



OPERATING GUIDE

OPERATING GUIDE FOR IC-F3210D/F4210D/F3230D/ F4230D/F5220D/F6220D SERIES IDAS™ NXDN™ OPERATION

Icom Inc.

IMPORTANT

Thank you for purchasing this Icom transceiver. The IDAS™ NXDN™ functions are built into your IC-F3210D/F4210D/F3230D/F4230D/F5220D/F6220D series transceiver.

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS OPERATING GUIDE — This operating guide contains important operating instructions for:

- **IC-F3210D, IC-F3230DT, IC-F3230DS, IC-F5220D** VHF DIGITAL TRANSCEIVERS
- **IC-F4210D, IC-F4230DT, IC-F4230DS, IC-F6220D** UHF DIGITAL TRANSCEIVERS

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■ Programmable key functions

The programmable key functions can be assigned to the following keys:

IC-F3210D/F4210D series transceivers:

[Upper] and [Lower]

IC-F3230D/F4230D series transceivers:

[P0], [P1], [P2], [P3], [Side1], [Side2], [Side3] and [Emer]

IC-F5220D/F6220D series transceivers:

[UP], [DOWN], [P0], [P1], [P2] and [P3]

Consult your Icom dealer or system operator for details concerning your transceiver's programming.

1 PREPARATION

■ Programmable key functions (Continued)

◇ Programmable key functions availability

Programmable key functions	Analog			Digital			Reference
	IC-F3210D/ F4210D series	IC-F3230D/ F4230D series	IC-F5220D/ F6220D series	IC-F3210D/ F4210D series	IC-F3230D/ F4230D series	IC-F5220D/ F6220D series	
CH Up/Down	N/A	✓	✓	N/A	✓	✓	IM
Zone	N/A	✓	✓	N/A	✓	✓	IM
Scan Start/Stop	✓	✓	✓	✓	✓	✓	IM
Scan Add/Del (Tag)	N/A	✓	✓	N/A	✓	✓	IM
Prio A, Prio B	✓	✓	✓	✓	✓	✓	IM
Prio A (Rewrite), Prio B (Rewrite)	✓	✓	✓	✓	✓	✓	IM
MR-CH 1, MR-CH 2, MR-CH 3, MR-CH 4	✓	✓	✓	✓	✓	✓	IM
Moni	✓	✓	✓	✓	✓	✓	IM
Light	N/A	✓	✓	N/A	✓	✓	IM
Lock	✓	✓	✓	✓	✓	✓	IM
Lone Worker	✓	✓	✓	✓	✓	✓	p. 4
High/Low	✓	✓	✓	✓	✓	✓	IM
RAN CH Select	N/A	N/A	N/A	N/A	✓	✓	p. 4
Talk Around	✓	✓	✓	✓	✓	✓	IM
Wide/Narrow	✓	✓	✓	N/A	N/A	N/A	IM
Emergency	✓	✓	✓	✓	✓	✓	p. 4
Surveillance	✓	✓	✓	✓	✓	✓	IM
Siren	✓	✓	✓	✓	✓	✓	IM

IM: Instruction Manual, N/A: Not Applicable

Programmable key functions	Analog			Digital			Reference
	IC-F3210D/ F4210D series	IC-F3230D/ F4230D series	IC-F5220D/ F6220D series	IC-F3210D/ F4210D series	IC-F3230D/ F4230D series	IC-F5220D/ F6220D series	
Encryption	N/A	N/A	N/A	✓	✓	✓	p. 4
Hook Scan	N/A	N/A	✓	N/A	N/A	✓	IM
User Set Mode	N/A	✓	✓	N/A	✓	✓	IM
Ext. CH Sel Mode	N/A	N/A	✓	N/A	N/A	✓	IM
Digital Button	N/A	N/A	N/A	N/A	✓	✓	p. 5
Status Up, Status Down	N/A	N/A	N/A	N/A	✓	✓	p. 5
Power OFF Emergency	N/A	N/A	N/A	N/A	N/A	✓	p. 5
Announce	✓	✓	✓	✓	✓	✓	IM
Individual	N/A	N/A	N/A	N/A	✓	✓	p. 6
Talkgroup	N/A	N/A	N/A	N/A	✓	✓	p. 6
Reset	✓	✓	✓	✓	✓	✓	p. 6
Roam Request	N/A	N/A	N/A	✓	✓	✓	p. 6
Site Lock	N/A	N/A	N/A	✓	✓	✓	p. 6
Site Select	N/A	N/A	N/A	N/A	✓	✓	p. 7
CallAlert	N/A	N/A	N/A	✓	✓	✓	p. 7
Status	N/A	N/A	N/A	✓	✓	✓	p. 7
Message	N/A	N/A	N/A	N/A	✓	✓	p. 7
GPS Display	N/A	N/A	✓	N/A	N/A	✓	IM
Shift	N/A	✓	✓	N/A	✓	✓	IM

IM: Instruction Manual, N/A: Not Applicable

1 PREPARATION

■ Programmable key functions

◇ Programmable key functions

LONE WORKER

When the Lone Worker function is turned ON, and no operation occurs during the preprogrammed time period, the Emergency function is automatically turned ON.

<For the IC-F3210D/F4210D series transceivers>

- Hold down for 1 second to turn ON the Lone Worker function.
- Push to turn OFF the Lone Worker function.

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

Push to turn the Lone Worker function ON or OFF.

RAN CH SELECT

<For the IC-F3210D/F4210D series>

N/A

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

While in the digital mode, push to enter the RAN channel selection mode. Then push [CH Up] or [CH Down] to select a desired RAN code. After selecting, push this key again to save the code.

