This document describes the IC-2730A/E's EXMENU items and CI-V information.

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Selecting the EXMENU item

The EXMENU is one of the MENU items. In the EXMENU, you can set detail settings of the transceiver, and customize transceiver operations to suit your preference and operating style.

For your reference:
The MENU system is constructed in a tree structure. You can go to the next tree level, or go back a level, depending on the selected item.

EXMENU screen
The EXMENU item is displayed on the left side of the display. The item’s option or value is displayed on the right side.

Changing the EXMENU item’s options
Example: Set the microphone gain level to ‘3.’

1. Push [MENU] to enter the MENU mode.
2. Rotate [DIAL] to select the “EXMENU.”

3. Push [J] to go to the next tree level.
4. Rotate [DIAL] to select the “FUNC” (Function items).

5. Push [J] to go to the next tree level.
6. Rotate [DIAL] to select the “MIC G” (MIC gain).

7. Push [J] to go to the next tree level.

8. Rotate [DIAL] to select ‘3’.

Selectable values: 1 (minimum)~4 (maximum)
• Higher values make the microphone more sensitive to your voice.

9. Push [J] to set the selected value, and go back to the previous tree level.


To return to the default setting:

For your reference:
You can make the following items’ setting on either the left or right band.
• Mode and Tuning step items: MODE, TS
• DUP/TONE items: TONE, OFFSET, R TONE, C TONE, CODE, DTCS-P
• Scan items: PRIO, PAUSE, RESUME, TEMP, P-SKIP, B-LINK

To change these item settings, select the Main band by pushing [MAIN BAND] on the band that you want to set to, before entering the MENU mode.

The C, S, or D in the instructions indicate the area of the controller.
C: Center
S: Side
D: Display
# EXMENU ITEMS

**EXMENU construction**

For your reference:
You can go to the next tree level, or go back a level by pushing [CLR][D], [J][D], [K][D] or [P][D]. (p. 2)

---

### EXMENU

<table>
<thead>
<tr>
<th>MODE.TS</th>
<th>TS</th>
<th>5.0~50.0/AUTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFSET</td>
<td>0.000~59.995</td>
<td></td>
</tr>
<tr>
<td>STONE</td>
<td>57.0~254.1</td>
<td></td>
</tr>
<tr>
<td>TBURST</td>
<td>OFF/ON</td>
<td></td>
</tr>
<tr>
<td>CODE</td>
<td>023~754</td>
<td></td>
</tr>
<tr>
<td>DTCSP</td>
<td>BOTH N/RN/RR-RN/BOTH R</td>
<td></td>
</tr>
</tbody>
</table>

### SCAN

| PRIO | OFF/ON/BELL |
| PAUSE | 2~20SEC/HOLD |
| RESUME | SEC/1~5SEC/HOLD |
| TEMP | MIN/1~10MIN/15MIN |
| WX-ALT* | OFF/ON |
| P-SKIP | OFF/ON |
| F-EDGE | PROG00~24 |
| P-EDGE | NAME/FREQ L/FREQ H/TX/MODE/WRITE |
| P-LINK | PLINK0~9 |

### FUNC

| SOUNDS | BEEP/BV |
| KEY B | OFF/ON |
| HOME B | OFF/ON |
| EDGE B | OFF/ON |
| STOP B | OFF/ON |
| SUBMUT | OFF/MUTE/BEEP/MUT.BP |
| HOMEC CH | SET/FREQ SET CH/CLEAR |
| BT SET | BT |
| BS SET | BT |
| HS SET | BT |
| SOUNDS | LS/LS+SP |
| SP FUNC | NORMAL/MIC/P-AMAN/P-AON |
| VST | OFF/ON |
| PO SAVE | OFF/1~10 |
| PTT | PUSH/HOLD |
| CUST B | OFF/ON |
| CUST K | OFF/ON |
| PLAY/FWD/RWD |

### OTHERS

| INFO | VOLT/VER |
| CLONE | NO/YES |
| PART | NO/YES |
| VOLT/VER | NO/YES |

---

*This item may not be displayed, depending on the transceiver’s version.*

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The [C], [S], or [D] in the instructions indicate the area of the controller.

- **C**: Center
- **S**: Side
- **D**: Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
**Mode and Tuning step items**

You can set these items for each operating band.

**Operating mode** *(Default: FM)*

MENU-EXMENU > EXMEN-MOD.TS > MOD.TS-MODE

The transceiver has a total of four operating modes, FM, FM-N, AM and AM-N. The operating mode you select determines the modulation of the radio signal.

- In the 144 and 430 MHz bands, select FM or FM-N.
- In the AIR band (118.000 MHz to 136.99166 MHz), select AM or AM-N.
- See page 14 for the selectable operating mode in the AIR band.

- In the AIR band, the default mode is AM.
- While in the FM-N mode, the TX modulation is automatically set to narrow (approximately 2.5 kHz)

**Tuning step** *(Default: 5.0)*

MENU-EXMENU > EXMEN-MOD.TS > MOD.TS-TS

When you rotate [DIAL] in the VFO mode, the frequency changes in the selected tuning step. The selected tuning step is also used for a VFO mode scan.

Tuning steps (kHz):

- In the 144 and 430 MHz bands:
  - 5, 6.25, 10, 12.5, 15, 20, 25, 30, or 50
- In the AIR band: 8.33, 25, or AUTO

- The default settings may differ, depending on your transceiver’s version.

The [C], [S], or [D] in the instructions indicate the area of the controller.

[C]: Center  [S]: Side  [D]: Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
You can set these items for each operating band, except for the AIR band.

**Tone DUP - TONE** (Default: OFF)

MENU-EXMENU > EXMEN-DUP.T > DUP.T-TONE

Select a desired channel tone type.
- **OFF:** The function is OFF.
- **TONE:** The subaudible tone is superimposed on your normal signal.
  - Subaudible tone setting: “R TONE”
- **TSQL (“••” appears):** Enables the tone squelch with the pocket beep function.
- **TSQL:** Enables the tone squelch function.
  - When you transmit, the tone frequency is superimposed on your normal signal. The tone squelch opens only when you receive a signal that includes a matching tone frequency. (Audio is heard)
  - Tone frequency setting: “C TONE”
- **DTCS (“••” appears):** Enables the DTCS squelch with the pocket beep function.
- **DTCS:** Enables the DTCS squelch function.
  - When you transmit, the DTCS code is superimposed on your normal signal. The DTCS squelch opens only when you receive a signal that includes a matching DTCS code and polarity. (Audio is heard)
  - DTCS code setting: “CODE”
  - DTCS polarity setting: “DTCS-P”
- **TSQL-R:** Enables the reverse tone squelch function.
  - The tone squelch does not open only when you receive a signal that includes a matching tone frequency. (Audio is not heard)
  - You can mute a specified station’s audio.
  - Tone frequency setting: “C TONE”
- **DTCS-R:** Enables the reverse DTCS squelch function.
  - The DTCS squelch does not open only when you receive a signal that includes a matching DTCS code and polarity. (Audio is not heard)
  - You can mute a specified station’s audio.
  - DTCS code setting: “CODE”
  - DTCS polarity setting: “DTCS-P”
- **DTC.OFF:** When you transmit, the selected DTCS code is superimposed on your normal signal.
  - When you receive, the function is OFF.
  - DTCS code setting: “CODE”
  - DTCS polarity setting: “DTCS-P”

- **TON.DTC:** When you transmit, the selected subaudible tone is superimposed on your normal signal.
  - The DTCS squelch opens only when you receive a signal that includes a matching DTCS code and polarity. (Audio is heard)
  - Subaudible tone setting: “R TONE”
  - DTCS code setting: “CODE”
  - DTCS polarity setting: “DTCS-P”
- **DTC.TSQ:** When you transmit, the DTCS code is superimposed on your normal signal.
  - The tone squelch opens only when you receive a signal that includes a matching tone frequency. (Audio is heard)
  - DTCS code setting: “CODE”
  - DTCS polarity setting: “DTCS-P”
  - Tone frequency setting: “C TONE”
- **TON.TSQ:** When you transmit, the subaudible tone is superimposed on your normal signal.
  - The tone squelch opens only when you receive a signal that includes a matching tone frequency. (Audio is heard)
  - Subaudible tone setting: “R TONE”
  - Tone frequency setting: “C TONE”

The C, S, or D in the instructions indicate the area of the controller.
C: Center  S: Side  D: Display
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
### DUP/TONE items (Continued)

#### Offset frequency

**DUPT - OFFSET**

(Default: 0.600*)

*MENU-EXMENU > EXMEN-DUPT > DUPT-OFFSET*

Set the frequency offset for duplex (repeater) operation to between 0 and 59.995 MHz.

