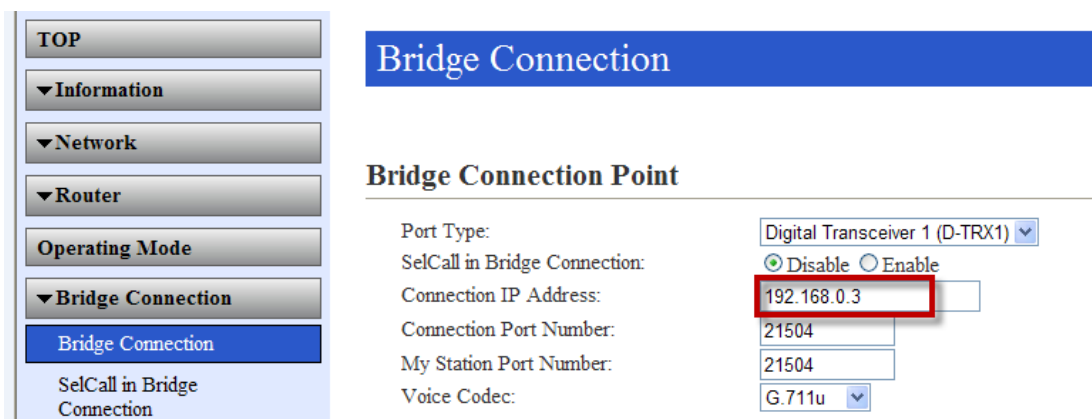
Transceiver Model

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 Connection

Serial Communication: ☒ Disable ☐ Enable

- Go to the **Bridge Connection** window and enter the IP address of the VE-PG3 in Area B. This bridges the Area A radio to the Area B radio.
- Click **Apply** when the IP is entered.



Bridge Connection

Bridge Connection Point

Port Type: Digital Transceiver 1 (D-TRX1)

SelCall in Bridge Connection: ☒ Disable ☐ Enable

Connection IP Address: 192.168.0.3

Connection Port Number: 21504

My Station Port Number: 21504

Voice Codec: G.711u

7. Click Connect.



8. Verify that **During Transmit** appears.



9. Repeat steps 2 through 8 for the VE-PG3 in Area B. This bridges the Area A radio to the Area B radio.

Your VE-PG3 devices are now configured for use.