EMERGENCY

- Hold down for 1 second to turn ON the Emergency function.

While in the analog mode, after the Start or Repeat timer period ends, the microphone audio may be automatically transmitted, depending on the presetting.

While in the digital mode, after the Start or Repeat timer period ends, a digital command Emergency call is automatically transmitted once, or repeatedly, depending on the presetting. After transmitting an Emergency call, the microphone audio may be automatically transmitted, depending on the presetting.

- If you want to cancel the emergency call, hold down the key again, before transmitting it.

ENCRYPTION

<For the IC-F3210D/F4210D/F3230D/F4230D series transceivers>

- While in the digital mode, hold down for 1 second to turn ON the Encryption function.
- Push to turn OFF the Encryption function.

<For the IC-F5220D/F6220D series transceivers>

While in the digital mode, push to turn the encryption function ON or OFF.

DIGITAL BUTTON**<For the IC-F3210D/F4210D series transceivers>**

N/A

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

- Push to enter the application selection mode*.
- Hold down for 1 second to toggle the call type between Individual and Talkgroup, and automatically enter the application selection mode.
 - Push [CH Up] or [CH Down] to select the desired application from “VOICE,” “CALLALRT,” “STATUS” and “MSG.”
- While in the application selection mode, push to enter the Individual or Talkgroup ID selection mode*.
 - Push [CH Up] or [CH Down] to select the desired ID name (or ID code).
 - If “STATUS” or “MSG” is selected as the application, push this key to enter the message selection mode. After selecting a message, push again to enter the destination ID selection mode. (pp. 20, 22)
- Hold down for 1 second to return to the standby mode.

* When the Digital/Individual/Talkgroup Key item is set to “ID Select” in the optional cloning software, the ID selection mode will be selected first. And while in the ID selection mode, push to select the application selection mode.

STATUS UP, STATUS DOWN**<For the IC-F3210D/F4210D series transceivers>**

N/A

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

- When a received SDM (Short Data Message) is displayed, push to cancel the automatic scroll and manually scroll the message.
- When an SDM that contains more than 8 characters is displayed, push to manually scroll the message.
- In the standby mode, push to display the transmit status and select a status number.

POWER OFF EMERGENCY**<For the IC-F3210D/F4210D/F3230D/F4230D series transceivers>**

N/A

<For the IC-F5220D/F6220D series transceivers>

While holding down this key, turn OFF the transceiver to activate the Power OFF Emergency function. This function makes the transceiver transmit Emergency calls, even though it appears to be OFF. (p. 25)

When the function is activated, any key operation, hanger action, Lone Worker function, LED and speaker are disabled. However, the transceiver can transmit Emergency calls according to the Emergency settings.

To cancel the function and restore the transceiver, turn ON the transceiver's power.

1 PREPARATION

- Programmable key functions
- ◇ Programmable key functions (Continued)

INDIVIDUAL

<For the IC-F3210D/F4210D series transceivers>

N/A

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

- Push to set the call type to “Individual,” and automatically enter the application selection mode*.
- If in the application selection mode, push to enter the Individual ID selection mode*.
- If “STATUS” or “MSG” is selected as the application, push to enter the message selection mode. After selecting a message, push again to enter the Individual ID selection mode.
- Hold down for 1 second to return to the standby mode.

TALKGROUP

<For the IC-F3210D/F4210D series transceivers>

N/A

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

- Push to set the call type to “Talkgroup,” and automatically enter the application selection mode*.
- If in the application selection mode, push to enter the Talkgroup ID selection mode*.
- If “STATUS” or “MSG” is selected as the application, push to enter the message selection mode. After selecting a message, push again to enter the Talkgroup ID selection mode.
- Hold down for 1 second to return to the standby mode.

RESET

- Push to reset the destination unit ID and call type to the default, if they have been changed by the manual operation.
- Push to cancel the Talk Back function, if it is activated.
- While in the selection mode (e.g. application, message and status message), push to return to the stand-by mode. In this case, the transceiver resets the destination unit ID, call type and Talk Back function.

ROAM REQUEST

(This key is used for only Multi-site Trunk operation.)

Push to start a roaming scan, regardless of the error rate.

SITE LOCK

(This key is used for only Multi-site Trunk operation.)

Push to turn the Site Lock function ON or OFF.

When the Site Lock function is ON, the transceiver is locked to the current registered site, and the roaming and the background scan are disabled.

* When the Digital/Individual/Talkgroup Key item is set to “ID Select” in the optional cloning software, the ID selection mode will be selected first. And while in the ID selection mode, push to select the application selection mode.

SITE SELECT

<For the IC-F3210D/F4210D series transceivers>

N/A

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

(This key is used for only Multi-site Trunk operation.)

This key allows you to manually select a desired site without using a roaming scan.

- ① Push [Site Select] to display the Site Select screen.
- ② Push [CH Up] or [CH Down] to select a desired site from the preprogrammed roaming list*.
 - * Up to 48 valid roaming areas are listed on the roaming list. Ask your dealer for details.
- ③ Push [Site Select] again to set the selected site, and return to the standby mode.
- ④ The transceiver tries to register to the selected site.

CALLALERT

<For the IC-F3210D/F4210D series transceivers>

Hold down for 1 second to transmit a CallAlert to a specified station/Talkgroup.

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

- Push to enter the target ID selection mode for CallAlert.
- Hold down for 1 second to transmit a CallAlert.