- To set the duplex shift direction (DUP+/DUP), hold down [MONI DUP] for 1 second in the VFO mode, and then rotate [DIAL].

*The default value may differ, depending on the frequency band (selected as the Main band before entering the MENU mode) and the transceiver version.*

#### Repeater Tone

**DUPT - R TONE** (Default: 88.5)

*MENU-EXMENU > EXMEN-DUPT > DUPT-R TONE*

Select a CTCSS tone frequency for repeater or other tone squelch access.

50 tone frequencies (67.0~254.1 Hz) are selectable.

#### TSQL Freq

**DUPT - C TONE** (Default: 88.5)

*MENU-EXMENU > EXMEN-DUPT > DUPT-C TONE*

Select a CTCSS tone frequency for the tone squelch or the Pocket beep function.

50 tone frequencies (67.0~254.1 Hz) are selectable.

<table>
<thead>
<tr>
<th>Tone frequencies (Unit: Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67.0</td>
</tr>
<tr>
<td>69.3</td>
</tr>
<tr>
<td>71.9</td>
</tr>
<tr>
<td>74.4</td>
</tr>
<tr>
<td>77.0</td>
</tr>
<tr>
<td>79.7</td>
</tr>
<tr>
<td>82.5</td>
</tr>
</tbody>
</table>

#### Tone Burst

**DUPT - TBURST** (Default: OFF)

*MENU-EXMENU > EXMEN-DUPT > DUPT-TBURST*

Turn the Tone Burst function ON or OFF in the FM or FM-N mode when using tone squelch.

- **OFF:** When you transmit a signal that contains a CTCSS tone, the other station may hear a short burst of noise from their receiver, just after you stop transmitting.

- **ON:** When you transmit a signal that contains a CTCSS tone, the function mutes the noise from being heard in the other station’s receiver.

#### DTCS Code

**DUPT - CODE** (Default: 023)

*MENU-EXMENU > EXMEN-DUPT > DUPT-CODE*

Select a DTCS (both encoder/decoder) code for the DTCS squelch.

A total of 104 codes (023~754) are selectable.

<table>
<thead>
<tr>
<th>DTCS codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>023</td>
</tr>
<tr>
<td>025</td>
</tr>
<tr>
<td>026</td>
</tr>
<tr>
<td>031</td>
</tr>
<tr>
<td>032</td>
</tr>
<tr>
<td>036</td>
</tr>
<tr>
<td>043</td>
</tr>
<tr>
<td>047</td>
</tr>
<tr>
<td>051</td>
</tr>
<tr>
<td>053</td>
</tr>
</tbody>
</table>

#### DTCS Polarity

**DUPT - DTCS-P** (Default: BOTH N)

*MENU-EXMENU > EXMEN-DUPT > DUPT-DTCS-P*

Select the DTCS polarity to use for transmitting and receiving.

- **BOTH N:** TX and RX polarity are Normal.
- **TN-RR:** TX polarity is Normal, RX polarity is Reverse.
- **TR-RN:** TX polarity is Reverse, RX polarity is Normal.
- **BOTH R:** TX and RX polarity are Reverse.

The **C**, **S**, or **D** in the instructions indicate the area of the controller.

- **C:** Center
- **S:** Side
- **D:** Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
Scan items

Priority scan **SCAN - PRIO** (Default: OFF)

MENU-EXMENU > EXMEN-SCAN > SCAN-PRIO
Starts or stops the Priority scan.
• OFF: Stops the Priority scan.
• ON: Starts the Priority scan.
When a signal is received on the Priority channel, the channel is automatically selected.
• BELL: Starts the Priority scan.
When a signal is received on the Priority channel, beeps sound, and the “叮叮” icon blinks on the display.

Pause Timer **SCAN - PAUSE** (Default: 10SEC)

MENU-EXMENU > EXMEN-SCAN > SCAN-PAUSE
Select the Scan Pause time.
• 2SEC to 20SEC: When a signal is received, the scan pauses for 2 to 20 seconds (set in 2 second steps).
• HOLD: The scan pauses on a received signal until the signal disappears.

Resume Timer **SCAN - RESUME** (Default: 2SEC)

MENU-EXMENU > EXMEN-SCAN > SCAN-RESUME
Select the Scan Resume time.
When a received signal disappears, the scan resumes according to this setting.
• 0SEC: The scan resumes immediately after the signal disappears.
• 1SEC to 5SEC: The scan resumes 1 to 5 seconds after the signal disappears.
• HOLD: The scan remains paused for the “Pause Timer” setting, even if the signal disappears.
  • Rotate [DIAL] to resume the scan.
  • The Resume Timer must be set shorter than the Pause Timer, otherwise this timer does not work properly.

Temporary Skip Timer **SCAN - TEMP** (Default: 5MIN)

MENU-EXMENU > EXMEN-SCAN > SCAN-TEMP
Set the Temporary Skip Timer to 5, 10 or 15 minutes.
When the time is set, unwanted frequencies are skipped for this set period during a scan.
This timer activates for the VFO scan or Memory scan.

Weather alert **SCAN - WX-ALT** (Default: OFF)

MENU-EXMENU > EXMEN-SCAN > SCAN-WX-ALT
(Appears only on the USA version transceivers.)
Turn the Weather Alert function ON or OFF.
NOAA (National Oceanographic and Atmospheric Administration) broadcast stations transmit a weather alert tone before any important weather information.
This function detects the weather alert tone on weather channels.
• OFF: The function is OFF.
• ON: Monitors the selected weather channel every 5 seconds.

Program Skip **SCAN - P-SKIP** (Default: ON)

MENU-EXMENU > EXMEN-SCAN > SCAN-P-SKIP
Turn the Program Skip Scan function ON or OFF for a VFO mode scan.
This function enables the transceiver to skip unwanted frequencies or channels that inconveniently stop scanning.
Set unwanted frequencies or channels to “PSKIP” in the Memory Channel screen.
• OFF: The transceiver scans all frequencies.
• ON: The transceiver does not scan frequencies set as “PSKIP” frequencies.

Bank Link **SCAN - B-LINK** (Default: ON)

MENU-EXMENU > EXMEN-SCAN > SCAN-B-LINK
Set the link setting to a bank (A~J).
Banks set to ON are linked during a Bank Link Scan.
• OFF: The bank is not scanned during a Bank Link Scan.
• ON: The bank is scanned during a Bank Link Scan.
All banks set to ON are linked during a Bank Link Scan.

The C, S, or D in the instructions indicate the area of the controller.
C: Center  S: Side  D: Display
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
EXMENU ITEMS

Scan items (Continued)

Program Scan Edge  **SCAN - P-EDGE**

**MENU-EXMENU > EXMEN-SCAN > SCAN-P-EDGE**

You can delete, copy or edit the lower and higher frequencies for Program scan edge channels (PROG00~PROG24).
A total of up to 25 frequency ranges can be programmed.
You can set the scan name, tuning step and the receive mode for each edge channel.
The default setting differs, depending on the transceiver's version.

**Program Link  ** **SCAN - P-LINK**

**MENU-EXMENU > EXMEN-SCAN > SCAN-P-LINK**

This function sequentially scans two or more Program scan edge channels (PROG00~PROG24) during the Program Link scan.
The Link function scans all frequencies in the scan range.
You can set the link name, and add a scan edge channel to or delete it from each program link.

**Program link construction**

<table>
<thead>
<tr>
<th>P-LINK</th>
<th>P-LINK P0</th>
<th>PROG00</th>
<th>NAME</th>
<th>ADD</th>
<th>CLEAR</th>
<th>P-LINK P9</th>
<th>PROG24</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME</td>
<td>ADD†</td>
<td>CLEAR‡</td>
<td>PROG00</td>
<td></td>
<td></td>
<td>PROG24</td>
<td></td>
</tr>
</tbody>
</table>

† You cannot operate “LINK” and “CLEAR” when no scan edge channel is entered.
‡ You cannot operate “ADD” when no scan edge channel is left to add to the link channel.

The following scan edge channels and name are entered in the P-LINK “P0” by default.
• PROG01*
• PROG02*
• NAME: “HAM”

* The default scan edge frequency may differ, depending on the transceiver's version.

• **LINK**: Displays the linked program scan edges.
• **NAME**: Entering the program link name.
• **ADD**: Adding a program scan edge to the Program link.
• **CLEAR**: Deleting the linked program scan edge.

