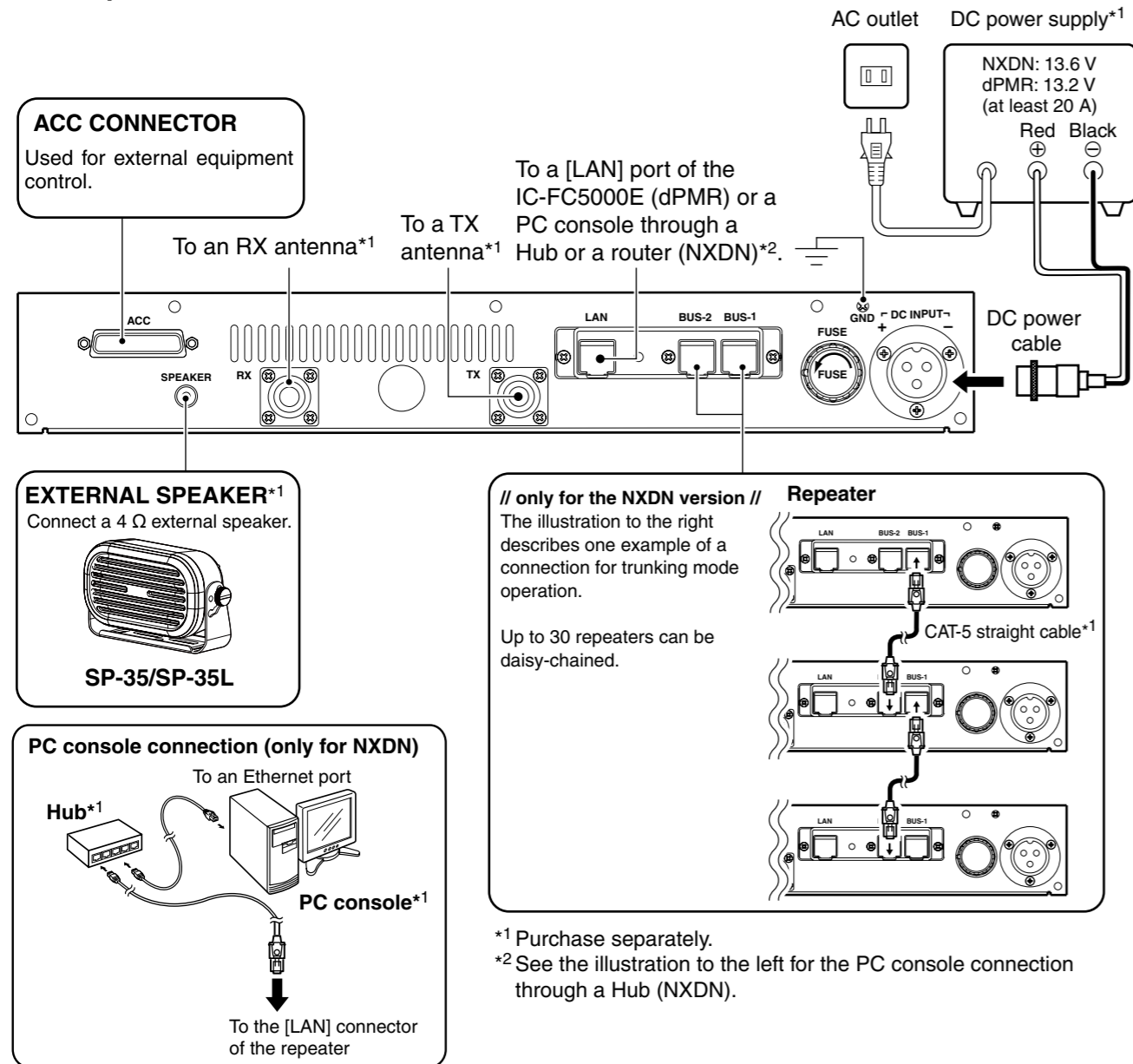


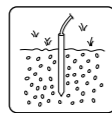
CONNECTION

◇ Rear panel connection



• Grounding

To prevent electrical shock, television interference (TVI), broadcast interference (BCI) and other problems, ground the repeater using the **GROUND [GND]** terminal on the rear panel. For best results, connect a heavy gauge wire or strap to a long ground rod. Make the distance between the **[GND]** terminal and ground rod as short as possible.



⚠ WARNING! NEVER connect the **[GND]** terminal to a gas or electric pipe, since the connection could cause an explosion or electric shock.

• Power supply

Make sure the repeater's power is OFF when connecting a DC power cable.

CAUTION: Voltages greater than 16 V DC will damage the repeater. Check the source voltage before connecting the power cable.

• Antenna

For repeater communications, an antenna is a critical component, along with output power and sensitivity. Select antenna(s), such as a well-matched 50 Ω antenna, and feed-line. A 1.5:1 or better Voltage Standing Wave Ratio (VSWR) is recommended for a desired band. Of course, the transmission line should be a coaxial cable.

If you want to connect only one antenna for both transmission and reception, use a third-party duplexer.

CAUTION: Protect the repeater from lightning by using a lightning arrestor.