STATUS

<For the IC-F3210D/F4210D series transceivers>

Hold down for 1 second to transmit the currently selected status message to the specified station/Talkgroup.

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

- While in the standby mode, push to directly enter the status message selection mode, and then select a desired message using [CH Up] or [CH Down].
- After selecting a message, push again to enter the Individual or Talkgroup ID selection mode (depending on the last selected call type).
- Hold down for 1 second to transmit the currently selected status message.

MESSAGE

<For the IC-F3210D/F4210D series transceivers>

N/A

<For the IC-F3230D/F4230D/F5220D/F6220D series transceivers>

- While in the standby mode, push to directly enter the message selection mode, and then select a desired message using [CH Up] or [CH Down].
- After selecting a message, push again to enter the Individual or Talkgroup ID selection mode (depending on the last selected call type).
- Hold down for 1 second to transmit the currently selected message.

■ IDAS operation

The transceiver provides Icom Digital Advanced System (IDAS) that meets the 6.25 kHz emission mask requirements for narrow banding, and increases efficiency of channel allocation and use of spectrum using the NXDN common air interface.

◇ IDAS Conventional operation

The IDAS Conventional system enables efficient conventional operation in the digital mode.

➡ Push [Zone], then push [CH Up] or [CH Down] to select the conventional zone.

◇ Multi-site conventional operation

The Multi-site Conventional system can support up to 16 sites (each site has one repeater) through an IP network, and enables efficient conventional operation in the digital mode.

➡ Push [Zone], then push [CH Up] or [CH Down] to select the Multi-site conventional zone.

◇ Single-site Trunking operation


The Single-site Trunking system enables further effective channel management by sharing a minimum number of channels with a large number of users.

➡ Push [Zone], then push [CH Up] or [CH Down] to select a Single-site Trunk zone.

◇ Multi-site Trunking operation

The Multi-site Trunking system can support up to 48 trunked sites through an IP network. This enables the users to communicate with stations through the interlinked trunked site. Each site can have up to 30 repeaters.

➡ Push [Zone], then push [CH Up] or [CH Down] to select the Multi-site Trunk zone.

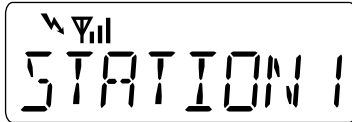
 **NOTE:** During the Single-site or Multi-site Trunking operation, you can receive and transmit digital calls in the same way as in the conventional mode.

■ Receiving a call

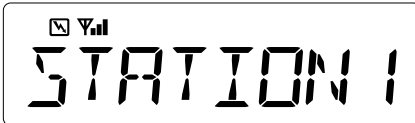
◇ Receiving a Voice Call

- ① When a Voice call is received:
- Mute is released.
 - Either the calling station or Talkgroup ID name (or code) is displayed while receiving the signal, depending on the presetting.*1
 - When an All Call is received, "All Call" is displayed.*1

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



- ② Hold down [PTT], then speak into the microphone.
 ③ Release [PTT] to receive a response.

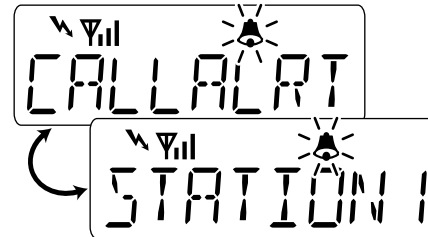
*1 Except for the IC-F3210D/IC-F4210D series transceivers.

*2 Only for the IC-F3210D/IC-F4210D series transceivers.

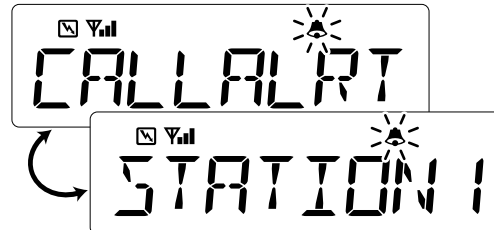
◇ Receiving a Call Alert

- ① When a Call Alert is received:
- Beeps sound.
 - The calling station or Talkgroup ID name (or code) and "CALLALRT" are alternately displayed.*1
 - "📡" may appear or blink, depending on the presetting.*1
 - The LED may blink orange once or twice, depending on the presetting.*2

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers




2 IDAS OPERATION

■ Receiving a call

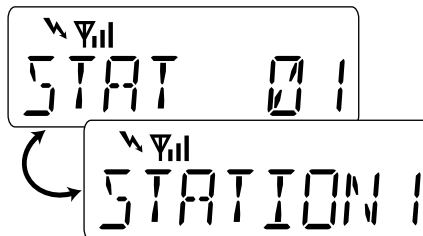
◇ Receiving a Call Alert (Continued)

- ② Hold down [PTT], then speak into the microphone.
- ③ Release [PTT] to receive a response.

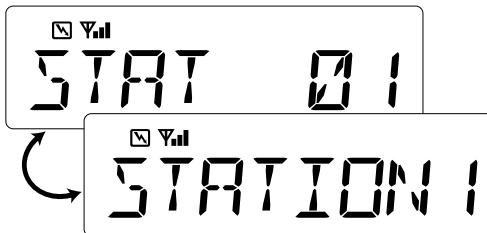
◇ Receiving a Status Message

- ① When a Status Message is received:
 - Beeps sound.
 - The calling station or Talkgroup ID name (or code) and the status message are alternately displayed.*¹
 - “” may appear or blink, depending on the presetting.*¹
 - The LED may blink orange once or twice, depending on the pre-setting.*²

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers




*¹ Except for the IC-F3210D/IC-F4210D series transceivers.

