

REMOTE-CONTROL MICROPHONE
HM-162E

Thank you for purchasing the **HM-162E REMOTE-CONTROL MICROPHONE**. The **COMMANDMIC III™** is a remote control microphone for use with the IC-M603 or else.

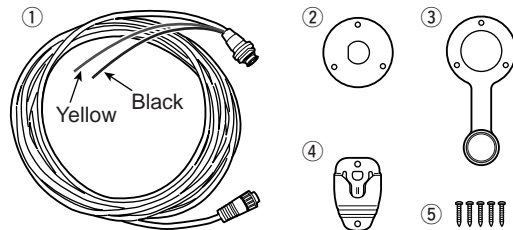
Please read the connected transceiver's instruction manual carefully before installation and operation. These instructions are just described the remote-control operations only.

These instructions are described when the HM-162E is connected to the IC-M603. Some operations or indications may be different as these instructions depending on the connecting transceiver.

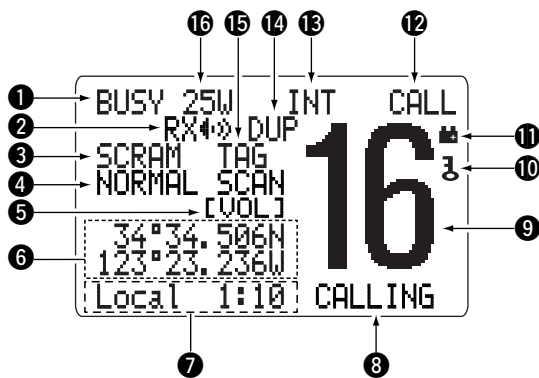
1 HM-162E supplied accessories

Accessories included with the HM-162E:	Qty.
① Connection cable (OPC-1540*: 6 m; 20 ft)	1
② Mounting base	1
③ Connector cap	1
④ Microphone hanger	1
⑤ Screws (M3 × 16; tapping)	5

*: OPC 1540 has external speaker leads as illustrated at right.
(Yellow: Audio, Black: Speaker ground)



2 Function display

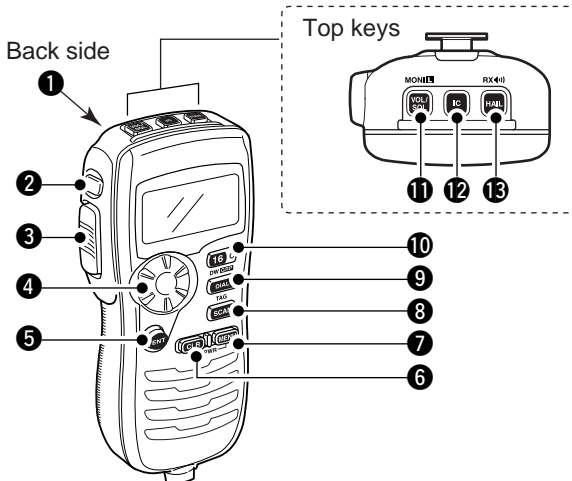


- ① BUSY/TRANSMIT INDICATOR**
 ↳ "BUSY" appears when receiving a signal or when the squelch opens.
 ↳ "TX" appears while transmitting.
- ② RX SPEAKER INDICATOR**
 Appears during the RX speaker mode.
- ③ SCRAMBLER INDICATOR**
 "SCRAM" appears when an optional voice scrambler is activated.
- ④ SCAN INDICATOR**
 ↳ "PRI-SCAN 16" appears during Priority scan; "NORMAL SCAN" appears during Normal scan.
 ↳ "DUAL 16" appears during dualwatch; "TRI 16" appears during tri-watch.
- ⑤ SELECTOR STATUS INDICATOR**
 Indicates the [SELECTOR] active status;
 "[VOL]" appears when [SELECTOR] functions as the audio volume.
 "[SQL]" appears when [SELECTOR] functions as the noise squelch controller.
 "[DIAL]" appears when [SELECTOR] functions as the channel selector.