Entering a scan link name

1. Rotate [DIAL] to select a Program Link number between 0 and 9.
2. Push [D] to select “NAME.”
3. Push [D] to select a desired character or symbol.
   • Selectable characters and symbols:
   - [A] [B] [C] [D] [E] [F] [G] [H] [I] [J] [K] [L] [M]
   - [N] [O] [P] [R] [S] [T] [U] [V] [W] [X] [Y] [Z]
   - [-] [+][-][ ][^][][[]][Space]

4. Push [CLR] to delete a selected character or symbol.
5. Push [D] to enter a space.
6. Push [D] to move the cursor backwards, or push [D] to move the cursor forwards.
7. Repeat steps 5 and 6 to enter a name of up to 6 characters, including spaces.
8. Push [D].

Exits the MENU mode.

The C, S, or D in the instructions indicate the area of the controller.
C: Center  S: Side  D: Display
See page 2 'Changing the EXMENU item's options' for details of the key operations.
Scan items (Continued)

Adding a Scan Edge channel to the Program Link
1. Rotate [DIAL] S to select a Program Link number between 0 and 9.
3. Rotate [DIAL] S to select “ADD.”
5. Rotate [DIAL] S to select a programmed scan edge channel you wish to assign to the selected link channel.
   • Exits the MENU mode.

Deleting the link channel
1. Rotate [DIAL] S to select a Program Link number between 0 and 9.
3. Rotate [DIAL] S to select “CLEAR.”
5. Rotate [DIAL] S to select a programmed scan edge channel you wish to delete.
   • Exits the MENU mode.

The C, S, or D in the instructions indicate the area of the controller.
C: Center  S: Side  D: Display
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
Function items

Squelch/ATT Select

`FUNC - SQL TYP`

(Default: S SQL)

| MENU-EXMENU > EXMEN-FUNC > FUNC-SQLTYP |

Select the S-Meter Squelch or Attenuator.

- **OFF:** Both the S-Meter Squelch and Attenuator are disabled.
- **S SQL:** The S-Meter Squelch is enabled and you can adjust the squelch level when `[SQL]` is set between 12 o'clock and the fully clockwise position.
- **ATT:** The Attenuator is enabled and you can adjust the attenuator level when `[SQL]` is set between 12 o'clock and the fully clockwise position.

Squelch Delay

`FUNC - SQL-DL`

(Default: SHORT)

| MENU-EXMENU > EXMEN-FUNC > FUNC-SQ-DL |

Set the Squelch Delay from short and long to prevent repeated opening and closing of the squelch while receiving the same signal.

- **SHORT:** Decreases the time before the squelch opens.
- **LONG:** Increases the time before the squelch opens.

Fan Control

`FUNC - FAN`

(Default: AUTO)

| MENU-EXMENU > EXMEN-FUNC > FUNC-FAN |

Select the cooling fan control between Slow, Mid, Fast and Auto.

- **SLOW:** The fan rotates slowly.
- **MID:** The fan rotates at mid speed.
- **FAST:** The fan rotates fast.
- **AUTO:** The fan automatically rotates during transmission, or when the internal temperature of the transceiver exceeds the preset value, until the temperature drops below that value.

Dial Speed-UP

`FUNC - DIAL S`

(Default: ON)

| MENU-EXMENU > EXMEN-FUNC > FUNC-DIAL S |

Turn the dial speed acceleration ON or OFF. The acceleration automatically speeds up the tuning dial speed when you rapidly rotate `[DIAL]`.

- **OFF:** Turns OFF the function.
- **ON:** Turns ON the function.

Auto Repeater

`FUNC - AUTORP`

| MENU-EXMENU > EXMEN-FUNC > FUNC-AUTORP |

This item appears in only the Korean and U.S.A. version transceivers. The Auto Repeater function automatically turns the duplex operation and tone encoder ON or OFF while in the FM or FM-N mode. The offset and repeater tone are not changed by the Auto Repeater function. Reset these settings values, if necessary.

For the U.S.A. version transceivers

- **OFF:** Turns OFF the function.
- **DUP:** Turns ON only the duplex operation. (Default)
- **DUP.TON:** Turns ON the duplex operation and tone encoder.

For the Korean version transceivers

- **OFF:** Turns OFF the function.
- **ON:** Turns ON the duplex operation and tone encoder. (Default)

Remote MIC Key

`FUNC - RMTMIC`

| MENU-EXMENU > EXMEN-FUNC > FUNC-RMTMIC |

You can change the function assignments for the [F-1] and [F-2] keys on the supplied HM-207 REMOTE-CONTROL MICROPHONE. See page 21 for details.

- **RX:** The assigned key function is enabled while receiving or in standby.
- **TX:** The assigned key function is enabled during transmission.

The C, S, or D in the instructions indicate the area of the controller.

C: Center  S: Side  D: Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
1 EXMENU ITEMS

Function items (Continued)

**Up/Down MIC Key**  \( \text{FUNC} - \text{UDMIC} \)

**MENU-EXMENU \( \rightarrow \) EXMEN-FUNC \( \rightarrow \) FUNC-UDMIC**

You can change the function assignments for the [UP] and [DN] keys on the optional HM-154 HAND MICROPHONE. See page 22 for details.

- **RX:** The assigned key function is enabled during receiving or standby.
- **TX:** The assigned key function is enabled during transmission.

**One-Touch PTT (Remote MIC)**  \( \text{FUNC} - \text{PTT} \)  (Default: PUSH)

**MENU-EXMENU \( \rightarrow \) EXMEN-FUNC \( \rightarrow \) FUNC-PTT**

Set the One-Touch PTT function for the HM-207 REMOTE-CONTROL MICROPHONE. The function enables you to communicate by sequentially pushing the [PTT] button.

- **PUSH:** Push [PTT] to transmit and release to receive.
- **HOLD:** Push [PTT] to transmit and push again to receive.

**PTT Lock**  \( \text{FUNC} - \text{PTT LK} \)  (Default: OFF)

**MENU-EXMENU \( \rightarrow \) EXMEN-FUNC \( \rightarrow \) FUNC-PTT LK**

Turn the PTT Lock function ON or OFF. To prevent accidental transmissions, this function disables [PTT].

- **OFF:** Turns OFF the function.
- **ON:** Turns ON the function.

**Busy Lockout**  \( \text{FUNC} - \text{LK OUT} \)  (Default: OFF)

**MENU-EXMENU \( \rightarrow \) EXMEN-FUNC \( \rightarrow \) FUNC-LK OUT**

Turn the Busy Lockout function ON or OFF. This function inhibits transmission while receiving a signal, or when the squelch is open.

- **OFF:** Turns OFF the function.
- **ON:** Turns ON the function.

**Time-Out Timer**  \( \text{FUNC} - \text{TOT} \)  (Default: OFF)

**MENU-EXMENU \( \rightarrow \) EXMEN-FUNC \( \rightarrow \) FUNC-TOT**

Set the Time-Out Timer to 1, 3, 5, 10, 15, or 30 minutes to prevent an accidental prolonged transmission. To disable the function, set it to OFF.

- **OFF:** Turns OFF the function.
- **1 to 30 min:** If a continuous transmission exceeds the set time period, the transmission will be cut off. A warning beep sounds 10 seconds before and 5 beeps sound again just as the TOT function terminates transmission.

**Active band**  \( \text{FUNC} - \text{ACTIVE} \)  (Default: ALL)

**MENU-EXMENU \( \rightarrow \) EXMEN-FUNC \( \rightarrow \) FUNC-ACTIVE**

Allows continuous frequency selection of the operating frequency across all bands using [DIAL] \( \text{S} \).

- **SINGLE:** Set the selectable frequencies using [DIAL] \( \text{S} \) to single band. When you rotate [DIAL] \( \text{S} \) on the band edge, the other side's band edge is selected.
- **ALL:** Set the selectable frequencies using [DIAL] \( \text{S} \) to all bands. When you rotate [DIAL] \( \text{S} \) on the band edge, the next band is displayed.
- **HAM:** Set the selectable frequencies using [DIAL] \( \text{S} \) to VHF and UHF ham bands. When you rotate [DIAL] \( \text{S} \) on the band edge, the next Ham band is displayed.

**NOTE:**

- When “SINGLE” is selected, hold down [MAIN BAND] \( \text{S} \), and then rotate [DIAL] \( \text{S} \) to select another band.
- When “HAM” is selected, you cannot select the AIR band.
- This setting is for the [DIAL] operation, so all frequencies will be scanned, even if “SINGLE” is selected.

The \( \text{C, S, D} \) in the instructions indicate the area of the controller.

