

OPTIONS

◇ BATTERY PACKS

- **BP-290** Li-ion BATTERY PACK
Voltage: 7.2 V
Capacity: 1910 mAh (minimum), 2010 mAh (typical)
Battery life: Approximately 13 hours
- **BP-291** BATTERY CASE
Battery case for AA alkaline batteries.
- **BP-294** Li-ion BATTERY PACK
Voltage: 7.2 V
Capacity: 3050 mAh (minimum), 3150 mAh (typical)
Battery life: Approximately 18.5 hours

◇ CHARGERS

- **BC-226** DESKTOP CHARGER + **BC-228** AC ADAPTER
For rapidly charging battery packs.
Charging time: Approximately 2.7 hours
① A power adapter may be supplied, depending on the charger's version.
- **BC-214** MULTI-CHARGER
+ **BC-157S** AC ADAPTER, **OPC-656** DC POWER CABLE
For rapidly charging of up to 6 battery packs simultaneously.
Charging time: Approximately 2.8 hours
① The AD-132N CHARGER ADAPTER may be needed, depending on the charger's version.
① The BC-157S AC ADAPTER or OPC-656 DC POWER CABLE must be purchased separately.
- **BC-219N** DESKTOP CHARGER + **BC-123S** AC ADAPTER
For rapidly charging of battery packs.
Charging time: Approximately 2.5 hours for the BP-290
① A power adapter may be supplied, depending on the charger's version.
- **BC-225** INTELLIGENT DESKTOP CHARGER + **BC-123S** AC ADAPTER + **RS-BC225** READER SOFTWARE
For rapidly charging battery packs.
You can check the charging status using the RS-BC225.
Charging time: Approximately 2.5 hours for the BP-290
① A power adapter may be supplied, depending on the charger's version.
① An USB (Micro-B) cable is required to connect the BC-225 and a PC with the RS-BC225 installed.

◇ DC CABLES

- **CP-23L** CIGARETTE LIGHTER CABLE
Used when charging battery packs through a 12 V cigarette lighter socket. For use with the BC-219N.
- **OPC-515L, OPC-656** DC POWER CABLES
Used when charging battery packs using a 13.8 V DC power source instead of the power adapter.
OPC-515L: For the BC-219N
OPC-656: For the BC-214

◇ ANTENNAS

- **FA-SC26VS, FA-SC27VS, FA-SC56VS, FA-SC57VS**
FA-SC26US, FA-SC73US STUBBY ANTENNAS
Shorter VHF or UHF antennas.
FA-SC26VS: 136 ~ 144 MHz FA-SC27VS: 142 ~ 150 MHz
FA-SC56VS: 150 ~ 162 MHz FA-SC57VS: 160 ~ 174 MHz
FA-SC26US: 400 ~ 450 MHz FA-SC73US: 450 ~ 490 MHz

- **FA-SC25V, FA-SC28V, FA-SC29V, FA-SC01U, FA-SC25U, FA-SC57U, FA-SC72U** FLEXIBLE ANTENNAS
VHF or UHF antennas.
FA-SC25V: 136 ~ 150 MHz FA-SC28V: 148 ~ 162 MHz
FA-SC29V: 160 ~ 174 MHz FA-SC01U: 350 ~ 400 MHz
FA-SC25U: 400 ~ 430 MHz FA-SC57U: 430 ~ 470 MHz
FA-SC72U: 470 ~ 520 MHz
- **FA-SC61VC, FA-SC61UC** CUT ANTENNAS
- **FA-SC62V, FA-SC63V** HIGH GAIN ANTENNAS