- ⑥ POSITION INDICATOR**
 ↳ Shows the GPS position data.
 • "???" may blink every 2 sec. instead of position data when the GPS position data is invalid. In this case, the last position data is held for up to 23.5 hours.
 • "???" may blink every 2 sec. instead of position data 4 hours after the position data is input manually, up until 23.5 hours have past.
 ↳ "No Position" appears when no GPS receiver is connected and no position data is input manually.
- ⑦ TIME ZONE INDICATOR**
 ↳ "Local" appears when the offset time data in the 'Set up' menu is entered.
 ↳ "No Time" appears when no GPS receiver is connected and no time data is input manually.
- ⑧ CHANNEL COMMENT INDICATOR**
 Channel comment appears, if programmed.
- ⑨ CHANNEL NUMBER READOUT**
 Indicates the selected operating channel number.
- ⑩ KEY LOCK INDICATOR**
 ↳ Appears while the Key Lock function is in use.
 ↳ Blinks while the All Key Lock function is in use.
- ⑪ LOW BATTERY INDICATOR**
 "⚡" blinks when the battery voltage drops to approx. 10 V DC or below.
- ⑫ CALL CHANNEL INDICATOR**
 "CALL" appears when the call channel is selected.
- ⑬ CHANNEL GROUP INDICATOR**
 Indicates whether an International "INT," U.S.A. "USA," DSC "DSC" or ATIS "ATIS" channel is selected.
 • Depending on the connected transceiver's version.
- ⑭ DUPLEX INDICATOR**
 Appears when a duplex channel is selected.
 • Duplex channel has a different TX and RX frequency.
- ⑮ TAG CHANNEL INDICATOR**
 Appears when a tag channel is selected.
- ⑯ POWER INDICATOR**
 ↳ "25W" appears when high power is selected.
 ↳ "1W" appears when low power is selected.

3 Panel description

The optional HM-162E remotely controls the transceiver and provides an optional Intercom function.



1 DISTRESS KEY [DISTRESS]

Push for 5 sec. transmit a Distress call.

2 TRANSMIT POWER KEY [H/L]

- Push to toggle high or low power.
 - Some Channels are set to low power only.
- While pushing this key, other keys perform secondary functions.
- While pushing this key, turn power ON to toggle the All key Lock function ON or OFF.
 - “**L**” blinks while the All key Lock function is in use.
 - Only [PWR] ([CLR]/[MENU]), [DISTRESS] and [PTT] are functional when the All key Lock function is in use.

3 PTT SWITCH [PTT]

Push and hold to transmit; release to receive.

4 SELECTOR DIAL [SELECTOR]

- Rotate to adjust the audio level, or select the items in DSC menu, Set mode settings in set mode, etc.
- Rotate to select the noise squelch level or operating channel after pushing [VOL/SQL•MONI **L**].
- Rotate to adjust the brightness of the LCD and key backlight while pushing [H/L].
- Checks TAG channels or changes scanning direction during scan.
- Rotate to adjust the audio level during in hailer mode.
- Rotate [SELECTOR] then push [ENT] to adjust the audio level during in RX Speaker mode.

5 ENTER KEY [ENT]

- Push to fix the selected contents, or select Set mode settings, etc.
- Push for 1 sec. to indicate the GPS information of the connected transceiver.
 - No information appears when GPS receiver is not connected to the transceiver.

6 CLEAR•POWER KEY [CLR•PWR]

- While HM-162E's power is OFF, push this key and [MENU] for 1 sec. to turn the power ON.
 - The connected transceiver power is also turned ON, if it's OFF.
- While HM-162E's power is ON;
 - While pushing this key, push [MENU] to turn the HM-162E power OFF.
 - The connected transceiver power is also turned OFF depending on the transceiver's Set mode setting.
 - Push to clear the entered function, exit Set mode, etc.

7 DSC MENU KEY [MENU]

- Push to toggle the DSC menu ON or OFF.
- While pushing [CLR], push this key to turn the HM-162E power ON and OFF.

8 SCAN KEY [SCAN•TAG]

- Push to start and stop Normal or Priority scan when TAG channels are programmed.
- Push for 1 sec. to set (or clear) the displayed channel as a TAG (scanned) channel.
- While pushing [H/L], push for 3 sec. to clear or set all TAG channels in the selected channel group.

9 CHANNEL/DUALWATCH/TRI-WATCH KEY [DIAL•DW **GRP**]

- Push to select the regular channels.
- Push for 1 sec. to start Dualwatch or Tri-watch.
- Push to stop Dualwatch or Tri-watch when either is activated.
- Move the cursor backward while in the channel comment programming condition.
- While pushing [H/L], push to select the desired channel groups in sequence.
 - Depending on the connected transceiver's version, this function is not available.

10 CHANNEL 16/CALL CHANNEL KEY [16•C]

- Push to select Channel 16.
- Push for 1 sec. to select call channel.
 - “CALL” appears when call channel is selected.
- Push for 3 sec. to enter call channel programming condition when call channel is selected.
- While pushing [H/L], push to enter the channel comment programming condition.
- While turning power ON, push to enter Set mode.
- Advance the cursor while in channel comment programming condition.

11 VOLUME/SQUELCH•MONITOR/LOCK KEY [VOL/SQL•MONI **L**]

- Push to select the volume, channel or squelch setting condition.
- After pushing this key, rotate [SELECTOR] to set the audio level, channel selection or squelch level.
- Push for 1 sec. to turn the monitor function ON.
- While pushing [H/L], push this to toggle the (microphone) Key Lock function ON or OFF.
 - “**L**” appears while the (microphone) Key Lock function is in use.
 - [PWR] ([CLR]/[MENU]), [PTT], [VOL/SQL], [H/L] and [DISTRESS] still function when the (microphone) Key Lock function is turned ON.