\( \text{C: Center} \) \( \text{S: Side} \) \( \text{D: Display} \)

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
Function items (Continued)

**MIC Gain**  
**FUNC - MIC G**  
*(Default: 2*)

**MENU-EXMENU > EXMEN-FUNC > FUNC-MIC G**

Set the microphone gain to suit your preference. Selectable values: 1 (minimum)--4 (maximum)
- Higher values make the microphone more sensitive to your voice.
- *The default settings may differ, depending on your transceiver version.*

**Auto Power OFF**  
**FUNC - AP OFF**  
*(Default: OFF)*

**MENU-EXMENU > EXMEN-FUNC > FUNC-AP OFF**

The transceiver can be set to automatically turn OFF, and sound a beep, after a specified time period of inactivity. Approximately 5 seconds before the transceiver turns OFF, “AP OFF” appears on the transceiver’s display, and beeps sound. If you operate the transceiver while displaying “AP OFF,” the setting will restart.

- *OFF:* Turns OFF the function.
- *30 to 120 min:* Turns OFF the power after the set time period (30, 60, 90 or 120 minutes) of inactivity.

**CI-V Address**  
**CI-V - CIVADR**  
*(Default: 90)*

**MENU-EXMENU > EXMEN-FUNC > FUNC-CI-V > CI-V-CIVADR**

To distinguish equipment, each CI-V transceiver has its own Icom standard address in hexadecimal code. The IC-2730A/E’s default address is 90.

When 2 or more IC-2730A/E’s are simultaneously controlled by a PC, set a different address for each transceiver between 01h and DFh (hexadecimal).

**CI-V Baud Rate**  
**CI-V - CIVBAU**  
*(Default: AUTO)*

**MENU-EXMENU > EXMEN-FUNC > FUNC-CI-V > CI-V-CIVBAU**

Set the CI-V data transfer speed to 4800, 9600, 19200 bps or Auto.

When “AUTO” is selected, the baud rate is automatically set according to the data rate of the controller.

The **C, S, or D** in the instructions indicate the area of the controller.

- **C:** Center  
- **S:** Side  
- **D:** Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
Display items

Backlight **DISP - LIGHT**  (Default: 4)

**MENU-EXMENU > EXMEN-DISP > DISP-LIGHT**

Select the backlight brightness level between 1 (Dark) and 4 (Bright).

Auto Dimmer **DISP - AT-DIM**  (Default: OFF)

**MENU-EXMENU > EXMEN-DISP > DISP-AT-DIM**

This function is used for nighttime operation. The Auto Dimmer function can be set to OFF, AT-OFF, or AT-1~AT-3.

- **OFF:** Auto Dimmer function is turned OFF. The backlight is continuously ON while the transceiver is ON.
- **AT-OFF:** The backlight is automatically turned ON when the controller is operated. The backlight is automatically turned OFF after the Auto Dimmer Timer set time period (5 or 10 seconds) of inactivity.
- **AT-1~AT-3:** The backlight is automatically turned ON when the controller is operated. The backlight is automatically set to level 1 to 3 after the Auto Dimmer Timer set time period (5 or 10 seconds) of inactivity.

Auto Dimmer Timer **DISP - DIM TM**  (Default: 5sec)

**MENU-EXMENU > EXMEN-DISP > DISP-DIM TM**

Set the time period before the backlight turns OFF when the Auto Dimmer is set to AT-OFF or AT-1 to AT-3.

- **5sec:** The backlight turns OFF after 5 seconds of inactivity.
- **10sec:** The backlight turns OFF after 10 seconds of inactivity.

LCD Contrast **DISP - CONT**  (Default: 6)

**MENU-EXMENU > EXMEN-DISP > DISP-CONT**

Set the contrast of the transceiver's display. Set the level to between 1 (lowest), and 10 (highest).

Opening Message **DISP - OPNMSG**  (Default: ON)

**MENU-EXMENU > EXMEN-DISP > DISP-OPNMSG**

Select the opening message that is displayed on the transceiver's display at power ON.

- **OFF:** The opening message is skipped.
- **ON:** “ICOM” and power source voltage are displayed for about 1 second at power ON.

Memory Name **DISP - NAME**  (Default: OFF)

**MENU-EXMENU > EXMEN-DISP > DISP-NAME**

Select to display either the operating frequency or the channel name in the Memory mode.

- **OFF:** Displays the operating frequency.
- **ON:** Displays the channel name.

When a channel name is not entered, displays the operating frequency.

The C, S, or D in the instructions indicate the area of the controller.

C: Center  S: Side  D: Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
AIR Band Display

(Default: CH ID)

MENU-EXMENU > EXMEN-DISP > DISP-AIR

Select the entry/display type of the AIR band frequency.
• CH ID: Entry/display type is set to CH ID.
• FREQ: Entry/display type is set to frequency.
  *The transceiver displays only three decimal places on the display.

**About Channel ID:**
This list shows the channel IDs that correspond to the AIR band frequencies and the operating modes.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Mode</th>
<th>Channel ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>118.000000</td>
<td>AM</td>
<td>118.000</td>
</tr>
<tr>
<td>118.000000</td>
<td>AM-N</td>
<td>118.005</td>
</tr>
<tr>
<td>118.008333</td>
<td>AM-N</td>
<td>118.010</td>
</tr>
<tr>
<td>118.016666</td>
<td>AM-N</td>
<td>118.015</td>
</tr>
<tr>
<td>118.025000</td>
<td>AM</td>
<td>118.025</td>
</tr>
<tr>
<td>118.025000</td>
<td>AM-N</td>
<td>118.030</td>
</tr>
<tr>
<td>118.033333</td>
<td>AM-N</td>
<td>118.035</td>
</tr>
<tr>
<td>118.041666</td>
<td>AM-N</td>
<td>118.040</td>
</tr>
<tr>
<td>118.050000</td>
<td>AM</td>
<td>118.050</td>
</tr>
<tr>
<td>118.050000</td>
<td>AM-N</td>
<td>118.055</td>
</tr>
<tr>
<td>118.058333</td>
<td>AM-N</td>
<td>118.060</td>
</tr>
<tr>
<td>118.066666</td>
<td>AM-N</td>
<td>118.065</td>
</tr>
<tr>
<td>118.075000</td>
<td>AM</td>
<td>118.075</td>
</tr>
<tr>
<td>118.075000</td>
<td>AM-N</td>
<td>118.080</td>
</tr>
<tr>
<td>118.083333</td>
<td>AM-N</td>
<td>118.085</td>
</tr>
<tr>
<td>118.091666</td>
<td>AM-N</td>
<td>118.090</td>
</tr>
<tr>
<td>118.100000</td>
<td>AM</td>
<td>118.100</td>
</tr>
<tr>
<td>118.100000</td>
<td>AM-N</td>
<td>118.105</td>
</tr>
</tbody>
</table>

The C, S, or D in the instructions indicate the area of the controller.
C: Center  S: Side  D: Display
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
**Sounds items**

### Beep Level **SOUND- BEEPLV** (Default: 9)

MENU-EXMENU > EXMEN-SOUNDS > SOUND-BEEPLV

Set the beep audio output level to between 0 (OFF), 1 (minimum) and 9 (maximum).

### Key-Touch Beep **SOUND- KEY B** (Default: ON)

MENU-EXMENU > EXMEN-SOUNDS > SOUND-KEY B

Turn the confirmation beep tones ON or OFF.
- OFF: No beep sounds.
- ON: When you push a key, a beep sounds.

The beep tone sounds regardless of this setting when:
- The power is turned ON.
- A matched tone signal is received if the pocket beep is activated.
- The Auto Power OFF function turns OFF the transceiver's power. (The beep sounds before powering OFF.)
- The TOT (Time-Out Timer) function is activated. (Only 10 seconds remain before the Time-Out Timer cuts off transmission.)
- The cloning read or write operation starts or ends.
- A received signal stops the scan. (Scan Stop Beep)
- The Home channel is displayed. (Home CH Beep)

### Home CH Beep **SOUND- HOME B** (Default: ON)

MENU-EXMENU > EXMEN-SOUNDS > SOUND-HOME B

Turn the Home CH Beep ON or OFF. When you select a Home channel by rotating [DIAL], a beep sounds. You will know the Home channel is selected without looking at the display.

In the AIR band, the Home channel beep sounds only when you select the frequency and the operating mode (AM or AM-N) that are the same as the Home channel.

- OFF: No beep sounds.
- ON: Sounds a beep when you select the Home CH by rotating [DIAL].

