



SETTING GUIDE

LTE UNIT **UX-262**

INTRODUCTION

1 INSTALLING THE UNIT

2 CONNECTING A GATEWAY SERVER

3 REPEATER SETTINGS

INTRODUCTION

Thank you for choosing this Icom product.
This product was designed and built with Icom's state of the art technology and craftsmanship. With proper care, this product should provide you with years of trouble-free operation.

IMPORTANT

FIRST, CAREFULLY READ THE INSTRUCTION MANUAL boxed with the unit.

SAVE THIS SETTING GUIDE— This guide contains instructions for installing the unit and the settings required for the unit.

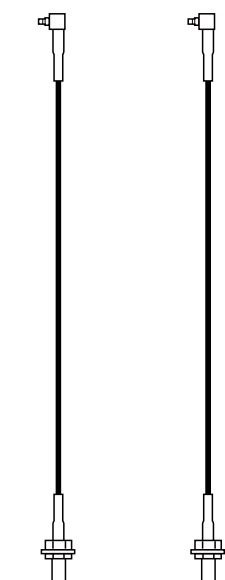
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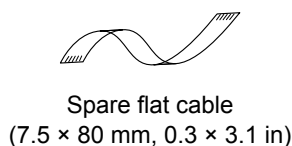
- Force majeure, including, but not limited to, fires, earthquakes, storms, floods, lightning, other natural disasters, disturbances, riots, war, or radioactive contamination.
- The use of Icom product with any equipment that is not manufactured or approved by Icom.

1 INSTALLING THE UNIT

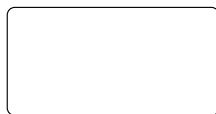
Supplied accessories



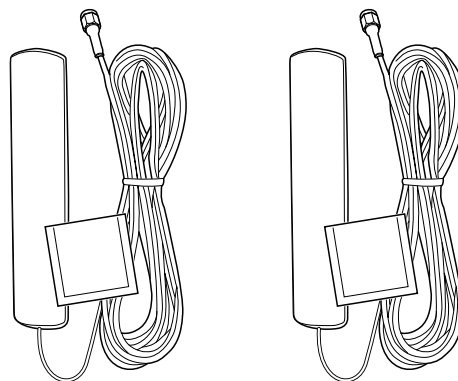
Coaxial cables
(Cable length: 30 cm, 11.8 in)



Spare flat cable
(7.5 × 80 mm, 0.3 × 3.1 in)



Certification sticker
(For only the USA version)



LTE antennas*
(Cable length: (3 m, 9.8 ft)
*Includes a cleaning cloth

NOTE: Place the repeater within reach of the antenna cables to attach the LTE antennas to the window.

About the certification sticker:

For the USA version, paste the supplied certification sticker on the repeater case to show that the repeater is certified.

CAUTION: DO NOT paste the sticker where it blocks vents on the case. This may damage the repeater.

◇ Preparation

Carefully check your repeater settings before installing the LTE unit.

The system with a single repeater:

Confirm the repeater is connected to a Gateway Server.

The system with multiple repeaters:

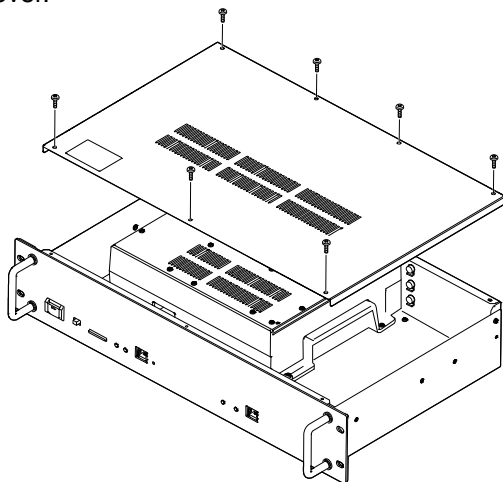
Install the unit to a repeater that is connected to a Gateway Server.

Connect the gateway server to the ID-RP1200VD in DD mode if it is included in your system. The system will not work if it is connected to other repeaters.