12 INTERCOM KEY [IC]

- Push to toggle the Intercom function ON or OFF.
- Calls the transceiver when pushed and held while in Intercom mode.
- While pushing [H/L], activates an optional Voice scrambler function when it's installed into the transceiver.
 - “SCRAM” appears when the Voice scrambler function is turned ON.
 - Voice scrambler function is available depending on the connected transceiver or transceiver's version.
 - The optional Voice scrambler function cannot be used on Channel 16 and 70.

13 HAILER/RX SPEAKER KEY [HAIL•RX **◀**]

- Push to turn the hailer mode ON or OFF.
- Push for 1 sec. to turn the RX Speaker mode ON or OFF.
- While pushing [H/L], push to turn the automatic foghorn function ON or OFF.

4 Selector's action

The HM-162E has a selector dial, which works various functions.

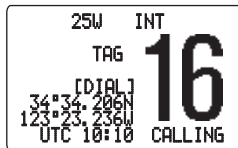
- Each pushing [VOL/SQL] changes [SELECTOR]'s action.
 - Selector status indicator shows "[VOL]", "[SQL]" or "[DIAL]" when [SELECTOR] functions as an audio volume, squelch controller or channel selector, respectively.
- Pushing [DIAL] changes [SELECTOR]'s action to channel selector.
 - "[DIAL]" appears.
- Pushing [ENT] or [CLR] returns [SELECTOR]'s action to the audio volume when "[SQL]" or "[DIAL]" is indicated on the display.
 - Even if [ENT] or [CLR] hasn't been pushed, [SELECTOR]'s action returns to the audio volume automatically after 5 sec. of inactivity.

After these instructions describe [SELECTOR] as follow:
 [SELECTOR VOL]: Functions as the audio volume.
 [SELECTOR SQL]: Functions as the squelch controller.
 [SELECTOR DIAL]: Functions as the channel selector.
 [SELECTOR]: Functions as the any other selector or controller.

5 Channel selection

◆ Channel 16

- ① Push [16•C] to select Channel 16.
- ② Push [DIAL] to return to the condition before selecting Channel 16, (or rotate [SELECTOR DIAL] to select an other channel.



Push [16•C]

◆ Call channel

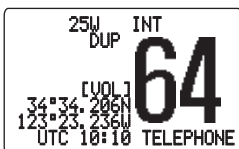
- ① Push [16•C] for 1 sec. to select call channel.
- ② Push [DIAL] to return to the condition before selecting call channel, (or rotate [SELECTOR DIAL] to select an other channel.



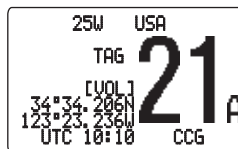
Push [16•C] for 1 sec.

◆ International and other channel group's channels (U.S.A., DSC, ATIS—depending on the connected transceiver's version)

- ① Push [DIAL•DW GRP] to select a regular channel.
- ② While pushing [H/L], push [DIAL•DW GRP] to select a channel group.
 - Depending on the connected transceiver's version, channel group selection is not available.
- ③ Push [DIAL•DW GRP] then rotate [SELECTOR DIAL] to select a channel.
 - "DUP" appears for duplex channels.



International channels



U.S.A. channels

6 Receiving and transmitting

- ① Push [PWR] to turn power ON.
- ② Set the audio and squelch levels.
 - Push [VOL/SQL•MONI] for 1 sec. to activate the monitor function.
 - Rotate [SELECTOR VOL] to adjust the audio output level.
 - Push [VOL/SQL•MONI] to cancel the monitor function.
 - Push [VOL/SQL•MONI] several times, then rotate [SELECTOR SQL] to adjust the squelch level.
- ③ While pushing [H/L], push [DIAL•DW GRP] to change the channel group, if desired.
- ④ Push [DIAL•DW GRP] once, then rotate [SELECTOR DIAL] to select the desired channel.
 - When receiving a signal, "BUSY" appears and audio is emitted from the speaker.
 - Further adjustment of the audio level may be necessary.
- ⑤ Push [H/L] to select the output power, if necessary.
 - "1W" appears when low power is selected.
 - Choose low power for short range communications, choose high power for longer distance communications.
 - Some channels are for low power only.
- ⑥ Push and hold [PTT] to transmit, then speak into the microphone.
 - "TX" appears.
 - Channel 70 cannot be used for transmission other than DSC.
- ⑦ Release [PTT] to receive.

IMPORTANT: To maximize the readability of your transmitted signal (voice), pause a few sec. after pushing [PTT], hold the microphone 5 to 10 cm from your mouth and speak at a normal voice level.

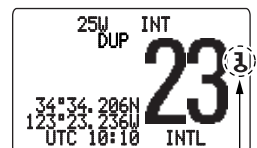
7 Lock functions

The Lock function electronically locks keys and switches to prevent accidental changes and function access from the microphone.

