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You can read the recommendations in the user guide, the technical guide or the installation guide for ICOM IC-FR5100. You'll find the answers to all your questions on the ICOM IC-FR5100 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual ICOM IC-FR5100
User guide ICOM IC-FR5100
Operating instructions ICOM IC-FR5100
Instructions for use ICOM IC-FR5100
Instruction manual ICOM IC-FR5100

INSTRUCTION MANUAL

VHF FM REPEATER
IC-FR5100
UHF FM REPEATER
IC-FR6100



Icom Inc.



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Manual abstract:

If disregarded, inconvenience only. @@@@This may result in an electrical shock or burn. @@BE CAREFUL! The heatsink will become hot when operating the repeater continuously for long periods. BE CAREFUL! If a linear amplifier is connected, set the repeater's RF output power to less than the linear amplifier's maximum input level, otherwise, the linear amplifier will be damaged. Use Icom microphones only (optional). Other manufacturer's microphones have different pin assignments, and connection to the repeater may damage the repeater. Icom optional equipment is designed for optimal performance when used with this repeater. We are not responsible for the repeater being damaged or any accident caused when using non-Icom optional equipment. R WARNING HIGH VOLTAGE! NEVER in- stall the antenna at any place that person touch the antenna easily during transmission. This may result in an electrical shock or burn.

R WARNING! NEVER apply AC to the DC power receptacle on the repeater rear panel. This could cause a fire or damage the repeater. R WARNING! NEVER apply more than 16 V DC, such as a 24 V battery, to the DC power receptacle on the repeater rear panel. This could cause a fire or damage the repeater. R CAUTION! NEVER let metal, wire or other objects touch any internal part or connectors on the rear panel of the repeater. This may result in an electric shock. rain, snow or any liquids. R CAUTION! NEVER expose the repeater to DO NOT use or place the repeater in areas with temperatures below 25°C or above +55°C. Be aware that temperatures can exceed +80°C, resulting in permanent damage to the repeater if left there for extended periods. DO NOT place the repeater in excessively dusty environments or in direct sunlight.

DO NOT put anything on top of the repeater. This will obstruct heat dissipation. Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia and/or other countries. i FORWARD Thank you for purchasing this Icom repeater. @@@@2 channels can be operated as the repeater when a channel extension module is installed. Multiple signaling systems are equipped as standard. These systems are fully compatible with Icom F-series radios. You can control the repeater from a remote location over the air or over a phone line with DTMF. * Used for labelling the programmable function keys according to their assigned functions.

m Built-in 5-Tone, DTMF encoder & decoder TABLE OF CONTENTS IMPORTANT.....

.....
.....
.....
.....
.....
.....
.....

... i EXPLICIT DEFINITIONS.....

.....
.....
.....

.. i PRECAUTIONS...

.....
.....
.....
.....
.....

i FORWARD

.....
.....
.....
.....

.... ii VOICE CODING TECHNOLOGY.

.....
.....
.....

.... ii SUPPLIED ACCESSORIES.

.....
.....

.....

 ii TABLE OF CONTENTS ...

.....

. ii 1 PANEL DESCRIPTION...

.....

.....

... 13 n Front panel ..

.....

.....

.... 1 D Function display .

.....

.....

..... 2 n Rear panel..

.....

.....

..... 2 D Accessory connector

.....

. 3 2 INSTALLATION AND CONNECTIONS

... 46 n Unpacking ..

.....

.....

4 n Selecting a location

.....

.....

... 4 n Antenna connection

.....
.....
.....
.....

.... 4 n Front panel connection

.....
.....
.....

... 5 n Rear panel connection ..

.....
.....

.....
.....

. 5 n Power supply connection

.....
.....
.....

.... 6 n Mounting the repeater

.....
.....
.....
.....

.... 6 D Using the supplied handle.....

.....
.....
.....

... 6 3 OPERATION

.....
.....
.....

.....
.....

.....

7 n Receiving and transmitting

.....
.....
.....

.. 7 D Repeater operation

.....
.....
.....

.....

. 7 D Base station operation

.....
.....

.....

7 4 MAINTENANCE

.....

.....
.....
.....
.....

..... 8 n Troubleshooting

.....
.....
.....