*² Only for the IC-F3210D/IC-F4210D series transceivers.

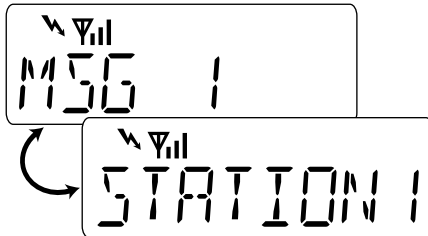
- ② Push [PTT], change the channel, turn power OFF, and so on to stop the display indication.

◇ Receiving a Message

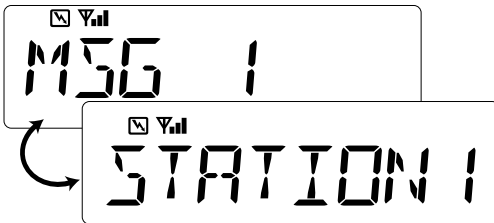
① When a Message is received:

- Beeps sound.
- The calling station ID or Talkgroup name (or code) and the message blink.*1
- “” may appear or blink, depending on the presetting.*1
- The LED may blink orange once or twice, depending on the presetting.*2

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



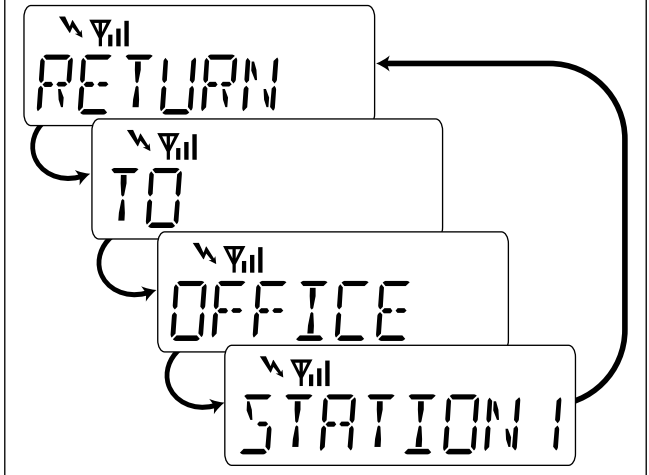
② Push [PTT], change the channel, turn power OFF, and so on to stop the display indication.

NOTE for the IC-F3230D/IC-F4230D series and IC-F5220D/IC-F6220D series transceivers:

When the received message includes more than 8 characters, the message automatically scrolls, when the automatic scroll function is activated.

- Push [Status Up] or [Status Down] to cancel the automatic scroll.
- When the message does not scroll, push [Status Up] to select the previous word, or [Status Down] to select the next word.

Example: A message “RETURN TO OFFICE” from a station 1 is displayed on the IC-F3230D/F4230D series transceiver.



*1 Except for the IC-F3210D/IC-F4210D series transceivers.

*2 Only for the IC-F3210D/IC-F4210D series transceivers.

2 IDAS OPERATION

■ Receiving a call (Continued)

◇ Receiving a Stun, Kill or Revive

If an individual call with a Stun or Kill command is received (RAN code matching may not be necessary depending on the presetting), the transceiver will display “SORRY”^{*1} and you cannot receive^{*2} or transmit.

^{*1} Except for the IC-F3210D/IC-F4210D series transceivers.

^{*2} Depending on the received Stun command setting.

➤ When a Stun command is received:

- The transceiver cannot be operated until the individual call with a Revive command is received or the password is input. RAN code matching may not be necessary, depending on the presetting.

➤ When a Kill command is received:

- The transceiver cannot be operated until data cloning is performed. Ask your dealer for details.

NOTE: Depending on the presetting, the transceiver can ignore the Stun, Revive and Kill commands that are from a non-specified station.

◇ Receiving a Remote Monitor, Radio Check or Status Polling Call

If an individual call with Remote monitor, Radio check or Status polling command is received, the transceiver will automatically transmit. RAN code matching may not be necessary, depending on the presetting.

➤ When a Remote monitor command is received:

- The microphone audio is automatically transmitted for the set time period.

➤ When a Radio check command is received:

- The transceiver automatically transmits an acknowledgment call.

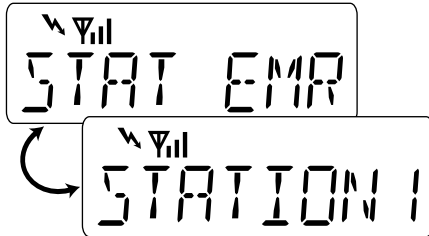
➤ When a Status polling command is received:

- The transceiver automatically transmits a status call.

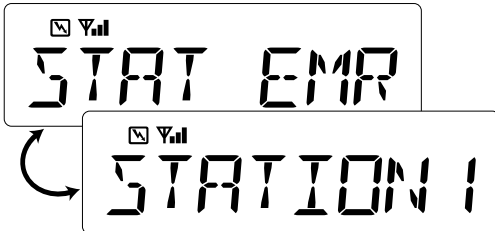
◇ Receiving an Emergency call

- ① When an emergency call is received:
 - Beeps sound.
 - The emergency text and the calling station ID name (or code) blink.
 - The state of the backlight depends on the Backlight setting in the User set mode. When “OFF Auto” is selected, the backlight turns ON for the preprogrammed time period. (Auto Backlight Timer)*
* Except for the IC-F3210D/IC-F4210D series transceivers.

