

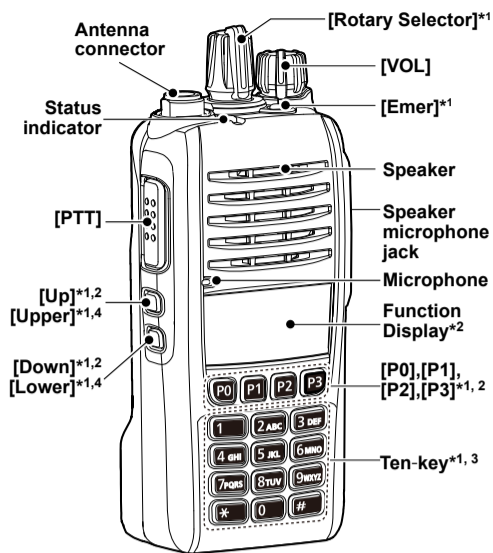


## PANEL DESCRIPTION

There are 3 types of transceivers in the IC-F1100D and IC-F2100D series.

- IC-F1100D / IC-F2100D: Non-display type
- IC-F1100DS / IC-F2100DS: Simple key type
- IC-F1100DT / IC-F2100DT: Ten-key type

The illustration below shows the Ten-key type transceiver.



- \*1: Dealer assignable.
- \*2: Only for the Simple key and Ten-key types.
- \*3: Only for the Ten-key type.
- \*4: Only for the Non-Display type.

### ◇ Status indicator

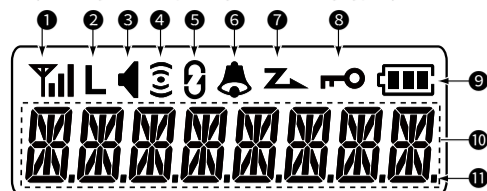
Lights red: Transmitting.  
Lights green: Receiving or squelch is open.  
Lights or blinks orange: A matching signal is received, depending on the presetting.  
Slowly blinks green: The battery should be charged.  
Blinks green fast: The battery must be charged.

### ◇ Speaker microphone jack

**CAUTION: DO NOT** use the transceiver without the jack cover or the optional equipment attached. The transceiver meets IP67 requirements for dust-tight and waterproof protection only when the jack cover or the optional HM-168LWP, HM-171GPW, HS-94LWP, or HS-95LWP is attached.

### ◇ Function display

(For only the Simple key and Ten-key types)



- 1 SIGNAL STRENGTH INDICATOR**  
Displays the relative receive signal strength level.
- 2 LOW POWER ICON**  
Displayed when low output power is selected.
- 3 AUDIBLE ICON**
  - Displayed when the channel is in the 'Audible' (unmuted) mode.
  - Displayed when a matched 2-Tone or 5-Tone is received.
  - For the dPMR models: Displayed when a Call Setup is received (Digital mode).
- 4 GPS ICON**  
Displayed when the GPS signal is received, depending on the presetting.
- 5 ENCRYPTION / SCRAMBLER ICON**  
For the NXDN models: Displayed when the Encryption function is ON.  
For the dPMR models: Displayed when the Scrambler function is ON.
- 6 BELL ICON**  
Displayed or blinks when a matching signal is received, depending on the presetting.
- 7 SCAN ICON**  
Displayed or blinks while scanning.
- 8 KEY LOCK ICON**  
Displayed when the Key Lock function is ON.
- 9 BATTERY INDICATOR**
  - Displays the remaining battery charge.
  - Blinks when the battery charge decreases to a set level.

Indication				
Battery Status	Full	Mid	Charging required	Battery exhausted
- 10 ALPHANUMERIC READOUT**  
Displays messages such as channel text.
- 11 SHIFT INDICATOR**  
Displayed when [Shift] is pushed.

## 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.

- Rotate [VOL] to turn ON the transceiver.

### ◇ Receiving and Transmitting

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

**NOTE:** Depending on the presetting, the transceiver may automatically transmit the microphone audio for the preset time period when a matching signal is received. (Auto TX function)

### 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.

### ◇ Key Lock function

You can use the Key Lock function to prevent accidental channel changes and unnecessary function access, depending on the presetting.

All assignable keys except the following are electronically locked: [Monitor], [Call], [Call A], [Call B], [Emergency], [Light], [Lock], [Lone Worker], [Siren], [Surveillance], [Sp. Func 1], [Sp. Func 2], [Shift], [Clear]\*, and [PTT].  
\*: For only the dPMR models.  
You can also make or receive calls, or turn the transceiver ON or OFF, during the Key Lock function is ON.