**NOTE:** You can set a Home CH for the VFO mode and the Memory mode.

### Band Edge Beep **SOUND- EDGE B** (Default: OFF)

MENU-EXMENU > EXMEN-SOUNDS > SOUND-EDGE B

Turn the Band edge beep ON or OFF.
- OFF: No beep sounds.
- ON: When you tune into or out of the AIR, VHF, and UHF ham band's frequency range, a beep sounds.

### Scan Stop Beep **SOUND- STOP B** (Default: OFF)

MENU-EXMENU > EXMEN-SOUNDS > SOUND-STOP B

Turn the scan stop beep ON or OFF.
- OFF: No beep sounds.
- ON: When a received signal stops the scan, a beep sounds.

### Sub Band Mute **SOUND- SUBMUT** (Default: OFF)

MENU-EXMENU > EXMEN-SOUNDS > SOUND-SUBMUT

Select whether or not to mute the SUB band audio signal while receiving on the MAIN band.
- OFF: The SUB band audio can be heard even while receiving a signal on the MAIN band.
- MUTE: The SUB band audio signal is muted while receiving on the MAIN band.
- BEEP: A beep sounds when a signal disappears on the SUB band.
  A beep sounds even if no signal is received on the MAIN band.
- MUT.BP: The SUB band audio signal is muted while receiving on the MAIN band.
  A beep sounds while receiving on the SUB band and the signal disappears.
  - The beep sounds even if no signal is received on the MAIN band.

**NOTE:** You can set a Home CH for the VFO mode and the Memory mode.

---

The C, S, or D in the instructions indicate the area of the controller.
- C: Center
- S: Side
- D: Display

See page 2 'Changing the EXMENU item's options' for details of the key operations.
Home channel items

**Home channel Setting**  
**HOME - SET.FRQ, SET.CH**

- **MENU-EXMENU > EXMEN-HOMECH > HOME-SET.FRQ/SET CH**

When you set an often-used frequency as the Home channel in the transceiver’s VFO or Memory mode, that frequency is selected in each mode by pushing [HOME CALL] on the supplied microphone.

- **SET.FRQ**: Set the selected VFO frequency as the Home channel frequency.
- **SET CH**: Set the selected Memory channel as the Home channel.

**Home channel Clear**  
**HOME - CLEAR**

- **MENU-EXMENU > EXMEN-HOMECH > HOME-CLEAR**

Push [J] to delete the Home channel.

---

The **C**, **S**, or **D** in the instructions indicate the area of the controller:

- **C**: Center
- **S**: Side
- **D**: Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
**Bluetooth® Set items**

**Bluetoo®h BTSET~BT**  
*(Default: OFF)*

Turns the Bluetooth® function ON or OFF.  
- **OFF**: Turns OFF the function.  
- **ON**: Turns ON the function.

**Auto Connect**  
*(Default: ON)*

Sets to automatically connect to the paired Bluetooth® headset when the headset is powered ON.  
- **OFF**: Does not automatically connect to the last connected headset. You should manually connect to the paired headset.  
- **ON**: Automatically connects to the last connected headset.

**Connection**

Push to [J]D to view the paired Bluetooth® headset. Rotate [DIAL]S to select a desired headset to connect to, and then push [J]D to connect to it.

**Disconnection**

Push [J]D to disconnect the headset.

**Paring**

Push [J]D to enter the pairing mode.

---

**AF Output**  
*(Default: HS)*

Select the AF Output device when a Bluetooth® headset is connected.  
- **HS**: Outputs audio to only the headset.  
- **HS+SP**: Outputs audio to both the headset and the transceiver’s speaker.

---

The C, S, or D in the instructions indicate the area of the controller.  
C: Center  
S: Side  
D: Display  
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
Headset Function Select  

**HSSET- HSFUNC**

(Default: NORMAL)

**MENU-EXMENU > EXMEN- BT SET > BTSET-HS SET > HSSET-HSFUNC**

Select the desired PTT and microphone combination when both a Bluetooth® headset and the radio microphone are used.

- **NORMAL:** The audio from the device whose [PTT] is pushed is transmitted.
- **MIC:** The audio from only the Bluetooth® headset is transmitted.
  Transmission is made by pushing either the [PTT] on the Bluetooth® headset, or the microphone connected to either the transceiver main unit or the controller.
  * The microphone connected to the transceiver main unit or the controller is only used for the PTT control.
- **P-AMAN:** The transmission is made by pushing the [PTT] on the Bluetooth® headset.
  The audio from the microphone connected to the transceiver main unit is transmitted. However, if you push the [PTT] of the microphone connected to the transceiver main unit or the controller, the audio from the device whose [PTT] is pushed is transmitted.
- **P-ACON:** The transmission is made by pushing the [PTT] on the Bluetooth® headset.
  The audio from the microphone connected to the controller is transmitted. However, if you push the [PTT] of the microphone connected to the transceiver main unit or the controller, the audio from the device whose [PTT] is pushed is transmitted.

**NOTE:**
- When you select either “P-AMAN” or “P-ACON,” turn OFF the VOX function.
- Be sure to select “NORMAL” or “MIC,” when you use only the Bluetooth® headset.

The Bluetooth® headset operation for each option is listed below.

<table>
<thead>
<tr>
<th>Option</th>
<th>TX control</th>
<th>TX audio</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMAL</td>
<td>Enabled</td>
<td>Enabled</td>
</tr>
<tr>
<td>MIC</td>
<td>Enabled</td>
<td>Enabled</td>
</tr>
<tr>
<td>P-AMAN</td>
<td>Enabled</td>
<td>Disabled</td>
</tr>
<tr>
<td>P-ACON</td>
<td>Enabled</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

VOX  

**VOX  - V'**

( Default: OFF)

**MENU-EXMENU > EXMEN- BT SET > BTSET-HS SET > HSSET-VOX > VOX-VOX**

The VOX (Voice Operated Transmission) function starts transmitting without pushing [PTT] when you speak into the microphone, then automatically returns to receive when you stop speaking.

- **OFF:** Turns OFF the function.
- **ON:** Turns ON the function.

**NOTE:** To use the function, the optional VS-3 Bluetooth® HEADSET is required.

VOX Level  

**VOX  - V'**

( Default: 5)

**MENU-EXMENU > EXMEN- BT SET > BTSET-HS SET > HSSET-VOX > VOX-VOX LV**

Set the VOX gain level between OFF, 1 (minimum sensitivity) and 10 (maximum sensitivity). Higher values make the VOX function more sensitive to your voice.

**NOTE:** Before setting the VOX gain level, it is recommended that you set the microphone gain level in the Function items of EXMENU or the Bluetooth® headset.

VOX Delay  

**VOX**

( Default: 0.5)

**MENU-EXMENU > EXMEN- BT SET > BTSET-HS SET > HSSET-VOX > VOX-VOX.DLY**

Set the VOX Delay time to 0.5, 1.0, 1.5, 2.0, 2.5, or 3.0 seconds.

The VOX Delay is the amount of time the transmitter stays ON after you stop speaking, before the VOX switches to receive.

The [C], [S], or [D] in the instructions indicate the area of the controller.

- [C]: Center
- [S]: Side
- [D]: Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
Bluetooth® Set items (Continued)

VOX Time-Out Timer $\text{VOX} \rightarrow \text{VOXTOT}$
(Default: 3MIN)

MENU-EXMENU > EXMEN-BT SET > BTSET-HS SET > HSSET-VOX > VOX-VOXTOT

Set the VOX Time-Out Timer to 1, 2, 3, 4, 5, 10, or 15 minutes to prevent an accidental prolonged transmission.
If a continuous transmission exceeds the set period, the transmission will be cut off.
To disable the function, set it to "OFF."
• OFF: Turns OFF the function.
• 1MIN~5MIN, 10MIN, or 15MIN:
  If a continuous transmission exceeds the set period, transmission will be cut off.
  A warning beep sounds 10 seconds before, and 5 beeps sound again just as the TOT function terminates transmission.
  • Using the Time-Out Timer, the transmission will be cut OFF after the shorter set time period ends.

Power Save ICOMH- PoSAVE
(Default: OFF)

MENU-EXMENU > EXMEN-BT SET > BTSET-HS SET > HSSET-ICOMHS > ICOMH-PoSAVE

Select whether to operate with the Bluetooth® headset's battery saving mode.

When a third-party headset is connected, the power save mode is automatically turned OFF, regardless of this setting.
• OFF: Turns OFF the function.
• ON: The Power Save mode is activated when no communication or operation is performed for 120 seconds.