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



- ② When the Send Ack function is turned ON, the transceiver automatically transmits an acknowledgement to the calling station, if the received call type is Talkgroup or All Call.
 - If the received call type is Individual, and it requests an acknowledgement be sent back, the transceiver automatically sends the acknowledgement.
- ③ Turn power OFF or change the channel to stop the beep and display indication.

2 IDAS OPERATION

■ Receiving a call (Continued)

◇ **Displaying the received call log**

The transceiver stores a log of all calls in memory, if activated.

Up to 10 call logs can be stored, and the oldest call record is erased when an 11th call is received. However, once the transceiver is turned OFF, the all records are erased.

The received voice call (for individual), call alert, status call and message logs are stored.

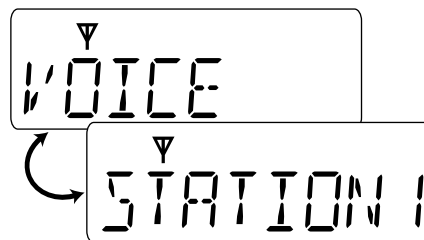
<For only the IC-F3230D/IC-F4230D series and IC-F5220D/IC-F6220D series transceivers>

- ① Push [Digital Button] to enter the application selection mode.
 - “VOICE” appears.
 - To change the call type, hold down [Digital Button] for 1 second while in the standby mode. After changing, the transceiver automatically enters the application selection mode.
- ② Select “CALL LOG” using [CH Up] or [CH Down].

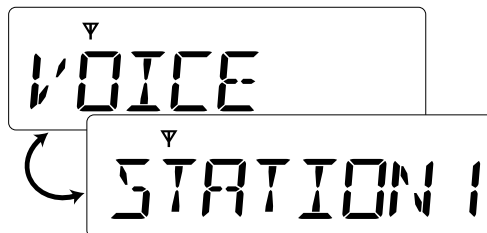
- ③ Push [Digital Button] again to display the call log information.

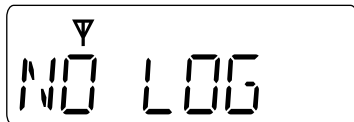
When a log information is displayed

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



When no log information is available*For the IC-F3230D/F4230D series transceivers**For the IC-F5220D/F6220D series transceivers*

- ④ Push [CH Up] or [CH Down] to select the desired log.
- ⑤ Hold down [PTT] to send the voice call.
 - A voice call can be made with the logged station.

2 IDAS OPERATION

■ Transmitting a call

IDAS operation allows you to make a call to a specific station (Individual call) or to a particular group (Talkgroup call). Other digital mode transceivers on the channel will not receive a call that does not match their individual or talkgroup ID and/or RAN (Radio Access Number) code.

NOTE: When the handshake (repeater access) fails within the specified time period after pushing [PTT], the transceiver starts roaming.

Convenient! (10-key version only)

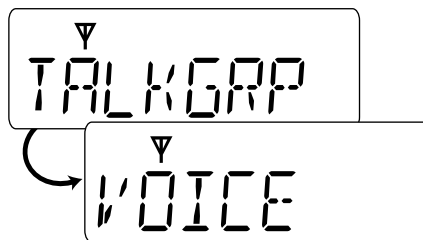
Depending on the presetting, the Individual or Talkgroup ID may be quickly selected using a numeric key ([1] to [9] or [0]). See page 26 for details.

◇ Transmitting a Voice Call

<For only the IC-F3230D/IC-F4230D series and IC-F5220D/IC-F6220D series transceivers>

- ① Push [Digital Button] to enter the application selection mode.
 - “VOICE” appears.
 - Before entering the application selection mode, the selected call type is displayed for a moment. To change the call type, while in the standby mode, hold down [Digital Button] for 1 second. After changing, the transceiver automatically enters the application selection mode.

For the IC-F3230D/F4230D series transceivers



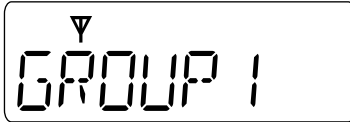
For the IC-F5220D/F6220D series transceivers



* This illustration is described with a Talkgroup call type.

- ② Push [Digital Button] again to enter the destination ID selection mode.
 - The preprogrammed ID name is displayed.
 - When the ID name is not programmed, the ID code is displayed.
 - The primary ID can be preset to display first.
 - When you want to send a voice message to all transceivers within the communication range, use the 'All Call' function— select the Talkgroup ID code "65535" for the conventional operation, or "2047" for the trunking operation.
- ③ Push [CH Up] or [CH Down] to select the desired ID name (or ID code).

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



- ④ Hold down [PTT], then speak into the microphone to send a voice message to the selected station or talkgroup.
- ⑤ Release [PTT] to receive.

2 IDAS OPERATION

■ Transmitting a call (Continued)

◇ Transmitting a Call Alert

Call Alert allows you to notify another user who may be away from the transceiver that you want to talk.

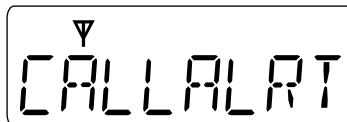
<For the IC-F3210D/IC-F4210D series transceivers>

- ① Hold down **[CallAlert]** to transmit the Call Alert to the specified station or Talkgroup.
 - The LED indicator blinks orange while accessing a channel to make a call.
 - The LED indicator alternately blinks orange and green once after receiving an acknowledgement from the targeted station.
 - The LED indicator alternately blinks orange and red once if the targeted station does not send back an acknowledgement.
- ② After a specified time period has passed, the transceiver will return to receive.