- Hold down [Lock] for 1 second to turn the Key Lock function ON or OFF.  
For only the Simple-key and Ten-key types:
  - is displayed when the Key Lock function is ON.
  - disappears when the Key Lock function is OFF.

### ◇ AquaQuake™ Water Draining function

If the [AquaQuake] is assigned to a key, the AquaQuake Water Draining function clears water from the speaker grill to maintain clear audio by vibrating the speaker cone.

1. Hold down [AquaQuake] to turn ON the AquaQuake water draining function.
  - A low frequency vibration is generating to remove water from the speaker grill.
  - Water in the speaker grill may muffle the sound coming from the speaker.
2. Release the key to turn OFF the function.

**NOTE:**  
• After the specified period of time expires, this function automatically stops, even if a user continues to hold down this key.  
• This key works for only the internal speaker.

## FREQUENCY RANGE AND OUTPUT POWER

Model	Version	Frequency Range	Output Power
VHF Digital Transceiver IC-F1100D series	-	136-174 MHz	5 W
UHF Digital Transceiver IC-F2100D series	USA-02	450-512 MHz	4 W
	EXP-04 AUS-01	450-520 MHz	
	EXP-02 EXP-03	350-400 MHz	4 W or 5 W
	Other	400-470 MHz	

- Channel spacing: 6.25 kHz<sup>1</sup>/12.5 kHz/25 kHz<sup>2</sup>
- \*1 Only Digital mode, \*2 Except USA versions

## BATTERY CHARGING

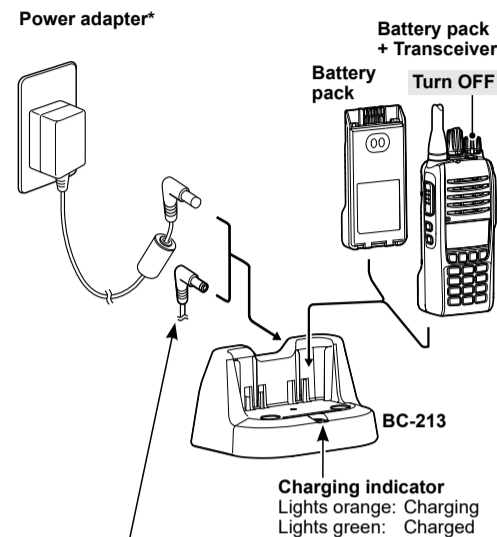
**NOTE:** Before detaching or attaching a battery pack, BE SURE to turn OFF the transceiver by rotating [VOL] fully counter clockwise, until it makes a "click" sound. Otherwise, a transceiver malfunction could occur.

### ◇ Rapid charging with the BC-213

You can rapidly charge the Li-ion battery pack with the BC-213.

**Charging time:**  
Approximately 3.5 hours for the BP-280

**Additionally needed item (purchase separately):**  
• A power adapter (may be supplied with the charger, depending on the charger version).



The CP-23L (for a 12 V cigarette lighter socket) can be used instead of the power adapter.

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

**NOTE:** If the charging indicator alternately blinks green and orange, remove the battery pack or the transceiver from the charger, then reinsert it.

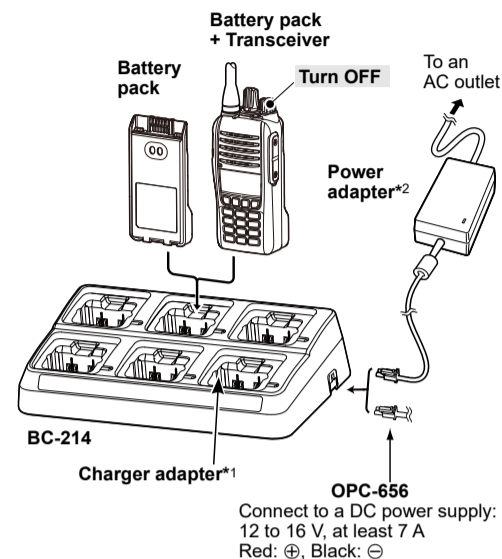
### ◇ Rapid charging with the BC-214

You can rapidly and simultaneously charge up to 6 battery packs with the optional BC-214 (the AD-130 CHARGER ADAPTERS are installed.)

**Charging time:**  
Approximately 3.5 hours for the BP-280

**Additionally needed item (purchase separately):**  
• The BC-157S AC ADAPTER or the OPC-656 DC POWER CABLE

**CAUTION: DO NOT** reverse the polarity when connecting the OPC-656 to a power source. This will ruin the battery charger.  
Red: ⊕, Black: ⊖



\*1: Charger adapter's shape may differ, depending on the charger version.

\*2: A different type, or no power adapter is supplied, depending on the charger version.