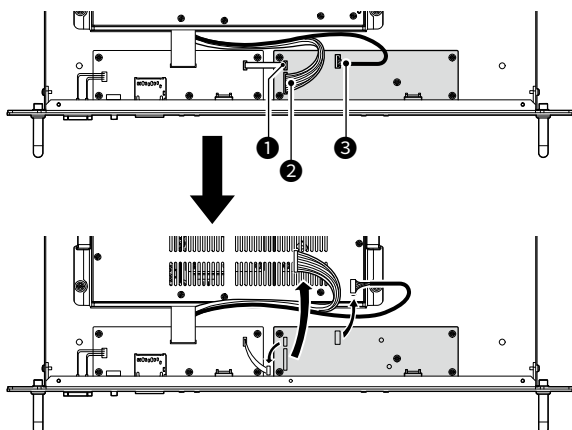
1 INSTALLING THE UNIT

Installing the unit

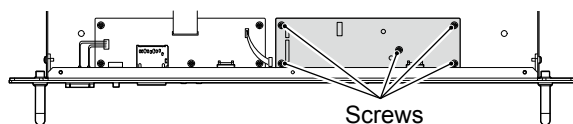
1. Remove the screws, and then remove the top cover.



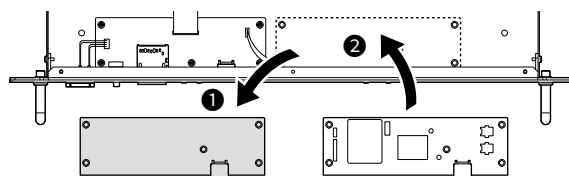
2. Carefully remove three cables (①②③), as shown below.



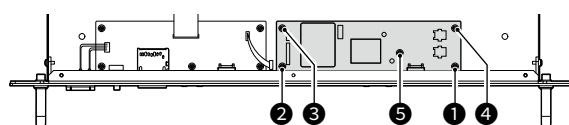
3. Remove the five screws.



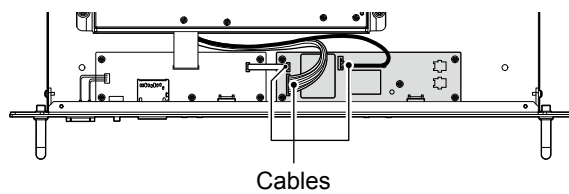
4. Remove the substrate (①), and then attach the unit (②).



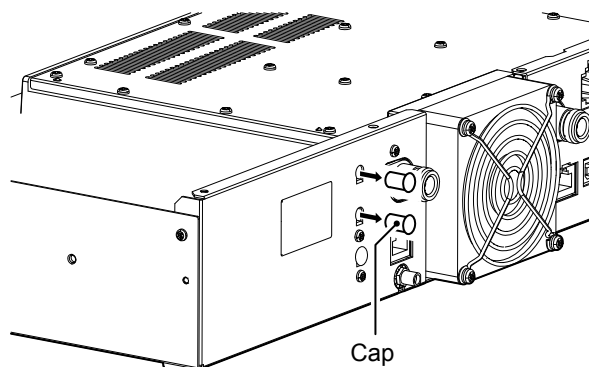
5. Secure the unit using the screws removed in step 3.
① Firmly tighten the screws in the order shown below.



6. Reattach the cables removed in step 2.



7. Remove the two caps on the rear panel, as shown below.

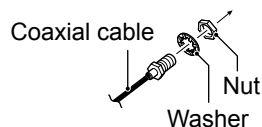


(Continued on the next page)

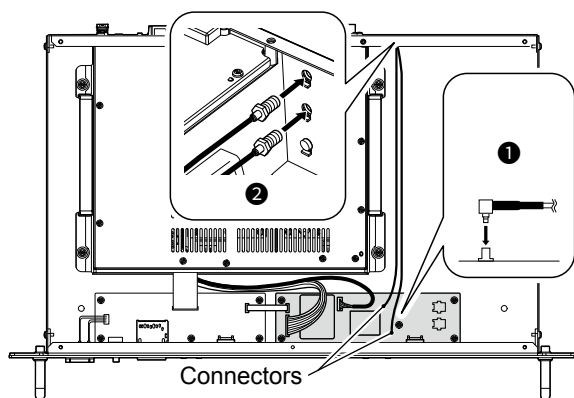
1 INSTALLING THE UNIT

Installing the unit (Continued)

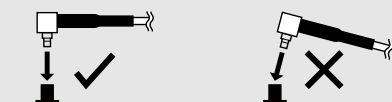
8. Remove the nuts and washers from the straight connectors on the supplied coaxial cables.