◇ BELT CLIPS and BELT HANGERS

- **MB-136, MBB-3** BELT CLIP
- **MB-96F, MB-96FL, MB-96N** BELT HANGERS

◇ OTHERS

- **HM-222** SPEAKER MICROPHONE
With an Emergency key.
The HM-222 meets IP68 requirements for waterproof protection.
- **HM-233GP** GPS SPEAKER MICROPHONE
The microphone with high-performance GPS receiver.
- **HM-163MC** TIEPIN TYPE MICROPHONE
+ **EH-15B** EARPHONE, **SP-26** TUBE EARPHONE, **SP-28** EAR HOOK TYPE EARPHONE
- **SP-32** TUBE TYPE EARPHONE ADAPTER
For use with EH-15B.
- **SP-27** TUBE EARPHONE, **SP-29** EAR HOOK TYPE EARPHONE, **SP-40** EARPHONE + **AD-135** EARPHONE ADAPTER
AD-135: Used To connect an earphone to the transceiver's multi-connector.
- **AD-118** ACC ADAPTER
To connect an accessory. See the AD-118 instruction sheet for details on recommended accessories.

CAUTION: The AD-118 does not have waterproof protection. When it is connected, **NEVER** expose the adaptor and the transceiver to rain, snow or any liquids.

- **LC-187, LC-188*** CARRYING CASE
For use with the BP-290.
 - **LC-190*** CARRYING CASE
For use with the BP-294.
- *Remove the carrying case from the transceiver before charging.
- **VS-5MC*** PTT SWITCH CABLE
+ **HS-94, HS-95, HS-97** HEADSET
VS-5MC: Used to connect a headset to a transceiver.
HS-94: Ear-hook type HS-95: Neck-arm type
HS-97: Throat microphone
* Non-waterproof.
 - **VS-3** Bluetooth® HEADSET
The Bluetooth headset with a [PTT] switch.
 - **About the third party Bluetooth headsets:**
Icom has checked the PTT operation with some 3M Peltor headsets such as the WS Headset XP, WS ProTac XP and WS Alert XP. (Compatibility not guaranteed.)

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

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ICOM

INSTRUCTIONS

VHF/UHF DIGITAL TRANSCEIVERS

IC-F52D

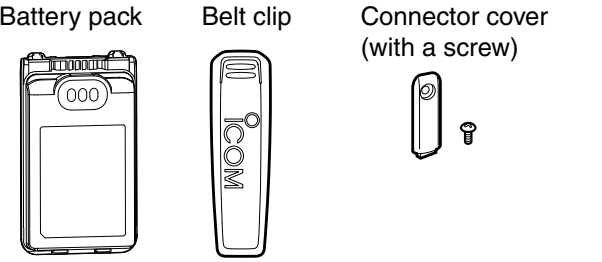
IC-F62D

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

IMPORTANT

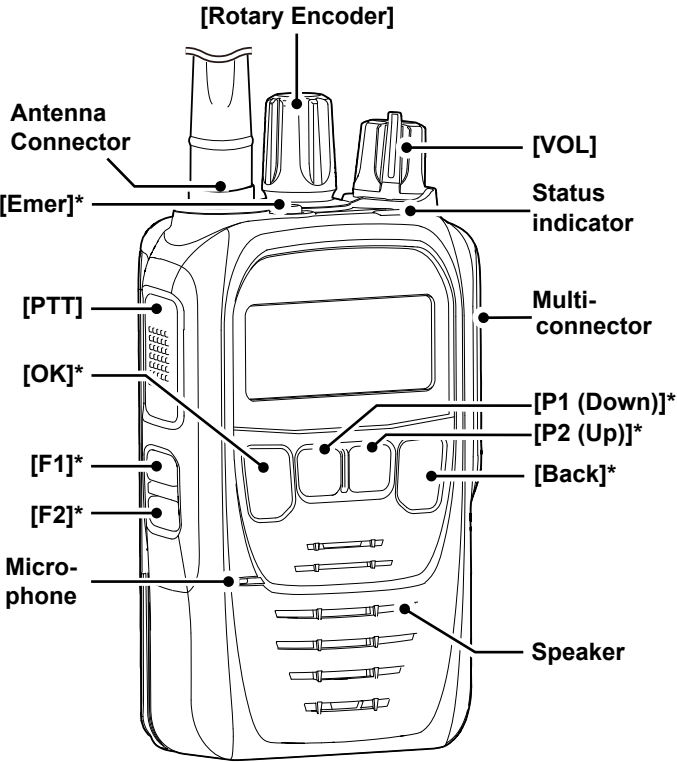
This instruction sheet includes some functions that are usable only when they are preset by your dealer. The transceiver may have other functions and operations that are not described in this instruction sheet. Ask your dealer for preset function details.