All keys, switches and controllers on the transceiver are functional.

◆ Activating the Lock function

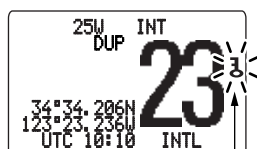
- While pushing [H/L], push [VOL/SQL•MONI] to turn the Lock function ON or OFF.
 - "L" appears.
 - Only [PWR] ([CLR]/[MENU]), [DISTRESS], [PTT], [H/L], [VOL/SQL•MONI] and [SELECTOR] are functional.



Appears

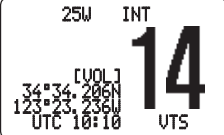
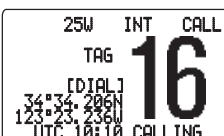
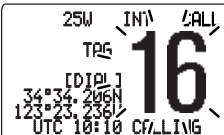
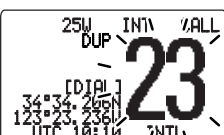
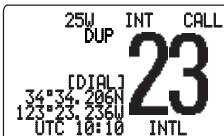
◆ Activating the All Key Lock function

- While pushing [H/L], turn the power ON by pushing [PWR] to turn the All Key Lock function ON or OFF.
 - "L" blinks.
 - Only [PWR] ([CLR]/[MENU]), [DISTRESS] and [PTT] are functional.

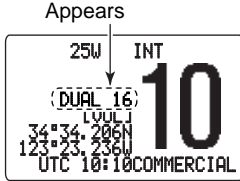


Blinks

8 Call channel programming

- While pushing [H/L], push [DIAL•DW GRP] several times to select the desired channel group (depending on the connected transceiver's version) to be programmed.
 
- Push [16•C] for 1 sec. to select call channel of the selected channel group.
 - "CALL" and call channel number appear.
- Push [16•C] again for 3 sec. (until a long beep changes to 2 short beeps) to enter the call channel programming condition.
 - The channel number to be programmed blinks.
- Rotate [SELECTOR DIAL] to select the desired channel.
 
- Push [16•C] to program the displayed channel as the call channel.
 - The channel number stops blinking.
 - Push [DIAL] to cancel.

9 Dualwatch/Tri-watch operation

- Select Dualwatch or Tri-watch in Set mode.
- Rotate [SELECTOR DIAL] after pushing [DIAL•DW GRP] to select the desired channel.
 - While pushing [H/L], push [DIAL•DW GRP] several times to select the channel group (depending on the connected transceiver's version), if desired.
- Push [DIAL•DW GRP] for 1 sec. to start Dualwatch or Tri-watch.
 - "DUAL 16" appears during Dualwatch; "TRI 16" appears during Tri-watch.
 - A beep tone sounds when a signal is received on Channel 16.
 - Tri-watch becomes Dualwatch when receiving a signal on the call channel.
- To cancel Dualwatch or Tri-watch, push [DIAL•DW GRP] again.

10 Setting TAG channels

- While pushing [H/L], push [DIAL•DW GRP] several times to select the desired channel group (depending on the connected transceiver's version).
- Push [DIAL•DW GRP] then rotate [SELECTOR DIAL] to select the desired channel to be set as a TAG channel.
- Push [SCAN•TAG] for 1 sec. to set the displayed channel as a TAG channel.
 - "TAG" appears in the display.
- To cancel the TAG channel setting, repeat step ③.
 - "TAG" disappears.

✓ Clearing (or setting) all tagged channels

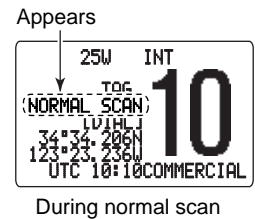
While pushing [H/L], push [SCAN•TAG] for 3 sec. (until a long beep changes to 2 short beeps) to clear all TAG channels in the channel group.

- Repeat above procedure to set all TAG channels.

11 Starting a scan

Set scan type (Priority or Normal scan) and scan resume timer in advance, using Set mode.

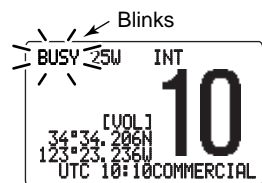
- While pushing [H/L], push [DIAL•DW GRP] several times to select the desired channel group (depending on the connected transceiver's version).
- Set TAG channels as described at previous item.
- Make sure the squelch is closed to start a scan.
- Push [SCAN•TAG] to start Priority or Normal scan.
 - "PRI-SCAN 16" or "NORMAL SCAN" appears during Priority or Normal scan, respectively.
 - When a signal is detected, scan pauses until the signal disappears or resumes after pausing 5 sec. according to the Set mode setting (Channel 16 is still monitored during Priority scan).
 - Rotate [SELECTOR DIAL] to check the scanning TAG channels, to change the scanning direction or resume the scan manually.
 - "16" blinks at the channel comment indicator and a beep tone sounds when a signal is received on Channel 16 during Priority scan.
- To stop the scan, repeat step ④.