9. Attach one end of the cables to the connectors on the unit (1), and then attach the other ends through the holes in the repeater's rear panel (2) where the caps were located.

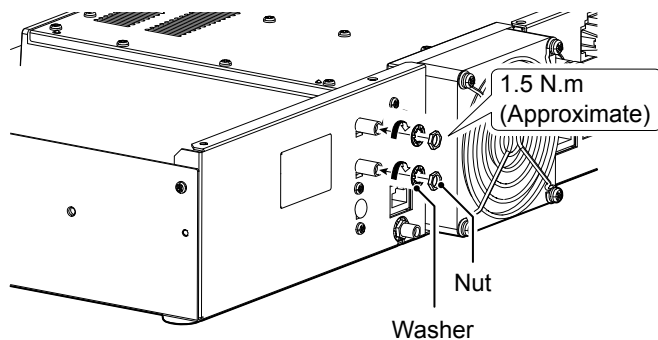


CAUTION: Attach the cables to the unit's connectors at a right angle. Attaching them at an improper angle may damage the connector.



10. Secure the coaxial cables to the rear panel using the nuts and washers removed in step 8.

① Torque the nuts to approximately 1.5 N m.



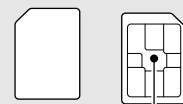
Installing the SIM card

Install valid SIM cards, as shown below.

Caution for handling the nanoSIM cards:

- To avoid damage from static discharge, touch a metal object such as a doorknob or a metal window sash to remove any static electricity that may be accumulated in your body before handling the nanoSIM cards.
- Never directly touch the IC part (metal sections) of the nanoSIM, or the unit's contacts connected to the nanoSIM card, with your fingers.
- Observe the proper direction when installing the card.
- Always carefully install and remove the card.
- Do not apply too much force to the slot cover when removing or replacing a nanoSIM card. If it is bent or damaged, it will not be usable.

① Install the nanoSIM card to the SIM1 slot when using the unit with a single nanoSIM card.

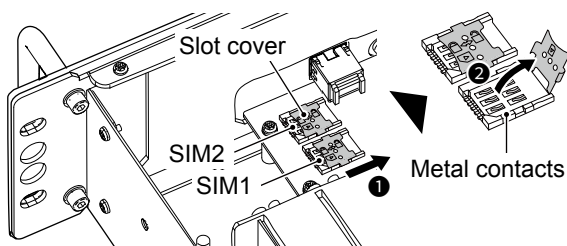


IC (Metal sections)

1. Carefully slide the slot cover in the direction of the arrow (①), and then open it (②).

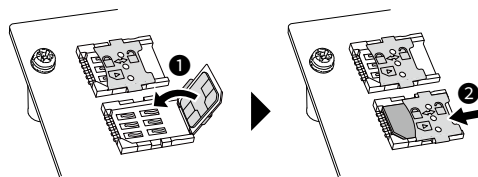
① Do not apply too much force to the slot cover.

① Do not touch the metal contacts of the slot with your finger.



3. Close the slot cover (①), and then slide it in the direction of the arrow until it locks (②).

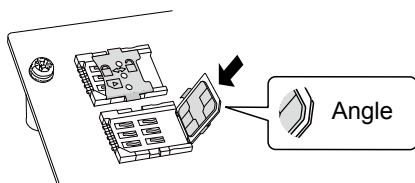
① Do not apply too much force to the slot cover.



4. If you install a second nanoSIM card, repeat steps 1 ~ 3.

5. Reattach the top cover that you removed on page 2.


2. Observe the angled corner of the nanoSIM card and install the card as shown below.



1 INSTALLING THE UNIT

Verification

Use the Utility for ID-RP3 to verify that the repeater recognizes the installed unit.