NOTE: There are many publications that describe proper antennas and their installation. Check with your local dealer for more information and recommendations.

ICOM

INSTRUCTIONS

VHF REPEATER

IC-FR5200H

UHF REPEATER

IC-FR6200H

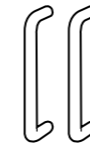
Thank you for choosing this Icom product. **READ ALL INSTRUCTIONS** carefully and completely before using this product.

FOREWORD

This instruction sheet includes some functions that are usable only when they are preset by your dealer. Ask your dealer for details.

SUPPLIED ACCESSORIES

Handles



For the handles installation

Spacers



Allen wrench

Screws



DC power cable



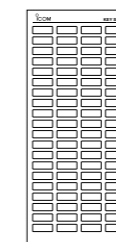
Spare fuse (FGB01 30 A)



Rack



Function name stickers*1



*1 Used for labelling the programmable function keys according to their assigned functions.

Icom is not responsible for the destruction, damage to, or performance of any Icom or non-Icom equipment, if the malfunction is because of:

- 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 transceivers with any equipment that is not manufactured or approved by Icom.

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NXDN is a trademark of Icom Incorporated and JVC Kenwood Corporation.
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OPTIONS

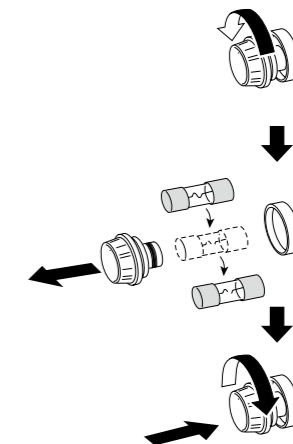
- **SP-35/SP-35L** EXTERNAL SPEAKERS
Input impedance : 4 Ω
Maximum input power : 7 W
- **HM-152** HAND MICROPHONE
- **SM-26** DESKTOP MICROPHONE

Some options may not be available in some countries. Please ask your dealer for details.

FUSE REPLACEMENT

If a fuse blows or the repeater stops functioning, try to find the source of the problem, and then replace the damaged fuse with a new rated one.

□ Fuse rating: 30 A
USE only a 30 A fuse.



DISPOSAL

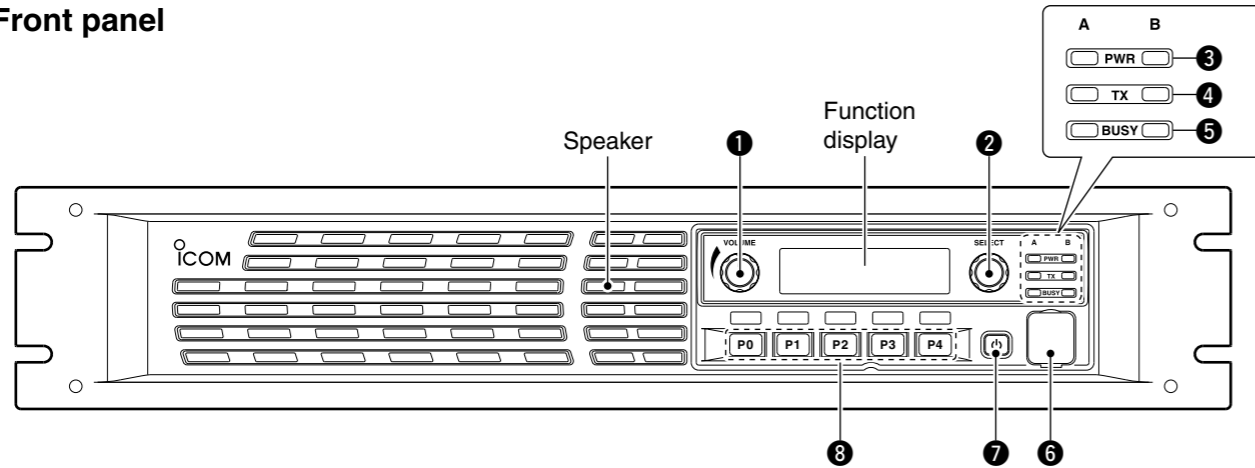


The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life.

Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

PANEL DESCRIPTION

◇ Front panel



1 VOLUME CONTROL [VOLUME]

Rotate to adjust the audio output level.

2 SELECTOR DIAL [SELECT]

Rotate to adjust the squelch threshold level, or select an operating channel (depending on the presetting).

3 POWER INDICATOR [PWR]

Lights green at 'A' module's indicator while the repeater power is ON.

4 TRANSMIT INDICATOR [TX]

Lights red at 'A' module's indicator while transmitting.

5 BUSY INDICATOR [BUSY]

Lights green at 'A' module's indicator while receiving a signal or when the squelch is open.

6 MICROPHONE CONNECTOR [MIC]

Connect an optional microphone.

CAUTION: DO NOT detach the [MIC] connector cover when optional microphone is not in use to prevent dust from entering.