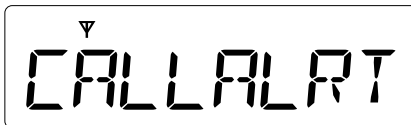
<For the IC-F3230D/IC-F4230D series and IC-F5220D/IC-F6220D series transceivers>

- ① Push **[Digital Button]** to enter the application selection mode.
 - “VOICE” appears.
 - To change the call type, hold down **[Digital Button]** for 1 second while in the standby mode. After changing, the transceiver automatically enters the application selection mode.
- ② Push **[CH Up]** or **[CH Down]** to select “CALALERT.”

For the IC-F3230D/F4230D series transceivers



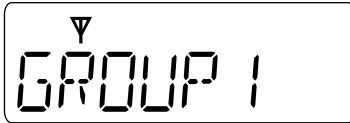
For the IC-F5220D/F6220D series transceivers



- ③ Push **[Digital Button]** again to enter the destination ID selection mode.
 - The preprogrammed ID name is displayed.
 - When the ID name is not programmed, the ID code is displayed.
 - The primary ID can be preset to display first.

- ④ Push **[CH Up]** or **[CH Down]** to select the desired ID name (or ID code).

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



- ⑤ Hold down **[PTT]** to transmit the Call Alert to the selected station or talkgroup.
- “**CA CALL**” is displayed.
- ⑥ Release **[PTT]**.
- “**CA OK**” is displayed after receiving an acknowledgement from the targeted station.
 - “**CA FAIL**” is displayed if the targeted station does not send back an acknowledgement.
- ⑦ After a specified time period has passed, the transceiver will return to receive.

◇ Transmitting a Status Message

The transceiver has the ability to send a preprogrammed status message.

There are 100 status messages that can be sent.

<For the IC-F3210D/IC-F4210D series transceivers>

- ① Hold down **[Status]** to transmit the status message to the specified station or talkgroup.
 - The LED indicator blinks orange while accessing a channel to make a call.
 - The LED indicator alternately blinks orange and green once after receiving an acknowledgement from the targeted station.
 - The LED indicator alternately blinks orange and red once if there is no acknowledgment from the targeted station.
- ② After a specified time period has passed, the transceiver will return to receive.

☞ Continued on the next page

2 IDAS OPERATION

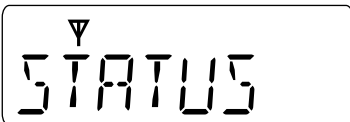
■ Transmitting a call

◇ Transmitting a Status Message (Continued)

<For the IC-F3230D/IC-F4230D series and
IC-F5220D/IC-F6220D series transceivers>

- ① Push [Digital Button] to enter the application selection mode.
 - “VOICE” appears.
 - To change the call type, hold down [Digital Button] for 1 second while in the standby mode. After changing, the transceiver automatically enters the application selection mode.
- ② Push [CH Up] or [CH Down] to select “STATUS.”

For the IC-F3230D/F4230D series transceivers



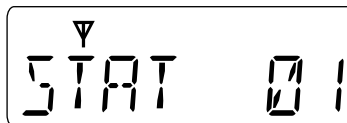
For the IC-F5220D/F6220D series transceivers



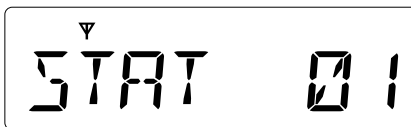
- ③ Push [Digital Button] again to enter the status message selection mode.
 - The preprogrammed status messages are displayed.

- ④ Push [CH Up] or [CH Down] to select the desired message.

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



Convenient! (10-key version only)

Depending on the presetting, you may use the quick status message selection/transmission in the status message selection mode.

- ➔ Push the numeric key ([1] to [9] or [0]) to select the appropriate status message, programmed in the status list 1 through 10.
 - ➔ Hold down the numeric key ([1] to [9] or [0]) for 1 second to transmit the appropriate status message, programmed in the status list 1 through 10.
-

- ⑤ Push [Digital Button] again to enter the destination ID selection mode.
 - The preprogrammed ID name is displayed.
 - When the ID name is not programmed, the ID code is displayed.
 - The primary ID can be preset to display first.
- ⑥ Push [CH Up] or [CH Down] to select the desired ID name (or ID code).

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



- ⑦ Push [PTT] to transmit the status message to the selected station or talkgroup.
 - "STAT TX" is displayed.
- ⑧ Release [PTT].
 - "STAT OK" is displayed after receiving an acknowledgement from the targeted station.
 - "STA FAIL" is displayed if there is no acknowledgement from the targeted station.
- ⑨ After a specified time period has passed, the transceiver will return to receive.

2 IDAS OPERATION

■ Transmitting a call (Continued)

◇ Transmitting a Message

<For only the IC-F3230D/IC-F4230D series and IC-F5220D/IC-F6220D series transceivers>

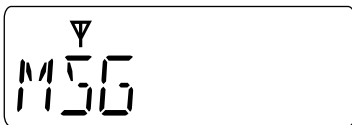
The transceiver has the ability to send a preprogrammed message.

There are 10 messages that can be sent on a channel.

- ① Push [Digital Button] to enter the application selection mode.
 - “VOICE” appears.
 - To change the call type, hold down [Digital Button] for 1 second while in the standby mode. After changing, the transceiver automatically enters the application selection mode.

- ② Push [CH Up] or [CH Down] to select “MSG.”

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers

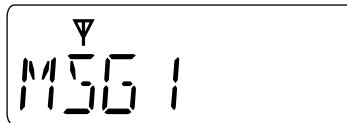


- ③ Push [Digital Button] again to enter the message selection mode.
 - The preprogrammed message is displayed.