SUPPLIED ACCESSORIES



NOTE:
• Some accessories are not supplied, or the shape is different, depending on the transceiver version.
• Confirm both battery sliding locks are locked in place, when attaching the battery to the transceiver. Both sliding locks make a 'click' sound when locked.

PANEL DESCRIPTION



*Dealer assignable

◇ About the Status indicator

- Lights white, then blinks red, yellow, and green when turning ON the transceiver.
- Lights red while transmitting.
- Lights green while receiving a signal, or when the squelch is open.

◇ About the Multi-connector

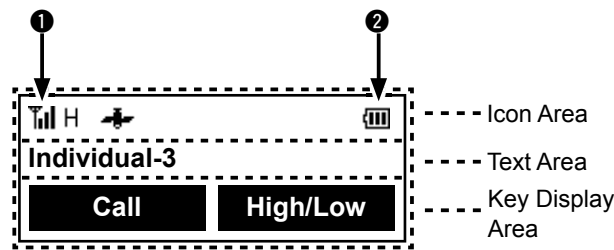
Connects to an optional speaker microphone or headset.

CAUTION: DO NOT use the transceiver without the connector cover or the optional microphone attached. The transceiver meets IP67 requirements for dust-tight and waterproof protection only when the connector cover or the optional microphone is attached.

◇ About the Software key functions

NOTE: Your dealers can assign the Software key functions to the keys.

FUNCTION DISPLAY



NOTE: The screen is an example. The displayed position of each icon may differ, depending on the function being used.

◇ Icon Area

Indicators

❶ SIGNAL STRENGTH INDICATOR

Displays the relative receive signal strength level.

❷ BATTERY INDICATOR

Displayed or blinks to indicate the battery status.

Indication				
Battery status	Full	Mid	Charging required	Battery exhausted

blinks when the battery is exhausted.

Icons

The following icons are displayed in the Icon Area.

SHIFT ICON

Displayed when the Shift function is ON.

❶ A user can use a Software key's secondary function in the Shift mode. Ask your dealer for details.

POWER ICON

Displays the output power level.

- “L1” is displayed when the output power is set to Low.
- “L2” is displayed when the output power is set to Mid.
- “H” is displayed when the output power is set to High.

AUDIBLE ICON

Displayed when the channel is in the ‘audible’ (unmute) mode.

MESSAGE ICON

- Blinks after messages (Message or Status Message) have been received.
- Stops blinking when the screen is changed, or any key is pushed, but is displayed if unread messages are still in the Message memory.
- Disappears when all messages in the Message memory have been read.

BELL ICON

Displayed when a matching signal is received, depending on the presetting.

SCAN ICON

- Displayed when a scan is paused.
- Blinks while scanning.

SCAN TARGET CHANNEL ICON

Displayed when the channel is selected as a scan target channel.

SCRAMBLER/ENCRYPTION ICON

In the Analog mode:

- Displayed when the Voice Scrambler function is ON.

In the Digital mode:

- Displayed when the Encryption function is ON.
- Blinks when decoding an encrypted signal.

GPS ICON

- Displayed when valid position data is received.
- Blinks when searching for satellites or calculating position data.

*HM-233GP is required to use the GPS function.

RECORD ICON

- Displayed when the Record function is ON.
- Blinks while recording audio.

TALK AROUND ICON

Displayed when the Talk Around function is ON.

PHONE ICON

- Displayed when the transceiver is connected to a telephone network on the selected channel.
- Blinks while receiving a phone call.

BROADCAST CALL ICON

Displayed when the Broadcast call is received.

*For only the dPMR version.

SITE LOCK ICON

Displayed when the Site Lock function is ON.

LONE WORKER ICON

Displayed when the Lone Worker function is ON.

MOTION SENSOR ICON

Displayed when the Motion Sensor function is ON.

NOISE CANCEL ICON

Displayed when the Noise Cancel function is ON.

