# iCOM

## INSTRUCTION MANUAL

VHF TRANSCEIVER
# IC-F521

UHF TRANSCEIVER
# IC-F621

**BIIS 1200**
**Compatible**



Icom Inc.

# IMPORTANT

**READ ALL INSTRUCTIONS** carefully and completely before using the transceiver.

**SAVE THIS INSTRUCTION MANUAL—** This instruction manual contains important operating instructions for the IC-F521 VHF TRANSCEIVER and IC-F621 UHF TRANSCEIVER.

# EXPLICIT DEFINITIONS

| WORD | DEFINITION |
|------|------------|
| ⚠ WARNING! | Personal injury, fire hazard or electric shock may occur. |
| CAUTION | Equipment damage may occur. |
| NOTE | Recommended for optimum use. No risk of personal injury, fire or electric shock. |

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# PRECAUTION

⚠**WARNING! NEVER** connect the transceiver to an AC outlet. This may pose a fire hazard or result in an electric shock.

**NEVER** connect the transceiver to a power source of more than 16 V DC such as a 24 V battery. This connection will damage the transceiver.

**NEVER** cut the DC power cable between the DC plug and fuse holder. If an incorrect connection is made after cutting, the transceiver might be damaged.

**NEVER** place the transceiver where normal operation of the vehicle may be hindered or where it could cause bodily injury.

**NEVER** allow children to touch the transceiver.

**NEVER** expose the transceiver to rain, snow or any liquids.

**USE** the supplied microphone only. Other microphones have different pin assignments and may damage the transceiver.

**DO NOT** use or place the transceiver in areas with temperatures below –22°F (–30°C) or above +140°F (+60°C) or, in areas subject to direct sunlight, such as the dashboard.

**AVOID** operating the transceiver without running the vehicle's engine. The vehicle's battery will quickly run out if the transceiver is in transmission while the vehicle's engine OFF.

**AVOID** placing the transceiver in excessively dusty environments.

**AVOID** placing the transceiver against walls. This will obstruct heat dissipation.

**AVOID** the use of chemical agents such as benzine or alcohol when cleaning, as they damage the transceiver surfaces.

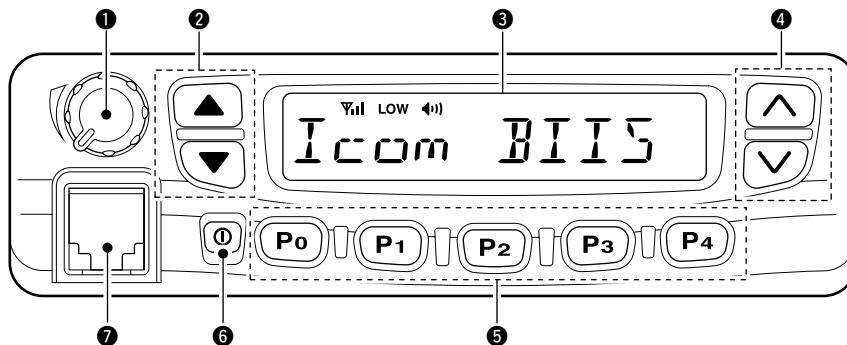**BE CAREFUL!** The transceiver will become hot when operating continuously for long periods.

### *For U.S.A. only*
**CAUTION:** Changes or modifications to this transceiver, not expressly approved by Icom Inc., could void your authority to operate this transceiver under FCC regulations.

# TABLE OF CONTENTS

# PANEL DESCRIPTION

## ■ Front panel



### q **AF VOLUME CONTROL KNOB**

Rotate the knob to adjust the audio output level.
• Minimum audio level is pre-programmed.

### w **STATUS UP/DOWN KEYS [▲]/[▼]**

➥ During the standby condition, push to display the transmit status indication and select a status number.
➥ When a received SDM is displayed, push to cancel the automatic scroll and scroll the message manually.
➥ When an SDM that contains more than 10 characters is displayed, push to scroll the message manually.

### e **FUNCTION DISPLAY** (p. 3)

Displays a variety of information such as an operating channel number/name, code, status message.

NOTE: The above functions depend on pre-programming.