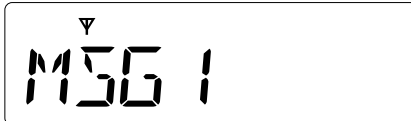
- ④ Push [CH Up] or [CH Down] to select the desired message.

- You can rewrite the contents of the message. See the next page for details.

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



✓ Convenient! (10-key version only)

Depending on the presetting, you may use the quick message selection/transmission in the message selection mode.

- ➔ Push the numeric key ([1] to [9] or [0]) to select the appropriate message, programmed in the SDM list 1 through 10.
- ➔ Hold down the numeric key ([1] to [9] or [0]) for 1 second to transmit the appropriate message, programmed in the SDM list 1 through 10.

- ⑤ Push [Digital Button] again to enter the destination ID selection mode.
 - The preprogrammed ID name is displayed.
 - When the ID name is not programmed, the ID code is displayed.
 - The primary ID can be preset to display first.
- ⑥ Push [CH Up] or [CH Down] to select the desired ID name (or ID code).

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



- ⑦ Push [PTT] to transmit the message to the selected station or talkgroup.
 - "MSG TX" is displayed.
- ⑧ Release [PTT].
 - "MSG OK" is displayed after receiving an acknowledgement from the targeted station.
 - "MSG FAIL" is displayed if no acknowledgement is received from the targeted station.
- ⑨ After a specified time period has passed, the transceiver will return to receive.

2 IDAS OPERATION

■ Transmitting a call (Continued)

◇ Direct message input (10-key version only)

- ① Push [Digital Button] to enter the application selection mode.
 - “VOICE” appears.
 - To change the call type, hold down [Digital Button] for 1 second while in the standby mode. After changing, the transceiver automatically enters the application selection mode.
- ② Push [CH Up] or [CH Down] to select “MSG.”
- ③ Push [Digital Button] again to enter the message selection mode.
 - The preprogrammed message is displayed.
- ④ Push [*] or [#] to enter the message editing mode.
 - The first character blinks when [#] is pushed, the last character blinks when [*] is pushed.
- ⑤ Push the appropriate numeric key, [0] to [9], to enter the desired character.
 - See the table to the right for the selectable characters.
 - Pushing [CH Up] also enters space, pushing [CH Down] deletes the selected character.
- ⑥ Push [#] to move the cursor to the right, push [*] to move the cursor to the left.
- ⑦ Repeat steps ⑤ and ⑥ to set the desired text message.
- ⑧ Hold down [Digital Button] for 1 second to overwrite the set message into the message memory.
 - Push [Digital Button] momentarily to cancel the editing and return to the original message display.

• Available characters

Key	Characters
[0]	0 ! ? ' " , ; : _ () < > []
[1]	1 (space) # * / + - = \ & % \$ @ ^
[2]	2 A B C a b c
[3]	3 D E F d e f
[4]	4 G H I g h i
[5]	5 J K L j k l
[6]	6 M N O m n o
[7]	7 P Q R S p q r s
[8]	8 T U V t u v
[9]	9 W X Y Z w x y z

◇ Transmitting an Emergency Call

When [Emergency] is held down for a specified time period, a digital command emergency signal is transmitted once or repeatedly* on the emergency channel. When no emergency channel is specified, the signal is transmitted on the operating channel.

* When the Repeat Cancel function is ON, the transceiver cancels repeating after receiving an acknowledgement. When the Repeat Cancel function is OFF, the transceiver repeats calling according to the number of repeat cycles, even after receiving an acknowledgement.

Individual or Talkgroup call types of emergency calls can be preset. If the call type is not preset, the default or selected call type is used.

If you want to cancel the emergency call, hold down the key again before transmitting the call.

The emergency call can be transmitted without a beep sounding, and the LCD lighting, depending on the presetting. (Silent operation)

The transceiver can also be programmed to keep the microphone open during an emergency call, which allows monitoring of the situation.

Ask your dealer for details.

IMPORTANT: It is recommended an emergency channel be separately set to provide reliable emergency call operation.

NOTE:
If the Digital Request Ack function is activated, the transceiver transmits an emergency call with a request to send back an acknowledgment.

✓ *For your reference—Power OFF Emergency function*

<For the IC-F5220D/IC-F6220D series transceivers>

When the [Power OFF Emergency] key is assigned, the transceiver can transmit an Emergency call, even though it appears to be OFF.

While holding down [Power OFF Emergency], push [⏻] to turn OFF the power to activate the Power OFF Emergency function.

The transceiver enters the emergency mode, and starts counting down to transmit the Emergency call, even though it appears to be OFF.

When the function is activated, any key operation, hanger action, Lone Worker function, LED and speaker are disabled. However, the transceiver transmits Emergency calls according to the emergency settings.

To cancel the function and restore the transceiver, turn ON the transceiver's power.

2 IDAS OPERATION

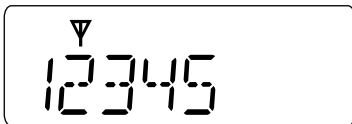
■ Transmitting a call (Continued)

◇ Direct ID input (10-key version only)

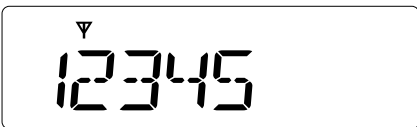
Depending on the presetting, you can directly input the desired Individual or Talkgroup ID.