1. Connect the PC to the repeater with a unit
 - ① See the instruction manual included with the repeater for details of USB driver settings, utility installation, and connection instructions.
2. Turn ON the repeater.
3. Open the Utility.
4. Select the COM port that the USB cable is connected to.
5. Click “

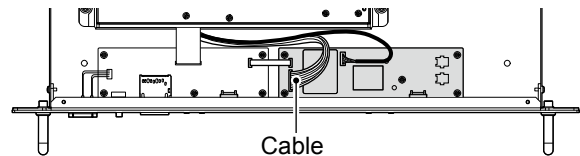
Utility for ID-RP3

Repeater Information	
ID :	3
Model :	1.2G
Sync with REF IN Status :	Manual Adjustment
Comment :	
LAN	
MAC Address (LAN 1) :	00-90-C7-
MAC Address (LAN 2) :	00-90-C7-
LTE	
Unit :	Installed
Line Status :	Connection Error
Radio Field Intensity :	Out of Range
Global IP Address :	
Carrier (SIM 1) :	---
ICCID (SIM 1) :	---
Carrier (SIM 2) :	---
ICCID (SIM 2) :	---
Firmware Version	
Main CPU :	
Sub CPU :	
FPGA :	
DV DSP :	

◇ Troubleshooting

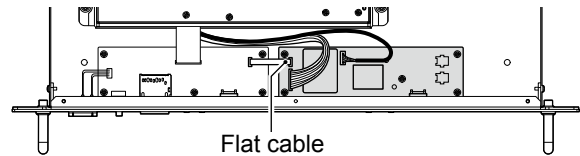
The repeater does not turn ON:

Confirm the cable shown below is properly attached.



“None” is displayed in “Unit”:

Confirm the flat cable shown below is properly attached.

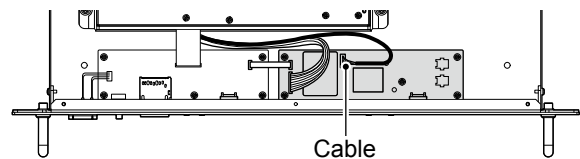


“Connection Error” is displayed in “Line Status”:

Check after you complete the LTE settings described in section 3.

If the problem is not solved, confirm the cable shown below is properly attached.

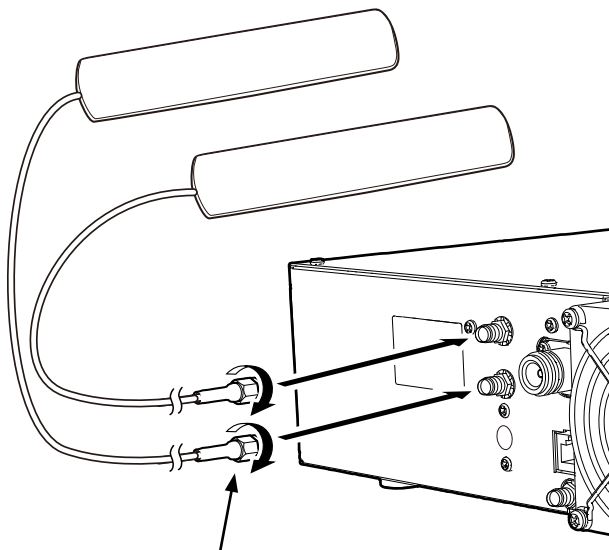
- ① You must complete the LTE settings before checking “Line Status” and “Radio Field Intensity.”
- ① You can also check the status on the repeater's front panel. See the instruction manual included with the repeater for details.



Placing antennas

◇ Attaching antennas

Attach the supplied antennas as shown below.

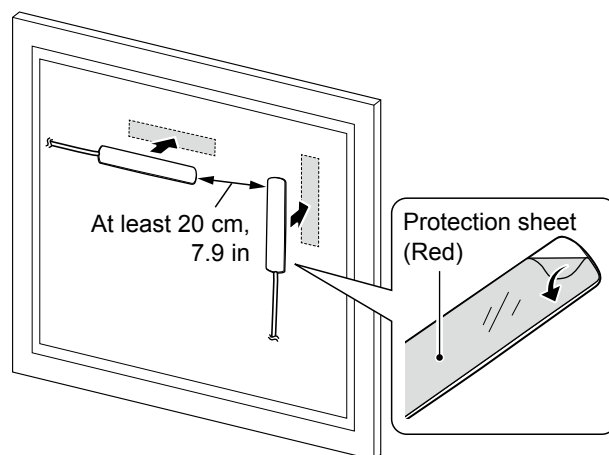


Firmly secure by turning the nut in the direction of the arrow.