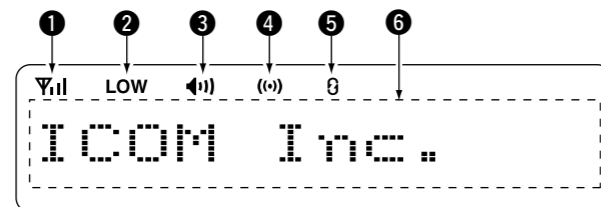
7 POWER SWITCH [POWER]

- ➔ Push to turn ON the power.
- ➔ Hold down for 3 seconds to turn OFF the power.

8 DEALER-PROGRAMMABLE KEYS

Desired functions can be independently preset by your dealer.
Ask your dealer for details.

◇ Function display



1 SIGNAL STRENGTH INDICATOR

Displays the relative receive signal strength level.

2 LOW POWER INDICATOR

Displayed when the low output power is selected.

3 AUDIBLE INDICATOR

Displayed when a channel is in the 'audible' (unmute) mode.

4 COMPANDER INDICATOR

Displayed when the compander function is activated.

5 SCRAMBLER/ENCRYPTION INDICATOR

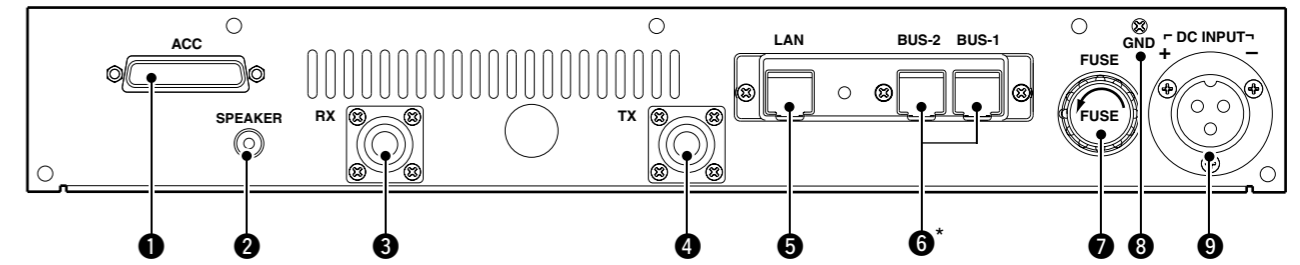
Displayed when the Voice Scrambler or the Encryption function is activated.

6 CHARACTER READOUT

Displays a variety of texts or codes.

PANEL DESCRIPTION (Continued)

◇ Rear panel



* only for the NXDN version

1 D-SUB 25-PIN [ACC]

Connects an external unit.
Ask your dealer for details.

2 EXTERNAL SPEAKER CONNECTOR [SPEAKER]

Connects the optional SP-35 or SP-35L.

3 RECEIVE ANTENNA CONNECTOR [RX]

Connects a receive antenna (impedance: 50 Ω) and inputs received signals.

4 TRANSMIT ANTENNA CONNECTOR [TX]

Connects a transmit antenna (impedance: 50 Ω) and outputs transmitting signals.

5 LAN CONNECTOR [LAN]

For an Ethernet connection, connect the repeater to an Ethernet [LAN] port of a PC console, through a Hub or a router (NXDN), or to the [LAN] port of the IC-FC5000E (dPMR).

// only for the NXDN version //

In the trunking mode operation, the repeater at one end of the chain must be connected. You can control the repeater and all others in the chain from the PC console.

// only for the dPMR version //

In the trunking mode operation, connect to the [LAN] port of the IC-FC5000E.

6 BUS CONNECTORS [BUS-1]/[BUS-2]

// only for the NXDN version //

For data communication between controllers in the trunking mode operation, you can use either [BUS-1] or [BUS-2]. Through the connectors, the controllers can be "daisy-chained" together, and form a network that can pass the trunking and other data among the controllers.

7 FUSE HOLDER

See page 1 to replace a damaged fuse.

8 GROUND TERMINAL [GND]

Connect this terminal to ground to prevent electrical shocks, TVI, BCI, and other problems.
See page 4 for the grounding details.

9 DC POWER CONNECTOR [DC INPUT]

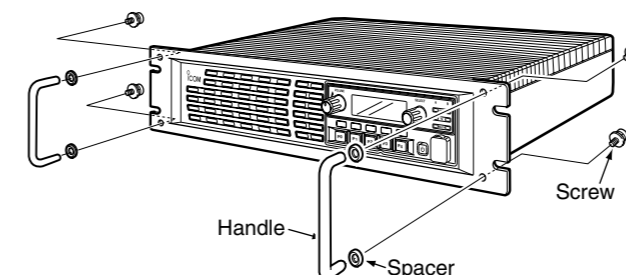
Connects a supplied DC power cable from this connector to an external 13.6 V (NXDN) or 13.2 V (dPMR) DC power supply (purchase separately).
See page 4 for the connection details.

INSTALLATION

◇ Installing handles to the repeater

The supplied handles are used to mount the repeater into the supplied rack. The handles can be installed to the repeater's front panel.

① Attach the supplied handles to both sides of the repeater's front panel with the spacers, then tighten the screws as described below.



② The completed installation should look like as described below.