**NOTE:** The BC-214 has a charging timer that stops charging after approximately 5.3 hours of charging.

## OPTIONS

### ◇ BATTERY PACKS

- BP-278/BP-279/BP-280 BATTERY PACKS

For IC-F1100D series, Output Power 5 W/  
IC-F2100D series, Output Power 4 W:

Battery pack	Voltage	Capacity	Approximate battery life*
BP-278	7.2 V	1130 mAh (minimum) 1190 mAh (typical)	9 hours
BP-279	7.2 V	1485 mAh (minimum) 1570 mAh (typical)	11.5 hours
BP-280	7.2 V	2280 mAh (minimum) 2400 mAh (typical)	18 hours

For IC-F2100D series, Output Power 5 W:

Battery pack	Voltage	Capacity	Approximate battery life*
BP-278	7.2 V	1130 mAh (minimum) 1190 mAh (typical)	8.5 hours
BP-279	7.2 V	1485 mAh (minimum) 1570 mAh (typical)	11 hours
BP-280	7.2 V	2280 mAh (minimum) 2400 mAh (typical)	17 hours

\* When the power save function is turned ON, and the operating periods are calculated under the following conditions.  
TX : RX : standby = 5 : 5 : 90

### ◇ CHARGERS

- **BC-213 DESKTOP CHARGER**  
To rapidly charge a single battery pack. A power adapter may be supplied, depending on the charger version.
- **BC-214 MULTI CHARGER + BC-157S AC ADAPTER**  
To rapidly charge up to 6 battery packs.

### ◇ DC CABLES

- **CP-23L CIGARETTE LIGHTER CABLE**  
Use when charging the battery pack from a 12 V cigarette lighter socket. (Use with the BC-213)
- **OPC-656 DC POWER SOCKET**  
Use with a 13.8 V power source instead of the power adapter. (Use with the BC-214)

### ◇ ANTENNAS

- **FA-SC25V/FA-SC28V/FA-SC29V/FA-SC55V VHF ANTENNAS**  
FA-SC25V: 136-150 MHz  
FA-SC28V: 148-162 MHz  
FA-SC29V: 160-174 MHz  
FA-SC55V: 150-174 MHz
- **FA-SC26VS/FA-SC27VS/FA-SC56VS/FA-SC57VS VHF STUBBY ANTENNAS**  
FA-SC26VS: 136-144 MHz  
FA-SC27VS: 142-150 MHz  
FA-SC56VS: 150-162 MHz  
FA-SC57VS: 160-174 MHz
- **FA-SC61VC VHF CUT ANTENNA**  
FA-SC61VC: 136-174 MHz
- **FA-SC25U/FA-SC57U/FA-SC72U/FA-SC73US UHF ANTENNAS**  
FA-SC25U: 400-430 MHz  
FA-SC57U: 430-470 MHz  
FA-SC72U: 470-520 MHz  
FA-SC73US: 450-490 MHz
- **FA-SC26US UHF STUBBY ANTENNAS**  
FA-SC26US: 400-450 MHz
- **FA-SC01U/FA-SC02U UHF ANTENNAS**  
FA-SC01U: 350-400 MHz  
FA-SC02U: 330-380 MHz
- **FA-SC61UC UHF CUT ANTENNAS**  
FA-SC61UC: 380-520 MHz

### ◇ OTHERS

- **MB-130 CHARGER BRACKET**  
Mounts the BC-213 desktop charger on a variety of places in a vehicle.
- **MB-133 BELT CLIP**
- **HM-158LA/HM-159LA/HM-168LWP/HM-171GPW SPEAKER MICROPHONE**  
Combination speaker-microphone that provides convenient operation while the transceiver is hanging on your belt.  
The HM-171GPW includes high-performance GPS receiver.  
① Adjust the microphone gain before use.
- **HM-153LA/HM-166LA EARPHONE MICROPHONE**  
Ideal for hands-free operation. Clip the HM-153LA or HM-166LA (with integrated PTT switch) to your lapel or breast pocket.  
① Adjust the microphone gain before use.
- **HS-94/HS-95/HS-97 HEADSET + VS-4LA PTT SWITCH CABLE/OPC-2004LA ADAPTER CABLE**  
HS-94: Ear-hook type  
HS-95: Neck-arm type  
HS-97: Throat microphone  
VS-4LA: To connect to headsets  
OPC-2004LA: To connect to headsets for VOX operation  
① Adjust the both microphone and VOX gain before use.
- **HS-94LWP/HS-95LWP HEADSET**  
HS-94LWP: Ear-hook type  
HS-95LWP: Neck-arm type  
① Adjust the both microphone and VOX gain before use.

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