12 Monitor function

The monitor function releases the noise squelch mute of the microphone only. (An independent noise squelch system is employed.)

- ➔ Push [VOL/SQL•MONI] for 1 sec. to activate the Monitor function.
 - "BUSY" blinks and audio is emitted.
- [VOL/SQL•MONI] (or [ENT], [CLR]) cancels the Monitor function.

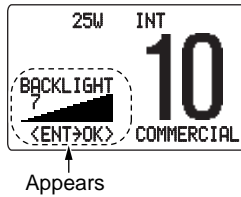


13 Display backlight

The function display and keys can be backlit for better visibility under low light conditions. The backlighting condition can also be adjusted independently from the transceiver.

➔ While pushing [H/L], rotate [SELECTOR] to adjust the backlight level.

- "BACKLIGHT" with the backlight level appears.
- The backlight is adjustable in 7 levels and OFF.



14 RX Speaker function

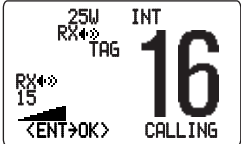
① Push [HAIL•RX] for 1 sec. to enter the RX Speaker mode.

- "RX" indicator appears.
- The audio output level for the RX speaker can be adjusted when entering this mode. Rotate [SELECTOR] then push [ENT].

Or while pushing [HAIL•RX], rotate [SELECTOR] before tuning this function OFF (within 1 sec.).

② To cancel the RX Speaker mode, repeat step ①.

- "RX" indicator disappears.



15 Hailer function

① Push [HAIL•RX] to enter the hailer mode.

② Push and hold [PTT] and speak at a normal voice level.

- "TALK" appears.
- "WAIT" appears while the transceiver side is in use.
- To adjust the hailer level, rotate [SELECTOR].

③ After speaking, release [PTT].

④ To cancel the hailer mode, repeat step ①.

- Pushing [16•C] also cancels the hailer function.

While in the hailer mode, the transceiver functions (transmit and receive) are interrupted. If the transceiver is in transmit condition, the hailer function is not available.



16 AquaQuake water draining function (Available depending on the transceiver)

AquaQuake helps drain water away from the speaker housing (water that might otherwise muffle the sound coming from the speaker). The HM-162E emits a vibrating noise when this function is being used. This function is available depending on the connected transceiver.

➔ While pushing and holding [PTT], turn power ON to clear water away from the HM-162E.

- A low beep tone sounds while [PTT] is pushed and held to drain water, regardless of volume setting.
- The HM-162 never accepts a key operation while the AquaQuake function is activated.

17 Intercom operation

① Push [IC] to activate the Intercom function.

② Push and hold [PTT] to talk.

- "INTERCOM TALK" appears.

③ Release [PTT] to listen.

- "INTERCOM LISTEN" appears when the transceiver is in talking mode.
- To adjust the audio output level, push [VOL/SQL] then rotate [SELECTOR VOL].

④ Push [IC] to cancel the Intercom function.

- Pushing [16•C] also cancels the Intercom function.



For your reference:

In case the Intercom mode is selected with the transceiver while the microphone power is OFF, the microphone power is automatically turned ON and the Intercom mode is selected.

Intercom beep function

- ➔ Push and hold [IC] for more than 1 sec.
- Emits the Intercom beep while holding.

18 Automatic foghorn

The automatic foghorn function sounds a horn repeatedly until the function is turned OFF. Four patterns are available for varying conditions.

The foghorn outputs from the hailer speaker. To use this function, the hailer speaker must be connected to the transceiver. See the transceiver's instruction manual for connection details.

The audio frequency of the foghorn is selectable in Set mode.

① While pushing and holding [H/L], push [HAIL•RX] to enter auto foghorn mode.

② Rotate [SELECTOR] to select the desired foghorn pattern, push [ENT].

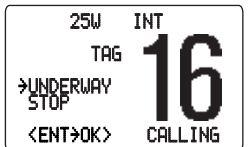
- 'UNDERWAY', 'STOP', 'SAIL', 'TOW' are available.

- Even if [ENT] hasn't been pushed, the display automatically changes to the next step after 5 sec. of inactivity.

③ Rotate [SELECTOR] to adjust the foghorn level, push [ENT].

- The foghorn level is adjustable in 30 steps.

- Even if [ENT] hasn't been pushed, the display automatically changes to the next step after 5 sec. of inactivity.



The selected foghorn pattern is displayed.

19 Set mode programming

Set mode is used to change the condition of the transceiver's functions and the microphone's own functions:

Transceiver's functions—

Scan type, Scan resume timer, Dual/Tri-watch, Beep tone*¹, LCD contrast*¹, Foghorn frequency, Radio Power, Scrambler Type*² and Scrambler code*².