One-Touch PTT ICOMH- PTT
(Default: PUSH)

MENU-EXMENU > EXMEN-BT SET > BTSET-HS SET > HSSET-ICOMHS > ICOMH-PTT

Set the One-Touch PTT function while the VS-3 headset is connected.
The function enables you to communicate by sequentially pushing the VS-3’s [PTT].

When a third-party headset is connected, this function is automatically turned ON, regardless of this setting.
• PUSH: Push [PTT] to transmit and release to receive.
• HOLD: Push [PTT] to transmit and push again to receive.

PTT Beep ICOMH- PTT B
(Default: OFF)

MENU-EXMENU > EXMEN-BT SET > BTSET-HS SET > HSSET-ICOMHS > ICOMH-PTT B

Set the beep sound when you push [PTT] on the VS-3 headset.
• OFF: No beep sounds.
• ON: Beep sounds.

Custom Key Beep ICOMH- CUST B
(Default: OFF)

MENU-EXMENU > EXMEN-BT SET > BTSET-HS SET > HSSET-ICOMHS > ICOMH-CUST B

Set the beep sound when you push the Custom Key ([PLAY]/[FWD]/[RWD]) on the VS-3 headset.
• OFF: No beep sounds.
• ON: Beep sounds.

Custom Key ICOMH- CUST K
(Default: [PLAY]: ---, [FWD]: UP, [RWD]: DOWN)

MENU-EXMENU > EXMEN-BT SET > BTSET-HS SET > HSSET-ICOMHS > ICOMH-CUST K

You can change the function assignments for the Custom Key ([PLAY]/[FWD]/[RWD]) on the VS-3 headset. See page 23 for details.

Initialize Bluetooth® Device BTSET- INITBT

MENU-EXMENU > EXMEN-BT SET > BTSET-INITBT

Push [J][D] to initialize the installed Bluetooth® unit’s pairing information and Bluetooth® headset name.

The C, S, or D in the instructions indicate the area of the controller.
C: Center  S: Side  D: Display
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
Others items  

Voltage INFO - VOLT

MENU-EXMENU > EXMEN-OTHERS >
OTHER-INFO > INFO-VOLT

Push [J]D to display the voltage of the external power supply.

Version INFO - VER

MENU-EXMENU > EXMEN-OTHERS >
OTHER-INFO > INFO-VER

Push [J]D to display the transceiver firmware’s version number. When the UT-133 Bluetooth® unit is installed, the unit’s version number is also displayed.

Clone Mode CLONE- CLONE

MENU-EXMENU > EXMEN-OTHERS >
OTHER-CLONE > CLONE-CLONE

Push [J]D to enter the clone mode as the sub transceiver to read the cloning data from a connected IC-2730A/E.

Clone Master Mode CLONE- MASTER

MENU-EXMENU > EXMEN-OTHERS >
OTHER-CLONE > CLONE-MASTER

Push [J]D to enter the clone mode as the master transceiver to write the cloning data to a connected IC-2730A/E.

Partial Reset RESET- PART

MENU-EXMENU > EXMEN-OTHERS >
OTHER-RESET > RESET-PART

Push [J]D to resets the operating settings to their default values (VFO frequency, VFO settings, MENU contents) without clearing the items below:

• Memory channel contents
• Scan Edge contents
• Call channel contents
• DTMF memory contents

All Reset RESET- ALL

MENU-EXMENU > EXMEN-OTHERS >
OTHER-RESET > RESET-ALL

Push [J]D to clear all content and return all settings to their factory defaults.

The C, S, or D in the instructions indicate the area of the controller.

C: Center  S: Side  D: Display

See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.
Changing the microphone key’s function assignment

◊ On the supplied HM-207 REMOTE-CONTROL MICROPHONE

You can change the function assignments for the [F-1] and [F-2] keys on the HM-207 REMOTE-CONTROL MICROPHONE.
The assignable key functions are listed to the right.

**How to assign**
Example: Assigning “MONI” to [F-1] key on the microphone.
1. Push [MENU][O][C].
2. Rotate [DIAL] to select “RMTMIC” (Remote MIC key).
   (MENU-EXMENU > EXMEN-FUNC > FUNC-RMTMIC)
3. Push [J][D].
   • Goes to the next tree level.
4. Rotate [DIAL] to select “RX.”
   • To assign a key function to be used while transmitting, select “TX.”
5. Push [J][D].
6. Rotate [DIAL] to select “F-1.”
   • To assign a key function to [F-2] key, select “F-2.”
7. Push [J][D].
8. Rotate [DIAL] to select “MONI.”
    • Exits the MENU mode.

Function items construction

| EXMENU |
|-----------------|-----------------|
| FUNC            | FUNC            |
| SQL TYP         | OFF / SQL/LAT1 |
| SQL-DL          | SHORT/LONG     |
| FAN             | SLOW/MID/FST/AUTO |
| DIAL S          | OFF / ON       |
| AUTO P          | OFF / D/D/D/T (USA version) |
| RMTMIC          | RX / TX        |
| J/DMIC          | RX / TX        |
| PTT             | OFF / HOLD     |
| PTT LK          | OFF / ON       |
| LK OUT          | OFF / ON       |
| PTT             | OFF / ON       |
| PTT LK          | OFF / ON       |
| LK OUT          | OFF / ON       |
| TOTAL           | OFF / 1-30MIN  |
| ACTIVE          | SINGLE / ALL-HAM |
| MIC G           | F-4            |
| AP OFF          | OFF / 30-120MIN |
| CI-V            |                 |
| CI-V ADJ        | OFF / DF       |
| CI-V BAU        | 1800-19200/AUTO |
| CI-V TRN        | OFF / ON       |
| F-EXC           | OFF / ON       |

The **C**, **S**, or **D** in the instructions indicate the area of the controller.
**C**: Center  **S**: Side  **D**: Display
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.

**During RX/Standby:**

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>No function</td>
</tr>
<tr>
<td>MONI [F2]: Default</td>
<td>Push to open or close the squelch.</td>
</tr>
<tr>
<td>MR000</td>
<td>In the Memory mode, push to select Memory channel 000.</td>
</tr>
<tr>
<td>MR001</td>
<td>In the Memory mode, push to select Memory channel 001.</td>
</tr>
<tr>
<td>BND.BNK [F1]: Default</td>
<td>Push to select an operating band. In the VFO mode, push to change the operating band, and in the Memory Bank mode, push to select Bank A to J, or OFF.  • Only the programmed bank appears.</td>
</tr>
<tr>
<td>SCAN</td>
<td>Push to start or stop a scan.</td>
</tr>
<tr>
<td>T-SKIP</td>
<td>Push to set the frequency to be skipped during scanning. The selected frequencies are temporarily skipped for faster scanning.</td>
</tr>
<tr>
<td>MODE</td>
<td>Push to change the operating mode.</td>
</tr>
<tr>
<td>LOW</td>
<td>Push to change the transmit power level.</td>
</tr>
<tr>
<td>DUP</td>
<td>Push to turn the Duplex mode ON or OFF, and the shift direction to DUP+ or DUP-.</td>
</tr>
<tr>
<td>PRIO</td>
<td>Push to turn the Priority watch ON or OFF.</td>
</tr>
<tr>
<td>TONE</td>
<td>Push to toggle between tone types. (p. 5)</td>
</tr>
<tr>
<td>MW</td>
<td>In the VFO mode, hold down to save the frequency displayed in the MAIN band into a Memory channel.  • The frequency is automatically saved in a blank channel.</td>
</tr>
<tr>
<td>MUTE</td>
<td>Push to turn the Mute function ON or OFF.</td>
</tr>
<tr>
<td>DTMFTX</td>
<td>Push to enter the DTMF Code Entry mode.</td>
</tr>
<tr>
<td>T-CALL</td>
<td>Push to transmit a 1750 Hz tone.</td>
</tr>
</tbody>
</table>

**During TX:**

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>No function</td>
</tr>
<tr>
<td>LOW [F2]: Default</td>
<td>Push to change the transmit power level.</td>
</tr>
<tr>
<td>T-CALL [F1]: Default</td>
<td>Push to transmit a 1750 Hz tone.</td>
</tr>
</tbody>
</table>

The **C**, **S**, or **D** in the instructions indicate the area of the controller.
1 EXMENU ITEMS

Changing the microphone key's function assignment (Continued)

◊ On the optional HM-154 HAND MICROPHONE

You can change the function assignments for the [UP] and [DN] keys on the HM-154 HAND MICROPHONE. The assignable key functions are listed to the right.

