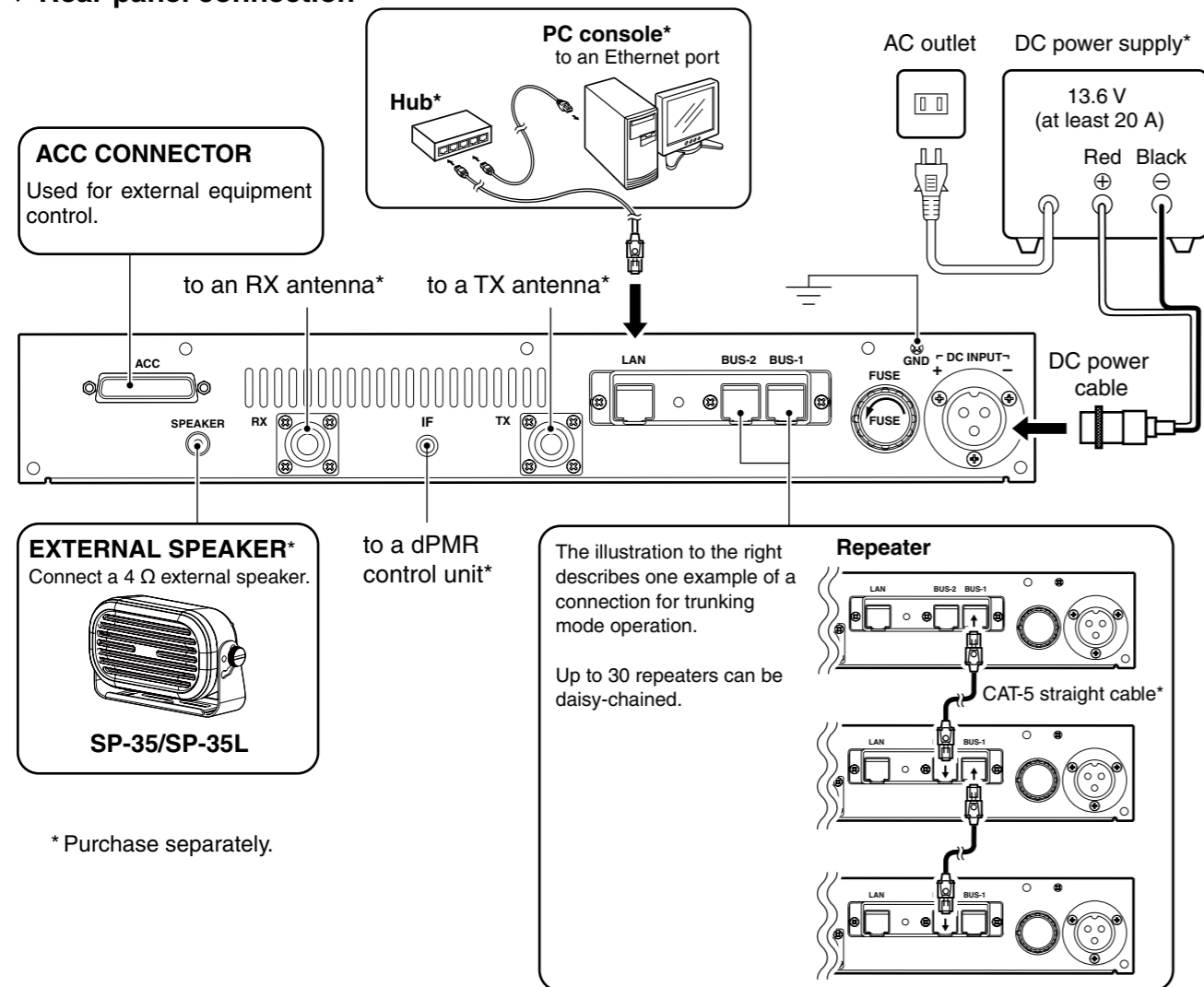


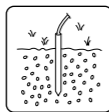
CONNECTION

◇ 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.