- ① While in the Individual or Talkgroup ID selection mode, push the appropriate numeric key, [0] to [9], to input a desired ID of up to 5 digits.
 - Push [*] to delete an input digit.

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



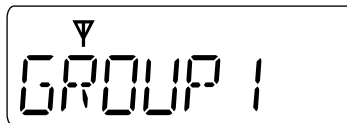
- ② After inputting, push [PTT] to transmit a call to the station or Talkgroup selected in step ①.

◇ Direct ID list number input (10-key version only)

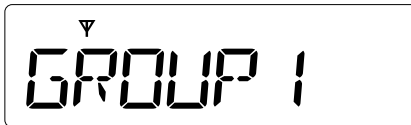
Depending on the presetting, you may select the Individual or Talkgroup ID by directly inputting the ID list number.

- ① While in the standby mode, push the numeric key ([1] to [9] or [0]) to directly select the appropriate ID name (or ID code), programmed in the ID list 1 through 10.

For the IC-F3230D/F4230D series transceivers



For the IC-F5220D/F6220D series transceivers



- ② Push [Digital Button] to enter the application selection mode, and then push [CH Up] or [CH Down] to select the desired application.
- ③ Push [PTT] to transmit a call to the station or Talkgroup selected in step ①.

■ Position data transmission

When a GPS receiver is connected to the transceiver, the longitude and latitude position data can be automatically transmitted when:

- A GPS request status message is received
- After sending a voice message
 - Set the 'Send with Login' and 'Send with Logoff' items to 'Enable.'
- After sending a status message
 - Set the 'Send with Status Call' item to 'Enable.'
- After sending a message
 - Set the 'Send with SDM Call' item to 'Enable.'
- After sending a Call Alert
 - Set the 'Send with Call Alert' item to 'Enable.'
- After sending an Emergency call
 - Set the 'Send with Emergency' item to 'Enable.'

Ask your dealer or system operator for a GPS receiver connection details.



■ Status message transmission

The status message can be automatically transmitted. The status message is transmitted when:

- The transceiver is turned ON or OFF
 - Set the status message to be transmitted in 'Power ON Status' or 'Power OFF Status' item, respectively.
 - Set the target station ID in 'Power Status ID,' 'Power Status ID for Single-site Trunk' or 'Power Status ID for Multi-site Trunk.'
- After sending a voice message
 - Set the 'Send with Voice Call' item to 'Enable.'
 - Set the status message to be transmitted in 'Send Status Number' item.

■ Encryption function

The encryption function enables voice scrambling, which provides private digital communication between stations.

- ➔ Push [Encryption] to turn the Encryption function ON or OFF.
 -  (For the IC-F3230D/F4230D series transceivers) or  (For the IC-F5220D/F6220D series transceivers) appears when the Encryption function is ON.

■ Auto CH Reserve function

If enabled, this feature is effective when a subscriber attempts to push [PTT] while the site is in an “All Trunks Busy” status, and/or is still “Receiving a Downlink” at the time the [PTT] is pushed.

In the event of an “All Trunks Busy” condition, and/or a “Receiving a Downlink” condition, a quick [PTT] push results in the transceiver going into a waiting for an open repeater mode. When an open repeater signal is received by the transceiver, the transceiver handshakes and holds the channel for the preprogrammed time period. After receiving a handshake beep, the transceiver will hold the channel for this period before it releases it. The operator must then key up their transceiver to communicate. Failure of the operator to push [PTT] before this timer expires results in a loss of the channel grant and another push of the [PTT] will be required.

When the preprogrammed CH Reserve Timeout timer elapses, the transceiver returns to its default state.

■ Talk Back function

The Talk Back function allows you to select the same call type (Individual or Talkgroup) for the received call.

When the Talk Back timer is set to 0 seconds, this function is not activated. Ask your dealer for details.

If this function is cancelled by pushing [Digital Button] or any key on a 10-key keypad, or after the Talk Back timer period has passed, the transceiver automatically returns to the default call type.

If the received call is a digital signal, the Talk Back function is activated only for Voice Call, Call Alert, Status Message and Message.*

* Depending on the presetting, the Talk Back function is activated only for Voice Call.

■ Roaming function

(Multi-site Trunking mode only)

The Multi-site Trunking mode allows the transceiver to move to another site, according to the preprogrammed roaming list*, in order to find a site that has a higher quality signal, or provides better services.

The Roaming function is automatically activated when the transceiver goes out of the range and does not receive the downlink signal from the repeater in the currently registered site.

* Up to 48 valid roaming areas are listed on the roaming list. Ask your dealer for details.

Depending on the preprogrammed settings, the transceiver tries to register to the repeater that has the strongest RSSI level in the last registered site or adjacent site. This roaming type takes time than other roaming types. Ask your dealer for details.

■ Site Lock function

(Multi-site Trunking mode only)

The [Site Lock] key allows you to lock the transceiver to the currently registered site, and the roaming and the background scans are inhibited.

➤ Push [Site Lock] to turn the Site Lock function ON or OFF.

■ Site Select function

(Multi-site Trunking mode only)

<For only the IC-F3230D/IC-F4230D series and IC-F5220D/IC-F6220D series transceivers>

The [Site Select] key allows you to manually select the desired site without a roaming scan operation.

- ① Push [Site Select] to show the Site Select screen.
- ② Push [CH Up] or [CH Down] to select the desired site from the preprogrammed roaming list*.
* Up to 48 valid roaming areas are listed on the roaming list. Ask your dealer for details.
- ③ Push [Site Select] again to set the selected site, and return to the standby mode.
- ④ The transceiver tries to register to the selected site.

Count on us!