<How to assign>
Example: Assigning “VOL UP” to [UP] key on the microphone.
1. Push [MENU][O][C].
2. Rotate [DIAL]S to select “UDMIC” (Up/Down MIC key).
   (MENU-EXMENU > EXMEN-FUNC > FUNC-UDMIC)
3. Push [J][D].
   • Goes to the next tree level.
4. Rotate [DIAL]S to select “RX.”
   • To assign a key function to be used while transmitting, select “TX.”
5. Push [J][D].
6. Rotate [DIAL]S to select “UP”
   • To assign a key function to [DN] key, select “DN.”
7. Push [J][D].
8. Rotate [DIAL]S to select “VOL UP:”
    • Exits the MENU mode.

Function items construction

The C, S, or D in the instructions indicate the area of the controller.
C: Center  S: Side  D: Display
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.

• During RX/Standby:

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>No function</td>
</tr>
<tr>
<td>UP [UP]: Default</td>
<td>Push to increase the frequency or Memory channel.</td>
</tr>
<tr>
<td>DOWN [DN]: Default</td>
<td>Push to decrease the frequency or Memory channel.</td>
</tr>
<tr>
<td>VOL UP</td>
<td>Push to increase the volume level.</td>
</tr>
<tr>
<td>VOL DN</td>
<td>Push to decrease the volume level.</td>
</tr>
<tr>
<td>SQL UP</td>
<td>Push to increase the squelch level.</td>
</tr>
<tr>
<td>SQL DN</td>
<td>Push to decrease the squelch level.</td>
</tr>
<tr>
<td>MONI</td>
<td>Push to open or close the squelch.</td>
</tr>
<tr>
<td>CALL</td>
<td>Push to select a call channel.</td>
</tr>
<tr>
<td>MR000</td>
<td>In the Memory mode, push to select Memory channel 000.</td>
</tr>
<tr>
<td>MR001</td>
<td>In the Memory mode, push to select Memory channel 001.</td>
</tr>
<tr>
<td>VFO/MR</td>
<td>Push to toggle between the VFO mode and the Memory mode.</td>
</tr>
<tr>
<td>HOME</td>
<td>Push to directly select the Home CH that is set to the selected mode (VFO/Memory). If no Home CH is set, an error beep sounds.</td>
</tr>
<tr>
<td>BND.BNK</td>
<td>Push to select an operating band.</td>
</tr>
<tr>
<td>SCAN</td>
<td>Push to start or stop a scan.</td>
</tr>
<tr>
<td>T-SKIP</td>
<td>Push to set the frequency to be skipped during scanning. The selected frequencies are temporarily skipped for faster scanning.</td>
</tr>
<tr>
<td>MAIN</td>
<td>Push to select the MAIN Band.</td>
</tr>
<tr>
<td>MODE</td>
<td>Push to change the operating mode.</td>
</tr>
<tr>
<td>LOW</td>
<td>Push to change the transmit power level.</td>
</tr>
<tr>
<td>DUP</td>
<td>Push to turn the Duplex mode ON or OFF, and the shift direction to DUP+ or DUP-.</td>
</tr>
<tr>
<td>PRIOR</td>
<td>Push to turn the Priority watch ON or OFF.</td>
</tr>
<tr>
<td>TONE</td>
<td>Push to toggle between tone types. (p. 5)</td>
</tr>
<tr>
<td>MW</td>
<td>In the VFO mode, hold down to save the frequency displayed in the MAIN band into a Memory channel. The frequency is automatically saved in a blank channel.</td>
</tr>
<tr>
<td>MUTE</td>
<td>Push to turn the Mute function ON or OFF.</td>
</tr>
<tr>
<td>T-CALL</td>
<td>Push to transmit a 1750 Hz tone.</td>
</tr>
</tbody>
</table>

Changing the microphone key's function assignment (Continued)
EXMENU ITEMS

Changing the microphone key's function assignment (Continued)

Diamond on the optional VS-3 Bluetooth® HEADSET

You can change the function assignments for the Custom Key ([PLAY]/[FWD]/[RWD]) on the optional VS-3 Bluetooth® HEADSET.

The assignable key functions are listed to the right.

<How to assign>

Example: Assigning “UP” to [PLAY] key on the headset.

1. Push [MENU] → [C].
2. Rotate [DIAL] S to select “CUST K” (Custom Key).
   (MENU-EXMENU > EXMEN-BT SET > BTSET-HS SET > HSSET-ICOMHS > ICOMH-CUST K)
   • Goes to the next tree level.
4. Rotate [DIAL] S to select “PLAY.”
   • To assign a key function to [FWD] key, select “FWD.”
   • To assign a key function to [RWD] key, select “RWD.”
5. Push [J] D.
6. Rotate [DIAL] S to select “UP”
   • Exits the MENU mode.

Bluetooth® items construction

The C, S, or D in the instructions indicate the area of the controller.
C: Center  S: Side  D: Display
See page 2 ‘Changing the EXMENU item’s options’ for details of the key operations.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>No function</td>
</tr>
<tr>
<td>UP</td>
<td>Push to increase the frequency or Memory channel.</td>
</tr>
<tr>
<td>DOWN</td>
<td>Push to decrease the frequency or Memory channel.</td>
</tr>
<tr>
<td>VOL UP</td>
<td>Push to turn up the volume level.</td>
</tr>
<tr>
<td>VOL DN</td>
<td>Push to turn down the volume level.</td>
</tr>
<tr>
<td>SQL UP</td>
<td>Push to turn up the squelch level.</td>
</tr>
<tr>
<td>SQL DN</td>
<td>Push to turn down the squelch level.</td>
</tr>
<tr>
<td>MONI</td>
<td>Push to open or close the squelch.</td>
</tr>
<tr>
<td>CALL</td>
<td>Push to select a call channel.</td>
</tr>
<tr>
<td>MR000</td>
<td>In the Memory mode, push to select Memory channel 000.</td>
</tr>
<tr>
<td>MR001</td>
<td>In the Memory mode, push to select Memory channel 001.</td>
</tr>
<tr>
<td>VFO/MR</td>
<td>Push to toggle between the VFO mode and the Memory mode.</td>
</tr>
</tbody>
</table>
| HOME     | Push to directly select the Home CH that is set to the selected mode (VFO/Memory).
         | While in the CALL CH or weather channel mode, or when no Home CH is set, an error beep sounds. |
| BND.BNK  | Push to select an operating band.
         | In the VFO mode, push to change the operating band, and in the Memory Bank mode, push to select Bank A to J, or OFF.
         | • Only the programmed bank appears. |
| SCAN     | Push to start or stop a scan. |
| T-SKIP   | Push to set the frequency to be skipped during scanning.
         | The selected frequencies are temporarily skipped for faster scanning. |
| MAIN     | Push to select the MAIN Band. |
| MODE     | Push to change the operating mode. |
| LOW      | Push to change the transmit power level. |
| DUP      | Push to turn the Duplex mode ON or OFF, and the shift direction to DUP+ or DUP−. |
| PRIOR    | Push to turn the Priority watch ON or OFF. |
| TONE     | Push to toggle between tone types. (p. 5) |
| MW       | In the VFO mode, hold down to save the frequency displayed in the MAIN band into a Memory channel.
         | • The frequency is automatically saved in a blank channel. |
| MUTE     | Push to turn the Mute function ON or OFF. |
| T-CALL   | Push to transmit a 1750 Hz tone. |
CI-V INFORMATION

**CI-V information**

◇ **Setting CI-V data**
Before controlling the transceiver using the Icom Communications Interface-V (CI-V), you should set the CI-V address, CI-V baud rate, and CI-V transceive function ON/OFF in EXMENU.
(MENU EXMENU > EXMEN-FUNC > FUNC-CI-V)

◇ **Connecting to a PC**
When the transceiver is connected to a PC, the Icom Communications Interface-V (CI-V) controls the transceiver.
Use the following cables for the connection.
When using the OPC-478UC, you cannot hear the audio received on the right side band.

![Diagram of transceiver and PC connection](image)

**Data format**
The CI-V system uses the following data formats. Data formats differ depending on command numbers. A data area or sub command is added to some commands.