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ICOM INSTRUCTIONS

VHF REPEATER IC-FR5200H UHF REPEATER IC-FR6200H

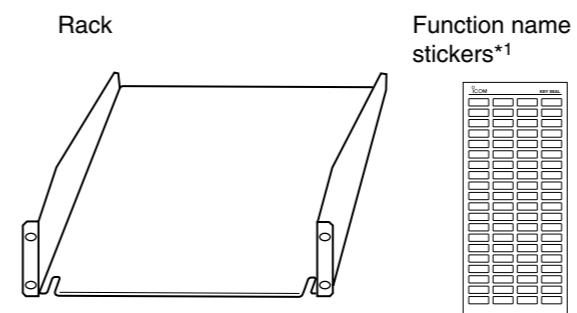
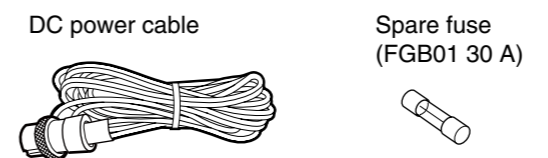
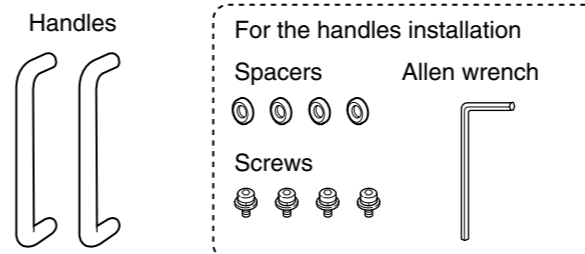
Thank you for choosing the IC-FR5200H VHF REPEATER or IC-FR6200H UHF REPEATER. **READ ALL INSTRUCTIONS** carefully and completely before using the repeater.

FOREWORD

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

For details of other functions, IDAS™, NXDN™, and IDAS™ dPMR™ system operations, download the IC-FR5200H/IC-FR6200H operating instructions from the Icom web site. (<http://www.icom.co.jp/world/support/>)

SUPPLIED ACCESSORIES



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

OPTIONS

- **SP-35/SP-35L** EXTERNAL SPEAKERS
Input impedance : 4 Ω
Maximum input power : 7 W
 - **HM-152** HAND MICROPHONE
 - **SM-26** DESKTOP MICROPHONE
 - **UT-109R** VOICE SCRAMBLER UNIT
Non-rolling type (maximum 32 codes).
 - **UT-110R** VOICE SCRAMBLER UNIT
Rolling type (maximum 1020 codes).
- * The scrambler systems of the UT-109R and UT-110R are not compatible with each other.

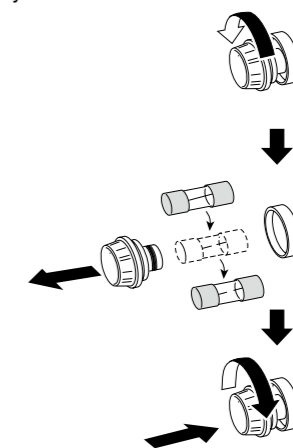
Approved Icom optional equipment is designed for optimal performance when used with an Icom repeater. Icom is not responsible for the destruction or damage to an Icom repeater in the event the Icom repeater is used with equipment that is not manufactured or approved by Icom.