Microphone's own functions—

Beep tone*², External speaker*² and LCD contrast*²

*¹ For transceiver setting, *² For microphone setting,

*³ Appears only when the optional scrambler unit is installed.

In this instructions are for the microphone's own functions only. Refer to the transceiver's instruction for the setting of the other functions. (Some functions cannot be selected from the HM-162E.)

◆ Entering Set mode

- ① Turn power OFF.
- ② While pushing [**16•C**], turn power ON.
 - After a beep emission, a Set mode menu appears.
- ③ After the display appears, release [**16•C**].
- ④ Rotate [**SELECTOR**] to select the desired item, then push [**ENT**].
- ⑤ Rotate [**SELECTOR**] to select the desired condition of the item, then push [**ENT**].
- ⑥ Push [**CLR**] to exit Set mode.

• Beep tone

You can select the silent operation by turning beep tones OFF or you can have confirmation beeps sound at the push of a key by turning beep tones ON.

• LCD contrast

The LCD contrast can be adjustable in 8 levels. 1 is the lowest contrast, and 8 is the highest contrast.

• External speaker

You can select the external speaker ON or OFF. When this setting is set ON, HM-162E's external speaker can be used instead of internal speaker.

20 Channel comments

Memory channels can be labelled with a unique alphanumeric ID of up to 10 characters.

Capital letters, small letters, 0 to 9, some symbols (– . /) and space can be used.

- ① Rotate [**SELECTOR**] after pushing [**VOL/SQL**] to select a channel to edit the channel comment.
 - While pushing [**H/L**], push [**DIAL•DW GRP**] several times to select the channel group (depending on the connected transceiver's version), if desired.
- ② While pushing [**H/L**], push [**16•C**].
 - A cursor and the first character start blinking alternately.
- ③ Select the desired character by rotating [**SELECTOR**].
 - Push [**DIAL•DW GRP**] or [**16•C**] to move the cursor forward or backward, respectively.
- ④ Repeat step ③ to input all characters.
- ⑤ Push [**ENT**] to input and set the comment.
 - Push [**CLR**] to cancel.
 - The cursor and the character stop blinking.
- ⑥ Repeat steps ① to ⑤ to program other channel comments, if desired.

21 DSC operation

- ① Push [**MENU**] to enter the DSC menu.
- ② Rotate [**SELECTOR**] to select the desired item, then push [**ENT**].

```
--DSC Menu--
Select Item
>Position InPut
Individual Call
Individual ACK
Group Call
All ShiPs Call
Position Request
Position RePly
Position RePort
POS RePort RePly
Pollin9 Request
Pollin9 RePly
Received Calls
Distress Setting
Set uP
Exit
```

- ③ Rotate [**SELECTOR**] to select the setting or condition, then push [**ENT**].
 - Push [**CLR**] to cancel.
- ④ Push [**CLR**], or select "Exit" in the DSC menu then push [**ENT**].
 - "Position InPut" item appears when the suitable GPS receiver is not connected.
 - "Individual ACK" item appears after an individual call is received.
 - "Position RePly" item appears after a position request call is received.
 - "POS RePort RePly" item appears after a position report call is received.
 - "Pollin9 RePly" item appears after a polling request call is received.

22 Position and time programming

"Position InPut" item in the DSC menu appears when a suitable GPS receiver is not connected. Manually programmed position data will be held for 23.5 hours only.

- ① Select and enter "Position InPut" in the DSC menu.
- ② The position information appears. Rotate [**SELECTOR**] to set your position (latitude and longitude) data, then push [**ENT**].
 - Push [**16•C**] or [**DIAL**] to move the cursor forward or backward, respectively.
 - Push [**CLR**] for 1 sec. to clear the latitude/longitude data.
 - Push [**CLR**] to cancel and return to the DSC menu.
- ③ The time information appears. Rotate [**SELECTOR**] to set the current UTC time, then push [**ENT**].
 - Push [**16•C**] or [**DIAL**] to move the cursor forward or backward, respectively.
 - Push [**CLR**] for 1 sec. to clear the UTC time data.
 - Push [**CLR**] to cancel and return to the DSC menu.
- ④ Push [**CLR**] or select "Exit" in the DSC menu then push [**ENT**].
 - Returns to the normal operation mode.

23 Distress call

- The distress call is repeated every 3.5–4.5 min., until receiving an 'acknowledgement.'
- Push [CLR] to cancel the 'Call repeat' mode.
- "???" may blink instead of position and time indications when the GPS data is invalid, or has not been manually updated after 4 hours.

◇ Simple call

- ① Confirm no distress call is being received.
- ② While pulling down the distress key cover on the back side, push [DISTRESS] for 5 sec. to transmit the distress call.
 - When no GPS is connected, input your position and UTC time, if possible.
 - While pushing [DISTRESS], the key backlighting blinks.
- ③ After transmitting the distress call, the transceiver waits for an acknowledgment call on Channel 70.
 - Transmitting after 2 sec., the display changes to Channel 16 automatically.
 - After receiving the acknowledgment, reply using the microphone.