SURVEILLANCE ICON

Displayed when the Surveillance function is ON.

VIBRATION ICON

Displayed when the Vibration function is ON.

VOX ICON

Displayed when the VOX function is ON.

*VS-5MC, VS-3, or other Bluetooth headset is required to use the VOX function.

Bluetooth® ICON

- “” is displayed when Bluetooth is activated.
- “” is displayed when a Bluetooth device is connected.

◇ Text Area

Displays the selected Zone number, Channel number, and Channel name, if set.

◇ Key Display Area

Displays the names of the function assigned to [P1] and [P2].

❶ Ask your dealer about the assigned Software key functions.

BASIC OPERATION

◇ Turning ON the transceiver

NOTE: Before using the transceiver for the first time, the battery pack must be fully charged for optimum life and operation. See the BATTERY CHARGING section of this sheet.

Rotate [VOL] to turn ON the transceiver.

◇ Receiving and Transmitting

Receiving:

1. Select a channel.
❶ Rotate [Selector] or push [Up] or [Down], depending on the presetting.
2. When receiving a call, rotate [VOL] to adjust the audio output level to a comfortable listening level.

Transmitting:

CAUTION: Attach an antenna before transmitting. Transmitting without an antenna may damage the transceiver.

1. Wait until the channel is clear to avoid interference.
2. While holding down [PTT], speak at your normal voice level.
3. Release [PTT] to receive.

IMPORTANT:

To maximize the readability of your signal:

1. After pushing [PTT], pause briefly before you start speaking.
2. Hold the microphone 5 to 10 cm (2 to 4 inches) from your mouth, then speak at your normal voice level.

BATTERY CHARGING

NOTE:

- Before detaching or attaching a battery pack, **BE SURE** to turn OFF the transceiver by rotating [VOL] fully counter clockwise, until it makes a “click” sound. Otherwise, a transceiver malfunction could occur.

◇ Rapid charging with the BC-219N

You can rapidly charge the Li-ion battery pack with the BC-219N.

Charging time:

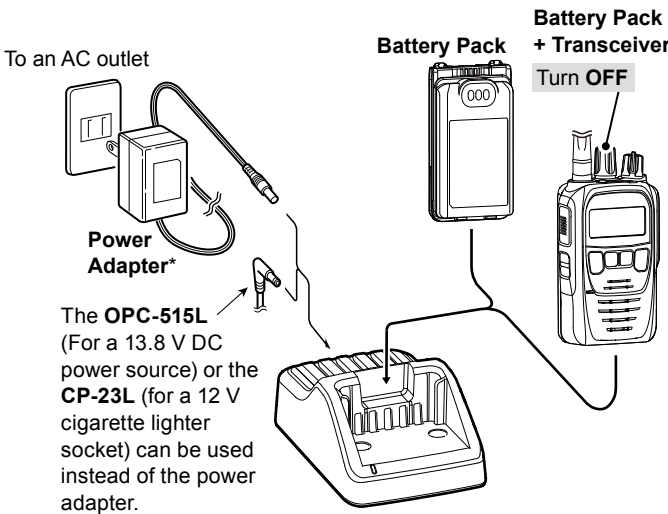
Approximately 2.5 hours

Additionally needed item (purchase separately):

- A power adapter (may be supplied with the charger, depending on the charger version) or the OPC-515L/CP-23L DC POWER CABLES.

CAUTION: NEVER reverse the polarity when connecting the OPC-515L to a power source. This will ruin the battery charger.

White line: ⊕, Black line: ⊖



* A different type, or no power adapter is supplied, depending on the charger version.

◇ Rapid charging with the BC-214

You can rapidly charge up to 6 battery packs with the optional BC-214.

Charging time:

Approximately 2.8 hours

Additionally needed items (purchase separately):

- The BC-157S AC ADAPTER or the OPC-656 DC POWER CABLE
- The AD-132N CHARGER ADAPTER (may be supplied with the charger, depending on the charger version)

CAUTION: NEVER reverse the polarity when connecting the OPC-656 to a power source. This will ruin the battery charger.

Red line: ⊕, Black line: ⊖