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

FUSE REPLACEMENT

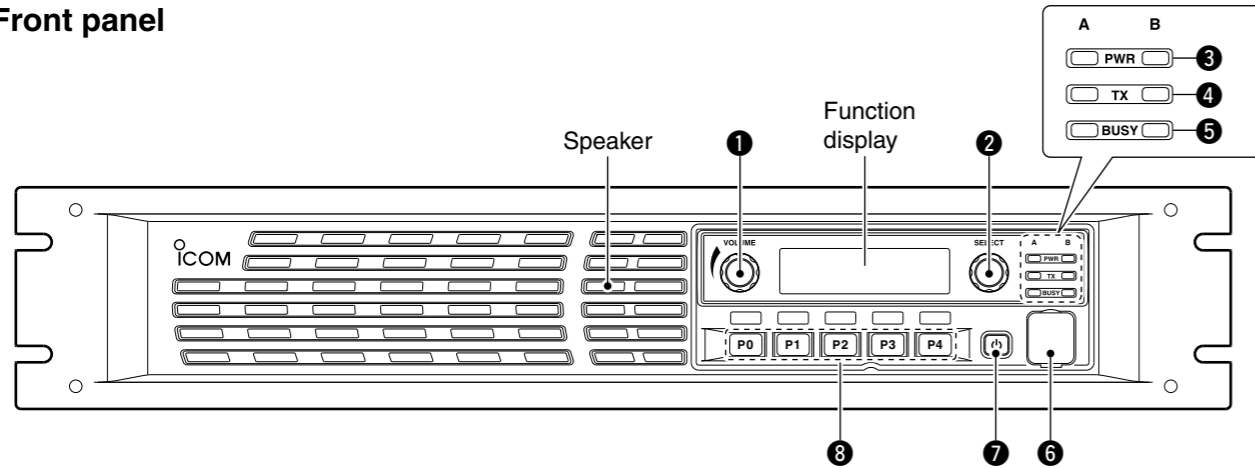
If a fuse blows or the repeater stops functioning, try to find the source of the problem, and then replace the damaged fuse with a new rated one.

- Fuse rating: 30 A
- USE** only a 30 A fuse.



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.

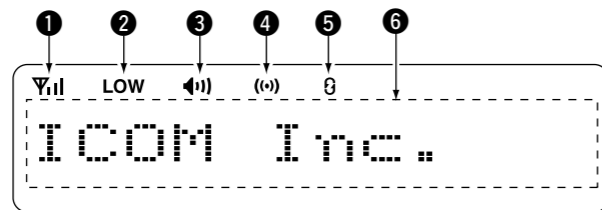
- 6 MICROPHONE CONNECTOR [MIC]**
Connect an optional microphone.

KEEP the [MIC] connector cover attached to the repeater to prevent dust from entering when you don't use an optional microphone.

- 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.

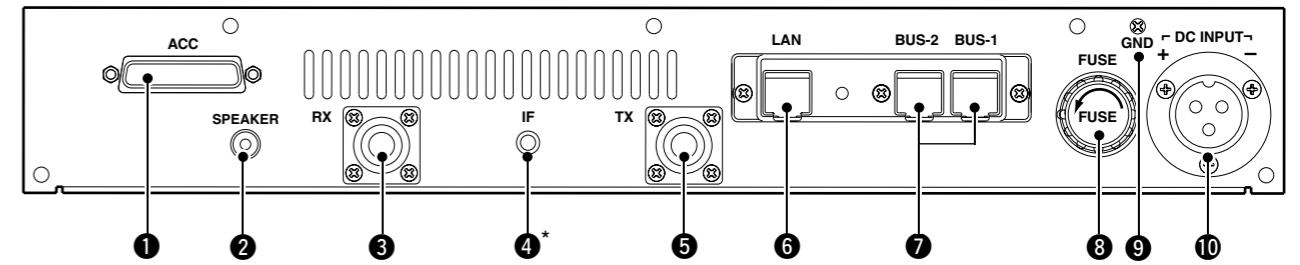
- 4 COMPANDER INDICATOR**
Displayed when the compander function is activated.

- 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 dPMR 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 IF SIGNAL OUT CONNECTOR [IF]**
// only for the dPMR version //
Connects to a dPMR control unit to output an IF signal.

- 5 TRANSMIT ANTENNA CONNECTOR [TX]**
Connects a transmit antenna (impedance: 50 Ω) and outputs transmitting signals.

- 6 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).
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.

- 7 BUS CONNECTORS [BUS-1]/[BUS-2]**
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.

- 8 FUSE HOLDER**
See page 1 to replace a damaged fuse.

- 9 GROUND TERMINAL [GND]**
Connect this terminal to ground to prevent electrical shocks, TVI, BCI, and other problems.
See page 4 for the grounding details.

- 10 DC POWER CONNECTOR [DC INPUT]**
Connects a supplied DC power cable from this connector to an external 13.6 V 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.