◇ Securing antennas

Remove the protection sheet on the antenna surface, and then paste antennas on the window glass.

- ① Clean the window glass using the supplied cleaner before pasting.
- ① Place the two antennas at a distance of at least 20 cm, 7.9 in apart.
- ① Relocate the antennas if the repeater has a poor connection.

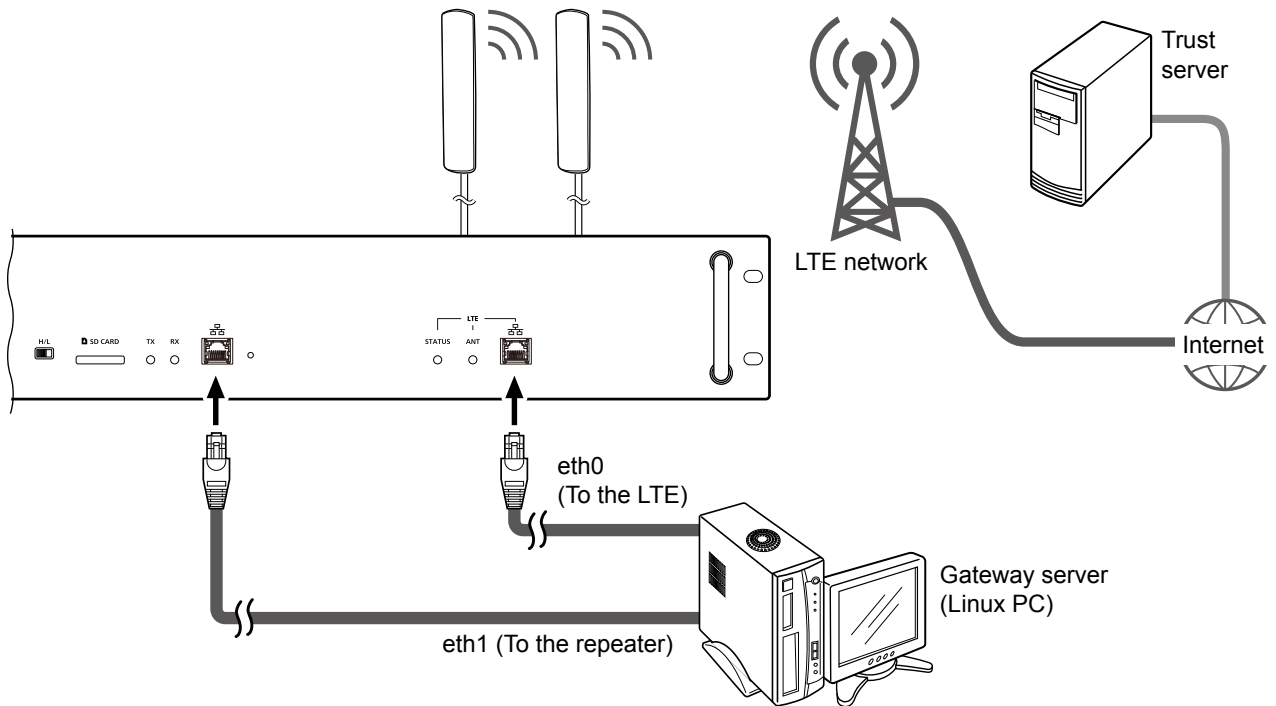


CAUTION:

- **DO NOT** use other than the supplied antennas.
- **DO NOT** forcibly bend or pull the coaxial cables. This may damage the cables.
- **DO NOT** step on the coaxial cables, place heavy objects on them, or pinch them. This may damage the cables.
- **DO NOT** touch the coaxial cables with wet hands. This may damage the cables.
- **DO NOT** apply too much force to the coaxial cable when removing it. This may damage the cables.

Using a Gateway server

Connect a Gateway server to the repeater to use an LTE network.