.....
.....
.....
..... 8 n Fuse replacement

.....
.....
.....
.....

.....
.....
.....
..... 8 D Line fuse replacement.....

.....
.....
.....

.....
.....
.....
..... 8 5 OPTIONS

.....
.....
.....

.....
.....
.....

.....
.....
.....
..... .. 9 6 ABOUT CE ...

.....
.....
.....

.....
.....
.....

..... @@@@U.S.

Patent Nos. @w VOLUME CONTROL [VOLUME] (p. 7) Adjusts the audio output level. @@@@t TRANSMIT INDICATOR [TX] Lights red while transmitting. @About[PWR],[TX]and[BUSY]indicators: 'A' and 'B' modules indicators are available for these indications.

'A' module's indicator correspond to the original module, and 'B' module's indicator correspond to an extended module. i u u MICROPHONE CONNECTOR [MIC] This 8-pin modular jack accepts the optional microphone. KEEP the [MIC] connector cover attached to the repeater when the optional microphone is not used. q +8 V DC output (Max. 15 mA) w Output port for PC programming e NC r M PTT (Input port for TX control) t Microphone ground y Microphone input u Ground i Input port for PC programming i q i POWER SWITCH [POWER] Push to turn the repeater power ON.

Push and hold for 3 sec. to turn the repeater power OFF. Whenachannelextensionmoduleisinstalled: While the repeater power is turned ON, push to select the desired module to operate the repeater as the base station. · The power indicator of the selected module unit lights green. o DEALER-PROGRAMMABLE KEYS Desired functions can be programmed indepen dently by your dealer. Ask your dealer for details. · Because these keys are programmable, the functions of these keys are unique to each unit. 1 PANEL DESCRIPTION 1 D Function display q w e r t ICOM q SIGNAL STRENGTH INDICATOR Indicates relative signal strength level. w LOW POWER INDICATOR Appears when low output power is selected. Inc.

y r COMPANDER INDICATOR Appears when the compander function is activated. t SCRAMBLER/ENCRYPTION INDICATOR Appears when the voice scrambler/encryption function is activated. y ALPHANUMERIC DISPLAY Shows a variety of text or code information. 1 2 3 4 5 6 7 8 9 10 e AUDIBLE INDICATOR Appears when the channel is in the 'audible' (unmute) condition. n Rear panel qw e r t The optional channel extention module can be installed. Ask your dealer for details. 11 12 13 14 15 16 17 18 19 20 21 2 q EXTERNAL SPEAKER CONNECTOR [SP] Connect the optional SP-22. w RECEIVE

ANTENNA CONNECTOR [RX] Connects a receive antenna (impedance: 50) and inputs receiving signals. e ACCESSORY CONNECTOR [ACC] Connects to the accessory connector. · See pgs.

3 for accessory connector information. r DC POWER RECEPTACLE Connects the supplied DC power cable from this connector to an external 13.2 V DC power supply. t TRANSMIT ANTENNA CONNECTOR [TX] Connects a transmit antenna (impedance: 50) and outputs transmit signals. 1 PANEL DESCRIPTION D Accessory connector !4 q @5 !3 Pin No.

@@D/A VCC EXT. @@Input terminal for serial communication data. Output terminal for request-to-send data. Input terminal for clear-to-send data.

@@Output terminal for AF signals from the AF detector circuit.

Output level is fixed, regardless of [AF] control. @@@@Ask your dealer for details. @@Keep the shipping cartons. @ii of this manual. 2 n Antenna connection For radio cclockwise until the noise disappears. @@@@w Wait for the channel to become clear. @@r Release [PTT] to receive.

@@@REF. pgs. 5, 6 · Check the cause, then replace the fuse with p.

@@on when [POWER] is pushed. @@speaker. @@7 suitable listening level. · While in base operating mode, rotate [SE- p. 7 LECT] to counterclockwise to open the squelch. @@ mute function OFF. @@ vated such as 5 tone call or tone squelch. @@Ask your dealer for details. @@5 only strong signals are has a poor contact or is short-circuited. sary), the antenna feedline or antenna conaudible. nector. @@be understood. · Scrambler code is not set correctly. Output power is too low.



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