### r **CHANNEL UP/DOWN KEYS [∧]/[∨]**

➥ During standby condition, push to select an operating channel.
➥ After pushing [TX CODE CH], push to select a TX code channel.
➥ After pushing [DTMF], push to select a DTMF channel.
➥ After pushing [SCAN], push to select a scan group.
➥ After pushing [DIGITAL], push to select a BIIS code, status number or SDM.

**❺DEALER-PROGRAMMABLE KEYS [P0] to [P4]**

Desired functions can be programmed independently by your Dealer. However, the following functions are assigned as the default for BIIS operation.

**[P0]** : [CALL]

Push to transmit a 5-tone/BIIS call.

• Call transmission is necessary before you call another station, depending on your signalling system.

**[P1]** : [DIGITAL]

➥ Push to select the call ID list, transmit message or standby condition. Toggles between queue channel and received message record after queue channel is selected.

➥ Push for 1 sec. to select queue channel indication.

**[P4]** : [MONI]

Activates one of (or two of) the following functions on each channel independently.

• Push and hold to unmute the channel (audio is emitted; 'audible' condition).

• Push to toggle the mute and unmute conditions (toggles 'audible' and 'inaudible').

• Push to mute the channel (sets to 'inaudible' only).

• Push to unmute the channel (sets to 'audible' only).

• Push after communication is finished to send a 'reset code.'

• Push after communication is finished to send a 'clear down code' during BIIS operation on an MSK channel.

**NOTE:** The unmute condition ('audible' condition) may automatically return to the mute condition ('inaudible' condition) after a specified period.

*No function is assigned for [P2] and [P3].

**❻POWER SWITCH [ ⏻ ]**

Push to turn the power ON and OFF.

• The following functions are available at power ON as options:
- Automatic scan start
- Password prompt
- Set mode

**❼MICROPHONE CONNECTOR**

➥Connect the supplied microphone or optional DTMF microphone for SmarTrunk II™ operation here.

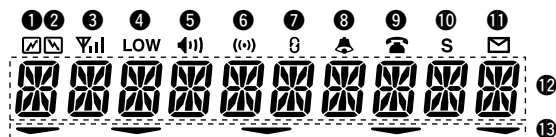**NEVER** connect non-specified microphones. The pin assignments may be different and the transceiver may be damaged.

**MICROPHONE**

➥The supplied microphone has a PTT switch and a hanger hook.

• The following functions are available when the microphone is on or off hook:
- Automatic scan start when on hook.
- Automatic priority channel selection when off hook.
- Sets to 'Inaudible' condition (mute condition) when on hook.
- Sets to 'Audible' condition (un-mute condition) when off hook.

# 1 PANEL DESCRIPTION

## ■ Function display



**❶TRANSMIT INDICATOR**
Appears while transmitting.

**❷RECEIVE INDICATOR**
Appears when a signal is received, or the squelch is open.

**❸SIGNAL STRENGTH INDICATOR**
Shows the relative signal strength while receiving signals.

**❹OUTPUT POWER INDICATOR**
Appears when Low 2 or Low 1 is selected.

**❺AUDIBLE INDICATOR**
➥ Appears when the channel is in the 'audible' (unmute) condition.
➥ Appears when the specific 5-tone/BIIS code is received.

**❻COMPANDER INDICATOR**
Appears when the compander function is activated.

**❼SCRAMBLER INDICATOR**
Appears when the voice scrambler function is activated.
• Optional UT-109/110 is required.

**❽BELL INDICATOR**
Appears/blinks when the specific 5-tone/BIIS code is received, according to the programming.

**❾CALL CODE MEMORY INDICATOR**
Appears when the call code memory is selected.

**❿SCROLL INDICATOR**
Appears when a received SDM including more than 10 characters is displayed.

**⓫SDM INDICATOR**
Appears when an SDM is received, or a transmit SDM is selected.

**⓬MULTI-FUNCTION INDICATOR**
Shows the operating channel number and code simultaneously with the default setting.
The displayed information may differ according to the programming.

**⓭ACTIVATED KEY INDICATOR**
Appears above the key assigned as the [DIGITAL] key when that key has been activated.

**Count on us!**

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