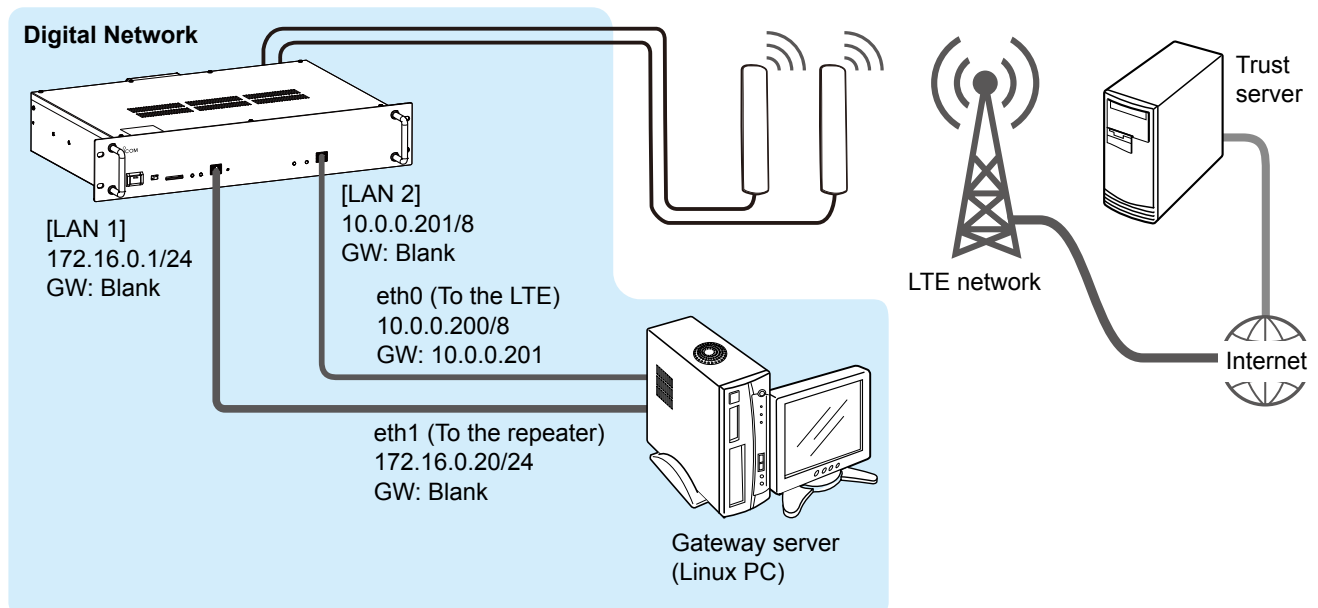


3 REPEATER SETTINGS

This section describes about the required IP address and LTE settings in the Utility for ID-RP3.

① The IP addresses shown in the figure are examples. Set appropriate IP addresses according to your environment.

Using a Gateway server



Utility for ID-RP3 settings (Common)

① If your repeater is already in operation online, skip this topic.

The settings shown below are the minimum required to use the Digital Repeater function. See the Utility for ID-RP3 HELP for more details for other setting items.

◇ RX Frequency/TX Frequency

Enter the repeater's receive/transmission frequency.
 ① "✖" is displayed when frequencies are set to default.
 ① Confirm the entered frequencies are assigned to your repeater.

DV mode:

Common Setting	
Frequency	
RX Frequency	✖
TX Frequency	✖
TX/RX Frequency (DD)	—

DD mode:

Confirm the [DV/DD] switch on the repeater's rear panel is set to "DD."

Common Setting	
Frequency	
RX Frequency	—
TX Frequency	
TX/RX Frequency (DD)	✖

◇ Mode

Select the repeater's operating mode.

① Not selectable when configuring the DD mode on the ID-RP1200VD.

Common Setting	
Mode	
Mode	DV

◇ Call Sign

Enter the repeater call sign assigned to it.

① An Emergency Stop command provided through the LAN is usable by setting the call sign.

Common Setting	
Repeater Call Sign	
Call Sign	

◇ Squelch Level

Enter the squelch level at which the squelch just opens, and the repeater starts operating.

Common Setting	
Squelch	
Squelch Level	77 (30%)

◇ Selecting the output power

Select the output power using the [H/L] switch on the repeater's front panel.