◇ Regular call

The nature of the distress call should be included in the distress call.

- ① Select and enter "Distress Setting" in the DSC menu.
- ② Select and enter the nature of the distress.
 - 'Undesignated,' 'Explosion,' 'Flooding,' 'Collision,' 'Grounding,' 'Capsizing,' 'Sinking,' 'Adrift (Disable adrift),' 'Abandoning (Abandoning ship),' 'Piracy (Piracy attack)' and 'MOB (Man overboard)' are available.
 - The selected nature of the distress is stored for 10 minutes.
- ③ Set your position data and current UTC time. (See '22 Position and time programming' for details.)
 - When a suitable GPS receiver is connected to the transceiver, this step is skipped.
- ④ Push [DISTRESS] for 5 sec. to transmit the distress call.
 - While pushing [DISTRESS], the key backlighting blinks.
- ⑤ After transmitting the distress call, the transceiver waits for an acknowledgment call on Channel 70.
 - Transmitting after 2 sec., the display changes to Channel 16 automatically.
 - After receiving the acknowledgment, reply using the microphone.

24 Transmitting DSC calls

- /// To ensure correct operation of the DSC function, please make sure you set the squelch correctly.

◇ Transmitting an individual call

- ① Select and enter "Individual Call" in the DSC menu.
- ② Select and enter the desired individual address.
- ③ Select and enter a desired intership channel.
- ④ Push [ENT] to transmit the individual call.
- ⑤ Standby on Channel 70 until an acknowledgement is received.
- ⑥ When the acknowledgement is received, and if it is 'Able to comply,' the display changes to the specified channel (in step ③) is selected with beeps automatically.
 - Or it is 'Unable to comply,' the display returns to the operated channel (before enter the DSC menu) with beeps.
- ⑦ Push [CLR] to stop the beep, then push and hold [PTT] to communicate your message to the responding ship.

Transmitting DSC calls (continued)

◇ Transmitting an individual acknowledgement

"Individual ACK" item appears after an individual call is received.

- ① Select and enter "Individual ACK" in the DSC menu.
- ② Select and enter the desired individual address or ID code.
- ③ Select and enter an acknowledgement "Able to Comply" or "Unable to Comply."
- ④ Push [ENT] to transmit the acknowledgement call.

◇ Transmitting a group call

- ① Select and enter "Group Call" in the DSC menu.
- ② Select and enter the desired group address.
- ③ Select and enter a desired intership channel.
- ④ Push [ENT] to transmit the group call.
- ⑤ Push [CLR] to exit and the transceiver selects the intership channel specified in step ③ automatically.
 - Even if [CLR] hasn't been pushed, the transceiver selects the specified intership channel in step ③ automatically after 2 sec. of inactivity.

◇ Transmitting an all ships call

- ① Select and enter "All Ships Call" in the DSC menu.
- ② Select and enter the desired category.
 - The selectable category may differ according to the connected transceiver setting.
- ③ Push [ENT] to transmit the all ships call.
- ④ Push [CLR] to exit and the transceiver selects Channel 16 automatically.
 - Even if [CLR] hasn't been pushed, the transceiver automatically selects Channel 16 after 2 sec. of inactivity.

◇ Transmitting a position request call

- ① Select and enter "Position Request" in the DSC menu.
- ② Select and enter the desired individual address.
- ③ Push [ENT] to transmit the position request call.
- ④ Push [CLR] to return to the previous indication before entering the DSC menu.
 - Even if [CLR] hasn't been pushed, the display automatically returns to the previous indication after 2 sec. of inactivity.

◇ Transmitting a position request reply call

"Position Reply" item appears after a position request call is received.

- ① Select and enter "Position Reply" in the DSC menu.
- ② Select and enter the desired individual address.
- ③ Set your position data and current UTC time. (See '22 Position and time programming' for details.)
 - When a suitable GPS receiver is connected to the transceiver, this step is skipped.
- ④ Push [ENT] to transmit the position request reply call.
 - Your position data is transmitted.

◇ Transmitting a position report call

- ① Select and enter "Position Report" in the DSC menu.
- ② Select and enter the desired individual address.
- ③ Set your position data and current UTC time. (See '22 Position and time programming' for details.)
 - When a suitable GPS receiver is connected to the transceiver, this step is skipped.
- ④ Push [ENT] to transmit the position report call.
- ⑤ Push [CLR] to return to the previous indication before entering the DSC menu.
 - Even if [CLR] hasn't been pushed, the display automatically returns to the previous indication after 2 sec. of inactivity.

Transmitting DSC calls (continued)

◆ Transmitting a position report reply call

"POS Report Reply" item appears after a position report call is received.