**Controller to IC-2730A/E**

<table>
<thead>
<tr>
<th>FE</th>
<th>FE</th>
<th>90</th>
<th>E0</th>
<th>Cn</th>
<th>Sc</th>
<th>Data area</th>
<th>FD</th>
</tr>
</thead>
</table>

**OK message to controller**

<table>
<thead>
<tr>
<th>FE</th>
<th>FE</th>
<th>E0</th>
<th>90</th>
<th>FB</th>
<th>FD</th>
</tr>
</thead>
</table>

**IC-2730A/E to controller**

<table>
<thead>
<tr>
<th>FE</th>
<th>FE</th>
<th>E0</th>
<th>90</th>
<th>Cn</th>
<th>Sc</th>
<th>Data area</th>
<th>FD</th>
</tr>
</thead>
</table>

**NG message to controller**

<table>
<thead>
<tr>
<th>FE</th>
<th>FE</th>
<th>E0</th>
<th>90</th>
<th>FA</th>
<th>FD</th>
</tr>
</thead>
</table>
## Command table

<table>
<thead>
<tr>
<th>Cmd.</th>
<th>Sub cmd.</th>
<th>Data</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>See p.26</td>
<td></td>
<td>Send operating frequency for transceive</td>
</tr>
<tr>
<td>01</td>
<td>See p.26</td>
<td></td>
<td>Send operating mode for transceive</td>
</tr>
<tr>
<td>03</td>
<td>See p.26</td>
<td></td>
<td>Read operating frequency</td>
</tr>
<tr>
<td>04</td>
<td>See p.26</td>
<td></td>
<td>Read operating mode</td>
</tr>
<tr>
<td>05</td>
<td>See p.26</td>
<td></td>
<td>Send operating frequency</td>
</tr>
<tr>
<td>06</td>
<td>02</td>
<td></td>
<td>Select AM mode</td>
</tr>
<tr>
<td></td>
<td>05</td>
<td></td>
<td>Select FM mode</td>
</tr>
<tr>
<td>07</td>
<td>D0</td>
<td></td>
<td>Select A band</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Set the Main band as the A band</td>
</tr>
<tr>
<td></td>
<td>D1</td>
<td></td>
<td>Select B band</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Set the Main band as the B band</td>
</tr>
<tr>
<td>0C</td>
<td>See p.26</td>
<td></td>
<td>Read frequency offset (Below 100 Hz is omitted)</td>
</tr>
<tr>
<td>0D</td>
<td>See p.26</td>
<td></td>
<td>Send frequency offset</td>
</tr>
<tr>
<td>0F</td>
<td></td>
<td></td>
<td>Read duplex setting (10=simplex, 11=DUP–, 12=DUP+)</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>Set simplex operation</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>Set DUP– operation</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td>Set DUP+ operation</td>
</tr>
<tr>
<td>14</td>
<td>01</td>
<td>0000 to 0255</td>
<td>Send/read audio output level (000=Minimum, 0128=Center, 0255=Maximum)</td>
</tr>
<tr>
<td></td>
<td>03</td>
<td>0000 to 0255</td>
<td>Send/read squelch level (000=Minimum, 0128=Center, 0255=Maximum)</td>
</tr>
<tr>
<td></td>
<td>0A</td>
<td>See p.26</td>
<td>Send/read RF power setting</td>
</tr>
<tr>
<td></td>
<td>0B</td>
<td>See p.26</td>
<td>Send/read external microphone gain</td>
</tr>
<tr>
<td>16</td>
<td>See p.26</td>
<td></td>
<td>Send/read VOX gain</td>
</tr>
<tr>
<td>15</td>
<td>01</td>
<td></td>
<td>Read noise/S-meter squelch status (squelch close)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Read noise/S-meter squelch status (squelch open)</td>
</tr>
<tr>
<td></td>
<td>02</td>
<td>0000 to 0255</td>
<td>Read S-meter level (0000=S0, 0170=S9)</td>
</tr>
<tr>
<td></td>
<td>05</td>
<td></td>
<td>Read tone squelch and RF squelch status (squelch close)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Read tone squelch and RF squelch status (squelch open)</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>0000 to 0255</td>
<td>Read RF power meter (0026=LOW, 0077=MID, 0255=HIGH)</td>
</tr>
<tr>
<td>16</td>
<td>42</td>
<td></td>
<td>Send/read Repeater tone OFF</td>
</tr>
<tr>
<td></td>
<td>01</td>
<td></td>
<td>Send/read Repeater tone ON</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td></td>
<td>Send/read Tone squelch OFF</td>
</tr>
<tr>
<td></td>
<td>01</td>
<td></td>
<td>Send/read Tone squelch ON</td>
</tr>
<tr>
<td></td>
<td>02</td>
<td></td>
<td>Send/read Reversed Tone squelch ON</td>
</tr>
<tr>
<td>46</td>
<td>00</td>
<td></td>
<td>Send/read VOX function OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Send/read VOX function ON</td>
</tr>
<tr>
<td>4B</td>
<td>00</td>
<td></td>
<td>Send/read DTCS OFF</td>
</tr>
<tr>
<td></td>
<td>01</td>
<td></td>
<td>Send/read DTCS ON</td>
</tr>
<tr>
<td></td>
<td>02</td>
<td></td>
<td>Send/read Reversed DTCS ON</td>
</tr>
<tr>
<td>19</td>
<td>00</td>
<td></td>
<td>Read transceiver ID</td>
</tr>
<tr>
<td>1A</td>
<td>00</td>
<td>00 to 09</td>
<td>Send/read Tone setting (00=OFF, 01=TON, 02=TSOL, 03=DTCS, 04=TSOL-R, 05=DTCS-R, 06=DTCS(T), 07=TOEN(T)/DTCS(R), 08=DTCS(T)/TSOL(R), 09=TOEN(T)/TSOL(R)) See page 5 for details.</td>
</tr>
<tr>
<td>1B</td>
<td>00</td>
<td>See p.26</td>
<td>Send/read Repeater tone frequency</td>
</tr>
<tr>
<td></td>
<td>01</td>
<td>See p.26</td>
<td>Send/read Tone squelch frequency</td>
</tr>
<tr>
<td></td>
<td>02</td>
<td>See p.26</td>
<td>Send/read DTCS code and polarity</td>
</tr>
<tr>
<td>1C</td>
<td>00</td>
<td></td>
<td>Send/read Transceiver’s status (RX)</td>
</tr>
<tr>
<td></td>
<td>01</td>
<td></td>
<td>Send/read Transceiver’s status (TX)</td>
</tr>
</tbody>
</table>
• **Receive frequency setting**
  Command: 00, 03, 05

<table>
<thead>
<tr>
<th>100 Hz digit</th>
<th>10 Hz digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

- **Operating mode**
  Command: 01, 04, 06

<table>
<thead>
<tr>
<th>Operating mode</th>
<th>Mode</th>
<th>Filter setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>02</td>
<td>01</td>
</tr>
<tr>
<td>AM-N</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>FM</td>
<td>05</td>
<td>01</td>
</tr>
<tr>
<td>FM-N</td>
<td>05</td>
<td>02</td>
</tr>
</tbody>
</table>

• **Duplex Frequency offset setting**
  Command: 0C, 0D

- **RF power level setting**
  Command: 14 0A

<table>
<thead>
<tr>
<th>LOW</th>
<th>MID</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000–0084</td>
<td>0085–0170</td>
<td>0171–0255</td>
</tr>
</tbody>
</table>

- **External microphone gain setting**
  Command: 14 0B

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000–0063</td>
<td>0064–0127</td>
<td>0128–0191</td>
<td>0192–0255</td>
</tr>
</tbody>
</table>

- **VOX gain setting**
  Command: 14 16

<table>
<thead>
<tr>
<th>OFF</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000–0022</td>
<td>0023–0046</td>
<td>0047–0069</td>
<td>0070–0092</td>
<td>0093–0115</td>
</tr>
<tr>
<td>0016–0139</td>
<td>0140–0162</td>
<td>0163–0185</td>
<td>0186–0208</td>
<td>0209–0232</td>
</tr>
<tr>
<td>0233–0255</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

• **Repeater tone/tone squelch frequency setting**
  Command: 1B 00, 1B 01

- **Tone frequencies** (Unit: Hz)

- **DTCS codes**

| 023 054 125 165 245 274 356 445 506 627 792 | 732 |
| 025 065 131 172 246 306 364 446 516 631 793 | 734 |
| 026 071 132 174 251 311 365 452 523 632 743 | 735 |
| 031 072 134 205 252 315 371 454 526 654 754 | 754 |
| 032 073 143 212 255 325 411 455 532 662 | 765 |
| 036 074 145 223 261 331 412 462 546 664 | 775 |
| 043 114 152 225 263 332 413 464 565 703 | 785 |
| 047 115 155 226 265 343 423 465 606 712 | 795 |
| 051 116 156 243 266 346 431 466 612 723 | 805 |
| 053 122 162 244 271 351 432 503 624 731 |

*Not necessary when setting a frequency.*