Utility for ID-RP3 settings (Gateway settings)

① If your repeater is already in operation online, skip this topic.

Settings shown below are required if operating the repeater as a Gateway.

◆ Using a Gateway server

1. Select "Use Gateway Server" in "Gateway" (①).
① The option "Use Simple gateway" is usable only in Japan.
2. Enter the IP address of the port to the repeater (②).
① Enter the IP address assigned by your environment.
3. Enter the UDP port number (③).
① Confirm the UDP port number is not a duplicate if using the Monitor function on the same IP address.

Digital Repeater		
Gateway		
Gateway	Use Gateway Server ①	
Gateway Server		
IP Address	172. 16. 0. 20	②
UDP Port	20000	③
Monitor		
Monitor	Not Used	
IP Address	172. 16. 0. 20	
UDP Port	21000	

TIP: Using the Gateway function with multiple repeaters

Only one repeater is settable as a Gateway.

① "✖" is displayed if multiple repeaters are set as Gateways.

If the ID-RP1200VD in DD mode is included, set it as a Gateway.

① "✖" is displayed if another repeater is set as a Gateway

Digital Repeater		
UHF (ID=2) 1.2G (ID=3)		
Gateway	Not Used	Use Gateway Server

Utility for ID-RP3 settings (Network settings)

◇ Using a Gateway server

Using the DHCP Client function:

Automatically gets the repeater IP address and Subnet mask from the connected router.

- Select “ON” in “DHCP.”

Network	
LAN 1	
DHCP	ON
IP Address	172. 16. 0. 1
Subnet Mask	255.255.255. 0 (24bit)
Default Gateway	. . .
Primary DNS Server	. . .
Secondary DNS Server	. . .

◇ Time Settings

Turn the Network Time Protocol (NTP) function ON or OFF.

If the NTP function is “ON,” the repeater gets the exact time through the network.

- ① The setting is required for giving a file-generating date when saving a setting file (icf).
- ① Use the default NTP server address if possible.

Network	
Time Set	
NTP Function	ON
NTP Server Address	time.nist.gov
UTC Offset	0:00

Manually entering the repeater IP address and Subnet mask:

1. Select “OFF” in “DHCP” (①).
2. Enter the fixed IP address and Subnet Mask (② ③).
 - ① If connecting to a router that has the DHCP Server function enabled, set the IP address that is outside the range of the automatically assigned one.
 - ① If you connect to other networks through the repeater, enter the same IP address as the target network.
3. Confirm nothing is entered in “Default Gateway” (④).

Network	
LAN 1	
DHCP	OFF ①
IP Address	172. 16. 0. 1 ②
Subnet Mask	255.255.255. 0 (24bit) ③
Default Gateway	. . . ④
Primary DNS Server	. . .
Secondary DNS Server	. . .

LTE Settings

◇ Using a Gateway server

1. Select "OFF" in "DHCP" (❶).
2. Enter the fixed IP address and Subnet Mask (❷ ❸).

LTE	
UHF (ID=2)	
LAN 2	
DHCP	OFF ❶
IP Address	10. 0. 0.201 ❷
Subnet Mask	255. 0. 0. 0 (8bit) ❸
Default Gateway	.

◇ LTE settings

- Select "ON" in "LTE Function" (❶), and then select a SIM card slot with a valid SIM card in it (❷).
- ① If "ON" is selected in "SIM Auto Switch," the repeater switches to the other SIM card slot if the selected SIM card slot goes offline for a certain period of time.

LTE	
LTE	
LTE Function	ON ❶
SIM Select	SIM1 ❷
SIM Auto Switch	OFF
Primary Recovery Time	OFF

◇ SIM card settings

Enter the APN, User Name, Password, and Authentication Type provided by the mobile carrier.

- ① If "ON" is selected in "SIM Auto Switch," enter the information of SIM 2 as well.
- ① Confirm the settings completed adequately by checking the "Information" in the <Program> menu (p. 8).
You can also check the status on the repeater's front panel. See the instruction manual included with the repeater for details.

SIM 1	
APN	
User Name	
Password	
Authentication Type	OFF
SIM 2	
APN	
User Name	
Password	
Authentication Type	OFF

Count on us!