- ① Select and enter "POS Report Reply" in the DSC menu.
- ② Select and enter the desired individual address.
- ③ Push [ENT] to transmit the position report reply call.

◆ Transmitting a polling request call

"Polling Request" in the DSC menu.

- ① Select and enter the desired individual address.
- ③ Push [ENT] to transmit the polling request call.
- ④ Push [CLR] to return to the previous indication before entering the DSC menu.
 - Even if [CLR] hasn't been pushed, the display automatically returns to the previous indication after 2 sec. of inactivity.

◆ Transmitting a polling request reply call

"Polling Reply" item appears after a polling request call is received.

- ① Select and enter "Polling Reply" in the DSC menu.
- ② Select and enter the desired individual address.
- ③ Push [ENT] to transmit the polling request call.

25 Received messages

The transceiver automatically stores up to 20 distress messages and 20 other messages. The messages can be used as an assistance to the logbook.

- ① Select and enter "Received Calls" in the DSC menu.
- ② Select and enter "Distress" or "Other."
- ③ Select and enter the desired message.
 - Messages which are blinking have not been read.
- ④ Rotate [SELECTOR] to scroll in the message.
- ⑤ Push [CLR] to exit or push [CLR] for 1 sec. to delete the displayed message and return to the DSC menu.

26 DSC Set mode

- ① Select and enter "Set up" in the DSC menu.
- ② Select and enter the desired item.
- ③ Select and enter the desired setting or condition.
 - Push [CLR] to cancel before pushing [ENT].
- ④ Push [CLR], or select "Exit" in the set up menu then push [ENT].
 - Returns to the DSC menu.
 - Repeat again to return to the normal operation condition.

◆ Programming Individual ID/Group ID

- ① Select and enter "Add: INDV ID" or "Add: Group ID" in the set up menu.
- ② Rotate [SELECTOR] to set the individual ID and ID name (or group ID and ID name).
 - Push [16•C] or [DIAL] to move the cursor forward or backward, respectively.
 - Push [CLR] to cancel and return to the set up menu.
 - "Full ID" appears when all of the DSC address IDs are already set.

[For individual ID]

- After inputting the 9-digit MMSI number, push [ENT] or [16•C] to enter the ID name.
- 1st digit must not be '0' for a individual ID.

[For Group ID]

- The group ID is a unique number that you create for your group. The ID name is an associated text name for that group.

DSC Set mode (continued)

- After entering an 8-digit ID code, push [ENT] or [16•C] to enter the ID name.
 - 1st digit '0' is fixed for a group ID.
- ③ After inputting, push [ENT] to program.
 - ④ Push [CLR] or select "Exit" in the set up menu then push [ENT].
 - Returns to the DSC menu.
 - Repeat again to return to the normal operation condition.

◆ Deleting Individual ID/Group ID

- ① Select and enter "DEL: INDV ID" or "DEL: Group ID" in the set up menu.
- ② Select the desired ID name for deleting.
- ③ Push [ENT] to delete the address ID and return to the set up menu.
- ④ Push [CLR], or select "Exit" in the set up menu then push [ENT].
 - Returns to the DSC menu.
 - Repeat again to return to the normal operation condition.

◆ Offset time

- ① Select and enter "Offset Time" in the set up menu.
- ② Rotate [SELECTOR] to set the offset time from the UTC (Universal Time Coordinated) time.
 - Push [16•C] or [DIAL] to move the cursor forward or backward, respectively.
 - Push [CLR] to cancel and return to the set up menu.
- ③ Push [ENT] to program and return to the set up menu.

◆ MMSI code check

The 9-digit MMSI (DSC self ID) code can be checked.

- ① Select and enter "MMSI Check" in the set up menu.
- ② Check the 9-digit MMSI (DSC self ID) code.
- ③ Push [CLR], or select "Exit" in the set up menu then push [ENT].
 - Returns to the DSC menu.
 - Repeat again to return to the normal operation condition.

◆ Automatic acknowledgement

- ① Select and enter "Auto ACK" in the set up menu.
- ② Turn the automatic acknowledgement function ON or OFF.
- ③ Push [ENT] to set the condition.
 - Push [CLR] to cancel and return to the set up menu.

◆ NMEA Output

When receiving position acknowledgment, the transceiver outputs it to the external equipment via the NMEA connector.

- ① Select and enter "NMEA Output" in the set up menu.
- ② Select the NMEA Output function.
 - List Station: Outputs the position data from the specified vessels listed on the DSC individual ID screen.
 - All Station : Outputs the position data from all vessels.
 - OFF : Does not output any position data to the external equipment.
- ③ Push [ENT] to set the condition.
 - Push [CLR] to cancel and return to the set up menu.

CLEAN THE HM-162E THOROUGHLY WITH FRESH WATER after exposure to water including salt, otherwise, the keys and switch may become inoperable due to salt crystallization.